THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Rethinking Social Impact Assessment through Urban Design

Towards designerly evaluation with a socio-form approach

JOANNA GREGOROWICZ-KIPSZAK

Department of Architecture
CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden 2015

Rethinking Social Impact Assessment through Urban Design:
Towards designerly evaluation with a socio-form approach
JOANNA GREGOROWICZ-KIPSZAK
ISBN 978-91-7597-160-5

Doktorsavhandlingar vid Chalmers tekniska högskola
Ny serie nr 3841
ISSN 0346-718X

Department of Architecture
Chalmers University of Technology
SE-412 96 Gothenburg
Sweden
Telephone + 46 (0)31-772 1000

Chalmers Reproservice
Gothenburg, Sweden 2015

Rethinking Social Impact Assessment through Urban Design:
Towards designerly evaluation with a socio-form approach

Joanna Gregorowicz-Kipszak
Department of Architecture
Chalmers University of Technology

Abstract

Tools for assessing the social impact of urban designs are being developed internationally and in Swedish municipalities. While methodological development is underway, a theoretical discussion about the implications of urban design on social impact assessment (SIA) and its critical potential is rare, leading to the situation whereby much SIA is instrumental and might act against reinforcing and improved integration of the social dimension into the practice of urban planning and design. There is a need to address the democratic aspect of SIA in terms of equality and involvement of different perspectives on the design of urban space.

The aim of this thesis is to advance SIA conceptually and methodologically within the field of urban design and to enhance the understanding of what this advance implies in respect of how different urban planning and design stakeholders define and handle evaluation of the urban space and its social aspect.

Research through design of an *approach to the design of urban space* is used as a method for advancing SIA, where design consists of a series of iterative activities applied on a local urban redevelopment case in Gothenburg, including screening, imaging, presenting and testing. The research also includes studies of literature and documents, participation in knowledge arenas, re-conceptualisation and re-contextualisation, physical modelling, and focus group workshops.

The approach, called *socio-form*, focuses on a) the relationship between the social and built form aspects, b) the architectural nature of the process of its construction, and c) the transversal character of this activity. It outlines the meaning of urban design for SIA, suggesting the design of urban space as a shared subject of interest, activity, and production of knowledge. Through reflecting the subject for design (urban space), the process of its design, and the production of knowledge about it (the subject of design) the approach develops the transverses of spatiality, design and knowledge in-the making to advance SIA and its transversality.

The thesis inverts the cause-effect hierarchy of assessment and analysis and shows how SIA can be developed by and into designerly practice through a new context of application to serve a diversity of perspectives on urban space, activities and stakeholders that are involved in urban design with a means to think critically about spatiality and its social dimension. The thesis emphasises a critical urban design perspective on the concepts and practices of SIA and the view that the contemporary Swedish planning practice of SIA has of the design of urban space, and draws attention to a designerly mode of evaluation and its role for a more integrated, coherent and democratic urban development. An alternative understanding emerges that expands the space of possibilities attributed to contemporary SIA. It improves SIAs urban-ability – a quality of being able to navigate in and embrace the complexity of discussion about a relationship between the aspects of *socio* and *form*. By means of this alternative reading, the thesis formulates theoretical foundations for designerly strategies to develop social sustainability tools, as a complement to the contemporary development in urban planning and design practice of evaluation. In a wider sense, the thesis shows how SIA integrated with urban design might contribute to social sustainability.

KEYWORDS: *social impact, assessment, analysis, urban design, research through design, transversality, space of possibilities, knowledge hub, the social, built form, socio-form approach, SIA.*

Preface

The thesis was founded in a joint research collaboration between the City of Gothenburg and Chalmers University of Technology, Department of Architecture. The research project was initiated in January 2008 and developed within the *S2020 Socially Sustainable Development in the year 2020* municipal assignment and the network it offered. In 2010 a licentiate thesis was published entitled *Urban Chisels: A Socioform Approach to Urban Design* with the focus on premises when assessing urban design proposals in terms of the relationship between the *social* and *built form* aspects. An approach to social impact assessment in urban design has been presented and further developed in this doctoral thesis. Based on the collaboration between the *S2020*, the City Planning Authority and the *Children and Young People* network, in late 2011 the City of Gothenburg presented what is now called *The Gothenburg model for Social Impact analysis – an analytical tool for social impact analysis in urban development*.

Acknowledgments

This doctoral thesis is the outcome of a transdisciplinary research collaboration between the City of Gothenburg and Chalmers University of Technology's Department of Architecture initiated in January 2008. I wish to thank the institutions that have been indispensable for my education and for the production of this dissertation, providing me with financial assistance and essential support.

Numerous individuals have made significant contributions to this thesis. I would like to express my sincere gratitude to my main supervisor, Associate Professor Liane Thuvander at the Department of Architecture, Chalmers, for providing me with invaluable support. Your friendship and encouragement significantly complemented your patient guidance throughout this overwhelming project. I am grateful to Professor Catharina Dyrssen at the Department of Architecture, Chalmers, my co-supervisor and examiner, for encouraging my internal motivation and curiosity in the field. My appreciation is extended to my former principal supervisor Professor Emeritus Knut Strömberg for giving me the opportunity to work on this project and for the trust he showed in me during all these years of our work at the Department of Architecture. I would also like to thank the project steering group; Bengt Delang and Ingrid Larsson at the City Executive Office, as well as all my co-advisors at City of Gothenburg. A special thank you to Lars Lilled, at the Administration for Allocation of Social Welfare, who has guided me all the way through the complexities of municipal planning practices, and inspired me in more ways than I can acknowledge. You became an anchor of stability in the dynamically changing constellation of this project. I also wish to thank Pia Borg at the City Executive Office and Marianne Hermannson at the development centre Senior Göteborg. I am grateful to you for sharing your knowledge and thoughts on many issues related to my work and for the hours of discussions about municipal planning practice.

Many thanks to Karin Alsén and Björn Wadefalk at the City District Administration Västra Göteborg, Vanja Larberg and Johan Bergsten at the Administration for Allocation of Social Welfare, Gerd Cruse Sondén and Professor Emeritus Sören Olsson who were involved in the S2020 Opaltorget pilot project, Henrik Nolmark at the Volvo Research and Educational Foundations and at Nolmark Development AB, Malin Häggdahl at the City Planning Authority and Lisa Wistrand at White (formerly at the City Planning Authority).

Special thanks for all the valuable comments and references go to Professor Emeritus Roger Trancik at the Department of City and Regional Planning,

Cornell University, Professor Halina Dunin-Woyseth at the Oslo School of Architecture and Design and Senior Researcher Bosse Bergman at the School of Architecture and the Built Environment at the Royal Institute of Technology. I would also like to express my deepest thanks to Professor Inga Britt Werner in the School of Architecture and the Built Environment at the Royal Institute of Technology for taking the time to read and comment on my draft and for leading the final seminar.

I owe special thanks to all the anonymous interviewees and workshop participants, my former students, and members of the S2020, ULG, and COST C20 networks for their many inspiring ideas. At Chalmers Department of Architecture I wish to thank all my colleagues for sharing their precious time. Special thanks to Marie Strid, Head of Doctoral Education, and to those who were involved in my research work; in particular Julia Fredriksson, Lisa Bomble, Tobias Engberg, Johanna Eriksson, Nils Björling and Kristoffer Nilsson. Julia, Sooki and Elisabeth thank you for your friendship and for cheering me on during this journey.

I wish to thank my family; my parents, Małgorzata and Marek, and my sisters Dorota and Agata, for their love, patience and for providing me with the support needed to continually push myself to succeed.

Finally, with all my love, I wish to thank my husband Wacław; for all the reality checks and passionate discussions about the practice of architecture and urban design, but first and foremost, for giving our daughter Jagna, our little son Stanisław and our home all the love, time and care they needed, while I was away. Thank you for making it possible for me to fully dedicate myself to the final stage of the work. Together we made it happen.

Gothenburg, February 2015 Joanna Gregorowicz-Kipszak

Abbreviations/Translations

Swedish		English
Beskrivning av Stadsdelen	**BSD**	Description of the District
Detaljplan	**DP**	Detailed Development Plan
Miljöbalken	**EC**	Environmental Code
Miljökonsekvensbeskrivningar	**EIA**	Environmental Impact Assessment
Lokalt utvecklingsprogram inom stadsbyggnadsområdet	**LUP**	Local Development Programme for Urban Planning and Design
Naturresurslagen	**NRL**	Natural Resources Act
Plan- och bygglagen	**PBL**	Planning and Building Act
Program för parallella uppdrag	**PPU**	Programme for the Parallel Assignment
Program för stadsutveckling i Södra Tynnered	**PSS**	Programme for Urban Development in Södra Tynnered
Remisssvar	**RS**	Reference Document
Stadsbyggnadskontoret	**SBK**	City Planning Authority
Stadsdelsförvaltning	**SDF**	City District Administration
Stadsdelsnämnden	**SDN**	City District Committee
Strategiska Mijöbedömningar	**SEA**	Strategic Environmental Assessment
Sociala konsekvensbeskrivningar	**SIA**	Social Impact Assessment
Social Konsekvensanalys	**SKA**	Social Impact Analysis
Sociala konsekvensbeskrivningar i samband med detaljplanearbetet för Opaltorgsområdet	**SKB**	Descriptions of Social Consequences in connection with the work on the detailed development plan for the Opaltorget area
Stadsledningskontoret (f.d. Stadskansliet)	**SLK (SK)**	Executive Office (former City Hall/ Office)
Social resursförvaltning	**SRF**	Administration for Allocation of Social Welfare
Utvärdering av parallella uppdrag	**U**	Evaluation of the Parallel Assignment
Urban Laboratory Göteborg	**ULG**	Urban Laboratory Gothenburg
Boverket		Swedish National Board of Housing, Building and Planning
Föreningen för samhällsplanering		Swedish Society for Town and Country Planning
Sveriges Arkitekter		Swedish Association of Architects
Tryggare och Mänskligare Göteborg		City of Gothenburg's Central Crime Prevention Council

Table of Contents

1. INTRODUCTION

1.1 Background

The interest of researchers and practitioners in the social dimension of the urban environment has grown rapidly in recent years. The fear of neglecting issues related to the frequently under-represented question of social sustainability is now widely addressed. Its reflection can be found in politically defined development requirements at international, national and local planning levels with regard to means of ensuring social sustainability in urban planning and design. An international survey (Gregorowicz-Kipszak & Undén 2009) identified that among existing methodologies the most prominent is *Social Impact Assessment* (SIA) – *Sociala Konsekvensbeskrivningar* in Swedish – a methodology of reviewing the social effects of projects and other development interventions. Whilst prominent, SIA is considered by the European Commission to be in its infancy, awaiting improvements in relation to the implementation of effective social impact analysis and social impact assessment systems (European Commission 2010).

The European Commission highlights the issue of analysis and systems, and correspondingly, in Sweden the issues of analysis and procedures are addressed. The Swedish Board of Housing, Building and Planning, *Boverket,* explicitly states: 'there is a need to develop methods to more systematically analyse and consider social impacts in planning (…)' (Boverket 2010, p.11)[1]. At the local level, politicians point out that: 'procedures and quality assurance for sustainable building should be improved for both existing and new buildings' (Göteborg Stad 2009, p.25)[2]. As a result, tools for social impact assessment are being developed in Swedish municipalities. For example, in 2011 the City

[1] *The original Swedish language text reads:* 'Det finns ett behov av att utveckla metoder för att mer systematiskt kunna analysera och beakta sociala konsekvenser i planeringen och för att värdera sådana effekter i förhållande till ekonomiska och miljömässiga effekter' (Boverket 2010, p.11).

[2] *The original Swedish language text reads:* 'Rutiner och kvalitetssäkring för ett hållbart byggande ska förbättras för både befintliga och nya byggnader' (Göteborg Stad 2009, p.25).

Planning Authority of Gothenburg presented *The Gothenburg Model for Social Impact analysis* (SKA) (SBK 2011c) – *Social Konsekvensanalys* in Swedish – an analytical tool that supports and highlights important human aspects in urban development. Such tools are also to be used at the detailed development plan level – the level concerned with urban design and its architectural aspect. However, whilst development of methods is underway in the planning and development sector, there is simultaneously a lack of theoretical discussion about the implications of urban design on social impact assessment. The theory and practice of social impact assessment and of urban design needs to be engaged in order to provide a foundation for the construction of transdisciplinary knowledge.

The *social* issues in relation to the physical environment develop significant and contentious representations in the course of planning. The discussion of what the social issues are in the context of particular architectural urban designs therefore has an increasingly wide-ranging reference palette. Does social impact assessment engage critically with the conditions that define the social issues of urban design? What is defined as social nowadays, and who stands behind what is being defined?

Urban design is case-specific, developing within a particular context and culture, and in relation to individual socio-economic parameters. In practice, urban design is diverse, and by definition ambiguous (Madanipour 1997). It is viable to say that urban design not only escapes attempts at generalisation, but it is by nature inquisitive and resists dogmatic approaches. It highlights issues of dynamics, uncertainty and the condition of unsettlement[3]. However, with the politicisation of social issues, and with developing representations in the course of planning, this character is challenging.

Although the interest in 'making places for people' and 'social issues' founded both the practice of planning and architectural urban design, these practices operate with dissimilar insights into these concepts. It is in the joint task of place-making and specific urban designs where the lack of communication, consistency and decomposition becomes visible. Severance between urban planning and design is still a challenging issue (Rode 2006; Braae & Tietjen 2011; UDG 2011). Moreover the understanding of *the social* as describing living together in communities, competes with specific modes of living, for instance, 'firmly rooted life', 'mobile life' or 'group-oriented life' (Olsson 2012)[4].

[3] *The condition of unsettlement* is defined by Janssens as '(...) essentially one that causes pre-given frames to disappear or to become dysfunctional. Responding then by operating from existing habits and routines is highly inadequate' (Janssens 2012, p.12).

[4] *The original Swedish language text reads:* 'Det förankrade livet', 'Det rörliga livet', 'Det grupporienterade livet' (Olsson 2012).

For example, the concept of a child perspective, *barnperspektiv* in Swedish, is group-oriented and moves the focus from coherence to fragmentation. Perhaps it is the fragmentary focus that is developing urban design today? This points to the shift from making places to grouping, categorisation and the development of trends, and is indicative of the disintegration in urban design-based thinking and acting that is still taking place.

Swedish municipalities are developing and promoting manuals on 'social issues in urban planning' with the aim of facilitating the planning process by incorporating the social sustainability perspective in the process of forming urban areas (e.g. SBK & Gehl Architects 2009; SBK 2011c). However, whilst municipal planners are addressing these issues, many local urban design stakeholders are not informed about such manuals, and are not participating in their development: 'It never occurred to me to talk [about the manual] with the actors with whom we cooperate; developers and architectural offices. We think of municipal administration units or citizens, not specifically of developers and architectural offices. Architectural offices and property managers could really benefit from it' (Municipal Planner 2009). The methodology manuals target at forming processes, including architectural design practice. Perhaps it is not only the issue of benefitting from the development that should be addressed here, but also one of being a benefit to the development, i.e. the target practices contributing to it? Knowledge of how the practice of architecture approaches the social issues through forming processes is of little significance, and architects working in the private sector feel that there is a general perception among municipal planners that '(…) architecturally designed urban form develops predominantly through aesthetic methods' (Architect 2013). This suggests that what is politically defined as 'the social issues' in relation to forming processes needs to be approached critically and involve the actual cognitive processes that develop concepts and images that drive the formgiving process in specific cases of urban design. However, this does not mean that such representations of the social issues are meaningless in design processes and that they do not act on the design environment. They challenge the design profession, raise questions, and provoke discussion and development.

Decomposition also happens on a more general level. Contemporary social impact assessment delineates the social issues from those concerning the physical environment, addressing the dichotomy of urban design. This stands in contrast with the ongoing postmodern re-evaluation of dualism between the immaterial and material dimensions of spatiality (e.g. Lefebvre 1991; Soja 1996; Harvey 2006). What has been called 'making places' in urban design is positioned at the core of the field (Carmona *et al.* 2003), where place is no

longer discussed in previously defined binary traditions of the social usage and the visual-artistic. What can therefore be observed is the development of a simultaneous discussion about the dissolution and synthesis of urban design. The debate on spatiality has a significant impact on the development and application of social impact in urban design. Discussions of planning practice in relation to urbanity (e.g. SBK 2007 which addresses how the structure of the city affects people's ability to meet) and the practice of social impact assessment assign a specific power perspective to the social issues where 'the social' is an *effect* of the physical environment. Moreover, these discussions approach a relationship between the *social* and *built form* aspects (the concepts of space and urbanity) as an outcome and a result, not as a *cause* or a *reason* (e.g. Massey 2005). Such decompositions result in different ways of addressing the design of urban space (this also goes for social impact assessment), and concomitantly, problems with urban development being uncoordinated overall, throughout all its different stages (e.g. Carmona *et al.* 2003).

Social impact analyses that are performed in planning processes create a somewhat simplified realism when modelling assumptions, capturing users in detailed lists of criteria for assessment, rather than focusing on what the assessment is intended to demonstrate or provoke. Viewed from the condition of uncertainty and unsettlement, there is a tension in urban design between what a relationship between the aspects of social and built form *is* and *could be*, and what is *known* and *unknown* about it. It is therefore relevant to ask how this tension opens up the concept and practices of social impact assessment in the context of urban design.

It is also of interest to ask what impact a general theoretical discussion in the fields of social impact assessment and urban design about the existence of such a relationship has on the knowledge that social impact assessment produces. Although the actual existence of such a relationship is debated, contemporary social impact analyses essentially (de)sign and designate it. Such analyses should therefore be fundamentally based on the activity of critical thinking with the design of 'the urban' as a function. Addressed in this way, social impact assessment is about the design of 'the urban', and as a result can be matched up to an activity of urban design.

In this thesis it is argued that there is a lack of attention to the possibilities of designerly approaches within social sustainability initiatives. This is unfortunate since the dominance of the currently employed instrumental approaches, often regulatory, normative, and prospective, do not bring satisfactory results and fail to connect constructively to the actual changes implied by design proposals. Such imbalance puts social impact assessment at risk of

being continuously regarded as a stage in planning process instead of a process of management and making places suitable for everyday use. So far, little efforts have been made to reverse the trend of increasing instrumentality of evaluations used in the context of municipal planning. In spite of this, instrumentality is promoted throughout the country. This is worrying since diversity is a prerequisite for society to develop creatively.

With no regard for social impact assessment as a means of making places and therefore without integrating it with urban design, there is a risk that segregation and fragmentation will continue to stigmatise discussions on the social dimension of sustainability. Moreover, if social impact assessment continues to maintain the same approach to the design of urban space, critical involvement with conditions defining the social dimension of sustainability will not be possible. The democratic aspect of social impact assessment and the equality and involvement of different perspectives on urban space, activities, stakeholders, and types of knowledge will remain debateable, with responsibility for urban design and its social dimension segmented and not really shared.

The current view of social impact assessment and its approach to design of urban space needs to be examined, a view that this introduction has previously located in the framework of urban design's discussion of the construction of urban space with the focus on a relationship between the social and built form aspects. The nature of spatiality and its transversal design, together with issues of unsettlement and coherency, need reflection in the conceptual and methodological development of social impact assessment in urban design, likewise, the possibilities for critical thinking and development of knowledge in action.

Identifying the potential for development of social impact assessment in urban design requires that the implications that design of urban space has on social impact assessment are explored and operationalised. What development of social impact assessment in urban design needs is an approach to design of urban space that derives from the context of its application. Such an approach could contest the decomposition and lack of coherency that has been described, and develop transversality[5] of social impact assessment, providing all perspectives on urban space, activities and stakeholders that are involved in urban design with a means to think critically about spatiality and its social dimension.

[5] *Transversality* is a notion that describes how topologically different spaces can intersect. Such space that is lying or extending across is called in this thesis a *transverse*.

1.2 Aim and scope

The aim of this thesis is *to advance social impact assessment conceptually and methodologically within the field of urban design* and *to enhance the understanding of what this advance implies in respect of how different urban planning and design stakeholders define and handle evaluation of the urban space and its social aspect.*

Through the twofold aim, social impact assessment is developed as means of urban design, suggesting the design of urban space as a shared subject of interest, activity, and production of knowledge. Research through design of an *approach to the design of urban space* is used as a method for advancing the social impact assessment. The approach is focused on a) the relationship between the social and built form aspects, b) the architectural nature of the process of its construction, and c) the transversal character of this activity.

In terms of the *conceptual advances*, this approach is intended to expand the scope of social impact assessment. This involves formulating an understanding of the concepts of the *subject for* and *process of* social impact assessment in urban design, as well as readdressing the resulting knowledge that is the *subject matter of* social impact assessment in urban design. In terms of the *methodological advances*, the approach is intended to develop the scope of urban planning and design practice through the concept of social impact assessment in urban design. This involves providing and correlating the different perspectives on urban space, activities and stakeholders with a means to think critically about spatiality and its social dimension. A *fusion of the conceptual and methodological advances* is demonstrated through the design of a tool in the form of a tangible model. The model is developed to offer an infrastructure of meaning of design of urban space for the topologically different aspects that urban design entails. Its capacity to manage design situations and to catalyse, sustain and communicate knowledge about design of urban space and of its social aspect is emphasised and tested. The thesis explores contemporary significance of such infrastructure of meaning and the use of the approach to advance transversality of social impact assessment and analysis for reinforcing and improved integration of the social dimension into the practice of urban planning and design.

The research question is formulated: *How to develop social impact assessment across the topologically different aspects that urban design entails, which correlates: 1) perspectives on spatiality, urban space and its social aspect, 2) diversity of component activities, plan levels and the variety of spatial scales that constitute urban design, and 3) a wide range of stakeholders and types of knowledge involved in the design of urban space?*

With local urban development in Gothenburg as an example, the thesis gives an account of designerly social impact assessment and puts in perspective the view that the contemporary Swedish planning practice of social impact assessment has of the design of urban space. Through design of the approach the thesis shows how social impact assessment can be developed *within* and *by* the new context of application, in order to offer means of critical thinking about spatiality and its social dimension. The thesis also shows, how modes of work with social sustainability, in this case of designerly practice, can become an alternative solution to a common goal for social development, for linking the topologically different aspects that urban design entails and improving integration of the social aspects in urban development. In other words, it shows how social impact assessment integrated with urban design might contribute to social sustainability.

For urban planning and design practice, the intention is to provide a critical enquiry into the instrumental mode of social impact assessment, in which many municipalities, at different plan levels and through different administrative units, are currently operating. Hence, the intention is to emphasise an alternative mode of evaluation and to provide municipalities and concerned stakeholders with an understanding of what the character of evaluation in urban planning and design implies for a more integrated, coherent and democratic urban development. For research, the intention is to contribute to the contemporary research into social impact assessment development and to provide examples of how research by design can be applied in the discipline of urban planning and design.

The thesis emphasises a critical urban design perspective on the concepts and practices of social impact assessment and draws attention to a designerly mode of evaluation. It formulates theoretical foundations for designerly strategies to develop social sustainability tools, as a complement to the contemporary development in urban planning and design practice of evaluation.

1.3 Research overview

The research overview outlines the relevant field of knowledge and situates the thesis in a research context, focusing on the research topic and approach. Although the thesis is concerned with the development of social impact assessment in urban design in the Swedish context, and the aspect of local culture is significant, the research overview also includes international studies in order

to consider the broader perspective. The selected books, research projects, journal articles, doctoral dissertations, licentiate and master thesis, and municipal reports present the state of the art in terms of research and the state of play in terms of practice.

The study contributes to the architectural research field, more specifically, relating urban design and social impact assessment, with various dimensions of the research topic being tackled in a specifically integrative way, with research through design as a valid method. There are a range of research strands within this field focusing on knowledge production in an urban context, the methodology of research through design, and assessment *of* or *in* urban design. However, architectural research has not addressed the issue of social impact assessment *through* urban design.

Developing social impact assessment as a means of urban design demands knowledge of what social impact assessment is and the direction in which social impact assessment is developing. This section therefore includes and organises previous research with the focus on social impact assessment and urban design in order to provide an outline of several topics that collectively give an overview of how the design of urban space has been dealt with in related research, at the same time as drawing on the importance of this question to open up the scope of social impact assessment.

Three main themes are highlighted; *social impact assessment* (Section 1.3.1), the *design of urban space* (Section 1.3.2), and the *theoretical and methodological points of departure* for this thesis (Section 1.3.3). The themes bring in aspects of the research topic, along with the ideas and questions that drive the research. The first theme is social impact assessment. The state of the art in relation to research and the state of play in relation to practice are outlined. Examples are provided of research studies with a specific focus on the relationship between social impact assessment, social sustainability and planning, in order to address the intersection of theoretical and methodological developments with a number of contemporary agendas, thus establishing the significance of the topic in the context of studies concerned with spatial planning, in particular the issues of governance and urban space. The second theme is the design of urban space. It includes studies of the relationship between human beings and the environment, in particular research that addresses aspects of the social component of urban space, the power of the social component in the construction of urban space, and the architectural and design nature of this process. Examples are provided of research into the city, urbanity, urban design and evaluation. Questions about the design of urban space function as an input in the formulation of the role of urban design in the development of social im-

pact assessment. This sets the thesis's theoretical and methodological points of departure – the third theme – in a context. Examples are provided of research into urban knowledge production and design method, with a specific focus on those exploring the topics of the city, urbanity and urban design. Questions about the theoretical and methodological perspective function as an input in the formulation of the research approach to the development of social impact assessment.

1.3.1 Social impact assessment

The idea of sustainable development embraced by the world at the *Rio Earth Summit* is the reason why in recent decades *social sustainability* has become a concept, a matter of public and political attention, and a specific focus for the research community (Jarvis *et al.* 2001; McKenzie 2004; Colantonio 2007; Manzi *et al.* 2010; Vallance *et al.* 2011; Andersson 2013). In parallel with a primary purpose to bring about more sustainable developments through structuring and supporting the development of policies, the practice and research is based on the diversity of Impact Assessments, including Sustainability Impact Assessment, Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA) and processes of managing the social issues of development called Social Impact Assessment (SIA).

Recent state of the art studies (Esteves *et al.* 2012) show that SIA is no longer conceived as a technique for predicting social impacts. It is a process (Kemp 2011; Vanclay & Esteves 2011a-b), an interdisciplinary and/or transdisciplinary social science that incorporates numerous fields including sociology, anthropology, demography, development studies, gender studies, social and cultural geography, economics, political science and human rights, community and environmental psychology, social research methods and environmental law (Esteves *et al.* 2012).

In addition to being a field of research, SIA is conceived as a methodological approach or framework. Ensuring the social sustainability of projects and plans is supported through the development of legal frameworks, regulatory practices and the diversity of sector- and application-oriented tools (e.g. Boverket 2000; 2006; 2010; Directive 2001/42/EC; Directive 2011/92/EU; SBK 2011c; SBK & Gehl Architects 2009; Gehl Architects[6]; Gehl & Svarre 2013; Inobi 2014a-b). Esteves *et al.* (2012) identify the fact that SIA methods and tools are now frequently applied in natural resource management (Dale *et al.*

[6] For details, see list of references (Webpages).

2001; Fenton *et al.* 2003), in peacebuilding and conflict initiatives (International Alert 2005), in international development cooperation projects (Dani & Beddies 2011), in due diligence processes (Joyce & MacFarlane 2001) and in disaster preparation (Benson & Twigg 2007).

As a process and methodology, SIA has been identified as having the potential to contribute greatly to the planning process, as well as to spatial planning and the process of thinking about and organising the activities that are required to achieve a desired goal (Burdge & Vanclay 1996). However, Esteves *et al.* (2012) point out that governments seldom use SIAs to manage impacts at local or regional level. There has hitherto been little discussion about SIA focusing on local spatial planning processes. Questions therefore arise with regard to SIA and its involvement with urban design and the governance of place. It is not the aim of this thesis to investigate this relationship, however the correlation between the development of social impact assessment and the paradigms dominating urban planning theory provide a crucial background for discussion in positioning the development of SIA that undertakes dialectical engagement with urban design.

Research and practice make the link between SIA and planning evident. The relevance of SIA for planning paves the way for discussion of the issue of governance of place and its relevance for spatial planning and urban development, and the issue of spatiality and space. New ways of considering SIA can therefore be linked to a number of studies concerned with significant changes in views on spatial planning; its role, the issues it deals with, and changes it has undergone in recent decades. Planning is viewed as 'a democratic enterprise aimed at promoting social justice and environmental sustainability' (Healey 1992, p.143) and the issues it deals with as increasingly complex (Madanipour *et al.* 2001), and as an ally of the communicative and collaborative turn in planning theory. It involves more actors than ever before in the development of a particular area or place. All these changes result in the growing interest in issues of collaboration, deliberation, and governance (good governance, local governance, urban governance, good urban governance, governance of place, place-making and place-keeping). The transitions are ongoing.

SIA as a means of planning and governance can be viewed in the light of recent claims that planning is post-political or post-ideological, and it can be discussed in terms of the implications its recent development has for the relationship between democracy and planning. Recent debates on the post-political nature of environmental and planning policy (e.g. Swyngedouw 2009; Allmendinger & Haughton 2010; 2012) highlight the fact that debates over planning tend to instigate consensus. The hegemony of neoliberal spatial pol-

icy, institutional restructuring and the dominance of a collaborative planning ethic are now seen as factors foregrounding the narrow opportunities for argumentation over more substantial policy alternatives, 'which may appear amidst conflict over site specific development decisions' (Ellis *et al.* 2013). The planning system is now 'not so much an empowering arena for debating wide ranging societal options for future development as a system focused on carefully stage managed processes with subtly but clearly defined parameters of what is open for debate' (Allmendinger & Haughton 2012, p.90). Studies on planning as politics (Bradley 2009) and the post-political condition create a context for further development of SIA. Seen as a part of a spatial planning reality, SIA needs to respond to this post-political condition and offer 'room for disagreement and difference that allows the frameworks and the taken for granted in which the planning is inscribed to be questioned and hence possibly changed' (Bradley 2009, p.29).

SIA as a means of planning and governance can be linked to the issue of space. Researchers in the field of urban design argue that the new ways of 'doing governance' need to be linked to new ways of thinking about space, place and territory (Madanipour *et al.* 2001). Research in urban design provides perspectives on the dilemmas of space and multiple meanings of space and addresses the need for a dynamic perspective (Madanipour 1996; 2001). Views on spatial planning and its role have changed significantly, resulting in new ways of conceiving place, space and society relations (Madanipour *et al.* 2001), and concomitantly, demanding from all those involved in the production, consumption and valuing of places to (re)learn new ways of analysing and managing space. This role too is fundamental for the development of SIA, as space presents a key context in which different forms of knowledge intersect with fragmented policies.

The complexity and dynamics in ways of analysing and managing space described above require SIA to be moved from an impact assessment tool to an impact management tool, and a shift towards involvement as a valued end in itself, rather than merely being a means by which projects are legitimised. Although SIA researchers remain consensus-oriented, and are still focusing on agreements as the output of the SIA processes in building knowledge and understanding and managing change (Vanclay & Esteves 2011a-b; Esteves *et al.* 2012), they are starting to open up to new ways of reaching the goal. Traces of interest in the critical function of SIAs are to be found in recent state of the art studies, which identify the need for change in ways of building an understanding of SIAs core concepts, as well as of the theoretical bases for participatory approaches (Esteves *et al.* 2012). There are a number of stud-

ies identifying the fact that the way social relationships are created, change and respond to change are influenced by how the core concepts of SIA and the concepts of engagement and participation are understood, and addressing the role of these concepts in framing an analysis in an SIA (Ross & McGee 2006; Howitt 2011; Esteves *et al.* 2012). This makes the theory and practice of engagement in building an understanding of SIAs core concepts an issue for further investigation.

1.3.2 Design of urban space

Urban space, seen as a relationship between human beings and the environment, is a topic of study in many different fields of both research and practice. There is therefore a large body of knowledge concerning the idea of a human/social component and a continual interest in the social quality of space with contributions from psychologists, behaviourists, sociologists, anthropologists, historians, and others, applicable to design on many scales through a broad spectrum of methodological and theoretical orientations. Architecture and urbanism make a significant contribution to this body of knowledge. Studies by William Hollingsworth Whyte, Amos Rapoport, New Urbanists, Clare Cooper Marcus and Christopher Alexander are examples of transverse disciplinary explorations of the borderzones between different fields. Together they constitute a basis for discussion of the relationship between human beings and the environment for and by urban design and other disciplines.

'The social' component of the urban milieu is therefore of interest to numerous analysts. For instance, Whyte (1988) has focused on human behaviours in urban settings. Other architects who discuss urban life in relation to urban form are Gehl (2010), who has researched into the use aspect, the ways people use spaces, Cooper Marcus and Francis, who discuss the psychological and sociological aspects of architecture, land-use planning and landscape design – particularly urban open space (1998), and Rapoport (2005) who has focused on the cultural aspect. All agree that the design of urban space must be based on knowledge of how people and environments interact.

International and Swedish research in the field of urban design has studied the social aspect of the urban milieu with two different approaches. The first type of study investigates a *specific social aspect* in relation to a generally addressed urban morphology. For instance, Legeby (2010) has linked social outcomes to urban form, specifically addressing the segregation issue. In her doctoral thesis (2013) she connects certain aspects of urban segregation to the city and more precisely to spatial form and the configuration of space with the

aim to arrive at a deeper understanding of the critical role urban form plays in terms of co-presence in public space and in extension for social segregation. Others are concerned with safety and urban form (Listerborn 2002; Göteborg 2007), meeting and urban form (SBK 2007; Lyth 2012), health and urban form (SBK 2012) or physical activity and urban form (Faskunger 2007). The second type of study investigates a *general social aspect* in relation to a specific morphological element of urban form. Here, specifically chosen components of urban space, for example, a square or a neighbourhood, are linked to the idea of social life in general (Olsson *et al.* 1997; 2004). These provide the detailed analyses tied to specific planning projects. In several respects these two form an assemblage of *the social* that is unable to accumulate the complexity of interrelations. Rosenhall (2009) points out the lack of a generally accepted practice for how to handle complex social aspects of the physical environment.

Despite this large body of knowledge, the social component of the urban environment is consistently a topic for investigation. Social developments establish new conditions and possibilities to (re)create an environment for citizens, cities are subjected to a state of constant change. In 2010 a research centre at the London School of Economics and Political Science, LSE Cities, called for research related to improving understanding of the social impacts of urban design. In 2011, the Swedish Research Council, *Formas,* funded the research project *Effects of architecture: Thinking about architecture's social dimension*. At the same time the College of Environmental Design, University of California, Berkeley, U.S.A. organised a conference entitled *The Death + Life of Social Factors: Reexamining Behavioral and Cultural Research in Environmental Design* seeking the rebirth and redefinition of social factors, due to the fact that 'the social' is still a major concern in contemporary environmental design research.

Addressing the idea of 'the social' in urban space is accompanied by the question of how contemporary research addresses the idea of 'the social' through discussion of urban space. Different strands of research under the headings of spatiality, design of urban space, production of space and urbanity, focus on the construction of urban space. They address both the physical and social dimensions of the urban environment with different emphases on its physical and social aspects. In different ways, they are all concerned with the social aspect of the urban milieu, principally the concept of social impact in urban design.

The discussion concerning the power of 'the social' in the construction of 'urban space' can be seen as evolving in recent decades, from social engineering and environmental determinism to postmodern re-evaluation of the dualism between the immaterial and material dimensions of spatiality (Lefevebre 1991;

Soja 1996; Madanipour 1997; Harvey 2006), and there remain fundamental question and doubts. For example, the diversity of conceptualisations is driven by approaches to the concept of human nature stemming from psychology (Kozielecki 2000), and the developing discussion regarding the plasticity of human beings and society, or controversies between views of the physical and social environment developing in the first modern (late 19th century) societal development theories (Peet & Hartwick 2009), cultural geography or cultural ecology (Rapoport 1977) regarding the degree to which one component sets limits on another one. In the field of urbanism, the aspect of power is addressed through these lenses, for example by Chmielewski (2001) in studies of the genesis of modern concepts of neighbourhood development.

What the aforementioned studies concerning the idea of 'the social' in urban space have in common is that researchers explore the meaning of the built form for physical activity, social interaction or health, addressing 'the social' as the outcome of urban form, addressing the power of 'the built form' aspect over 'the social' in the construction of 'the urban', and 'the urban' itself as a result, not a cause. However, the discussion concerning the postmodern re-evaluation of the dualism between the immaterial and material dimensions of spatiality demands reflection on the aspect of power and its complexity.

In terms of Swedish urban design research, there are a number of architectural studies that involve the interface between the social/built form aspects of the urban environment. Concepts of undivided but nevertheless dimensional space have already been applied as a theoretical framework by, for example, Olsson (2008), Persson (2011), and Fredriksson (2014). The phenomenon of urbanity preoccupies Westin's study (2010), more specifically, the question of how this multidimensional concept can be defined. A consideration of the struggles within the field of architecture with conceptualising and addressing aspects of the complex relationship between architectural form and use is the point of departure for Kärrholm's dissertation (2004), where discussion about the concept of territoriality has been considered important for the building of new conceptual understandings of contemporary urban life and landscapes.

There are also a number of architectural and urbanist studies concerned with the interface between the design of urban space and evaluation. The ultimate question related to the topic of the study is therefore how contemporary research addresses the idea of assessment by design.

Most social impact assessment research stems from sociology (Dietz 1987; Burdge 1998; 1999; 2003; 2004; Becker 2001), urban and regional studies and environmental policy research (Sairinen 2004; Heikkinen & Sairinen 2007; Sheate *et al.* 2008) and cultural geography (Esteves *et al.* 2012). Social impact

assessment is deemed to be a planning tool, more specifically a tool for local area planning (Davies 2008a), transport planning (Davies 2008b) and regional land use planning (Heikkinen & Sairinen 2007). In terms of the urban design application of social impact assessment, this is an unexplored issue in urban design and social impact assessment research. Although discussions have commenced on the critical engagement of planning and design (Janssens 2006; 2008; 2012; Rode 2006), there is little research in relation to the engagement of social impact assessment and design. Research in the field of SIA has recognised that social impact assessment needs to be integrated with project design to ensure it contributes to social sustainability (Aucamp *et al.* 2011).

Internationally, there is a considerable body of research at the intersection of urban design and evaluation concentrating on tools for evaluating the sustainability of urban design, project evaluation and assessment techniques (Gil & Duarte 2013; Moughtin *et al.* 2003). However, this research often focuses on evaluation *of* urban design, not evaluation *through* urban design, and addresses the design of urban space as a subject, not as a method. The relationship between evaluation and what Cross's (2007; 2011) investigation identifies as design thinking and designerly ways of knowing or what Nilsson calls architectural thinking (2007b) and the character of design (2004), is, however, left open for discussion. Gil and Duarte (2008), for instance, have conducted researched into urban design evaluation and techniques and show that of the mechanisms analysed[7], none of them can guarantee the link between development vision and successful outcome as they do not intervene during the design and implementation process. At the same time, research in the field of architecture and urbanism has recognised the necessity for methods of ex ante evaluation of local area development projects that assess the contribution of alternative solutions to the general sustainability goals due to the current policy objective of sustainable urban development (Gil & Duarte 2013). Furthermore, research projects in architecture and urban studies are developing models for formulating, generating and evaluating urban designs (Duarte *et al.* 2012). In the context of uncertainty inherent to social sustainability (discussed for instance by Colantonio & Dixon 2008), the potential of design should not remain unexplored.

There is a recognition of the complexities of the evaluation process in urban planning and design, and a move to more scientifically and technically so-

[7] The authors refer to public space quality evaluation methodologies and other evaluation activities used to identify positive and negative aspects and rate existing urban spaces or even whole cities: *PERS* (Pedestrian Environment Review System) by TRL Software, *Design Quality Analyser* by CABE, Commission for Architecture and the Built Environment (for details, see list of references: Webpages), *Urban Index* by Mediastadt, *Spaceshaper* by CABE, and *Placecheck* by Rob Cowan for the Urban Design Alliance.

phisticated methods is underway, from an aggregated or reductionist strategy to a disaggregated and multi-dimensional approach (Alexander 2006). Khakee (2003) points out that although planning evaluation theory is progressing from a positivist stance of instrumental rationality to a dialectic stance of communicative rationality, planning practice has remained positivist. The issue of providing necessary standards for critical evaluation is therefore addressed explicitly in the international context.

In Sweden, the discussion of evaluation methods, specifically development of social impact assessment in urban design, takes a different form. When discussing urban planning, retroduction and the need for social impact assessment, Rosenhall (2009) departs from critical realism and points out that there is a need for urban planning and social sciences to re-approach each other, as planners and architects would benefit from a practical methodology for managing the social aspects that are given major value through policy documents and political visions. Despite the fact that there is a recognised need for a robust methodology to structure complex conditions and break down overall goals into practical recommendations, the critical property of such a methodology for critical engagement with the given aspects and goals is not addressed. What Rosenhall addresses is the importance of critical thinking *for* development of evaluation, leaving out the development of evaluation *as a means of* critical thinking (Khakee 2003; Alexander 2006; Gil & Duarte 2013).

Existing research on evaluation *of* urban design is not silent about the aspect of transversality – an issue equally important for evaluation *by* or *through* design. Studies concerned with measuring quality in planning (Carmona 2003), performance in planning (Carmona & Sieh 2008), or performance in design (Gann *et al.* 2003), address the need for a way to include issues of sustainable development. The lack of a holistic view therefore concerns the tools to link evaluation methods in a comprehensive evaluation. Calls for comprehensive evaluation frameworks and bases for tools have also been made in the field of architecture and urbanism. Gil and Duarte (2013) identify the problems that such frameworks need to address: the gap between theory and practice, and problems such as collaboration, compatibility, customisation and combination. They consider the role of such frameworks in catering for the varying expertise of the different stakeholders and the various stages of the sustainable urban development process. Gil and Duarte point out the fact that they have to be compatible in terms of sustainability principles and flexible in adapting to local contexts to enable the establishment of more robust integrative and contextual tools, they also have to accommodate the complexities of the urban scale and be applicable as decision and design support tools for urban design.

1.3.3 Theoretical and methodological points of departure

The third theme addresses specifically transdisciplinary knowledge building and design-based research. Bridging the theory and practice of urban design and social impact assessment has the aim of producing knowledge with a transdisciplinary character. A number of studies address the transdisciplinary character of knowledge demanded by the complexity of such a combination. McFarlane (2006) discusses a post-rationalist approach to knowledge, considering the development of knowledge, along with learning, as partial, social, produced through praxis, and both spatially and materially relational. Gibbons *et al.* (1994) and Nowotny *et al.* (2001) have researched into the ways in which knowledge – scientific, social and cultural – is produced, identifying features of the new mode of knowledge production.

In architecture and urbanism, transdiciplinary knowledge production is also a subject of contemporary research (Doucet & Janssens 2011). New modes of knowledge production have encouraged discussion on new forms of knowledge. *COST Action C20* (Nolmark *et al.* 2009) has been occupied with the concept of transdisciplinary, action-oriented and contextually defined urban knowledge. Theories, methods and tools for urban knowledge production, management and communication have consequently been studied (Andersen & Atkinson 2013). How existing knowledge derived from government, citizens, civic organisations and the private sector can be linked to the geographic areas for which decisions have to be made has been investigated by Baud *et al.* (2011), among others. They demonstrate that development of new instruments and tools enabling better production of knowledge, improved display and presentation of data, and enhanced communication and dialogue with different stakeholders and audiences could provide for more inclusive urban management and planning, go along with developing notions of democracy and facilitate participatory network planning.

The application of transdisciplinary and design-based research is a perspective currently being embraced and discussed by researchers. The field is progressing dynamically (Anderson & Shattuck 2012), and research through design and practice-based research approaches are emerging in architectural and urban design (Nilsson & Dunin-Woyseth 2012). Ways in which such research can be used as a basis for a doctoral dissertation are thus the subject of research studies (Herrington *et al.* 2007).

In the Swedish context, epistemological questions and the implications of artistic research and practice-based research are among the interests of

Ylva Gislén, who has conducted a series of design projects as part of her dissertation (2003) on the creation of narrative collaborative spaces through the use of digital media and digital technologies. By questioning why it is that knowledge in praxis, creation and action seems problematic in relation to conventional scientific epistemology, she addresses what is often taken for granted in the distinction between theory and practice, in the distinction between formal scientific method and creative action.

As regards the research on design of urban space from the point of view of research through design; the interface between the field in question here and this approach has produced a number of studies in recent years. The international research project *SPINDUS*[8]: spatial innovation planning design and user involvement, coordinated by the research units P&O (Planning and Development) and OSA (Urbanity and Architecture) at the University of Leuven, fuses these two in the development of practical and pedagogical planning and design methodologies to assess, evaluate and implement spatial quality, with a strategic focus on the broadening out of the concept of spatial quality through an interdisciplinary (involving different research disciplines in a shared methodology) and transdisciplinary (involving different types of users) approach. *SPINDUS* opens up design-based research to contributions from spatial planning methods and spatial innovation concepts.

The Swedish research context, on another hand, opens up design-based research to contributions from the fields of architecture, urbanism, engineering, fashion, design and craft, (Akner-Koler 2007; Mazé 2007; Simes 2007; Busch 2008; Mohanty 2009; Benesch 2010; Janssens 2012). It is also concerned with sustainable development and urban issues, but more indirectly, through, for example, discussions regarding aspects of process, space and form. To a limited extent, urban planning, design and development research is design-based. The Swedish research shows that the method can be applied in (re)developing concepts. Simes (2007), for instance, uses this research methodology in the construction of a model to develop the classical design concepts of form and content, since her standpoint is that perceiving sustainable architecture from a design perspective can alter the way sustainable building processes are implemented. Janssens (2012) has conducted design-based research to develop an approach to the issue of re-conceptualising urbanisation.

[8] For details, see list of references (Webpages).

1.4 Chapter overview

This thesis has eight chapters. Chapter 1 provides an introduction to the thesis as a whole and a context for the coming sections. The need for development of social impact assessment is addressed. The aim, scope, research questions and approach are presented together with an overview of relevant fields of research and the outline of the thesis.

In Chapter 2 the research approach is described. Applied methodology of research through design, together with strategies and tactics are presented.

Chapter 3 outlines a view on social impact assessment and dilemmas related to it. The chapter offers both a general background against which to revise the notion of social impact assessment and a perspective on related knowledge production.

Chapter 4 introduces the context of urban design and social impact assessment practice as experienced in the *Opaltorget case*, and formulates a synchronic perspective in terms of making places.

Chapter 5 presents a re-conceptualisation of social impact assessment in the context of urban design, and analysis of the empirical material. The core elements are organised in two lines of inquiry: the subject for social impact assessment (Sections 5.1 and 5.2) and the process of social impact assessment (Section 5.3) in urban design. Social (Section 5.1) impact (Section 5.2) assessment (Section 5.3) is examined in the context of a conceptual and diachronic perspective in relation to making places, and is additionally discussed in terms of a synchronic perspective in order to model the social impact assessment in urban design for the purpose of producing urban knowledge. Concepts of social impact and social impact assessment through urban design are developed.

On that basis, Chapter 6 develops the outcomes of re-conceptualisation. It follows the third line of inquiry, the subject matter of social impact assessment, and consist of three parts. Concepts of space of possibilities and navigation are developed and modelled into a physical representation.

The model is subjected to a tentative test. The empirical material from this testing is presented in Chapter 7.

Chapter 8 summarises the thesis. The most significant results in relation to the empirical material, research question and methodological questions driving the design process are collected here. The thesis ends with main reflections on the relation between the construction, external versatility, and relevance of the approach to the design of urban space and transversality of the social impact assessment, along with conclusions and an outline of future work.

2. RESEARCH APPROACH

2.1 Inquiry through design

This study is conducted from an architectural and urban design perspective. Abductive (effect-to-cause) reasoning (Johansson 2000; Urbanski 2006; Dew 2007) is applied as it has a critical role in design thinking and is a process frequently integral to problem defining (Dew 2007). With the abductive approach, the research design develops in dialogue with the project as it progresses, as a combination of different strategies and tactics.

The *research through design* approach is used. Dyrssen (2010) places research through design within the more general approach of artistic research. As Borgdorff points out (2010), the subject matter of artistic research is not formal knowledge, but thinking in, through and with art. In research of this kind, design occupies a place not only in the research outcome, but also in the research process, becoming both a result and a methodological vehicle. Design therefore takes centre stage in a discussion of artistic research, the nature of knowledge in artistic research (Borgdorff 2010), and related approaches and practices (Dyrssen 2010). Although the criteria that must be satisfied if artistic research is to qualify as academic research are outlined (Borgdorff 2010), there is no homogenous method driving artistic research. Instead, the concept of artistic research involves a series of perspectives or approaches that can be combined. According to Dyrssen (2010), choosing research through design entails research through an active construction and composition, oscillating interaction between experiments, critical remodelling, and multimodal conceptualisation and communication. This involves 1) architectural thinking, 2) performance and performativity, 3) staging explorative experiments, 4) modelling and simulation, 5) critical construction, and 6) reflection and assemblages. These are the six basic components for design and its activities, as well as for the outcome of this research and its process.

The intention of artistic research is to arrive at *science in the making*, science as on-going practice, rather than as final product – knowledge. Science in the making is not only a domain of artistic research, it is also one of the premises of (post)constructivism (Bińczyk 2010; Knol 2011) – a theoretical perspective that incorporates in its development the role of other actors, culture and natural/material (non-human), normative, organisational and symbolic factors. Instead of providing empirical solutions to problems, the intention is to emphasise the importance of design culture and context in understanding problems, and the process of constructing and producing knowledge is based on this understanding.

Similarly to artistic research, (post)constructivism turns knowledge into something dynamic and inconstant. It views reality, knowledge, and therefore research and design, as socially constructed with intuitional realism. Although such a construction is composed of the ontologically different elements presented above, they are linked together, as Bińczyk concludes, and stabilised in the gradual process of objectivising so-called facts. In artistic research this attempt to find connections between seemingly disparate elements to construct new coherencies requires architectural thinking (Dyrssen 2010) and implies performativity – a stabilising process made up of a series of singular actions or a limited series of interventions called performances.

Being in the construction mode and accepting artistic research as a constantly changing situation that is actively interfered with but at the same time stabilised entails, in Knol's words, 'travelling through the heterogeneous landscape that transforms while we are in it, as a result of the enrolment of new actors and practices' (2011, p.8). Navigating in this heterogeneity therefore requires assemblages, a gradual creation of configurations for research situations and flexible navigational charts that can act as mind maps or navigational instruments (Dyrssen 2010). Besides the social construction of reality and the institutional dimension of knowledge, artistic research and (post)constructivism emphasises the practical, instrumental and experimental aspects of knowledge. They address the importance of staging explorative experiments, modelling and simulation and regard apparatuses, prototypes and measuring instruments as inherent components of knowledge production. According to Bińczyk, the non-human factors facilitate standardisation of procedures and decisions, enhancing the precision of research, but also generating totally new and extended cognitive skills.

Turning knowledge into something dynamic and inconstant results in the lack of a homogenous method of driving dynamic knowledge pro-

duction (Dyrssen 2010; Knol 2011). Knol's study of the methodological implications of employing a (post)constructivist approach shows that the (post)constructivist works are somewhat reticent on the practicalities of the method, the techniques of empirical enquiry. According to Knol, the lack of systematic accounts of practical methodological implications is due to the great diversity of objects in the making, (making in real time, while uncertainties proliferate and values conflict) which means that a variety of different practical approaches are required to be able to follow and study them. Methodological frameworks for artistic research therefore have the aim of 'structured' flexibility following a (post)constructivist approach and not proclaiming the freedom of a construction process in research (Bińczyk 2010).

The nature of knowledge in artistic research and related approaches and practices places research objects out of reach (both cognitively as well as in terms of the practical aspects of dealing with them), until they are placed in the arena of human praxis. And it is here the artistic aspect puts into play the intent, originality, knowledge and understanding of artistic research.

2.2 Methodological framework

The notion of design as a process is a reoccurring theme in this thesis. In general terms, a design process can be understood as a mode of design – a series of steps that one follows during the formulation of a product. Knowledge with regard to a mode of design is used in this investigation with the focus on two products: firstly, design guides the mode in which the research is conducted, and secondly, social impact assessment is developed as a mode of design. Design is therefore both the method by which to develop social impact assessment as a means of urban design, and the purpose given to the social impact assessment that is developed. In other words, the thesis integrates the design process within the research process and the process of social impact assessment. The role of designer is therefore applied to both the researcher and the 'assessor'.

The design activity that drives this thesis is made up of four *activities of design*: the three elementary activities of design (Zeisel 1981, pp. 6-9), imaging, presenting and testing, supplemented with the pre-design activity of screening (Figure 2.1).

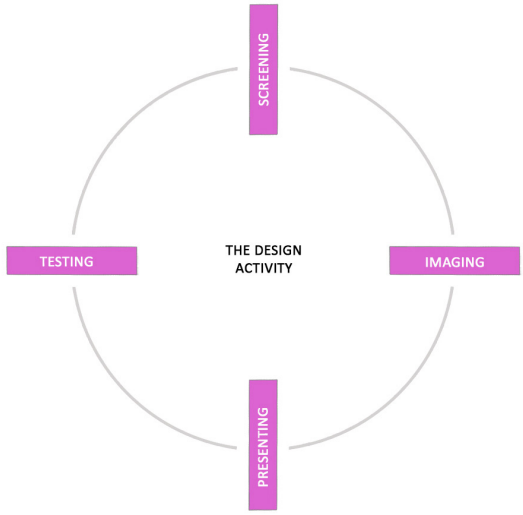


Figure 2.1: The design activity made up of four activities of design.

Screening involves gathering the information given and empirical data. Screening functions here as Zeisel's 'empirical knowledge' and provides 'image information' used by designers as an empirical source for basic cognitive design decisions (Zeisel 1981, p.10). *Imaging* is defined as 'forming a general mental picture of a part of world' (Zeisel 1981, p.7), a concept of what could and what ought to be done in terms of ways in which the topic can be perceived, a crucial tool in establishing links between research information and design decisions. Imaging stands for subjective knowledge, as it develops and organises ideas. Images, concepts and ideas need to be externalized and communicated and require what Zeisel calls an activity of 'presenting' (Zeisel 1981, p.8). *Presenting* involves showing ideas in ways that make them visible – such as sketching or building physical models – where presentations simultaneously include 'reduction' and 'opportunity for expansion'. Design *testing* entails 'comparing tentative presentations against an array of information' (Zeisel 1981, p.8), deriving in this case from screening and imaging. Following Zeisel, this means that 'designers look backward and forward simultaneously: backward to determine how good a tentative product is and forward to refine the image being developed and to modify the next presentation'. Testing is a simultaneous feed-back and feed-forward process, where the relationship between the emerging presentation is constantly adjusted against that which is screened and imagined.

To sum up, screening, imaging, presenting and testing are the four activities of design constituting in this thesis 'the design activity'. These components consequently imply that the activity of design results in four corresponding outcomes: analysis, concept, synthesis and percept (Figure 2.2).

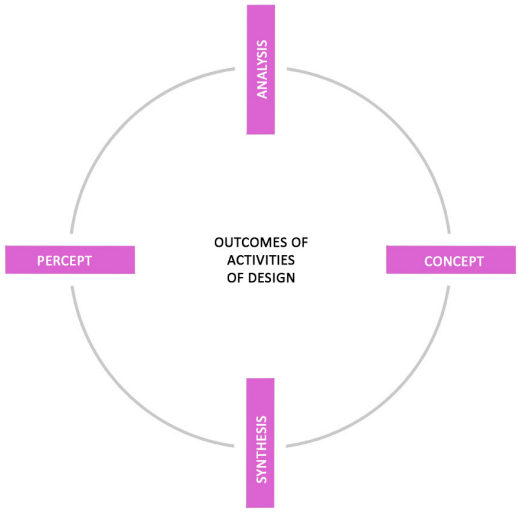


Figure 2.2: Four outcomes of the activities of design.

Analysis delivers the abstract separation of a whole context into its constituent parts in order to study the parts and their relations to and within a specific context. With reference to this body of empirical knowledge, a *concept* develops, representing an idea deriving from specific instances and formed by mentally combining its characteristics and particularities. The combination of an idea into a complex whole develops a new *synthesis*, so that development of a *percept* of synthesis is possible, through recognition of the context and concept.

Exploration by design starts when one or several of these components are kept undefined. Consequently, development of screening, imaging, presenting and testing between analysis, concept, synthesis and percept do not progress in a linear fashion, from one stage to the next. Instead, the process entails sudden changes and development in different directions at the same time. The activities of design and their outcomes can therefore not be placed in a hierarchy of importance. They exist and develop simultaneously in a *non-linear process* (Figure 2.3).

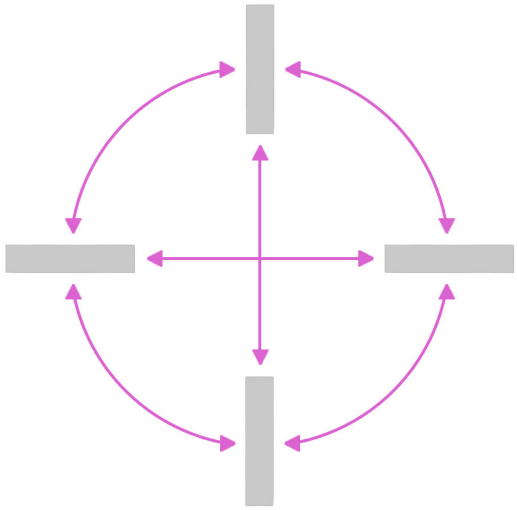


Figure 2.3: The dynamics of design.

The design activity and its outcome follow the process that Zeisel (1981) characterised as a 'design spiral'. This means that conceptual shifts and the development of research/social impact assessment in design are the result of repeated iterative movement through the activities of design that have been described. Refining is therefore a cyclical and iterative process, fundamental for design thinking (Lawson 2005) and a principal feature of urban design (Carmona *et al.* 2003). The dynamics of design (Figure 2.3) are the forces and motions that characterize this process. They produce and change the activities of design (Figure 2.1) and their outcomes (Figure 2.2).

Design adds value to the individual activities of design, so that the resulting whole is greater than the sum of the parts. Discussion concerning the design activity and the dynamics of this process is a fundamental issue for research through design methodology and development of social impact assessment as a means of urban design. This development is a dynamic process that includes movement between analysis, synthesis, concepts and percepts. It reflects the complexity of the research process and social impact assessment in urban design, where research formulas and planning options are to be used along with inventions, interventions and discovery. This is why the applied methodological framework is based on the dynamics of the design activity.

At the core of this design/research process is the *Opaltorget case* (the process of *Renewal and development of the square at Opaltorget and its immediate surroundings)* in the context of Gothenburg. The case illustrates the four activities of design and their outcomes, animating iterative interrelations and creative leaps in the research process. It provides the real-life foundation for the research process and the applied methodological framework, thereby serving the research strategies and tactics.

The methodological framework is made up of the four activities of design (Figure 2.1) and drives the research process and its design activity. The four major outcomes of these activities of design (Figure 2.2) are interrelated with the dynamics of design (Figure 2.3). The outcomes have a source in the following strategies: *study of context, development of new concepts, modelling of approach,* and *testing of approach* (Figure 2.4).

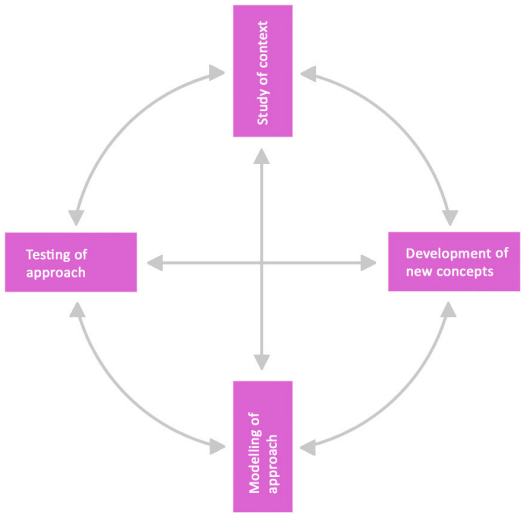


Figure 2.4: Strategies used to obtain the outcomes of activities of design.

Each of the four strategies involves a diversity of tactics, or in other words, ways of collecting data and steps of decision making (Figure 2.5).

Thus, screening is performed resulting in an analysis of context, i.e. existing concepts and practices in the fields of urban design and social impact assessment. This is implemented through *studies of literature, documents* and *knowledge arenas*. Imaging is performed, resulting in development of new

concepts through *re-conceptualisation* and *re-contextualisation*. Imaging is performed, resulting in development of new concepts through *re-conceptualisation* and *re-contextualisation*. A new synthesis is presented through the design of a *physical model*. Designs are tested in the context of results from screening and imaging, and percepts are developed with the use of *focus group* workshops.

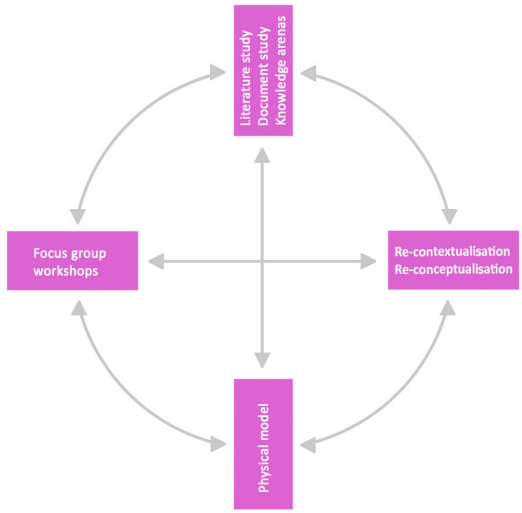


Figure 2.5: Chosen research tactics.

A methodological framework is consequently given shape (Table 2.1 and Figure 2.6).

Activities of design (Fig. 2.1)	Screening	Imaging	Presenting	Testing
Outcomes of activities of design (Fig. 2.2)	Analysis	Concept	Synthesis	Percept
Strategies (Fig. 2.4)	Study of context	Development of new concepts	Modelling of approach	Testing of approach
Tactics (Fig. 2.5)	Literature study Document study Knowledge arenas	Re-contextualisation Re-conceptualisation	Physical model	Focus group workshops

Table 2.1: Research through design: a systematic representation of the applied methodological framework.

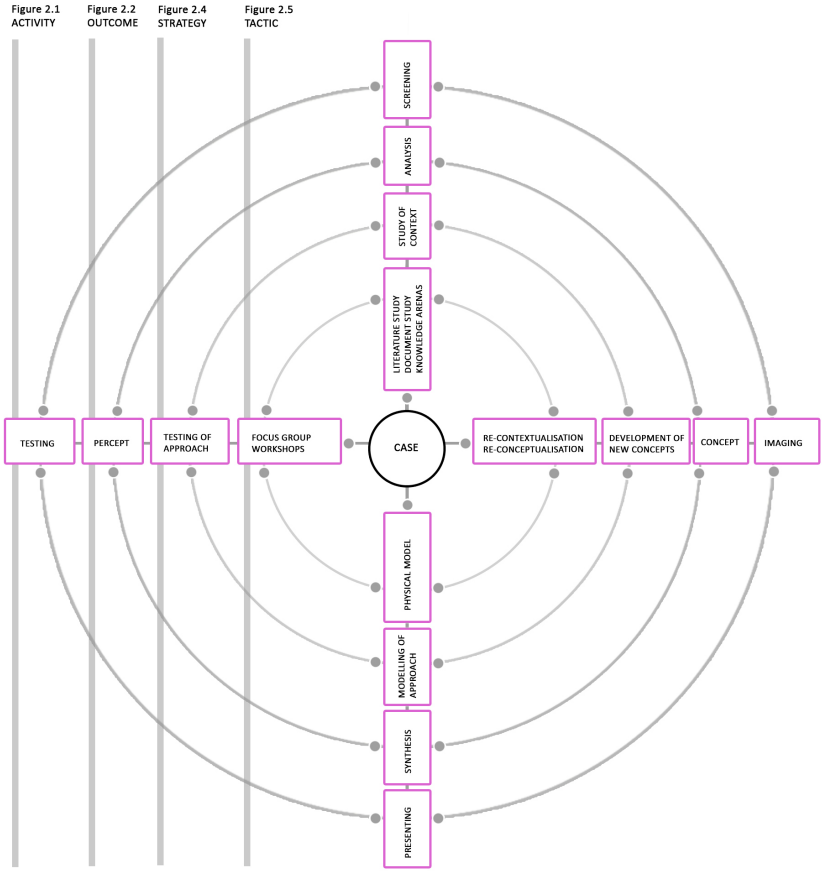


Figure 2.6: Research through design: a dynamic representation of the applied methodological framework.

The dynamics of design (Figure 2.3) mean that the methodological framework (Table 2.1 and Figure 2.6) aims at a balanced set of strategies and tactics developing simultaneously. The point is not only to move from one element to another, but also to include reflecting on that move back to the design activity. What stimulates reflection and therefore places the activities of design, outcomes, strategies and tactics in a relationship, is the interest in the topic of enquiry – *development of transversal social impact assessment within urban design* – and the driving question: *How* is the urban space designed? The driving question has a twin role for *development* of transversal social impact assessment within urban design. First, the question as such sustains *the act of*

developing. In this case, questioning addresses development as an activity of progressing and implies *a way of enquiry*. Second, the question leads *to answers and results* about the subject matter of transversal social impact assessment within urban design. In this case, the question approaches development as *a progression*; a product or result of developing. This has impact on research results. A *way of enquiry* implies that the thesis as such embodies the process (research by design) of production of knowledge (knowledge in-the-making) about the subject matter (development transversal social impact assessment within urban design). A *progression* implies that the thesis come up with a product of transversal social impact assessment within urban design. The discussion about its subject matter links back to the fields of social impact assessment and urban design and frames their approach to design of urban space. Three entries formulate the approach to design of urban space, addressing construction of the subject for design (urban space), its design process, and production of knowledge about it. These entries describe the way of enquiry, the progression, and the approach. They drive research through design of the approach (Figure 2.7).

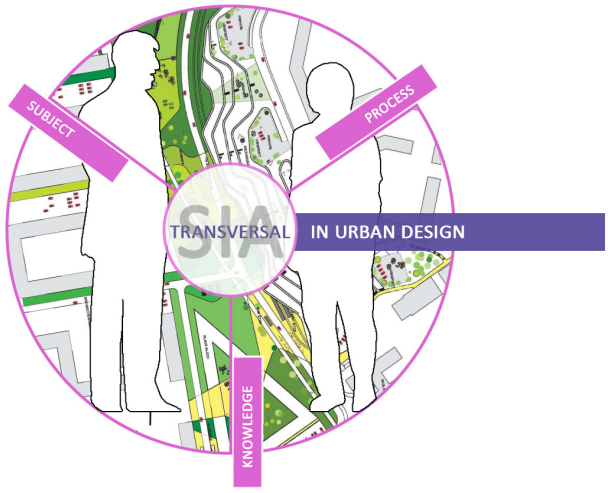


Figure 2.7: Social impact assessment through urban design. The figure presents a threefold of 1) the act of progressing and 2) the progression of transversal social impact assessment in urban design. The threefold is also an entry to the field of social impact assessment and urban design that frames and explores their approach to design of urban space. It is also a premise for discussion on transversality of social impact assessment. The background-image presents the *Opaltorget case*-related design draft the area of Opaltorget by BIG *Bjarke Ingels Group* (BIG 2008) – reprinted with permission.

How design of urban space is/could be approached by the contemporary Swedish urban planning practice of social impact assessment, and by urban design, is therefore explored through the three entries presented and use of the following questions (Table 2.2):

	How is the urban space designed?
SUBJECT	***What is urban space?***
	What components construct the urban space?
	How is the urban space constructed? What are the power relations and configurations of meaning between the components?
PROCESS	***What is the process of its design?***
	What are the roles of design in constructing the urban space?
KNOWLEDGE	***How is knowledge about the design of urban space developing?***
	What knowledge is to be included? Why? How? By whom?

Table 2.2: The threefold consisting of subject, process and knowledge and the related questions about design of urban space driving the iterative loops and sustaining the dynamics of the design activity of research.

As much as these questions identify the approach of contemporary social impact assessment to design of urban space, they also help to develop an approach to design of urban space deriving from urban design. In this thesis the questions therefore guide the discussion on the limitations of the contemporary social impact assessment's approach to design of urban space, and consequently, on the need for and ways for urban design to critically engage with social impact assessment. Social impact assessment as a means of urban design is developed by generating an iterative discussion on the subject for assessment, the process of assessment and the issue of knowledge production. Using these questions readdresses concepts of social impact, assessment process and knowledge production and results in a new approach of social impact assessment to the design of urban space.

These questions are essential to all activities of design, strategies and tactics, and can be traced throughout this text. The entries into the research topic also inspire a concluding discussion on the ways in which the approach presented develops transversality of social impact assessment, where the construction of the approach is discussed from the perspective of the subject for assessment (urban space), versatility is discussed from the perspective of the process of assessment (a process of design), and finally, relevance is discussed from the perspective of the knowledge production issues involved (Table 2.3).

How is the urban space designed?	Approach	SIAs Transversality
SUBJECT (urban space)	CONSTRUCTION	For perspectives on urban space
PROCESS (design)	VERSATILITY	For activities
KNOWLEDGE (in-the-making)	RELEVANCE	For stakeholders

Table 2.3: Arriving at the condition of transversality of social impact assessment in urban design – a premise for discussion on transversality of social impact assessment. The table presents the relationship between the driving threefold, the transversality aspects that underpin the designed approach and formulate the condition of transversality, and the topologically different aspects that urban design entails and across which the transverse of social impact assessment develops.

2.3 Strategies and tactics

2.3.1 Analysis of context

Analysis of context entails three main tactics. The first one is the *study of literature* relevant for the topic of inquiry. The topic of this thesis requires familiarity with a selected body of literature. It has led to an investigation into the fields of architecture and urbanism, design, urban design, planning, social impact assessment, sociology, geography and psychology. Internet search engines, specialised search engines and library databases have been used to search for relevant sources, and at the same time – more informally – sources were found through networks of practitioners provided by the City of Gothenburg. Literature on the *subject for, process of* and *subject matter of* social impact assessment in planning and urban design, with the focus on forms of such assessment in use in cities, was found through surveying the COST C20 network members and the Board of the Swedish Society for Town and Country Planning, *Föreningen för samhällsplanering*.

The second tactic analysed the context through a *document study*. Here, the choice was made to study planning documents and processes that deal with the social issues in relation to the physical environment, with a specific focus on social impact assessment in urban planning. The local context of Gothenburg is the focus due to the significant ongoing development of concepts and practices observed in tackling this issue. The local context was chosen because, in Sweden, it is the municipalities that are in charge of urban planning issues. The local context is, however, supervised by the national authorities. The Boverket represents an arena for the provision of knowledge and a forum to discuss sustainable land use, regional development, town and country planning, as well as development within the housing sector. Boverket's role is to support the development of sustainable regions, towns and communities, and

as a public authority it is therefore in charge of developing methods and policy guidance for planning and urban design. Relevant planning documents published by the Boverket (2000; 2006; 2007; 2010) have thus been used to address the context of knowledge and practice of social impact assessment in urban planning at a national level. The national context of discussion is addressed solely as a background in this study. This is because in most publications that discuss urban design and development and social impact assessment issues, the Boverket refers the readers to a local context, addressing its significance. The *Opaltorget case* – a choice of documents from the process of *Renewal and development of the square at Opaltorget and its immediate surroundings* (SBK 2004; 2005; 2006a-c; 2008a-c; 2009a-b; Förvaltnings AB Framtiden 2009, Olsson & Cruse Sondén 2009; SDF Tynnered 2009a-c; 2010) – is discussed in the context derived from the national and municipal level.

The planning documents describing the 'urban' relationship between the social and built form aspects are analysed, in specific the documents presenting the social impact assessments. The questions were formulated through reading and investigating theories of the relationship between the social and built form aspects in the urban design field and literature dealing with related methods and practices in the fields of urban design and social impact assessment. With 'making cities for people' and the concept of urban design identified as an ideal for development of social impact assessment in urban design, the following questions guided the analysis:

- What concepts describe 'the social' in relation to 'the built form' in the urban planning context, especially in terms of the urban planning practice of social impact assessment related to urban design? Whose concepts?
- What role is 'the social' given by the urban planning practice of social impact assessment related to the design of urban space? What power relations and configurations of meaning between 'the social' and 'the built form' in urban design are in the interest of this practice?
- What are the aims of the urban planning practice with social impact assessment related to the design of urban space?
- What role is attributed to architectural urban design in the urban planning practice of social impact assessment?

The third tactic involved in the analysis of context is *knowledge arena*. An urban knowledge arena is a concept developed to designate a multidisciplinary, multi-stakeholder structure with the objective of generating, managing and implementing urban knowledge (Nolmark *et al.* 2009). The objective of such an arena

is to develop a common theoretical and practical understanding of an issue or a complex urban project, to support decision-making processes in relation to urban policies and projects (e.g. ULG, MISTRA, S2020)[9]. Urban knowledge arenas often operate as a policy-practice-research framework for capacity building and supportive action in the world of urban change and development.

The Urban Laboratory Gothenburg (ULG)[10] was set up as a joint research platform in 2005, and initiated this research project in 2008. A project working group was established, holding regular meetings (12). This meant that practitioners were involved in definition of a problem, provided valuable examples, contributed to the development of the approach, and provided a context to test it. The group included four representatives from the City of Gothenburg and two representatives from Chalmers University of Technology. This group had three reference platforms: international COST C20[11], municipal S2020[12], and locally, the *S2020 Opaltorget pilot project*. A range of data collection methods were used including: workshops, seminars, case studies, participant observation, meetings, literature reviews, surveys, interviews, studies of documents, drawings, architectural plans, maps and photographs. These arenas provided the project with a large network of people with different backgrounds, practitioners as well as academics, with the opportunity to meet outside the prevailing structures for mutual learning, to promote production of urban knowledge, exchange of experience and supportive action in the world of urban change and development. Arenas were used as a method to facilitate development of new applied knowledge, communication and skills about and for urban development, anchored in both academic and practical experience.

2.3.2 Development of new concepts

The conceptual advance develops through tactics of *re-contextualisation* and *re-conceptualisation*. *Re-contextualisation* entails positioning ideas about social

[9] For details, see list of references (Webpages).

[10] *Urban Laboratory Gothenburg (ULG),* a policy-practice-research framework for capacity building and supportive action in the world of urban change and development. Managed as a project in a partnership between the *City of Gothenburg* and *Chalmers University of Technology.*

[11] *COST Action C20 2005-2009, Urban Knowledge Arena,* a European network of researchers and experts, operating through the COST framework, an intergovernmental scientific network, supported by the EU RTD Framework Programme. 21 countries were represented, with a total of some 50-60 active researchers and experts in urban development, representing a large variety of scientific disciplines in social science, humanities, architecture, engineering and natural science. The Action was coordinated by Urban Laboratory Gothenburg, with administrative support from the COST Office in Brussels.

[12] *Socially Sustainable Development in the year 2020 (S2020),* name of a municipal assignment with the aim of incorporating social issues into municipal planning in Gothenburg, with the same importance as economics and ecology. S2020's mission is to contribute to the formulation of a vision on how Gothenburg can become socially sustainable. For details, see list of references (Webpages).

impact assessment in a particular context, which in this case is the context of urban design. Social impact assessment therefore becomes the subject for re-conceptualisation, and urban design a tool for re-conceptualisation, where re-conceptualisation takes place within the context of urban knowledge production (Figure 2.8).

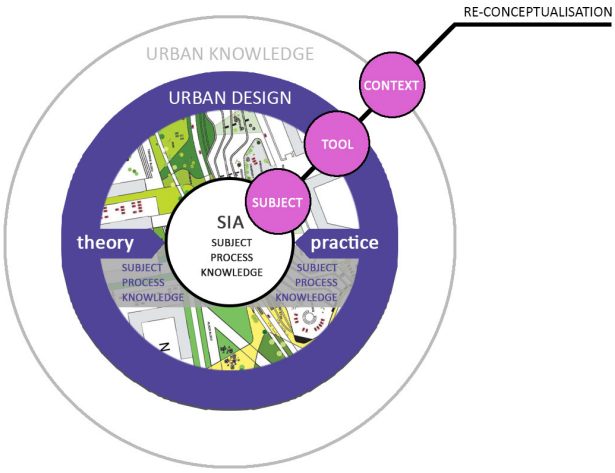


Figure 2.8: Three concepts of 1) subject for social impact assessment, 2) process of social impact assessment and 3) resulting knowledge that is the subject matter of social impact assessment are developed through theory and practice of urban design concerned with 1) subject for design of urban space, 2) process of design of urban space and 3) designerly ways of knowing urban space. The background-image presents the *Opaltorget case*-related design draft the area of Opaltorget by BIG *Bjarke Ingels Group* (BIG 2008) – reprinted with permission.

Understandings and ideas are collected through the analysis of context. What follows is the tactic of *re-conceptualisation* of social impact assessment with urban design. The aim of the process is to formulate new concepts based on understanding the interrelatedness of abstract ideas from within the two fields – social impact assessment and urban design. The commonality of relationships forms a mass of abstract thought into a coherent whole – a new approach to the subject for and process of social impact assessment and to knowledge production.

Re-conceptualisation therefore follows two main lines of inquiry. One line concerns the re-conceptualisation of social impact and the other concerns the development of a way to re-conceptualise it in a form of assessment. Three concepts take centre stage in this context: firstly, the notion of 'social' and the concept of 'impact'; secondly, the idea of assessment. Dimensional un-

derstanding of urban design theory and practice developed by Carmona *et al.* (2003) is used to open up the concept of 'social'. Re-conceptualisation of 'impact' draws on the debate concerning the nature of spatiality and the evolving discussion on the aspect of power of 'the social' in the construction of what is called 'urban space'. The third and final concept of 'assessment' is approached with Nilsson's designation of *architectural thinking* and the *character of design* (2004; 2007b), as well as Hertzberger's *space of thought* (2000; 2005a-b), which is more developed in the literature as the idea of *concetto*[13], along with the idea of *knowledge hub* relevant to it.

The new concepts constitute the conceptual dimension of an approach that has been formulated for the construction of a relationship between the social and built form aspects in social impact assessment.

2.3.3 Modelling the approach

This thesis develops a tangible model to physically represent an approach to design of urban space. The model's structure facilitates a discussion of this topic. Models are subject to the designer's spatial perception and intellect and are continually open to discoveries (Zaman *et al.* 2011). Conceptual haptic models improve the quality of discernment in the early phases of object exploration (Moll & Sallnäs 2009) and help users to search for design alternatives (Knoll & Hechinger 2007). They therefore play a crucial role in the early stages of design.

Models are design tools that promote thinking and communication between designer and design. In this thesis the model promotes communication on the one hand, between researcher/designer and the design of an approach, and on the other hand, between the user, assessor/designer, and the design of relationships between the social and built form aspects. These two communication processes are interlinked and iterative. As a method, physical representations and physical models conventionally play an essential role in defining product form, meaning firstly, a research product (an approach and its physical representation), and secondly, the product of assessment (the outcome of its use, meaning the social impact). Thus it is both a communication tool and a design tool.

Tactile perception has a role in conceptual construction (Reiner 2010). In writings related to design thinking, haptic senses are often observed to be as crucial for creative activities as vision (Prytherch & Jerrard 2003). Haptic modelling is considered to be more creative and flexible in comparison with, for

[13] *Concetto* is an aesthetic-poetic act, called 'the concordant disagreement' or 'the discordant agreement'. The definition was developed by Maciej Kazimierz Sarbiewski (Sarbievius). For details, see Chapter 6, Section 6.1.1.1.

example, software modelling (Horvath *et al.* 2003). Such modelling and models have a recognised pedagogic value of hands-on design thinking - visual and spatial thinking (Zaman *et al.* 2011).

A tangible model therefore captures concepts, allows for three-dimensional thinking, and hence establishes a direct connection between the body and the object. It allows the user to touch, explore and manipulate the 3D object in an intuitive way, improving learning, understanding of complexity, creativity and communication of the model and the modelling outcome.

2.3.4 Testing the approach

Testing the approach involves the tactic of focus group workshops. A focus group is defined as 'a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research' (Powell & Single 1996, p.499). As a method of qualitative research, focus groups can be used at the exploratory stages of a study (Kreuger 1988) but also during a study to evaluate or develop a particular programme of activities (Race *et al.* 1994). In this research project the focus group tactic was chosen to examine and develop the approach by testing it in the context of the material produced within the *S2020 Opaltorget pilot project*.

The focus group research involved three organised discussions with the three selected groups of individuals. The aim was to acquire information about their views and experiences of a topic, obtaining several perspectives. These were all exploratory focus groups – used to discuss users' needs, and to develop and evaluate the approach. Further, two of them were experiential focus groups (in the form of a workshop) – used to observe participants when using products and learn from the observations. The groups were relatively small, each consisting of four persons. The groups were heterogeneous in terms of professional perspectives and represented research and practice. The decision to organize workshops for researchers and practitioners separately might have had a substantial impact on the contributions received, i.e. not revealing diverse opinions and experiences. The role of moderator or group facilitator becomes significant when using this tactic. A concerted attempt was made to clearly explain the purpose of the group, to ensure that everyone participates and gets a chance to speak, and to facilitate interaction between group members.

Focus groups were chosen as a research tactic as it was viewed as a way of involving the groups in the research, applying value to the knowledge of both

researchers and practitioners. It was possible to interact with the participants, to ask follow-up questions, to increase the possibility of producing results that are easier to understand, and to obtain information from non-verbal responses. In the context of urban knowledge production, focus group research provided major benefits to the research project. It overcame the limitations of this method such as the ability to generalise findings, the small amount of control over the interaction of participants, and the moderator-dependent control over the data produced (Gibbs 1997). It was used as a complement to other methods for triangulation (Morgan 1988) and to check validity.

The focus group sessions lasted from one to three hours. The background information on workshops and their design is described in detail in Chapter 7. A set of questions to go through was prepared and the introductory presentation was based on them. The list of questions was sent in advance to the participants of one of the focus groups, who worked on examining the approach and the model. The other two groups, which worked on development of the approach and the model, did not receive the list. The intention was not to limit the spontaneous creativity of participants; rather the plan was to open up a broad discussion, with gentle moderation and steering and the focus on predefined issues relevant to the research question. First and foremost, an attempt was made to stimulate discussion on the issues brought up by the participants themselves. All the sessions were recorded, and participants were photographed while working. Additional photographs were taken of the analysis of the planning documents produced through the hub model.

Having the role of a moderator limited the moderator's ability to take notes during the meetings. Two sessions were held in English and one in Swedish; the recorded material is thus in both languages. In all the groups the introductory presentations were made in English, however in the discussions English and Swedish were mixed. The recorded sessions have been transcribed in selected fragments or fully, word by word. Quotes from all the sessions and from all participants are presented and analysed in Chapter 7. The Swedish quotes have been translated to English and the original text in Swedish is presented in footnotes. The author chose to take on the complex task of translating, as it was considered an advantage to be the person present at all sessions, transcribing the recorded material, reflecting on how things were said and finally converting it into a part of this text. To make the text harmonious and to improve readability most of the quotes have been edited by Teknotrans translation agency in the process of proofreading. The content of the quotes is reflected in an adequate way, but they are not always literally transcripts/translations. All of the quotes are kept anonymous.

3. SOCIAL IMPACT ASSESSMENT AND RELATED DILEMMAS

With reference to the international context, this chapter constitutes a description of the Swedish context in which this research is done. A view of social impact assessment *per se* and of the dilemmas associated with social impact assessment is presented here. The research question is addressed in relation to ongoing developments in the urban building sector. Insights are presented in the discussion about why social issues have received so much interest in recent years, as well as perspectives on what the social aspect is in relation to the built form and what social issues are included, how these are addressed on the national and local level, and who presents them. Finally, in relation to a view of social impact assessment, a distinction is made between practice in this field, and theorising and researching the design of relationships between the social and built form aspects.

3.1 A view of social impact assessment in urban design

This research project is concerned with the development of social impact assessment in urban design, it is therefore necessary to start with a discussion of what constitutes the subject. In general terms, social impact assessment is a methodology to review the social effects of infrastructure projects and other development interventions. More specifically, it is defined as 'the processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programmes, plans, projects), and any social change processes invoked by those interventions' (Vanclay 2003, p.6). In urban design such social impact assessments visualise the construction of a relationship between a project and its social effects in order to form judgments and make decisions. Analysis of social impacts can be looked upon as an actualisation in the present context of 'the urban' established by relations between human beings and built forms – both the existing ones and those that are envisioned.

The social issues to which these impacts relate can vary significantly, ranging from thematic issues such as safety or democracy to more group-oriented perspectives such as issues concerning children or tourists. For reasons that will be further discussed, the specificity of the social issues is unsettled. This thesis argues that the character of a relationship between the social and built form aspects (and the related issues), and therefore also its decomposition, contributes substantially to the state of unsettlement. To an important degree, addressing this issue involves revising and restating perspectives with regard to social impact assessment in urban design. In this respect, what is at stake is the recreation of the conceptual frameworks and practices that signify the *social* in social impact assessment in urban design.

Development of the social reference point can basically be undertaken in two ways. One can study what has structured the social issues in past impact assessments in the planning processes. This implies analysing what perspectives have dominated in impact assessment and how they became actualised through impact assessment processes. The other way is to study how structuring impact assessments can be readdressed. This involves looking for ways to create alternative perspectives and practices that can provide a basis for development of the social issues in urban design. The second option is developed in this thesis as, in my opinion, urban design, properly embedded in social impact assessment, can act meaningfully – that is, offer a tool to find redirections.

Discussing alternative perspectives requires a background, a view of contemporary social impact assessment that provides a reference point while developing ideas on re-conceptualisation. This background is presented in the following sections, as an assemblage of four perspectives, i.e. the thesis looks at social impact assessment as practice, knowing, research and design concerned with 'the urban', a relationship between social and built form aspects. First however, the thesis outlines what are considered to be dilemmas regarding social impact assessment.

3.2 The unsettlement of social issues

3.2.1 Why social issues?

Sustainable development

The major driving force in Sweden at present for integration of social aspects in planning is unreservedly the desire for sustainable development. Sustain-

able development is an overarching objective of government policy, where its three dimensions – economic, social and environmental – have to be coherent and mutually supportive. This objective steers social development, which is considered to have a foundation in spatial planning[14]. The principles have to be implemented via planning legislation (PBL & EC) – a basis for municipal urban planning and urban design and documents produced through this process, (comprehensive plans, detailed development plans and building permits). Social impact assessment is developing as an inherent part of the spatial planning process, to strengthen the social dimension of sustainable development in particular and to secure the general intentions[15] behind the spatial planning.

Social dimension in question

Development of the social impact assessment in spatial planning challenges the tentative nature of the social dimension in sustainable development of the built environment and community. While there is widespread agreement that a social dimension to sustainability is important, there is less agreement on what exactly is meant by it in different contexts (Bramley & Power 2009). 'When investigating social impacts it became clear that there is no universal list of social impacts that would suit every case' (Juslén 1994, p.9). Impacts are diverse. This contributes to the fact that 'the social dimension of urban regeneration remains an area of uncertainty and controversy' (Colantonio & Dixon 2008, p.50). Although there has been a substantial focus on defining sustainability as a condition and measuring it with a series of indicators (McKenzie 2004), there is no consensus as to what definition of criteria and perspectives should be adopted for defining social sustainability (Colantonio & Dixon 2008; Andersson 2013). It is always individual and there is therefore no all-purpose definition (Colantonio & Dixon 2008; Andersson 2013). 'Attempts to identify the main elements of social sustainability highlight that a coherent and comprehensive theoretical framework to a fully integrated approach to sustainability is still lacking from the literature and it is unlikely that one could be developed in the near future' (Colantonio 2007, p.6). In-

[14] *Government Offices of Sweden* state: 'Ensuring that society develops appropriately requires spatial planning in which decision-makers take account of the differing needs of several sectors. (...) Spatial planning [is] a foundation for social development' (Government Offices of Sweden 2014).

[15] *The general intentions behind the spatial planning* defined by the Boverket (2006): 'With due regard to natural and cultural values, planning shall promote a purposeful structure and an aesthetically pleasing design of built-up areas, green belts, routes of communication and other constructions. It shall also aim at promoting good living conditions from a social point of view, good environmental conditions and a long-lasting and effective management of land and water areas, energy recourses and raw materials' (Boverket 2006, p.13).

stead, social sustainability can be seen as a process of sustaining/maintaining something, a positive condition and a process within communities that can achieve that condition (McKenzie 2004, p.23); in Sutton's words (2000), 'to be able to understand the concept there is a need to first identify what people are choosing to sustain, that is, to identify the focus of their concern.' What to do to sustain that thing or condition can then be worked out (McKenzie 2004, p.5).

The potential role that spatial planning and social impact assessment have in defining this focus of concern is somehow unexplored and, in my opinion, needs attention, especially as discussion about integration of social aspects in spatial planning is developing at the moment.

In 2010 the consultancy company WSP Samhällsbyggnad issued a publication (2010) based on consultancy work in relation to social impact assessment – what in Swedish is called *Social konsekvensbeskrivning* (translated into *Description of Social Consequences*) – of a comprehensive plan in the municipality of Linköping. The observation was made that the majority of those involved in urban planning are conscious of the fact that social issues should always be present and integrated in the everyday work. What is sometimes missing is the understanding that this work has to be explicit and transparent. This addresses the need for studies not only of 'the focus of concern', 'the social', but also more explicit and transparent ways of developing knowledge about it. Most cities nowadays are endeavouring to put individual processes in place for the development of a more detailed picture of social sustainability, with more specific individual descriptions. Could social impact assessment in urban design and development both identify and form (design) the focus of concern, what McKenzie calls – the condition? Could social impact assessment make the condition and the sustaining work more explicit and transparent in urban design and development? Who owns the question of social impact assessment in urban design and development?

3.2.2 What social issues?

Social issues

The Swedish government gives priority to issues of sustainable urbanisation and sustainable cities. At the national and municipal level there is an ambition to highlight and strengthen the social dimension of sustainability in urban development. This is due to the perceived inequality in addressing the social aspects of developments in comparison with aspects related to the economy and the environment. Although the significance of this dimension

is more specifically addressed by the Boverket[16] and WSP Samhällsbyggnad (2010)[17], the social aspects of plans are still lagging behind, waiting to receive more substance and space in physical planning, and a level of interest equivalent to that which the two other dimensions have (SRF 2007). It seems to be relevant to investigate why. Built forms are already being discussed as reflective of the effects on cities of economic and environmental conditions. However, the dynamics of society and the way they relate to present conditions in the world also requires constant contemplation about how to design city environments in order to embrace present realities and include future perspectives. In this context, although 'it is difficult and not useful to isolate the social issues, as they are interwoven with economics and ecology', the City Planning Authority of Gothenburg addresses the need 'to develop knowledge about precisely the social issues in relation to the physical environment and planning' (SBK 2011c, p.6).[18]

Social issues in relation to physical environment and planning

In national and municipal planning practice, social issues and the physical environment are considered to be interdependent[19]. The explicit involvement of social aspects with physical planning is thought to foster the concept of a good

[16] According to the *Boverket* (2000), the social aspects of planning are factors able to affect the human living environment, human living conditions, health and safety. The social aspects that need to be appraised in planning must be based on the plan type and the conditions of the area itself. Examples provided are: housing issues, population, labour, services, culture, health, safety, communication and participation. However: 'There are no provisions or guidelines for which social aspects should be addressed in social consequence analyses. (...) The aspects that should be dealt with in the analysis can be adapted according to what is important in the individual case' (Boverket 2000, p.13). *The original Swedish language text reads:* 'Det finns inga bestämmelser eller riktlinier för vilka sociala aspekter som ska behandlas i sociala konsekvensanalyser. (...) Vilka aspekter som ska tas upp i analysen får anpassas efter vad som är väsentligt i det enskilda fallet' (Boverket 2000, p.13).

[17] *WSP Samhällsbyggnad,* in an attempt to outline the factors that contribute to the social quality and which may also be affected by land use planning, identified and outlined 10 aspects as important to reflect on during planning and follow-up activities (2010). These are: 'Safety and security', 'Equality and inclusion', 'Democracy and participation', 'Possibility of financial support', 'Good travel opportunities', 'Good living environment', 'Good access to service', 'Meaningful leisure', 'Good health', 'Affinity and solidarity'. *The original Swedish language text reads:* 'Trygghet och säkerhet', 'Jämlikhet och integration', 'Demokrati och delaktighet', 'Möjlighet till försörjning', 'Goda resmöjligheter', 'En god boendemiljö', 'God tillgång till service', 'En meningsfull fritid', 'God hälsa', 'Samhörighet och identitet' (WSP Samhällsbyggnad 2010).

[18] *The original Swedish language text reads:* 'Det är svårt och inte fruktbart att isolera sociala frågor, eftersom de är sammanvävda med ekonomi och ekologi. Men för att utveckla kunskapen kring just sociala frågor i relation till fysisk miljö och planering, står dessa i fokus här" (SBK 2011c, p.6).

[19] An example: '(...) good living environment is based partly on a good physical environment, and partly on social factors such as security, social solidarity, participation, freedom of choice, self-determination and versatility' (Boverket 1996b in Boverket 2000, p.11). *The original Swedish language text reads:* '(...) god livsmiljö bygger dels på en god fysisk miljö, dels på sociala faktorer som trygghet, social gemenskap, delaktighet, valfrihet, självbestämmande och allsidighet' (Boverket 1996b i Boverket 2000, p.11).

built environment[20]: a national target, with the aim of improving and securing the framework of people's everyday lives. The WSP Samhällsbyggnad (2010) points out that the social issues – the condition – should be an obvious reference for the choices made in the context of urban planning. What follows is that social issues that relate to the physical environment should be an obvious reference point for the choices made in the context of urban development and design – and that means design and planning choices[21]. However, as described above, this reference point is unsettled. If the social reference point is unsettled, neither is the relationship between the social and built form aspects, and consequently the social impact. How can reference be made to a condition that is unsettled? What impact does this state of unsettlement have on an assessment?

Integrating the unsettled

Every urban design is different. Knowledge about its social dimension and its specific condition consequently needs space for development. This means that it is not enough to define the social issues during the planning phase and then impose them on the design. Planners must have knowledge and real options to work closely with designers in order to grasp the potential of design-based approaches in defining the condition at stake. Improved understanding of design practice results in improved questions and requests in relation to planning. Cross-sectoral working methods are therefore necessary in order to name, map and communicate the social issues in urban design. To improve integration of the condition of unsettled character, the WSP Samhällsbyggnad (2010) recommends focusing on how social questions can be given a larger space in the regular planning process, rather than developing new social impact assessment methods. The approach to social impact has to change; from viewing social impact assessment as an analytical tool, to where it is an ongoing generative process. Are methods available to more systematically analyse and consider social impacts in design?

---

[20] *A good built environment* defined by the Boverket (2007): 'Cities, towns and other built-up areas must provide a good, healthy living environment and contribute to a good regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources' (Boverket 2007, p.59).

[21] *The role of social issues for the assessment and design* bases defined by the Boverket (2000): 'According to the PBL and NRL, ecological, social and economic principles must be taken into account and promoted in the planning. This means that ecological, social and economic aspects shall comprise long-term motives and aims, and constitute the basis for assessment of a plan or a project. Furthermore, the aspects shall constitute the basis for the design and content of the comprehensive plan' (Boverket 1996a in Boverket 2000, p.11). *The original Swedish language text reads:* 'Enligt PBL och NRL ska ekologiska, sociala och samhällsekonomiska principer beaktas och främjas i planeringen. Detta innebär att ekologiska, sociala och samhällsekonomiska aspekter ska utgöra långsiktiga motiv och syften och ligga till grund vid bedömningen av en plan eller ett projekt. Dessutom ska aspekterna ligga till grund för utformningen och innehållet i översiktsplanen' (Boverket 1996a i Boverket 2000, p.11).

3.2.3 Whose social issues?

In planning, representations of architectural and urban forms that host the social content are common, as are representations of the social content that should be hosted by new designs. However, representations of architectural and urban spaces that pervade the social content are lagging behind, as are representations of the social content that should be infused by new designs. Knowledge about the unsettled condition often develops in discussion 'about' designs, not through design. Similarly, the social issues are explored 'in' architectural and urban designs by many professions, but less so by designers themselves.

Work on urban design and development also involves the design profession. The ongoing discussion about social issues, however, is not targeted at this group. The WSP Samhällsbyggnad (2010, p.7) aims to '(…) plant a genuine interest in the issues among both planners and politicians'[22] and the City Planning Authority of Gothenburg is therefore presenting a long-term goal, having developed the *Gothenburg model for Social Impact analysis – an analytical tool for social impact analysis in urban development* (SKA) where '(…) each administrator and decision maker naturally deals with and upholds social issues clearly in their work on physical planning' (SBK 2011c, p.6)[23]. It appears to be important to address the fact that designers also deal with the social issues in their work on the physical environment and develop a large body of knowledge through and for design and drafting.

In a situation where there are only a small number of methods to analyse and consider social impacts in urban design more systematically, it is necessary to open up a discussion among planners and designers working on urban architecture and to demolish the existing clichés and stereotypes used to address the social and built form aspects of urban space. How do designers define the social aspect, social issues and social impacts? How are social context and performance of designs described? How could social context and performance of designs be described? How can a wide range of stakeholders be provided with a tool to improve the performance of their proposals and their own experience and knowledge of social aspects of sustainability? How can communication and production of knowledge about social impacts in action be facilitated?

---

[22] *The original Swedish language text reads:* '(…) att plantera ett genuint intresse för frågorna hos såväl planerare som politiker' (WSP Samhällsbyggnad 2010, p.7).

[23] *The original Swedish language text reads:* 'På lång sikt är målet att varje handläggare och beslutsfattare naturligt hanterar och hävdar sociala frågor på ett tydligt sätt i sitt arbete med fysisk planering' (SBK 2011c, p.6).

3.3 Perspectives on social impact assessment

3.3.1 Assessment as practice

Legal governance of social issues by plan levels: a top-down inference

The Swedish Planning and Building Act (PBL) places the main responsibility for the planning of areas of land and water, as well as buildings, on the municipalities. According to the PBL, different types of plans, such as the comprehensive plan, detailed development plan, area regulation and property regulation plan, are part of the Swedish planning system. Such a division of responsibility for spatial planning and building is reflected in a discussion on responsibility for the social dimension. The growing awareness of the importance of social sustainability is also increasing the interest in moderating the balance and the mechanisms ensuring the quality of urban development.

The need to analyse the social outcomes of plans and projects is becoming a part of the contemporary reality of urban planning. At present in Sweden, the only legally stipulated impact assessments concerned with spatial planning are Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA). These often give account of social impacts, so there are generally no separate assessments of social impacts, Social Impact Assessment (SIA) (Boverket 2000). Responsibility for conducting EIAs and SEAs rests with the local authorities (Heikkinen & Sairinen 2007, p.12). According to the PBL and the Swedish Environmental Code (EC), local land use planning should be subject to a range of impact assessments. The PBL states that the role of assessments is to reflect on a plan and its impacts, with regard to a planning description: 1) that represents reality (the planning conditions addressed) and proposed change (the reasons for the plan's design and the measures envisaged to implement the plan)[24], and 2) other material the municipality considers relevant to assess the proposal. This also includes the impacts of amendments in parts of municipalities upon other parts. The material constitutes the basis for assessment of a plan or a project.

The comprehensive plan needs to meet the assessment requirement, particularly during the exhibition period. The impact of a plan on the environment, society and the economy have to be demonstrated as the purpose of an assessment

[24] *The relationship between assessment and a planning description* defined by the Boverket (2006): 'A planning description gives account of the planning conditions, the reasons for the design of the plan and the measures envisaged by the municipality to implement the plan. Furthermore an assessment of the impacts of the plan must be stated. When the proposal amends the comprehensive plan for a part of the municipality, an assessment of the impact of the amendment upon other parts of the municipality must be stated (Act 1995:1197)' (Boverket 2006, p.25).

is to integrate these three perspectives into a plan or a programme in order to promote sustainable development. These analyses are considered to be essential if a comprehensive plan is to provide guidance for decisions about use of land and water areas and on the development and preservation of the built environment.

The comprehensive plan is not binding for authorities or individuals, but the detailed development plan is, and it functions as an implementation tool. The detailed development plan level is where municipal plans act to ensure social change in a physical sense, through the design of buildings and the form of the built environment. A detailed development plan is often based on a programme. These programmes attempt to make the comprehensive visions more operational, providing premises and guidelines for a detailed development. In the programming phase, social impact descriptions are often individually produced and the detailed development plan as such can also be a subject to evaluation with social issues in focus.

The requirements of the PBL for impact assessment are not as extensive for detailed development plans and building permits. They are limited to situations where the plan may have significant effects on the environment, health and management of natural resources (Boverket 2000). The need for impact assessment in detailed planning therefore has to be assessed in each case. This means that all detailed development plans should be subject to a *needs assessment*[25] in order to estimate whether any significant impacts might occur, with the result that an impact assessment is required (Boverket 2007).

To ensure the accountability and efficiency of actions undertaken, assessments require a reliable methodology. Although there are numerous methods for analysis and descriptions of environmental consequences of plans, the techniques for social and economic impact assessments are relatively underdeveloped (Boverket 2000). Further work to develop methods of assessing the impact of land use planning is therefore necessary to ensure planning[26] and city development is equally attentive to social, environmental and economic aspects.

The scarcity of explicit assessment methodologies is particularly evident when one attempts to discuss the social sustainability perspective. Methods used for this purpose are primarily based on EIA methodology and socio-economic assessments. There are, however, no commonly used methods for performing the social impact assessment at this level. A foundation and support

[25] *The original Swedish language text reads:* 'En behovsbedömning' (Boverket 2007, p.25).

[26] *A wide range of public general interests which are to be observed in plans* defined by the Boverket (2006): 'With due regard to natural and cultural values, planning shall promote a purposeful structure and an aesthetically pleasing design of built-up areas, green belts, routes of communication and other constructions. It shall also aim at promoting good living conditions from a social point of view, good environmental conditions and a long-lasting and effective management of land and water areas, energy recourses and raw materials' (Boverket 2006, p.13).

for working with social impact descriptions at the detailed development plan level is to be found in the comprehensive plan. Impact descriptions at the level of the detailed development plan are carried out individually, using the framework of the comprehensive plan. They are entirely dependent on the project itself, and the experience and approach of the authors formulating it.

Methods of social impact assessment and social impact descriptions of detailed development plans are crafted in a distinctive manner and differ from case to case. Municipal planners who had an opportunity to confront this task in municipal planning practice (SBK Göteborg Stad 2009) perceive three issues to be the most challenging in terms of strengthening the social dimension in planning. First, the connection between the comprehensive plan, a detailed development programme and a detailed development plan needs to be developed within the planning process[27]. As planners explain, the form of coherent 'scaling-down' of social aspects is necessary. Second, knowledge of social aspects is needed. From that point of view, planners perceive that as early as in the programming phase, it is difficult to know exactly which social aspects are the most important for inclusion in the social impact assessment. Practitioners consider the comprehensive plan, and frameworks such as *City Building Qualities* (SBK 2008d) to be a valuable support when drawing up social impact descriptions, specifically in relation to the issues of integration, everyday life and public health. At any rate, the struggle to select relevant social aspects is being highlighted; together with the need for specific knowledge at the detailed development plan level on the social aspects that the City Planning Authority can actually work with. Third, planners highlight the need to strengthen the link between the planning process and actual change with regard to social aspects. Representatives from the City Planning Authority recognise the fact that after the detailed development plan is produced, the authority has no further opportunity to steer and monitor the development. They perceive a need for tools linking the detailed development plan with its implementation, and concomitantly for the essential cross-administrative efforts (the Property Management Administration was mentioned in this case).

[27] The *issue of connections* is also addressed by The Swedish Association of Architects, *Sveriges Arkitekter*: 'New methods of urban planning and design need to be developed which will make it possible to plan interconnections, physical structure and design of the city at a larger scale' (Sveriges Arkitekter 2009, p.32). 'New forms of plans must be developed. There are no forms of plans suitable for the existing built environment, and which deal with the urban environment in a coherent manner' (Ullstad 2008, p.9). 'Plans are needed which, supported by the "plan for the city" as a whole, provide links, shape the local structure, distribute areas and volumes, balance interests' (Ullstad 2008, p.25). *The original Swedish language text reads:* 'Det finns behov av att utveckla nya stadsbyggnadsmetoder som gör det möjligt att planera samband, fysisk struktur och utformning av staden i en större skala' (Sveriges Arkitekter 2009, p.32). 'Nya planformer måste utvecklas. Det saknas planformer som passar för den redan byggda miljön och som hanterar stadsmiljön på ett sammanhängande sätt' (Ullstad 2008, p.9). 'Det behövs planer som, med stöd av "stadsplanens" inriktning för hela staden, ger samband, formar den lokala strukturen, fördelar ytor och volymer, avväger intressen' (Ullstad 2008, p.25).

There is ultimately a need for a diversity of inferences with regard to the social perspective in planning. It appears to be crucial to take these observations into account at a time when the Boverket is stating: 'There is a need to develop methods to more systematically analyse and consider social impacts in planning and to evaluate such effects in relation to economic and environmental impacts' (Boverket 2010, p.11).[28] However, the problematic fact is also noted that, 'there is a lack of research-based knowledge about how factors in the physical environment affect social life' (Boverket 2010, p.10)[29].

A major demand is articulated at municipal level for knowledge about socially sustainable development, particularly in spatial planning context (SK 2009a; SRF 2007; S2020), as the use of land is increasingly being assessed in connection with social objectives.

An example of methods used to analyse social impacts in planning and the genesis and definitions of factors used to describe social life is to be found in the comprehensive plan developed by the City of Gothenburg.

Example of a top-down inference

The physical planning concept for sustainable development is to be found in the comprehensive plan. It is based upon the comprehensive objectives of physical planning stated in the introductory section of the PBL and the priority goals of the City Executive Office: 'The provisions aim, with due regard to the individual's right to freedom, at promoting societal progress towards equal and good living conditions and a good and lasting sustainable environment for the benefit of the people of today's society as well as of future generations (Act 1993:419)' (Boverket 2006, p.11). The comprehensive plan articulates a vision of ways in which sustainable growth can take place and be expressed. It encompasses a broad and complex range of material that shows the conditions, strategies and outlines for the future use of areas of land and water, and for the development and preservation of the built environment. It also provides guidance for the decisions of the municipality and other public bodies.

The comprehensive plan for Gothenburg consists of three main documents, three maps, a consultation statement, an impact assessment and a summary. It is based on 13 strategic questions. Each question is accompanied by its own goals and strategies. These are based on: 1) Gothenburg's budget

[28] *The original Swedish language text reads:* 'Det finns ett behov av att utveckla metoder för att mer systematiskt kunna analysera och beakta sociala konsekvenser i planeringen och för att värdera sådana effekter i förhållande till ekonomiska och miljömässiga effekter' (Boverket 2010, p.11).

[29] *The original Swedish language text reads:* 'Det är brist på forskningsbaserad kunskap om hur faktorer i den fysiska miljön påverkar det sociala livet' (Boverket 2010, p.10).

goals, 2) the previous comprehensive plan for Gothenburg – ÖP99 and 3) work undertaken for the new comprehensive plan. The plan's consequences are described in SEA and the sustainability appraisal.

The ambitions for comprehensive plan's SEA (SBK 2009c, p.14) are to: a) outline the economic, social and ecological consequences of the plan and discuss whether the comprehensive plan supports the content of the three dimensions of sustainable development contributing to a desirable future; b) investigate whether the comprehensive plan's content makes the achievement of the goals formulated for the strategic issues possible, and whether they work together or against each other; c) provide a basis for decision for the comprehensive plan; d) produce results based on which changes in the content of the comprehensive plan can be introduced so that better sustainable development plan is provided and better effectiveness in terms of goal realisation is achieved; e) respond to the PBL and the regulations of the Swedish Environmental Code (EC) on impact assessments. The assessment concludes with an appraisal of the plan according to the three dimensions of sustainability: economic, social and environmental. Variables are based on the City Executive Office's vision and priorities, based on the three dimensions.

When it comes to method, the work on the comprehensive plan's impact assessment has been performed in parallel with work on its development. Both were presented for consultation and criticism while in progress. The impact assessment document consists of two parts. The first part verifies the goals of the comprehensive plan and makes a rough analysis of the interaction/counteraction of targets. In order to describe the conflicting objectives and risks, a matrix was used in which the strategic objectives were positioned in relation to each other. Further, in the second part, implications for the three sustainability dimensions were dealt with in separate parts on the basis of their prerequisites. The comprehensive plan's proposal is positioned alongside the business-as-usual scenario and the social, economic and environmental impacts are described for both proposals, together with a SWOT analysis[30].

A social impact assessment is presented in the comprehensive plan's impact assessment document as a separate section. Regarding the method, the social impacts were highlighted in two seminars, where invited experts from the municipality and the academic world provided comments. The issue of a widely dispersed responsibility for the formulation of more specific goals was addressed. The comprehensive plan specifies that formulations of the objectives are to be found at different levels and in various policy areas. The aim of the assessment

[30] *SWOT analysis* is a strategic planning method used to evaluate the 'Strengths', 'Weaknesses', 'Opportunities', and 'Threats' involved in a project.

that is addressed is dealing with people's living conditions in the city (SBK 2009c). People's living conditions in the city are linked to human health and wellbeing, and, furthermore, are solely related to the public health issue. The national health objectives are then broken down into regional objectives for Västra Götaland Region's *The good life*[31] and the *Gothenburg's Public Health Policy*[32]. Additionally, they are accompanied by more social goals from the city budget.

The social impact assessment points out that the public health sector operates with so-called health determinants. The physical environment is presented as a feature, which can be such a determinant, directly affecting health and welfare through air quality, or traffic safety measures. Furthermore, the availability of housing, work and the city's physical structure and form are recognised as having an impact on the conditions for a good life. The concluding description of how the comprehensive plan can affect human health and quality of life is organised under the following headings: work and maintenance, housing, participation and influence in society, safety, physical activity, living environment and disturbance from traffic. Equality, inclusion and children's perspectives are dealt with within these sections. The comprehensive plan focuses on the comprehensive descriptions. As the document specifies, more detailed ones should consequently be drawn up in the course of future planning in order to deepen the comprehensive plan or detailed development plans, if necessary.

Informal governance of social issues by administrative units: a cross- inference

Assessment based on plan level has a comprehensive, top-down approach. Although the approach strongly emphasises the issue of efficiency, it suffers from a weak sense of ownership of the plan and knowledge about social issues among private and municipal stakeholders. Division of responsibility for spatial planning and building does not only concern the different types of plans, it also concerns the organisation of municipalities in terms of constituent administrations and companies. In order to respond to the demand for knowledge about socially sustainable development and social issues, municipalities are searching for tools to stimulate contributions by these parts. Gathering of these contributions is seen as a *way of knowing* about what constitutes the social dimension in planning. Gathering as a process needs inclusive development[33], if accumulation of

[31] *The original Swedish language title reads:* 'Det goda livet'.

[32] *The original Swedish language title reads:* 'Göteborgs folkhälsopolicy'.

[33] Architects working in the private sector also develop knowledge about the social dimension in planning. They point out that social factors are important, but difficult to put the finger on. This sector develops method packages to implement social impact assessments, and tools to identify social factors and assure the quality of the social sustainability of projects (e.g. *Retroduktiv stadsanalys* by *Inobi*, methods by *Gehl Architects*). The question of how the efforts of the two sectors enrich each other in 'making places' remains however open and can be a subject to further investigation.

knowledge about the social dimension in planning is to develop beyond a cumulative result into means of questioning its components. Meeting platforms and modes of collection and combination of existing knowledge of social issues and improved integration of different municipal administrative units are considered to be significant to strengthen municipal ownership of social development. For example, such cross-inference efforts were made by the City of Gothenburg through development of cross-departmental municipal assignments, but also of tools for impact analysis and related workshop methodologies.

Example of a cross-inference

The City of Gothenburg commissioned the municipal assignment *S2020 Socially Sustainable Development Year 2020* in 2007. The role of this assignment was to initiate a discussion concerning the presence of the social sustainability dimension in all municipal activities. It has been observed that many of these activities include social sustainability concerns, but there was an increasing demand for the City of Gothenburg to consider social issues more comprehensively and consistently at all planning levels. It was ultimately identified that the social dimension needs support. The S2020 assignment revealed a need to decode and frame a relationship between society, its environment and the economy, for the purpose of identification and formulation of social sustainability goals (SRF 2007). Furthermore, the S2020 called for the development of a flexible social planning model that could be useful in identifying, measuring and assessing the impact of different projects on society and its sustainability goals[34]. Also, and what might be more important, it called for development of tools for the improved communication of information about the possibilities of minimising negative effects and

[34] *The analysis of the S2020 assignment* (SRF 2007, p.2) states that to accomplish the S2020 assignment aim and develop the social dimension in town and country planning (community planning) so that, together with the economic and ecological dimensions, it can reverse segregation in Gothenburg and thus promote sustainable development in society, *a social planning model* that take into account the diverse needs of the individuals and groups in a continuous urban regeneration and social development should be developed. The analysis specifies that the model must be flexible so that it can be applied in various stages of development and in diverse social situations (SRF 2007, p.2) and it should include two main parts, a *target image for the desired social development of the city and its various parts and social determinants of socially sustainable development* (SRF 2007, p.7). The first part, the target image, 1) shall constitute a guide for primary spatial urban planning but also other components of social development, 2) should be incorporated into the comprehensive plan and deepened in detailed development plans, and 3) should cover a longer time perspective to harmonize with other components of town and country planning (community planning). At the same time the analysis states that the target image is likely to vary in different parts of the city and should therefore be adapted to local needs, as segregation takes different forms. It is important that local adaptations (local target images) develop in accordance with the overall policy targets for the social development in the city (SRF 2007, pp. 2-3). The second part shall describe the (social) factors that affect social development in a positive or negative direction and support analyses of existing and planned urban environments and other components of social development (SRF 2007, p.4).

enhancing positive ones, for everyone working with city planning and decision-making[35].

S2020 aroused an awareness of a growing disproportion between the assessment of the social impacts in decision-making and the assessment of economic and environmental impacts that were more established in planning culture. The unsettled dimension of social sustainability was to be strengthened by recognition of possible means for better and more coherent self-description. In 2009, the City of Gothenburg's budgetary committee (Göteborg Stad 2009) pointed out the need to strengthen what was called 'the social perspective in planning'[36] with a particular focus on children and young people[37]. The City of Gothenburg, the *Children and young people in planning* network, the City Planning Authority and the network S2020 consequently collaborated in the development of three tools: an *on-line knowledge bank for social sustainability*, a *Child-Impact analysis* and a *Social Impact analysis*, to support the municipal officers in considering the social perspective and the child's perspective. The tools might serve as an illustration of how the City of Gothenburg defines the social and built form issues relevant for the purpose of impact assessments in the planning process.

The first tool is the S2020's on-line knowledge bank for social sustainability. It assembles available research data and deepens the general understanding of social aspects. It is aimed at everyone who is engaged with social questions

[35] *The analysis of the S2020 assignment* (SRF 2007, p.2) presents that the role of the model is to support users in describing the social impacts of planning for new and existing urban environments and other components of town and country planning (community planning). Based on the consequence description, actions are to be taken to generate positive and minimize negative social impacts.

[36] *The City of Gothenburg's budgetary committee* addressed the *social perspective:* 'S2020 shall entail the urban development field taking social perspectives into account in town and country planning (community planning). The forms of participation for planning work in S2020 must be additionally intensified to further develop the social aspects in urban planning' (Göteborg Stad 2009, p.23). *The original Swedish language text reads:* 'Genom S2020 ska stadsutvecklingsområdet arbeta med sociala perspektiv i samhällsplaneringen. Arbetsformerna för S2020:s delaktighet i planarbetet ska ytterligare intensifieras för att vidare utveckla de sociala aspekterna vid stadsplaneringen' (Göteborg Stad 2009, p.23).

[37] *The City of Gothenburg's budgetary committee* addresses the *child's perspective:* 'All urban development and construction must take place on the basis of the child's perspective. (...) The child's perspective shall be taken into account to a greater extent within the entire planning area. The perspective must be included in the planning process and be present at all stages of the detailed planning. The planning work must be targeted towards a more inclusive process where children and young people have an influence over the way in which their town is designed. This requires non-traditional routes and methods to be trialled. Decisions within town and country planning (community planning) must be evaluated in relation to assessments of social impacts on children and based on this perspective' (Göteborg Stad 2009, p.23). *The original Swedish language text reads:* 'Allt stadsutveckling och byggnation ska ske utifrån ett barnperspektiv. (...) Barnperspektivet ska i större utsträckning tillgodoses inom hela planområden. Perspektivet ska tidigt arbetas in i planprocessen och vara ständigt närvarande vid detaljplaneläggning. Planeringsarbetet ska utvecklas mot en mer inkluderande process där barn och unga får inflytande över hur deras stad utformas. Detta kräver att man prövar otraditionella vägar och metoder. Beslut inom samhällsplaneringen ska värderas utifrån barnkonsekvensanalyser och utvärderingar utifrån detta perspektiv' (Göteborg Stad 2009, p.23).

in relation to the built environment or has an interest in the subject. The on-line knowledge bank has the form of a matrix. In one column of the matrix there are six themes that are politically important to create social sustainability – called social aspects – Cohesive City, Interactions and Meetings, Functioning Everyday life, Identity and Experience, Health and Green City Environments, Safety and Openness[38]. Themes are linked to specific reading and research related to each topic. The second column introduces the five levels of analysis – the different scales – building/place, neighbourhood, district, city and region[39]. These columns define the matrix[40]. The structure that the S2020's on-line knowledge bank proposed was tested shortly afterwards by the City Planning Authority and by the *Children and young people in planning* network *(Barn och unga i fysisk planering*) as a means of analysis.

The City Planning Authority of Gothenburg developed the second analysis tool for social aspects in the planning process, called in English the *Social Impact analysis*, *Social Konsekvensanalys* (SKA). It is aimed primarily at the city administrators who work in the planning process. It also has the form of a matrix where four *social aspects* – Cohesive City, Interactions, Everyday life and Identity[41] – shape the first column of the matrix. The second one addresses the five different *geographical levels of analysis* – building/place, neighbourhood, district, city and region[42]. The matrix divides the planning process into three phases (analysis of context, action and consequences). The intention is to use the tool to implement social impact analysis to support the planning process on a continuous basis.

The third tool was developed by the network, *Children and young people in planning (Barn och unga i fysisk planering)* within the City of Gothenburg – a forum created to heighten cooperation around child perspectives in urban planning. The *Child-Impact analysis*, *Barnkonsekvensanalys* (BKA) is aimed at anyone who plans, builds and manages the physical environment. In one column of the matrix there are five *social aspects* – Cohesive City, In-

[38] *The original Swedish language text reads:* 'En sammanhållen stad', 'Samspel och möten', 'Ett fungerande vardagsliv', 'Identitet och upplevelse', 'Hälsa och gröna stadsmiljöer', 'Trygghet och öppenhet' (S2020).

[39] *The original Swedish language text reads:* 'Byggnad och plats', 'Närmiljö', 'Stadsdel', 'Stad', 'Region' (S2020).

[40] Although it could be argued that the factors appearing in both columns of each matrix (like 'neighbourhood' or 'identity') are as much about the social issues as they are about the built form, or that different scales of urban context translate directly into the administratively defined areas and their management, the tools are valuable in challenging the difficult task of developing knowledge of the social issues in relation to the physical environment and planning within the existing municipal structures.

[41] *The original Swedish language text reads:* 'Sammanhållen Stad', 'Samspel', 'Vardagsliv', 'Identitet' (SBK 2011c).

[42] *The original Swedish language text reads:* 'Byggnad och plats', 'Närmiljö', 'Stadsdel', 'Stad', 'Region' (SBK 2011c).

teractions-Play-Learning, Everyday life, Identity, Health and Security[43]. The matrix only uses four of the different *geographical levels of analysis,* also called *scale levels in the city* - building/place, neighbourhood, district, and city[44]. The matrix addresses the planning process in three phases (inventory, solutions and effects) with the main guiding question: How have you gathered and taken into account the views and skills of children and young people? The tool addresses the concept of the child's perspective as a generic term that includes both the child's own perspective and perspectives with children in mind.

A series of tests were conducted in 2012 using the *Social Impact analysis* and *Child-Impact analysis* (SBK 2011a; Göteborg Stad 2012). As well as focusing on the tools, process leaders were trained, emphasising the importance of the ways of working and actual meetings between representatives of different administrative units.

Governance of social issues by analyses: a multipurpose inference

The commonly defined role of social impact assessment in planning is to direct greater attention toward the social aspects of plans and to outline the positive and negative social impacts of proposed interventions, raising general awareness and providing the decision-makers with a basis for selection of options and measures to reduce adverse social impacts. There is a large range of analysis that fits this description. Social impact assessment in planning can differ in regard to reflection on different forms of evaluation, different purposes of evaluation (European Commission 2013), different approaches to how the social aspects are handled in the detailed development plan (Gregorowicz-Kipszak 2010; WSP Samhällsbyggnad 2010) and the stage in the process when it happens (Hulsbergen & Schaaf 2005; Todd & Wolpin 2008).

The European Commission's (2008) resource EVALSED distinguished the four most common purposes of evaluation: *planning/efficiency, accountability, implementation, institutional strengthening,* and added in 2013 one more, *knowledge production.* Accordingly, social impact assessments can be performed to ensure that there is a justification for a project and that resources are efficiently deployed, to demonstrate how far a project has achieved its objectives, how well it has used its resources and what its impact has been, to improve the performance of projects and the effectiveness of how they are delivered and managed, to improve and develop capacity among project participants and their networks and institutions, and finally, to understand

[43] *The original Swedish language text reads:* 'Sammanhållen Stad', 'Samspel, lek och lärande', 'Vardagsliv', 'Identitet', 'Hälsa och säkerhet' (SBK 2011b).

[44] *The original Swedish language text reads:* 'Byggnad och plats', 'Närmiljö', 'Stadsdel', 'Stad' (SBK 2011b).

what works (for whom) and why (and in what contexts). The first purpose positions assessment between inputs and a project design itself. It addresses the importance of the concrete and experienced context, the 'real' one, emphasising reality as a basis for arguments. In the second one the design proposal is judged against a target. It addresses the importance of the concrete and experienced context, the 'envisioned' one, recognizing proposed change as a reference point for arguments. In the third one the design proposal is discussed in terms of outputs. In the fourth one the design proposal is discussed in terms of outcomes. In the fifth one the design proposal and assessment are discussed in terms of knowledge.

Assessments can also be *descriptive, legitimising and critical/corrective* (Gregorowicz-Kipszak 2010, p.40; WSP Samhällsbyggnad 2010), depending on how the social aspects are handled in urban design. Social impact assessment can be descriptive – serving to describe and map impacts. This kind of assessment relates to the study and the description of impacts of a plan or a specific stage of a plan, with the emphasis on constructing a grammar for it without regard to other aspects such as historical development, comparison with other plans, or norms advocated for correct or proper usage. It can also be legitimising – serving to providing legitimacy – to make the plan legal. It refers to the question of whether an act, plan or process becomes legitimate through its attachment to norms and values within a given society. Social impact assessment can also be critical – meaning professionally engaged in the analysis and interpretation of an act, plan or process. Such assessment forms and expresses judgments of the merits, faults, value or truth of a matter.

The practice of social impact assessment can therefore be seen as the act of assessing a process, meaning a multipurpose series of actions analysis, producing results of a diverse character. An example of a multipurpose inference will be given in Chapter 4.

3.3.2 Assessment as knowing

Foreseeing social impacts before a design is implemented arouses questions regarding the form of knowledge that social impact assessment produces. Knowledge is generally perceived to be the state or fact of knowing. It is about facts. On the design level these *facts* (social impacts) have the character of assumptions, things accepted as true without proof, taken for granted. Social impacts are not about logical consequences: things deriving from a system of reasoning, produced by a cause or necessarily following from a set of condi-

tions. As such, the assumptions and knowledge about their design develop during the social impact assessment process. Social impact assessments develop knowing in action. Rowe (2002) in his article about professional design education and practice discusses professional knowledge and education in design, questioning the usefulness of distinctions between theory and practice. Rowe's idea builds on two conceptual frameworks.

The first one is Ryle's (1945) distinction between *knowing that* and *knowing how*. Plumbing is taken as an example, showing that 'there is a difference between knowing about the components of a piping system, the physics of the fluid flow, the behaviour of control mechanisms, etc., versus actually being able to create a system for a particular application or to fix it when it breaks down' (Ryle 1945). In the case of social impact assessment there is also a difference between knowing 'about' the components of social impact assessment, the specific social issues, the evaluation types and mechanisms, versus actually being able to create a social impact assessment for a particular application or to modify it when it is not effective. Knowing rules (knowing that) is knowing how to put social impact assessment into practice. Knowing about social impacts in urban designs means being oriented, as a designer, toward which aspects the social impact assessment contains and knowing about an urban design practice to approach them. Social impact assessments must therefore look through designs, not at designs. This shows that *knowledge how* cannot be built up from pieces of *knowledge that*. To understand the knowledge problematic in question requires some practical competency, and vice versa. Moreover, Ryle argues that 'knowledge how' is a concept logically prior to 'knowledge that', and that actions are what he calls 'actualisations of dispositions' tied to behaviour as evidence of mental activity. People actualise propositions in reality through action; for instance, knowledge that one can ride a bike is actualised when one gets on the bike. As Ryle argues '(…) the propositional acknowledgment of rules, reasons or principals is not the parent of the intelligent application of them; it is a stepchild of that application' (Ryle 1945, p.9).

The second framework used by Rowe is the Drucker's idea of knowledge in application, and in particular the concept of *actionable knowledge*, residing at the heart of professional-decision making and competency, in this case, during the act of designing (Drucker 1994). With regard to Ryle's distinction and Drucker's concept of knowing being an active process, Rowe defines what he calls an 'actionable knowledge' – a hybrid form of knowing which is situational, neither analytic nor synthetic, heuristic, integrating experience and other 'discreet forms of knowing'.

Rowe (2002) develops five characteristics of actionable knowledge. First, actionable knowledge is invariably situational, as Drucker explains 'it is always specific, and therefore not applicable to anything else' (Drucker 1994, p.5). This means that problem definition simultaneously leads to problem solution and that assumed solutions, or directions towards a solution, strongly influence both problem definition and subsequent outcomes. Second, actionable knowledge is neither clearly analytic nor synthetic in orientation. From that point of view, it is an example of the difficulty of having analysis without prior synthesis or synthesis without prior analysis. Third, Rowe calls the actionable knowledge heuristic, meaning that knowing invokes guesswork, informed hunches, rules of thumb, well-tried practice. This gives it a speculative character, serving as a guide in the investigation or solution of a problem. Moreover, this kind of knowing recognises the fact that thinking leads in a direction where there is no correct answer in any global sense. Fourth, Rowe points out that actionable knowledge values experience, as it involves judgment that comes by way of momentary insight derived from prior exercises. Fifth, and finally, it leads to what Rowe calls the logical trains of reasoning where other discrete forms of knowing come into the picture episodically, as it is brought into view through the idea of the 'reflective practitioner' (Schön 1983). This serves as an intellectual topography over which actionable knowledge must be deployed in social impact assessment.

Actionable knowledge is neither a matter of theory and practice, nor 'knowing that' and 'knowing how'. It is a different kind of knowledge. This knowledge is most likely to be delivered effectively within what is called a *2-space* (Rowe 2002). Rowe constructs this concept from the two principal axes: one graded from Ryle's 'knowing that' to 'knowing how' and the other between specific problems to general classes of problems. Viewing social impact assessment as a process of knowing about the social impact, actionable knowledge about it is most likely to be delivered effectively if assessment is positioned in the broad central zone of Rowe's two axes, because that is the domain that most often represents a blurring of distinctions between theory and practice, between 'knowing that' and 'knowing how' and between specific instances and those that are generalisable. Modalities of instruction and learning in social impact assessment must therefore also be centrally positioned (Figure 3.1).

Development of such modalities of instruction and learning that convey actionable knowledge about the social impact demand attention.

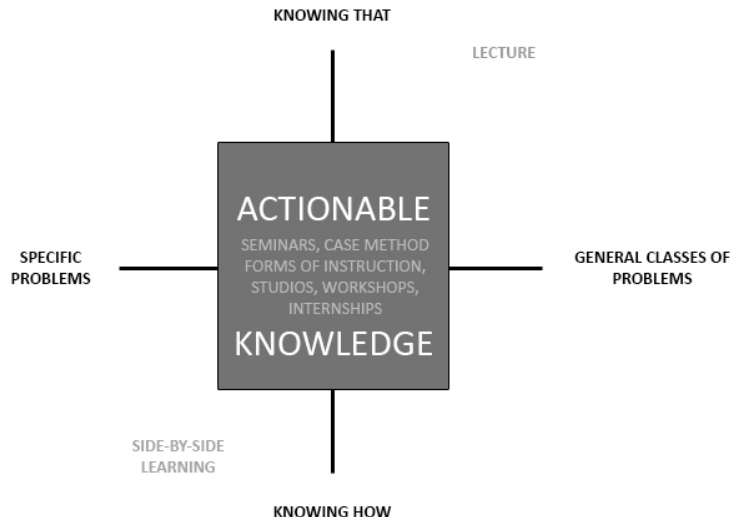


Figure 3.1: A 2-space for modalities of instruction and learning (figure based on Rowe 2002). Axes 1 is graded from 'knowing that' to 'knowing how'. Axes 2 is graded from 'specific problems' to 'general classes of problems'. Modalities of instruction and learning within the central zone of this space are most likely to deliver development of actionable knowledge in social impact assessment.

3.3.3 Assessment as ex ante research

The fact that, at the design level, the social impact is an assumption has yet another implication. The practice of social impact assessment, as it operates in the context of urban planning, has the character of ex ante evaluation. As such it is research on social impacts prior to realisation of the activity or the design. It is actually research on assumptions.

Ex ante evaluation is presented by Hulsbergen and Schaaf (2005) as one of the ways of studying and researching urban, architectural and technical design. The authors define two different forms of ex ante research within what the call 'the research-driven design context'. First, ex ante research may compare the quality of the design to the original brief. Second, ex ante research may be targeted at testing the consequences of design choices, with respect to aspects (context or perspectives) relevant, but not explicitly stated, in the design brief. As Hulsbergen and Schaaf summarise, the second form of ex ante research concentrates not only on expected consequences but also on not-expected or not-anticipated consequences, moreover both those that are desired and un-

desired. Social impact assessment approaches the design as a composition that is based on the original brief (first form of ex ante research) unless, as Hulsbergen and Schaaf point out, the designer has altered the original brief with reasonable arguments (second form of ex ante research).

In the context of forms of ex ante evaluation, the social impact assessment consequently looks upon the design not only in terms of operationalisation of the brief, but also as an adaptation of it. The role that the design has in social impact assessment processes relates directly to the reason behind the act of judgment. Here Hulsbergen and Schaaf speak about two opinions dominating among designers in regard to evaluation work. The first opinion is that it is done when design is finished; the second is that it is done when design is made, or perhaps in the process of making. The social impact assessment appears therefore to be an important issue for both designer and client; during and at the end of the design process. For a large number of reasons, it is important to further develop the existing form of ex ante social impact assessment.

Todd and Wolpin (2008) describe four main benefits of ex ante evaluations that can apply to the discussion on social impact assessment as follows. First, ex ante evaluation of the design makes it possible to optimally develop a design that achieves some desired impacts at a minimum social cost or maximises impacts for a given social cost. A second benefit of an ex ante evaluation is that it may help avoid the high cost of implementing designs that are later found to be ineffective. Third, ex ante assessment can provide some evidence on what range of social impacts to expect after the design is implemented, which is useful for design placement decisions and for choosing a reference point for any ex post evaluation. Fourth, in cases where there is already a design in place, ex ante evaluation methods can be used to study how the impacts would change if some parameters of the design were altered.

When discussing the usefulness of ex ante evaluation during the design process, opinions are divided, as Hulsbergen and Schaaf write (2005). Ex ante evaluation might often be experienced as a burden instead of a support. It is often a single solution or one explanation; preferably one that someone has had in mind for a long time, resulting in minimal resistance. Therefore, as Hulsbergen and Schaaf point out, a strong emphasis on creative aspects of designing can be a way to distance oneself from 'known' and 'tested' solutions. The authors argue that thinking about probable or imaginable developments that might influence the design will particularly stimulate the designer to think about the present and the future, inducing development of new ideas. This can move ex ante evaluation beyond the passive function of legitimacy, towards the active function of creation, beyond the analytical and toward the

generative. Moreover, such development of ex ante evaluation could be useful to expose trends and popular beliefs about benefits and pay attention to neglected or hidden perspectives or burdens.

The actual choices consequently become more realistic. This kind of approach to social impact assessment needs further development in terms of practice, research and education. Besides increasing the emphasis on the creative aspects of designing, the development of ex ante evaluation faces yet another challenge. Hulsbergen and Schaaf argue that discussion about a design, no matter at what stage of the process, inherently contains elements of ex ante research. They claim that a study only deserves the denomination 'research' if it is clearly embedded in the planning cycle (Figure 3.2) and respects the demands of research.

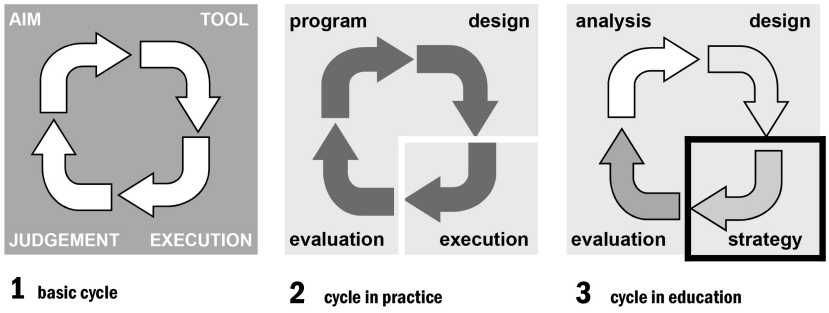


Figure 3.2: *Planning cycle* (Hulsbergen & Kriens 2004, p.6). Reprinted with permission.
A cyclical working method sub-divided into four steps (1): AIM-TOOL-EXECUTION-JUDGMENT. The method can be regarded as a single closed cycle or as a combination of linked cycles, an 'upward' spiral in the sense of an ever-clearer overview. In 'Cycle in practice' (2) execution refers to a situation in which a design is actually realized. In 'Cycle in education' (3) strategy refers to a simulation of an implementation.

If so, social impact assessment deserves the denomination 'research' when it is embedded in design, where design as a process contains all steps of the planning cycle. Within the planning cycle, a design or plan must be placed and bedded into a whole of problem definition, underpinning and appreciation. Such reasoning shows how important it is to discuss particular forms of step-related social impact assessment, i.e. forms of social impact analysis, in relation to the bigger picture of the planning cycle, in different contexts, and to expand the scope of the contemporary practice of social impact assessment. Analyses related to all steps of the planning cycle (Figure 3.2) and to different planning cycles, including searching (Figure 3.2:1), making (Figure 3.2:2) and

simulating implementation (Figure 3.2:3) – all define the scope of ex ante evaluation.

The relationship between a design and the cycle clarifies the place of ex ante evaluation but also other forms of evaluation research. Ex ante evaluation helps to obtain insight into effects prior to execution while ex post evaluation emphasises the actual effects. Even if ex post evaluations are often regarded as more reliable, the ex ante evaluation still has a critical role. Todd and Wolpin (2008) illustrate that an ex ante evaluation is not a substitute for an ex post evaluation. It is consequently not a substitute for that which is discussed by Hulsbergen and Schaaf (2005), i.e. andante (ongoing) evaluation that supports design during execution, which is especially valuable in monitoring long-term processes. These three forms of evaluation, although distinct in character, develop together in relation to the same design/planning cycle, which gives the premises for coherence. In the case of social impact assessment it is therefore important to focus on the consistency in the assessment process – a significant basis for the development of tools. Social impact assessment should develop simultaneously the three mutually dependent assessments: 1) *ex ante social impact assessment* that helps to obtain insight into assumed impacts prior to execution of the design, 2) *ex post social impact assessment* that stresses the actual impacts, as well as 3) *andante social impact assessment* that supports design during execution.

3.3.4 Assessment as designing

It was mentioned in the introduction that there is a great variety and dynamics when it comes to research into the two-way relationship between people and the built environment. Further chapters will demonstrate in detail that researchers in design, architecture, geography, sociology, psychology and others working within urban studies dispute the existence of a relationship between the social and built form aspects. In research, the existence of interdependencies is neither entirely accepted, nor rejected. The probability of its existence should therefore not be neglected. In practice, the situation is different.

Examples of statements extracted from public planning documents present explicit assumptions in which the social and built form aspects are interdependent (Gregorowicz-Kipszak 2010). The belief that architecture makes a strong contribution towards social construction is the fundamental base for how architecture and design is practised. There is a conviction (also manifested by the Swedish Association of Architects, *Sveriges Arkitekter*) that society can

be moved forward through best practices and examples (Sveriges Arkitekter 2009, p.7)[45]. In both research and practice, many fields, plan levels, spatial scales, administrative units, design activities, stakeholders and types of knowledge cling to the analysis of social issues related to space.

What can be seen then is that both the idea of 'the social' in relation to 'built form', and approaches to it, are constantly evolving. As are methods in response to the adoption of participatory design and the influence of post-modern and post-structuralist modes of inquiry. What follows is a demand for an ongoing re-conceptualisation of the present and future development of social impact assessment in urban design. Ongoing questioning is required. Today's arguing for relationships is challenging, not only because of the dynamic and unsettled character of its components, but also for two more reasons. First of all, the position of human and social questions related to urban designs is not strongly advocated in the course of project development (Forsemalm 2009). Both a specific identifiable position in its continuum and the frequency of discussions on them is in question (Heikkinen & Sairinen 2007). Secondly, these interdependencies do not have a well-developed articulation in planning and in design, which results in conflicting ideas and meanings arising around them, and therefore the lack of a coherent rhetoric of urban design.

In a way, this makes social impact assessment a 'subjective' process – in the sense that it cannot be fully captured by rule-based propositions. Social impacts are assumptions – constructions that develop during the assessment process. Outlining the social impact assessment as a process of their design and construction therefore requires the highlighting of the capacity of designerly thinking (Janssens 2006; 2008) that can build up thoughts syncretically, combining disparate elements in one system, reconciling and fusing of differing types of thinking. Assumptions developed through such thinking are prospective in character and go beyond the generally accepted knowledge and expectations. They challenge daily reality and the common principles of general practices. This would entail social impact assessment developing a sensitivity not only to what is already familiar or known, but also to possibilities not yet recognised or discovered, and would mean opening up social impact assessment not only for the probable but also for the improbable or unexpected. Social impact assessment should therefore allow users to move beyond the familiar and accepted thinking patterns. It needs, as defined in Chapters 5

[45] The association *Sveriges Arkitekter* states: 'Architects propose carrying out an annual review of architectural policy, showing, by means of best practice and examples, how our society's development can be successively moved forward' (Sveriges Arkitekter 2009, p.7).

and 6, a space of possibilities[46]. As described by Janssens (2008), the tendency of designerly thinking to redefine and restructure problems requires a critical perspective that questions them.

Drawing an analogy to Janssens' writing about design (2006), assessment should not be reduced to polishing or fitting into existing situations, or as an uncritical instrument for problem solving. It should also be approached as a process that has the intrinsic capacity to redefine problems (questioning the question) by reading the implicit possibilities that surpass the explicitly given situation. 'Designing is actually focused on change, not on explaining, and thus it is in se an act of critical thinking' (Janssens 2008, p.207). As assessment should be. The benefits from the use of assessments can not only set the standard for best practice and become the measure used to describe a design's social performance, but it can also be critically involved with such standards. In my opinion, it is precisely this critical activity that the social impact assessment in urban design should stand more explicitly for.

One of the parts of the complex planning practice that is of significance for such an assessment is the designer (architect, landscape architect, urban designer). Although many of the municipal officers are educated and professionally experienced in these fields, I would argue that in assessing the social impact of a design, the knowledge and therefore participation of a designer who codes, in first sketches, the basis for the urban design proposals is crucial. Design is not an isolated activity carried out by the consultants. This chapter has shown that the social aspects on which the social impact is based are in a state of unsettlement. It has also been shown that political will pre-defines the social aspects to which the social impact assessment in planning should refer. The social reference point is either given or searched for.

Janssens (2012, p.43) calls urban planning an instrument for organising all the different stakes and stakeholders in both the societal and professional field, such that the predefined goal can be achieved. The lack of predefined goals in regard to the social perspective calls for urban design, and what Varkki calls the decision environment. 'Urban designers are not authors of the built environment; rather they create a decision environment that enables others to author the built environment. The invisible web that urban designers spin is the decision environment within which designers make design decisions: urban design involves manipulating and structuring this environment' (Varkki 1997, p.53). The assessment's role is to present a judgment. Judgement is the evalu-

[46] The same expression is used by Dahlbom (2002) but with a different meaning to the one this thesis gives to it; to name the world of latent possibilities that, so far, has not yet emerged - hidden by current ideologies.

ation of evidence in the making of a decision. It is worth arguing that it is a decision environment not only for designers to make design decisions, but also for politicians to make political decisions. It is the same decision environment from which different types of choices originate. The decision environment for authors therefore also has to be structured with knowledge about the designerly way of knowing and solving problems.

A gap can be identified here. As Jarvis (1980, p.24) noted as early as three decades ago, 'whereas architects will often describe the evolution of their designs, the complexities of urban design, which can involve a number of agencies over a long period of time, are rarely made public'. Yaneva (2005) who have done research on how architects imagine, see and define a distant object that is meant to become a building and how this process becomes knowable and real pointed out the fact that science and technology studies have not followed architects in their practice. The comment by Jarvis (1980, p.24) that 'in the absence of such information and an accompanying understanding, didactic programs for the urban design can at best provide only clues about the urban designers' concerns and working methods', remains relevant. Input into the work of the urban designer (as he says: the need for detailed plans, the powers available, the detailed data) and the output (the schemes regularly reported in periodicals) are described well, and frequently. However, the working methods, especially in regard to social concerns, remain unexplored and undocumented – a mysterious and impenetrable 'black box'.

Development of architectural designs in an architectural office is a complex non-linear process – an outcome of superimposing different types of knowledge, experiences, activities of architects, engineers, availability of software and technology, and use of samples of materials, types of drawing pens or even kinds of drawing paper. The production operates simultaneously with abstract and detailed layers of proposal, allowing designers to work simultaneously with principles and norms. Drawing an analogy to Yanevas' writing about a comprehensive dialogue of a designer with materiality and design (2006), social impact assessment, instead of being a logical, linear procedure for generating a new object that becomes progressively more knowable, ascending from the ethic to aesthetic of 'the urban' (the relationship between the social and built form aspects), is an iterative process, relying on returns.

It is the moving that brings 'the urban' into existence. By focusing on the most frequently repeated moves such as 'ethicising', 'aestheticising', and describing their cognitive implications, architects involve themselves in a comprehensive dialogue with 'the urban' and 'the social'. This dialogue has the status of an internal experience and takes into account configurations of meaning,

power, aspects and other properties that evolve correspondingly with the philosophical approach. It is after multiple transitions between the ethic and aesthetic of the relationship between the social and built form aspects, 'the urban' emerges. Designs are often rational in presentation and reductive in character. Being exposed to those not involved in the drafting process, they do not say how and what choices have been made, and therefore the arguments behind the final design, the synthesis, are often unspoken. How do architects imagine, see and define a distant complex design setting that is meant to become an aesthetically pleasing and socially sustainable urban environment? How does it become knowable, transmittable, and therefore also constructively and democratically negotiated? Is this process an active agent of architecture in urban planning processes?

3.4 Two lines of inquiry into social impact assessment

Social impact assessment in urban planning and design is considered to be a challenging and complex task due to the unsettled character of the social impact concept. 'The social' is unsettled but also the existence of social impact as such – the interdependences between the social and built form aspects – is widely believed, but equally widely discounted as unlikely. This state of unsettlement further challenges the development of social impact assessment, its techniques and methods. While the practice of social impact assessment appears from initial searches (Gregorowicz-Kipszak 2010) to be reasonably widespread, the actual tools and methods for such assessments are implicit and differ significantly as they are case specific. 'There is a need for better models to understand the casual linkages between biophysical, land-use, financial and subsequent social impacts' (Burdge 2003, p.84).

Social impact assessment must, therefore, develop an understanding of the impact pathways that are created when change in one domain triggers impacts across other domains (Vanclay 2003). There is a high degree of uncertainty in the assessments of social impacts (Boverket 2007) that lowers the reliability of social impact assessment and sets aside the social perspective.

In consideration of what has been discussed in the previous sections, it seems to me that the context of urban knowledge and the evolution towards transdiciplinary ways of working will have an important influence on changing views of 'the urban' and on the inherent concept of 'the social'. This inevitably needs to be reflected in the format of social impact assessment. The social sus-

tainability discourse and development of the practice of social impact assessment already addresses the fact that another way of accommodating the social aspects in planning is necessary. Studies and frameworks are being developed and put into practice with the idea of 'social perspective'. As Janssens (2012) points out, the sustainability discourse takes an essentially corrective stance – a reactive stance, as the thesis calls it – that is, it aims at mitigating, remedying and repairing the negative or plainly perverse effects of the currently embraced concept of 'the social' and mode of urban planning. Social impact assessment – traditionally deployed as a predictive measure to foresee and hence avoid or minimize unwanted impacts – takes, too, a corrective stance.

There is no doubt that a reactive approach is needed. Janssens states two reasons behind the corrective measure. First, there are urgent problems awaiting resolution. Second, intentions to correct, counteract or restore the city to a normal condition are a way of gradually accumulating and guiding thoughts and practices towards more profound change. In this context, taking an essentially corrective stance, social impact assessment looks upon urban design as a means against (something) in order to reduce its force or neutralise it.

However, it seems that social impact assessment needs to do more with urban design than applying corrective measures to the balance between the social and built form aspects that urban design develops. What is needed is therefore re-conceptualisation, contrary to the instrumental and regulatory approach in which many of the issues of social impact assessment that concern the relationship between the social and built form aspects are rooted. Incremental knowledge building needs a complement. A shift is needed, from collecting existing perspectives about the concept of 'the social' and ways of accommodating it in planning, into forming different concepts and ideas about the concept of 'the social' and ways of accommodating it in planning.

This chapter has presented the social perspective, and therefore social impacts, as characterised by a state of unsettlement. At the same time it has shown that urban planning practice calls for improved integration of the social perspective – the integration of 'unsettlement'. The integration of the state of unsettlement in the urban planning context will therefore be in focus. Two lines of inquiry will guide further exploration. One line concerns *the re-conceptualisation of social impact*, the other line concerns the development of *a way to re-conceptualise it in a form of assessment.* Chapter 5 will develop these two lines of inquiry. Firstly, however, Chapter 4 will present the prologue to the practice as experienced.

4. FRAMING THE OPALTORGET CASE

*

May 18, 2009, Gothenburg

'In one of the rooms of Tynnereds City District Administration, on a big screen, various scale drawings of the Opaltorget square and its surroundings, plans, images of digital and physical models are set up: there is going to be a mini-guided tour into the new square via electronic media; a design proposal is waiting to be discovered by invited participants.

Produced in various techniques, colours and scales, urban design drafts are maintained in a particular arrangement to code the whole process of architectural design – from aerial photos of context and inspirational conceptual images of a green valley to detailed sections. 'This is the Opaltorget design', says a representative of the City Planning Authority to everyone assembled in the meeting room as they view the colourful assemblage on the screen.

These images produced by the Danish architectural office BIG *Bjarke Ingels Group* illustrate different facets of the same concept; visualising new urban form and addressing some of the issues and possibilities that have been tested. No single starting point can be found that has triggered this drafting, this form(ing), a successive series of thin continuous marks, as made by a pen, pencil or brush applied to a surface. But this is not a chaotic assembly derived from the conception process. What we see on the different slides is diverse concentrations of models and plans, intensities of detail and drawing styles. Separated by scale and style intervals, they all form a network of points and passages presenting different vantage points on the same urban concept. They all expose (in these particular geometric shapes) a stabilised state of the Opaltorget project.

It was two months before this spring day that I made my first visit to the Tynnereds City District Administration to join the Opaltorget team and follow the members of *S2020 Opaltorget pilot project* discussions as they worked on this design draft.'

*

To be able to discuss the development of social impact assessment as a means of urban design, the contemporary situation in practice of urban development first has to be mapped and examined. At this point, therefore, practice takes the lead and delivers what this thesis calls a synchronic perspective on making places. At the same time, based on the licentiate thesis (Gregorowicz-Kipszak 2010), a ground is formed for design of the approach to the design of urban space and for defining the topic of enquiry.

This chapter presents an example of how issues involving social development and development of built form are handled in urban designs and planning assessment processes in Gothenburg, and how different stakeholders involved in urban planning and design approach assessment of design drafts and development of impact assumptions with a specific focus on the social perspective.

The process of *Renewal and development of the square at Opaltorget and its immediate surroundings* in Gothenburg is presented in two parts. The moment marking the division of the process into two elements is the presentation of a design proposal for the area – a basis for detailed planning. Section 4.1 therefore looks backward from this point and presents the development of Opaltorget in a historical planning context. Section 4.2 shows how the development is moved forward with the *S2020 Opaltorget pilot project* and presents the contributions in which it resulted. It is practice as it was experienced, meaning knowledge of the context and the narrative behind a particular urban design process and proposal was complemented by 'staying' in the planning setting for a while, confronting various enigmas related to urban design.

Section 4.3 involves making sense of social impact analysis in the planning process that frames the urban design. Section 4.4 derives some more specific urban design characteristics from this frame, suggesting that the composition of these characteristics into a mode of inquiry can re-conceptualise social impact assessment. Section 4.5 reframes analysis in the context of design and shifts the focus from analysis to assessment. This is a result of abstracting from the frame of questions (Table 2.2) and three entries (Figure 2.7) that concern re-conceptualisation of social impact assessment in urban design, thus bringing particular urban design aspects to an overall topic of enquiry. Finally, the chapter outlines three challenges identified in the practice of conveying 'making places' in social impact analyses of design drafts.

4.1 Historical planning context

Opaltorget is an isolated square located in a rocky valley in Tynnered, one of Gothenburg's former 21 administrative districts, included in 2011 in the administrative district of *Västra Göteborg* (Figures 4.1 and 4.2).

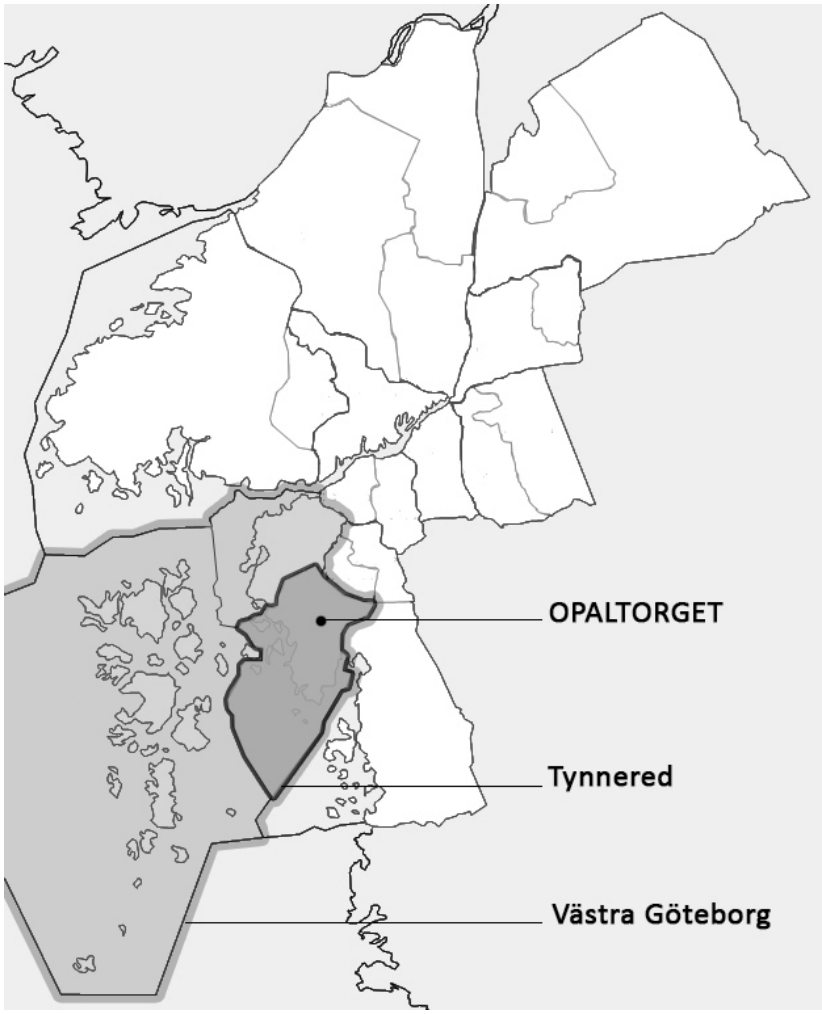


Figure 4.1: The square Opaltorget on the map of Gothenburg.

<<< **Figure 4.2:** The square Opaltorget from the air (SBK 2008). Reprinted with permission.

For Tynnered, with nearly 30,000 inhabitants, Opaltorget is a potential local centre and a reference point. The square Opaltorget was planned and designed in the early 1960s as a part of the *Södra Tynnered* development. Planned as a local centre, the square was to become the focal point of the mono-functional residential suburb built a year before implementation of the so-called Million Programme[47]. The project was completed in 1964, providing some 4,000 new apartments.

The design of the plan for the southern part of Tynnered (Södra Tynnered) was based on the concept of traffic separation, where the centre was not integrated in a streetscape. Vehicular traffic was arranged in such a way as to reach the area from the outside, allowing the tramway to run along the valley and introduce public transport to the heart of the new development. The vast majority of all new apartments were municipally owned from the outset. Of a total of more than 4,000, approximately 3.4%, remained in private hands. More than 60% were three and four room apartments, and the main interest in the area was therefore generated among families with children. The planned communal facilities were completed. A large number of people populated the newly developed homes. In 1970, young people below the age of 35 constituted around 70% of Tynnered's inhabitants (in 2010 it is less than 50%). Although initially the population of the area was economically and socially mixed, substantial migration tendencies appeared to be a noticeable fact just a few years later (Schulz 1972). Newly built areas of detached houses to the west of Tynnered and the Million Programme housing developments in the north of Gothenburg, in Angered and Bergsjön, offered new alternatives for climbing the property ladder. Even though the housing structure in Tynnered varied with different standards, tenure and forms of tenancy, most of the units were designed as entirely detached enclaves, with single modes dominating. The estimates in relation to car traffic intensity, customer base for small businesses in the centre around Opaltorget, number of garages and indoor spaces necessary for community life, together with the design of outdoor environments were immediately proven to be wrong. Reality did not match the idealistic image sketched by the visions of the proposed plan.

[47] *The Million Programme (the original Swedish language text reads:* 'Miljonprogrammet') is the common name for a housing programme implemented in Sweden between 1965 and 1975. The aim of the programme was to build a million new dwellings in a 10-year period to end the housing shortage caused by the post-war era rapid urbanization, growing prosperity and demands for higher housing standards and to make sure everyone could have a home at a reasonable price.

'Tynnered has shown clearly that a district is not ready simply through having housing ready' (Schulz 1972, p.14)[48].

Since physical environments lost, or never established, correspondence with their social contexts, radical refurbishments were needed. These started in the late 1980s and continued into the early 1990s. One year later, in 1991, the City District Committee Tynnered was created. Since then, several more initiatives have been instituted over the years to improve the physical environment around the square, which has always been regarded as desolate. In 1994, the first discussions on refurbishing the area were held. One year later, several housing units were renovated, together with numerous open spaces. Three years later the avenue – *Kastanjeallén* – was redesigned. All these changes, although improving the quality of life in the area, did not solve the major issues of outdoor space previously identified by the district. There was a considerable lack of public space. This was when the privately owned square Opaltorget came into focus.

The need to refurbish Opaltorget was recognised in 1997, and discussed by the City District Committee. An action plan was developed with phase one focusing on removal of graffiti and a general facelift of the square, and phase two on flower beds, lighting and walkways. A firm of architects was brought in to develop a design proposal. The local neighbourhood newspaper was used to inform and consult the inhabitants. In addition, information meetings were held. Nevertheless, only a small part of the planned refurbishment was carried out around the tram and bus stop, as the partners could not agree to share costs. This was the reason why the area and its development came to the fore once again in 2000. A group of researchers conducted a study of Opaltorget on behalf of the Research Council, *Byggforskningsrådet*. The work consisted of interviews, observations and studies of documents, and it resulted in the report *Opaltorget* written by Sören Olsson, Gerd Cruse Sondén and Marianne Ohlander; later also becoming part of a book (Olsson *et al.* 2004) on local squares and questions related to life, environment and activities. The report was presented in March 2001 and property owners, shopkeepers, public administrations, corporations and associations in the district were invited to contribute to the development process.

The tram loop at Opaltorget was subsequently rebuilt in 2000 due to the increasing amount of tram traffic. A new tramline was added in the autumn of 2001. The first three neighbourhood security tours were conducted in Tynnered, and Opaltorget was included. For the City District Committee Tynnered 2001

[48] *The original Swedish language text reads:* 'Tynnered visar tydligt att en stadsdel inte är färdig bara för att bostäderna är färdiga' (Schulz 1972, p.14).

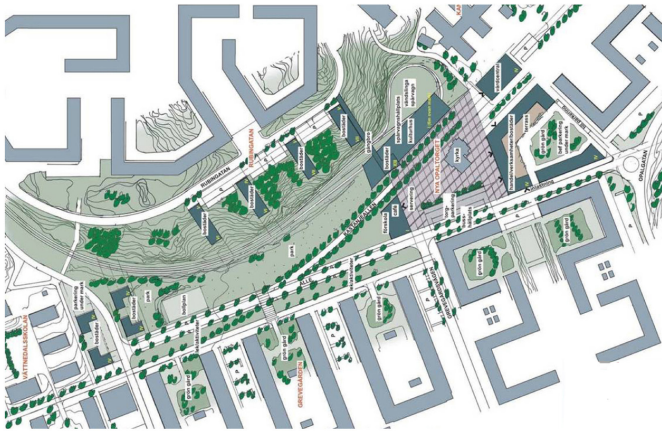
was rich in discussions on Opaltorget's future. The committee, together with other administrations and companies, wanted to be able to lead the development in such a way as to enhance security and improve the environment and well-being in relation to the square. A shift was observed: from the interests of the market to the interests of more socially friendly environments. The main question to answer was: What should the square be? When planning the brief for urban development began in 2003, the Opaltorget area became a priority and a project group was appointed by the management groups of the City Planning Authority and the Property Management Administration.

In autumn 2003, an architect was assigned to research problems and opportunities around the Opaltorget area and in spring 2004 a consultation was conducted where Tynnered residents were informed of the *Programme for Urban Development in Södra Tynnered* (PSS) with the opportunity to give comments. The programme was presented in September 2004 and exhibited for consultation during the period October 20 to December 15, 2004. The programme (SBK 2004; 2005) addressed the need for a vibrant public square in the area. Refurbishment of the Opaltorget section was argued to be significant in terms of the improvements in relation to clarity and urbanity that the square itself needed, but also because new buildings had to be constructed. The ambition of the programme was to add value to the area by improving security, providing more available housing with a greater choice, and raising the quality of the urban environment. Issues concerning better quality architecture and collaboration, new housing and activities, accessibility, the attractiveness of the square and residential pride were addressed. After consultation procedures, the Planning and Building Committee approved the programme in May 31, 2005 and further planning work was performed. In late 2005, November 29, the City Planning Authority received an assignment from the Planning and Building Committee to produce a detailed development plan for Opaltorget.

The City Planning Authority arranged a parallel assignment process on behalf of the Planning and Building Committee the parallel assignment was used as a tool to open up the difficult task of enabling a broad illumination of structural questions around Opaltorget. The *Programme for the Parallel Assignment* (PPU) (SBK 2006a) was prepared and completed one year later. The City Planning Authority invited three architectural offices (Arkitekturkompaniet SI AB, White Arkitekter AB and Liljewall Arkitekter AB) to work in parallel during the period June 15 to September 1, 2006 on the *draft proposals* (D) for the renewal and development of the square at Opaltorget and its immediate surroundings. As a result three draft proposals were presented (SBK 2006c) (Figure 4.3).


RUBINGATAN
RUBINGATAN:
65 LÄGENHETER
50 P-PLATSER
RADHUSEN:
18 LÄGENHETER
30 P-PLATSER
KYRKA
KULTORHUS
N

1


RUBINGATAN
ORVIGATAN

2

3

<<< **Figure 4.3:** Three draft proposals for the renewal and development of the square at Opaltorget and its immediate surroundings delivered within the parallel assignment by: 1) Arkitekturkompaniet SI AB, 2) Liljewall Arkitekter AB, and 3) White Arkitekter AB (SBK 2006). Reprinted with permission.

The PPU specified two groups of evaluation criteria: 'aspects of content' and 'aspects of urban planning and design'[49]. Moreover, the proposals were to be assessed in economic terms. The aim of the assessment team was to present recommendations to the Planning and Building Committee for the direction of the continuing planning work, based on the parallel tasks. Each proposal team was supposed to receive a written statement of how the assessment team felt that the proposals related to the following criteria: (aspects of content) function, flexibility, availability, security, design and feasibility; (aspects of urban planning and design) townscape, adaptation to existing settlements, links with the surroundings.

The assessment was carried out by an assessment team which included representatives from: the Planning and Building Committee, the Property Management Committee, the Traffic Committee, the City District Committee Tynnered, the City Planning Authority, the Property Management Administration, the Traffic and Public Transport Authority. Three reference groups provided the assessment team with their observations. The groups focused on: social, user and traffic issues. The assessment team and reference groups that were introduced to the process produced a short evaluation report. The official document *Evaluation of the Parallel Assignment* (U) (SBK 2006b) was published in October 2006. This document addressed the four main issues: 1) content and exploitation, 2) traffic, 3) square and its form, and 4) safety. These issues did not match those previously listed in the PPU. The evaluation document explained that since the purpose of the parallel assignment process was to 'deepen the knowledge' and formulate guidelines for the future work with the detailed development plan, and not to rank the proposals, the assessment text following the evaluation criteria specified in the PPU was regarded as formally rigid and less meaningful. Instead, an account on the basis of the assessment team discussions and views on the different parts of the question were presented.

Following completion of the parallel assignment, the proposals were not dealt with any further by the designers involved. Instead, in 2007 a Danish architectural firm called BIG *Bjarke Ingels Group* was commissioned to move the work forward and prepare a 4th project proposal for the area of Opaltorget, based on the same programme as that of the parallel tasks (Figure 4.4).

[49] *The original Swedish language text reads:* 'Innehållsmässiga aspekterna', 'Stadsbyggnadsmässiga aspekterna' (SBK 2006a).

SITUATIONPLAN 2

<<< **Figure 4.4:** Design draft for the area of Opaltorget by BIG *Bjarke Ingels Group* (BIG 2008) Reprinted with permission.

Since 2006 a number of evaluations of these four urban design projects have been performed by different practitioners and researchers. Additionally, the Planning and Building Committee expressed a desire for a freer and more interesting interpretation of it. The City Planning Authority wanted to see something different from the proposals that had already been submitted. In 2008 the *Description of the District Tynnered*, *Beskrivning av Stadsdelen* (BSD) (SBK 2008a) was produced as part of a comprehensive plan. At the same time, a decision was taken to locate a health care centre in the area. Other stakeholders located in the square expressed their interest in remaining at the square after a possible transformation. Financed by the public housing companies, BIG continued its work on the project design in cooperation with the City Planning Authority (SBK 2009b). In cooperation with BIG, the engineering and design consultancy Norconsult proceeded with the proposal on behalf of the City Planning Authority of Gothenburg. Two Norconsult teams were involved: the *Plan* team prepared the draft plan and the *Landscapes* team developed a quality programme for public areas. The detailed development plan (DP) (SBK 2009a) included the social impact assessment (the DP: Section *Social consequences*, *Sociala konsekvenser* in Swedish).

In October the project was presented to the Planning and Building Committee. It received a positive hearing and on October 20, 2009 the official decision was taken to continue work on it and to begin all public consultation procedures. The following day, one of the local newspapers published an online article (Skoog 2009) including initial images and project information. Journalists opened up a forum where readers could express opinions. Reactions were extreme: people either loved it or hated it. The consultation process started on November 4, 2009 and lasted for 6 weeks. Two consultation meetings were organised, one on November 16 and one on December 12, where representatives of different bodies (the City Planning Authority, the City District Committee, and the developers) presented the proposal to the general public and answered questions. In total, more than 100 people participated.

Official consultation statements were gathered by the City Planning Authority (53 in number, 30 of which were from private individuals). The detailed development plan was discussed in light of these statements.

The most powerful impact, however, had an analysis made by the Framtiden Group[50] (Förvaltnings AB Framtiden 2009), which resulted in the conclusion that any vision of a commercially active square was not relevant for Opaltorget. This argument was based on economic calculations which revealed that the customer base in the area was barely sufficient to support one local shop. The commercial orientation of the vision for the area was criticised as not fully relevant, the City Planning Authority decided to consider 'taking a step back' (Municipal Planner 2010). The need to perform additional analysis with more fundamental issues in focus was recognised. Instead of continuing with what were already detailed and advanced studies of solar exposure, noise etc., by BIG, more basic discussions became a priority. Motives for Opaltorget, other than commercial ones, became of interest, and attention was redirected to a basic stage of the concept development. The process stopped. The City Planning Authority went back to principal analysis.

4.2 S2020 Opaltorget pilot project

In 2007 the S2020 initiated a pilot study in relation to the redesign process for the Opaltorget square and its surroundings. As a feasibility study it was initiated to test ideas and gather information prior to S2020's wide-ranging development of support for the social dimension. The aim was to explore possibilities for improved integration of the social perspective into the urban planning and design, including architectural drafts in one specific case. The process for the redesign of the square Opaltorget and its surroundings was selected as it was the social problems that had motivated the design assignment. There was a general belief that it would be possible to partly resolve these problems by redesigning the physical environment. In 2008, a few of the S2020 network members joined the City District Committee Tynnered for discussions about the new design for the square. The plan was to provide the practitioners working on design and social issues with a more ongoing form of performance, and to study whether this 'continuous approach' – in contrast to a 'sporadic approach' – was working as well as it was assumed it would. The pilot project group consisted of representatives from the stakeholders

[50] The public property owner and housing corporation *Förvaltnings AB Framtiden* is wholly owned by the City of Gothenburg and the Group comprises 7 subsidiaries. Through the housing companies *Bostads AB Poseidon, Bostadsbolaget, Familjebostäder* and *Gårdstensbostäder,* the Framtiden Group manages approximately 70,000 apartments in Gothenburg.

that had already been working on the area and this project: the City District Committee, S2020, the City Planning Authority, the Property Management Company *Göteborgslokaler,* Chalmers University of Technology, the University of Gothenburg, the City of Gothenburg's Central Crime Prevention Council and others.

Designers were not present at any of the meetings. The project architect, BIG *Bjarke Ingels Group*, did not attend any pilot project group meetings. The office was represented by the City Planning Authority. Representatives of the Property Management Administration and the Traffic and Public Transport Authority were invited to join the pilot project. This group also participated in discussions with the City District Administration. There was no management structure within the group. All the partners to this initiative acted optimally to ensure that the strategic roles of the design proposal developed by BIG office were relevant for the local context; moreover that they were supported and understood in order to enable a coherent execution.

In February 2009, three months after the pilot project started, Olsson and Cruse Sondén (2009) distributed a document on *Planning and social questions*. It was based on: 1) S2020 remarks, 2) interviews with 11 officials with responsibility for managing planning issues from an equal number of district administrations, 3) three architects working at the City Planning Authority and 4) the individual authors' experience of working on social analysis gained in several planning processes. This document addressed three main questions: Who should be responsible for social aspects in planning processes? What content and form should they represent? How should planning processes be provided with this knowledge? In the light of these questions, the main stakeholders in the spatial planning process for Opaltorget were listed and their roles were illustrated. Three major groups were identified: the central and local administrations, and inhabitants. The unbalanced influence of the local and central administration on development processes and on design proposals was emphasised. Moreover, it was pointed out that both local and central administrations should become equally influential in planning processes. That is to say, where the question was raised, whether the City District Administration/the City District Committee – with its local commitment, contacts and knowledge – could take on a more active and influential role when producing new city plans. At the same time, forms of public participation were criticised regarding their formal procedural character. Meetings of the pilot project group were

held regularly (approximately once a month). They established a pilot project arena in response to the need for a project that was able to set a good example for future work on social aspects in relation to city building.

The intention was to monitor the development of BIG's project proposal and to reinforce and highlight the importance of discussions and the role of social aspects in the project formation phase. Throughout the process, the team was therefore following the development of the design draft and discussing the major decisions at stake. During meetings, the pilot project group members were informed about project progress, the development of the local development programme for the project area, and about other up-to-the-minute matters such as major events, exhibitions and public consultation meetings. Participants exchanged their perspectives on the developing proposal, following the previously distributed agenda. At no point of the process the group was in contact with the designers of the draft. On several occasions the representative of the City Planning Authority addressed the fact that the drafts were financed by the public housing companies and that they were the ones communicating with the designers. No modifications of the design draft were carried out during the meetings. How knowledge produced during the meetings was structured and communicated between the pilot project group, the City Planning Authority, the developers and designers at the BIG office was never clarified.

The design for the Opaltorget area was taking shape and at the same time the pilot project group was working actively. Beside the improvement in the design proposal, more specific objectives were equally important. The S2020 pilot work focused on social aspects in planning, specifically the routines through which the planning process could introduce knowledge significant to a development of a more socially embedded design project. The group's ambition was to find satisfactory forms of collaboration in relation to work on the ongoing detailed development plan – between local stakeholders, different levels of administration and the district's inhabitants. The group focused on the development of tools that could contribute to changes in the recognized situation. The bulk of the work was done in three main areas: development of local development programmes, experiments with new methods for public involvement and methods for social impact assessment.

Following the suggestions made by Olsson and Cruse Sondén (2009), a draft for a *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered, Lokalt utvecklingsprogram inom stadsbygg-*

nadsområdet för Opaltorgsområdet i Tynnered (LUP) was under development for nine months. Sören Olsson was given the responsibility for coordinating this assignment. The intention of the pilot project group was to produce a tool based on: 1) the skills and interests of the residents, and 2) the knowledge base concerning the social situation that was present within the local administration. It was felt that production of a dynamic document was a useful instrument for the development of programmes for the specific interest groups for which the City District Administrations have particular responsibility – children, young people, the elderly and the disabled. In this way a framework could be provided, and subsequently applied, to formulate group-oriented programmes – children's perspective, youth perspective, etc. What was crucial, however, was the creation of a general district programme covering development conditions comprehensively, not sourcing from or representing a perspective for any chosen group. Furthermore, this programme could also be used as a basis for dialogues with organisations and communities when discussing ongoing developments. Hence, it was recognised that it was essential to include the following needs: a) needs related to housing for different social groups b) accommodation requirements for various activities, c) district needs regarding public spaces d) traffic needs e) the district as part of the whole city. Meanwhile, based on the LUP and its version for the area of Opaltorget in Tynnered (SDF Tynnered 2009a), the City District Committee prepared a *reference document* (RS) (SDF Tynnered 2009c). This was sent to the City Planning Authority on December 7, 2009. The Planning and Building Committee observed that the document differed from those traditionally produced.

In parallel with the work on the development of the LUP, an experimental method for public participation was developed and tested. This was called *model walks*. Gerd Cruse Sondén took on the responsibility of being the coordinator. The idea of the 'model walks' was based on conducting imaginative walks through the newly-designed Opaltorget area, with the use of a physical model and designs delivered by the City Planning Authority and BIG. Several user profiles were discussed, chosen and later described. On October 28, 2009 a meeting between practitioners working on the development of the project proposal and the general public was organised. The purpose of this meeting was to collect comments and suggestions regarding the design exhibited for the Opaltorget area. The participants represented different backgrounds and age groups. 9 groups were randomly created out of 17 participants. Each group was assigned to discuss the

design from a specifically described angle. The workshop was divided into three main phases. In the first one, the groups worked individually using maps and the physical 3D model. The idea of having assigned roles and perspectives was aimed at changing the way individuals looked at and analysed the proposal. In the second stage, the groups were put into pairs to exchange major concerns and to provoke cross-perspective discussions. The third stage was based on a presentation for all participants and an open discussion. The *model walks* experiment was perceived as stimulating and enjoyable. A large number of design suggestions emerged and were further documented in a final report (SDF Tynnered 2009b). All participants received this via email.

The third area of work suggested by Olsson and Cruse Sondén (2009) was a procedure called *Descriptions of Social Consequences*, *Sociala konsekvensbeskrivningar* (SKB). In contrast to a LUP that expresses desires for which plans and projects should be implemented, SKBs descriptions of social consequences are derived from a specific project proposal. So, for example, while the LUP addresses a wish for an active public space, the SKB describes the anticipated 'activeness' generated by a particular design for a public space. Authors thus defined descriptions of social consequences as 'the analysis of plans and programmes focusing on the consequences which the planned environment might have on social life in the broadest sense. They originate from the existence of some form of a plan proposal, while the programmes mentioned above express wishes about what should be planned for' (Olsson & Cruse Sondén 2009, p.5). They also addressed the availability of 'guides' helpful in analysing and describing public spaces and residential environments, stressing at the same time that there is a requirement for the assessors to be familiar with both the issues and impact studies.

4.3 Making sense of social impact analysis

More than 40 years of endeavouring to make improvements in urban conditions in the Opaltorget area have been described in order to reflect on how and when in the course of the planning process the practitioners and researchers have challenged the introduction of social aspects into the practice of place-making. Many analyses were produced within the framework of the

process of *Renewal and development of the square at Opaltorget and its immediate surroundings*[51]. There were specific moments in the development process when particular analyses were made to present assumptions about relationships between the social and built form aspects. At some points in time the social issues were strongly and officially addressed in a form of analysis. They were aimed either at *understanding, convincing or error-finding*. For example, the *Evaluation of the Parallel Assignment* (U) (SBK 2006b) was mainly descriptive in relation to the design draft, serving as a map to understand possible consequences. Social issues and/or their involvement with the materiality of the built environment were described in order to give an account or representation of it in words. The evaluation of the detailed development plan (SBK 2009a) was legitimising in character, as it provided a rationale to make the design draft acceptable. The SKB (SDF Tynnered 2010) as such showed a tendency to find and call attention to errors and flaws in the design draft. Thus, depending on when in the detailed planning process the social issues were introduced, results were of a different character: descriptive, legitimising or critical/corrective (Gregorowicz-Kipszak 2010; WSP Samhällsbyggnad 2010). The three types of results jointly put emphasis on guiding and controlling the design draft. Such analyses prioritise development of the design draft itself over development of the urban design context. Such an emphasis results in knowledge of the social issues in relation to the design draft, not 'by' design and involvement with urban design(ing) and knowledge about it. The assessment role has consequently proven to be much more than controlling or guiding design drafts with regard to the pre-defined social aspects of the urban design. The assessment has the potential to *engage critically* with such conditions.

Figure 4.5 organises some of the documents produced within the process of *Renewal and development of the square at Opaltorget and its immediate surroundings*. Individual documents represent urban space. When set together, they represent the process of design and communicate changes in representations of urban space.

[51] Assessments of urban design drafts in the form of assumptions enclosed in planning documents produced within the process of *Renewal and development of the square at Opaltorget and its immediate surroundings* together with their planning context, were initially studied (Gregorowicz-Kipszak 2010). Since 2006 several evaluations of four urban design drafts were performed by different practitioners and researchers: 1) by the City Planning Authority: *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Utvärdering av parallella uppdrag*, (October 2006); 2) by GF Konsult AB: *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Beskrivning och kommentarer till BIGs förslag mars 2007* (August 16, 2007); 3) by Gerd Cruse Sondén, Tryggare och Mänskligare Göteborg: *Analys av trygghetsaspekter mm. i de tre parallella uppdragen för förnyelse av Opaltorget och dess närmaste omgivningar hösten 2006, med tillägg för BIG våren 2007*; 4). by Sören Olsson: *Social analys det danska förslaget för Opaltorget*, (October 2007); 5) by Claes Caldenby, the Department of Architecture, Chalmers: *Synpunkter på arkitektförslagen, främst BIGs*. Finally, comments from all of them were gathered under the City Planning Authority's umbrella document (SBK 2008b): *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Kontorets sammanfattande omdöme med rekommendationer för det fortsatta arbetet.*

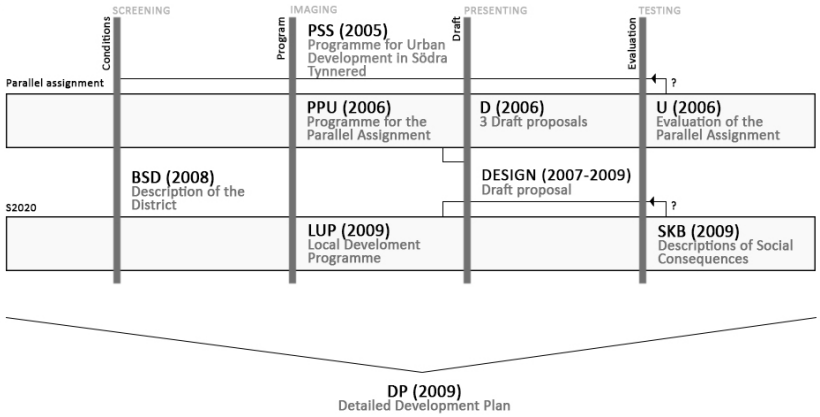


Figure 4.5: An arrangement of chosen urban design documents produced within the process of *Renewal and development of the square at Opaltorget and its closest surroundings*. Harnessed together the documents provide a record of a part of the process of urban design and its component activities. Concomitantly, the figure informs about design of this part of the process.

Documents with assessment analyses of design drafts are placed among other urban design documents, in a context of urban design process. Specific analyses are to be seen not only as distinct elements but also as parts of a broader urban design process (e.g. the U and SKB). It is important to see each component as both element *of* the process and element *for* the process. Individual analyses have a role not only for development of a design draft itself but also for other elements (activities, or planning documents) of the urban design process. They have an important role for feedback loops that involve informing, validating, revising or counteracting other urban design documents and/or steps in the process, for instance, development programme LUP, or context descriptions BSD that provide different bases against which to evaluate design drafts. Feedback loops are also important for the bases as such. Different documents, for instance the development programmes PSS, PPU, LUP, also relate, and can inform, validate, revise or counteract each other. Moreover, each of the individual urban design documents is subject to individual internal loops, addressing the ongoing development. All these loops constitute a base for a multipurpose urban design analysis system – an assessment – where analyses are seen as an integral part of urban design and each of its components.

For the discussion about development of social impact assessment this would imply a shift from 1) the momentary instrumental role of performed assessments (where analyses of designs are seen as distinct and isolated parts

of the process, errands with exact positions in a sequence of actions) to 2) the reflective role of such assessments (where analyses of designs are seen as component parts and emphasize interrelationships with other documents and actions).

Such a shift – from an assessment being an instrumental analysis of urban design into an assessment being a reflective way of thinking through urban design – requires new routines for continuous knowledge introduction and development.

4.4 Reframing analysis in the context of design

Section 4.3 reveals the necessary change of focus: from a social impact analysis to social impact assessment, a scheme developing/connecting individual analyses. This entails blurring the inter-document boundaries.

One of the reasons behind the *S2020 Opaltorget pilot project* was a major need for a project that could set a good example for further work on social aspects in relation to urban design. In the process, new tools and documents with importance for urban planning and design were drafted. The products can be considered as crucial for further progress in work that seeks to improve incorporation of social aspects in design and planning. Representation of the urban space is an integral part of all the planning documents that are part of urban design process. The documents together create an assemblage (Figure 4.6).

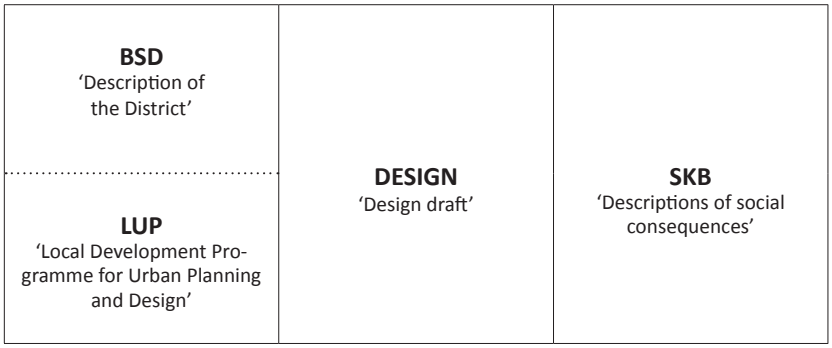


Figure 4.6: An assemblage of new tools and documents with importance for urban planning and design: the basis for conceptual modelling.

The assemblage illuminates the individual representations of the urban space and addresses their coming together. The individual representations of urban

space (the BSD, LUP, and SKB) have different character, as they serve as means of expressing different contexts, and their different realities. The entire assemblage is an evidence of someone's intent to change urban space. It is a record of urban design.

When change of the urban space is being considered it becomes important to be able to bring forward and express a notion of the existing urban space, and its issues and different realities, as well as start to work towards ideas for the future urban space. This results in a number of stakeholders coming together and trying to communicate their concerns. Understandable and open to evaluation representations of urban space and the communication of urban design and change of urban space are important tools that can influence decision-making in urban design.

Building an analogy to the design communications model by Bosselmann (1998, p.202) (Figure 4.7), the BSD and LUP present the reality of place (the concrete and experienced context) that is twofold and includes representation of reality (the real) and representation of proposed change (the envisioned). Both are a prefigured basis for arguments opposing and proposing change in a discussion about future reality and new context (the SKB).

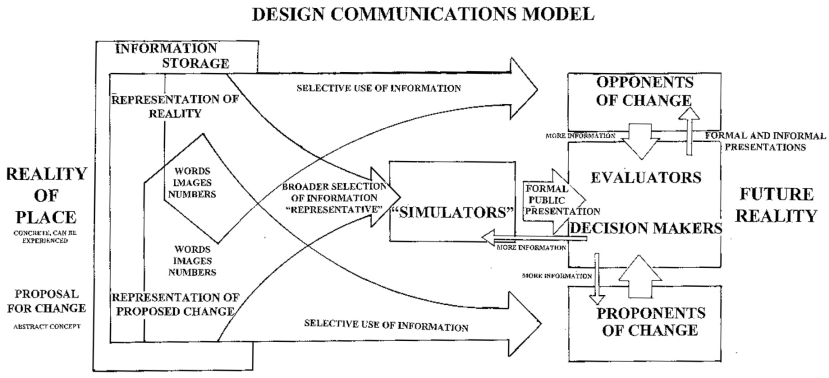


Figure 4.7: *Design communications model* (Bosselmann 1998, p.202). Reprinted with permission.

The concrete and experienced reality of place is dominant, but there is also the proposal for change – the abstract concept – that renders, I argue, the latent context and related realities and includes representation of proposal

for change (the real) and representation of proposed change (the envisioned). The proposal for change and abstract concept plays the same role in a discussion about future reality and new context (the SKB) as the reality of place and concrete and experienced context.

Representations of the urban space enclosed in the planning documents BSD, LUP, the design draft and the SKB, differ significantly in terms of ways of addressing urban space and in terms of their professional involvement with urban design and the city. Nevertheless, all these documents are concerned with development of the same place. How they meet each other in their individual discourses on urban space influences the rhetoric of urban design.

Previous studies of the relationship between the PPU, design drafts and evaluations (Gregorowicz-Kipszak 2010, p.82) show that the usage and understanding of the concepts of urban space and the design of urban space differ, and result in a fragmented discussion on change (an issue also addressed by architects and planners; Chapter 3, Section 3.3.1). The thesis suggests that a common approach is needed to further develop the tools of LUP and SKB and to challenge fragmentation of the process of *Renewal and development of the square at Opaltorget and its immediate surroundings*.

To confront individual representations of urban spaces and the representation of change in urban spaces, a move towards a more integrated concept of design of urban space is necessary. It would mean providing an understanding of the concept of design of urban space for the process of urban design, and for its constituent elements (e.g. Figure 4.5) – an understanding that could also be shared and developed by other parties with an interest in design of urban space. Such an approach is needed in order to communicate changes in the urban space (Figure 4.7) – the main issue of interest for evaluations. Figure 4.8 shows representations of urban space, relationships between the social and build form aspects, in different planning documents, with focus on different contexts and realities, that could utilise a concept of design of urban space – a dynamic conception which simultaneously accommodates constant change and embeddedness, and that can be used and understood by monitoring the way urban space is being made and remade at the intersection of urban design process and assessment. Enclosing the discussion about particular urban design characteristics – knowledge, design process, urban space, different context and realities – within a concept of *design of urban space*, and making it into a mode of inquiry, can re-conceptualise social impact assessment.

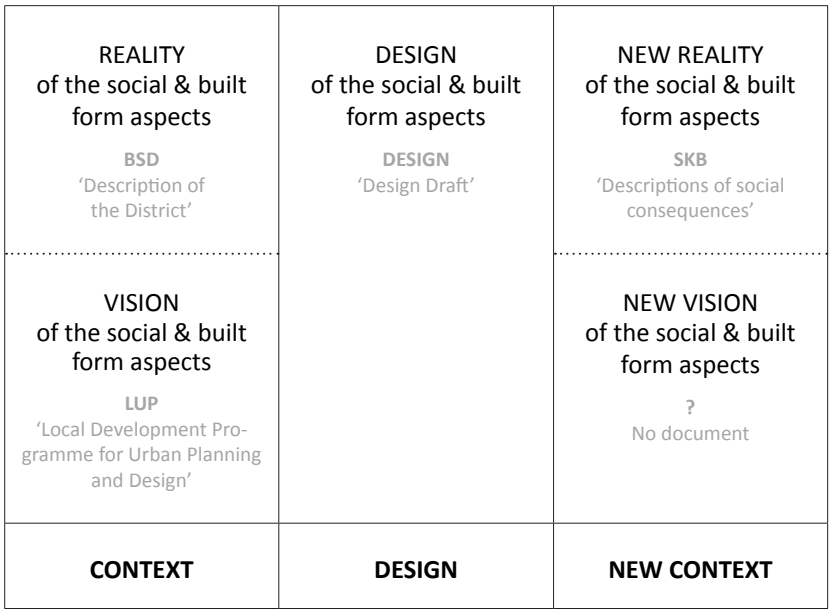


Figure 4.8: Representations of urban space (relationships between the social and built form aspects) in different planning documents, with focus on different contexts and realities.

4.5 From analysis to assessment: Abstracting from the case

All planning documents, research reports, analysis, context descriptions, urban briefs, design drafts and evaluations summarise certain stages in the development process and serve today as a planning record of development tendencies in the area. The first important thing to be aware of is the fact that each of these documents presents the urban space– a set of relationships constructed by the *socio* and *form* aspects (Figure 4.9).

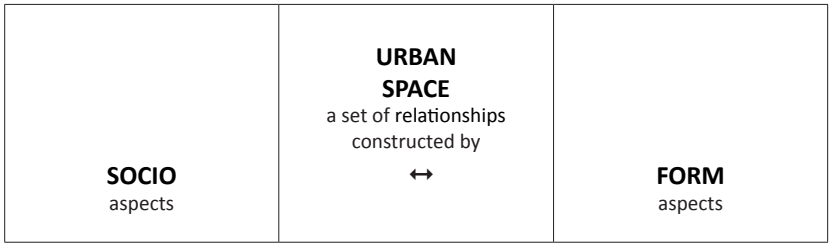


Figure 4.9: Urban space: a set.

They address specific selected relationships and issues related to the *socio* and *form*, and are therefore based on judgments, decisions on their value, quality or importance. They are, one could say, implicitly based on an assessment. Secondly, urban spaces that are addressed represent either the context of such relationships, the conditions and circumstances relevant at the moment, or, what the thesis calls, 'the new context', meaning the assumed 'new' urban space, viewed from a perspective 'after' change. Urban space is presented in different contexts (Figure 4.10).

Urban space in **CONTEXT**	Urban space in **DESIGN**	Urban space in assumed **NEW CONTEXT**

Figure 4.10: Urban space in different contexts.

Finally, in the third place, it has to be considered that both the context, the concept, and 'the new context' contain the descriptions of urban space both as it is, and as it is desired, meaning the real and the envisioned urban space – a set of relationships constructed by the *socio* and *form* aspects. Urban space is presented in different realities (Figure 4.11).

Urban space in CONTEXT as **REALITY & VISION**	Urban space in DESIGN	Urban space in assumed NEW CONTEXT as **REALITY & VISION**

Figure 4.11: Urban space in different realities.

In the *S2020 Opaltorget pilot project* the design was positioned centrally. Many types of social impact analysis can be performed in relation to the same design. They can be opposing or proposing in character, adopting positions for or against the project. Jointly they represent social impact assessment through urban design (Figure 4.12).

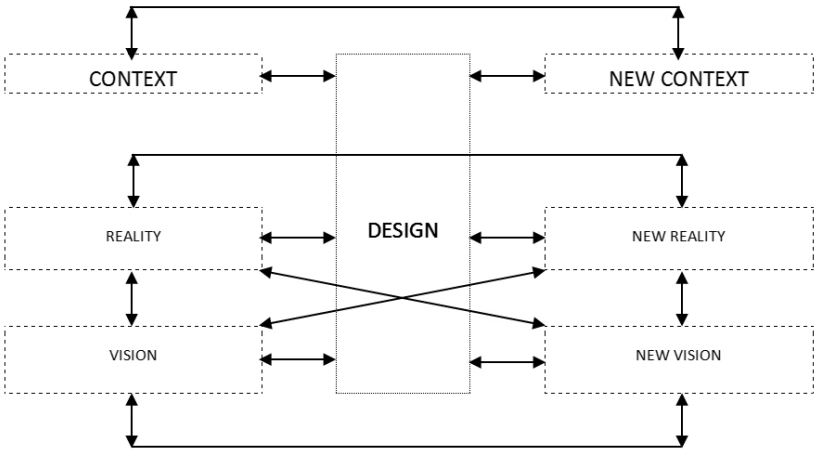


Figure 4.12: Social impact assessment through urban design. A social impact analysis (represented by an arrow) in the context of social impact assessment (represented the whole scheme). The pointing heads address different power perspectives and suggest the opposing and proposing character of analyses of change in a representation of urban space: a set of relationships constructed by the *socio* and *form*. The figure shows that the bases against which to evaluate are many, as representations of urban space are diverse (e.g. grounded in the different contexts and realities). This is reflected in a number of possible social impact analyses. All these possible social impact analyses are therefore to be jointly embedded in the process of social impact assessment.

The suggestion is therefore made here that in urban design the social impact assessment should be given a wider meaning. Instead of being regarded as an analysis, it should be considered an ongoing process, which operates at different stages of the urban design process with different tools producing many analysis that, although diverse in character, share the same approach to the matter of social impact in urban design. This addresses a significant difference between social impact assessment and analysis of social impacts, showing the need to see and construct every analysis as a part of a larger assessment process. Power relationships between analysis and assessment need to be emphasised. This means balancing the perspective on assessment as an additive or summative process, i.e. produced by summation of individual social impact analyses, with the perspective on assessment as a process that is formative in determining individual social impact analyses.

4.6 Reflections

This chapter framed the *Opaltorget case* and presented an example of how issues involving social development and development of built form are handled in urban designs and planning assessment processes in Gothenburg, and how different stakeholders involved in urban planning and design approach assessment of design drafts and development of impact assumptions with a specific focus on the social perspective. Challenges that are identified in the practice of conveying 'making places' in social impact analyses of design drafts are associated with: 1) representing urban space as a set of relationships between the *socio* and *form* aspects, 2) conveying the architectural and design nature of the process of urban design in construction of relationships between the *socio* and *form*, and 3) usability for learning and action, as well as improved coherency within urban design process. The solutions to these challenges are complex but addressing them through design of the approach to the design of urban space, the *SOCIO–FORM approach,* has the potential to positively impact development of social impact assessment in urban planning and design.

The outline of the practice of urban design and social impact assessment, and development of a composition of urban design characteristics into a mode of inquiry that is meant for re-conceptualisation of social impact assessment, created a background for further discussion on both *the character of assumptions* about specific architectural urban designs and *the ways of developing those assumptions*. This background is an aid in viewing and positioning selected pieces of empirical material used in Chapter 5 as deriving from a big picture and that needs to be known in advance in order to follow the further analysis and discussion. Consequently, Chapter 5 reveals *the character of assumptions* and the understanding of concepts of *social impact* that are currently applied, and *ways of developing those assumptions*, and concomitantly, the understanding of concept of *social impact assessment*.

5. RE-CONCEPTUALISATION OF SOCIAL IMPACT ASSESSMENT

Although it evolved in the international planning movement, what is today called urban planning has fashioned distinctive planning systems. The context-specific local interpretations and adaptations of these systems have had a major influence on concepts and the practice of contemporary urban design believed to be about 'making places'. In the previous chapter, the epistemological potential of social impact assessment was discussed. This chapter specifies the epistemic role of urban design in the process of re-conceptualising social impact assessment.

Chapter 5 presents an analysis of the empirical material in the context of re-conceptualisation of social impact assessment within urban design. This chapter is framed in three parts. The parts are organised into two lines of inquiry: the *subject for social impact assessment* (Sections 5.1 and 5.2) and the *process of social impact assessment* (Section 5.3) in urban design. Section 5.1 re-conceptualises the notion of *social* for social impact assessment in urban design. Section 5.2 re-conceptualises the notion of *impact* for social impact assessment in urban design. Section 5.3 conceptualises the notion of *assessment* for social impact assessment in urban design. Social (Section 5.1) impact (Section 5.2) assessment (Section 5.3) is discussed in the context of a conceptual and diachronic perspective on making places, and further confronted with a synchronic perspective. A number of diachronic insights into the phenomenon are provided as it has changed over time, and dynamic, ongoing developments in the field are presented. This is supplemented with synchronic insights into the phenomena, reflecting on a particular period without considering historical antecedents, and focusing on the Swedish context with an example from Gothenburg.

Chapter 5 concludes that the transversality of social impact assessment in urban design has to be improved, through signifying the *subject for* design (urban space), the *process of* its design, and the production of knowledge about it (the *subject matter of* design).

5.1 Re-conceptualisation of SOCIAL

Section 5.1 is mainly an elaboration of the context of urban design in which the problem of the *social* aspect is positioned, seen from the requirement of assessment. To start with, the interdependence and mutual development of both city and citizens are briefly presented as the scope of urban design. A view of the city as a synthesis of the *socio* and *form* representing the currently developing making places tradition in urban design is outlined. In contrast to this tradition, the growing presence of the social impact assessment which aims at dismantling and unraveling the *socio* and *form* of place is addressed.

Arguments behind the growing interest in the dismantling perspective were outlined in Chapter 3, with the focus on the Swedish urban planning context. To an important degree, this issue then involved revising the present understanding given to the *socio* and *form* with regard to urban design in the contemporary practice of social impact assessment. The thesis uses the *Opaltorget case* to show that the uncertainties surrounding the subject matter of the *socio* and *form* in relation to urban design risks them being still inconsistently embedded into designs, plans and decision-making processes.

How different urban planning and design stakeholders define and handle the social aspect of urban space, i.e. synchronic perspective, is presented and examined in the context of a conceptual and diachronic perspective on making places in order to enhance the understanding of what this implies in respect of advancing social impact assessment conceptually and methodologically within the field urban design, across the topologically different aspects that urban design entails.

The intention is to emphasize a critical conceptual and diachronic urban design perspective on 'the social'. From this perspective, then, it seems rather plausible to assume that an urban design-based notion of 'the social' could contribute meaningfully when planning and design judgments are formed. Section 5.1 therefore ends with the presentation of a dimensional understanding of urban design theory and practice developed by Carmona *et al.* (2003). This dimensional understanding will in addition provide a comprehensive framework for discussions on the complex subject of the city with its social and built form aspects, with the aim of re-conceptualising the definition of 'the social' for the purpose of further discussion about the social impact in the context of urban design (Section 5.2).

5.1.1 Synthesising urban design versus dismantling assessment

> 'Two broad traditions of urban design thought stem from different ways of appreciating design and the products of the design process. In his paper 'Urban Environments as Visual Art or Social Settings', Bob Jarvis (1980) discussed this distinction in terms of a 'visual-artistic' tradition emphasizing the visual qualities of buildings and space, and 'social usage' tradition primarily concerned with the social qualities of people, places and activities. In recent years, the two have become synthesized into a third, 'making places' tradition.' (Carmona *et al.* 2003, p.6)

Urban design is both a significant and a contentious concept. The opening quotation from the book *Public places – urban spaces: the dimensions of urban design* (Carmona *et al*. 2003) suggests that what urban design strives for today is a synthesis of 'the aesthetical' and 'the social', likewise, this is what constantly developing cities do. The practice of urban design understood as 'place making' combines into a coherent whole the 'visual-artistic' tradition emphasising the visual qualities of buildings and space, and the 'social usage' tradition concerned with the social qualities of people, places and activities. In essence, understanding social impact assessment as a practice of how to make places requires consideration of the holistic nature of urban design. Providing the practice of social impact assessment with such an understanding could boost the resilience of place making and offer resistance to place management as marketing which is rapidly developing.

What does the making places tradition mean for the practice of urban design? How does urban design and the architectural products of urban design processes through the practice of 'making places' reconcile the objective and rational idea of 'the social', and the subjective or even irrational idea of 'the aesthetic'?

As presented in Chapters 3 and 4, social impact assessment in urban design processes is being increasingly promoted, and there is unprecedented and increasing demand from the public sector for practitioners with social impact assessment expertise. Its contemporary role is to review social impacts, where 'the social', although unsettled, is very much highlighted and elevated. Through stratifying 'the social' from 'the urban', which is a distinctive feature of today's discussion about the city, the city/urban is broken up and its fragments tend to become isolated and highly developed entities. This isolation encourages more disciplinary focus than would otherwise be the case. Developing an opposing force to create a new sort of unity is the main issue. The principal challenge for urban design and development, but also for social impact assessment, is to produce coordination between the components of the dissolving city, coor-

dination that moves beyond accretion. Taken separately, 'the social' results in fragmentation of a joint construction of 'the urban' and shifts the focus onto social variables. The origin of variables, the point at which they come into existence or from which they derive, is therefore one of the most important questions when approaching the social impact assessment in urban design. The issues of 'the social' *for* or 'the social' *through* urban design need to interrelate. It is the interrelation that the social impact assessment in urban design should convey, through a critical approach.

In conclusion, it needs to be pointed out that urban design strives for synthesis at the same time as assessment of social impacts focuses on dismantling, as it takes urban design and its products apart into its constituent 'social' and 'visual-artistic' pieces. Development of social impact assessment in urban design will have to exhibit these apparently contradictory characteristics and confront this inconsistency. Therefore, 'the social' through which the urban design is discussed in the assessment process demands cognizance of and sensitivity to an understanding of 'the social' deriving from the field of urban design. Social impact assessment in the process of urban design must be viewed as a map of a synthesis where dismantling is done to restore coherence.

5.1.2 Synchronic perspective on urban design

So far, the social issues – the *socio* reference point – have been presented in a general context as unsettled. On top of that, in the context of urban design, the issue of its possible origin was addressed. In this section the *Opaltorget case* in the context of Gothenburg is used to obtain a contemporary view of 'the social' related to urban design, and deliver a perspective on criteria that it is possible to compare the results against in the social impact analysis. This is done based on the investigation of the social issues and ways in which they are addressed in the assessment analyses of urban designs related to redevelopment of Opaltorget. Which aspects construct the subject for assessment and process of forming judgments? What issues are associated with the *socio* aspect in assessing the social impacts of architectural urban design drafts? What are the perspectives on the *socio* that assessments transmit and who delivers them?

SOCIO: a fuzzy issue

Considering the fact that urban design involves many professions and a number of urban planning and design stakeholders, the *socio* established through accumulation of different perspectives is inherently fuzzy and often requires a case-specific re-conceptualisation, and concomitantly, explicit communication

and dissemination. This situation results in the need to map the roles of the stakeholders involved and redefine their presumption about each other's abilities and means of action. As a municipal planner states (Municipal Planner 2009): 'It is important to identify what we can easily influence and put this into action. Because now, one can sense (...) that we have been given a fairly substantial role, a greater role than we had, a greater importance than we had, especially with regard to what it is that we can influence.' This shows that in order to try to cope with oversized and 'over-field' demands it is necessary to become critically involved with that oversize. Politicians make demands on planners, planners make demands on designers. Discussion of the humble, modest roles that show a moderate estimation of one's own abilities seems to be a crucial starting point for the urban design's 'definition' of the *socio*. The *S2020 Opaltorget pilot project* project was an example of a process where a working group, with representatives from the City Planning Authority, the City District Administration, the Administration for allocation of social welfare, researchers and architects representing different departments of the City of Gothenburg experienced difficulties in discussing 'the *socio*'. During the meetings of the *S2020 Opatorget pilot project* group and in the planning material related to the process of the *Renewal and development of the square at Opaltorget and its closest surroundings* (for detailed descriptions and references see Gregorowicz-Kipszak 2010), there was frequently a diversity of words and expressions in use to declare the societal concerns: 'social development', 'societal development', 'social aspects', 'social issues', 'social qualities', 'social perspective', 'social questions', 'social dimension' and 'social factors'[52]. At the same time, both the public administration and consultancy companies devel-

[52] 'S2020 will enable the *social perspective* to be included in social planning' (SDF Tynnered 2009c, p.3); 'The forms of work for S2020's participation in the planning work must be intensified in order to develop the *social aspects* in urban planning' (SDF Tynnered 2009c, p.3); 'The aim [of S2020] is to bolster the *social dimension* in the ordinary planning processes, and to contribute new knowledge through research and practice' (SRF 2012, p.6); '(...) a basis for continued work on how *social perspectives* can be formulated linked to detailed development plans' (SDF Tynnered 2010, p.1); 'In line with the *social dimension's* increased importance, and the criticism that has been conveyed with respect to the handling of this dimension, the requirements and interest in *social issues* in the planning has nevertheless increased appreciably' (WSP Samhällsbyggnad 2010, p.10). *The original Swedish language texts read:* 'Genom S2020 ska det *sociala perspektivet* finnas med i samhällsplaneringen' (SDF Tynnered 2009c, p.3); 'Arbetsformerna för S2020:s delaktighet i planarbetet ska intensifieras för att utveckla de *sociala aspekterna* vid stadsplanering' (SDF Tynnered 2009c, p.3); 'Syftet [med S2020] är att förstärka den *sociala dimensionen* i de ordinarie plan- och planeringsprocesserna samt bidra med ny kunskap via forskning och praktik' (SRF 2012, p.6); '(...) en utgångspunkt för fortsatt arbete med hur *sociala perspektiv* kan formuleras kopplat till detaljplaner' (SDF Tynnered 2010, p.1); 'I takt med den *sociala dimensionens* ökade betydelse samt den kritik som forts fram med avseende på hanteringen av denna dimension har kraven och intresset för *sociala frågor* i planeringen ändå ökat märkbart' (WSP Samhällsbyggnad 2010, p.10).

op and operate with reference frameworks describing the *socio*[53] (Chapter 3; Gregorowicz-Kipszak 2010). From the growing presence and great variety of ideas about the *socio*, it may be concluded that it is seen in various ways and addresses various aspects of reality. It is a multidimensional and multi-scale issue with diverse interpretations and depends on the fact that '(…) all plans and programmes have different character, different levels of detail, and are in different geographical places in town that have different prerequisites and prior conditions' (Municipal Planner 2009).

The fuzziness of the *socio*, although allowing the diversity of perspectives to be highlighted, results in a general problem: all stakeholders involved in urban planning and design potentially have difficulties when analysing the urban context, formulating demands for improvements, designing – all necessary for social impact assessment processes. This may further influence communication between the different stakeholders involved.

SOCIO: a tendency issue

The document studies conducted of the evaluations and descriptions of social consequence made it apparent that there was a general tendency to frequently represent the *socio* with tendentious expressions: e.g. 'good meeting places', 'safe environments', 'pleasant environments', 'welcoming environments', 'mixed urban environments', 'accessible squares'. The following extract shows that it is not always apparent how a specific design conveys these concepts, an example of this being 'safe' or 'good': 'Switching between bus and tram happens in the safe, collective environment of a stop. The park and the Kastanjeallén is refurbished and reshaped for a good overview, safety and security, and with good meeting places. It is a place for all ages' (SBK 2009a, p.30)[54].

---

[53] The publication *Stadsbyggnadskvaliteter Göteborg* (SBK 2008d) presents the view at 'humans in the city' in three categories: 'Integration', 'Everyday life', 'Public health'. Description of social consequences of *the comprehensive plan* (SBK 2009c) uses the following categories: 'Work and living support', 'Housing', 'Participation and influence in society', 'Safety', 'Physical activity', 'Life environment', 'Disturbance from traffic'. The City Executive Office addresses societal development as follows: 'Work and making a living', 'Training', 'Housing', 'Health', 'Democracy and participation', 'Security and criminality' (SK 2009b). The publication about *integration of social aspects in spatial planning* (WSP Samhällsbyggnad 2010) uses the following categories to describe the aspects of social quality: 'Security and safety', 'Equality and integration', 'Democracy and participation', 'Possibility of making a living', 'Good travel links', 'A good living environment', 'Good access to services', 'A meaningful leisure time', 'Good health', 'Community and identity'. *The original Swedish language text reads:* 'Integration', 'Vardagsliv', 'Folkhälsa' (SBK 2008d). 'Arbete och försörjning', 'Boende', 'Delaktighet och inflyttande i samhället', 'Trygghet', 'Fysisk aktivitet', 'Livsmiljö', 'Störningar från trafiken' (SBK 2009c). 'Arbete och försörjning, utbildning, boende, hälsa, demokrati och delaktighet, trygghet och brottslighet' (SK 2009b). 'Trygghet och säkerhet', 'Jämlikhet och integration', 'Demokrati och delaktighet', 'Möjlighet till försörjning', 'Goda resmöjligheter', 'En god boendemiljö', 'God tillgång till service', 'En meningsfull fritid', 'God hälsa', 'Samhörighet och identitet' (WSP Samhällsbyggnad 2010).

[54] *The original Swedish language text reads:* 'Byten mellan buss och spårvagn sker i en trygg, samlad hållplats miljö. Parken och Kastanjeallén rustas upp och omgestaltas for god överblick, trygghet och med goda mötesplatser. Här finns plats for alla åldrar' (SBK 2009a, p.30).

There seems to be a general tendency to articulate the *socio* in words, in a way that the related specifics of *form* appear remote. How is the parkway refurbished and reconfigured? Which changes proposed through design are thought to have the following effects: a good overview, safety and security, and good meeting places? Which aspects of design make it possible to claim that it is a place for all ages?

Assumptions about social impacts addressed in such analysis are universal. They are not design specific and similar assumptions can therefore be found in assessment of other design drafts. But is such a situation really likely? Is it possible that distinct design drafts result in the same social impacts? Does forming and built form design matter at all then? Does it make sense to make such an analysis? There seems to be a general tendency to present social impacts with the focus on 'knowing what', using universal and frequently used formulations describing the urban environment; whereas 'knowing how' and the actual understanding of specifics creating particular urban environments are not addressed.

SOCIO: a categorised issue

The document studies show that commonly used ideas about the *socio* are substituted into specific positions, and reflect either the problems – e.g. safety, accessibility, health – or the groups – e.g. children, elderly, tourists etc. The list of possibilities is endless and never complete. 'In one period certain things become important. Health, child perspective, elderly perspective is in focus. Various questions; all the time. It is often the case that the answers and solutions we have are quite similar' (Municipal Planner 2009).

Municipal planners point out that at different periods of time, different social perspectives become more vivid and necessary to consider. Reflecting on practice, planners felt that although the issues differ, the solutions they operate with are often the same. Here too, a tendency to articulate the *socio* in words, for its own sake, was revealed. Moreover, the quality and status of assessments are often judged based on the presence of keywords popular at the time. In 2009 planners admitted (SBK Göteborg Stad 2009):

> Planner 1: 'It is a question of including all these words (…) so when you make an assessment the words are there. For example, a child perspective, when the word is placed in the description, then it is good.'
>
> Planner 2: 'Someone said it recently: I was forced to include the word child perspective a couple of times. But then perhaps one really does not reflect on this word, instead the point is to simply (…) have a status; a word of stature.'

> Planner 3: 'If you had actually written the elderly perspective in exactly the same place it would have worked too.'
>
> Planner 2: 'You have to change this word.'
>
> Planner 3: 'It is as easy...'

As the extract from the discussion shows, the social impact assessments of a specific urban design draft with the focus on significantly different perspectives on the *socio* also result in substantially similar descriptions. It is the emblems and titles that really differ; the ideal environment for all these groups can be described in a comparable way. Discussing the mechanical use of words, planners suggested labelling was a gesture of political correctness. Planners pointed out other problematic issues, such as the conflict of pressing obligations contra the need for reflection, and the issue of the status of social sustainability contra the operational meaning of this concept.

SOCIO aspect: a non-designer issue

In the *Opaltorget case,* most of the perspectives on the *socio*, although fuzzy, were 'delivered' by urban planning practitioners representing both the local and the central city administration. The local administration was engaged in a dialogue with the central administration about the *socio* related issues that should be taken into account. As one of the practitioners involved put it: 'the City Planning Authority (…) actively asked about the social dimensions/factors we [the City District Administration] wanted to put in'. The same person also commented that answering was not an easy task as there was no training or experience in relation to this: 'There was great insecurity and uncertainty (…) and we [the City District Administration] were not trained in this' (Municipal Planner 2011).

Practitioners experienced problems with how and what to choose from this fuzzy aspect to make it relevant for processes of urban design. No designers were present at the meetings where the architectural translation of the concept of *socio* was discussed in relation to design. Beside the fact that architects delivered design drafts, they were not involved in any of the assessments specifically related to social impacts that have been studied. Planners were therefore imposing the *socio* given/familiar onto them, simultaneously making assumptions that it is also what the design praxis operates with. Many of the discussions were therefore about design, not for or by design. 'Urban design lies somewhere between the broad-brush abstractions of planning and the concrete specifics of architecture', says Buchanan (n.d.; in Cowan 2005, p.416). Planners found the

specifics of architecture challenging. It was difficult for them to translate a discussion about the *socio* that relates to the form between the two-dimensional planning and the three-dimensional design, in urban design. More knowledge is needed to understand the act of giving form to urban structures. The social impact assessment operates mostly in the planning context. Contemporary urban designs are not explicitly concerned with this concept. If they are, assessment of social impacts such as the one undertaken in the *Opaltorget case*, are rather for planning purposes, delivering descriptions and criticism important for legitimisation, and not so much as a framework for concept development and plan construction. An assessment of social impacts has the potential to be more meaningful as a structure for the cognition of urban design and therefore its social dimension.

Reflections

The notion of the *socio* has a tentative character when discussed in the context of urban design projects. Because the *socio* is multidimensional and multi-scale and because it is further linked to and integrated with other concerns, such as environmental and economic, the *socio* related issues are increasingly fuzzy. Practitioners find the fuzziness of the *socio* aspect challenging, and it is therefore a serious issue to confront. This fuzziness of the *socio* makes assumptions about drawings and plans, which in most cases are operating with unfamiliar and often inexplicit articulations, challenging. Lack of processes to settle the *socio* in urban designs risks inconsistency in related designs, plans and decision-making processes and difficulties with assessments.

The importance of urban design processes based on learning about the actual areas of action, instead of on unrealistic demands, therefore has to be further addressed. Such processes need to confront the power distribution between the stakeholders involved. As much as politicians need a dialogue with planners about their role with regard to the *socio*, planners need a dialogue with designers about their role with regard to the *socio*. Without this dialogue, practitioners will still be 'given' responsibilities for matters that lie outside their actual professional areas.

In the case of social impact assessment, operating with expectations that are impossible to fulfil and making the professionals believe that they can do more than they can actually deliver might result in an enforced production of insignificant analysis. 'Analysis' will be ticked off the list, but fulfilling the intentions behind it might be at risk. The examples used in this section present the *socio* related to urban design as an aspect concerned with trends and categories and not to designers.

The issue of tendencies has been addressed with the focus on the character of social impact descriptions as catchwords. The document studies and discussions with practitioners indicate the fact that there are major similarities between descriptions of social impacts. To begin with, it was identified that social impact assessments of significantly different urban design drafts result in substantially similar descriptions. Further, it has been shown that when the same design is analysed with the focus on the different perspectives, the results of the category-focused assessments are also similar. The reason for it here might be the fact that the perspectives addressed are not the ones involved with design drafts. Design is a requirement for the planning practice to successfully give form to the city and it needs to be integrated within its strategic layer of planning. Both should evolve within an open dialogue with each other, so that a design-based approach and a grand-scheme approach do not only meet together and connect precisely and harmoniously, but that the principles of both are based on an awareness of each other.

Many questions arise: How to discuss society, and further, its development, in comprehensive design-related terms? How to discuss it comprehensively? Can urban design provide an understanding that could be used to analyse the views of various stakeholders and help to interpret designed urban form but also provide the process of forming itself?

These issues stimulate an interest in these unexplored and unrecognised architectural drafting perspectives and design interpretations of the *socio* aspect.

5.1.3 Defining social issues by urban design

Urban design is often described as the design of *spaces* or, as Gehl puts it, *life 'between buildings'* (Gehl 2006). The expression 'between buildings' distinguishes urban design from architecture, which in this context is about the design of the buildings themselves. As Carmona *et al.* (2003) point out, this dismantling excludes the urban design's proper concern with the structure of a place. According to Peter Buchanan, the essence of urban design is about '(…) the interdependence and mutual development of both city and citizen. And at its core is the recognition that, just as the citizen is both a biological organism and a self-consciously acculturated persona, so the city too is an organism shaped by powerful intrinsic, almost natural, forces (that must be understood and respected in any successful intervention) and a willfully, even self-consciously, created cultural artifact' (Buchanan 1988, p.32). City

– a construct. City – people and artifacts. City – a fabric weaving the social and built form[55] fibres. City – the *socio* and *form*.

Buchanan argues that '(…) urban design is concerned with analyzing, organizing and shaping urban form so as to elaborate as richly and as coherently as possible the lived experience of the inhabitants' (Buchanan 1988, p.32). Considering that the essence of urban design is the interdependence and mutual development of both the social and built form fibres, this thesis argues that urban design is equally concerned with analysing, organising and shaping the lived experience of the inhabitants so as to elaborate as richly and as coherently as possible the urban form.

> 'Cities are large physical objects animated and driven by human behavior. By far the most interesting and difficult questions about them are about how the two connect: exactly how is the physical city linked to the human city? Since the human is on 'either side' of the physical city, and both cause it to exist and then act within the constraints it sets, the question divides into two, one antecedent to, the other consequent on, the physical city. The antecedent question is: how do cities emerge from decades or centuries of human activity and thought as more or less well ordered systems, with differentiated parts and making some sense as wholes, without a 'guiding hand'? The consequent question is: what are the consequences of the physical form of the city for its human form, that is the patterns and dynamics of the economic, social, cultural and cognitive life that goes on in the city.' (Hillier 2005, p.3)

Hillier (2005) points out that every discipline which aims to theorise the city as a socio-physical system must define its paradigmatic bridge between the human and physical city. In urban studies, as in urban design, the number of disciplines is surely a remarkable feature. The bridge is called a paradigmatic one by the author, because the way that it is conceptualised is probably the defining feature of the paradigm of study, and consequently of what aspects of the urban complex are defined as interesting, and how further study is to proceed. According to Hillier and Hanson (Hillier 2005; Hillier & Hanson 1984),

[55] *Form* is the second of the colliding elements. When discussing the concept of form, Akner-Koler (2007) points out that it has to do with both the realisation of concrete objects and the organisation of ideas. She describes the *forming* as 'cognitive processes that develop concepts and images driving the formgiving process or any conceptual process that works through aesthetic methods' (Akner-Koler 2007, p.16). In discussing *forming of urban environments*, Lynch calls design 'the imaginative creation of possible form, together with a way of achieving it, that will carry out some human purpose' (1976, p.78), and 'the playful creation and strict evaluation of the possible forms of something, including how it is to be made' (1981, p.290). Madanipour (1997) named this angle from which one can look at urban design, as an aesthetic-expressive process.

most studies of cities are anchored on one of the two sides of this bridge. Studies on the social science side commonly focus on the complexities of social and cultural behavior without seeking to describe or understand the parallel complexity of the city as an object. Studies on the architecture side take the physical city more seriously, but usually at the cost of a simplified view of the human and social side. Hillier points out that although the 'one side' studies often have enormous value, the development of a theory of the city depends on 'the view from the bridge' from which both sides can be seen with comparable clarity (Hillier 2005). The bridge concept highlights the importance of 'the viewpoint' position. Relating it to the social impact assessment in urban design, it questions the origin of variables – the point at which they come into existence or from which they derive.

Further elaboration on linking the two domains can be found in one of Hillier's articles (2008, p.216), where he additionally stresses the importance of it for estimations and assessments: 'to foresee social outcomes from decisions about the physical and spatial form of the built environment, built environment professionals need to make use of theory-like propositions linking the two domains'. If urban design, and therefore social impact assessment, is to be the bridge between the side of architecture and the side of social science, the above statement should be complemented with another one: to propose the urban form outcomes of human and social reality, built environment professionals need to make use of theory-like propositions linking the two domains. The practice-like propositions will however be equally important. This has to move beyond the belief that 'in the city (…) space is fundamentally instrumental' (Hillier 1996, p.180) and related instrumental approaches, as a spatial configuration is more than a driving force for human activity and cognition within urban environments and its studies are not only instrumental in predicting human behavior.

Considering social impact assessment as a practice of how to make places, could urban design develop/provide the user with an understanding of society and spheres of its possible development by applying urban design's meaning of 'the urban'? Society constitutes an equally important part of a city, alongside its physical content. If a city is considered to be constructed from two interdependent parts, the urban design and its dimensions can inspire the development of thought about key stimuli and responses derived from both sides, and have a key meaning for urban design. An attempt therefore has to be made here to develop the socio-human layer of the dimensions of urban design, which could try to embrace different theories of potential relevance for the process of forming social landscapes. The primary idea of urban design is

that buildings and life amalgamate and are perceived jointly as a city. It is a city, an alloy that lies at the heart of the field. Carmona *et al.* (2003) define six substantive dimensions of urban design – morphological, perceptual, social, visual, functional, and temporal (Figure 5.1).

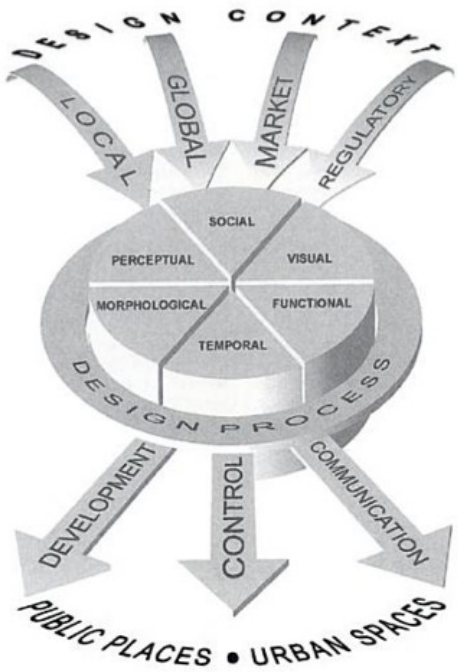


Figure 5.1: Six key dimensions of urban design theory and practice defined by Carmona *et al.* (2003, p.vi). Reprinted with permission. Dimensions of urban design are related to a number of overarching contexts – local, global, market and regulatory – that provide the background for urban design action. The dimensions and context are linked and related by the conception of design as a problem solving (Carmona *et al.* 2003, p.vii). Further, the figure addresses implementation and delivery mechanisms – how urban design is produced, controlled and communicated – stressing the nature of urban design as a process moving from theory to action.

These six represent the key overlapping areas of urban design action and they are the 'everyday subject matter' of urban design. The set of six dimensions of urban design offer a loose composition that can accommodate most key contributions to urban design thought, as Carmona *et al.* (2003) and Carmona and Tiesdell (2007) illustrate, but also focus and structure the discussion about urban design.

The idea of dimensioning urban design is not to delimit boundaries around particular areas, rather to emphasize the breadth of the subject area, with the connections between the different broad areas being made explicit. This typology is established for convenience, to emphasise the multi-dimensionality and multi-layeredness of urban design and for the purpose of clarity in exposition and analysis. The authors of this structure strongly stress that the experience of urban environments is an integrative one and that urban design is a joined-up activity. As they write: 'Urban design is only holistic if all the dimensions (the areas of action) are considered simultaneously' (Carmona *et al.* 2003, p.vii).

To better understand urban design, Carmona *et al.* recommend dissecting it and analysing the constituent parts and relationships between them. I propose to develop 'the social', the human/social reasoning for urban design, through use of the six dimensions. In my opinion, these dimensions of 'life' have the potential to develop an awareness of the diversity of principal sources to enrich the cognitive processes involved in the development of urban interfaces. Consequently, the notion of an individual, or a group of people, changes; from one where 'labeled groups', 'trends' or 'categories' are emphasised, to one where the focus is on the morphological, social, temporal, functional, perceptual and visual dimension of the human being (respectively: a group of people and society).

These dimensions are considered to have an influence on built form. They have the potential to determine, or be meaningful for, the practice of urban design and the activity of drafting. Some of them are enclosed in design norms, some are more difficult to enclose in factors. They include aspects related to ergonomics, activity, experience, culture and beliefs, perception, age etc. Moreover, they can be explored at different scales. It is from these basic dimensions that further categories can be constructed (gender, children, elderly, ethnicity etc.).

These groups and their selection depend more on political will and cultural momentum. Such an interpretation results in a living definition of 'the social' that develops while moving systematically through ideas, theories, research and the practice of urban design from an unrivalled range of sources. There are, of course, other frameworks defining human prerequisites in urban design, for example the one proposed by Gehl for planning (2010), which operates with concepts of: human body, human movements, human senses, human interaction, and human behaviour. These concepts can however be seen in reference to the urban design dimensions, where, for example, the human body stands for morphology, human movements for function or human senses for perception. Carmona *et al.*'s framework is chosen due to its comprehensiveness and relevance for discussion about individuals, groups and societies.

5.2 Re-conceptualisation of IMPACT

In the first section of this chapter the city is described from the perspective of urban design and defines the *social* aspect weaving it. In Section 5.2 the thesis mainly elaborates on the urban planning context in which urban design and the related social impact assessment is positioned, viewed from the condition of the relationship between the social and built form aspects.

The concept of *impact* is re-conceptualised. Section 5.2 identifies the international and local urban planning background and pinpoints the dual nature of the task of forming the relationship between the *socio* and *form*, i.e. *socio-form*-ing, that urban planning aims to accomplish, along with reasons behind diversity in urban design. A diachronic perspective on the task is outlined here, in which the thesis analyses the power relation between the *socio* and *form* components (Section 5.1). Four power perspectives are distinguished. In the first one the *socio* is being influenced, in the second one the *socio* influences, the third one balances the *socio* and the *form*, finally arriving at the fourth one where the relationship of *socio* to *form* is questioned.

Based on the four-faced character of a relationship between the *socio* and *form*, the thesis reconceptualises the definition of social impact. Further, it correlates this with the approaches that have already been developed for its analysis in the SIA field: the social, geographical and mixed approach. The need for the mixed approach to social impact analysis in urban design is addressed. The text refers to the *Opaltorget case* to illustrate how practice approached the *socio-form*-ing and what power perspectives and configurations of meaning were present. This section ends with a definition of social impact in urban design that captures the issues of power and stresses the need for the time perspective to be incorporated (Section 5.3).

5.2.1 Linking SOCIO and FORM: From general foundations to local interpretations

Urban design foundation: The urban planning movement

The philosophy of urbanism posits the vital importance of cities to society. 'The city' concept is a concept concerning which there are very large discrepancies in terms of understandings and definitions. Different ways of determining 'the city' in practice and research, along with the existing diversity of theoretical and methodological approaches, the professed value systems and scientific interests, result in ongoing discussions about how urban planning is done and how the effectiveness of a community's land use and infrastructure is achieved. This discussion has always gone hand in hand with developments in architec-

ture and craftsmanship. As early as ancient times, and throughout the epochs, new urban concepts have been formulated. However, the need to systematise these experiences arose with the expansion of cities in the era of capitalism, becoming particularly pronounced in the 19th and early 20th centuries as the free-market concepts of urban growth came partially to be replaced by the ideal of a general scheme of urban development. In the early 19th century the public authorities played a very limited role in the evolution of the urban environment. In the second half of the 19th century, industrial society spread in Europe and North America, with its structural weaknesses coming into focus. The defects of industrialism were most obvious in the towns, and particularly in the biggest cities where the main shifts in the distribution of population occurred. The idea therefore gained ground that public intervention in social and economic processes could help counteract these defects. Comprehensive reconstruction, however, was not aiming at society *per se*, rather, as Sutcliffe points, at social reform of the authorities in the towns (1981, p.203).

The aim was to bring the authorities into the town-building process. The focus was on both the public provision of facilities and controls over the use of private property. Four leading industrial countries, Germany, France, Britain and the United States, had undergone revolutionary changes in the 25 years before the First World War. Progress towards the rational ordering of city growth was rapid. In these 25 years planning theory and practice were born and almost matured. However, it should not be forgotten that they expanded from municipal socialism and its foundations which were laid in the 19th century and studied by Sutcliffe (1981) as insights into origin and contemporary understanding of planning. During that time the urban environment was increasingly a subject of vigorous debates in a number of industrial countries.

In the period immediately prior to 1914 these debates generated a new expression, translated into *town planning* in Britain, *city planning* in USA, *Städteplanung* in Germany and *urbanisme* in France. The term was used to '(…) describe the deliberate ordering by public authority of the physical arrangements of towns or parts of towns in order to promote their efficient and equitable functioning as economic and social units, and to create an aesthetically pleasing environment' (Sutcliffe 1981, p.viii). By definition it was concerned with four main elements: environment, economy, society and aesthetics, where the use of physical environment was presented as a means of achieving ideals in relation to the other three. As Bjur (1984, p.294) summarises, the task of town planning around 1900 was 'to find an aesthetical organization of practical reality'.

Urban design in local interpretations

At the turn of the 20th century, all over the world, the industrialized cities of the 19th century were in desperate need of healing. Sutcliffe (1981) argues that to this end national/local processes were developed in a stimulating international planning movement. In doing so, he makes a distinct separation between the international and national/local dimensions of developing planning initiatives.

Internationally, planning participated in a process of diffusion in three principal respects, supported respectively by theories from the history of art, economic history and social psychology (Sutcliffe 1981, p.180). It was subject to the effects of *artistic influence*, as it was a process of design – an artistic activity. It was also subject *to innovative diffusion*, as locally developed instruments (technological and institutional) were adopted elsewhere, developing the progressing international diffusion of design imagery. Finally, planning reflected conditions abroad in that nation-states were competing. This could help persuade individuals to make decisions, which they might not consider in response to national conditions alone. In that respect, developing as a subject to the effects of artistic influence, innovative diffusion and persuasion, planning became an international phenomenon. There were however tensions between internationalism and nationalism due to the historical geography of modernism, which as Harvey (1990) points out is a factor that makes a precise interpretation of what modernism was about difficult.

However, Sutcliffe argues (1981, p.188) that as a phenomenon 'it was too pervasive, too confusing'. Within this distinct international planning movement, national, international, regional, local and personal factors interacted in complex processes, resulting in individual contributions made by each of the leading industrial countries to the ideal of ordered city growth. These collections of national or local initiatives resulted in each country having its own approach to planning, which influenced later developments, in urban design as well. Sorensen (2001) gives an example of this process when writing about the development of Japanese urban planning. He points out that although urban planning was strongly influenced by the international planning movement, adapting solutions from the French and German planning systems, the Japanese approach towards urban space, i.e. a concentration on the parts instead of the overall whole, steered the evolution of Japanese urban planning. Heins' (2001) studies shown that the traditional organisation of Japanese cities, based on small neighbourhoods, continues to thrive, with the rediscovery of small districts.

When investigating the Swedish context, one can refer to Bjur's study (1984) on the genesis of modern town planning in Sweden around the turn of the century. He states that 'the modern thinking in town planning in Sweden has taken its lead from other European countries, especially from Germany, which largely dominated development until the First World War' (Bjur 1984, p.291). By asking questions 'what is the deeper meaning of town planning?' and 'to which historical processes was it a response?' Bjur addresses the importance of studying the problems behind the solutions.

Analyses of various systems of spatial planning (Sutcliffe 1981; Sorensen 2001) indicate that these systems are diverse. This distinction stems from multiple factors, the most important of which seem to be: historical conditions, the administrative structure of the country, culture and the individual socio-economic parameters. Concepts of urban planning and design therefore have diverse meanings, significance and implementations. One can say that the multiplicity of factors constantly re-informs the two broad tasks that planning has to accomplish. The first task is to determine the physical parameters for the different units of social and cultural space. The second task is to study socio-cultural phenomena and processes in physical space, often with the focus on indication of spatial conditions and implications resulting from them. However, when put together, these two tasks face a significant methodological complication, arising from the fact that a social space is not isomorphic/equally figural with a physical space. And this is also the case for urban planning and urban design.

5.2.2 Diachronic perspective on SOCIO and FORM relationship in urban design

As ideas about the city developed in the 20th century, in a variety of different academic fields, four different sets of relationships between the social and built form aspects of the city can be studied: *socio<form, socio>form, socio<>form,* and *socio?form*. What differentiates these four is the balance of power and prime position of influence that both the social and built form aspects have when entering into mutual interaction and configuration of meaning. The discussion in this section revolves around concepts provided by psychology, geography and sociology. It is an attempt to connect a series of events, actions and developments within the dominant discourse of successive ideas, with the purpose of identifying and presenting the four main sets of relationships between the task of planning and designing a city and the social and built form aspects of a city. It is a limited discussion in that it does not aim to provide the reader with information about

a detailed evolution of the approach of each of the disciplines to the two tasks and aspects.

The concepts of human nature explored in psychology inspire discussions on possibilities of influencing human behaviour, with subsequent links to geography, where there have been three predominant attitudes: *determinism, possibilism* and *probabilism* (Rapoport 1977); similarly, in the first modern societal development theories (Peet & Hartwick 2009). Several theoretical perspectives have contributed to conceptualisation of the relationships between society and form, terms informed by each theory's own set of assumptions[56].

There were two approaches to the described earlier problems generated by industrialism housing; the first – anti urban or contra urban[57] and the second pro urban[58]. When discussing both, attention should be paid to the role of the living environment as a factor affecting human behavior. In urban planning the view was also traditionally deterministic (Lang 1994), but it evolved and urban environment became regarded more as a catalyst, without the agency to determine or generate activities. Discussion about the four different sets of relationships and configurations of meaning reflect on this evolution.

At the turn of the 20th century science authorised all related control procedures. Psychologists had already formulated four main approaches to the concept of human nature: *biological, psychodynamic, behavioural* and *cognitive* (later, in the mid-20th century also *humanistic*). *The biological concept* argued that the scientific study of psychology should be grounded in an understanding of biology. *The psychodynamic concept* was based on assumptions that behaviour is determined by unconscious forces and that the latent motives for our behaviour reflect instinctive biological drives and forces that relate to early childhood experiences. The biological and psychodynamic concepts support the deterministic viewpoint. They ally closely with evolutionary biology, which had been developing since the mid-19th century.

At the same time, one of the theories closely linked to evolutionary biology, fashioned by a German geographer Carl Ritter – *environmental determin-*

[56] Del Casino explains: 'These assumptions are based on a social theorist's ontology (their understanding of how the world is structured to produce knowledge) and epistemology (their understanding of how we know the world)' (Del Casino 2009, p.17).

[57] The *contra urban* approach was developed by e.g. Ebenezer Howard in UK (the Garden City), Arturo Soria y Mata in Spain (the Linear City), Clarence Arthur Perry in USA (the Neighbourhood unit) – all three originally related to single-family housing; in Germany (a multi-family residential building or a group of them: a residential estate *Siedlung*).

[58] The *pro urban* approach was developed by e.g. Camillo Sitte in Austria (City planning according to artistic principals), and Karl Marx Hof in Austria (the superblock).

ism[59] – significantly rose to prominence to be taken up in the late 19th century and early 20th century as a central theory by the disciplines of geography and anthropology. A strong belief, as argued by Ebenezer Howard and Patrick Geddes, developed that the environment influences behaviour, and hence that undesirable behaviour can be prevented by changing the environment. This also resulted in the subsequent development of notions of architectural determinism (the belief that human behaviour can be influenced significantly by the form and configuration of buildings) and spatial determinism (the belief that reorganising the distribution and configuration of development is an effective way of achieving certain social goals).

When discussing the contra and pro urban approaches and the role of environment as a determinant of behaviour, Chmielewski (2001) points out that the behavioural and cognitive concepts are of particular interest for discussion concerning interdependencies between the development of society and urban form. *The behavioural concept* was based on assumptions that human beings are reactive systems and that behaviour can therefore be almost entirely controlled by the environment. This implies that human beings can be steered from the outside. *The cognitive concept* assumed that human beings are information-processing systems, information that is or encoded in the form of knowledge embedded through teaching, or information that constantly flows in from the outside world. Both concepts accommodate the thought that activities of a political nature can influence social performance. The difference stressed by Chmielewski (2001) is that in the behavioural concept, actions were oriented toward changes in social environment, but without interference in the sphere of social consciousness. While in the cognitive concept, actions had to rely on education, training and the selection of information by the sphere of consciousness and influence behaviour in this way[60].

Environmental determinism, in opposition to social determinism (the hypothesis that social interactions and constructs alone determine individual behaviour), was formulated in different ways. The speed of change in American towns and all the consequential problems brought about the need for social reflection on the city. In response to the behavioural concept, *social*

[59] The concept of environmental determinism has its intellectual origins in e.g. Victorian social reform movements, in the Garden Cities Movement in town planning, and in the modernist movement in architecture. The theory was that physical, mental and moral habits are directly due to the influence of natural environments, that it is the physical environment, rather than social conditions, that determines culture.

[60] Chmielewski (2000) points out that the behavioural concept developed in the USA (the concept of Neighbourhood unit by Clarence Arthur Perry) the cognitive concept in socialist countries (the concept of Phalanstère by Charles Fourier, later adapted by Le Corbusier for design of the Unité d'Habitation).

engineering developed – as a method to transform human beings. New ideas emerged, associated with the rise of the nation state and its expansion into the role of a maker of social policy and a guarantor. Urban sociology emerged in the midst of this urban dynamism and in parallel to urban planning. Both urban sociology and urban planning focused on arranging and channelling environmental and social forces to create a high probability that effective social action will occur. Engineering of the 'social' began, suggesting the designing and erecting of structures and processes in which human beings serve as raw material. It treated the environment as a control variable in the mechanical one-way causalities running from the environment to human behaviour and society.

Within a general programme of social engineering in the midst of this urban dynamism, The Chicago School of urban sociology emerged in the early twentieth century as a part of a research programme or a specific group of sociologists established in 1892 at the University of Chicago[61]. A more formal, systematic approach to data collection and analysis developed – a trend that derived from Germany, where the vast majority of the representatives of the first generation of The Chicago School sociologists had obtained an advanced university education[62]. The positivistic, empirical and quantitative epistemological approach of The Chicago School developed environmental urban theory in the 1920s around the works of William Thomas, Robert E. Park, Ernest Burgess and Louis Wirth. Numerous ecological studies were produced with the use of thorough ethnographic research with sweeping generalizations. These studies steeped in physical metaphors and evolutionary logic, about urban society, contributing to the field after social science, anthropology, sociology and geography[63].

Armed with detailed research results and developing powerful conceptualisations (such as the concentric zonal model of the city by Park, Burges and

[61] This development was a reaction against the current state of American sociology of that day and its 'little consistency in the formation of social policy' (Lutters & Ackerman 1996, p.2). It was a response to the need for a paradigm shift in it. It was the ideas of Social Darwinism and social pragmatism (instrumentalism, activism, functionalism) that shaped the intellectual climate of the University of Chicago and had an impact on development of the new approach to social studies.

[62] This approach opposed the speculative thinking, typical of the 19th century theoretical systems. This science of sociology (Lutters & Ackerman 1996) was experimented with on many of the concerns of American sociology (e.g. urban decay, crime, race relations, and the family).

[63] A prime example was a study *The Polish peasant in Europe and America* by Thomas and Znaniecki, where authors investigated both sides of a transatlantic flow of immigrants. The focus was on the dynamic between cultural retention among immigrants versus the pull to assimilate to American social mores. The approach to the residential clustering of Poles in American cities was instrumental. These immigrants could retain valued elements of their cultural heritage while, progressively but inevitably, assimilating to the American society surrounding them. In 1928 Louis Wirth further elaborated the dual nature of ghetto-like neighborhoods in his prominent study of Chicago's Jewish community, *The ghetto*.

McKenzie), The Chicago School of urban sociology continued to inform urban planning policy.

Social engineering in the early twentieth century produced large-scale changes in the social domain. Being a result of visions, social projects and grand scale plans, these changes took place in accordance with preconceived *socio<form* ideas. These ideas materialised in urban plans which attempted to engineer the 'social', in line with the idea of human behaviour as being determined by social structures and physical environmental factors, rather than genetic and personal characteristics. Not only in America, but also around the world, architecture was seen as an economic and political tool that could be used to improve the world through the design of buildings and through urban planning[64]. People were perceived as raw materials, however, as they have turned out to be resistant, this approach, along with early twentieth century social engineering, has been marked by numerous failures.

By the mid-20th century, environmental determinism was under attack for being severely faulted at best, and often dangerously wrong[65]. As an idea applied to the built environment until the modern age of urban planning it was proving to be a failure. By the middle of the century environmental determinism had become quite unacceptable. This was also the period when the first ideas about urban design were developing.

The term 'urban design' was born in North America in the 1950s. It was announced as a new academic field during the first urban design conference held at Harvard University's Graduate School of Design in 1956 by the organiser Jose Luis Sert. This new field was certainly influenced in the 1960s by the fact that modernism in architecture and planning was becoming increasingly questioned.

Anti-modern movements sprang to life and the focus for planning and development shifted from urban plans to urban designs. 'Postmodernists design rather than plan' – wrote David Harvey (1990, p.66). One could therefore discuss whether urban design was regarded as a planning component concerned with the physical form of the city, or as an approach to the city, developing 'since the metropolis is impossible to command except in bits and pieces' (Harvey 1990, p.66). As an approach it aimed 'to be sensitive to vernacular traditions, local histories, particular wants, needs, and fancies (…)' (Harvey 1990, p.66) altering from being a part of planning into an opposition and critique of it.

[64] As an idea, it was internationally supported by T*he Congrès internationaux d'architecture moderne – CIAM* (International Congresses of Modern Architecture), founded in 1928 and also engaged in formalising the architectural principles of the Modern Movement.

[65] It was accused of a lack of methodological rigour associated with modern science, the destruction of communities by clearance, generalisation of culture, and of serving to justify racism and imperialism.

This is where Lang (1994, p.3) locates the birth of urban design in the recognition of three aspects: 1) 'however well land uses are distributed, they will not, by themselves, lead to a good city', 2) 'the sterile urban environments achieved by applying the ideas of the Modern movement to both policymaking and to architectural design at the urban scale were a failure in terms of the lives of the people who inhabited them (…)', and 3) 'the field was born out of the necessity to recognize the interrelatedness of a city's components, particularly those that constitute the public realm'.

The 1960s was also a period of urban crisis. The problem of *the ghetto* – urban decay, inner-city poverty, and unrest – appeared urgent. There was a major inability of public programmes to solve the issues. Carmona *et al.* (2003, p.13) write that this lack of quality in urban development has been attributed to '(…) well-intentioned but ill-conceived public sector regulation, and to development controls and standards with little holistic awareness'. From the late 1960s onwards, the hard edged division of responsibilities was seen as the main factor in relation to failures. A developing critique of the role of the various built environment professions commenced. What they were doing and how they were doing it was questioned. Urban sociology was criticised for its fragmentation and lack of a dominant paradigm[66]. The new urban sociology developed within that critique, returning to Marx to clarify basic concepts.

The hypothesis of social determinism entered the stage, stating that social interactions and constructs alone determine individual behaviour, supported by the theory that all cultural and social movements and ideas are brought about by changes in economic and other material conditions[67].

As Zukin points out, critically re-evaluating the history of urbanisation, new urban sociologists focused their historical analysis on the hegemony of urban forms within social formations and the hegemony of metropolitan culture within the world system as a whole (1980, p.579). A *socio>form* perspective – with the focus on the political, ideological, juridical, and economic significance of particular urban forms – attempted to tie together urbanisa-

[66] When writing about new urban sociology Zukin states: 'Not only had urban sociologists failed to anticipate any of the urban crises of the sixties, but neither their 'traditional' nor their 'radical' research methodology provided a macro-level framework for explaining such crises' (1980, p.577). The lack of a specific 'urban' subject (so theoretically and scientifically deficient) and the identification of all phenomena in urban areas as 'modern' were questioned by urban sociologists, in reaction to the diffuseness of the field. In 1976 Manuel Castells has even asked whether there was, indeed, an urban sociology – whether urban sociology had a subject matter and whether the term urban still had meaning. As the object of study is not defined, urban studies as such become an ideology, which camouflages social relations within the environmental determinism.

[67] As Zukin wrote, this situated the new urban sociology within an equally emergent political economy (1980). This demanded that urban sociology be a more interdisciplinary enterprise (with economics and, to some degree, political science) than it had been before.

tion and achieve coherence in the field of the new urban sociology. Geographers also reacted to the critique of environmental determinism by first developing the softer notion of *environmental possibilism*[68]. Deterministic ideas were therefore widely questioned and urban planning and design was placed in that context.

In a possibilistic mode, discussion about the dialectical *socio<>form* relationship emerged. Geographers like David Harvey and Edward W. Soja developed its basis around the notion of spatial justice. Discussing interpretations of interdependence between the social process and spatial form as the basic problem of the theory of cities and urbanisation processes, Harvey emphatically rejected the extreme form of determinism, which is, *environmental* determinism and *social* determinism. He replaced determinism with 'triumphalist humanism that underlies so-called 'possibilist' doctrines of economic development and change' (Harvey 2001, p.228).

The rejection of extremes focused on blurring the dialectical boundaries of the relationship between the *socio* and *form*, pointing out that together both approaches face a significant methodological complication, arising from the fact that a social space is not isomorphic/equally figural with a physical space. As he described it 'each form of social activity defines its space; there is no evidence that such spaces are Euclidean or even that they are remotely similar to each other' (Harvey 2009, p.30).

In terms of the same issue Soja developed a concept of *sociospatial dialectic* to name the process by which people shape and are shaped by their surroundings. He wrote 'the key first step in recognizing a socio-spatial dialectics' is to reinterpret space from 'a generalized and abstracted physical form' into 'the interpretation of human spatial organization as a social product'; to recognize that 'physical space has been the misleading epistemological foundation upon which to analyse the concrete and subjective meaning of human spatiality. Space in itself may be primordially given, but the organization, and meaning of space is a product of social translation, transformation and experience' (Soja 1989, pp. 79-80).

[68] This theory, which is attached to the French school of cultural geography (the works of Paul Vidal de la Blache 1845-1918), suggests as early as the 20th century that while the physical environment offers certain constraints, sets certain constraints or limitations, on the social world, humans can modify the environment to meet their needs and culture is otherwise determined by social conditions. This developed a common general understanding which viewed the influence of environmental conditions on human establishment as being mediated by the actions of humans themselves. An American Anthropologists Marshall Sahlins used this concept in order to develop in ecological studies alternative approaches to the environmental determinism dominant at that time. In the field of urban design Carmona *et al.* (2003, p.106) define environmental possibilism into situations when 'people choose among the environmental opportunities available to them.'

In a later book Soja developed this idea into 'trialectics'[69] (1996). Building on a question posited by the French sociologist Henri Lefebvre – is there ever a relation between two terms? – Soja sought to challenge binary reductionism with the use of the 'third term'[70]. This trialectics mode seems to be the issue for how urban theory is approached. What is this third-other, where it both discussed what to study and how to do it?

Discussions about the architectonics of the city in this context faced three major problems. As early as 1973, Harvey had pointed out that: 'The city cannot be conceptualized in terms of our present disciplinary structures. Yet there is very little sign of an emerging interdisciplinary framework for thinking, let alone theorizing, about the city. Sociologists, economists, geographers, architects, city planners, and so on, all appear to plough lonely furrows and to live in their own confined conceptual worlds' (2009, p.1). This was a diagnosis of three major problems with research about cities at that time: existing disciplinary structures, lack of interdisciplinary frameworks of thinking, and deficit of common concepts.

Moreover, Harvey also made links to discussions about the role of the city in research, criticising the test-field approach. 'Each discipline uses the city as a laboratory in which to test propositions and theories, yet no discipline has propositions and theories about the city itself. This is the primary problem to be overcome if we are ever to understand (let alone control) the complexity that is the city. If we are to do this, however, we must overcome some extraordinarily difficult methodological, philosophical, and conceptual problems' (2009, p.22).

As Rewers (2005) points out, power relationships between disciplines and the object of study have to change from one where disciplines experiment in the city as in the lab; to one where there is a central *polis*, from where disciplines try to flow out in order to see what is possible. Of course, as Zuziak (2008, p.27) writes, to reject extremes, or point to the complexity of the rela-

[69] *Trialectics* is a term used to describe 'not just a triple dialectic but also a mode of dialectical reasoning that is more inherently spatial than the conventional temporally-defined dialectics of Hegel or Marx' (Soja 1996, p.10). *Trialectics* then depends on the transcendence of conventional dialectics, lying beyond the ordinary range of perception.

[70] Soja proposed two basic trialectics: one primarily concerned with ontology (Soja 1996, pp. 71-73) and one with epistemology (Soja 1996, pp. 73-82). The first one, *trialectics of being,* consists of historicality, spatiality and sociality. The second one derives from Soja's mapping of three approaches to spatiality reinterpreting Lefebvre's triad spatial model – the perceived, conceived space and lived space (1991, p.33, pp. 38-39). Based on a reading of Lefebvre and his components of the production of space – spatial practice, the representation of space, and the space of representation, Soja confined his own discussions of spatiality to the realms of *Firstspace, Secondspace,* and *Thirdspace*. Both Lefebvre and later Soja suggest the second trialectics, *trialectics of spatiality,* as one that consists of perceived space, conceived space and lived space. Soja's discussion about the two kinds of trialectics however still stays within binary reductionism, as it reflects on the polarisation between the two elements: ontology and epistemology. His classification does not therefore entirely break with the binary oppositions, and as such cannot be an illustration of the trialectic mode.

tionship between the form of space and a social process, is still of little help for planning and urban design. However, this represents an important move towards the development of a socio-spatial language of urban planning, and of what should follow reflection on the definitions of the city and urbanism and its dimensions.

By the mid-20th century, the fourth concept of human nature had been born – the *humanistic concept*. It developed as a protest against the mechanical and clinical concepts of a human being[71].

It was not until the late 20th century that geographers abandoned their search for causal links between the physical environment and culture. The search for theoretical and causal explanation was over for many decades. Deterministic and possibilistic logics were appealing. They could reduce reality to schematic representations. Outcomes could be predicted and a simple set of choices could be given. What was determined was that which was established or decided beyond dispute or doubt. The possible was something that could be done. The complexity issue, however, cannot be dealt with through simple models. Theology, philosophy and geography therefore discussed the concept of probabilism (from Latin *probare*, to test, approve) which holds that in the absence of certainty, probability is the best criterion. The probable is that which is likely to happen or be true, however, it is not certain but plausible. The probabilistic mode questions the *socio?form* relationship.

Although Carmona *et al.* (2003, p.6) argue that the concept of urban design that has become dominant over the past 30 years is one of making places, this discussions does not leave research and practice without questioning the relationship between the *socio* and *form*. Even if the making places tradition concerned with the design of urban space as an aesthetic entity and as a behavioural setting synthesised the earlier traditions, i.e. the pre-dominantly product oriented visual-artistic tradition represented by Le Corbusier and Sitte, and the social usage tradition with key proponents such as Lynch, Jarvis, Jacobs, Gehl, Alexander, the fundamental relationship between development of society and built form is questioned. It is generally acknowledged that 'good urban design can only exist relative to a set of values held by an individual, group or society in general' (Mc Glynn & Murrain 1994; in Carmona & Tiesdell 2007, p.319). Moreover – as it matters for issues of health, education, homes, crime prevention, environment, community, and economy

[71] Psychologists, Carl Rogers and Abraham Maslow, rejected the idea of external controllability of human beings, assuming that there are internal control mechanisms. It was believed that each person is controllable from within and the driving forces for human development are therefore to be found inside. The role of the natural and social environment for human behaviour was not acknowledged.

(CABE 2006) – it is considered to make a meaningful contribution to social regeneration and building social value. The belief is that interdependencies between society and urban form design exist. However, many problematic issues are revealed when encountering discussions on the parameters that describe them.

Some writers, for example Gehl, believe that these parameters are constant to a high degree: 'The character of the life between buildings changes with changes in the society's situation, but the essential principles and quality criteria to be used when working for human quality in the public realm have proven to be remarkably constant' (Gehl 2006, p.7).

There is also a group which claims that little is known about how patterns of living can be affected by physical and spatial forms. There is a widespread belief that architecture can cause social malaise, generating stress, anti-social behaviour, depression etc. (Hillier 1996). One can never be sure if these kinds of effects genuinely exist; it is widely believed but equally widely discounted as not being creditable[72].

In the book *Architecture in the Space of Human Behaviour* (2006), Czyński focuses on safety and discusses the fact that there is a general lack of understanding when it comes to relations between buildings, their surroundings and human physical and psychological needs.

Knowledge of the relation between humans and the built environment is still underdeveloped, or, in other words, it needs ongoing development. Better models are needed to understand the above-mentioned casual linkages between biophysical, land-use, financial and subsequent social impacts (Burdge 2003, p.84), so that they can be widely adopted in the assessment process for environmental and natural resource decision-making. It is consequently important to study how different patterns of human activity can be shaped and influenced by shaping the urban environment (Hillier 2008).

[72] Hillier presents three main problems that can be encountered, which will be called here: *methodological, theoretical* and *disciplinary.* The first one regards the method for establishing any kind of link between architecture and social outcomes. Every case selected for study will already be a continuing social process. It is not clear how this difficulty can ever be circumvented. The second one is a theoretical difficulty: 'Building is a creation of a physical and spatial milieu. If we are to believe that that this physical milieu can somehow invade people's minds and have effects that are strong and systematic enough to influence behaviour, that we must have some conception of a plausible chain of sensorial or mental events through which this could came about' (Hillier 1996, p.183). There are no credible models for such mechanisms. Moreover, the sorting out of factors that can affect social malaise is considered to be difficult 'when they are all so inextricably bound up together in the lives of the alleged victims of bad design' (Hillier 1996, p.183). The practice of assessment of social impacts shares a similar reflection: 'the good practice of SIA accepts that social, economic and biophysical impacts are inherently and inextricably interconnected. Change in any of these domains will lead to changes in the other domains' (Vanclay 2003, p.6). In further writing by Hillier (2008) the third problem is pointed out: there is 'the absence of any meeting of minds or sharing of interests by social theorists and built environment professionals' (Hillier 2008, p.217) and the absence of scientifically tested propositions.

Carmona *et al.* suggest (2003) that there is a need for identification of knowledge, and for specific studies, where interest should be directed at the following questions: which of the existing social relations might be constituted by space, constrained by space and mediated by space, what are the challenges for today and how to choose the right tools to respond to current social aims? One may reverse the question and ask in which ways the built form can be constituted by society, constrained by society and mediated by society.

To conclude, the studies presented above illustrate the dynamic development of a phenomenon through time. Whether a relationship between the *socio* and the *form* does exist, and social impacts consequently do occur, is still open to debate.

5.2.3 Synchronic perspective on SOCIO and FORM relationship in urban design

To confront the diachronic perspective with the synchronic one, the thesis will refer to a particular period and to the *Opaltorget case* in the context of Gothenburg to illustrate how practice approached the task of forming the relationship between *socio* and *form*. The focus is current power perspectives. The intension is to illustrate how assessments of architectural urban design drafts construct relationships between the social and built form aspects through the use of empirical material. So how is the subject for assessment constructed? Are assessments attentive to different possible balances of power between the constructing aspects?

The dominant power perspective

The general intention behind descriptions of social consequences of design drafts is to develop assumptions about how a proposed design draft results in social change. Members of the *S2020 Opatorget pilot project* defined descriptions of social consequences (impacts)[73] as 'the analysis of plans and programmes focusing on the consequences which the planned environment might have on social life in the broadest sense. They originate from the existence of some form of a plan proposal, (…)' (Olsson & Cruse Sondén 2009, p.5). Following this definition, it is a study of any given planned, programmed or designed en-

[73] In Sweden, when discussing the issue of assessing the social impact of urban designs in the context of urban planning and design, specifically *Social Impact Analysis (Social Consequence Analysis) and Social Impact Assessment (Descriptions of Social Consequences) (the original Swedish language text reads:* 'Social Konsekvensanalys', 'Sociala konsekvensbeskrivningar'), the word *consequence* is used in. A consequence is defined as 'a conclusion derived through logic', 'something produced by a cause or necessarily following from a set of conditions are the subject of the planning description' (Merriam-Webster 2015a). In the context of urban design, a relationship between the social and built form aspects is not derived through logic. At the same time the official translation provided by the City of Gothenburg is: Social Impact Analysis. The concept of social impact will therefore be used and revised here.

vironment resulting in a map of assumptions about potential social results to its environmental cause. The link has a strongly defined direction (*form>socio*). *Form* is a cause and *socio* is a result.

FORM: a cause grounded in a design proposal?

An example of description of social consequences of design proposal (SBK 2009a), present much more than the definition suggests. Next to statements that express how the *designed form* is assumed to produce a certain *socio* result: 'Allén becomes a walk-and play-friendly part of the park, as the walking and bike paths are moved out and placed along the new local road' (SBK 2009a, p.30)[74], one can also find statements about how the *existing form* of the Opaltorget area is assumed to produce a *socio* problem: 'Because businesses are scattered through the area, they do not form a central square environment with good meeting places' (SBK 2009a, p.29)[75]. The second type of link has the same strongly defined direction (*form>socio*), but it relates to the analysis of the existing context, which in the *Opaltorget case* was meant to be analysed and presented by the *Description of the District Tynnered* (BSD) (SBK 2008a) and the *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered* (LUP) (SDF Tynnered 2009a) or even the *Programme for Urban Development in Södra Tynnered* (PSS) (SBK 2004; 2005). Whilst done in a fragmentary way, the *socio* problems are addressed in social consequence descriptions. Elements representing a diagnosis of a context are in distinction from defined aims behind descriptions of social consequences.

SOCIO: a consequence of a design proposal?

A diagnosis of context acts as a reference point for descriptions of social impacts. Knowledge about the *socio* sets a ground for urban design and assessment. Although in this case the description of context is extracurricular with regard to the aim behind the analysis of social consequences of a detailed development plan, it suggests the main concerns for description in an analysis of social consequences. However, as the following example shows, such an examination and follow-up is difficult to find. The reasoning is fragmented. The *socio* results do not relate to the *socio* problems. The social consequence description of detailed development plan for Opaltorget addressed the *socio* problem of a lack of good meeting places – a result of spaces for activities being scattered:

[74] *The original Swedish language text reads:* 'Allén blir en promenad- och lekvänlig del av parken när gång- och cykelvägen flyttas ut och läggs parallellt med den nya lokalgatan' (SBK 2009a, p.30).

[75] *The original Swedish language text reads:* 'Eftersom verksamheterna ligger utspridda, bildar de inte en samlad torgmiljö med goda mötesplatser' (SBK 2009a, p.29).

'Because businesses are scattered through the area, they do not form a central square environment with *good meeting places*' (SBK 2009a, p.29)[76]. The existing *form* aspect is seen as a factor generating the existing *socio* problem. The *socio* problem is subsequently highlighted as requiring resolution. The desire to improve the meeting places is expressed as: 'The goal is to create a vibrant and safe physical and social environment in which people can run errands, sit down, *meet others*, simply cross over, etc.' (SBK 2009a, p.30)[77]. Further, the *form* by which to achieve this is described as follows: 'The means is an accessible enclosing square, well-organised public transport, more housing, mixed tenure, more businesses and greater density, combined with *good meeting places'* (SBK 2009a, p.30)[78]. Finally, the actual design is commented on, with the following statements: 'The transformation implies that Opaltorget will become a neighbourhood square, *a central meeting place*', and, 'The park and the Kastanjeallén is refurbished and reshaped for a good overview, safety and security, and with *good meeting places*' (SBK 2009a, p.30)[79]. Assumptions about how the issues of designed *form* potentially relate to the change of *socio* situation identified are not presented, and the intentions behind the analysis of social consequence are therefore not fulfilled.

Reflections

By definition, the focus of social impact descriptions currently addressed is on the strongly defined *form>socio* power perspective. Although the scope of social impact analysis is to explore the consequences of design, it is difficult to find expressions of how the *socio* results link with the actual elements of the built form as proposed. What elements of the built form will make 'Opaltorget become a neighbourhood square, how is the built form thought 'to refurbish and reshape the park and the Kastanjeallén is refurbished and reshaped for a good overview, safety and security, and with good meeting places'? There is a need to move beyond the tendentious descriptions of the built form to more specific elements deriving from a particular draft and representing their specificity.

---

[76] *The original Swedish language text reads:* 'Eftersom verksamheterna ligger utspridda, bildar de inte en samlad torgmiljö med goda mötesplatser' (SBK 2009a, p.29).

[77] *The original Swedish language text reads:* 'Målet är att skapa en vital och trygg fysisk och social miljö där människor kan uträtta ärenden, sitta ner, träffa andra, bara passera över, osv.' (SBK 2009a, p.30).

[78] *The original Swedish language text reads:* 'Medlen är ett lättillgängligt omslutande torg, en välordnad kollektivtrafik, fler boende, blandade upplåtelseformer, fler verksamheter och större täthet, kombinerat med goda mötesplatser' (SBK 2009a, p.30).

[79] *The original Swedish language text reads:* 'Omvandlingen innebär att Opaltorget bli ett stadsdelstorg; en central mötesplats (...) Parken och Kastanjeallén rustas upp och omgestaltas för god överblick, trygghet och med goda mötesplatser' (SBK 2009a, p.30).

Moreover, in the descriptions of social impacts one can find both the *socio* problems and the *socio* results which show that descriptions of social consequences that have been studied move beyond the defined role of social impact analysis. The presence of the *socio* problems in the descriptions studied needs to be discussed for two reasons. Firstly, the relation to a design draft – a subject for evaluation. Although the social impact analysis aims at a design draft, the *socio* problems that are additionally presented in the analysis studied are not discussed in the context of the *socio>form* power perspective. The impact of the social context on the design draft is not revealed at any point (neither existing one: how the lack of meeting places is approached by design of *form*) nor vision (how the idea of better meeting places is approached by design of *form*). Secondly, the issue of the scope of social impact analysis. In the example of Opaltorget, the social impact description from the detailed development plan interferes with the roles of the other documents produced within the process. Overlaps need to be either eliminated or developed consciously with sensitivity to the other documents. What will be subsequently called an approach to social impact analysis and assessment therefore has to be developed, to allow for conscious development of such correlations and sensitivity given to all the four power perspectives and configurations of meaning.

Social impact assessment in urban design could approach the design draft as an in-between filter between the *socio* problems and assumptions about the *socio* results. The filtering itself will be discussed in Section 5.3. Before that, the scope of social impact in urban design needs to be revised.

5.2.4 What is impact and what is a social impact?

An *impact* is defined as 'an impairing or striking especially of one body against another', 'the force of impression of one thing on another', 'a powerful or major influence or effect' (Merriam-Webster 2015b); also as 'the action of one object coming forcibly into contact with another' (Oxford Dictionaries 2015). The following synonyms are provided: *collision, shock,* and *concussion*. Collision implies the coming together of two or more things with such force that both or all are damaged or their progress is severely impaired. Impact can therefore be used to imply contact between two things, at least one that is impelled toward the other. Although the definition of impact is a literal description, it visualises the possibility of discussion on (1) the impacts *of* a thing A and (2) the impacts *on* a thing A; as well as (3) the joint impacts *of* and *on* a thing A (Figure 5.2).

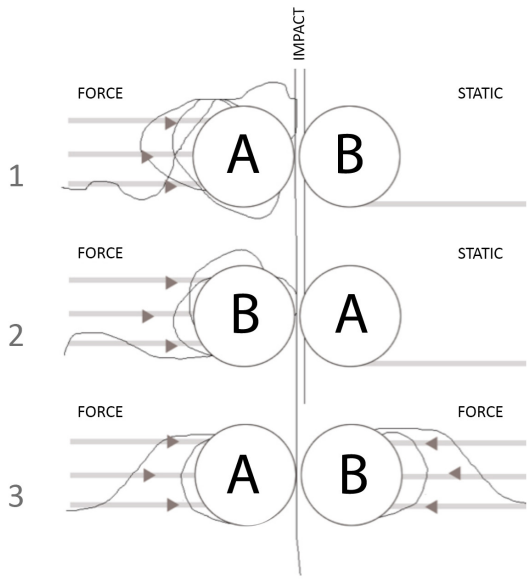


Figure 5.2: Three ways of defining the concept of impact. Describing A as 'society' one gets three power perspectives and configurations of meaning and three ways of defining the concept of social impact.

In the case of a social impact concept, the existing definitions refer incompletely to this possibility. A social impact is defined in a more limited sense. According to the Interorganisational Committee on Guidelines and Principles for Social Impact Assessment (1994, p.1), social impacts are: 'consequences to human populations of any public or private actions – that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society'.

A social impact is then considered to be any change resulting from development practices or other activities that affect people's way of life, their culture and their community (Summerville *et al.* 2006). In Sweden, experts define social impacts as the consequences that the planned environment might have on social life in the broadest sense (Olsson & Cruse Sondén 2009, p.5)[80].

[80] *The original Swedish language text reads:* 'En annan typ av underlag (...) är sociala konsekvensbeskrivningar (SKB). Det är analyser av planer och program utifrån vilka konsekvenser den planerade miljön kan tänkas få för socialt liv i vid mening' (Olsson & Cruse Sondén 2009, p.5).

Comparison between these definitions of a social impact with a literal definition of an impact shows that out of the three ways of defining the concept of impact (Figure 5.2) the second configuration of meaning is most frequently used as a basis (Figure 5.3). Only impacts *on* the social sphere are addressed.

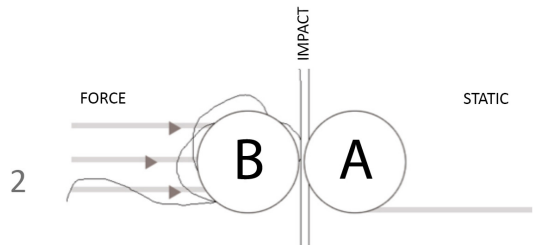


Figure 5.3: The configuration of meaning that is most frequently used in defining the concept of social impact.

Broadening this concept would mean that 'social impact' is not only 'an effect of an activity *on* the social fibre of the community and the well-being of individual and families' (Business Dictionary 2015) but also as an effect *of* the social fibre of the community and the well-being of individuals and families.

5.2.5 Approaches to social impact assessment

In regional land use planning, three broad approaches to the social impact assessment have been defined based on a number of case studies (Heikkinen & Sairinen 2007, p.30): social, geographical and mixed.

The assessment can take the social sphere (Figure 5.2 and the 1st configuration of meaning) as its starting point. For this reason it is called a social approach to social impact assessment. The assessment is powerful in its analysis of the impacts of the plan at a very general level. Many features of social life – such as global trends and issues addressed in urban studies, for example, are discussed. The assessment is therefore able to present ideas and perspectives new to planners and the planning process.

Assessment of a plan that takes geographically defined areas (Figure 5.2 and the 2nd configuration of meaning) as its starting point is called a geographical approach to social impact assessment. The social impact assessment explores the impacts of the plan at the level of target sites. It begins with an analysis of the physical changes brought about by the plan, and

continues with an analysis of social changes caused by the changes in the environment.

The assessment that exploits both the sociological and the geographical perspectives is called a mixed approach (Figure 5.2 and the 3rd configuration of meaning). It starts with social themes and highlights the perspective of various population groups (e.g. elderly, women, children etc.). From social issues, the assessment continues to analyse the plan in general, and then proceeds to take a closer look at selected target sites and areas.

5.2.6 Defining social impact in urban design

It has been shown here that studies of urban design and the practice of its development often focus individually on the physical and social content. This is the result of how the nature of the interdependencies between the development of society and urban form(giving) is discussed. The issue of interdependencies between the social and built form aspects is the subject of an ongoing debate in the areas of urban research and practice. Although the scientific discussion surrounding this issue is characterised by cultural diversity and theoretical uncertainty, the practice of design and planning bases its performance on the fundamental belief that the two factors are interdependent. The lack of theories and methods is being challenged with a growing interest in and demands for development of social impact assessment that discusses and secures the 'social' in urban designs. Planning and design practice and assessment routines are put to the test, as interdependencies are to be mapped and articulated for the purpose of valuation and judgment forming.

There are no universally defined interdependencies between the very sensitive and dynamic matter of society and the very concrete matter of built form, and the same therefore also goes for issues of the two. In the absence of scientifically tested propositions expressions of the relations between society and the factors characterising the physical and spatial form of the built environment, it should perhaps be accepted that none of them are fixed. It is important not to make the implication that any kind of objective, natural and fixed links between the social and built form aspects exist. Instead, the development and implementation of a mind-framing tool for their recognition and construction should be in focus, representing a SOCIO-FORM approach to urban design, together with the professional capacity for its use. Based on the four-faced character of the relationship between the *socio* and *form*, the definition of social impact needs to be reconceptualised and the scope of the social impact in urban design needs to be broadened.

In the previous paragraphs, the task of forming the relationship between the *socio* and *form*, i.e. s*ocio-form*-ing, was presented as a manifestation of a possible way of understanding the issue of the relationship between the *socio* and *form* fibres of the city. The currently dominant concept of a mixed approach to place making, resulting from the diachronic perspective on making places, impact and social impact assessment studies, results in the further development of a SOCIO-FORM approach to social impact assessment in urban design. A more specific definition is needed for the discussion about the social impact assessment in urban design, where impacts 'of' design and impacts 'on' design can be considered simultaneously.

When discussing the notion of impact and picturing it as a collision, one has to concentrate on both the choice and nature of the objects that collide. Moreover, it has to be clear to which of them the force of impression is applied, and concomitantly, which of them is being viewed (chosen for the purpose of a study) as the one with capacity to cause a change. When studying the interaction between the *socio* and *form* fibres, i.e. society and built form, assessment tools for urban designs can consequently be constructed to address one of the three following perspectives: 1) *impact of society* on built form, 2) *impact* of built form *on society*, and 3) integrated perspective including points 1 and 2, where the force of impression is assigned to both components. Social impacts in urban design could be therefore defined as both the impressions that the *socio* has on *form*, as well as the impressions that *form* has on the *socio*. This definition will be developed further in the following chapters.

5.3 Re-conceptualisation of ASSESSMENT

Previous chapters presented the context of urban design in which the problem of the *socio* aspect and the relationship between the *socio* and *form* is positioned, viewed from the requirement of assessment. The currently dominant concept of a mixed approach to social impact assessment (Section 5.2) demands rethinking of the practice of social impact assessment in urban design. The urban design-based understanding of the *socio* (Section 5.1), together with the definition of social impact (Section 5.2) in urban design was presented. This combination introduces a view of the subject for assessment. In this respect, the thesis considers it important to further re-conceptualise the assessment of newly defined social impacts in urban design. The issues of ambiguity of urban design and the fractions of architectural thinking are introduced to explore

how urban design can contribute to development of social impact assessment. Section 5.3 argues that the transversality of social impact assessment as a process in urban design has to be improved, not only with the focus on the mix of power relations between the *socio* and *form,* but also in relation to the character of the design process behind it. With reference to the *Opaltorget case* the thesis looks beyond the traditional legitimising, critical and descriptive character of social impact assessment tools that operate through linear reduction. Section 5.3 thus mainly constitutes the foundation for what Chapter 6 develops as a space of possibilities.

5.3.1 Assessment in the context of conceptual ambiguity

Urban design is defined as 'a frame of mind, a shared commitment to the totality of the built environment: to urbanism, to the city' (Krieger n.d.; in Kelbaugh & McCullough 2008, p.5). It can therefore be viewed as a shared commitment to the process of merging values and structures: 'merging civitas and the urbs: building the values and ideals of a civilized place into the structure of the city' (Paterson n.d.; in Cowan 2005, p.416). The aim of such a process is 'making better places for people than would otherwise be produced' (Carmona *et al.* 2003, p.3), where one of the objectives is 'to make people more aware of their actions and how those actions impact and ultimately shape the city; a process of not only enabling, but one of education' (Kelbaugh & McCullough 2008, p.4).

Urban design is a widely discussed term. While it appears frequently in literature, it is still an ambiguous concept, described by Madanipour (1997, p.363) as 'a puzzling variety of views' used in different ways by different groups in different circumstances. Definitions vary in relation to the context of use and the type of user, and the array of key focus concepts, and result in areas of confusion. Understanding and acceptance of this perplexity can derive from studies of urban design as one of the products of urban planning generated by processes of urbanism. Urban design is both a significant and a contentious concept. As Carmona *et al.* (2003) suggest, what urban design is striving for today is a synthesis of 'the aesthetical' and 'the social'. The synthesised making places tradition is exposed to confusions about how urban design is defined and understood (Madanipour 1997). When the emphasis is 'the visual', urban design can be seen as merely an aesthetic-expressive and, therefore, subjective process. Whereas when it is spatial or 'social', urban design can be seen as dealing with spatial transformation and its social

significance, finding a more objective emphasis. This tradition is furthermore exposed to a debate about the two concepts: 'the urban' (suggesting characteristics of cities) and 'design' (referring to sketching, planning, colouring and pattern making). The conception of 'the urban' incorporates the objective and rational discussion about 'the social' and 'the form' aspects. Design, on the contrary, is more often regarded as subjective and irrational, and concerned with 'the visual', 'the aesthetical-expressive' aspects. As both have very wide and inclusive meanings, that stretch throughout more and more areas that were once on the periphery of these concepts, it could be argued that soon everything related to city and creative processes will be called urban design. Making places is therefore perplexed as to how to respond to this urban design's multifaceted nature (Figure 5.4).

Figure 5.4: Perplexity of urban design.

The concept of urban design is a dynamic one. The position taken when discussing it depends upon how one explains the role of urban design and the degree to which one attributes this role to what is described as areas of confusion, rather than to a lack of its proper consideration. The three areas of confusion and ambiguity described, and thus the nature of urban design, challenge the development of the making places tradition.

'Urban' issues are more often classified as irrational, in the sense that they are not consistent with reasons. The resultant lack of control shifts interests toward design as a part of the concept of urban design, where rationality and control can be found – the way cities are today, with the aim of controlling and rationalising creative processes concerning the irrational subjective 'urban'.

Making places experiences polarisation of urban design's essential features in terms of attitudes towards the urban design action (Figure 5.5).

Figure 5.5: The essential features of urban design polarise into two contrasting attitudes towards the urban design action.

The fusion of 'making places' and its architectural praxis are therefore further exposed to procedures and processes that have the intention of reducing their complexity for the purpose of decision-making and controlled adjustment to a requirement. A social impact assessment is an example of such a procedure that enters contemporary urban design and development processes, increasingly emphasising social impacts associated with design products. This type of practice is expected to provide a reasonable assurance that the design of the physical form of the environment developed by an architect will operate as intended, that components are reliable and that the organisation of them is in compliance with applicable and relevant laws and regulations. The problem, however, is that this requirement, this intention concerning social issues, often doesn't (cannot) have the character of a universal law or regulation. Moreover, stakeholders involved in evaluation processes have difficulties understanding and communicating when it comes to stating how the not yet built environment both embraces and expresses these – by nature – dynamically evolving social concerns.

Nevertheless, the approaches of urban planning practice to urban design are oriented toward its instrumental utilisation, acknowledging the possibility of design through planning, but not utilising that possibility. In the UK, the UDG Urban Design Group has urged the government to give a high priority to implementing a programme where one of the first points says: 'Put Design at the Heart of the New Planning System'. To be able to do that, values concerning the nature of design have first to be understood to be incorporated

into the reality of urban planning and into social impact assessments. To put urban design at the heart would entail changing the power relationships between making places and its essential features, from one where (1) through aggregation the urban design's features compose urban design, to one where (2) urban design is a central *polis*, from which the urban design's features develop (Figure 5.6). Further, striking the new balance between these two power relationships could follow.

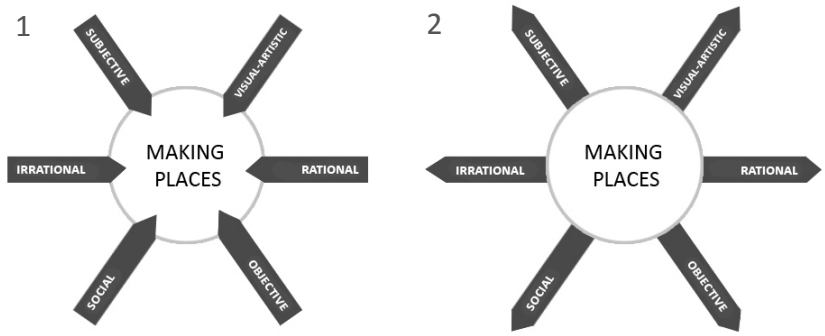


Figure 5.6: Power relationships between making places and its features: (1) the 'aggregation' and (2) the 'dismantling'. The first scheme presents urban design as a *summative concept* – a result of an aggregation of ideas, i.e. an assemblage, where a total of the concept is considered with reference to its essential features. The second scheme presents urban design as a *formative concept* – an origin of ideas, i.e. the essential features are considered with reference to a not divided whole of the concept.

In the Swedish practice of urban development, translation of the notion of urban design from English to Swedish is not always an easy task. There are no direct words in Swedish that share the same meaning. During one of the lectures in the City Planning Authority of Gothenburg, when asked for such a translation, the respondents demonstrated with a diversity of answers that the sense of urban design is partly enclosed in several more established concepts like *city planning, city building* and *design*[81] (Post lecture discussion SBK 2010). The Swedish concept of urban design is therefore a collage, an assembly of perspectives with different origins. Its meaning may be developed in these compositional fragments, but the concept lacks identity and coherence on its own. What follows is that, with no operational meaning, urban design does not function effectively. Numerous stakeholders are involved in the urban planning and design processes. These stakeholders attempt to 'make places'

[81] *The original Swedish language concepts:* 'Stadsplanering', 'Stadsbyggnad', 'Gestaltning'.

and develop knowledge about the relationship between the *social* and *built form* aspects. However, the personal, institutional and professional complexity of processes in which projects and architectural urban designs develop makes the discussion about urban design, place making and the above-mentioned dynamic interdependencies difficult to convey and confusing. Its content is often 'lost in translation', when moving from hand to hand. Additionally, development of the concept and the practice in urban design is frequently separated. 'Place making', understood simultaneously as '(…) an overarching *idea* and a *hands-on tool* for improving a neighbourhood, city or region' (PPS n.d.) and as a multi-faceted approach to 'the planning, design and management of public spaces' (PPS n.d.), is therefore difficult to convey.

Considering assessments as part of urban design and 'place making' requires reflection on the above mentioned idea/tool correlation, and its conceptual and instrumental capacity. Social impacts in urban design drafting are constructed assumptions, and therefore subject to their own design processes. To be able to unravel the design of such assumptions, social impact assessment needs to convey the nature of the process of designing 'the urban'.

5.3.2 Assessment in the context of architectural thinking

The development of a civilisation is characterised by aspirations to control, share and subordinate nature. As mentioned above, contemporary urban problems are, however, often unruly in the sense that they are difficult or impossible to discipline and control with the use of modern and functional approaches. The agency, the means or modes of acting, in other words instrumentality, is therefore the factor that both practitioners and researchers become concerned with. As the awareness of modern failures in the field and the requirement to maintain a sustainable balance (continuously exposed to the processes of civilization) grows, this *instrumentality* heads towards constant moderation. The stratification of the rich experiences of society and administration that manages the life of politics and the economy consequently result in a general, widespread conviction that reconnoitering and describing environments, together with the anticipation and forecasting of the impacts generated by every human intervention, is inevitable. Various impact studies, also in relation to architectural-urban designs, are often conducted. Further efforts are dedicated to work on improving the efficiency and accountability of methods useful for this purpose.

In fact, instrumentality could be seen as an overarching principle in social impact assessment that is so often discussed in relation to its ability to

improve urban space. Social impact assessment is performed to achieve an objective that lies beyond the practice of assessment itself. The objective is often created in relation to a specific urban planning and design tasks that is solved in specific and, narrowly defined situations. Hence, impact studies are regarded as a rational practice, as they depend on one's ability to solve the design task.

The instrumentality of social impact assessment in the context of urban design is not sufficient. Madanipour (2014, p.3) defines urban design as 'an exercise of power – an attempting to order urban space and society according to a set of diverse reasons', but he is clear about the fact that 'this ordering needs to be always open to critical analysis and democratic scrutiny'. Critical thinking in social impact assessment is important for yet another reason. The needs of analysis and its relevance can develop dynamically over time in the process of assessment. Social impact assessment needs to emphasize not only the experienced wants and needs, but also those unconscious ones of individual users or social structures governing the wants and needs of individual users. It is through highlight such a dialogic relation and a double role of social impact assessment (instrumental and designerly) that the conflicts between different objectives can be identified and explored.

This ambiguity of urban design demands that social impact assessment develop the capacity to 'think' architecturally. In the context of ambiguity, architectural thinking (Nilsson 2004; 2007b, p.249) is required to handle uncertain, changing, complex situations that are strongly connected to the specific circumstances with all governing and contradictory forces. The character of tools and methods used contemporarily in assessments of architectural designs, however, corresponds in particular with one of the fractions of architectural thinking – *rational, systematically analytical thinking* (Nilsson 2004, p.42).

Hence tools operate with existing knowledge and evaluations approach design instrumentally. Contemporary social impact assessments produce interpretations through rational reasoning, but they lack the capacity to provoke the discovery of unexpected potentials through experimental shaping and designing. It is an effect of increasing control, rationalisation of creative processes and a need to produce a basis for decisions on the direction and course for future development. Social impact assessments have a rather underdeveloped sensitivity to the second fraction of architectural thinking, *spatial and constructive thinking,* which often seems irrational, subjective, vague and nomadic, as Nilsson points out when discussing transdisciplinarity and architectural design. Design is approached as reproductive and reductive, rather than innovative and liberating.

As Nilsson states, by giving spatial form to existing but elusive and diagrammatic forces of different kinds, architectural design could produce new knowledge, and also explore and generate knowledge about potentials and previously unseen possible paths of development (Nilsson 2007b). It seems, therefore, to be important to revise the character of social impact assessment of architectural designs, so that it respects and exploits both fractions of architectural thinking, spanning environments for work with existing knowledge and production of knowledge in action at the same time. By focusing equally on the two fractions of architectural thinking, rational, systematically analytical thinking, and spatial and constructive thinking, the design attitude deployed is one that enables comprehensiveness in the context where the specificity of social issues is unsettled. In that sense, architectural thinking in social impact assessment acts at the level of the 'unsettled', its contribution being characterised not only by tool-oriented problem solving but by developing concepts that can reframe our thoughts and ideas, and open up prospects other than those that are 'known'.

5.3.3 Assessment in the context of the character of design

The architectural activity has a unique specificity to creatively handle uncertain, ambiguous and changing situations. Assessment of this activity, as well as assessment being such an activity, requires understanding of design as a way of working and thinking. Following Nilsson, 'an essential characteristic of design is to conceive unity from a set of mutually contradictory requirements' (2004, p.38). According to Nilsson, what is required is ability to, on the one hand, interpret through rational reasoning, and on the other hand, to discover unexpected potentials through experimenting shaping and designing. Architectural thinking implies a crucial ability to design. When conceiving unity, design is *anticipative and projective*, but also *explorative and generative* (Nilsson 2004, p.37). What does this mean for development of social impact assessment in urban design? Firstly, assessment has to be anticipative, serving the expectation, in the act of predicting (as through reasoning about the future). The projectivity of it, the extending outwards through an estimate or forecast of a future situation or a trend based on a study of present ones, draws from the character of design. Secondly, social impact assessment in urban design has to be exploratory, meaning in the service of or intended for exploration or discovery, at the same time generative in having the ability to originate. The question then arises, if social impact assessment is sensitive to architectural practice and design with their ways of thinking and working

directly on situationally-based factors, could assessment generate knowledge about the *socio* and make us understand our 'urban' better and thereby give us other possibilities to change it?

5.3.4 Synchronic perspective on the assessment in urban design

In urban planning the aim of the social impact assessment is very general: 'The aim of the social impact assessment in spatial planning is, among others, to introduce greater consideration to social issues in the plans, as well as presenting the plans' positive and negative consequences. Its aim is also to increase awareness of social consequences in the public, those concerned and decision makers, and to constitute the basis for selection of alternatives and decisions' (Boverket 2000, p.12)[82].

A tool of analysis is used to show how the previously set goals and guidelines are opposed or proposed: 'The assessment of the plan's consequence can also take place through measuring and analysing whether and how the objectives and guidelines set are being counteracted or supported, whether there are distinct risks with the plan or whether the consequences concern pressing interests' (Boverket 1996a; in Boverket 2000, p.35)[83].

The Boverket has explicitly addressed the importance of the social life premises for social impact assessment: 'For the social impact assessment to achieve its aim, work on the analysis has to start early and be integrated into the planning. The social and economic aspects need to be dealt with and described in the plans so that they can constitute the basis for the plans' impact assessment and for assessment of the plans. If the social impact assessment is established in early and outline planning stages, it can also facilitate and be the basis for subsequent planning' (Boverket 2000, p.31)[84].

In the *Opaltorget case* the social impact assessment was defined as: 'Analyses of plans and programmes from which consequences of the planned environ-

[82] *The original Swedish language text reads:* 'Den sociala konsekvensanalysens syfte i fysisk planering är bland annat att införa större hänsyn till sociala frågor i planerna samt redogöra för planernas positiva och negativa konsekvenser. Dess syfte är också att öka medvetenheten om sociala konsekvenser hos allmänhet, berörda och beslutsfattare och utgöra underlag för val av alternativ och beslut' (Boverket 2000, p.12).

[83] *The original Swedish language text reads:* 'Bedömningen av planens konsekvenser kan också ske genom att mäta och analysera om och hur uppsatta målsättningar och riktlinjer motverkas eller främjas, om det finns tydliga risker med planen eller om konsekvenserna gäller angelägna intressen' (Boverket 1996a; in Boverket 2000, p.35).

[84] *The original Swedish language text reads:* 'För att den sociala konsekvensanalysen ska uppnå sitt syfte behöver arbetet med analysen påbörjas tidigt och integreras i planeringen. De sociala och ekonomiska aspekterna behöver behandlas och beskrivas i planerna för att kunna ligga till grund för planernas konsekvensanalyser och för bedömningen av planerna. Om den sociala konsekvensanalysen upprättas i tidiga och översiktliga planeringsskeden kan den också underlätta och ligga till grund för efterföljande planering' (Boverket 2000, p.31).

ment can be conceived for social life in a wide sense. In other words, they are based on some sort of proposed plan (…)' (Olsson & Cruse Sondén 2009, p.5)[85].

The definitions suggest that the character of design should be embedded in social impact assessment. Is social impact assessment a means of urban design? Are issues of contextualisation and conceptualisation the focus of designs and their assessments? Do assessments of urban design drafts develop in an attempt to project already obtainable relationships that can be found in the context (both existing ones and desired ones), but also to generate relationships that are currently unattainable rationally? An investigation was conducted to see if assessments of architectural urban designs offer the space of possibilities and how this space is framed in the context of a particular urban design process.

Architectural thinking and the character of design

Discussions about any social impacts associated with architectural urban designs do not start from scratch or from abstract principals, but from existing opinions, beliefs and assumptions enclosed in different documents developed in the planning process. Urban design is about change, and the subject for change has to be identified. This addresses how important it is to understand the *urban context* – the existing construction of a relationship between the social and built form aspects, as well as the approach of design to change.

The context

Every city environment, existing in reality, or presented in a vision or a design, weaves these two major fibres together: people and built forms – the *socio* and the *form*. The *Opaltorget case* demonstrates that urban planning documents address the aspects of the urban structure, creating maps of relationships, on the basis of which design interference can be discussed (Section 4.4). In Tynnered's *Description of the City District* (BSD) (SBK 2008a), which is a part of the comprehensive plan, the *socio* of the district (Sections *To live in Tynnered* and *Industry and commerce in Tynnered*) is described along with the *form* (Section *The physical environment in Tynnered*)[86]. The BSD is the first part of the twofold reality of place and it presents representation of reality of place and the *socio* (the real *socio*). The second part is representation of proposed change (the envisioned *socio*). Representation of proposed change is devel-

[85] *The original Swedish language text reads:* 'Det är analyser av planer och program utifrån vilka konsekvenser den planerade miljön kan tänkas få för socialt liv i vid mening. De utgår alltså från att det finns någon form av planförslag (...)' (Olsson & Cruse Sondén 2009, p.5).

[86] *The original Swedish language text reads:* 'Att leva i Tynnered', 'Näringslivet i Tynnered', 'Den fysiska miljön i Tynnered' (SBK 2008a).

oped in the *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered* (LUP) (SDF Tynnered 2009a). Both documents constitute knowledge about the concrete and experienced context of place and the *socio* (its different realities) and elaborate on the area's natural development trends and the currently identified needs and visions concerning change.

A challenge worth addressing here is the individual comprehensiveness of the documents and their relationship. This knowledge about the social life context is the premise for social impact assessment. Many *socio* facts are listed, for example: 'A relatively higher proportion of people with disabilities live in Tynnered than in other parts of Göteborg' (SBK 2008a, p.12)[87]. What is a possible meaning of this statement in relation to the existing *form*? The *socio* can be a consequence *of form*, as the following explanation is given: 'This is largely due to the fact that access to disabled housing has been relatively good in the district (SBK 2008a, p.12)[88]. Next, an interdependency is built: 'Conversions and adaptations in some areas have increased the number of disabled people moving in (SBK 2008a, p.12)[89]. This interdependency shows that in this case the *socio* fact is a consequence *of* a certain existing *form*. This form (the adaptation of housing) is thought to have an impact on the *socio* of the district (a relatively high proportion of disabled inhabitants).

The same *socio* fact is also an argument *for* a certain future *form*. The BSD, Section *To live in Tynnered*, presents development tendencies and needs and the following vision: 'The number of people with disabilities is relatively high in the district. Many are of school-age or just above it, which indicates a future need for initiatives in the form of special housing and employment etc.' (SBK 2008a, p.17)[90]. This *socio*, a relatively high proportion of disabled inhabitants, requires the adaptation of housing and intervention in the *built form*.

Additionally, the LUP (SDF Tynnered 2009a) further interprets how the future form could possibly be involved with a relatively high proportion of disabled inhabitants: 'Housing is needed with different forms of tenure, sizes and costs. In particular, some needs have been indicated here that concern the

[87] *The original Swedish language text reads:* 'I Tynnered bor relativt sett fler personer med funktionshinder än i övriga stadsdelar i Göteborg' (SBK 2008a, p.12).

[88] *The original Swedish language text reads:* 'Detta beror till stor del på att tillgången på handikappanpassadebostäder har varit relativt god i stadsdelen' (SBK 2008a, p.12).

[89] *The original Swedish language text reads:* 'Ombyggnader och anpassningar i vissa områden har ökat inflyttningen av personer med funktionshinder' (SBK 2008a, p.12).

[90] *The original Swedish language text reads:* 'Antalet personer med funktionshinder är relativt stort i stadsdelen. Många är i skolåldern eller strax däröver vilket pekar på ett framtida behov av insatser i form av bl. a. särskilda boenden och sysselsättning' (SBK 2008a, p.17).

elderly, young people and the disabled as their needs are often hard to meet' (SDF Tynnered 2009a, pp. 5-6)[91].

Design's approach to change

By nature, design can anticipate and project the existing *socio* context, but also explore it and generate new knowledge about it. Does assessment combine these qualities? Are assessments sensitive as much to context as to concept? Referring to the examples presented above, the design draft developed by BIG *Bjarke Ingels Group* could be evaluated with the focus on *persons with disabilities* and *tenures, sizes and costs* and become a rational and systematically analytical analysis. In this way the role attributed to architectural design in the urban planning practice of social impact assessment would be to react in a pre-defined way. Such social impact assessment would not engage critically with the conditions that define the social aspects and urban relationships.

Design has the ability to act proactively and, therefore, to re-conceptualise. Assessment with an interest in spatial and constructive thinking could allow reflection on alternative solutions, beyond *tenures, sizes and costs,* or even redefine the underpinning *socio* problems. For that reason, conveying a dependency on concept in assessment is important and requires the involvement of designers. Assessments could be constructive for processes of conceptualisation, and therefore attentive and sensitive to concept. The combination of the two design characteristics, the projectivity and generativity, would develop social impact assessment into a means of urban design, for urban planning and design and for relevant analytical and constructive processes. In the detailed development plan's analysis of social impacts (SBK 2009a) and in the SKB (SDF Tynnered 2010), the *socio* issue that is addressed by the context is not mentioned. What is mentioned in the SKB analysis is *mixed forms of tenure,* but only in relation to gentrification, segregation and integration.

Fragmented lines of reasoning

In the *Opaltorget case*, experts regarded the social impact assessment as an analysis of design with the focus on the consequences that the designed environment might have on social life. This definition brings three elements to the fore: *premises for social life*, the *design*, and *description of consequences*, indicating the existence of a line of reasoning. Such a study of the structure and validity

[91] *The original Swedish language text reads:* 'Det behövs bostäder med olika upplåtelseformer, storlekar och kostnader. Här har särskilt några behov angetts som rör äldre, ungdomar och handikappade därför att deras behov ofta har svårt att bli tillgodosedda' (SDF Tynnered 2009a, pp. 5-6).

of lines of reasoning is the classical aim of logic. The illustration presented below shows that the three elements were represented in the process by particular planning documents (see Figure 4.8). The context aspects were addressed, the design was developed and the consequences were described.

However, the logic of thinking in the creation of assumptions about the change that the design entails does not come through when looking at the whole set. The lines of reasoning are fragmented, as the following example shows. The *Description of the District Tynnered* (BSD) presents the case in descriptive mode: 'The district is largely ready-built' (SBK 2008a, p.18)[92]; 'The population forecast indicates a continued cautious increase of the population in the next few years (SBK 2008a, p.17)[93]. With these words, the document emphasises the shortage of land suitable for housing necessary to accommodate the forecasted population growth. In an intentional-anticipative mode the *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered* (LUP) presents a decision about what should be the case and refers to the population growth, presenting it as a condition for a well-functioning public square: 'For Opaltorget to develop requires a larger population than is currently the case. This might come about through new homes, but also through it becoming easier to get to the square' (SDF Tynnered 2009a, p.1)[94].

The design proposal presents 432 new apartments, 100 of which are accommodated in a tower block. The SKB analysis includes the comment: 'As housing, tower blocks in this dimension are doubtful (…)' (SDF Tynnered 2010, p.7)[95]. The only benefit addressed is the views from the apartments: '(…) the view from the top floors will be very attractive' (SDF Tynnered 2010, p.7)[96]. Design is described neither as a reaction to the problem of population growth, nor as being proactive in relation to it, a change in the problem definition. Instead other aspects come into focus: 'There are no yards and environments for the semi-private life, it is difficult to keep a check on who lives here and to establish even rudimentary contacts – it is going to require a lot of locks and surveillance cameras for the environment to feel secure in the building. For families with children, buildings like this have functioned

[92] *The original Swedish language text reads:* 'Stadsdelen är i stort sett färdigbyggd' (SBK 2008a, p.18).

[93] *The original Swedish language text reads:* 'Befolkningsprognosen pekar på en fortsatt försiktig ökning av befolkningen de närmaste åren' (SBK 2008a, p.17).

[94] *The original Swedish language text reads:* 'För att Opaltorget ska utvecklas krävs ett store befolkningsunderlag än dagens. Det kan komma till stånd genom nya bostäder men också genom att det blir lättare att ta sig till torget' (SDF Tynnered 2009a, p.1).

[95] *The original Swedish language text reads:* 'Som bostad är höghus i den här dimensionen tveksamma (...)' (SDF Tynnered 2010, p.7).

[96] *The original Swedish language text reads:* '(...) utsikten från de övre våningarna kommer att vara mycket tilltalande' (SDF Tynnered 2010, p.7).

poorly, even on the 5th/6th floor it's hard to identify people below. High-rise buildings create shadows beside them and increase the wind speed, which can be important to remember in an area that is really exposed to wind. There are also risks with such tall buildings, for example, if the lifts aren't running when there's a power cut, a lot of people become locked in or out, (to mention one of the hazards). The question is for whom is a building of this kind suitable?' (SDF Tynnered 2010, p.7)[97]. No reference is made in the detailed development plan's analysis of social impacts (the DP: Section *Social consequences*) to the subjects discussed above, except for this one where populated spaces are considered to be significant for safety: 'Mixed urban environments, which are populated during large parts of the day and night, contribute to increased security' (SBK 2009a, p.30)[98].

This illustration spans several years of planning work and several documents. Sometimes even individual processes can be confusing, as in the case of the programme for the parallel assignment. The programme addressed two main categories with criteria crucial for the evaluation of the parallel assignment's designs: the aspects of *content* and *urban* (Gregorowicz-Kipszak 2010). However, the evaluation report did not follow this list of criteria. It did not focus on the qualities of good design that were initially listed, but instead it presented the final conclusions with the focus on 3 main elements: traffic, the environment in the square and safety.

The intention here is not to discuss the choice of factors and their combination. Rather, it is to show that throughout all the stages of project development, judgments concerning the social dimension appeared to be inconsistent.

With its contemporary definition, the aim of social impact assessment (analysis) is to compose lines of reasoning by drawing conclusions from the premises of social life. Hence, by definition, assessment (analysis) is rational and systematically analytical and it approaches design in an anticipative way, reasoning about the future based on the context. However, in practice, the inconsistency shows that, consciously or not, social impact analysis is also generative in regard to the social problem in the context and to the design, and its

[97] *The original Swedish language text reads:* 'Här saknas gård och miljö för det halvprivata livet, det blir svårt att få koll på vilka som bor här och skapa ens rudimentära kontakter – det kommer att behövas många lås och övervakningskameror för att miljön ska kännas trygg i huset. För barnfamiljer fungerar hus av det här slaget dåligt, redan på 5-6 våningen är det svårt att identifiera personer nedanför. Höga hus skapar skuggor intill och ökar vindhastigheten vilket kan vara viktigt att komma ihåg i ett område som verkligen är utsatt för blåst. Risker finns också med så här höga hus, går tex. inte hissarna när det blir el-stopp blir många rätt instängda och utestängda (för att nu nämna en av farorna). Frågan är för vilka ett hus av den sorten passar' (SDF Tynnered 2010, p.7).

[98] *The original Swedish language text reads:* 'Blandade stadsmiljöer, som är befolkade under stora delar av dygnet bidrar till en ökad trygghet' (SBK 2009a, p.30).

important role is to develop this position explicitly. The role of social impact assessment (analysis) therefore has to be revised, and the analysis has to develop as an element of social impact assessment in urban design.

This requires a common approach to all elements that are in focus of social impact assessment, to overcome difficulties in visualising, informing, and assessing how project proposals representing a not yet built environment can both complement and develop the urban environment, with the emphasis on human and social well-being.

Rational and anticipative assessments

The presence of a social impact assessment (analysis) of architectural designs in the *Opaltorget case* reflects the growing control, rationalisation of creative processes and need to produce a base for decisions on the direction and course for future development. Their legitimate and descriptive character corresponds with rational, systematically analytical, architectural thinking. Because there is no approach that covers all the bases and positions elements of the planning process in relation to each other, the form of social impact assessment is mainly such an analysis. Hence these analyses operate with existing knowledge of the social' and the evaluations approach the design in an instrumental way. Assessments studied produced interpretations through seemingly rational reasoning, but they lacked the capability to provoke the discovery of unexpected potentials through experimental shaping and designing. They did not develop a sensibility to the second dimension of architectural thinking, i.e. spatial and constructive thinking. This resulted in problems constructing the assumptions about how the proposed design both reacts to an already identified unsatisfactory social situation, and re-constructs 'the social' imposed by planning. What followed was a significant deficiency in the design processes that combine discussions about visual-aesthetic aspects of design with knowledge about the local social situation.

5.3.5 Defining assessment in urban design

Sections 5.1 and 5.2 developed a view of the subject for social impact assessment in urban design based on a mixed approach to dimensional understanding (Carmona *et al.* 2003) of 'the urban'. This entailed further rethinking of the roles attributed to architectural design in the urban planning practice of social impact assessment. There seems to be a general agreement that social impact assessment in urban design is undeveloped and the sector therefore fails in its reaction to the social problems identified. The consequence is that the con-

temporary practice of social impact assessment in urban design attempts to embrace the rational and anticipative approach to urban design rather than a constructive and an explorative one. On the other hand, as described in previous sections, the social perspective, and therefore social impacts, is characterised by a state of unsettlement, with the practice of urban planning calling for improved integration of the social perspective – the integration of 'unsettlement'. It demands a change in perception of 'the social', which composes the urban relationship between the social and built form aspects from something that is given, something to choose from, into something to engage in. Social impact assessment needs to engage critically with the conditions that define the social aspects of urban design.

This 'unsettlement' could be seen as a domain of urban design. In this context the thesis argues that the move toward the making places tradition means that urban design cannot be practiced in the way it has been, neither solely within the visual-artistic tradition nor the social usage tradition. It also means that it should not be practiced without giving equal consideration to rational, systematically analytical, thinking and thinking that is spatial and constructive. It has the potential to be a means of urban design, for both urban planning organisation and creative design. Moreover, the anticipative and projective, as well as explorative and generative, aspects should be taken into account. These fusions have to be challenged and the thesis therefore suggests development of urban-able social impact assessment having the power, means, and opportunity to handle the unsettlement, assessment susceptible to urban design. From this perspective, then, it seems rather plausible to assume that an urban design-based knowledge paradigm can contribute meaningfully in situations of unsettlement, accommodating it in what the thesis calls a space of possibilities.

To discuss how urban design can contribute to development of social impact assessment the thesis narrows down the concept of urban design. In the context of re-conceptualisation of social impact assessment, urban design is therefore understood and defined in this thesis as a complex iterative process of moving a thought about 'the urban' between the real space and the anticipated one, between 'the known' and 'the unknown', analysing and constructing the subject with a sensibility to different power perspectives between the social usage and visual-artistic traditions, for the purpose of anticipation and exploration, with the aim of making a better place. The outline left by the moving thought frames what the thesis calls the space of possibilities, a space that hosts discussions on the subject matter of urban design, bridging the generalisation of planning and the concrete specifics of architecture, developing the

rhetoric of urban design. In other words, urban design's space of possibilities forms an environment within which this discussion takes place, an environment that social impact assessment should convey.

5.4 Towards URBAN-able social impact assessment

This chapter presents a re-conceptualisation of social impact assessment with urban design and the *conceptual advances* that imply changes in how urban planning and design stakeholders define and handle evaluation of the urban space and its social aspect. These advances have involved formulating an understanding of the concepts of the *subject for* and *process of* social impact assessment in urban design, as well as readdressing the resulting knowledge that is the *subject matter of* social impact assessment in urban design.

Therefore tree major issues are considered important for design of an approach to the *design of urban space* (Table 2.2). These issues spin around the three entries to the topic of enquiry – *subject, process* and *knowledge* (Figure 2.7) and relate the concepts of 1) urban space and social impact, 2) design and assessment, and 3) knowledge production in urban design and social impact assessment.

The *first one* is connected to the question of *what* is to be assessed. Understanding the impact concept, the four patterns of interaction and configurations of meaning identified in the construction and creation of the relationship between the social and built form aspects provided guidance and resulted in the nature of the constituent elements as such and their interrelations coming into focus. Insights into the social and built form aspects and the ways in which these aspects interact together to create relationships are therefore presented. The *second one* is related to the question of *how* to comprehensively approach the patterns of interaction, power perspectives and configurations of meaning that have been recognized. The mixed approaches to urban design and impact assessment that have been identified were considered essential prerequisites for a general approach to social impact assessment. The concept of the space of possibilities has been used to discuss assumptions about interrelations with attention to the reactive and proactive role of design. The *third one* is related to the question of *why* this comprehensive approach is useful in the context of the urban design process. It will be further developed in Chapter 6.

The conclusion is that transversality of social impact assessment in urban design has to be improved, through signifying the subject for design (*ur-*

ban space), the process of its *design*, and the production of *knowledge* about it (the subject matter of design). Three recommendations follow from this conclusion and concern design of a method for advancing social impact assessment within urban design and its transversality. *The approach* to the design of urban space can advance social impact assessment and develop its transversality through: 1) *developing transverse of spatiality* to support studies of the *socio* and *form* aspects of urban space, patterns of interaction, power perspectives and configurations of meaning, 2) *developing transverse of design* to support tentative urban design shifts, modelling and remodelling, and to provide access to the discussion about the assumed construction of the relationships between the *socio* and *form*, in different contexts and realities, reflecting on architectural thinking and the character of design, and 3) *developing transverse of knowledge* to enhance design communications in the urban design process, supporting actionable knowledge in-the-making (in terms of development, structuring and sustaining), its generation, transfer to sites of application and transmission through education and training, helping in translating/applying actionable knowledge to one's own circumstances and influencing the forming of urban design products and processes and developing a rhetoric of urban design.

Methodologically, these three recommendations initiate the modelling of the SOCIO-FORM synthesis, and guide the activity of presenting the SOCIO-FORM approach in Chapter 6.

6. SPACE OF POSSIBILITIES AND NAVIGATION

Chapter 6 explores the space of possibilities of urban design to act in social impact assessment through its potentials of architectural and design thinking, acting and making of urban space, for what ideas are being developed and how they are made and expressed. The onset here is based on design theory adapted from rhetoric. The role of the SOCIO-FORM approach for the rhetoric of urban (design) is addressed. This chapter further develops the outcomes of the re-conceptualisation and models them into a physical representation. Three questions, related to the recommendations from Chapter 5, take the lead: *Why* should urban design develop social impact assessment? *What* should social impact assessment provide that the nature of urban design demands? *How* to facilitate the production and dissemination of knowledge generated by social impact assessment in the urban design?

Chapter 6 is framed in three parts and follows one line of inquiry: the *subject matter of social impact assessment*. Based on the recommendations presented in Section 5.4, Section 6.1 concerns the modeling of the space of possibilities necessary for social impact assessment in urban design to integrate with and Sections 6.2 and 6.3 concern the development of the navigation that such space of possibilities requires. The space of possibilities outlined by the SOCIO-FORM approach and the SOCIO-FORM model are subsequently presented. An account of the social impact assessment's subject, process and related knowledge is provided, addressing the *socio* and *form* components of urban space, the issue of power in the construction of *urban*, the architectural and design nature of the process of its construction and the transversal character of this activity.

6.1 Space of possibilities

6.1.1 Poetics, rhetoric and concetto of urban design

Nilsson (2007a) and Buchanan (1995) discuss what they call the rhetoric and poetics of products. The rhetoric of products is the study of how products

become vehicles of argument and persuasion about the desirable qualities of private and public life and the poetics of products is the study of products as they are (constructed or made) (Buchanan 1995, p.26). Considering urban design (drafts and processes) as products, subjects to evaluation with the aspect of social in focus, it is the rhetoric and poetics of urban design, that social impact assessment in urban design will be concerned with. The rhetoric of urban design can be understood as how urban design becomes an argument in discussions on better futures. The poetics of urban design can be understood as the art of making and conceiving city designs. Both should be addressed in case of criticism of urban design. According to Buchanan '(…) design history, theory and criticism should balance any discussion of products with discussion of the particular conception of design that stands behind the product in its historical context' (1995, p.26). Drawing an analogy to this, social impact assessment in urban design should balance the discussion of urban design with discussion of the particular conception of design that stands behind the urban design.

The area of interplay between the rhetoric and poetics of products is thought to be a significant issue when developing social impact assessment in urban design.

However, in addition to poetics and rhetoric, there is a third element on which literature studies reflect. Based on studies of works by Jan Andrzej Morsztyn – one of the leading Baroque poets in Poland and the leading representative of the Marinism style in Polish literature – Herta Schmid, (2005a-b) locates the idea of *concetto* between poetics and rhetoric (Helbig-Mischewski n.d.). She builds on the definition of *concetto* developed by Maciej Kazimierz Sarbiewski (Sarbievius)[99], formulated in *De acuto et arguto 1619/1620*. The famous formula known as *concors discordia* or as *discors concordia:* the concordant disagreement or the discordant agreement – was subsequently used not only in the theory of literature but also in theories of other arts (Nedzinskaitė 2007). The theory of *conceptus* relates to a verbal language-stylistics phenomenon.

The term *concetto* (*concetto predicabile*, *concetto scitturale*, *conceptus praedicabilis*) does not have just one meaning. Benedetto Croce called it *a vehicle*

[99] Nowicka-Struska (n.d.) states that the definition of *concetto* verbalised by Sarbiewski operates today as the most accurate formulation of this aesthetic-poetic act. She presents Sarbiewski's typology of *concetto*, with *concetto* being: 1) a notion in rhetoric, a beautiful sentence, rare metaphor, allegory, hyperbole, similarity, 2) a notion in dialectic, a fraudulent fallacy, and 3) a psychological notion of surprise, an intellectual shock. Nowicka-Struska writes that the theory of *concetto* was admired among the cultural elite of Rome, and discussed among scholars of rhetoric and poetry. She points out that the innovative idea by Sarbiewski was 20 years ahead in relation to the theories of *Gracián Arte de ingenio, 1642* and Pellegrini *Delle acutezze, 1639*.

of thinking (Karpinski 2003). For Karpinski (2003), concetto also has epistemological and cognitive properties. It is reasoning or a conclusion of it. It is a tool to learn about the world. Literature – poetry, sermons – reveal the confusion that prevails among the meanings attributed to it. Efforts to identify *concetto* more closely with the characteristics of the phenomenon in sermons seem unsatisfactory and are reduced to two types of definition. The first defines the *concetto* as a specific expression of the Baroque style, a particular type of rhetorical ornament belonging to *elocutio* – the study of formal speaking; pronunciation, grammar, style and tone. The second connects it with the inventive layer of expression – the sphere of *inventio,* as Karpinski (2003) would call it. Chemperek (2004) writes that today theoreticians agree that at least five different levels of the meaning of *concetto* can be explored: 1) psychology of the artist: cleverness, inquisitiveness, wit, the ability of recognising and forming phenomena seemingly conflicting into a harmonious whole, 2) psychology and perception of the recipient: *concetto* gives a sense of astonishment, shocked surprise, simultaneously delighted surprise because in the two non-identical and unalike things it discovers a certain quality in common, 3) logic: from this perspective *concetto* is a fallacy: a statement seemingly logically correct, which is in fact incorrect in its conclusions, as it is based on the ambiguity of notions, 4) philosophical dimension: *concetto* is a kind of intellectual discipline, with the aim of searching in the chaotic world for that which unites, it aims at organisation of reality devoid of order and harmony, and 5) it is basically any figure based on stylistic opposites.

Schmid (2005a-b) points out a specific relationship when discussing rhetoric, poetics and *concetto.* The ability of *concetto* to develop awareness of the diversity (multiplicity) of layers of meaning of a word deepens knowledge of the diversity of artistic and creative possibilities (formal means) of poetics. It is to be seen as in favour of poetics, but not of rhetoric to the same extent. *Verba* over *res.* Rhetoricians made this separation, dividing form and content, with the purpose of highlighting the interdependence of language and meaning, argument and ornament, thought and its expression. It can be read in Burton's *Forest of Rhetoric*[100] that: 'This division is unfortunately highly problematic, since thought and ideas (res) have been prioritised over language (verba) since at least the time of Plato in the west' (Forest of Rhetoric 2007). Relating *concetto* to design, it is important to emphasise that

[100] For details, see list of references (Webpages).

linguistic forms are '(…) not merely instrumental, but fundamental – not only to persuasion, but to thought itself' (Forest of Rhetoric 2007).

Referring back to Schmid and her positioning of *concetto* for the development of awareness of diversity (multiplicity) of layers of meaning in words, a certain view is revealed: *concetto* has a role in exploring the poetics of products and, therefore, the rhetoric of products can change, even if temporarily they are not central. *Concetto* is the sophisticated idea, and with the emphasis on the surprising construction of products, an uncommon one. *Concetto* could influence the unexplored 'use and value of the intrinsic capacity of design to redefine problems by reading the implicit possibilities and consequently creating true alternative projections that in a way surpass the given explicit situation' (Janssens 2006, p.151).

In relation to the term *concetto* is also the idea of *conceptismo. Conceptismo* is based on the concentration of a maximum of significance in a minimum of form. In Spanish this approach is called *agudeza* – astute and pertinent mental skill. In the Baroque period it was based on: 1) the discovery of relations between things, 2) evaluating them, 3) understanding them, and 4) refining the idea to express the discovery made. The philosopher Michal Ostrowicki (2000) has researched *the conceptual space* in relation to the ideas of *concetto* and *conceptismo*. The conceptual space develops throughout the process of changes between a collective awareness, the awareness of an artist and the awareness of a recipient. It is an outcome of the feedbacks between these types of awareness. One of his definitions presents the conceptual space as a dialogue: a space in which a process of world modelling happens in the consciousness of the recipient. Sense and meaning are constructed in this space. This modelling process is a way of capturing the infinite reality in the finished work of art.

Similar ideas are discussed in the context of ways to study and research urban, architectural and technical design. The Dutch architect Herman Hertzberger (2000; 2005a-b) points out that the culture we live in, where conditions and values shift all too easily, requires an unremittingly critical attitude. In studies of creating *the space of thought*, Hertzberger (2000) explores methods to assist in opening up the possibilities, instead of determining them. Jong and Voordt (2005) bring up Descartes' *Discours de la Méthode 1637* focused on doubt. Everything points to the fact that design study distrusts, questions, and eventually unmasks and demolishes existing clichés, finding new concepts as an answer to new challenges. Hertzberger argues that experience evaporated into routine deserves to be suspicion

of the scientific approach, deeming no pre-supposition to be sacred. He points out that '(…) stripping the mainsprings of the programme underlying the architecture of the routine that has seeped into them by breaking open the programme and opening it up to new arguments. Whenever the programme is judged critically it transpires each time that is has lost much of its validity. This is why we must shift emphases and shake off ingrained habits' (Hertzberger 2005a, p.390).

The following section will elaborate, from the notions of *concetto* and *conceptismo*, how urban design acts upon the SOCIO-FORM approach, and thus forms the framework for methodology. Based on the recommendations presented in Section 5.4, with the *transverses of spatiality, design* and *knowledge* in focus of the SOCIO-FORM approach, the space of possibilities will be modeled to act in social impact assessment through approach its potentials of architectural and design thinking, acting and making of urban space.

6.1.2 SOCIO-FORM space of possibilities

The SOCIO-FORM approach addresses the development of the rhetoric of urban design and views the social impact assessment in urban design as a vehicle to think about the construction of the city fabric in urban design (the relationship between the *socio* and *form*) and consequently about the nature of social impact.

The SOCIO-FORM approach is based on the view that the physical and social content of the city are two interrelated components. A city does not exist without one of these elements. This relationship is best conceived as a continuous two-way process in which people (and societies) modify spaces (buildings), while at the same time being influenced by them in various ways (Carmona *et al.* 2003). The two elements of the city can therefore be described with the use of a dimensional framework (Carmona *et al.* 2003). The SOCIO-FORM approach regards the social impact in urban design as an assumption – a designed construction. It is a construction of the relationship between the *socio* and *form* fibres, shaped by a specific power perspective. The SOCIO-FORM approach is based on the view that this construction can develop with rational and constructive thinking and have a projective and generative character.

The construction of the relationship between the *socio* and *form* can be informed by *contexts of relationships* (its two elements and their six dimensions*)* and by related *realities of relationships.* The source for rational, systematically

analytical thinking is in 'the known', i.e. the concrete and experienced *context of relationships*. The spatial and constructive (poetic) thinking is informed by 'the unknown', i.e. the abstract *concept of relationships*. By combining rational and constructive (poetic) thinking, urban design can be involved not only in analysing these contexts but also as Nilsson writes (2004, p.40), in *generating knowledge* about them and about potentials and previously unseen possible paths of development.

Design of urban space can also be informed by *realities of relationships* (its two elements and their six dimensions). The anticipative character of urban design links to the conception of the '*real' reality of relationships,* i.e. what Janssens calls '(…) the manifest real that is perceived in daily life and that dominates our thoughts and actions' (Jannsens 2012, p.291). The generative character of urban design links to the '*envisioned' reality of relationships,* i.e. what Janssens presents as the latent reality – one that '(…) can be imagined, foregrounded and activated in the virtual' (Jannsens 2012, p.291). By combining projective and generative aspects, urban design can also be involved with different realities of relationships, projecting and exploring knowledge about them.

The subject for design develops through an interference with both 'the known' (context) and 'the unknown' (concept) about a two-fold reality of relationship between the *socio* and *form*, and their known and unknown dimensions. It develops in the space in-between; in a reactive and pro-active way. Such modelling further develops Carmona *et al.'s* (2003) idea of linking and relating the dimensions of urban design and a number of overarching context with the conception of design as a process of problem solving (Figure 5.1), with the conception of design as a process of problem forming.

Three poles determine the space of possibilities in urban design and are equally relevant for its construction; the SOCIO-FORM pole, the CONTEXT-CONCEPT pole, as well as the VISION-REALITY pole. The ensemble of SOCIO and FORM, CONTEXT and CONCEPT, REALITY and VISION, via elaboration on the notions of 1) 'the urban', 2) architectural thinking, and 3) the character of design, develops the scope of social impact assessment that covers the complexity of design of urban space.

The urban: the SOCIO-FORM pole

The first pole addresses 'the urban' and presents it as the relationship between the *socio* and *form*, i.e. the SOCIO-FORM construct (Figure 6.1).

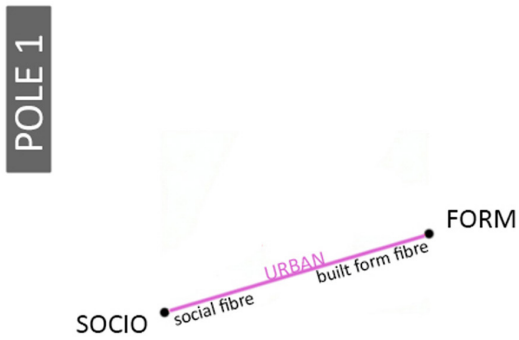


Figure 6.1: The SOCIO-FORM pole (between life and buildings). The pole elaborates on the notion of 'the urban' and correlates the urban fabric fibres: the social and built form fibres.

The unsettled character of the relationship between the *socio* and *form* stipulates the development of social impact assessment in urban design. The dimensional understanding of the city's fibres that has been introduced and the four power perspectives identified need to be accumulated within the SOCIO-FORM pole.

IMPACT ON/OF SOCIO (POLE 1)

The SOCIO-FORM approach addresses the city as a SOCIO-FORM construct, where the dimensionally presented *socio* and *form* fibres can be in four different power relations with each other and where the social impact in urban design can be both: 1) the impact that the *socio* has on *form*, but also 2) the impact that the form has on the *socio*. The *socio* is regarded as a proactive and reactive factor.

Thinking the urban: CONTEXT-CONCEPT pole

Design of the SOCIO-FORM relationship demands the capacity to think architecturally. The second pole that represents the two dimensions of architectural thinking therefore stretches the contours of the space of possibilities for social impact assessment in urban design, and develops an assessment that is sensitive to the two fractions of architectural thinking (Figure 6.2).

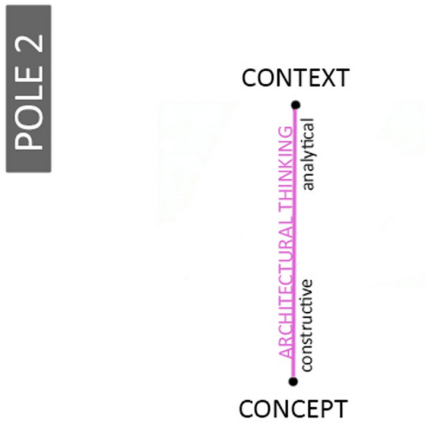


Figure 6.2: The CONTEXT-CONCEPT pole (between 'the known' and 'the unknown'). The pole elaborates on the notion of the architectural thinking and correlates its fractions: the analytical and constructive thinking.

In the first fraction – rational, systematically analytical thinking – assessments operate with assumptions produced through rational reasoning about 'the known' context. In the second fraction – spatial and constructive (poetic) thinking – assessments also have the capability to provoke the discovery of unexpected potentials by sourcing from 'the unknown' context and experimental shaping and designing. Through thinking architecturally, urban design can be involved not only in analysing 'the known' relationships but also generating theories and interpreting relationships in ways of producing new knowledge about them. Social impact assessment needs to emphasise the importance of reflection on what is already known and tested, but also have a major emphasis on creative aspects of design that are a way of distancing oneself from what is already recognised and accepted. The context and the *concept* are both resources for architectural thinking in terms of how design relates to and influences the way in which dimensions are not only informed but also linked.

Thinking architecturally requires handling the design of SOCIO-FORM construct both analytically and constructively. Therefore such constructs will

SOCIO COMES FROM CONTEXT-CONCEPT (POLE 2)

always develop 1) based on analysis of reality of the *known* SOCIO-FORM constructs, i.e. the concrete and experienced context, in relation to existing ideas about directions (the 'real' and 'envisioned') that societal development should follow, and 2) through proposal for change and creation of the abstract concept for SOCIO-FORM constructs, i.e. the *unknown*, in relation to unfamiliar ideas about directions (the real and envisioned) that societal development should follow. The social impact in urban design can therefore be discussed with the focus on 1) how urban design rationalises the *known socio* (the concrete and experienced context) and 2) how urban design constructs the *unknown socio* (the abstract concept).

Designing 'the urban': REALITY-VISION pole

The third pole relates to the character of design of the construct and ways of conceiving a unity between the *socio* and *form* in the context of unsettlement (Figure 6.3).

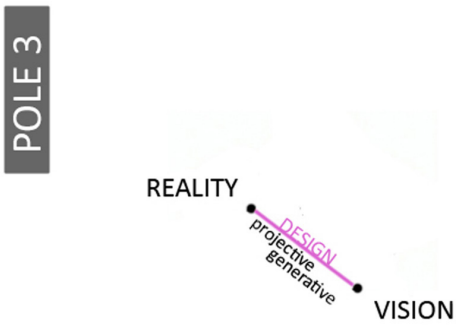


Figure 6.3: The REALITY-VISION pole (between 'the real' and 'the envisioned'). The pole elaborates on the notion of the character of design and correlates its characteristics: the projectivity and generativity.

Design interferes with any of the contexts of relationships between the *socio* and *form* aspects of the *urban*, and it does so in relation to its realities. The character of design describes this interference as both anticipative and projective but also as explorative and generative. The space of possibilities for

social impact assessment in urban design needs to draw on mutual consideration of both.

Discussing the development of society in the context of the change that urban design entails, one has to be able to make a comparison between conditions today and assumptions about possible futures. This interference or change, can therefore, in the same way as design, be reality-based anticipative and projective, but also vision-based explorative and generative. The change and development of the SOCIO-FORM construct can be approached in two ways. In the first, design is approached in an instrumental manner and seen as a means toward the determined goal or reaction to existing development trends. As the social development is of interest, this would mean that design is used to facilitate the existing development trends or to facilitate the achievement of existing visions about how society can be developed – it is a means of problem solving. In the second one, change, and design to accommodate it, can be driven by the conception of design as a process of problem forming. The design of the SOCIO-FORM construct can thus be involved not only in transforming reality (real SOCIO-FORM reality and envisioned SOCIO-FORM reality) but also in generating theories and interpreting it in ways that could produce new knowledge about it.

SOCIO COMES FROM VISION-REALITY (POLE 3)

The SOCIO-FORM approach addresses the projective and generative character of design of the SOCIO-FORM construct, where the construct and its components can be 1) developed by projection of present representations of reality of *socio* and representation of proposal for change of *socio* (the *real*), but also 2) developed by generation of representation of proposed change of *socio* (the *envisioned*). The social impact in urban design can therefore be discussed with the focus on 1) how urban design projects the *real socio* (of the concrete and experienced context and abstract concept) and 2) how urban design generates the *envisioned socio* (of the concrete and experienced context and abstract concept).

Space of possibilities

Together, defining, thinking and designing the *urban* outline the urban design's space of possibilities (Figure 6.4).

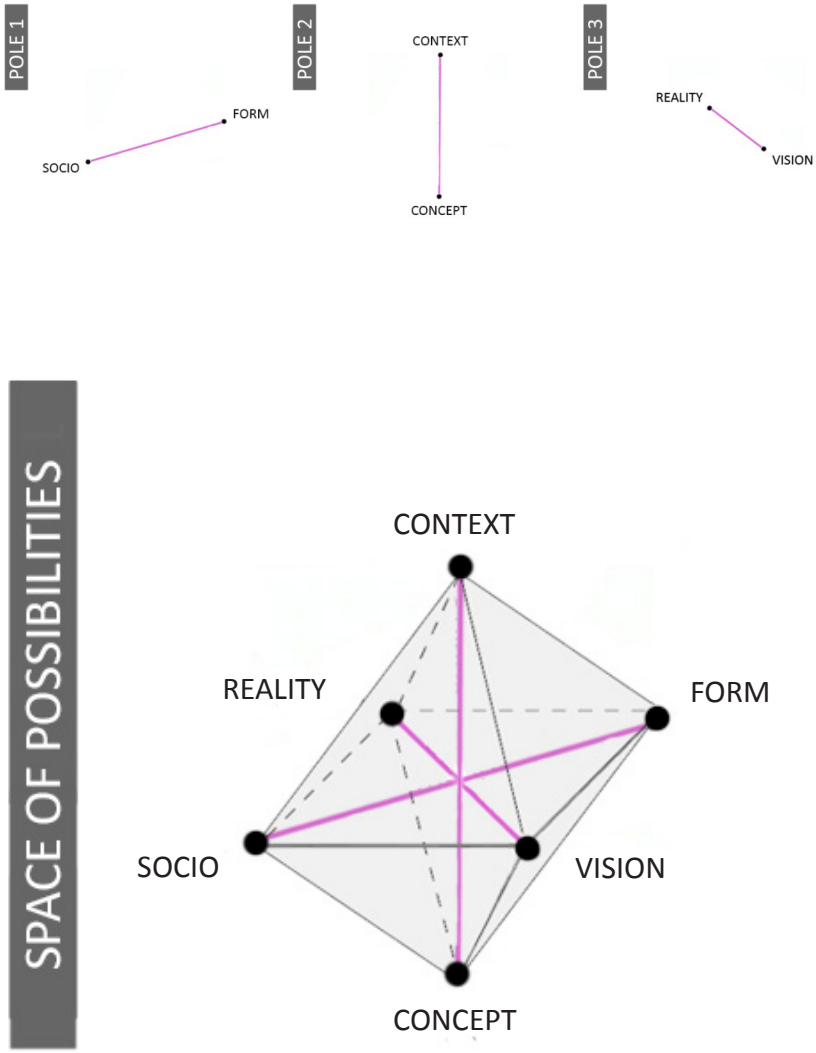


Figure 6.4: Defining the urban design's space of possibilities.

Proactive and reactive aspects of the space of possibilities

Urban design develops reactively and proactively. This has a reflection in how questions in social impact assessment are/could be formulated (Figure 6.5).

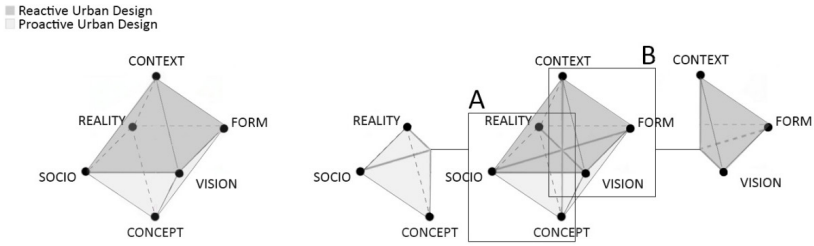


Figure 6.5: Proactive and reactive aspects of the urban design's space of possibilities in relation to questions of social impact assessment in urban design. The three-dimensional extent A relates to the question: How does the SOCIO-FORM construct presented in the design draft proact with regard to the aspect of SOCIO that is addressed in the abstract and latent concepts of the 'real', i.e. by alternative representations of reality? The three-dimensional extent B relates to the question: How does the SOCIO-FORM construct presented in the design draft react with regard to the aspect of FORM that is addressed in the concrete and experienced context the 'envisioned', i.e. by existing representations of proposed change?

Urban design can act reactively with regard to the existing *socio* context and existing visions of a desired *socio* change. In such a case, urban design can use the *socio* context and visions as fundamental arguments and motivation. What follows is that assessments can evaluate how urban design reacts to the existing *socio* context or/and to existing visions of a desired *socio* change. These evaluations can reveal the *socio* 'chisels' for design of 'the urban', and show how urban design develops through a contextual *direction*. However, urban design can also develop through a conceptual *negation* of the context. The proactive role of urban design in designing and projecting the *socio*'s shift forwards is therefore equally important. Urban design can act proactively so that it becomes a conceptualised reflection on new ideas and alternatives about the *socio* change it depicts. The proactive perspective can therefore inspire change in the cognition of the *socio* context and result in reformulation of the vision for the desired *socio* change. An analogy can be constructed when discussing the *form*.

Urban design not only reacts to existing *socio* and/or *form* constraints, but also has an important role in the process of re-conceptualisation of the existing. It develops incrementally through stratification, inspired both by contemporary settings and an external, radical and independent concept. The proactive and reactive aspects of the space of possibilities will therefore influence the questions on which assessment focuses, opening up its scope.

6.1.3 Assessment as a space of possibilities

The SOCIO-FORM approach recognises urban design as *concetto*, an active arena of change, conflict and resistance, and addresses the need to convey it as a space of possibilities. Existing definitions and practices of social impact assessment do not convey this characteristic. The central argument for the SOCIO-FORM approach is that social impact assessment in urban design requires reflection on making places and expanding the scope of assessment due to the complexity of urban design thinking, and should be regarded as a method to assist in opening up and clarifying the possibilities instead of determining them.

The assessment of social impacts in urban design demands development into a 'lived space' for the construction of assumptions about relationships between the *socio* and *form* aspects, simultaneously real and envisioned-imagined, balanced carefully between the two extremities of conceived space (conceptually idealised) and perceived space (contextually materialised). In this sense, studies of urban designs with the focus on social impact present a potentially endless variety of exemplifications and interpretations. The SOCIO-FORM approach therefore grounds the social impact analysis in the context of complexity, where specific relationships are designed in close relation to a particular project's objectives, and with the aim of developing actionable knowledge.

The exclusivity of contemporary assessments of the relationships between the *socio* and *form* aspects in social impact assessment – assessment of the *urban* – stands in relation to the limiting of the space of possibilities. This is not only in the sense of politicians and planners restricting and naming the *urban* and its construction, but throughout the planning system as a whole, and where politics and planning of the city, and using the city, are making the idea of 'the urban' rapidly more obsolescent. Throughout the urban planning and design processes, stakeholders should be encouraged to see the *urban* as a material for inventive acts or for furthering our understandings and spaces for professional action in regard to the concept. The SOCIO-FORM approach suggests that social impact assessment in urban design should explore this space through its diverse traversing of what is to what could be, in the leap from the *socio* and *form* aspects to arrive at the *urban*, making a multitude of possible solutions conceivable/visible.

In developing the space of possibilities and urban-able social impact assessment it is crucial to connect the space of *urban* – the hands-on practical space for professional urban design and formgiving, with the space for power

of making something -*able*. For the practice of social impact assessment in urban design, acquiring skills or knowledge in terms of the *socio* and *form* aspects is not sufficient to become urban-able. There is also a need to understand how the subject for analysis relates to the 'social' out there, how it navigates and interacts with heterogeneity and/or its dominant expression, exploring how it connects different urban planning and design stakeholders and develops collaboration.

With the SOCIO-FORM approach, the role of social impact assessment in urban design is transformed into one that endorses the space of possibilities, challenges passivity and is critically involved with the conditions that define the *socio*. In short, to make designers not simply reproducers of standards, listeners or passive choosers of existing or imposed perspectives on the *socio*, but co-authors of the urban design based *socio*, who will be capable of inventing ways of acting within the state of unsettlement. The extraordinary capacity of social impact assessment in urban design which the SOCIO-FORM approach represents is that it can outline a 'space of possibilities' that is available for exploration and consideration. In the context of unsettlement, assessment moves beyond the probable and paves the way for possibilities that have not yet been recognised or discovered, as well as all the conceptual and contextual realities that are connected to it.

The SOCIO-FORM approach paves the way for research, design and knowledge production in relation to the social impact in urban design, focused not simply on the probable, and on the reality of known and accepted patterns of thinking, but also on the improbable and unexpected and on the 'other' reality located parallel to the known one. Developing the foundations for social impact assessment in architectural thinking and the character of design also makes it possible to gather knowledge about future realities developing in parallel with the present ones. The exploration of urban design's space of possibilities should take place through the practice of social impact assessment and social impact analysis and develop a sensitivity to different design processes, i.e. '(…) design processes that intend to give an answer to a real-time problem, and design processes that intend to address a given problematic with a large degree of investigative freedom, (…)' (Janssens 2012, p.2). The SOCIO-FORM approach suggests that social impact assessment should unfold the space of possibilities of urban design, contributing to building capacity within the process of learning of/to urban design. The space of possibilities not only influences the concept of social impact assessment but also the way it is contextualised in practical terms – the way the space is framed in the context of the urban design process.

6.2 Navigation

6.2.1 Hub for urban knowledge

The space of possibilities requires navigation. Current ideas concerning the development of 'the urban' (Section 5.2) and a post-polis defragmentation process (Rewers 2005) direct the search for solutions into complex settings. It is in complex, shared-power settings – as Bryson and Crosby suggest (1993) – that urban planners and designers can look for possibilities to influence the ideas, rules, modes, media and methods that link action and the structure of these settings. The need for innovative capacities for urban knowledge are being addressed internationally (Nolmark *et al.* 2009). Inventive solutions are developing for a multitude of actors to consolidate and nurture the development of urban knowledge and the urban environment, with a particular issue of minimising obstacles to new, innovative knowledge formation. Operating within shared power settings in a mode-2 knowledge production, the focus is equally on building and disseminating urban knowledge. What becomes interesting therefore is how to facilitate these shared-power settings with new mechanisms to improve introduction of the knowledge produced into the context of application. Much of that has been discussed in relation to actors, power relations, competences and so on. The focus should not only be on the process of knowledge production as such. Another aspect of shared-power settings is the issue of navigation and therefore the idea of a *knowledge hub*.

In a dictionary of computer and technology terms (Bleeping Computer 2015), a hub is defined as a device that lacks thinking capacity, but which allows other devices that are connected to it to communicate with each other. A hub can cause data to come together and determine how and where it is forwarded to and from. It works as a central connecting point for multiple initiatives positioned in a network. A knowledge hub, then, can be defined as a device that facilitates nodes in networks of knowledge production and knowledge sharing. It is characterised by a high level of connectedness and, internal and external networking and knowledge sharing capabilities. Built on a platform of a current community of practice, it can support networking, collaboration and knowledge sharing. It can also support the production and capture of one's own knowledge. As a meeting point of communities of knowledge, a knowledge hub facilitates three major functions (Evers 2008). It generates knowledge, transfers knowledge to sites of application and transmits knowledge to other people through education and training. In other words, it plays a role in the development, sustaining and communication of knowledge, and can help in translating /applying actionable knowledge to one's own circumstances.

The field of computer networking differentiates between passive, active and intelligent hubs. In applying this classification to the discussion of urban knowledge, three kinds of urban knowledge hubs could be obtained: passive, active and intelligent (manageable). *Passive urban knowledge hubs* split the urban knowledge produced to enable more actors to be added to the network. A passive urban knowledge hub serves as a conduit for the data, enabling it to go from one device (policy or segment) to another. Such a hub becomes a central connecting device in a network that joins chains of inputs from several sources in a star configuration. It does not provide any processing or regeneration of signals. *Active urban knowledge hubs* regenerate data fragments to maintain a strong signal over extended links; a central connecting device in a network that regenerates signals on the output side in order to maintain a strong signal. Finally, *intelligent (manageable) urban knowledge hubs* perform a variety of processing functions, including network management, bridging, routing, switching and monitoring of the traffic passing through the hub and configuring each port in the hub.

Urban design is an iterative, multiactivity and multiproduct process. Many actors are involved, producing knowledge about the relationships between the social and built form fibres of urban space. The topologically different aspects that urban design entails contribute to a diversity of representations of the relationships between the fibres and represent a range of perspectives on social impact in urban design. The personal, institutional and professional complexity of project development processes makes a discussion on dynamic urban space difficult to convey and confusing. The content of such discussion is often 'lost in translation', when moving within and/or between topologies.

Development of social impact analysis in urban design requires understanding of how different parties with different viewpoints view social matters associated with social impact and what concerns they have about assessments of such problems. One implication is that different parties may have to cover aspects of social impacts that they themselves regard as irrelevant, but that concern some actors whose opinions are relevant for that particular assessment. In cases where such concerns cannot be dealt with, social impact assessments are unlikely to facilitate learning or promote legitimate decisions. The situation requires universal access, an open approach on an open platform of topologies. Such an approach can enable development of all parties constructing the platform (perspectives on spatiality, urban space and its social aspect, activities, plan levels spatial scales, stakeholders and types of knowledge) and support transparency with a benefit for joint and individual efficiency, accountability, improved performance and development of capacity.

The complexity of social impact assessment in urban design means that there is a need for a core around which a diversity of social impact analysis can be carried out. A multiple-port (the urban fibres, urban design dimensions and power perspectives) knowledge hub is needed, a connective appliance that allows communication and flow of data between different segments of the network so that data (as well as the hub itself) can be shared and engaged with. The SOCIO-FORM model reflects the SOCIO-FORM approach, and the thesis puts it forward in order to develop a hub – a focal point around which discussion of the design of urban space can revolve.

6.3 Unraveling URBAN

6.3.1 City and urban fabric

The ancient Romans used two words for the city, *urbs* and *civitas*. Urbs denotes the urban form – the built form fibre. Civitas, or citizenship, relates to city life, politics – the social fibre. These two address two major components of the city, which Gehl (2006) would call *life* and *buildings*. The built form and the social fibres together weave a city fabric (urban fabric). When investigating this fabric, it is difficult to conceive of an urban form without social content and, equally, to conceive of a society without a built form component. This mutual formation (Figure 6.6) is a subject of discussion within contemporary urban design in the making places tradition – a synthesis of what was once the visual-artistic and the social usage tradition of thought in urban design.

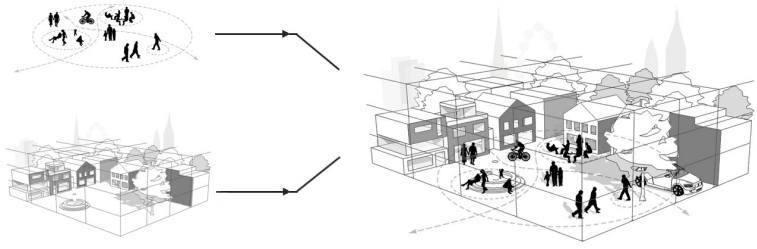


Figure 6.6: The making places tradition: From the 'visual-artistic' and 'social usage' traditions to a synthesis; from the distinct urban fibres of 'life' and 'buildings' to the urban fabric as a synthesis.

Making places is subject to the theory and practice of urban design. It comprises six substantive dimensions (Carmona *et al.* 2003). These dimensions, so called areas of urban design, attempt to sum up the remit of urban design. In this thesis they define the set of characteristics with which the SOCIO-FORM approach describes the urban, the city fabric (Figure 6.7).

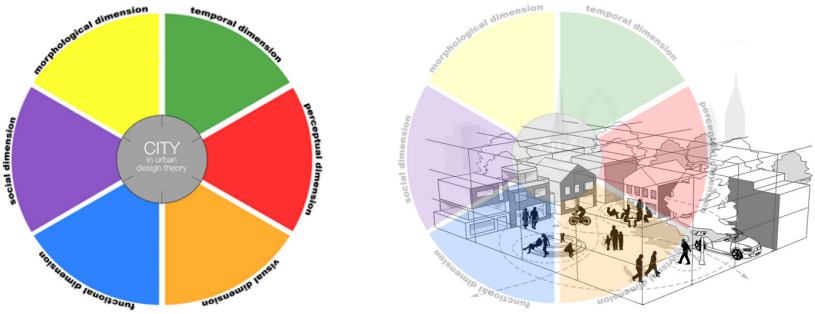


Figure 6.7: Six dimensions of making places. These dimensions define a synthesis of urban fabric.

Despite the fact that urban design approaches the city as a synthesis, the interplay of the social and built form aspects in urban design is frequently subject to assessment. The SOCIO-FORM approach therefore analytically unravels a synthetic understanding of the urban fabric, for the purpose of assessment (Figure 6.8).

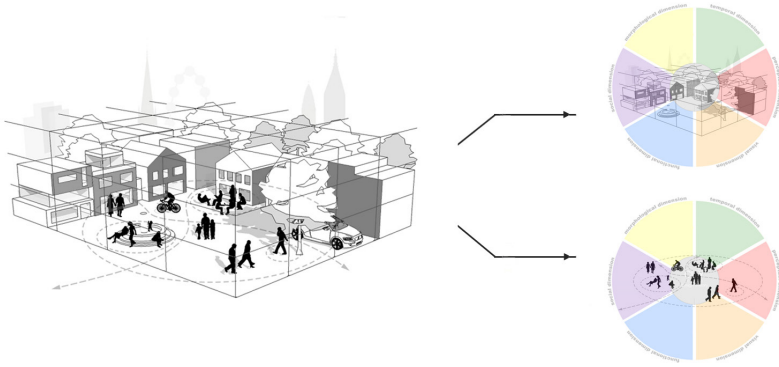


Figure 6.8: Defining the fibres of urban fabric in the making places tradition: From the dimensionally defined synthesis of the urban fabric to the dimensionally defined fibres of urban fabric.

It proposes that the social and built form aspects should be viewed from within the making places tradition of thought. If urban fabric can be studied with the use of six dimensions of urban design, each of its two components – the built form fibre and the social fibre – can be individually analysed in the same way. The SOCIO-FORM approach presupposes that the built form fibre and the social fibre can be studied with the focus on structures, sensitivity, time, aesthetics, functions and relations.

6.3.2 Built form fibre: FORM

The urban form, the built form fibre, is coded with six dimensions of urban design (Figure 6.9): morphological, perceptual, social, visual, functional, and temporal.

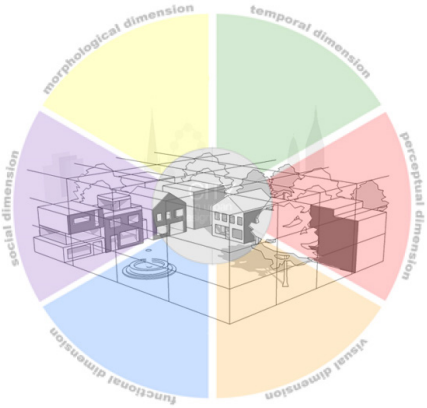


Figure 6.9: Six dimensions of urban design: a perspective on the built form fibre (FORM) of a city (urban fabric).

The focus is on how the urban form differs in terms of structure, appearance, function, expression of time, and relational and perceptual concerns.

The morphological dimension of built form is concerned with its configuration, layout and the patterns of urban space employed (traditional or modernist). The analysis within this dimension concerns the concepts of size, shape, permeability and composition of the built form fibre. This involves discussion of public space networks, cadastral patterns, plot patterns, land uses and urban block patterns and typologies, as well as building structures.

The perceptual dimension of built form concerns the construction of the built form fibre with the focus on awareness and appreciation of environmental perception. It relates to aspects of urban form that contribute to the perception and experience of it. Iconic, symbolic elements, signs and imageability are therefore in focus. This entails a discussion about the built form fibre's involvement with perception and value, deriving meaning from and adding meaning to the context. Also, which of the features of built form fibre contribute to construction of place, sense, territoriality and personalisation.

The social dimension of built form concerns the elements and characteristics of built form that influence/obstruct interaction and relations between elements of the built form – interaction *within* the fibre – and with other components of urban space – interaction *between* fibres. In terms of interaction within the fibre, i.e. *the built form fibre's internal relations and interaction*, the analysis within this area is concerned with the ability of individual elements and characteristics of the built form and groups of them to relate with each other. This entails a discussion about the built form fibre's involvement with concepts of boundaries, power, segregation, fragmentation and exclusion. In terms of interaction and relations between fibres, i.e. *interaction and relations with the social fibre*, the analyses is concerned with interactions and relations between the built form (individual elements and groups of them) and people, the public realm and public life, the notion of neighbourhoods, issues of safety and security, and accessibility.

The visual dimension of built form concerns the visual-aesthetic qualities of the built form fibre and the elements and aspects of it that contribute to the appreciation of space. This entails a discussion about how elements of the built form fibre elicit themselves, releasing more substantive qualities, creating drama and visual interest and reinforcing and enhancing the sense of place. The analysis considered important within this dimension is concerned with concepts of aesthetic preferences (attributes of 'liked' environments), image, patterns, rhythms, balance, harmony, architecture, hard and soft landscaping, and order, together with elements contributing to the kinaesthetic experience, improved coherence and legibility. This involves discussion of the built form, i.e. its spatial qualities but also the colour, texture and detailing of the defining surfaces, where the forming process approaches visual aspects through considering the whole context in which the new form is introduced. This dimension induces the appreciation to the fact that buildings, greenery, floorscape, street furniture and other elements are neither read nor understood in isolation, as they are always built into contexts and considered together.

The functional dimension of built form explores the correlation of the built form with a particular function or use. Related studies involve aspects of the built form fibre that generate different forms of engagement with it. The focus is primarily on passive and active forms of engagement, the complex concept of privacy, mixed use and density, movements, capital webs, and thematic ideas such as, for example, environmental design (microclimate, sun, shade, light, wind).

The temporal dimension of built form is concerned with what the implications of time are on urban form. Three key aspects are to be discussed: the issues of how the built form fibre corresponds with natural seasons and introduced time cycles, how it becomes concerned with the issue of stability over time and how it accommodates the inevitability of time's passage with the focus on aspects of conservation and continuity.

6.3.3 The social fibre: SOCIO

City life, the social fibre, could be coded in the same way as the built form fibre, with the same set of dimensions (Figure 6.10).

Figure 6.10: Six dimensions of urban design: A perspective on the social fibre (SOCIO) of a city (urban fabric).

These address city life in terms of structure, perceptual, relational and visual concerns, function, and time in order to develop the socio-human layer of the dimensions of urban design, to embrace different theories of potential relevance for processes of forming social landscapes.

The morphological dimension of society could concern structural qualities of the social fibre with the focus on arrangement and configuration. The analysis could therefore concern the concepts of size, density, structures, spatial distribution and composition of the social fibre. This could include a wide range of studies on different scales, starting with the structure of the human body that is crucial for interactions with the built form fibre, ending with more developed population studies.

The perceptual dimension of society could concern the social fibre's ability to see, hear, or become aware of something through the senses. It could relate to aspects of the social fibre that condition the process of attaining awareness or understanding its context, by organising and interpreting sensory information, influencing the experience – the apprehension of an object, thought, or emotion through the senses or the mind. The human senses and images that constitute society, together with experiences of the past and the present could therefore be in focus. This could imply a discussion about the social fibre's involvement with perception and value, deriving meaning from and adding meaning to the context. Also, which of the aspects of the social fibre contribute to construction of place, sense, territoriality and personalisation.

The social dimension of society could concern the social fibre, the elements and characteristics that influence/obstruct interaction and relations between elements of the society – interaction within the fibre – and with other components of urban space – interaction between fibres. In terms of interaction within the fibre, i.e. *the social fibre's internal relations and interaction*, the analysis within this area is concerned with the ability of individuals and groups of them to relate with each other. In terms of interaction and relations between fibres, i.e. *interaction and relations with the built form fibre*, the analysis is concerned with interactions and relations between 'the social' (individuals and groups of them) and environment and space. Analysis could be concerned with concepts of interaction and the relationship between people, concepts of public life, beliefs, culture or politics.

The visual dimension of society could concern the visual-aesthetic qualities of city life and the social fibre, and the elements and aspects of these that contribute to the apprehension of society. How parts of the social fibre elicit themselves, releasing more substantive qualities, creating drama and visual interest and reinforcing and enhancing the sense of place could be studied. The analysis within this area could be concerned with concepts of aesthetic preferences (attributes of 'liked' societies), image, social patterns, rhythms,

balance, harmony, justice, architecture and order, together with elements contributing to the kinaesthetic experience of society, improved social coherence, transparency and legibility. This involves discussion of the social fibre, i.e. its spatial qualities but also the detailing of the defining surfaces, where the development process approaches visual aspects through considering the whole context in which the new city life form, the social/human form, is introduced. This dimension could give attention to the fact that individual human beings, institutions, governments, laws and other elements are neither read nor understood on their own, as they are always built into contexts and require a mutual consideration.

The functional dimension of society could explore correlation of the social fibre, with its particular function or with activity. Related studies could involve aspects of the social fibre, generating different forms of engagement with it. The focus could primarily be on different forms of social engagement, mobility, networks, diversity, density and thematic ideas such as that of a creative class or knowledge society.

The temporal dimension of society could be concerned with what the implications of time are on the social fibre. Three key aspects could be discussed. Different times of the day, week, year and life are reflected in the activity of the social fibre. The first aspect therefore is how the social fibre corresponds with the natural (age) and introduced (schedules) life cycles. The other two could be how it becomes concerned with the issue of stability over time and how it accommodates the inevitability of time's passage, experienced through rhythmic repetition and through progressive and irreversible change.

6.3.4 Scale

The socio-form approach pays attention to the fact that the *socio* and the *form* fibres can be twisted into various 'thicknesses'. All dimensions of the built form fibre and the social fibre can be discussed in relation to different scales of the object being studied. The built form fibre can be studied in terms of a building, a site, a district or a city. The social fibre can be studied with the focus on a person (individual), a group of people, a specific community, and a society. Each of the dimensions then operates with a dedicated set of concepts; individual morphology is described differently to compare it with concepts that are in use when discussing social morphology. Nevertheless, it is possible to describe and analyse these different scales with the use of the set of six dimensions, as required (Figure 6.11).

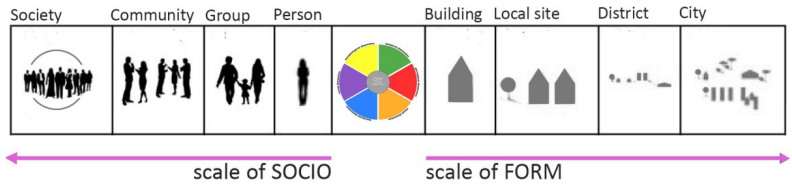


Figure 6.11: Scaling the fibres of SOCIO and FORM. The SOCIO fibre and the different scales of it (e.g. Person, Group, Community, and Society) can be described with morphological, perceptual, social, visual, functional, and temporal dimensions. The FORM fibre and the different scales of it (e.g. Building, Local site, District, and City) can be described with morphological, perceptual, social, visual, functional, and temporal dimensions.

6.3.5 Patterns: Power perspectives and configurations of meaning

The SOCIO-FORM approach addresses social impact through discussion of power in the construction of urban relationships. The approach views this relationship as a collision. The two colliding components are 1) the *socio* and 2) *form* fibres. The SOCIO-FORM approach distinguishes four power perspectives on the potential relationship between integral fibres.

SOCIO and FORM at rest

The first perspective assumes that both components – the *socio* and *form* – are at rest and static in relation to each other (Figure 6.12). In such a case an impact cannot occur.

Figure 6.12: Pattern 1: SOCIO and FORM at rest.

Exertion of SOCIO

The second perspective assumes that one of the components, the *socio*, is given a force of impression and the other one, the *form*, is considered to be static (Figure 6.13).

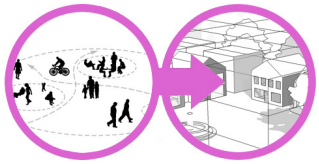


Figure 6.13: Pattern 2: SOCIO exerts a force on FORM.

In such a case the *socio* impacts on *form*, and *form* is under the force and impetus transmitted by a collision. The impact of the *socio*, its six dimensions, could therefore be studied as a force shaping *form* and its dimensions. Only the *socio* acts, but both the *socio* and *form* react.

Exertion of FORM

The third perspective assumes that one of the components – *form* – is given a force of impression and the other one – the *socio* – is considered to be static (Figure 6.14).

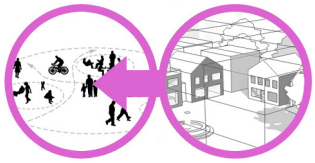


Figure 6.14: Pattern 3: FORM exerts a force on SOCIO.

In such a case the *form* impacts on the *socio*, and it is the *socio* that is under the force and impetus transmitted by a collision. The impact of *form* and its six dimensions could therefore be studied as a force shaping *socio* and its dimensions. Only the *form* acts, but both the *socio* and *form* react.

Exertion of SOCIO *and* FORM

The fourth perspective assumes that a force of impression is applied to both the colliding components, the *socio* and *form* (Figure 6.15).

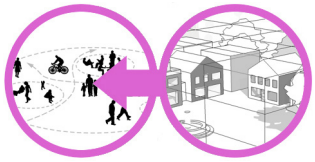


Figure 6.15: Pattern 4: SOCIO and FORM exert a force.

Both have the mutual forces of action and therefore also reaction. In such a case *form* impacts on the *socio* and the *socio* impacts on *form*. The impact can therefore be studied with the focus on 1) how *form* impacts on the *socio* and 2) how *form* changes under the force and impetus of the *socio*, or 3) how the *socio* impacts on *form* and 4) how the *socio* changes under the force and impetus of *form*. The *socio* and *form* both act and react. All these impacts can be the focus of social impact assessment in urban design.

6.3.6 Mixed approach to urban fabric

The four power perspectives on the combination of fibres show that the built form fibre and social fibre can either stimulate a collation or respond to a collation, and they can either influence or they can be influenced. The SOCIO-FORM approach is attentive to the multidimensional and multifibre character of the urban matter as presented, and to the four power perspectives and configurations of meaning described regarding the possible relation between the constituent fibres (Figure 6.16).

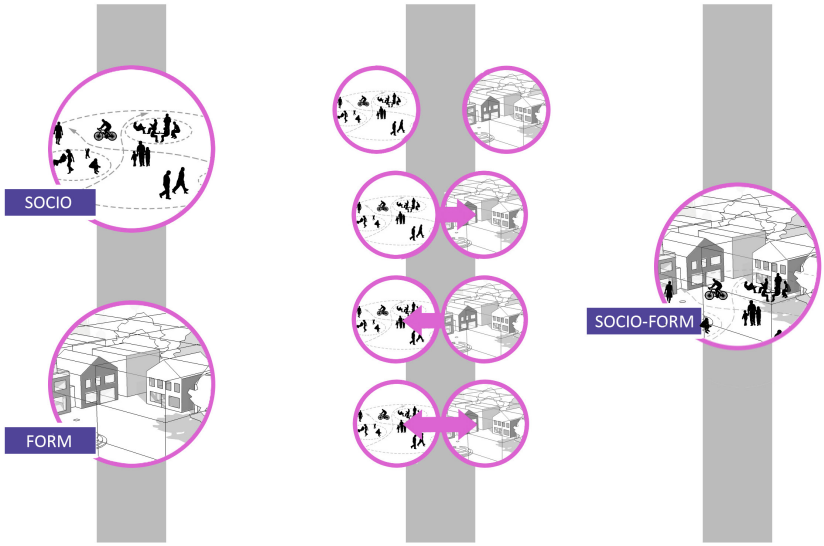


Figure 6.16: Four patterns of interaction between the SOCIO and FORM with four power perspectives and configurations of meaning in focus.

After the physical content of a city, society constitutes an equally important part of an urban structure, which can be described with the dimensions of urban design. No matter if it is a real or an envisioned city, it is always concerned with the set of these two fibres. A city is a SOCIO-FORM fabric. If urban construction is considered in impact assessment processes to be of this dual character, the dimensions of urban design – morphological, perceptual, visual, temporal, functional, and social (Carmona *et al.* 2003) – can inspire development of thought about key aspects of both components (Figure 6.17).

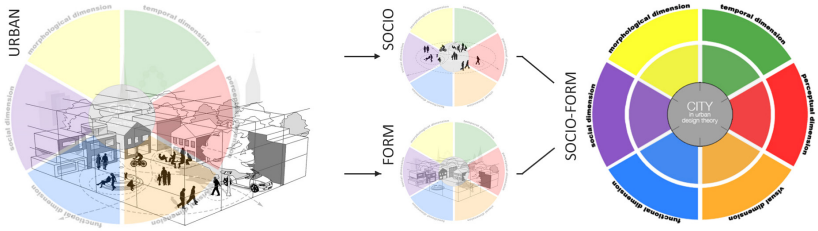


Figure 6.17: Schematic development of a mixed approach to the urban fabric. Two fibres of the urban fabric, the SOCIO and FORM, (each presented in six dimensions of urban design theory) are equally significant.

6.3.7 Hub for mixed approach to urban ravelling

Starting in the syntactical understanding of urban fabric and the dimensional approach to its fibres, a SOCIO-FORM model is developed (Figures 6.18 and 6.19) as an instrument for navigation through heterogeneity.

Figure 6.18: The SOCIO-FORM model[101].

[101] *The Swedish language text keywords used to describe the dimensions of urban design in the Swedish language version of the SOCIO-FORM model:* 'Struktur och form', 'Tid', 'Perception', 'Utseende och estetik', 'Funktion', 'Social och relation'.


CITY
in urban design theory
perceptual dimension


morphological dimension


temporal dimension


CITY
in urban design theory
STRUKTUR och FORM
TID
SOCIO
PERCEPTION
UTSEENDE och ESTETIK
FUNKTION
SOCIAL och RELATION
morphological dimension
temporal dimension
perceptual dimension
visual dimension
functional dimension
social dimension

<<< **Figure 6.19:** The SOCIO-FORM physical model: from a prototype to a workshop version.

The SOCIO-FORM model is designed from a collection of six dimensions of urban design. The proposal is to use this set of six dimensions of urban design for studies of the two city fibres, offering a composition that can accommodate most of the key contributions to urban design thought, concerned with both the built form fibre and the social fibre development. The idea of the two urban fibres and their dimensions is not to delimit boundaries around particular areas of urban design, rather to emphasise the breadth of the subject area when searching for more explicit connections between them. This typology is used to emphasise the multi-dimensional and multi-fibre nature of urban design and, for the purpose of clarity in exposition and analysis, to allow formation of interdependencies at every step in urban design processes. As urban design is a joined-up activity, the experience of urban environments should be viewed as an integrative one. A fusion of the two fibres and the four power perspectives should provide a beneficial set for discussions on how the *socio* and *form* aspects can be studied as a chisel with the capacity to carve *urban* and develop the architectonic of urban design.

Ravelling the *socio* and *form* fibres can be done, balancing on different poles of urban design, i.e. within one dimension, or between different dimensions, with four power perspectives (Figure 6.20) (the SOCIO-FORM pole, Figure 6.1), where the dimensions of fibres of the *socio* and *form* can formed and informed by different contexts (the CONTEXT-CONCEPT pole, Figure 6.2) and different realities (the REALITY-VISION pole, Figure 6.3).

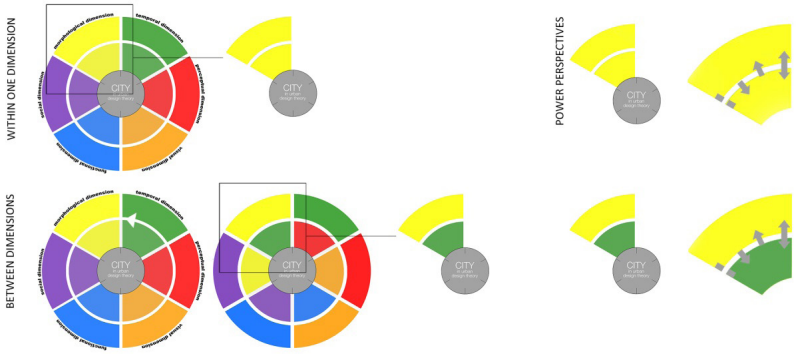


Figure 6.20: Ravelling the fibres of the SOCIO and FORM with regard to the SOCIO-FORM pole (Figure 6.1), i.e. within one dimension, or between different dimensions, and with four power perspectives.

To add complexity, this can be done reactively and proactively. The complexity results in a diverse analysis of social impacts. In such a context, SOCIO-FORM model as a hub is given the role of a device that facilitates the diversity of social impact analysis in a network of social impact assessment.

6.4 Reflections

The SOCIO-FORM approach inherits the need to move the social impact assessment in urban design beyond the social usage or visual-aesthetic traditions of urban design into the making places tradition, with consideration given to architectural thinking and the character of design. The approach balances the *socio* and *form* aspects within a unified framework oriented towards design of interdependencies, with consideration of the heuristics of urban design and a great diversity of principal sources enriching the cognitive processes involved in design.

Building on the abstract from the case (Section 4.5) and re-conceptualization of assessment (Section 5.3) this chapter developed social impact assessment into a space of possibilities necessary for social impact assessment in urban design to integrate with when changing its agency from a corrective to a critical one. It also presented the idea of urban knowledge hub as navigation through such a space.

By introducing the space of possibilities and navigation, the SOCIO-FORM approach provides a reference point for discussion of the design considerations for social issues in urban design. The concepts give an account of how urban design can be used to comprehend the city and its *socio* and *form* aspects that social impact assessment and the social impact analysis dissect, how the proactive and reactive character of change develops the character of social impact assessment, and how the management of diversity develops its rhetoric.

The space of possibilities is developed to be conveyed by the social impact assessment. It conditions and organises the diversity of social impact analysis and links the social impact analysis with the social impact assessment. The intention behind the SOCIO-FORM model is to offer an infrastructure of meaning of design of urban space for the topologically different aspects that urban design entails, i.e. to manage design situations and to catalyse, sustain and communicate knowledge about design of urban space and of its social aspect. The model develops as support for processes of building understanding, knowledge, analysis, articulation and communication of the complex concept

of social impact in urban design. In practical terms, the SOCIO-FORM approach provides an alternative for dividing society into groups and affirms the four possible power perspectives and configurations of meaning in connection with the relationship between the dimensionally defined *socio* and *form* aspects. It regards urban design as a process of balancing. It offers a support system to help a range of stakeholders to improve articulations of the relationships, enhance discussions on the quality of life, having a positive influence on the course of city development. The SOCIO-FORM approach is relevant for every stage and activity of urban design and can be combined with other frameworks with the intention of discussing the social impact. Users might thus be found among most stakeholders that deal with urban design during different phases of the urban design. The SOCIO-FORM model can support development of context analysis, the drawing up of visions and briefs, design, evaluation and implementation processes, and it can be applied at different scales and policy levels.

7. SOCIO-FORM APPROACH EXPOSED

This chapter provides an account of how the SOCIO-FORM approach is approached by research and praxis. The fusion of the conceptual and methodological advances in the form of the tangible SOCIO-FORM model was exposed. Tentative testing was conducted in focus group workshops with participants from Chalmers University of Technology, KTH Royal Institute of Technology and the City of Gothenburg to develop the percept of SOCIO-FORM approach. The tests give an idea of how the approach can be developed by looking backward to determine how good the approach is, and forward to refine it. This converts into the two guiding questions: Can reflections on the SOCIO-FORM approach influence the developing practice of social impact assessment in urban design? Can reflections on the developing practice influence the SOCIO-FORM approach? The focus is on the potential of the SOCIO-FORM approach to provide a reference position for those involved in the discussion concerning the social issues in urban design to share experiences and provide a basis for new directions of thought and new possibilities for practical work.

Section 7.1 presents the conditions for testing of the SOCIO-FORM approach and Section 7.2 shows the outcome of testing – a SOCIO-FORM percept. Concerned with advancing social impact assessment and its transversality with the *transverses of spatiality, design* and *knowledge* (Section 5.4) the discussion on the SOCIO-FORM percept focuses on: the dimensional construction and the aspect of power (Section 7.2.1), ways of thinking and the character of design (Section 7.2.2) and knowledge in-the-making (Section 7.2.3).

7.1 Conditions for testing

7.1.1 Subjecting the SOCIO-FORM approach to a test

Three years of observations (2008-2010) and studies related to the design and development processes for the Opaltorget square and its surroundings

resulted in discussion on the premises for social impact assessment in urban design (Gregorowicz-Kipszak 2010). In parallel, a first preliminary version of the SOCIO-FORM approach was developed with the aim of supporting the practice of social impact assessment in urban design. At that point, practitioners who challenged the development and application of social impact assessment in urban design found the SOCIO-FORM approach to be intangible and abstract. The concept was therefore put at risk of not being convenient and further development was required in order to shape its applicability. Work on the design started in spring 2011. The SOCIO-FORM model was moved out from the designer's domain and into the social environment of a workshop, so that a set of responses could emerge. A series of three focus group workshops were held in Gothenburg with the general aim of developing the SOCIO-FORM approach. The idea was to expose the concept of the SOCIO-FORM approach and its physical representation to testing in order to collect the necessary input and critical comments for further work on improvements.

7.1.2 Workshop participants

The invitation to participate in focus group workshops was directed at architects practising urban design in the private sector, municipal practitioners with architectural and non-architectural backgrounds working in the field of urban design and development questions, and researchers from the field of architecture and urban design. Firstly, architects and designers practicing urban design in the private sector were invited, to obtain an architectural perspective of the concept and, through the workshop, to open up social impact assessment to design processes that combine discussions about visual-aesthetic aspects of design with knowledge of the local social situation. To provide the workshop with knowledge of the local social situation and to discuss the SOCIO-FORM approach with the focus on the potential context of application, the participation of municipal practitioners working with urban design and development in Gothenburg was equally significant. To discuss the approach in a more theoretical context as well as in relation to the research project, the perspectives of a group of researchers from the field of architecture and urban design was included.

Accordingly, in April 2011 BIG *Bjarke Ingels Group*, the Danish architectural office which developed the site design for Opaltorget was invited to the workshop. The architects were asked whether they would be interested in structuring and sharing knowledge about their design in a multidisciplinary

setting, along with the people who administer the district, in order to help to develop assessment techniques that were constructive in relation to design. The office expressed its interest in the subject, but was unable to accept the invitation. Ultimately, designers were not represented during the focus group workshops. The focus group workshops included the two remaining groups. Municipal practitioners working with issues of urban design and development represented the City of Gothenburg, in particular: 1) development centre *Senior Göteborg*, 2) Administration for Allocation of Social Welfare, and 3) City District Administration Tynnered. Half of the participants had architectural backgrounds. All of them were familiar with the *Opaltorget case* (to varying extents), with development of the SOCIO-FORM approach, and with the ongoing discussion of social issues at the municipal level. A number of researching architects participated, representing: a) Chalmers University of Technology: Department of Architecture, b) KTH Royal Institute of Technology: School of Architecture and the Built Environment. This group was not familiar with either the approach or the case.

The participants represented the following professional positions: development manager, planning officer, process manager, professor, senior researcher and doctoral student. Some of the participants were involved in the practice of architectural design at the time.

7.1.3 Workshops

The workshop series consisted of a brainstorming meeting, called pre-workshop (PW) and two focus group workshops. Workshop 1 called Opaltorget Workshop (W1), was held in two sessions (W1a and W1b) and with participants from the municipality. Workshop 2, called Chalmers workshop (W2), was carried out in one session and with participants from research.

The Chalmers and Opaltorget Workshops were designed differently due to different amounts of time available for workshop activities. Nevertheless, they resulted in many points in common for the separately evolving discussions. The strengths and weaknesses of the proposed approach were discussed throughout. The SOCIO-FORM approach, which is primarily presented in Chapter 6, develops around three entries to the research topic: *subject*, *process* and *knowledge* (Figure 2.7). In turn, three questions (Table 2.2) about design of urban space driving the iterative loops and sustaining the dynamics of the design activity of research revolve around these entries to drive discussion on transversality of social impact assessment (Table 2.3).

Three recommendations for advancing social impact assessment and its transversality with the *transverses of spatiality*, *design* and *knowledge* (Section 5.4) imply that the questions presented in Table 2.2 develop into the following three workshop questions: Q1: What is/could be the matter associated with each dimension of both the *socio* and *form* aspects? Q2: What does the combination of analytical and constructive design thinking concerning the social impact demand from the assessment practice? Q3: What could be the practical benefits of the model in which processes of recognising, modelling and assessment of urban design could take place? The workshop questions relate to the topic of enquiry – development of transversal social impact assessment within urban design – and act throughout the focus group workshops (Figure 7.1).

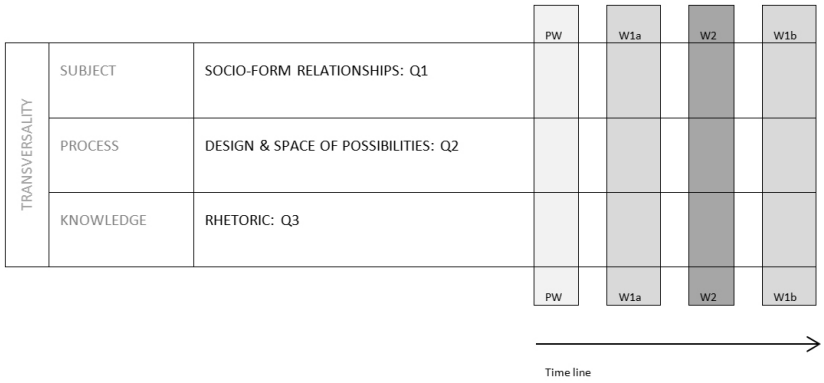


Figure 7.1: The workshop questions, throughout the focus group workshops, in relation to the topic of enquiry – development of transversal social impact assessment within urban design.

Pre-workshop (PW)

Number of sessions: 1 Time: 1h Number of participants: 4

The pre-workshop (PW) was held with a group of four doctoral students at Chalmers Architecture. The aim was to develop ideas about the SOCIO-FORM model itself and to discuss possible 'testing' alternatives. The meeting was encouraging and inspiring. The subsequent workshops were designed based on this pre-workshop.


WORKSHOP OPALTORG
morphological dimension
temporal dimension
social dimension
perceptual dimension
functional dimension
visual dimension
STRUKTUR och FORM
TID
SOCIAL och RELATION
PERCEPTION
FUNKTION
UTSEENDE och ESTETIK
form
socio
CITY in design theory


WORKSHOP OPALTORGET
ATTACHMENT 1
Tynnered: Best
ATTACHMENT 2
ATTACHMENT 3
The SOCIOFORM model + table
morphological dimension
STRUKTUR och FORM
temporal dimension
TID
perceptual dimension
visual dimension
UTSEENDE och ESTETIK
CITY
design theory
When using mark with:
S for SOCIO or F for FORM

Opaltorget Workshop (W1)

Number of sessions: 2	Time: W1a 1.5h W1b 3h	Number of participants: W1a 2 W1b 4

The aim of this workshop was to develop the SOCIO-FORM approach for practical use by testing the model in the context of the material produced within the *Opaltorget case*. Session W1a had an informative character. During that session the SOCIO-FORM approach was introduced as an approach with a potential significance for discussions on social impact in architectural and urban design. Session W1b had the character of a working seminar. It required approximately one hour of individual preparation from each of the participants. Each of the participants received a SOCIO-FORM workshop bag after Session W1a with all the material necessary to prepare individually for the common Session W1b (Figures 7.2 and 7.3).

The material consisted of: 1) a document presenting the workshop, 2) a planning document A (one of the following: BSD, LUP, SKB, RS[102]), 3) a planning document B (the LUP, section: 'Summary', *Sammanfattning*), and 4) the SOCIO-FORM model, SOCIO-FORM matrix and stickers of various colours.

Participants had to prepare in advance using the workshop document (1). This involved: reading the planning document A and preparing an individual 5 min. presentation of the document for the group with the focus on its aim, structure and content (2), reading the planning document B (3) and marking in the text the different dimensions of the *socio* and *form* recognised with the use of the SOCIO-FORM model and the coloured stickers from the workshop bag (4). The workshop discussions were held in Swedish.

Chalmers Workshop (W2)

Number of sessions: 1	Time: W2 1.5h	Number of participants: 4

The aim of this workshop was to examine the SOCIO-FORM approach by testing the model in the context of the detailed development plan material produced within the *Opaltorget case*.

<<< **Figures 7.2 & 7.3:** SOCIO-FORM workshop bags and SOCIO-FORM workshop materials.

[102] *For details, see list of references:* (SBK 2008a), (SDF Tynnered 2009a), (SDF Tynnered 2010), (SDF Tynnered 2009c).

The Chalmers Workshop was composed of two main parts: a short presentation of the SOCIO-FORM model and a working seminar. Each of the four participants received materials prior to the meeting, consisting of: 1) a document presenting the workshop, 2) a planning document (the DP: Section *Social consequences* & maps[103], 3) the SOCIO-FORM matrix, and 4) a list of questions.

As preparation, participants were asked to read the text from the planning document and to study the detailed development plan maps (2). Also when reading the text/maps they were asked to try to identify elements representing the different dimensions of the *socio* fibre and different dimensions of the *form* fibre, using the table as a guide (3), and to mark them in the text/maps. The workshop discussions were held in English.

7.2 SOCIO-FORM percept

The following pages are based on transcriptions of the sessions that took place during both focus group workshops and include the results of the pre-workshop session (PW), two Opaltorget Workshop sessions (W1a and W1b) and one Chalmers Workshop session (W2).

To illustrate how the synthesis of a SOCIO-FORM concept was received, reflections of the focus group participants are presented in this section. The workshop activities entailed participants examining and developing the SOCIO-FORM approach, discussing how the approach influences and shapes the developing practice of social impact assessment in urban design and how the developing practice influences and shapes the SOCIO-FORM approach. The reflections of participants regard the relation between the construction, external versatility, and relevance of the approach to the design of urban space and transversality of the social impact assessment. They take account of comments on the ways in which the approach presented develops transversality of social impact assessment, where the construction of the approach (the dimensional construction and the aspect of power) is discussed from the perspective of the subject for assessment (urban space), versatility (of ways of thinking and the character of design) is discussed from the perspective of the process of assessment (a process of design), and finally, relevance (of knowledge in-the-making) is discussed from the perspective of the knowledge production issues involved (Table 2.3).

[103] For details, see list of references: (SBK 2009a).

7.2.1 On the dimensional construction and the aspect of power

The approach put forward, and encapsulated as a physical model, a particular way of viewing an urban relationship as composed of the dimensional *socio* and *form* fibres with a range of power perspectives and configurations of meaning. Participants discussed the model and the elements composing it in all the sessions. They explored abstract and conceptual understandings associated with the fibres and the dimensions. In Session W1b participants used keywords to code the results at the level of *conceptual abstraction* (Figure 7.4).

Figure 7.4: Conceptual abstraction: Results from the process of coding at the abstract level. Participants developed conceptual understandings associated with the *socio* and *form* fibres and the dimensions. Workshop session W1b.

The SOCIO-FORM model was found to be a support in unfolding and developing the abstract ideas concerning the social dimension of spatiality. Participants were asked if it is constructive to use the model when describing society. One of the municipal planers answered:

> 'I think so. (…) describing it [society] is sometimes not that simple, but [with such a model] intellectual activity and thinking about it [society] is enhanced, giving a broader perspective and understanding.' W1b K 1120[104]

As one of the municipal planners summarised, the model became a means of seeing and conceptualising the urban relationship and its social aspect.

[104] *The original Swedish language text reads:* 'Det tycker jag. (...) ibland är det inte helt enkelt att beskriva det [samhället], men [med en sådan modell] tankeverksamhet ökar, ett bredare perspektiv och förståelse.' W1b K 1120

> 'It is a pair of glasses through which the social dimension can be viewed.'
> W1b B 1105[105]

The comparison above suggests that the approach can provide an illusory, naive perception of an objective reality, as a rule. Viewing an urban relationship through such glasses or seeing it as a dimensional and power dependent SOCIO-FORM construct can provide a representation of SOCIO-FORM concepts as ideals.

During the workshops the idealisation delivered by the SOCIO-FORM model was not only used to abstractly unfold the ideas of the social dimension of spatiality, it also guided analyses of the existing planning documents to develop concretization of the ideas of the social dimension of spatiality on the basis of empirical evidence. The conceptual abstraction was complemented with an *empirical concretisation* (Figure 7.5).

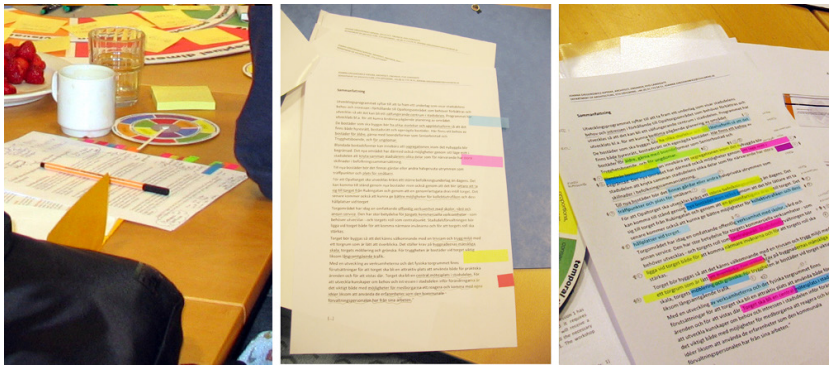


Figure 7.5: Empirical concretisation: Results from the process of coding at the real practice level. Participants developed practice-based understandings associated with the *socio* and *form* fibres and the dimensions through analysis of existing planning documents. Workshop session W1b.

Studies of the documents revealed that with regard to both fibres, three dimensions dominate the arrangements subjected to analysis. Individual analyses of the summary of LUP – when compared – show that the functional, perceptual and morphological dimensions dominate the description of urban environment. Design patterns relevant for the documents in question were identified. The model allowed for recognition of their combinations and identification of those which were not represented.

[105] *The original Swedish language text reads:* 'Sådana glasögon som man kan se den sociala dimensionen när man tar på sig de.' W1b B 1105

> 'Three of the colours appear here: yellow, red and blue. These are dominant. There is very little pink (…) just here at the end of the document. The missing colours are those which represent the temporal and the visual dimension, green and orange.' W1b M 3845

> 'There is very little about the temporal dimension.' W1b K 1275[106]

In the case of the planning document LUP, participants found the model useful for improving the comprehensiveness of descriptions of the urban environment and explicit presentation of its focal points. The ability of the model to structure and to uncover what is in and out of focus was addressed as significant for the issues of strengthening and sustaining knowledge. One of the municipal planners referred this ability to the need for continuity of implementation in thinking about the urban relationship over time and all the transfigurations, and actions of urban design. The issue of strengthening and sustaining knowledge was seen as dependent on the ability of the workers and organisations involved to map and explore the change.

> 'This is a very useful tool. It makes you see what it is that is lost [or dismissed]. There is no right or wrong [its role is not to judge]. It is a supportive device that can be used to ascertain whether all [the dimensions or combinations] that we have talked about so very much in our work is taken care of in, for example, the LUP, so that we don't lose [a chance to (re)address] them.' W1b K 3892[107]

As well as the model's role and application, participants discussed the issue of the physical representation of the SOCIO-FORM approach. A physical model was found to be a stimulating and innovative addition to what was already available and addressed an urban relationship and its social dimension.

> 'What you show [with the approach] is that it is necessary to use all perspectives when working on societal development. Here [the LUP and BSD], it became very clear that it is very good to have a diversity of tools with which to work on development issues. Texts, descriptions and verbosity are not sufficient, rather we need to constantly see, experience, and make new attempts to perform well.' W1b K 3925[108]

---

[106] *The original Swedish language text reads:* 'Det finns väldigt litet om tidsdimensionen.' W1b K 1275

[107] *The original Swedish language text reads:* 'Detta är ett väldigt bra verktyg. Då ser man vad det är man tappar bort. Det är inget som är rätt eller fel. Men det är ett hjälpmedel för att se (…) en sådan LUP (…) och ta med allt det [dimensioner och kombinationer] som vi har pratat om så jätte mycket i vårt arbete innan, så skulle man inte tappa bort det.' W1b K 3892

[108] *The original Swedish language text reads:* 'Vad du visar på är ju det att man måste ändvända alla synen när man ska jobba med samhällsutveckling. Det blev väldigt tydligt här [LUP och BSD] med utvecklingsfrågor och då är det jätte bra att ha olika verktyg att jobba med. För att det räcker inte med texter, och beskrivningar och prat, utan vi måste se, uppleva, prova på nytt igen för att det ska kunna bli bra.' W1b K 3925

At both the abstract level and the real level of practice, the testing has shown that development of abstract keywords within a fibre/dimension, as well as assigning a fibre/dimension to specific formulations in planning documents does not come about without difficulties. As Figure 7.5 shows, it was often easier to highlight entire sections of text involving the dimension in question, rather than fragments naming specific issues of the dimension.

> 'Perhaps there is no clear distinction between them [the fibres/dimensions]?' W1b V 1940[109]

Moreover, participants observed that some dimensions are easier to apprehend, and/or have developed sources of data. Knowledge regarding the *socio* and the *form* fibres and their respective dimensions can be collected with a range of explicitness.

> 'The morphological dimension – this one can always be portrayed; it is always like that [expressible and describable].' W1b B 1655[110]

Participants also identified a tension between the different natures of the dimensions of both fibres. Firstly, it was pointed out that each of the dimensions has a property of a form in itself, and has an inherent nature. Secondly, participants noted that each of the dimensions acquires its nature in a relationship, extrinsically – through factors coming from the outside.

> 'Each dimension here has its own value. It stands on its own as something you can describe individually. But you have to think about it in different sets depending on what you combine it with.' W1b B 1655[111]

Testing activities helped participants to recognise the nature of the dimensions as a complex interplay of extrinsic and intrinsic properties. The same nature was expected to characterise the *socio* and *form* fibres and the relationships between the social and built form aspects. One of the municipal planners reflected on the process driving this complex interplay, referring to combination related to an arrangement, something formed and conceived, and consequently brought up the issue of design and the need for design thinking. With regard to the subject matter of social impact assessment, this shift might indicate the need to change the focus from a result into a shaping process.

---

[109] *The original Swedish language text reads:* 'Det kanske finns ingen tydlig gräns mellan de [fibrer/dimensioner].' W1b V 1940

[110] *The original Swedish language text reads:* 'Den morfologiska dimensionen – den kan man beskriva; den är sådan alltid.' W1b B 1655

[111] *The original Swedish language text reads:* 'Varje dimension här har ett eget värde. Den står för någonting eget som man kan beskriva ensam. Men att man får tänka på den på olika sätt beroende på vad man kombinerar den med.' W1b B 1655

Questions arose in the group of researchers as to the extent to which it was possible to apprehend this nature and this focus in the proposed name of the approach and the design of the model.

> 'You talk about SOCIOFORM. It is a kind of a construct that gives an impression of *socio* being dependent on *form*. *Form* has more weight in the word SOCIOFORM then *socio*. That is always a problem when putting words together. In SOCIOFORM you see *form*. I think that is problematic. All the most absolute ideas about how the city works are connected to how *form* works. You have these general ideas regarding particular solutions when it comes to *form* – something works, is safer, is better for children, tower blocks and straight buildings are unsafe. A lot of things are connected to *forms*, which can't evaluate decisive outcomes, ideas about what the outcome is (the normative ideas). The name is therefore problematic. *Form* carries even more weight in the name. (…) SOCIO-FORM?' W2 B 1035

The general recommendation was to change the name initially used – SOCIOFORM – into a more balanced name – SOCIO-FORM. The adjustment was made so that the name could more explicitly include a discussion on the diversity of perspectives on power and configuration of meaning with regard to the *socio* aspect in the relationship between the *socio* and *form*. However, even this name did not succeed in communicating the value of the combined *thirdness* and the move beyond the sum of the components addressed.

> 'When you have one dimension and another dimension, and you can combine them, it becomes a third thing. You get something out of that, something more, something bigger, more than simply a combination, more than the sum of two things.' PW J

Along with the name, the design of the model was also questioned. As with the term *social impact assessment*, both the name and the model emphasise a separation between the *socio* and *form* fibres and the integrative character of urban design and making places is consequently nowhere to be found. The idealisation carries a risk of not rendering the limits of the approach. One advantage of such idealisation highlighted by participants was the demonstrative simplicity of the model.

> 'The strength of the SOCIO-FORM model is in its demonstrative simplicity.' PW T

At the same time as simplicity was regarded as valuable, another individual mentioned in the critique that due to the absence of the design profession in contemporary processes of social impact assessment in urban design, it is crucial to:

> '(…) actually apprehend the categories [the fibres /dimensions], because they are quite vague.' W2 C 2230

The issue of the receptiveness of the model was addressed in connection with idealisation, and it was felt to be underdeveloped. Although the focus groups used the model to come up with numerous insights concerning issues that could possibly be associated with each single dimension, the model did not 'use' the group. Participants suggested that the model should be more receptive, open to arguments, ideas, and change. The possibility of disengaging the approach from a definite idealisation was seen as valuable for mapping and developing ideas and for discussion of their meaning in the context of an architectural process.

> '(…) you need to have a constant dialogue with the designers involved (…) and then you need to provide a lot [means] to open things up, not establish conclusions.' W2 C 2003

To redirect the focus from the instrumental aspect of the model to the more conceptual one, the group of researchers recommended clarifying the aim of using the hub, as well as developing the design of the model. Emphasis was placed on a certain degree of plasticity and physically malleability:

> 'You could sharpen the SOCIO-FORM so that it is not instrumental but has a critical potential to provoke discussion. And then of course it could also be changed (modified) in processes. We could bring in new categories.' W2 C 1850

Further, participants reflected on the perception, legibility, aesthetics and communicative abilities of the model. A number of options were discussed for how to redesign the model.

> 'One could make an electronic version of it, a digital version, which would be so much easier than this. And some relationships could come up, questions (…).' W1a B 1567[112]

The critique was translated into such questions as the following: Should the users come up with a set of dimensions and associated content, or should they be provided with a selection of concepts? Should the model be digital or analogue? Should the model operate with texts and keywords or images? Should the form be round or linear? Should it be mobile or static? Should it be in the form of a matrix?

> 'If it [the SOCIO-FORM model] is not to be instrumental but rather to trigger processes, you should create different versions of it. Maybe one that is cut into

[112] *The original Swedish language text reads:* 'Man skulle kunna göra detta i en elektronisk variant, en digital version, som blir så mycket lättare än den här. Och så faller vissa samband ut, frågeställningar (…).' W1a B 1567

> pieces, one where you can put in your own categories. I think that then the tool as a whole opens up into a more critical and generative instrument, not so much an answer to everything. You need to break that. Signal (…) that this is not a closed thing; indicate that this is something that will be constantly in development.' W2 C 1965

Considering the condition of unsettlement and the need for development of knowledge in action, it was finally suggested that the design of the SOCIO-FORM model should give an impression of being open, unfinished and in-the-making.

7.2.2 On ways of thinking and the character of design

The approach put forward and embodied in a physical model a particular way of viewing social impact assessment as design of urban space, a process of a dual character driven in parallel by two types of thinking. The approach outlined the space of possibility of design, which affected the design of the model. The focus group workshops pushed the envelope of what roles the model has in the context of this space and the elements that construct it. The group of municipal practitioners pointed out that the model brought order to the process of thinking about urban design:

> 'I think that it [the SOCIO-FORM model] keeps track of the way of thinking. That's what you get help with.' W1b M 480[113]

This way of thinking was found to be applicable for construction and analysis of an urban relationship. Within the group of researching architects the model was recognised as a means to design, a frame of mind:

> 'It [the SOCIO-FORM model] is a kind of tool. In some way it is also a checklist. It is a tool to help designers to combine the social impacts and form, or different dimensions of them. This makes it interesting. It is not an instrument for measuring, articulating something, doing something, or providing a solution, it is more a kind of… you should have it in your head when you design.' W2 B 800

Further, in all groups it was regarded as a set of angles that are of use for design related analysis, explicitly addressing the relationship between analyses for and of design.

> 'It is almost like different categories for analysis.' W2 C 800

[113] *The original Swedish language text reads:* 'Detta [SOCIO-FORM modellen] håller ordning på tänket tycker jag. Det är det man får hjälp med.' W1b M 480

> 'It is a tool for a discussion about an area or a proposal.' W2 K 940

Municipal practitioners addressed the relevance of the model for anticipation and exploration of an urban relationship.

> 'A developed model (…) could be such a key, a way of entering a discussion, [useful], for example, in such cases where we need to look into the various [existing] plans and other things or to think in new ways [about new developments] – a point of departure to analyse, convert or design something new.' W1a K 460[114]

Viewed as a thought-structuring means of design and analysis, the model was regarded as a tool, but not in the literal sense of the word – a tool of a different kind. Participants did not regard it as a device used directly to perform or facilitate manual or mechanical work. It was not perceived as an instrument – a means by which social impact assessment is implemented; an agency, or implement used to give answers about social impacts in urban design. The model is not analytical and it does not give any definite answers, as one of the researchers pointed out:

> 'I am not so afraid of this anymore, because there are naturally a lot of models that are used to provide answers. I can't really see the answer, even if you were positive about it and started looking for it; it is very difficult to see this in particular.' W2 B 2131

The suggestion was that the instrumental feel should be toned down, and that the model should rather be viewed as a discursive source of discussion about social impacts in urban design from which answers could be derived (designed). It would consequently rather be placing, categorising and sorting ideas and questions.

> 'Develop it as a tool for approaching questions. Be clear about it and explain. If people think that they will find answers it is their problem.' W2 C 2115

Although appreciated for this function, the SOCIO-FORM model disappointed those searching for convenient tools for providing answers for the practice of social impact assessment in urban design.

> 'It is a very good foundation for a discussion [the SOCIO-FORM model]. Can you also produce one that gives answers?' W1a B 1167[115]

---

[114] *The original Swedish language text reads:* 'Om man utvecklar modellen (…) den skulle kunna vara en sådan nyckel, en ingång till diskussioner till exempel när vi tittar på olika planer och annat, när vi ska tänka nytt [om nya utvecklingsprojekt] – för att bygga om, tänka nytt, analysera.' W1a K 460

[115] *The original Swedish language text reads:* 'Det är ett väldig bra underlag för diskussion [SOCIO-FORM modellen]. Kan du inte ta fram ett som ger svar också?' W1a B 1167

The group of researchers therefore found it crucial to stress more clearly and explicitly that the SOCIO-FORM entails a conceptual approach not an instrumental model, to shift attention from its perceived analytical function to a critical one.

> 'If you say to the reader that it is a tool, you need to think: the users' instrument. And this is a preconception that one usually has. It [the SOCIO-FORM model] is a tool, but for critical mapping, for raising discussions. You shouldn't push it so much as an instrument or tool, but you should perhaps give to it both a design and explanation (or guidelines for use) that go beyond the analytical, and that positions and categorises questions, also in relation to the inputs that you get from that report [WSP Samhällsbyggnad 2010] (…) and to sort questions rather than provide answers. Once you explain it, it is much sharper, and then we don't get the feeling, oh here comes the answer about the city.' W2 C 1210

Comments indicated that the model has the potential to provoke discussions and for critical mapping. Workshop participants' interests in critical mapping stemmed largely from the realisation that impact assessments have always been instruments of power, creating and reinforcing boundaries. Ever since their initial use, impact assessments have been instruments to 'know' in order to 'control' and plan better cities. Participants acknowledged that impact assessments of urban design drafts have agency. They are not neutral conveyors of facts. Participants addressed the fact that 'knowing' in the planning context happens predominantly through *analytical, rational and systematic thinking*; with a point of reference in *the present concrete and experienced reality* and what is *already 'known'*.

> 'There is a disparity that can easily arise when talking about urban planning. One draws up [plans] concerning the people currently present [in the area], forgetting about those who are willing to be there in the future. It is not easy [to narrow the disparity]; it is not always known who is going to be there in the future.' W1a B 656[116]

Referring to public participation, one of the workshop participants pointed out that the exclusiveness of the *extending outwards*, i.e. *projecting the context* and its urban relationships needs to be questioned.

> 'I think also about the issue of public dialogue that is discussed so much nowadays. Talking to the people living [in the Opaltorget area] now is naturally the

[116] *The original Swedish language text reads:* 'Sen finns det också skillnad, vilken man lätt gör, när man pratar stadsplanering. Man pratar [planerar] utifrån de människorna som finns i närheten nu [i området], idag, och glömmer bort de som faktiskt kan tänka sig att vara där i framtiden. Och det är inte så himla lätt [att minska skillnaden] för man vet inte alltid vilka det är som ska vara där i framtiden.' W1a B 656

> easiest thing to do. Who talks to [and includes] those who are going to live there in the future? It is important to include their perspective in some way in order to think in multiple dimensions, not exclusively about those who are the context today.' W1a B 716[117]

This may suggest that knowing through *spatial and constructive thinking*, with the focus on the proposal for change and *the future abstract reality* needs consideration in planning practices, including social impact assessment. *Exploring and generating the abstract concept* can be of assistance in addressing 'the unknown'. One of the participants suggested that thinking without being restrained by the context is as important as thinking under its constraints.

> 'It's really hard to free yourself from what we have at present [the context]. It is sometimes possible to become unsure of how much to do it, (…). There is so much of value [in the context]. Should everything be changed? I always sense the conflict between thinking freely and thinking about both what we really would like to have and what is already there to start with. So I consider it to be a very difficult balancing act, especially when discussing the Opaltorget case.' W1a B 810[118]

It was suggested that the issue of balancing types of thinking about the urban relationship and the character of its design with regard to diversity of premises is significant, due to the unpredictability of the future. According to the participants, the idea that the future is unpredictable is not addressed, and the balance between 'the known' and 'the unknown' is not struck in planning practices. Moreover, the unknown or unseen potential paths for development act as limits, which deserve to be challenged. The following questions were asked by one of the municipal planners when considering the text of LUP.

> 'Do we know what we want? (…) It is not taken for granted that all people know how they want to live (…) There is a need for more choices (…) we don't always know what we want.' W1a B 1453[119]

---

[117] *The original Swedish language text reads:* 'Jag tänker också på detta med medborgardialog som vi pratar om så mycket nu. Då är det naturligtvis lättast att prata med de som bor där nu [i Opaltorget området]. Vem pratar med [och inkluderar] dem som ska bo där i framtiden? Och det är viktigt att ha med sig på något sätt ändå att man tänker i flera dimensioner än de som är där idag.' W1a B 716

[118] *The original Swedish language text reads:* 'Det är jätte svårt att frigöra sig från det som är idag [kontexten]. Ibland så blir man osäker på hur mycket man skall göra det (...). Det finns så mycket som har ett värde idag [i kontexten]. Ska man ändra på allt? Så jag känner hela tiden konflikten att tänka fritt mot vad vi egentligen skulle vilja ha och vad vi redan har som man ska utgå ifrån. Så det tycker jag är jätte svårt balansgång inte minst tycker jag det känns så när vi diskuterar Opaltorget.' W1a B 810

[119] *The original Swedish language text reads:* 'Vet vi vad vi vill? (...) Det är inte säkert att människor vet hur de vill bo. Det behövs många alternativ (...) inte alltid vet vi vad vi vill.' W1a B 1453

Discussion on the need for a critical approach emerged from tensions between 'the known' and 'the unknown', and between making 'the known' routine, and being receptive to what is subsequently a newer 'known'. Meandering between what is known and coded in visions and reality and what is unknown about a dynamic SOCIO-FORM relationship outlines a three-dimensional structure, which is not evident in the planning practices of social impact assessment.

> 'I sat myself down [with the planning documents] (…) and tried to pick out the dimensions and understand this complexity [the space of possibilities], and I felt that it then became much clearer for me to use this one [the SOCIO-FORM model]. Of course, you can then discuss what content they [the planning documents and the SOCIO-FORM model] have. Now it becomes, as you say, a three-dimensional image, very explicit. Before it has been more a case of: here we have buildings, afterwards people come along to live in them. We do not think with three-dimensional images.' W1b K 950[120]

> 'It is hard to think with three-dimensional images. Our thinking is flat.' W1b M 1085[121]

The approach made one of the participants reflect that the space of possibilities as a means of change can be questioned as a concept, as change as such can be questioned too.

> 'The assumption throughout has been that it [Opaltorget] should be built, or that it should be rebuilt, instead of questioning whether to build it at all. We are not really the ones who made the following assumptions: something should be built here, more homes are needed, one has to do something… What if nothing is built? W1a K 1650[122]

Through studying the model and its use, participants reflected on their own practice, questioning the democracy of ways of thinking, views of spatiality and design in contemporary urban design. In conclusion, the SOCIO-FORM model, through its three-dimensional structure, provoked a discussion

---

[120] *The original Swedish language text reads:* 'Jag satte mig med det här [planeringsdokumenten] (…) och försökte att peka ut de här [dimensionerna] och förstå komplexiteten [the space of possibilities], och jag kände att då blir det mycket mera tydligt för mig att använda en sådan här [SOCIO-FORM modellen]. Sedan kan man ju diskutera vad de har för innehåll [planeringsdokumenten och SOCIO-FORM modellen]. Då blir, som du säger, den tredimensionella bilden väldigt tydlig. Innan har det varit mera: här har vi byggnationen, så kommer människorna till. Vi tänker inte tredimensionellt.' W1b K 950

[121] *The original Swedish language text reads:* 'Det är svårt att tänka tredimensionellt. Vi tänker platt.' W1b M 1085

[122] *The original Swedish language text reads:* 'Man har utgått hela tiden från att det [Opaltorget] ska byggas eller att det ska byggas om eller, istället för att vi kanske inte skulle bygga alls. Alltså vi har inte riktigt ställt den [frågan]: här ska byggas, det ska vara fler bostäder, man ska göra någonting. Vad händer om det inte byggs någonting där?' W1a K 1650

among the participants on patterns of injustice in urban design and it acted as a support in revealing opportunities for advocacy. Highlighting social impact assessment as a space of possibilities opened up a discussion on the critical role of related practices. Simultaneous balancing on different poles of urban design appeared to be a challenge for the practice of social impact assessment. Participants made a general observation that thinking spatially and constructively demands improved incorporation into social impact assessment's processes of knowledge production, giving additional weight to the explorative and generative character of the outcome. The need for methodological support for critical involvement with conditions defining the urban relationship and its social dimension, in different contexts and realities, was addressed.

7.2.3 On knowledge in-the-making

The approach put forward a particular way of viewing the subject matter of social impact assessment as actionable knowledge in-the-making. On several occasions participants pointed out that, in terms of such knowledge, the issue of representativeness is a challenge in development work, specifically in arriving at understanding and decisions concerning questions that are very complex and that deal with values and elaborate so-called soft issues.

> 'The fact that one is very much in one's own position is really challenging in relation to development work. Because then the aim is simply to stick with what one represents and not what one really intends to discuss in this conversation. And how is the shift to be achieved?' W1b V 4450[123]

The role with which one enters a workshop setting, of an official delegate or agent, was seen to be problematic, both for development of critical thought about the purpose of a particular development work and for learning as such. Participants addressed the fact that 'self-criticality' is the basis for judgment and important for continuous 're-making' of one's own beliefs, thoughts, actions, behaviour or the products of one's everyday work. One of the participants pointed out that 'self-criticality' has a role in democratisation of the discussion about social impact, as it can grant everyone equal access to it.

---

[123] *The original Swedish language text reads:* 'Just det här att man är väldigt mycket i sin egen position, då är det jätte svårt med utvecklingsarbete. För då är man fast i liksom bara vad man representerar och inte vad man egentligen tänker sig diskutera i det här samtalet liksom. Och hur får man det skiftet?' W1b V 4450

> 'You have to be self-critical. (...) That's what it involves, being open-minded and not driven by routine. And for a workshop to be good, how can a sense of possibility emerge, such that everybody takes a step forward and nobody feels patronised?' W1b M 4432[124]

This characteristic was seen as significant if the model is to challenge the dominance of certain professions and discourses in social impact assessment. Throughout all the workshop activities, the model allowed all the participants involved to begin discussions about a particular development either from the *socio-* or *form-* layer of the model generally, or more specifically from one of the dimensions of a chosen layer of the model. The potential of the model to be a vehicle of thinking about urban design, a kind of inspirational pallet that allows different stakeholders to find a neutral starting point for discussion about a social impact was recognised. It offered a common picture, an infrastructure of meaning, a hub on which the range of urban planning and design stakeholders could focus, fulfilling the need specified clearly by workshop participants. One of the municipal planners said:

> 'I think the workshop with a lot of colours is much more fun when you have this [the SOCIO-FORM model]. It's really important if you are to get a discussion going. It [the SOCIO-FORM model] becomes a support in an analysis and a critical conversation. I think we need such support; otherwise it [the discussion] is a bit *ad hoc*. And that we have something that we can focus on together – the same picture. These things [the same picture] can then be interpreted differently.' W1b M 4468[125]

Participants recognised that the idealisation provided by the model still leaves room for individual and group discoveries and for learning about unfamiliar perspectives on social impact.

> 'I read it [the BSD] prior to the workshop (...) and I read it once again yesterday, and I must say that after going through this [the presentation of the approach and model], and receiving this [a workshop bag] with this [the SOCIO-FORM model], I read the text [the BSD] differently, from a new perspec-

[124] *The original Swedish language text reads:* 'Man ska vara självkritisk. (...) Det är vad det handlar om, att vara öppen och inte rutindriven. När man pratar om att göra en bra workshop, hur kan man frigöra sig från den känslan "vem vet mest", så att man kommer ett steg på vägen så att ingen känner sig skriven på näsan?' W1b M 4432

[125] *The original Swedish language text reads:* 'Jag tycker workshopen med mycket färger är roligare när man har det här materialet [SOCIO-FORM modellen]. Det är jätte viktigt om man ska få ett samtal. Den [SOCIO-FORM modellen] blir som ett stöd i analysen och i samtalet. Det tror jag att vi behöver; för annars blir det [samtalet] lite *ad hoc*. Och att vi har något som vi fokuserar på gemensamt – samma bild. Sen kan man göra olika tolkningar ut av dem här sakerna [samma bild].' W1b M 4468

> tive. I must say I am astonished that the text is so reduced and uninspiring.' W1b K 696[126]

What participants appreciated was the potential support that the model could offer in coordinating different stakeholders and coordinating and organising one's own actions. One of the municipal planners pointed out that there is lack of awareness in the planning practice of the critical involvement of the City District Administration activities and the city building processes.

> 'There is a general problem when working on different types of activities and services at the City District Administration. You don't grasp the connection between them and the city building processes, what this process has to do with my work (…). You do not realize that you have a potential or opportunity at an early stage to create a good setup for your own activity.' W1b M 830[127]

Lack of this awareness and lack of the tools required to create this 'good setup' and the recognition of attendant uncertainties may generate more complex problems, especially in the light of the new opportunities identified by participants when different stakeholders begin to become open to contributions from others.

> 'The City Planning Authority (…) actively called for our [the City District Administration] involvement and asked about the social dimensions/factors we wanted to put in. It was different than it used to be before.' W1b B 3648[128]

> 'There was great insecurity and uncertainty (…) and we [the City District Administration] were not trained in this.' W1a B 1664[129]

Urban design process will not become more democratic simply by including more stakeholders in the design process. Those with formative aspirations are in need of innovative solutions to shape the urban environment based on a more sophisticated understanding of democratic politics. In practical terms, the SOCIO-FORM approach was regarded as such.

---

[126] *The original Swedish language text reads:* 'Jag läste detta [BSD] innan jag gick på den här kursen (…) och sen läste jag detta igår igen, och jag måste säga att efter att du hade gått genom detta [SOCIO-FORM approach och modellen] och så har jag fått det här [workshop bag] med det [SOCIO-FORM modellen], så läser jag detta [BSD] med nya ögon. Jag måste också säga att jag blir lite förvånad över att detta [BSD] är ganska visionslöst.' W1b K 696

[127] *The original Swedish language text reads:* 'Det finns ett generellt problem när man jobbar på Stadsdelsförvaltning med olika verksamheter. Man fattar inte kopplingen mellan de och processen som händer i stadsbyggnad, hur den har med min verksamhet att göra (…). Man förstår inte att man har en potential eller möjlighet att i ett tidigt skede ordna det bra för verksamheten.' W1b M 830

[128] *The original Swedish language text reads:* 'Stadsbyggnadskontoret har aktivt efterfrågat vilka sociala dimensioner/faktorer vi vill plocka in. Det var annorlunda än det brukade vara innan.' W1b B 3648

[129] *The original Swedish language text reads:* 'Osäkerheten var så stor (…) och vi [Stadsdelsförvaltning] var väl också otränade på detta.' W1a B 1664

> 'We complain that the Property Management Administration and City Planning Authority did not create a set up that is good for us in the district [Tynnered]. Such a model inspires a dialogue. For example, if I were a teacher, could I (…) reflect on (…) how the [redevelopment of] Opaltorget impacts on the refurbishment of school building (…) how many children can gain access to it, how they move around.' W1b M 900[130]

The model provided what one of the participants called 'a picture', an understanding of the design of urban space around which civic capacity can be constructed. The model was also considered to be useful in, for instance, challenging different professional languages, motives for participation, expectations, and understandings of social impact assessment – some raising obstacles to cooperation.

> 'You can have a programme for an area that comes from the municipality and you can go into the language (…), so you can use this [the SOCIO-FORM model] and go through all these dimensions and study what kind of language they use, what kind of proposals they have and what kind of ideas they have for the consequences.' W2 B 952

One of the researchers found the model to have significance for development of the rhetoric of urban design, addressing applicability throughout the process/activity of urban design, including its moves and activities.

> 'Is it also a way to relate things more strongly, to relate, for example, the assessment to what they [the municipality] wanted. It is not (as it used to be) a list of criteria to go through.' W2 J 1002

This shows that the model could constitute a way of communicating and justifying singular design moves expressing urban relationships in relation to a larger whole, and it thus has a potential to operate in the iterative process. The model could therefore be seen as integral to the form of the space of possibilities of each particular urban design project. In this respect the idealisation acts as guidance, but the entire assemblage of singular representations of urban relationships (incl. social impact analysis) makes up the unique urban design of the specific project and social impact assessment. When certain quotes addressing a chosen urban issue were moved out of the singular planning documents and put together into the frame of a design process, the following observation was made.

> 'But I also feel that when you address these quotes, when you look at this set and then back into all our documents, you can observe that there are a lot of

[130] *The original Swedish language text reads:* 'Vi klagar på Fastighetskontoret och Stadsbyggnadskontoret för att de inte ordnade bättre för oss i stadsdelen [Tynnered]. Hur skulle en sådan här modell inspirera dialogen? Om jag vore lärare skulle jag (...) fundera mera (...) hur påverkar det här Opaltorget (ombyggnaden) skolan till exempel (...) hur många barn får jag in, hur rör dem sig.' W1b M 900

> black holes that we have not looked at when it comes to this [the SOCIO-FORM model]. That is actually the case.' W1a K 1650[131]

The model was found to be more relevant for educational purposes than for the practice of social impact assessment. One of the municipal planners thought that introducing the approach/model at the education level may strengthen understanding of the complexity of design of urban space, and not at the expense of developing professional expertise.

> 'It would be excellent to work with this [the SOCIO-FORM model] in some way. One could introduce it into the broader education, for example, programmes offered in social work departments, but also in other blocks of study. Just as it is in the fields of architecture, design and engineering: the social dimension should be a subject on a wide range of courses (…). After all, it is at the level of a profession, where one relates intrinsically to the social dimension.' W1b K 1090[132]

In terms of the practice of social impact assessment, both researchers and practitioners agreed that the model is too abstract and theoretical.

> 'You have theories in your head, I need images.' W1b M 420[133]

The costs of emphasising the theoretical dimension of the SOCIO-FORM approach for a practitioner can make design-based social impact assessment pale into insignificance.

> 'Here we have a conceptual model. How can you shift from this to a practical use? I think this is a really interesting question. Such theoretical models have enormous potential. But how can we (…) in this sad, grey everyday, how can we use it? And what is more, it should not take so much time. You have to be able to gain an immediate understanding of it. This step has to be taken.' W1b B 2330[134]

Municipal planners consequently agreed that the demonstration of the SOCIO-FORM approach needs to be simplified in order to improve accessibility to the concept.

---

[131] *The original Swedish language text reads:* 'Men jag känner också när du tar upp dem har delarna, när man tittar på det och tillbaka alla våra dokument så är det många svarta hål så vi inte har tittat på när det gäller den här [SOCIO-FORM modellen]. Så är det faktiskt.' W1a K 1650

[132] *The original Swedish language text reads:* 'Det skulle vara alldeles utmärkt att jobba med detta [SOCIO-FORM modellen] på något sätt. Man skulle kunna lägga in den i utbildningen på socialt arbete, lägga in den på andra utbildningar. Precis som det är på arkitekt- och byggnadslinjer: det skulle finnas en del i kurserna som tog upp den mer sociala dimensionen (...). Sen har man ändå sin profession (...), att man redan där skulle vilja ha med det.' W1b K 1090

[133] *The original Swedish language text reads:* 'Du har teorier i huvudet, jag behöver bilder.' W1b M 420

[134] *The original Swedish language text reads:* 'Här har vi en teoretisk modell. Hur kan man gå över från detta till praktisk användbarhet? Och det är en jätte intressant fråga tycker jag. För att teoretiska modeller har enorm potential. Men hur kan man (...) i våran trista gråa vardag, hur kan vi använda det? Och då liksom, det får inte ta så mycket tid. Man måste förstå precis direkt. Man måste göra det steget.' W1b B 2330

> 'I feel I would like to have more time to work with it [the SOCIO-FORM model]. I can see the intellectual potential in it, but one needs more time (...). I would also like to view it as a tool (…), a way of thinking, accessible to those who are less familiar with it, (…) a simple [accessible] tool (…), easy to understand. Even though I think (…) that the discussion, about the concept, is valuable in itself.' W1b B 4270[135]

Furthermore, it was felt that time and training was necessary to get better at using it and practicing the activity of SOCIO-FORM-ing.

> 'It is a question of training (…). One has to work with it.' W1a B 1296[136]

Practitioners came up with a suggestion that a workshop itself could be regarded as a SOCIO-FORM tool. Development of a workshop format was also considered to be the next important step in the development of a SOCIO-FORM approach. It was pointed out on several occasions that in cases where a workshop's goal is to address a complex topic, it is particularly important to make the group comfortable before starting.

> 'It was a very creative workshop. I thought it was exciting today. The most valuable contribution was that you highlighted this [the SOCIO-FORM model] and talked about each area; otherwise one is… one doesn't really access this [the SOCIO-FORM model]; one doesn't activate one's own thoughts really. So I think the first contact [with the SOCIO-FORM model] is very important. Perhaps some of the concepts need to be simplified to make it easier to get into this [the SOCIO-FORM model], but also to talk through it; otherwise you will not be able to progress it.' W1b V 4250[137]

The model was called into question as a means of introducing the approach. It was felt that presentation of the approach in a universally applicable, how-to-do it style was necessary if the practice of social impact assessment was to be targeted. The complexity of the model made it unlikely to move interest in the model *per se* to the model in use. It was pointed out that simplification with regard to the constituent elements of the model, and with regard to presenta-

---

[135] *The original Swedish language text reads:* 'Jag känner att jag skulle vilja ha mer tid och jobba mer med denna [SOCIO-FORM modellen]. Jag kan se intellektuell potential i den men man behöver mer tid (...). Jag skulle vilja ha den som ett verktyg (...), ett sätt att tänka, för andra som är mindre vana, (...) väldigt enkelt och lättförståeligt verktyg. För jag tror (...) att den har resan, att prata om begreppet, är värd i sig.' W1b B 4270

[136] *The original Swedish language text reads:* 'Detta är lite en träningsfråga (...). Man måste jobba med detta.' W1a B 1296

[137] *The original Swedish language text reads:* 'Det var en väldigt kreativ workshop. Jag tyckte att det var spännande idag. Jag tror att ett bidrag var att du lyfte den här [SOCIO-FORM modellen] och pratade om varje område; för annars så är man... kommer man inte riktig in i den här [SOCIO-FORM modellen]; man får inte riktigt igång sina egna tankar riktig. Så jag tror att det första steget är jätte viktigt. Så då kanske det handlar om att du förenklar vissa begrepp så att de är lättare att ta sig till den [SOCIO-FORM modellen] men även att man pratar genom den; annars kommer man inte vidare.' W1b V 4250

tion of the approach, is crucial in order to begin discussion on the complexity. Participants didn't feel that the presentation had to cover all aspects of the model, but rather that it should provide a reasonable amount of information about it so that it was sufficiently understood to be able to help participants relate the context of their own experiences into it.

> 'While subjecting the model to testing, one needs to be able to push the right buttons quite quickly I feel. Otherwise the model is difficult to understand. I think it is really important to deliver the tool, even at the price of inevitable simplification. One should at least get a sense of each of its components. Then when working [with the SOCIO-FORM model] and mixing up the components together, the understanding initially acquired might perhaps no longer play a significant role because, as you have said, the discussion begins. When introducing the tool, you should present the dimensions.' W1b M 2300[138]

One of the researchers also questioned the vague nature of the elements of the model.

> 'This is a very important aspect (…) to actually apprehend the categories [the fibres/dimensions], because they are quite vague. They [the users] are not architects. (…) So what you actually have to do is take their concepts and introduce what that would mean in the architectural process.' W2 C 2230

The following improvements to presentation of the approach were suggested:

> 'To work out a method for the workshop (…) participants could be asked to develop thoughts on a chosen area in advance [the fibre/dimension] (…). To have just one in focus, a chosen position at the beginning, could help further excursions of thought into the other areas, facilitating development of a discussion on complexity (…) Open up the workshop with a filmstrip prepared for each of the areas or illustrate them with photographic examples. Don't just use neat summarising keywords. Provide participants with an emblematic, simple translation (…), a mental image of what the area is about. This should come first. Meandering can begin later.' W1b 4285-4310

With this in mind, participants agreed that it is not only the SOCIO-FORM model but also the SOCIO-FORM workshop itself that could allow actors to develop knowledge in-the-making and to develop a design-based practice.

---

[138] *The original Swedish language text reads:* 'För att testa verktyget så måste man ju kunna på ett enkelt sätt trycka på de rätta knapparna rätt snabbt tror jag. Annars blir det svårförståeligt. Jag tror att det är jätte viktigt för att sälja in verktyget, även om det blir den förenkling, att man har någon slags känsla för varje komponent. Sen när man jobbar [med SOCIO-FORM modellen], om du rör ihop det lite grann, kanske [känslan] inte spelar en jätte, jätte stor roll, för som du sa man ändå får igång en diskussion. När du ska presentera verktyget presenteras dimensionerna.' W1b M 2300

7.3 Reflections

This chapter has focused on examination and development of a tentative presentation of the SOCIO-FORM approach. Focus group workshops have been used to deepen the knowledge of certain aspects of the approach and to create space for reflection on the developing practice of social impact assessment in urban design. Participants have discussed the tangible SOCIO-FORM model with emphasis on the dimensional construction and the aspect of power (Section 7.2.1), ways of thinking and the character of design (Section 7.2.2) and knowledge in-the-making (Section 7.2.3). In this way development of the *transverses of spatiality, design* and *knowledge* that the approach tentatively presented as a way of advancing social impact assessment in urban design was compared against an array of information on defining and handling evaluation of urban space and its social aspect.

Even though diverse or even contradictory views on the design of urban space, its subject, process and related knowledge have been presented in this chapter, the SOCIO-FORM approach can provide a reference position and a basis for new directions of thought and new possibilities for practical work. The illustration given can also serve as representation of problems and potentials in relation to social impact assessment in urban design.

Through the use of the SOCIO-FORM model, workshop participants became acquainted with the ideas of a hub-device and space of possibilities. The model was considered helpful during the processes of conceptual abstraction and empirical concretisation, in conceptual discussions and practical analysis of documents, for mapping, questioning and structuring the way an urban relationship and its social dimensions are addressed, and for finding reference points for social impact analysis. Its role as means to think critically throughout the activities of developing, structuring, communicating and sustaining knowledge about an urban relationship and its social dimension was addressed.

Critique identified where and how the design of the SOCIO-FORM model doesn't meet specific goals. Like the workshop participants addressed, the SOCIO-FORM model appears in an instrumental form and there is a need to redirect the focus to the more conceptual and discursive one. Perception, legibility, aesthetics and communicative abilities of the SOCIO-FORM model were questioned. Further development of the *presentation* of the SOCIO-FORM approach and development of a *format for a SOCIO-FORM workshop* are areas in which to conduct further research on the subject.

The critical comments about the SOCIO-FORM approach has emulated the instrumental character of analysing and evaluation culture and are the important

statements that make the designerly approach to evaluation more relevant and more significant. I argue that diversity, complexity and contradiction in participants' responses to the SOCIO-FORM approach counters many of the claims made about the implemental character of social impact assessment presented in the above workshop material, and shows in particular, that to approach the design of urban space in social impact assessment with use and development of tools of instrumental character is an unviable task fraught with difficulties.

This chapter has also illustrated that participants can be both 'critical' and 'self-critical' readers in response to the same images. It has been, I suggest, attention to the variety of participants' responses that enabled me to account for both 'agency of presented design' and 'influence on design' and to reestablish the SOCIO-FORM approach as a simply 'passive' element of research and knowledge production, and thus leading beyond the passive/active binary and conditioning the research act through design.

8. DISCUSSION AND CONCLUSIONS

The thesis emphasises development of transversal social impact assessment. *The aim* of this thesis is to advance social impact assessment conceptually and methodologically within the field of urban design and to enhance the understanding of what this advancement implies in respect of how different urban planning and design stakeholders define and handle evaluation of the urban space and its social aspect.

The research question has been formulated as follows: How to develop social impact assessment across the topologically different aspects that urban design entails, which correlates: 1) perspectives on spatiality, urban space and its social aspect, 2) diversity of component activities, plan levels and the variety of spatial scales that constitute urban design, and 3) a wide range of stakeholders and types of knowledge involved in the design of urban space?

In order to meet the aim and answer the research question, research through design of an approach to the design of urban space, the *socio-form approach*, is used. The approach is focused on a) the relationship between the social and built form aspects, b) the architectural nature of the process of its construction, and c) the transversal character of this activity. The socio-form approach has the function of a development tool. It outlines the meaning of urban design for social impact assessment, suggesting the design of urban space as a shared subject of interest, activity, and production of knowledge, and is used as a method for advancing the social impact assessment conceptually and methodologically. Following the recommendations (Section 5.4) the socio-form approach develops the *transverses of spatiality, design* and *knowledge* to advance social impact assessment and its transversality through reflecting the subject for design (urban space), the process of its design, and the production of knowledge about it (the subject matter of design).

The socio-form approach, develops around three entries to the research topic: *subject, process* and *knowledge* (Figure 2.7). In turn, three questions (Table 2.2) about design of urban space driving the iterative loops and sustaining the dynamics of the design activity of research revolve around these entries to carry discussion on transversality of social impact assessment (Table 2.3).

The first question *(What is urban space?)* deals with the *subject for* social impact assessment – the relationship between the social and built form aspects. It is therefore concerned with urban space, its integral components, the power relations between them and configurations of meaning. The focus here is on (de) construction of 'the urban', its *socio* and *form* aspects, and the level of power in their relationships (Chapter 5). The thesis offers a diachronic and a synchronic perspective on what urban space is, showing that although it is the key concern of social impact assessment, it is its greatest difficulty. The study demonstrates that, in spite of the fact that the context of urban design is characterised by unsettlement and re-evaluation of dualisms (Chapter 1), contemporary social impact assessment is oriented towards decomposition, naming and dissecting the social aspects, and following existing trends and accessible categories, by no means those of designerly practice (Chapters 2 and 5). Additionally, analysis of the empirical material shows that social impact represents one dominant power perspective, and configuration of meaning, where the *socio* is an effect of *form*, and moreover, where 'the urban' is viewed simply as an outcome, not a cause or a reason. This indicates that the way the *socio* relates to *form* in social impact assessment's construction of urban space needs to be called into question. The SOCIO-FORM approach consequently develops a view of the *subject for* social impact assessment in urban design using a mixed approach to dimensional understanding of the design of urban space.

With the social aspect defined by trends and accessible categories, and with no use of designerly practice, contemporary social impact assessment is dominated by an analytical approach, with the synthesis crucial for the design of urban space left behind. The second question *(What is the process of urban space design?)* therefore reviews the issue of the process of social impact assessment in which relationships between the social and built form aspects are constructed. It is concerned with roles of the process of design in constructing urban space. The thesis presents a diachronic and a synchronic perspective on what the process of design of urban space involves, demonstrating that contemporary social impact assessment only utilises selected features associated with the character of design and architectural thinking, thus ascribing the design of urban space with a narrow meaning. Contemporary social impact assessment attempts to embrace the rational and anticipative approach to urban space rather than a constructive and explorative one. The SOCIO-FORM approach therefore reappraises the role of social impact assessment. The character of design and architectural thinking concerning relationships between the social and built form aspects redefine the assessment into a space of possibilities.

A range of perspectives on urban space, activities, stakeholders and types of knowledge involved in the design of urban space navigate in and move through the space of possibilities. The third question *(How does knowledge about the design of urban space develop?)* therefore concerns the issue of knowledge, with the focus on what, why, how and by whom knowledge is produced in social impact assessment. The thesis demonstrates that the context of contemporary social impact assessment addresses the tools and practices of conducting analysis on different plan levels as a means of producing formal knowledge, making this knowledge the subject matter of social impact assessment and therefore urban design. The study shows that the *socio* aspects are unsettled and that in effect this gives the urban relationship the same unsettled character (Chapters 3 and 5). Rational analysis of an unsettled matter is a paradox that subjects social impact assessment to design-driven processes of settling down. In consequence, it is not the social aspects as such that are at the heart of evaluation, but rather explicit and transparent ways of developing knowledge about them, ways of exploring the space of possibilities. The SOCIO-FORM approach readdresses the subject matter of social impact assessment and shifts attention away from formal knowledge into actionable knowledge in-the-making. It builds upon the premise that social impact assessment should be viewed simultaneously as a way of knowing, ex ante research, and design. It consequently presents social impact assessment as a way of thinking critically about the dynamics of urban space with a focus on social issues, which caters for a variety of perspectives on urban space, activities, stakeholders and types of knowledge involved in the design of urban space.

Through the SOCIO-FORM approach the thesis advances social impact assessment conceptually and methodologically. In terms of the *conceptual advances*, this approach expands the scope of social impact assessment. This involves formulating an understanding of the concepts of the *subject for* and *process of* social impact assessment in urban design, as well as readdressing the resulting knowledge that is the *subject matter of* social impact assessment in urban design. The outcome is the conceptualisation of social impact assessment in urban design and a differentiation between social impact assessment and social impact analysis. In terms of the *methodological advances*, the SOCIO-FORM approach develops the scope of urban planning and design practice through the concept of social impact assessment in urban design. This involves providing and correlating the different perspectives on urban space, activities and stakeholders with a means to think critically about spatiality and its social dimension.

A fusion of the conceptual and methodological advances is demonstrated through the design of a tool in the form of a tangible SOCIO-FORM model.

The SOCIO-FORM model comprises the *space of possibilities* and becomes a *hub-device for navigation* and exploration of its different components. The SOCIO-FORM model offers an infrastructure of meaning of design of urban space for the topologically different aspects that urban design entails. Its capacity to manage design situations and to catalyse, sustain and communicate knowledge about design of urban space and of its social aspect is emphasised and tested. Testing highlights that the model is helpful during the processes of conceptual abstraction and empirical concretisation, in conceptual discussions and practical analysis of documents, for mapping, questioning and structuring the way an urban relationship and its social dimensions are addressed, and for finding reference points for social impact analysis. The role of the model as means to think critically throughout the activities of developing, structuring, communicating and sustaining knowledge about an urban relationship and its social dimension is addressed. The focus group workshops show that the SOCIO-FORM model can be used to catalyse, sustain and communicate knowledge about the design of urban space. As a catalyst, it can facilitate critical engagement with the conditions that define the social aspect of urban space and its power relation to the built form aspect and configuration of meaning, in analytical, constructive, generative and projective design activities. In terms of sustaining and communicating knowledge about the design of urban space, the SOCIO-FORM model can act as a knowledge hub (infrastructure of meaning), linking activities of the planning and design process, and placing the social impact analysis in the context of social impact assessment. The thesis explores contemporary significance of such infrastructure of meaning and the use of the SOCIO-FORM approach to advance transversality of social impact assessment and analysis for reinforcing and improved integration of the social dimension into the practice of urban planning and design.

With local urban development in Gothenburg as an example, the thesis gives an account of designerly social impact assessment and puts in perspective the view that the contemporary Swedish planning practice of social impact assessment has of the design of urban space. Through design of the SOCIO-FORM approach the thesis shows how social impact assessment can be developed *within* and *by* the new context of application, in order to offer means of critical thinking about spatiality and its social dimension. The SOCIO-FORM approach offers an alternative in terms of the way evaluation of the urban space and its social aspect is defined and handled in the field of urban planning and design, with emphasis on how social issues and urban relationships are defined and handled through evaluation. Moreover, it aligns the space of possibilities

with the existing practice of planning and design processes (Chapter 3) and expands the space of possibilities attributed to contemporary social impact assessment, improving its urban-ability – a quality of being able to embrace the complexity of discussion concerning a relationship between the social and built form aspects.

The thesis also shows, how modes of work with social sustainability, in this case of designerly practice, can become an alternative solution to a common goal for social development, for linking the topologically different aspects that urban design entails and improving integration of the social aspects in urban development. In other words, it shows how social impact assessment integrated with urban design contributes to social sustainability.

For urban planning and design practice, the thesis provides a critical enquiry into the instrumental mode of social impact assessment, in which many municipalities, at different plan levels and through different administrative units, are currently operating. Hence, it emphasises an alternative mode of evaluation and to provide municipalities and concerned stakeholders with an understanding of what the character of evaluation in urban planning and design implies for a more integrated, coherent and democratic urban development. For research, the thesis contributes to the contemporary research into social impact assessment development and to provide examples of how research by design can be applied in the discipline of urban planning and design.

The thesis emphasises a critical urban design perspective on the concepts and practices of social impact assessment and draws attention to a designerly mode of evaluation. It formulates theoretical foundations for designerly strategies to develop social sustainability tools, as a complement to the contemporary development in urban planning and design practice of evaluation.

8.1 Integrating social impact assessment with urban design

The development of social impact assessment in urban design with the SOCIO-FORM approach is concerned with the question – why? As the *Opaltorget case* in the context of Gothenburg shows, the contemporary practice of urban development largely attempts to employ a social impact assessment methodology in urban design processes, as well as those concerning urban drafting. Existing approaches to social impact assessment are now being launched in a new context of application – the urban design context. The

thesis shows that concepts relating to the *subject for*, *process of* and *subject matter of* assessment defined within the field of social impact assessment do not correspond with the nature of the *subject for*, *process of* and *subject matter of* urban design. Moreover, these definitions are not embedded by the practice of social impact assessment in urban design. The understandings given to the nature of the design of urban space that lie at the heart of assessment in urban design differ. Although both urban design and social impact assessment in urban design focus on the design of urban space, they assign different roles and meanings to it. The two fields involved, both theoretically and practically, operate with different views of the design of urban space, which above all result in questions about the common ground for the development of politically demanded tools for social impact assessment of urban designs.

The thesis has recognised that social impact assessment needs to be integrated with urban design to ensure it contributes to social sustainability. The SOCIO-FORM approach applies urban design's understanding of the design of urban space as an ideal, while the role currently given to the design of urban space by social impact assessment is emphasised as problematic, specifically in the context of the postmodern discussion of spatiality, complexity, unsettlement and uncertainty. The field of social impact assessment focuses distinctively on the social aspects, addressing a specific power perspective where 'the social' is addressed as an effect of the physical environment, discussing the resulting urban relationship as an outcome not a cause or a reason. At the same time, the postmodern discussion about the city is concerned with complexity, the re-evaluation of the dualisms between the immaterial and material dimensions of spatiality, and the view of spatiality as a product and condition that permits the occurrence of an effect or leads to a result. Comparison of these two reveals a paradox and a challenge for the static account of kinetic matter. The thesis shows that the theory and practice of urban design and the practice of contemporary social impact assessment in urban design casts a doubt upon and challenges the existing concepts of social impact and social impact assessment and the modern, deterministic and rational view of urban relationship and the social aspects that they fashion. Urban design is a socio-spatial process, which, according to Madanipour is an *exercise in power* that '(…) articulates a tight relationship between social relationships and spatial configurations, without reducing this to a deterministic link between social and spatial phenomena (2014, p.3).

These are the reasons why the SOCIO-FORM approach contests the ways in which space and its social aspects are addressed and shifts the focus of assessment from the final product onto assessment as an ongoing practice.

8.2 Construction: Transverse of spatiality?

Chapter 1 addresses the problem of fragmentation, decomposition and lack of cohesion in social impact assessment. In reaction, the thesis develops a *mode of structuring* social impact assessment and a *mode of* social impact assessment that are comprehensive and inclusive of perspectives on spatiality, urban space and the social aspect involved in the design of urban space.

The study shows how certain social issues, certain power relations between of the social and built form aspects and certain configurations of meaning occupy a discussion on socially sustainable urban design. Such a discourse means that certain social aspects, power relations and configurations of meaning are reinforced, while others are left aside and not acknowledged at all. A discourse on a socially sustainable city becomes increasingly centred on issues such as safety, the child's perspective, or health. Moreover, the issues are most often presented as the results of built form design, additionally addressing urban design exclusively as a form of product. In addition, the study shows that the discourse is to a large extent driven by politics and the public sector. However, the specificity of urban design projects requires a critical approach to such a discourse, a questioning of the stabilising and standardising view, and the involvement of all professions related to urban design.

At the same time as the social aspect develops strong associations, the notions of 'social' and 'urban' are unsettled between stakeholders and their activities at different spatial scales. Although the thesis shows that the unsettlement is a concern for those who work with the contemporary practice of social impact assessment, the thesis discusses its quality, showing how the unsettlement opens up social impact assessment to critically thinking about the urban relationship.

Politicians, public authorities and the private sector not only need to teach each other about familiar and stabilised social aspects of importance, but also learn from each other, broadening out the understanding of spatiality emerging through existing planning practices. As a reaction to segregation, which stigmatises discussion on the social aspect and attempts to define individuals, groups and societal issues as (components of) urban products of the existing regime, the thesis proposes an alternative way of addressing the social aspect, presenting both 'the social' and its role in constructing 'the urban' in in a different way. The SOCIO-FORM approach transgresses the limits imposed on the social aspect and uses the dimensions of urban design and the four different power perspectives and configurations of meaning to illustrate how the social and built form aspects and the urban relationship could be readdressed. The SOCIO-FORM approach as such does not escape the separation of the *socio* and

form, yet the dimensions derive from a framework that does not impart polarity to 'the urban'. The dimensional understanding is of relevance for all urban design stakeholders as it moves beyond the politics, sectors and professions. It offers a neutral starting point in settling down and establishing the social condition, preventing politicisation and sectorisation of urban design, and questioning contemporary tendencies, trends and categories. The SOCIO-FORM approach challenges the official discourses through which cities endeavour to impact on the social sustainability of urban design. Instead of focusing on the social aspect and urban relationships, it addresses the role of dimensions and the role of power in configurations of meaning, highlighting the importance of the process in which they develop. In this context, the SOCIO-FORM model functions as a background from which the social aspect and the relationship between the *social* and *built form* aspects can be developed, for purposes related to user, scale or activity. All these shifts are illustrative of the changes associated with turning the subject matter of social impact assessment away from results and towards a process of shaping. The shaping activity is thus important both as a result and a way of achieving the result. It has a double meaning.

While there is a substantial discourse on socially sustainable urban design, the stakeholders involved in analysis of social impacts that make up the course of assessment (e.g. the *Opaltorget case*) have difficulties in understanding and communicating when it comes to stating how the not yet built environment both embraces and expresses these dynamically evolving social concerns. The focus group workshops show that at the conceptual level and in relation to specific planning or design documents, i.e. the levels of conceptual abstraction and empirical concretisation, the SOCIO-FORM model is capable of catalyzing a discussion about the *socio* and *form* fibres of urban environment and about links between the fibres with regard to different power perspectives and configurations of meaning. As a comprehensive framework it addresses possibilities of critical involvement and provides a structure within which users can develop/structure knowledge about 'the urban' and its SOCIO-FORM construct.

The focus group workshops show how the construction proposed paves the way for a discussion on spatiality. By examining the SOCIO-FORM model's construction, participants learn about the SOCIO-FORM approach and develop knowledge about the *socio* and *form* fibres. The exercise of going through the components of the SOCIO-FORM model shows how participants can use the dimensional framework to actively define the *socio* and *form* fibres. Photographs in Chapter 7 (Figure 7.4) demonstrate how this discussion is coded into the SOCIO-FORM model by means of keywords. Although the result does not include the concepts that occupy the contemporary discussion on socially

sustainable urban design (e.g. *identity*, or a *child perspective*) it provides alternative notions that, instead, can be helpful in constructing these concepts. The keywords of *activity, interaction,* or *bodily capacity and requirements* thus can define the *socio* fibre of these concepts. These keywords can then be related to the discussion on the *form* fibre and notions such as *signs, functions, shapes* or *materials*. Discussion on socially sustainable urban design and the choice of keywords will never be homogenous, due to the issue of unsettlement. In this context, Chapter 7 highlights what the main problem with the SOCIO-FORM model is. The dimensional understanding, separation of the *socio* and *form* fibres of urban space and four configurations of meaning do not escape homogeneity and standardization, yet the role of the SOCIO-FORM model is to show differences and conflicts. Although the SOCIO-FORM model is of relevance for all urban design stakeholders as it moves beyond the politics, sectors and professions, it does not offer a possibility for all these parts to critically involve with it.

The instrumentality of the SOCIO-FORM model is signified. The studies of the summary of the *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered* (LUP) illustrate that the SOCIO-FORM model can be used to analyse and question the *socio* and *form* representations, the power perspectives and configurations of meaning addressed. These analyses indicate that the specific dimensions – morphological, functional and relational – prevail over the representations of urban space in different planning documents, whereas others are basically not acknowledged at all. Both exercises show that the functional dimension, for example in the case of both the *socio* and *form* fibres, has the best level of understanding among the users and the best coverage among documents, whereas the aesthetic and temporal dimensions are problematic. As one of the focus group workshop participants summarises, looking at 'the urban' through SOCIO-FORM glasses increases intellection, broadens perspectives on issues and develops understanding.

The SOCIO-FORM model can be used to facilitate the development of actionable knowledge about the design of urban space and its social aspect. Above all, it can be used to address possible conflicts and struggles between different discourses, which are not particularly evident in the current practice of social impact assessment. Overall, this might suggest that the SOCIO-FORM model could have a critical role when applied practically. However, as workshop participants recognized, in order to have such role it needs further development. The discursiveness of the SOCIO-FORM model has to be further reinforced, so that the user can critically engage with the model itself. The focus group workshops suggest that an alternative design of the physical form of the SOCIO-FORM model can be a way of strengthening its discursiveness.

The SOCIO-FORM approach attends to a transverse of discussion on spatiality. By focusing on a possibility for different perspectives on spatiality to critically engage in constructing a sense of collective responsibility, and on discursiveness, not instrumentality, the SOCIO-FORM approach draws attention to a more democratic *mode of structuring* social impact assessment and *mode of* social impact assessment.

8.3 Versatility: Transverse of design?

The thesis shows how social impact assessment can develop through design to be relevant for the full scope of urban design, the diversity of component activities, plan levels and the variety of spatial scales.

The study shows that the scope of urban design is partially addressed through the stance towards it that social impact assessment takes, the type of thinking about the social aspect that it builds upon, and the form that it takes. Taking an essentially *corrective stance*, social impact assessment looks upon urban design as a counteractive activity. Design is featured as remedial and *reactive* and the role attributed to it by the urban planning practice of social impact assessment is to counteract and remove the projected faults. The stance is a result of a type and forms of thinking about the social aspect. Certain fractions of architectural thinking and certain character of design dominate the character of social impact assessment. A specific role is therefore attributed to the way that social impact assessment approaches the construction of a relationship between the social and built form aspects, where the *rational systematic analytical thinking and anticipative character* of this construction is addressed (e.g. Boverket 2000). A discourse on social impact assessment addresses issues such as 'set goals', 'measuring' and 'analysis' ahead of possibilities for questioning and critical thinking about spatiality and its social dimension. And so an *analysis*, either performed by specific planning sectors or in relation to specific plan levels (the SKB and SKA), is a primary form that planning gives to consideration of the social dimension.

The type of thinking about a social aspect and a social impact that social impact assessment addresses and the form it takes, together make consideration of the social dimension a component of the planning process. The thesis shows that municipal planning practice struggles with this component. What it regards as difficult is choices of social aspects for analysis, correlation of plan levels and scaling of social aspects within the planning process, as well

as the relationship between a planning process and actual changes happening in regard to social aspects. These struggles together address the need to create 'a larger space' for social questions in the planning process (WSP Samhällsbyggnad 2010; SRF 2007). They show why consideration of the social dimension should develop into the ongoing activity of social impact assessment. This is the basis on which this thesis differentiates between social impact analysis and social impact assessment, and *shifts social impact assessment from an activity of design into a design activity.*

By moving social impact assessment beyond an instrumental component of the planning process, and developing it into a consideration integrated with the planning process, the SOCIO-FORM approach readdresses the role of social impact assessment and its involvement with design. The SOCIO-FORM approach features design as a method of performing. Focusing on *synthesis*, the design activity stands at the centre, not at the expense of the diversity of activities of design. The SOCIO-FORM approach redefines social impact assessment into an ongoing reflective learning process and frames it without concealing the diversity of analyses on which it hinges. The approach fashions social impact assessment that is more meaningful than the sum of its parts. It develops a view of assessment as a process that is formative in determining individual social impact analyses to balance the perspective on assessment as an additive or summative process, i.e. produced by summation of individual social impact analyses.

The character of design and architectural thinking about urban space redefine an assessment into a *space of possibilities,* opening up the scope of social impact assessment. Attention is brought to *spatial and constructive thinking* about construction of a relationship between the social and built form aspects and the *explorative character of* this construction. This is done in order to give to social impact assessment a *permissive stance*, so that it also views urban design in a *positive sense*, as measuring or moving forward or in a direction of increase or progress. Design is consequently featured as *proactive*, having erosive effects on projected faults, with a role to counterpoise existing problem formulations with generated alternative ones. By redefining social impact assessment into a space of possibilities with regard to the scope of urban design, the traditional role attributed to design by the urban planning practice of social impact is questioned. Such a transformation implies that new ways of thinking about design of urban space need to be linked to the new ways of 'doing governance'. This thesis consequently provides an analysis which acknowledges that social impact assessment in urban design not only needs to take account of governance, but it also needs to involve critically with governance. This illustrates that

the idea that social impact assessment is integrated with urban design, planning and governance, rather than used instrumentally, is becoming an issue in the reinforcing and improved integration of the social dimension into the practice of urban planning and design.

The space of possibilities perspectivises the process of *Renewal and development of the square at Opaltorget and its immediate surroundings*. The thesis maps the elements and activities of the process that both outline the space of possibilities and develop the process of social impact assessment in urban design, in order to understand how social impact analyses are situated in this space and how different their roles, forms and premises can be.

Chapter 4 shows that the documents: *Description of the District Tynnered* (BSD), *Local Development Programme for Urban Planning and Design of the area of Opaltorget in Tynnered* (LUP), *Descriptions of Social Consequences* (SKB), are all representations of urban environment. They constitute individual three-dimensional extents in which the relationships between the social and built form aspects are presented, with a reference to a particular context and reality (Figure 4.8). The documents record the process of urban design and outline the space of possibilities in *practice*. The *theoretical concept* of space of possibilities presented in Chapter 6 perspectivises the outline of the space of possibilities in *practice*, addressing all composing three-dimensional extents and links between them (Figures 6.4 and 6.5). The comparison between theory and practice shows that the space of possibilities in *practice* does not elaborate on one of the three-dimensional extents. This extent needs to represent consideration of assumptions about the influence of the new urban context on visions of future development – a consideration that is important in the light of discussions on the challenge and potential of space (Massey 2005). This supplement can help to move beyond thinking of the relationships between the social and built form aspects as of final products – thinking that is significant in the SKB.

The focus group workshops used the SOCIO-FORM model to study the existing planning documents composing the space of possibilities, and the patterns of SOCIO-FORM constructions that they represent. The analyses of individual documents not only expose the dimensions, the power perspectives and configurations of meaning that dominate in each of the texts, but they also make possible comparisons of patterns. The comparison reveals the differences in SOCIO-FORM constructions and indicates a change in lines of argumentation, mapping areas of possible conflicts. By looking at the elements of the process of *Renewal and development of the square at Opaltorget and its closest surroundings* from the perspective of a system of representations linked with the space of possibilities, the focus group workshop participants identified what they

called 'the black holes' – a result of what Chapter 5 identifies as 'fragmented lines of reasoning'. As Chapter 5 shows, the SOCIO-FORM constructs of specific urban issues, e.g. 'good meeting places', are often addressed by the individual planning documents, but the documents, when set together, fail as a collective assemblage in delivering an understanding of change of urban space and rhetoric of the process of urban design. The question of rhetoric concerns the individual documents and the assemblage. Analysis of the BSD shows that although the document addresses the two-fold context – the development reality and the vision for the district – the elements that construct it do not correspond with each other. Moreover, they do not correspond with other documents describing the same issue (e.g. the LUP).

The focus group workshops show that the SOCIO-FORM model can be used to address conflicts in representations of urban environments necessary for discussion of change, and consequently primary for design. In other words, interrelationships between the elements constructing the space of possibilities can be exposed and discussed through reflection on *the nature of change*. The thesis shows that they can be improved with the focus on the coherency of individual elements and documents and the coherency of the process. It addresses the need for reflective practice.

Understanding how the narrative concerning the urban context changes, and keeps each individual analysis on the track of assessment, while still allowing for excursions into other design situations, requires navigation. As the focus group workshops show, exploration of the space of possibilities of a particular urban design needs what participants called 'a common picture', a strategic and structured but flexible way of thinking. This is due to one of the key components in the production of urbanism – time. No urban design process can be seen as completed. All it provides are conditions for collaboration, for current and future stakeholders (Brain 2006). The study shows that the SOCIO-FORM model can be used in different phases of urban design and for iterative moves between them, facilitating a continual critical reflection and a constant valuation of 'the urban' and its SOCIO-FORM construction. As one of the focus group workshop participants summarises, 'it keeps track of thoughts and thinking'. The role of such *navigation* is not to reach a consensus or uniformity within the space of possibilities, where everything is regular, homogeneous and rational, but to show differences and conflicts, as it is conflicts that are needed for change to happen. Change on the other hand drives design. The thesis indicates that a SOCIO-FORM model is versatile, as it has the potential to sustain and communicate knowledge within the urban design process and throughout a diversity of analysis.

As the thesis shows, there is great *diversity of analysis* in developing an assessment and it can be discussed through reflection on different forms of evaluation, different purposes of evaluation (European Commission 2013), different approaches to how the social aspects are handled in the detail development plan (Gregorowicz-Kipszak 2010; WSP Samhällsbyggnad 2010) and the point in time in the process when it takes place (Todd & Wolpin 2008; Hulsbergen & Schaaf 2005). The concept of the space of possibilities increases this diversity and suggests that social impact assessment related analyses have a range of premises in discussions on change.

A design project, such as the one from BIG *Bjarke Ingels Group*, changes the narrative told by the existing prefigured context, that which comprise inventories of contemporary (the real) reality of place, and contemporary visions, wishes and desires for change (i.e. the BSD and LUP). The way that the narrative of change in the SOCIO-FORM construct is told is not to detach it from certain continuity. The nature of change is therefore an emerging question for social impact assessment. Janssens (2008) views designing as focused on change, not on explaining, and thus it is a *critical activity per se.* A critical activity of designing could therefore be seen as an emerging question for social impact assessment. If the issue of measuring continues to be exclusively addressed, the context of descriptions representing the existing environment will treat a new piece of environment unfavourably unless it fits in. This clearly favors reactive design projects that follow existing canons and trends. However, the role of design is not only to react to existing canons and trends, but also to generate new ways of analysing, defining and interpreting assumptions about the reality of SOCIO-FORM constructs. Design should constantly improve the existing and generate more adequate/developed ways of dealing with problems to create functional products and processes. The thesis inverts the cause-effect hierarchy of assessment and analysis. It shows that rather than analysis indicators, critical discussion of the consequences and qualities of the SOCIO-FORM approach can generate criteria for quality improvements.

The workshop participants pointed out that the SOCIO-FORM model can be instrumental and offer support in relating the assessment to the context, as well as supporting disengagement from it and having a critical function. Distancing oneself from 'known' and 'tested' solutions needs a strong emphasis on the creative aspects of designing (Hulsbergen & Schaaf 2005). As one of the participants suggests, there is always a struggle between *free-thinking* and *restrained-thinking* in discussions about change. This struggle is therefore a concern for the future development of social impact assessment. Drawing an analogy to Janssens' writings on design (2006), assessment should not be reduced

to polishing or fitting into existing situations or an uncritical instrument for problem-solving. Its intrinsic capacity to redefine problems (questioning the question) by reading the implicit possibilities that surpass the given explicit situation is equally important.

The thesis develops assessment as a means of urban design. It suggests that the assessment should integrate with all urban design activities and develop sensitivity not only to what is already familiar or known, but also to possibilities not yet recognised or discovered. Assessment has to develop a capacity to not only solve problems but also to structure them. To make this possible, this thesis proposes a move beyond the passive function of legitimacy towards the active function of creation, beyond the analytical and toward the generative character, exposing trends and popular beliefs and shifting attention to neglected or hidden perspectives or burdens. As one of the focus group workshops participants summarises, it is the balancing act that is difficult. As much as the SOCIO-FORM model gives participants a tool to describe the design's social performance, and gives *support for analysis*, it also interacts critically with such standards and offers support in *critical conversation*. It is specifically this critical activity that the social impact assessment in urban design should represent more explicitly. This immediately opens up a question: a critical conversation with what? The space of possibilities suggests different premises for the reactive and proactive stance, indicating that the proposition upon which an argument is based or from which a conclusion is drawn can vary and include 'the known' and 'the unknown'. As regards planning discussions (e.g. Boverket 2000), 'the known' is the premise for social impact – *the founding goals* described in plans, starting in its early phases. As the focus group workshops participants suggest, the *restrained-thinking* about 'the known', in SOCIO-FORM's words 'the context', needs a complement and inclusion of 'the unknown' to *give an expression to imagination*. This can be done by considering the context not only as something with the power to create, but also something created. As one of the focus group workshops participants pointed out, 'we do not always know what we want until we see alternatives'. Incremental development of knowledge on social issues needs to be balanced with possibilities for re-conceptualisation and transformation of existing discourses.

The SOCIO-FORM approach attends to a transverse of design. It therefore explicates the way in which design might integrate social impact assessment into a more democratic practice, questioning some of the imbalances of the current development regime. Development of social impact assessment as a means of urban design through the use of the SOCIO-FORM approach is a reaction against this regime, apparent in efforts to reorient the politics of social

impact assessment to address and to concern conflicts. Transversality of design perhaps makes the concept of design-based social impact assessment seem difficult to put into operation, but at the same time promising; it requires a balance and openness in relation to different ways of thinking, and to different contexts and realities – all in order to offer room for a critical discussion on spatiality and its social dimension. The issue of balance and the concept of democratic practice do not only concern questions of which elements of the space of possibility hold power and for what purpose. The SOCIO-FORM approach enables a process of social impact assessment that reflects on what Brain (2006, p.22) calls 'formative aspirations' that concern the aggregation of individual components of the space of possibility within its limits. Such a process infuses each individual analysis with a sense of responsibility for a positive collective assessment outcome, thus moving beyond inclusiveness into a process that makes possible engagement of components. In the context of social impact assessment this entails development of a reflective practice allowing for a critical involvement with conditions defining the social dimension of sustainability. Moreover, in situations where social impact assessment partially addresses the scope of urban design, the readdressing of social impact assessment into a space of possibilities can have additional positive effects, ensuring the variety of design shifts and activities. A correlating, design-based SOCIO-FORM approach offers the possibility of urban-able social impact assessment – a process enabling engagement and constructing a collective sense of responsibility for the social dimension of sustainability. By addressing different roles of design, toning down the measuring discourse, and offering innovative solutions for navigation through the heterogeneity of topologically different aspects that urban design entails, the SOCIO-FORM approach highlights the democratic aspect of social impact assessment in terms of the involvement of different types of thinking and design shifts of diverse character in a *mode of structuring and performing* social impact assessment.

8.4 Relevance: Transverse of knowledge?

The thesis develops a *mode of structuring* social impact assessment and a *mode of* social impact assessment that is relevant for a wide range of stakeholders, professions and types of knowledge involved in the design of urban space. As a reaction to the condition of unsettlement of 'the social', the lack of what Janssens (2012) calls the pre-defined planning goals, and the pressure on urban

stakeholders who are under an obligation to produce results and to resolve problems, the thesis proposes an alternative understanding of such results as being *in-the-making*, thus featuring an actor's position in relation to knowledge development and knowing as an active process. The SOCIO-FORM approach transgresses the limits imposed on the subject matter of social impact assessment and utilises design. It illustrates how knowledge production in social impact assessment could be reconfigured to produce actionable knowledge – a hybrid form of knowing that is situational, neither analytical nor synthetic, heuristic, valuing experience and discreet forms of knowing (Ryle 1945; Drucker 1994; Rowe 2002).

The issue of its relevance demands reflection on potential users, implying a wide range of professions involved in the design of urban space. The thesis shows that development of tools and strategies for social impact assessment in urban design is in political interests and serves it – internationally, nationally and locally. Recommendations at the international and national levels suggest that the local level offers the most significant role for the development of social impact assessment in urban design, due to the more concrete and specific interests of stakeholders involved and the urban design context.

The thesis provides insights into how at the local level certain professions dominate development of knowledge about the design of urban space in social impact assessment. Not only is the discourse on social impact assessment increasingly driven by politicians and planners, it is also centred on them. This indicates stakeholders with the power, ability and capacity to perform and act effectively, while others are left aside and not acknowledged at all. It may be the case that in contemporary social impact assessment there are only a small number in positions to define what should be counted as relevant knowledge and those with the power to decide what forms of knowledge are regarded as authoritative and legitimate and what should be included or excluded in urban design processes. The *S2020 Opaltorget pilot project* indicates that there are a large number of stakeholders concerned with the design of urban space, and therefore development and application of social impact assessment, which can include a mix from government, industry, academia and the citizenry sharing a common urban design project. The pilot project shows that social impact analysis has the potential to develop as a collective action based on partnership and specific relations between stakeholders working in a specific way on the development of knowledge related to a specific place and time and issues of urban concern. The so-called 'black holes' identified during the focus group workshops indicate that the collective action (e.g. the SKB and DP: Section *Social consequences*) has to develop from the collective activity of social impact

assessment. Moving from an analysis into a process, from an action into an activity, entails a move from formal knowledge into knowledge in-the-making.

A key aspect of such processes is not only the involvement of a diversity of stakeholders and types of knowledge but also the power relations between them. The study shows how social impact assessment develops as an urban planning component, and therefore a political component. When discussing planning as politics, Bradley (2009) points out that planning as a public domain is political in the sense that it is not only conducted under/by elected politicians, but also other bodies that are not necessarily *party political*. The study shows that such bodies are rarely involved in contemporary social impact assessment.

Seen as a political component, social impact assessment is related to urban governance and connected with a postpolitical condition. Mouffe (2005) and Žižek (1999) argue that difficult societal problems can never be handled without conflict, and Mouffe (2005, p.105) points out that there is no optimum solution for all of them. That which is 'good' and 'socially sustainable' is unsettled and needs to be embedded in social impact assessment as such. Given that urban design processes involve numerous stakeholders, there is a need to recognise that this will (often) involve interests and positions that come into conflict with one another. There will always be contestations of what is at stake. Contemporary social impact assessment, involving a small number of stakeholders, does not involve a space for political differences, which, according to Mouffe (2005, p.5), can result in confrontations elsewhere, outside the democratic system. This indicates an important role for social impact assessment in identifying and addressing the coexistence of conflicts and not a consensus-oriented process of governance. It is therefore important to question: which and whose stories decide the legitimacy of change in the urban environment and whose stories disappear. The thesis shows that there is a diversity of perspectives on social sustainability and a number of discrepancies in ideas and views of stakeholders about their actual areas of feasible action. The obviously existing conflicts and the focus on 'conflictual consensus' does not drive contemporary social impact assessment. Conflicts and confrontation are, however, important in development of the human capacity to judge and assess. Drawing on Immanuel Kant, Hajer and Reijndorp (2001) point out that making judgment is always based on an exchange. It is in this confrontation with other perspectives that one develops own ideas. Accordingly, 'judging' is not about the application of received norms. This opinion is shaped when one becomes aware of one's own values, deciding to retain them or to adjust them. With today's mode of social impact assessment, conflicts disappear, whereas explicit and transparent ways of developing, sustaining and communicating

knowledge about them seem to be necessary. The SOCIO-FORM approach therefore develops social impact assessment as a space of possibilities, where the *concetto* and a discordant agreement are in focus. This can be related to the idea of space of thought (Hertzberger 2000; 2005a-b) and the idea of the decision environment (Varkki 1997). By assuming that the contemporary culture of conflicts, the intensity of shifts in conditions and values require an unremittingly critical attitude (Hertzberger 2000; 2005a-b), the transdisciplinary, political and planning dimension of social impact assessment can be emphasised.

The SOCIO-FORM approach presents social impact assessment as a way of thinking critically about the dynamics of urban space with a focus on social issues, which caters to a diversity of perspectives on urban space, activities, stakeholders and types of knowledge involved in the design of urban space. The critical engagements with conditions that define the social aspects of urban design require support in navigating through the heterogeneity of perspectives in a mode of architectural thinking. The *S2020 Opaltorget pilot project* shows that practitioners and researchers possess knowledge in aspects of social impact assessment in relation to areas such as the diversity of its roles or specific insights into the social and/or built form aspects. What Reynaud (2004) and COST C20 (Nolmark *et al.* 2009) mean by successful collective actions are not necessarily those which gather all the skills needed to resolve the problem, but those which are able to articulate and coordinate the various stakeholders' contributions.

The *S2020 Opaltorget pilot project* and the focus group workshops address the need for capacity to provide stakeholders with the opportunity to coordinate and organise themselves and their respective actions. A significant benefit of using the SOCIO-FORM approach collectively is that, similarly to the urban knowledge arena (Nolmark *et al.* 2009), it can assist in the maintenance of knowledge and help to control the balance between values, rules and knowledge, as well as the coherence of their basic arguments in a local urban setting, developing the rhetoric of urban design. The SOCIO-FORM approach tested within the focus group workshops shows the potential to secure and better facilitate this exchange of perspectives between stakeholders and provides tools and processes for 'exchange' rather than 'assembly' of these individual perspectives. Users point out that the SOCIO-FORM model helps them to step out of *what they represent* to *what they think* and enables them to initiate discussion about social impacts in an unbiased way. The SOCIO-FORM model allows them to begin with a specific dimension, or a specific fibre, slowly mapping or exploring the different possible combinations, power perspectives and configurations of meaning. By understanding and identifying how others cognise urban space and its design, by learning new perspectives on the issues, individuals can

work in a more effective and transdisciplinary way, and can improve organisational and individual performance. This can also make those from different sectors and professions involved in urban design more comfortable in their interactions, encouraging critical involvement and integration of new knowledge with individual actions and products of urban design. Thus knowledge in-the-making not only features the role of stakeholders in the development of knowledge, but the role of knowledge in the development of stakeholders. Rewers (2005) points out that the power relationship between the components doing the investigating, and the object of study have to change from one which experiments on the object, to one where there is a central *polis*, a starting point for individual explorations. The study addresses the fact that it is not only about change and a choice of one instead of the other. Rather, they both have to be viewed as complementary.

The thesis shows that design-driven development of perspectives on urban space and its social dimensions, and the differences within the group of stakeholders involved in urban design, are not the focus of contemporary social impact assessment.

The SOCIO-FORM workshops develop as modalities of instruction and learning (Rowe 2002). Together with the SOCIO-FORM model they are regarded by users as mechanisms to improve inter-stakeholder and inter-activity relationships in urban design processes. Jointly they develop the idea of engagement in participatory network planning and knowledge hubbing with the focus on a typology of engagement mechanisms. As mechanisms, this can further be related to the instrumental and cognitive dimensions of knowledge representation and processing and to the factors describing sharing of data and experiences such as *relevant knowledge, understandable language, appropriate systems of knowledge-management* (Nolmark *et al.* 2009). The SOCIO-FORM approach supports communication through development of new concepts, the ideas of a hub-device and space of possibilities. By not offering a language that it is possible to use in the communication processes, by not putting forward a way of presenting information understandable for all stakeholders, and not presenting a structure for knowledge management, and methods and tools for knowledge-management support, contemporary social impact assessment downplays its own role as a knowledge management system, fostering multi-actor and multi-activity interaction. Consequently, it downplays its own role in bringing together different professional disciplines or types of knowledge in planning processes and political decision-making, and therefore also using heterogeneous knowledge, i.e. developing, sustaining and communicating.

The SOCIO-FORM approach attends to a transverse of actionable knowledge in-the-making. It highlights the role that social impact assessment has for integration. It therefore provides support in the dismantling of traditional barriers between scientific disciplines, between different stakeholders in the urban design project, between various administrative units and finally between different groups of interest and power. Transversality of knowledge makes the concept of ongoing social impact assessment appear perhaps somewhat naive, but at the same time promising; it requires a mental and intellectual openness in relation to the exchange of ideas, it presupposes respect for, and a readiness by all stakeholders to confront, the points of view and the perspectives of others, all in order to offer a space for critical discussions on spatiality and its social dimension. Moreover, in a situation where certain urban stakeholders are under a major obligation to produce results by regimes, the transformation of social impact assessment into a space of possibilities and formal knowledge into knowledge in-the-making can have additional positive effects on protecting and reassuring stakeholders. Addressing the shared responsibility, and toning down the individual obligations of certain stakeholders, highlights the democratic aspect of social impact assessment and the equality of different types of knowledge in the *structuring* of social impact assessment and *performing* social impact assessment.

8.5 Concluding remarks and future research

Against a backdrop of the growing interest in social impact assessment, the thesis addresses a number of critical issues regarding development of social impact assessment, a topic that has come onto the agendas of a large number of municipalities, both internationally and in Sweden. The main issues are: *ways and forms of developing* and the need for a designerly practice, *means of developing* and the need for correlating approaches to the design of urban space, and the *purpose of such a development* and the need to strengthen the democratic involvement *with* and *of* social impact assessment.

The thesis develops social impact assessment into a designerly practice that is focused on developing awareness with regard to the ongoing work. Most contemporary social impact assessment concepts and practices regard assessment as a process and technique for analysing, monitoring and managing the social consequences of planned interventions. This thesis shifts the focus from analysis to systems, from tools to strategies, and to development of capacities.

Instead of being a results-oriented tool, social impact assessment in urban design can be seen as a way of thinking and learning about the city and 'the urban'. Assessment as a way of thinking and learning paves the way for further discussion on readdressing the subject matter of social impact assessment in urban design, from formal knowledge into thinking *in, through* and *with* urban design. Even though the thesis discusses social impact assessment in particular, it elevates the issue of transformation in planning evaluation culture from a measures-oriented practice into a reflective designerly practice. This makes the thesis relevant not only for issues of social impact assessment specifically, but also for the issue of planning evaluation in general.

At its very core, this research is driven by a keen interest in narrowing the gap between social impact assessment and urban design, through addressing the differences in approaches to urban space, design and governance. To deal with this gap the thesis develops a correlating SOCIO-FORM approach – a conceptual and methodological support – to handle the dynamics of the design of urban space and the construction of a relationship between the *social* and *built form* aspects. Forms, processes of forming and roles of correlating approaches for narrowing such a gap need further investigation.

Whilst the development presented is unique due to the limitations of a particular outline of urban design (confined to a set of theoretical concepts and a particular case in practice) and interest in a particular planning field of social impact assessment, it emphasises the democratic aspect of one of the planning practices in its approach to design of urban space, and can therefore be used to further question other practices related to urban development. This makes the thesis relevant not only for issues of social impact assessment specifically, but also for a broader context of practices. It shows that conceptual and methodological support is needed to design urban space, to strengthen the democratic involvement *with* and *of* social impact assessment, and that social impact assessment can develop by design as much as it can develop as a mode of design.

The democratic aspect of social impact assessment planning practices could in itself be a possible topic for further research through design. It is of specific interest to ascertain whether other types of practices (i.e. other assessments) in the city planning and building sector are characterised to the same extent by segregation, fragmentation and similar patterns of unequal distribution of interest in particular views on the nature of spatiality and urban space, specific contexts and their particular realities. Future research could consider strategies that the urban planning and building sector may use to put pressure on governments to reduce the imbalances addressed here. This thesis could be a reference for those who are investigating the underlying reasons why these sectors

are endeavouring to produce transversal links. Why do the topologically different aspects that urban design entails cooperate in managing social impacts in a design context? What drives them to co-locate their perspectives in the same design even when they are potential opponents and how do clusters of them respond to a multiplicity of agents? From this perspective future research is motivated by a keen interest in cooperation amongst agents in urban design.

The SOCIO-FORM approach is based on profound and therefore incompletely exploited connections between social sustainability, design theories, problems of evaluation, and the nature of spatiality. These connections need developing in order to perceive the consequences of looking at social impact assessment through the lenses of these concepts. The SOCIO-FORM approach uses a particular outline of urban design. There are however other ways of outlining this concept. It would be interesting to open up a more extensive debate on how *urban design* is defined today and what power this representation has in processes of knowledge production through social impact assessment. The SOCIO-FORM approach has been tested in the context of the *Opaltorget case* where it revealed its potential to construct criticism and consensus. More research is needed to better understand the circumstances under which stakeholders use correlating approaches to urban space and which contexts need realisation of their critical and consensus-building potential.

It would be interesting to see whether the problem of segregation identified in relation to the *socio* fibre also stigmatises other fibres of urban fabric, i.e. *form fibre, environmental aspects, economic aspects*, etc. Further research is necessary with regard to the *socio* and *form* fibres. Firstly, there are a number of theories and methods that could be systematised and linked to the presented SOCIO-FORM model and its fibre/dimensional design. Secondly, complementary understandings could be gathered through investigations conducted in the private sector, in the context of design and drafting situations, i.e. by following discussions of these issues in ongoing architectural design. Such collection could potentially facilitate development of concepts and practices related to social impact assessment.

This study stresses the urban-ability of social impact assessment and the development of concepts and practices in providing a dynamic of 'the urban'. This study could be used as an argument for developing social impact assessment by securing a space for critical discussion of spatiality and its social dimension, and using design-based methods, and against contemporary instrumentality and little consideration of the urban design's context of application in developing social impact assessment. It could be also used as an argument for not trying to formulate one strong ideal of social impact assessment, but to

instead pursue a constant discussion on its development with space for critical reflection and encourage an awareness of designerly approaches in use.

To understand the complexity of design of urban space and what it means for individual actions and professions in (de)signing the relationships between the social and built form aspects, 'the urban', there is a need for more in-depth studies originating from design situations. These studies require tools and methods of work so that not only theoretical and methodological drivers of this research can develop and adapt, but also the presented conceptual and methodological advances. This could involve future development of workshop methodology with consideration given to results from the focus group workshops. Such a task could use the conclusions of this thesis and/or its constituent parts as a starting point, and develop by design.

In this context, the question of whether recent social impact assessment developments in the private and public sector of urban development are deepening understanding and the relationship between the critical and consensus-building potential remains open.

One of the key questions to reflect on, and the one that directly concerns the profession I represent, is the role of architects in this process. Even though I agree that architects should join in with social impact assessment's discussion of 'the urban', I do not believe that simply speaking up about the topic will change perception of the value of architects in regard to such processes. Architects can establish a louder voice in social impact assessment, but I see more effective ways, such as changing the contemporary perceptions of a forming process, to creatively engage people with the value of architecture. To shift perception of the role of architecture in social impact assessment processes, architects should not focus too heavily on *the objects* of social change, but instead should contribute *strategies* and capitalise on creative opportunities. After all, architects are able to design, form, coordinate and, construct almost anything. Reappraising the role of craft in architectural practice and focusing on the nature of forming, coordinating and construction processes, instead of on the predominant issue of the resulting form, might highlight the skills and experiences that architects have in the management of dynamic processes of balancing between the critical and the consensus building aspects of their practice. It would be interesting to open up more of a debate on the use of such management skills in processes of social impact assessment.

The thesis only touches upon the relation between design of urban space and democracy. It shows the need to develop the democratic dimension of social impact assessment in forming relationships between the social and built form aspects, 'the urban', where forming involves different perspectives on spa-

tiality, different types of thinking about it, design moves of diverse character, and different types of knowledge, taking an active part in forming *for* and forming *of* societal practices. From this perspective this work can be seen as one asking for a (post)political discussion about production of urban planning, and its complementarities with methods and design-based tools – a discussion on planning in-the-making that not only aims at highlighting the importance of consensus building, but equally values possibilities for critical engagement with ideas about development of the city.

LIST OF REFERENCES

Akner-Koler, Ch. (2007) *Form and formlessness: Questioning aesthetics abstractions through art projects, cross-disciplinary studies and product design education.* Stockholm: Axl Books. (PhD thesis).

Alexander, E.R. (2006) Problems and prospects: dilemmas in evaluation and directions for the future. In *Evaluation in Planning: Evolution and Prospects,* (ed.) Alexander, E.R., pp. 267-276. Aldershot: Ashgate Publishing limited. (Research monograph: Urban and Regional Planning and development series).

Allmendinger, P. & Haughton, G. (2010) Spatial planning, devolution and new planning spaces. *Environment and Planning C: Government and Policy,* vol. 28, pp. 803-818.

Allmendinger, P. & Haughton, G. (2012) Post-political spatial planning in England: a crisis of consensus? *Transactions of the Institute of British Geographers NS*, vol. 37, no 1, pp. 89-103.

Andersen, H.T. & Atkinson, R. (eds) (2013) *Production and Use of Urban Knowledge. European Experiences.* Dordrecht: Springer.

Anderson, T. & Shattuck, J. (2012) Design-Based Research: A Decade of Progress in Education Research. *Educational Researcher,* vol. 41, no 1, pp. 16-25.

Andersson, B. (2013) *Social hållbarhet inom Riksbyggens projekt Positive Footprint Housing*. En första rapport. Gothenburg: GU, Department of Social Work. (GU report).

Aucamp, I.C., Woodbourne, S., Perold, J.J., Bron, A. & Aucamp, S. M. (2011) Looking beyond social impact assessment to social sustainability. In *New directions in social impact assessment: conceptual and methodological advances,* (eds) Vanclay F. & Esteves, A.M., pp. 38-58. Cheltenham: Edward Elgar.

Baud, I., Pfeffer, K., Scott, D. & Sydenstricker-Neto, J. (2011) Knowledge production in urban local governance systems. Chance2Sustain, Policy Brief 2. *Chance2Sustain.* [Online], Available: http://www.chance2sustain.eu/fileadmin/Website/Dokumente/Dokumente/Publications/Chance2Sustain_-_Policy_Brief_No_2_-_Knowledge_Production_in_Urban_Local_Governance_Systems.pdf (November 15, 2013).

Becker, H.A. (2001) Social Impact Assessment. *European Journal of Operational Research*, vol. 128, no 2, pp. 311-321.

Benesch, H. (2010) *Kroppar under träd – en miljö för konstnärlig forskning*. Gothenburg: GU. (PhD thesis).

Benson, C. & Twigg, J. (2007) *Tools for mainstreaming disaster risk reduction: guidance notes for development organizations.* Geneva: ProVention Consortium.

Bińczyk, E. (2010) (Post)konstruktywizm na temat technonauki. *Zagadnienia naukoznawstwa,* vol. 2, no 184, pp. 231-251.

Bjur, H. (1984) *Stadsplanering kring 1900 med exempel från Göteborg och Albert Lilienbergs verksamhet.* Gothenburg: Chalmers University of Technology. (PhD thesis).

Bleeping Computer (2015) Hub. *Bleeping Computer.* [Online], Available: http://www.bleepingcomputer.com/glossary/definition252.html (January 5, 2015).

Borgdorff, H. (2010) The Production of Knowledge in Artistic Research. In *The Routledge Companion to Research in the Arts,* (eds) Biggs, M. & Karlsson, H., pp. 44-63. London & New York: Routledge.

Bosselmann, P. (1998) *Representation of Places: Reality and Realism in City Design.* Berkeley: University of California Press.

Boverket (2000) *Sociala och ekonomiska konsekvensanalyser i planering: ett diskussionsunderlag för att utveckla arbetet med konsekvensanalyser i översiktlig planering.* Karlskrona: Boverket.

Boverket (2006) *Legislation: The Planning and Building Act, The Act on Technical Requirements for Construction works, etc. The Environmental Code with ordinances of relevance.* Karlskrona: Boverket.

Boverket (2007) *Miljömål i fysiska planer.* Karlskrona: Boverket.

Boverket (2010) *Socialt hållbar stadsutveckling: en kunskapsöversikt.* Karlskrona: Boverket.

Braae, E. & Tietjen, A. (2011) Constructing sites on a large scale. Towards new design (education) methods. *Nordic Journal of Architecture*, vol. 1, pp. 64-71.

Bradley, K. (2009) *Just Environments*: *Politicising Sustainable Urban Development*. Stockholm: KTH. (PhD thesis).

Brain, D. (2006) Democracy and Urban Design: The transect as Civic Renewal. *Places,* vol. 18, no 1, pp. 18-23.

Bramley, G. & Power, S. (2009) Urban form and social sustainability: the role of density and housing type. *Environment and Planning B: Planning and Design*, vol. 36, no 1, pp. 30- 48.

Bryson, J.M. & Crosby, B.C. (1993) Policy planning and the Design and Use of Forums, Arenas and Courts. *Environment and Planning B: Planning and Design*, vol. 20, no 2, pp. 175-194.

Buchanan, P. (n.d.). Cited in *The Dictionary of Urbanism,* (ed.) Cowan, R. (2005). Tisbury: Streetwise Press

Buchanan, P. (1988) What city? A plea for place in the public realm. *Architectural Review*, vol. 184, no 1101, pp. 31-41.

Buchanan, R. (1995) Rhetoric, Humanism, and Design. In *Discovering Design. Explorations in Design Studies,* (eds) Buchanan, R. & Margolin, V., pp. 23-68. Chicago: The University of Chicago Press.

Burdge, R.J. (ed.) (1998) *A Conceptual Approach to Social Impact Assessment (revised edition): Collection of writings by Rabel J. Burdge and colleagues.* Middleton, WI: Social Ecology Press.

Burdge, R.J. (1999) *A Community Guide to Social Impact Assessment (revised edition).* Middleton, WI: Social Ecology Press.

Burdge, R.J. (2003) The practice of social impact assessment - Background. *Impact Assessment and Project Appraisal*, vol. 21, no 2, pp. 84-88.

Burdge, R.J. (2004) *The concepts, process and methods of SIA.* Middleton, WI: The Social Ecology Press.

Burdge, R.J. & Vanclay, F. (1996) Social Impact Assessment: A Contribution to the State of the Art Series. *Impact Assessment*, vol. 14, no 1, pp. 59-86.

Busch, O. von (2008) *Fashion-able. Hacktivism and engaged fashion design.* Gothenburg: GU. (PhD thesis).

Business Dictionary (2015) Social impact. *Business Dictionary.* [Online], Available: http://www.businessdictionary.com/definition/social-impact.html (January 31, 2015).

CABE (2006) Buldings and spaces: why design matters. *CABE.* [Online], Available: http://webarchive.nationalarchives.gov.uk/20110118095356/http:/www.cabe.org.uk/files/buildings-and-spaces.pdf (January 18, 2015).

Carmona, M. (2003) An international perspective on measuring quality in planning. *Built Environment*, vol. 29, no 4, pp. 281-287.

Carmona, M., Heath, T. Oc, T. & Tiesdell, S. (2003) *Public places – urban spaces: the dimensions of urban design.* Oxford: Architectural Press.

Carmona, M. & Tiesdell S. (eds) (2007) *Urban Design Reader.* Oxford: Architectural Press.

Carmona, M. & Sieh, L. (2008) Performance measurement in planning - towards a holistic view. *Environment and Planning C: Government and Policy*, vol. 26, no 2, pp. 428-454.

Chemperek, D. (2004) Koncept we fraszkopisarstwie drugiej połowy XVII wieku. In *Literatura i pamięć kultury: Studia ofiarowane Profesorowi Stefanowi Nieznanowskiemu w pięćdziesięciolecie pracy naukowej,* (eds) Baczewski, S. & Chemperek, D., pp. 117-135. Lublin: Wydawnictwo UMCS.

Chmielewski, J.M. (2001) *Teoria urbanistyki w projektowaniu i planowaniu miast.* Warszawa: Oficyna Wydawnicza Politechniki Warszawaskiej.

Colantonio, A. (2007) *Social sustainability: An exploratory Analysis of its Definition, Assessment Methods, Metrics and Tools.* Oxford: Oxford Brookes University. (EIBURS Working Paper Series, 2007/01).

Colantonio, A. & Dixon T. (2008) Couldn't we be a little more social? *Regenerate,* Jan-Feb, pp. 50-51.

Cooper Marcus, C. & Francis, C. (eds) (1998) *People Places: Design Guidelines for Urban Open Space.* (2nd ed.). New York: Wiley.

Cowan, R. (2005) *The Dictionary of Urbanism.* Tisbury: Streetwise Press.

Cross, N. (2007) *Designerly ways of knowing.* Basle: Birkhauser.

Cross, N. (2011) *Design Thinking: Understanding How Designers Think and Work.* Oxford: Berg Publishers.

Czyński, M. (2006) *Architektura w przestrzeni ludzkich zachowan. Wybrane zagadnienia bezpieczeństwa w środowisku zbudowanym.* Szczecin: PS.

Dahlbom, B. (2002) The Idea of an Artificial Science. In *Artifacts and Artificial Science,* (eds) Dahlbom, B., Beckman, S. & Nilsson, G.B., pp. 9-44. Stockholm: Almqvist & Wiksell.

Dale, A., Taylor, C.N. & Lane, M. (eds) (2001) *Social assessment in natural resource management institutions.* Collingwood: CSIRO Publishing.

Dani, A. & Beddies, S. (2011) The World Bank's poverty and social impact analysis. In *New directions in social impact assessment: conceptual and methodological advances,* (eds) Vanclay, F. & Esteves, A.M., pp. 306-322. Cheltenham: Edward Elgar.

Davies, R. (2008a) Social Impact Assessment in Local Area Planning.In IAIA08 Conference Proceedings. The Art and Science of Impact Assessment: 28th Annual Conference of the International Association for Impact Assessment; May 4-10,2008, Perth. *IAIA.* [Online], Available: http://www.iaia.org/iaia08perth/index.aspx (November 15, 2013).

Davies, R. (2008b) Social Impact Assessment in Transport Planning. In IAIA08 Conference Proceedings. The Art and Science of Impact Assessment: 28th Annual Conference of the International Association for Impact Assessment; May 4-10, 2008, Perth. *IAIA.* [Online], Available: http://www.iaia.org/iaia-08perth/index.aspx (November 15, 2013).

Del Casino, V.J. (2009) *Social Geography: A Critical Introduction.* Chichester: Wiley-Blackwell.

Dew, N. (2007) Abduction: a pre-condition for the intelligent design of strategy. *Journal of Business Strategy*, vol. 28, no 4, pp. 38-45.

Dietz, T. (1987) Theory and Method in Social Impact Assessment. *Sociological Inquiry,* vol. 57, no 1, pp. 54-69.

Directive 2001/42/EC. Strategic Environmental Assessment. *European Commission.* [Online], Available: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0042:EN:NOT (December 4, 2013).

Directive 2011/92/EU. Environmental Impact Assessment. *European Commission.* [Online], Available: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:026:0001:0021:EN:PDF (December 4, 2013).

Doucet, I. & Janssens, N. (eds) (2011) *Transdiciplinary Knowledge Production in Architecture and Urbanism*. Dordrecht: Springer.

Drucker, P. (1994) Knowledge Work and Knowledge Society: The Social Transformation of this Century. Edwin L. Godkin Lecture, John F. Kennedy School of Government, Harvard University, May 4, 1994. Cambridge, MA: Harvard**.** *Sound Knowledge Strategies.* [Online], Available: http://soundknowledgestrategies.com/documents/DruckerGodkinLecture.pdf

Duarte, J.P., Montenegro, N., Beirão, J.N. & Gil, J. (2012) City Induction: a model for formulating, generating, and evaluating urban designs. In *Digital urban modelling and simulation. Communications in Computer and Information Science Series,* (eds) Müller Arisona, S., Aschwanden, G., Halatsch, J. & Wonka, P., vol. 242, pp. 73-98. Berlin: Springer-Verlag.

Dyrssen, C. (2010) Navigating in Heterogeneity: Architectural Thinking and Art-Based Research. In *The Routledge Companion to Research in the Arts,* (eds) Biggs, M. & Karlsson, H., pp. 223-239. London & New York: Routledge.

Ellis, G., Cowell, R., Sherry-Brennan, F., Strachan, P.A., & Toke, D. (2013) Planning, Energy and Devolution in the UK. *Town Planning Review,* vol. 84, no 3, pp. 397-409.

Esteves, A.M., Franks, D. & Vanclay, F. (2012) Social impact assessment: the state of the art. *Impact Assessment and Project Appraisal*, vol. 30, no 1, pp. 34-42.

European Commission (2008) EVALSED: The resource for the evaluation of Socio-Economic Development. *European Commission.* [Online], Available: *http://ec.europa.eu/regional_policy/sources/docgener/evaluation/evalsed/index_en.htm* (October 29, 2009).

European Commission (2010) Study on Social Impact Assessment as a tool for mainstreaming social inclusion and social protection concerns in public policy in EU Member States. London: The Evaluation Partnership (TEP). (Final report). *European Commission.* [Online], Available: http://ec.europa.eu/social/BlobServlet?docId=6316&langId=en (November 13, 2013).

European Commission (2013) EVALSED: The resource for the evaluation of Socio-Economic Development. *European Commission.* [Online], Available: http://ec.europa.eu/regional_policy/sources/docgener/evaluation/guide/guide_evalsed.pdf (December 9, 2014).

Evers, H.D. (2008) Knowledge hubs and knowledge clusters: designing a knowledge architecture for development. *ZEF Working Paper Series*, vol. 27, pp. 1-21. (MPRA Paper).

Faskunger, J. (2007) Den byggda miljöns påverkan på fysisk aktivitet: En kunskapssammanställning för regeringsuppdraget "Byggd miljö och fysisk aktivitet". Stockholm: Statens Folkhälsoinstitut, Strömbergs Distribution. *Statens Folkhälsoinstitut.* [Online], Available: http://www.fhi.se/PageFiles/3380/R200703_Byggd_miljo_web.pdf (November 13, 2013).

Fenton, M., Coakes, S., & Marshall, N. (2003) Vulnerability and capacity measurement. In *The international handbook of social impact assessment: conceptual and methodological advances*, (eds) Becker, H. & Vanclay, F., pp. 211- 230. Cheltenham: Edward Elgar.

Forest of Rhetoric (2007) What is Rhetoric? Content/form. *The Forest of Rhetoric.* [Online], Available: http://rhetoric.byu.edu/ (January 5, 2015).

Forsemalm, J. (2009) *Översättningar av sociala dimensionen – en studie av hållbarhetsmål på mesonivån.* Gothenburg: ULG. (ULG report).

Fredriksson, J. (2014) *Konstruktioner av en stadskärna: Den postindustriella stadens rumsliga maktrelationer.* Gothenburg: Chalmers University of Technology. (PhD thesis).

Förvaltnings AB Framtiden (2009) *Yttrande över samrådshandling 'Detaljplan för Centrum och bostäder vid Opaltorget inom stadsdelarna Tynnered och Önnered i Göteborg'.* December 14, 2009. Gothenburg: Förvaltnings AB Framtiden.

Gann, D., Salter, A. & Whyte, J. (2003) Design Quality Indicator as a tool for thinking. *Building Research & Information*, vol. 31, no 5, pp. 318-333.

Gehl, J. (2006 [1971]) *Life between buildings: using public space.* (6th ed.). Copenhagen: Danish Architectural Press.

Gehl, J. (2010) *Cities for People.* Washington: Island Press.

Gehl, J. & Svarre, B. (2013) *How to study public life.* Washington: Island Press.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994) *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies.* London: SAGE Publications Ltd.

Gibbs, A. (1997) Focus groups. Social Research Update, no 19, pp. 1-5. *Social Research Update.* [Online], Available: http://www.soc.surrey.ac.uk/sru/SRU19.html (December 5, 2013).

Gil, J. & Duarte, J.P. (2008) Towards an Urban Design Evaluation Framework: Integrating spatial analysis techniques in the parametric urban design process. In *Proceedings of the 26th Conference on Education in Computer Aided Architectural Design in Europe, eCAADe 2008;* September 17-19, 2008, Antwerp. (eds) Muylle, M. & De Vos, E., pp. 257-264.

Gil, J. & Duarte, J.P. (2013) Tools for evaluating the sustainability of urban design: a review. *Proceedings of the Institution of Civil Engineers: Urban Design and Planning*, vol. 166, no 6, pp. 311-325.

Gislén, Y. (2003) *Rum för handling. Kollaborativt berättande i digitala medier.* Karlskrona: BTH. (PhD thesis).

Government Offices of Sweden (2014) Planning and building in Sweden. *Government Offices of Sweden.* [Online], Available: http://www.government.se/sb/d/15487/nocache/true/a/183510/dictionary/true (January 5, 2015).

Gregorowicz-Kipszak, J. (2010) *Urban Chisels: A Socioform Approach to Urban Design.* Gothenburg: Chalmers University of Technology. (Licentiate thesis).

Gregorowicz-Kipszak, J. & Undén, E. (2009) *Social Impact Assessment.* Gothenburg: ULG. (ULG report).

Göteborg, D. (2007) *Trygghet och säkerhet i offentlig stadsmiljö.* Uppsala: Sveriges lantbruksuniversitet. (M.Sc. Thesis).

Göteborg Stad (2009) *Socialdemokraternas och Miljöpartiets Förslag till budget 2010 och flerårsplaner 2011-2012 för Göteborgs Stad.* Gothenburg: Göteborg Stad.

Göteborg Stad (2012) *SKA/BKA-utbildning. Återkoppling 2012-11-12.* Gothenburg: Göteborg Stad.

Hajer, M. & Reijndorp, A. (2001) *In search of new public domain: Analysis and strategy.* Rotterdam: Netherlands Architecture Institute, NAI Publishers.

Harvey, D. (1990) *The condition of postmodernity: An inquiry into te origins of cultural change.* Cambridge, MA & Oxford, UK: Blackwell.

Harvey, D. (2001) Cartographic identities: Geographical knowledges under globalization. In *Spaces of capital: Towards a critical geography*, Harvey, D., pp. 208-233. New York and London: Routledge.

Harvey, D. (2006) *Spaces of Global Capitalism: Towards A Theory of Uneven Geographical Development.* London: Verso.

Harvey, D. (2009 [1973]) *Social Justice and the City.* Athens: University of Georgia Press.

Healey, P. (1992) Planning Through Debate: The Communicative Turn in Planning Theory. *The Town Planning Review,* vol. 63, no 2, pp. 143-162.

Heikkinen, T. & Sairinen, R. (2007) *Social Impact Assessment in Regional Land Use Planning: Best practices from Finland.* Stockholm: Nordregio. (Nordic Research Programme Report 2005-2008).

Heins, C. (2001) Toshikeikaku and Machizukuri in Japanese Urban Planning: The Reconstruction of Inner City Neighborhoods in Kōbe. In *Japanstudien 13. Wohnen in Japan: Markt, Lebensformen, Nachbarschaft,* (eds) Harald, C. & Sven, S., pp. 221-252. München: Iudicium Verlag.

Helbig-Mischewski, B. (n.d.) Schmid, H.: Andrzej Morsztyn. *Brigitta Helbig-Mischewski.* [Online], Available: http://www.helbig-mischewski.de/ueber-wiss-schmid.pdf (December 4, 2013).

Herrington, J., McKenney, S., Reeves, T. & Oliver, R. (2007). Design-based research and doctoral students: Guidelines for preparing a dissertation proposal. In *Proceedings of the 19th World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA) 2007;* June 25-29, 2007, Vancouver. (eds) Montgomerie, C. & Seale, J., pp. 4089-4097.

Hertzberger, H. (2000) *Space and the architect: lessons in architecture.* Rotterdam: 010 Publishers.

Hertzberger, H. (2005a) Creating space of thought. In *Ways to Study and Research Urban, Architectural and Technical Design,* (eds) Jong, T.M. de & Voordt, D.J.M. van der, pp. 389-398. Amsterdam: IOS Press/Delft University Press.

Hertzberger, H. (2005b) Perceiving and conceiving. In *Ways to Study and Research Urban, Architectural and Technical Design,* (eds) Jong, T.M. de & Voordt, D.J.M. van der, pp. 399-411. Amsterdam: IOS Press/Delft University Press.

Hillier, B. (1996) *Space is the Machine: A Configurational Theory of Architecture.* Cambridge: Cambridge University Press.

Hillier, B. (2005) Between Social Physics and Phenomenology: Explorations Towards an Urban Synthesis? In *5th International Space Syntax Symposium Proceedings;* June 13-17, 2005, Delft. (ed.) Nes, A. van, pp. 3-23.

Hillier, B. (2008) Space and spatiality: what the built environment needs from social theory. *Building Research and Information,* vol. 36, no 3, pp. 216-230.

Hillier, B. & Hanson, J. (1984) *The social logic of space.* Cambridge: Cambridge University Press.

Horvath, I., Tromp, N. & Daalhuizen, J. (2003) Comprehending a Hand Motion Language in Shape Conceptualization. In *Proceedings of the ASME 2003 International Design Engineering Technical Conferences and Computers and Information in Engineering;* September 2-6, 2003 Chicago. Vol. 1: 23rd Computers and Information in Engineering Conference, Parts A and B, pp. 1047-1061.

Howitt, R. (2011) Theoretical foundations. In *New directions in social impact assessment: conceptual and methodological advances*, (eds) Vanclay, F. & Esteves, A.M., pp. 78- 95. Cheltenham: Edward Elgar.

Hulsbergen, E.D. & Kriens, I. (2004) Plan cycle. Delft: Delft University of Technology. *The Delft University of Technology.* [Online], Available: http://www.bk.tudelft.nl/fileadmin/Faculteit/BK/Over_de_faculteit/Afdelingen/Urbanism/Organisatie/Medewerkers/personal_pages/Rooij/RPS/doc/plancycle.pdf (December 3, 2013).

Hulsbergen, E. & Schaaf, P. van der (2005) Ex ante research. In *Ways to Study and Research Urban, Architectural and Technical Design,* (eds) Jong, T.M. de & Voordt, D.J.M. van der, pp. 159-162. Amsterdam: IOS Press/Delft University Press.

Inobi (2014a) Sociala Analyser: Förstå staden på djupet. *INOBI.* Available: http://inobi.se/tjanster/sociala-analyser/ (November 27, 2014).

Inobi (2014b) Retroduktiv Stadsanalys: Kvalitetssäkring av den sociala hållbarheten. *INOBI.* Available: http://inobi.se/tjanster/sociala-analyser/sociala-konsekvensanalyser/ (November 27, 2014).

International Alert (2005) Conflict-sensitive business practice for extractive industries. *International Alert*. [Online], Available: http://www.international-alert.org/sites/default/files/Economy_2005_CSBP-GuidanceForExtractives_All_EN_v2013.pdf (October 7, 2014).

Interorganisational Committee on Guidelines and Principles for Social Impact Assessment (1994) *Guidelines and Principles For Social Impact Assessment.* Fargo: IAIA. (IAIA Special Publication Series No 2).

Janssens, N. (2006) Research by Critical Design: The implementation of designerly thinking on research in the field of (urban) design disciplines. In *REFLECTIONS 3: Hogeschool Voor Wetenschap & Kunst, Research training sessions,* 2006, (eds) Participants of the Research training Sessions 2006, Janssens, N., Martens, S., Verbeke, J. & de Meyere, N., pp. 149-156. Gent: Hogeschool Voor Wetenschap & Kuns.

Janssens, N. (2008) Designerly thinking and research: Reflections on some characteristics of designerly thinking and how they can be put to use in research. In *REFLECTIONS 7: Hogeschool Voor Wetenschap & Kunst, Research training sessions 2007,* (eds) Participants of the Research training Sessions 2007, Hendrickx, A., Janssens, N., Martens, S., Nollet, T., Berghe, J.V.D. & Verbeke, J., pp. 203-211. Gent: Hogeschool Voor Wetenschap & Kuns.

Janssens, N. (2012) *Utopia-driven projective research: a design approach to explore the theory and practice of Meta-Urbanism.* Gothenburg: Chalmers University of Technology. (PhD thesis).

Jarvis, H., Pratt, A.C. & Cheng-Chong Wu, P. (2001) *The Secret Life of Cities: the Social Reproduction of Everyday Life.* Harlow*:* Prentice Hall.

Jarvis, R.K. (1980) Urban Environments as Visual Art or as Social Settings? A Review. Reprinted in *Urban Design Reader*, (eds) Carmona, M. & Tiesdell S. (2007), pp. 24-32. Oxford: Architectural Press. Published in its original form as: Jarvis, R.K. (1980) Urban Environments as Visual Art or as Social Settings? A Review. *The Town Planning Review*, vol. 51, no 1, pp. 50-66.

Johansson, R. (2000) Om abduktion, intuition och syntes. *Nordic Journal of Architectural Research,* vol. 13, no 3, pp. 13-19.

Jong, T.M de. & Voordt, D.J.M. van der (eds) (2005) *Ways to Study and Research Urban, Architectural and Technical Design.* Amsterdam: IOS Press/Delft University Press.

Joyce, S. & MacFarlane, M. (2001) *Social impact assessment in the mining industry: current situation and future directions*. (MMSD Paper no 46). London: IIED and World Business Council for Sustainable Development. (MMSD Background document).

Juslén, J. (1994) Social Impact Assessment: A Look into Finnish Experiences. In *The 14th Annual Meeting of the International Association for Impact Assessment (IAIA);* June 14-18, 1994, Québec City. A base for Juslén, J. (1995) Social impact assessment: a look at Finnish experiences. *Project Appraisal*, vol. 10, no 3, pp. 163-170.

Karpinski, A. (2003) Koncept. Nieautoryzowany zapis wykładu na kursie dla humanistow. July 2003. Jachranka. *Ośrodek Doskonalenia Nauczycieli w Konine.* [Online], Available: http://www.odnkonin.inc.pl/koncept.pdf (October 20, 2010).

Kelbaugh, D. & Mc Cullough, K.K. (eds) (2008) *Writing Urbanism: a design reader.* New York: Routledge. (The ACSA Architectural Education Series).

Kemp, D. (2011) Understanding the organizational context. In *New directions in social impact assessment: conceptual and methodological advances*, (eds) Vanclay F. & Esteves, A.M., pp. 20-37. Cheltenham: Edward Elgar.

Khakee, A. (2003) The emerging gap between evaluation, research and practice. *Evaluation*, vol. 9, no 3, pp. 340-352.

Knol, M. (2011) Constuctivism and post-constructivism: The methodological implications of employing a post-constructivist research approach. Trial lecture at the presentation of the author's doctoral thesis at the University of Tromsø. Peer reviewed. *MUNIN open research archive.* [Online], Available: http://munin.uit.no/bitstream/handle/10037/4106/article.pdf?sequence=4 (October 6, 2014).

Knoll, W. & Hechinger, M. (2007) *Architectural models: construction techniques*. London: J. Ross Publishing.

Kozielecki, J. (2000) *Koncepcje psychologiczne człowieka*. (10th ed.). Warszawa: Wydawnictwo Akademickie Żak.

Kreuger R.A. (1988) *Focus groups: a practical guide for applied research*. London: Sage.

Krieger, A. (n.d.). Cited in *Writing Urbanism: a design reader*, (eds) Kelbaugh, D. & Mc Cullough K.K. (2008) New York: Routledge. (The ACSA Architectural Education Series).

Kärrholm, M. (2004) *Arkitekturens territorialitet: till en diskussion om territoriell makt och gestaltning i stadens offentliga rum.* Lund: Lunds Universitet. (PhD thesis).

Lang, J. (1994) Functionalism. Reprinted in *Urban Design Reader*, (eds) Carmona, M. & Tiesdell S. (2007), pp. 213-225. Oxford: Architectural Press. Published in its original form as: Lang, J. (1994) Functionalism redefined. In *Urban Design: The American experience*, Lang, J., pp. 151-167. New York: Van Nostrand Reinhold.

Lawson, B. (2005) *How designers think: The design process demystified.* Boston: Architectural Press.

Lefebvre, H. (1991) *The Production of Space.* Oxford: Blackwell Publishing.

Legeby, A. (2010) *Urban segregation and urban form: From residential segregation to segregation in public space.* Stockholm: KTH. (Licentiate thesis).

Legeby, A. (2013) *Patterns of co-presence: Spatial configuration and social segregation*. Stockholm: KTH. (PhD thesis).

Listerborn, C. (2002) *Trygg stad*: *diskurser om kvinnors rädsla i forskning, policyutveckling och lokal praktik.* Gothenburg: Chalmers University of Technology. (PhD thesis).

Lutters, W.G. & Ackerman, M.S. (1996) An Introduction to the Chicago School of Sociology. Interval Research, Proprietary. *Research@UMBC.* [Online], Available: http://userpages.umbc.edu/~lutters/pubs/1996_SWLNote96-1_Lutters,Ackerman.pdf (October 6, 2014).

Lynch, K. (1976) *Managing the Sense of a Region*. Cambridge, MA: MIT Press.
Lynch, K. (1981) *A Theory of Good City Form.* Cambridge, MA: The MIT Press.
Lyth, A. (2012) *Möten i det offentliga rummet om utformningen av offentliga rum och dess betydelse för social interaction.* Uppsala: Sveriges lantbruksuniversitet. (Bachelor Degree Thesis).
Madanipour A. (1996) Urban design and dilemmas of space. *Environment and Planning D: Society and Space*, vol. 14, no 3, pp. 331-355.
Madanipour, A. (1997) Ambiguities of urban design. *Town Planning Review,* vol. 68, no 3, pp. 363-383.
Madanipour, A. (2001) Multiple meanings of space and the need for a dynamic perspective. In *The Governance of Place:* Space *and Planning Process,* (eds) Madanipour, A., Hull, A. & Healey, pp. 154-168. Aldershot: Ashgate.
Madanipour, A. (2014) *Urban Design,* Space *and Society.* Basingstoke: Palgrave-Macmillan.
Madanipour, A., Hull A. & Healey, R (eds) (2001) *The Governance of Place*: Space and Planning Processes. Aldershot: Ashgate.
Manzi, T., Lucas, K., Lloyd Jones T. & Allen, J. (eds) (2010) *Social Sustainability in Urban Areas: Communities, Connectivity and the Urban Fabric.* London: Earthscan Ltd.
Massey, D. (2005) *For space.* London: Sage.
Mazé, R. (2007) *Occupying Time Design, Time, and the Form of Interaction.* Karlskrona: BTH. (PhD thesis).
McKenzie, S. (2004) Social sustainability: Towards some definitions. Working paper series no 27. Hawke Research Institute. *University of south Australia.* [Online], Available: http://w3.unisa.edu.au/hawkeinstitute/publications/downloads/wp27.pdf (November 15, 2013).
McFarlane, C. (2006) Knowledge, learning and development: a post-rationalist approach. *Progress in development studies,* vol. 6, no 4, pp. 287-305.
Mc Glynn, S. & Murrain, P. (1994) The politics of urban design. Reprinted in *Urban Design Reader*, (eds) Carmona, M. & Tiesdell S. (2007), pp. 319-322. Oxford: Architectural Press. Published in its original form as: Mc Glynn, S. & Murrain, P. (1994) The politics of urban design. *Planning Practice and Research*, vol. 9, no 3, pp. 311-320.
Merriam-Webster (2015a) Consequence. *Merriam-Webster.* [Online], Available: http://www.merriam-webster.com/dictionary/consequence (January 6, 2015).
Merriam-Webster (2015b) Impact. *Merriam-Webster.* [Online], Available: http://www.merriam-webster.com/dictionary/impact (January 6, 2015).
Mohanty, S. (2009) *Integrated High-Fidelity Planetary Mission Simulators: A Toolkit for Fidelity Evaluation.* Gothenburg: Chalmers University of Technology. (PhD thesis).
Moll, J. & Sallnäs, E. (2009) Communicative function of Haptic Feedback. In *Proceedings of the 4th International Conference on Haptic and Audio Interaction Design (HAID '09);* September 10-11, 2009, Dresden. (eds) Altinsoy, M.E., Jekosch, U. & Brewster, S., pp. 1-10.
Morgan, D.L. (1988) *Focus groups as qualitative research*. London: Sage.
Mouffe, C. (2005) *On the political.* London: Routlege.
Moughtin, C., Cuesta, R., Sarris, Ch. & Signoretta, P. (2003) *Urban Design: Methods and Techniques.* (2nd ed.). Oxford: Architectural Press.
Nedzinskaitė, Ž. (2007) Poesy Art Theory and Aestetical Ideas of the Baroque: Innovations of a Treatise 'On the Acute and Quickfire Style' by Sarbievius. *Man and the Word,* vol. 9, no 2, pp. 83-89.
Nilsson, F. (2004) Transdisciplinarity and Architectural Design: On knowledge production through the practice of architecture. In *Discussing Transdisciplinarity: Making Professions and the New Mode of Knowledge Production*, (eds) Dunin-Woyseth, H. & Nielsen, L.M., pp. 30-46. Oslo: AHO.
Nilsson, F. (2007a) Design, rhetoric, knowledge: Some notes on grasping, influencing and constructing the world. In Proceedings of Design Inquiries: The Second Nordic Design Research Conference; May 27-30, 2007, Stockholm. *Nordes.* [Online], Available: http://www.nordes.org/opj/index.php/n13/article/download/179/162 (October 6, 2014).
Nilsson, F. (2007b) Forming knowledge: On architectural knowledge and the practice of its production. In *The Unthinkable Doctorate: Proceedings of the Colloquium 'The Unthinkable Doctorate' at Sint-Lucas Brussels;* April 14-16, 2005, Brussels. (eds) Belderbos, M. & Verbeke, J., pp. 241-250.
Nilsson, F. & Dunin-Woyseth, H. (2012) On the Emergence of Research by Design and Practice-based Research Approaches in Architectural and Urban Design. In *Design Innovation for the Built Environment: Research by Design and the Renovation of Practice*, (ed) Hensel, M., pp. 37-51. London: Routledge.

Nolmark, H., Andersen, H.T., Atkinson, R., Muir, T., Troeva, V. (eds) (2009) *Urban Knowledge Arenas: Re-thinking Urban Knowledge and Innovation. Final Report of COST Action C20. 2005-2009.* Stockholm: Capito AB.

Nowicka-Struska, A. (n.d.) Sarbiewski Maciej. *Powszechna encyklopedia filozofii (the Universal Encyclopedia of Philosophy).* [Online], Available: http://www.ptta.pl/pef/pdf/s/sarbiewski.pdf (January 5, 2015).

Nowotny, H., Scott, P., & Gibbons, M. (2001) Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty. Cambridge: Polity Press.

Olsson, L. (2008) *Den självorganiserade staden: Appropriation av offentliga rum i Rinkeby.* Lund: Lunds Universitet. (PhD thesis).

Olsson, S. (2012) Livsorientering, urbanitet och civilsamhälle. *Hållbar Stad.* [Online], Available: http://www.hallbarstad.se/blogs/posts/141-pa-vag-mot-ett-socialt-hallbart-goteborg-livsorientering-urbanitet-och-civilsamhalle (November 13, 2013).

Olsson, S. & Cruse Sondén, G. (2009) *Planering och sociala frågor – skiss som underlag för samtal och diskussion.* Discussion paper for the S2020 Opaltorget pilot project working group. (S2020 Opaltorget pilot project). Meeting: April 21, 2009, Gothenburg: SDF Tynnered. Gothenburg: Göteborg Stad.

Olsson, S., Ohlander, M. & Cruse Sondén, G. (1997) *Det lilla grannskapet: gårdar, trapphus och socialt liv.* Gothenburg: Chalmers University of Technology, Centrum för Byggnadskultur i västra Sverige.

Olsson, S., Ohlander, M. & Cruse Sondén, G. (2004) *Lokala torg: Liv miljö och verksamheter på förortstorg.* Gothenburg: Chalmers University of Technology, Centrum för Byggnadskultur i västra Sverige.

Ostrowicki, M. (2000) Idea koncepcyjnej teorii dziel sztuki: (zarys). *Kwartalnik filozoficzny*, vol. 28, no 2. *MichałOstrowicki.* [Online], Available: http://www.ostrowicki.art.pl/Idea_koncepcyjnej_teorii_dziel_sztuki.pdf (October 9, 2014).

Oxford Dictionaries (2015) Impact. *Oxford Dictionaries.* [Online], Available: http://www.oxforddictionaries.com/definition/english/impact?searchDictCode=all (January 6, 2015).

Paterson, D. (n.d.). Cited in *The Dictionary of Urbanism,* (ed.) Cowan, R. (2005). Tisbury: Streetwise Press.

Peet, R. & Hartwick, E. (2009) *Theories of Development: Contentions, Arguments, Alternatives.* (2nd ed.). New York: The Guilford Press.

Persson, I. (2011) *Fritidshuset som planeringsdilemma.* Karlskrona: BTH. (Phd thesis).

Powell, R.A. & Single, H.M. (1996) Focus groups. *International Journal of Quality in Health Care*, vol. 8, no 5, pp. 499-504.

PPS (n.d.) What is Placemaking? *Project for Public Spaces.* [Online], Available: http://www.pps.org/reference/what_is_placemaking/ (January 6, 2015).

Prytherch, D. & Jerrard, B. (2003) Haptics, the Secret Senses; The Covert nature of the Haptic Senses in Creative Tacit Skills. In *Proceedings of the Eurohaptics 2003 conference;* July 6-9, 2003, Dublin. (eds) O'Modhrain, S., Newell, F. & Oakley, I., pp. 384-96.

Rapoport, A. (1977) *Human Aspects of Urban Form: Towards a Man - Environment Approach to Urban Form and Design.* Oxford, New York: Pergamon Press. (Urban and regional planning series).

Rapoport, A. (2005) *Culture, Architecture and Design.* Chicago: Locke Science Publishing Company, Inc.

Race, K.E., Hotch, D.F. & Parker, T. (1994) Rehabilitation program evaluation: use of focus groups to empower clients. *Evaluation Review*, vol. 18, no 6, pp. 730-40.

Reiner, M. (2010) Conceptual Construction of Fields Through Tactile Interface. *Interactive learning Environments,* vol. 7, no 1, pp. 31-55.

Rewers, E. (2005) *Post-polis. The Introduction to the Philosophy of Postmodern City.* Kraków: UNIVERSITAS.

Reynaud, J.D. (2004) *Les règles du jeu. L'action collective et la régulation sociale.* (4th ed.). Paris: Armand Collin.

Rode, P. (2006) City Design: A new planning paradigm? London: School of Economics and Political Science. (Urban Age discussion paper). *LSE Cities.* [Online], Available: http://downloads.lsecities.net/0_downloads/archive/Philipp_Rode-City_Design_A_New_Planning_Paradigm-DiscussionPaper.pdf (November 13, 2013).

Rosenhall, F. (2009) Stadsplanering, Retroduktion och behovet av sociala konsekvensbeskrivningar. In *En realistisk sociologi i praktiken. Nio texter om samhället*, (eds) Bengtsson, M., Daoud, A. & Selden, D., pp.185-205. Gothenburg: GU. Sociologiska institutionen. *INOBI.* [Online], Available: http://inobi.se/wpcontent/uploads/2011/12/Stadsplanering_retroduktion_och_behovet_av_sociala_konsekvensbeskrivningar.pdf (November 13, 2013).

Ross, H. & McGee, T. (2006) Conceptual frameworks for SIA revisited: a cumulative effects study on lead contamination and economic change. *Impact Assessment and Project Appraisal,* vol. 24, no 2, pp. 139-149.

Rowe, P.G. (2002) Professional Design Education and Practice. In *Architectural Education Today: Cross-Cultural Perspectives*, (eds) Salama, Ashraf M.A., O'Reilly, W. & Noschis, K., pp. 25-29. Lausanne: Comportements.

Ryle, G. (1945) The Presidential Address: On Knowing How and Knowing That. Reprinted in *The Concept of Mind*, Ryle, G. (1949), pp. 29-45. London: Hutcheson. Published in its original form as: Ryle, G. (1945) The Presidential Address: On Knowing How and Knowing That. *Proceedings of the Aristotelian Society,* 46 (1945/46), pp.1-16.

Sairinen, R. (2004) Assessing social impacts of urban land-use plans: From theory to practice. *Boreal Environment Research*, vol. 9, no 6, pp. 509-517.

SBK (2004) *Program för stadsutveckling i Södra Tynnered inom stadsdelen Tynnered i Göteborg. Samrådshandling.* September, 2004. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2005) *Program för stadsutveckling i Södra Tynnered inom stadsdelen Tynnered i Göteborg, Samrådsredogörelse.* May 3, 2005. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2006a) *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Program för parallella uppdrag.* Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2006b) *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Utvärdering av parallella uppdrag.* Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2006c) Powerpoint Presentation. Images from the three design drafts delivered within the parallel assignment. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2007) Möten i staden. Malmö: Malmö Stad, Stadsbyggnadskontoret. *Malmö Stad*. [Online], Available: http://www.malmo.se/download/18.1c002f7b12a6486c372800012020/M%C3%B6ten+i+staden+-Dialog-pm.pdf (November 13, 2013).

SBK (2008a) Beskrivning av stadsdelen (14) TYNNERED. Mars 2008. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. *Göteborg Stad*. [Online], Available: http://goteborg.se/wps/wcm/connect/5b-22fb88-82e0-495b-a06e-252762b9a2ef/OPATynnered.pdf?MOD=AJPERES (December 4, 2013).

SBK (2008b) *Förnyelse och utveckling av Opaltorget och dess närmaste omgivningar. Kontorets sammanfattande omdöme med rekommendationer för det fortsatta arbetet.* January 10, 2008. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2008c) Powerpoint Presentation. Förvaltningsmöte Opaltorget. October 8, 2008. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2008d) Stadsbyggnadskvaliteter Göteborg. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. *Göteborg Stad*. [Online], Available: http://goteborg.se/wps/wcm/connect/f6c03c8f-10c6-41cd-85d7-bb72e2f8e50f/OPA_stadsbyggnkvaliteter.pdf?MOD=AJPERES (October 3, 2014).

SBK (2009a) *Detaljplan för Centrum och Bostäder vid Opaltorget inom stadsdelarna Tynnered och Önnered i Göteborg, Samrådshandling Oktober 2009. Koncept 2009-10-05.* Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2009b) *PowerPoint presentation.* Design by BIG. Presentation: Göteborg Stad, HSB Göteborg, AF projektutveckling AB, Egnahemsbolaget, Norconsult and BIG. September 1, 2009. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2009c) *ÖP för Göteborg: Konsekvensbeskrivning.* Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2011a) *Erfarenheter från fem följeprojekt: SKA & BKA i planprocesser. Inledande fas hösten 2011.* Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

SBK (2011b) BKA. Barnkonsekvensanalys: barn och unga i fokus 1.0. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. *Göteborg Stad*. [Online], Available: http://goteborg.se/wps/wcm/connect/7a225b9b-821e-435d-80ba-f3fba09fd443/OPA_SKA.pdf?MOD=AJPERES (November 13, 2013).

SBK (2011c) SKA. Social konsekvensanalys: människor i fokus 1.0. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. *Göteborg Stad.* [Online], Available: http://goteborg.se/wps/wcm/connect/7a225b9b-821e-435d-80ba-f3fba09fd443/OPA_SKA.pdf?MOD=AJPERES (November 13, 2013).

SBK (2012) Stadens rumsliga påverkan på hälsa. Malmö: Malmö Stad, Stadsbyggnadskontoret. *Malmö Stad.* [Online], Available: http://www.malmo.se/download/18.1558e15e13973eeaa0e800022999/Stadens+rumsliga+p%C3%A5verkan+p%C3%A5+h%C3%A4lsa_med+bilaga.pdf (November 13, 2013).

SBK & Gehl Architects (2009) Handbok för 'Liv-Rum-Hus'. Workshops: Sociala aspekter i stadsplanering. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. *Göteborg Stad*. [Online], Available: http://www.boras.se/download/18.3f32b16112959a1b55280003361/Gehl+Workshophandbok+Liv-rum-hus.pdf (November 13, 2013).

Schmid, H. (2005a) Das Concetto im polnischen Barock. Am Beispiel Zbigniew Morsztyns und mit einem Blick auf Bruno Schulz. In *Der Text und seine Spielarten im polnischen Barock. Bausteine zu einer Epochensynthese*, (eds) Schmid, H., Meyer, H. & Hartmann, B., pp. 151-185. München: Die Welt der Slaven. Verlag Otto Sagner.

Schmid, H. (2005b) Zur Einfuhrung. In *Der Text und seine Spielarten im polnischen Barock. Bausteine zu einer Epochensynthese*, (eds) Schmid, H., Meyer, H. & Hartmann, B., pp. 9-15. München: Die Welt der Slaven. Verlag Otto Sagner.

Schulz, S. (1972) Tynnered: planerat, byggt och sen? *Arkitekttidningen*, 19/72 December, pp.11-14.

Schön, D.A. (1983) *The Reflective Practitioner: How Professionals Think in Action.* New York: Basic Books, Inc., Publishers.

SDF Tynnered (2009a) *Lokalt utvecklingsprogram för Opaltorgsområdet i Tynnered.* (eds) Wadefalk, B., Crusé Sondén, G., Alsén, K. & Ollson, S. (S2020 Opaltorget pilot project). Gothenburg: Göteborg Stad, Stadsdelsförvaltning Tynnered.

SDF Tynnered (2009b) *Ska vi byta roller med varann? Om metoden modellvandring i Tynnered.* (ed.) Bergsten, J., (Workshop report). (S2020 Opaltorget pilot project). Gothenburg: Göteborg Stad, Stadsdelsförvaltning Tynnered.

SDF Tynnered (2009c) *Yttrande över Detaljplan för Centrum och bostäder vid Opaltorget inom stadsdelarna Tynnered och Önnered i Göteborg.* December 7, 2009. Gothenburg: Göteborg Stad, Stadsdelsförvaltning Tynnered.

SDF Tynnered (2010) *Erfarenheter och slutsatser från arbetet med sociala konsekvensbeskrivningar i samband med detaljplanearbetet för Opaltorgsområdet,* (ed.) Crusé Sondén, G. (S2020 Opaltorget pilot project). Gothenburg: Göteborg Stad, Stadsdelsförvaltning Tynnered.

Sheate, W.R., Rosario do Partidario, M., Byron, H., Bina, O. & Dagg, S. (2008) Sustainability Assessment of Future Scenarios: Methodology and Application to Mountain Areas of Europe. *Environmental management,* vol. 41, no 2, pp. 282-299.

Simes, L. (2007) *Skapande modeller. Design & Experiment runt bärkraftsfrågor och arkitektur.* Gothenburg: Chalmers University of Technology. (Licenciate thesis).

SK (2009a) *City of Göteborg: Annual Report 2008.* Gothenburg: Göteborg Stad, Stadskansliet.

SK (2009b) *Göteborgssamhällets Utveckling.* Gothenburg: Göteborg Stad, Stadskansliet.

Skoog, G. (2009) Ny arkitektur ska lyfta Opaltorget. October 20. *Göteborgs-Posten*. [Online], Available: http://www.gp.se/nyheter/goteborg/1.227624-ny-arkitektur-ska-lyfta-opaltorget (October 6, 2014).

Soja, E. (1989) The Socio-spatial dialectic. In *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*, Soja, E., pp. 74-94. London: Verso.

Soja, E. (1996) *Thirdspace: Journeys to Los Angeles and Other Real-and-imagined Places.* Cambridge, MA: Blackwell.

Sorensen, A. (2001) Urban planning and civil society in Japan: Japanese urban planning development during the 'Taisho Democracy' period (1905-31). *Planning Perspectives,* vol. 16, no 4, pp. 383-406.

SRF (2007) *Analys av uppdrag S2020. Arbetshandling*. November 24, 2007. Gothenburg: Göteborg Stad, Social resursförvaltning.

SRF (2012) *Budget 2012: Sociala resursnämnden.* Gothenburg: Göteborg Stad, Social resursförvaltning.

Summerville, J., Buys, L., Germann, R., & Cuthill, M. (2006) The implementation of social impact assessment in local government. In *Social Change in the 21st Century 2006 Conference Proceedings;* October 27, 2006, Brisbane. (eds) Hopkinson, C. & Hall. C., pp. 1-10.

Sutcliffe, A. (1981) *Towards the planned city: Germany, Britain, the United States and France*, 1780-1914. Oxford: Basil Blackwell Publisher Limited.

Sutton, P. (2000) Sustainability: What does it mean? *Green Innovations.* [Online], Available: http://www.green-innovations.asn.au/sustblty.htm (November 15, 2013).

Sveriges Arkitekter (2009) *Architecture and Politics: An architectural policy for Sweden, 2010-2015.* Stockholm: Sveriges Arkitekter.

Swyngedouw, E. (2009) The antimonies of the post-political city: In Search of a Democratic Politics of Environmental Production. *International Journal of Urban and Regional Research,* vol. 33, no 3, pp. 601-620.

Todd, P.E. & Wolpin, K.I. (2008) Ex Ante Evaluation of Social Programs. In *Annals of Economics and Statistics / Annales d'Economie et de Statistique, ENSAE*, no 91-92, pp. 263-291.

UDG (2011) What is Urban Design? *Urban Design Group.* [Online], Available: http://www.udg.org.uk/about/what-is-urban-design (November 27, 2014).

Ullstad, E. (2008) *Hållbar Stadsutveckling: En politisk handbok från Sveriges Arkitekter.* Stockholm: Sveriges Arkitekter. Intellecta 2008.
Urbanski, M. (2006) O rozumowaniach abdukcyjnych [On abductive reasoning]. *Poznan Linguistic Meeting*; April 20-23, 2006, Poznań. pp. 143-150.
Vallance, S., Perkins, H. C. & Dixon, J. E. (2011) What is social sustainability? A clarification of concepts. *Geoforum,* vol. 42, no 3, pp. 342-348.
Vanclay, F. (2003) International Principles For Social Impact Assessment. *Impact Assessment and Project Appraisal*, vol. 21, no 1, pp. 5-11.
Vanclay, F., & Esteves, A.M. (2011a) Current issues and trends in social impact assessment. In *New directions in social impact assessment: conceptual and methodological advances,* (eds) Vanclay F. & Esteves, A.M., pp. 3-19. Cheltenham: Edward Elgar.
Vanclay, F. & Esteves, A.M. (eds) (2011b) *New Directions in Social Impact Assessment: Conceptual and Methodological Advances.* Cheltenham: Edward Elgar.
Varkki G.R. (1997) A procedural explanation for contemporary urban design. Reprinted in *Urban Design Reader*, (eds) Carmona, M. & Tiesdell S. (2007), pp. 52-58. Oxford: Architectural Press. Published in its original form as: Varkki G.R. (1997) A procedural explanation for contemporary urban design. *Journal of Urban Design*, vol. 2, no 2, pp. 143-161.
Westin, S. (2010) *Planerat, alltför planerat: En perspektivistisk studie i stadsplaneringens paradoxer.* Uppsala: Kulturgeografiska institutionen. (PhD thesis).
Whyte, W.H. (1988) *City: Rediscovering the Center.* New York: Doubleday.
WSP Samhällsbyggnad (2010) *Att integrera sociala aspekter i den fysiska planeringen.* Gothenburg: WSP Sverige.
Yaneva, A. (2005) Scaling Up and Down: Extraction Trials in Architectural Design. *Social Studies of Science,* vol. 35, no 6, pp. 867-894.
Zaman, C.H., Özkar, M. & Cagdas, G. (2011) Towards hands-on computing in design: an analysis of the haptic dimension of model making. *METU JFA*, vol. 28, no 2, pp. 209-226.
Zeisel, J. (1981) *Inquiry by Design: Tools for Environment-Behavior research.* Cambridge: Cambridge University Press.
Zukin, S. (1980) A decade of the new urban sociology. *Journal: Theory and Society,* vol. 9, no 4, pp. 575-601.
Zuziak, Z.K. (2008) *O tożsamości urbanistyki.* Kraków: Politechnika Krakowska.
Žižek, S. (1999) *The Ticklish Subject: The Absent Centre of Political Ontology.* New York: Verso.

Other sources

Architect (2013) In *Telephone conversation.* Gothenburg: Private architectural firm. March, 2013.
Municipal Planner (2009). In *Discussion meeting* (SBK Göteborg Stad 2009), December 1, 2009. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.
Municipal Planner (2010). In *S2020 Opaltorget pilot project meeting.* SDF Tynnered. February 2, 2010. Gothenburg: Göteborg Stad, Stadsdelsförvaltning Tynnered.
Municipal Planner (2011) In *socio-form Workshop 1b.* SDF Västra Göteborg. June 28, 2011. Gothenburg: Göteborg Stad, Stadsdelsförvaltning Västra Göteborg.
Post lecture discussion SBK (2010) In *Lecture 'Urban Chisels: Socioforming Opaltorget', Gregorowicz-Kipszak, J.* SBK. December 16, 2010. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.
SBK Göteborg Stad (2009) *Discussion meeting.* SBK. December 1, 2009. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret.

WebPages

BleepingComputer Computer Glossary: http://www.bleepingcomputer.com/glossary/
Business Dictionary: http://www.businessdictionary.com/
CABE: http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/
Forest of Rhetoric: http://rhetoric.byu.edu/

Gehl Architects: http://*www.gehlarchitects.dk*
Government Offices of Sweden: http:// http://www.government.se/
IAIA: http://www.iaia.org/
Inobi: http://www.inobi.se
Merriam-Webster dictionary: http://*www.merriam-webster.com/*
MISTRA: http://www.mistra.org/
PPS: Project for Public Spaces: http:// http://www.pps.org/
S2020 http://goteborg.se/wps/portal/enheter/ovrigaenheter/s2020
SPINDUS http://e-scapes.be/spindus/
UDG Urban Design Group: http://www.udg.org.uk/
ULG https://www.chalmers.se/arch/SV/samverkan/urban-laboratory
Universal Encyclopedia of Philosophy: http://www.ptta.pl

Images

All images belong to the author, if nothing else is stated.
Images from other sources have been used with full permission.

BIG (2008) Design draft for the area of Opaltorget by BIG *Bjarke Ingels Group* [Design Draft]. In *Powerpoint Presentation. Förvaltningsmöte Opaltorget. October 8, 2008,* SBK, 2008c. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. © 2008 by *Bjarke Ingels Group*. Reprinted as Figure 4.4 (used also in Figures 2.7 and 2.8) with permission of BIG *Bjarke Ingels Group.*

Bosselmann, P. (1998) Design communications model [Diagram]. In *Representation of Places: Reality and Realism in City Design,* Bosselmann, P., p.202. Berkeley: University of California Press. © 1998 by the Regents of the University of California. Reprinted as Figure 4.7 with permission of University of California Press.

Carmona, M., Heath, T. Oc, T. & Tiesdell, S. (2003) Six key dimensions of urban design theory and practice defined by Carmona et al. [Diagram]. In *Public places – urban spaces: the dimensions of urban design,* Carmona, M., Heath, T. Oc, T. & Tiesdell, S., p.vi. Oxford: Architectural Press. © 2003 by Matthew Carmona, Tim Heath, Taner Oc, Steve Tiesdell. Reprinted as Figure 5.1 with permission of Taylor & Francis.

Hulsbergen, E.D. & Kriens, I. (2004) Planning cycle [Diagram]. In *Plan cycle,* Hulsbergen, E.D. & Kriens, I., p.6. Delft: Delft University of Technology, Faculty of Architecture, Chair of Spatial Planning. © 2004 by Edward D. Hulsbergen & Iwan Kriens. Reprinted as Figure 3.2 with permission of Edward D. Hulsbergen and Iwan Kriens.

SBK (2006) Three draft proposals for the renewal and development of the square at Opaltorget and its immediate surroundings delivered within the Parallel Assignment by: 1) Arkitekturkompaniet SI AB, 2) Liljewall Arkitekter AB, 3) White Arkitekter AB [Design Proposals]. In *Powerpoint Presentation. Images from the three design drafts delivered within the parallel assignment,* SBK, 2006c. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. Reprinted as Figure 4.3 with permission of the City of Gothenburg.

SBK (2008) The square Opaltorget from the air [Photograph]. In *Powerpoint Presentation. Förvaltningsmöte Opaltorget. October 8, 2008,* SBK, 2008c. Gothenburg: Göteborg Stad, Stadsbyggnadskontoret. Reprinted as Figure 4.2 with permission of the City of Gothenburg.