

# The study of urban form in Sweden

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**Abstract.** *Early research on urban form in Sweden was undertaken before the First World War. After the Second World War research was influenced by the major criticisms levelled at comprehensive urban renewal and suburban mass housing. These criticisms were particularly on the ground that values embodied in the traditional built environment were being ignored. Increased interest in the study of historical urban fabrics was associated with the development of methodologies reliant on the concepts of typology and morphology. These developments were dependent on the activities of individual researchers until the very recent development of wider co-ordinating research organizations.*

*Key Words: architectural style, typology, morphology, socio-morphology, building patterns, Sweden*

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The history of the study of urban form in Sweden should be viewed in relation to the way in which Sweden fits into the worldwide pattern of urban development, especially since the Second World War. By the end of the 1950s, the failure of the modern movement to consider open urban spaces as fundamental components of the sociability of cities became recognized even by the leadership of CIAM (Mumford, 2000). The reconstruction process after the damage caused by the war also generated widespread debates on cultural heritage and the identity of cities (Diefendorf, 1993). Renewed interest in the historical settings of cities accompanied the intensive process of renewal of historical city centres launched in many of Europe's cities in the early 1960s. Debates took place on the value of the historical city not only in terms of its monuments but also more generally (Bedoir and Petersens, 1985).

These processes and debates were closely related to one another. They were often intertwined in the critique of the modernist

'functional city' and the institutionally organized demolition of historical urban cores. Thanks to its neutral position during the Second World War, Sweden was spared war damage. It was instead inner city renewal and rapid suburbanization in the 1960s and 1970s that triggered a strong critical movement against suburban mass housing and the destruction of inner cities. It is in this context that a comprehensive advocacy of historical urban forms emerged in Sweden from the late 1960s.

Sweden is a country in which tradition and history have never been totally set aside: until the 1930s urban development in Sweden was intimately rooted in a building and planning tradition that stressed continuity and adaptation to topography and natural conditions. Thus the industrialized suburban mass housing of the late 1960s and 1970s, and the comprehensive destruction of historical city areas were felt as abrupt interruptions in the continuity of history. What makes the Swedish critical discourse of the time rather

special is the central position that was given to social considerations in the advocacy of the historical built environment.

### The formative years

Consideration of the built environment as the materialization of society's mode of existence, reflecting accumulated knowledge of traditional building materials and construction techniques, was put forward in Sweden as a central criterion for both urban conservation and development. Studies in urban history and building tradition in the late-nineteenth and early-twentieth centuries constitute local historical biographies of cities, executed and interpreted in a narrative manner without any scientific ambitions (Nilsson, 1994). It was with the establishment in 1919 of urban history as an academic field in the Institute of Urban History at Stockholm University that writings on the history of cities acquired academic status. The description, analysis and interpretation of urban form, building patterns and structure, and their relationship to social, economic and administrative changes, emerged in the early-twentieth century as a central field of urban studies within the discipline of geography.

Sten De Geer (1912) made the first attempts to address the morphological aspects of cities, in his study of large cities around the Baltic Sea. In that monograph and in his subsequent studies of the cities of Gävle and Visby (De Geer, 1928) he portrays urban settlements in relation to rural areas and delimits the different regions within cities, attempting a form of typological classification. De Geer uses a comparative approach to identify general characteristics of cities. John Leighly uses a similar comparative approach in his study of the towns of Mälardalen in Sweden (Leighly, 1928). He seeks to understand how 'property lines and original country roads have determined the parcelling of the land into building lots and the arrangement of the houses' (Leighly, 1928, p. 92). However, most of the important contributions to the study of urban form by geographers during the

1930s and 1940s were concerned with individual cities, especially their property structures and their changes over time. A particularly significant study from this period is that of Stockholm's inner city differentiation by the geographer William William-Olsson (1937). He describes how the inner city's changes are related to functional, economic and social characteristics, identifying types of buildings and urban patterns and how these undergo a continual process of change.

Another central contribution to the study of urban form, considering historical development and its interaction with social structures, was made in the early 1950s by a multi-disciplinary group of scholars under the leadership of the art historian Gregor Paulsson. Paulsson and his team, representing several disciplines, including architecture, anthropology, sociology and geography, compiled the most comprehensive socio-morphological study of urban settlements ever produced in Sweden. It was first published in two volumes, in 1950 and 1953, under the title *Svensk stad (Swedish city)*. A second edition was published 20 years later (Paulsson, 1973). To Swedish scholars this is a monumental work, especially recognized for its broad approach, its depth of analysis and its methodology. It records meticulously the transformation of urban settlements from the 1840s to the 1930s, these physical transformations being thoroughly linked to the structure of society. This study introduces a methodology based on the collection of a wide range of social data, for example encompassing social status, the composition of each household, occupation, age, income, workplace and building function. This was the first time that a systematic collection of wide-ranging socio-spatial data was used to describe socio-morphological development and other changes in Swedish cities.

Other novel features introduced by Paulsson, and which must be seen as a fundamental contribution to the study of urban form in Sweden, are the concepts of type and style. Paulsson argues in the foreword to the first edition of *Svensk stad* that the use of these was important in understanding changes and

interactions and coming to terms with the complexity of reality. The concept of type facilitates abstraction, generalization and classification. These are the three phases of typological analysis, though quite difficult to distinguish in *Svensk stad*. It seems that Paulsson was looking for a concept that could bring order and understanding to the complexity of urban reality, and he found this in the concept of type. Although he was aware of the importance of methodology and concepts, he did not elaborate the concept of type. In the second edition of the book he actually removed the following statement:

there is the need for a scientific concept, which is at the same time analytical and synthetic. Such a concept is that of type, which allows the individual phenomenon to be reflected in orderliness and order to be configured as an entity. It is this concept of type, as developed in particular by Max Weber, which is used in this work (Paulsson, 1973).

The introduction of the concept of type in the first edition of *Svensk stad* should be considered a declaration of intention rather than a practical, fundamental structuring element of the methodology that is actually employed. It was perhaps Paulsson's intention to develop the concept of type in subsequent work with a view to implementing it, but this never happened.

*Svensk stad* attracted interest among scholars in urban and housing research. Art historians Elias Cornell and Börje Hanssen (Hanssen, 1952) continued in the tradition set by Paulsson. Cornell's most influential work deals with the dichotomy of town and country, the dissolution of which he was witnessing in the early 1950s (Cornell, 1952, 1977). The dichotomy was one of both opposition to one another and mutual dependence on each other: its demise was giving rise to a new type of urban development with different densities, building forms and open spaces. Cornell's observations on these changes contributed to the increase of interest in the study of the new suburban formation and centre-periphery relationships, which were developing in the 1970s and 1980s.

The relationship between town and country was also dealt with from the point of view of morphology and land ownership patterns. This theme was investigated by the human geographer Lennart Améen, who in his dissertation presents a variety of city typologies, categorized according to their land ownership and administrative boundaries (Améen, 1964). Améen's work belongs to a tradition within human geography that focuses on the analysis of urban structures. This approach deals with the study of social, demographical and economic structures together with physical patterns. In an international perspective, the Swedish plan typologies introduced by Améen have affinities with the town-plan analysis proposed by M. R. G. Conzen a few years earlier (Conzen, 1960). Quite similar to Améen's land ownership approach is the line of research represented by Ingemar Johansson, with a special focus on Stockholm and its suburban development from the 1870s to the 1970s (Johansson, 1974, 1987). Johansson refers to Stockholm as the 'townless big town' and argues in his thesis that the nature and system of land ownership had an important impact on the patterns of urban growth and led also to the proletarianization of farmers, who slowly became the working class of the industrial era. Johansson's socio-morphological approach entailed the use of land ownership and land policies as concepts to describe and explain the rise of the industrial city, suburbanization and the patterns of urban growth in Stockholm.

### The concept of type

When the concept of type was used in the study of urban form in Sweden, at least until about 1970, it was conceived within the Weberian definition and conception of the term (Weber, 1958). Weber's definition of the ideal type gave inspiration to a methodological framework for explanation. Later on, when mass housing developed at the periphery of cities, and when the renewal process in old city centres was rapidly transforming both space and society, critics of these developments

advocated emphasis on heritage and tradition. Conservation and restoration of buildings and urban areas were debated widely. Inspirations and examples of good townscape management were found elsewhere in Europe, especially in Italy.

The Italian plan for the conservation of the historic centre of Bologna, which was adopted in 1969, was an important source of inspiration among members of the Swedish Heritage and Conservation Board and the schools of architecture. The plan reached a wide public through the publication *La nuova cultura delle città (The new culture of cities)* (Cervellati *et al.*, 1977), a book that brought together experience gained through the restoration of buildings in the historic centre of Bologna. It was through this publication and the preservation plan for Bologna that Italian approaches to building typology were introduced in Sweden. These were further stimulated by *The architecture of the city* (Rossi, 1980), and by Gianfranco Caniggia's study of the city of Como (Caniggia, 1976).

Björn Linn, formerly professor of the history and theory of architecture at Chalmers University of Technology, was the first scholar in Sweden to emphasize the importance of deeper insight into historical urban structures, the identification of their constituent elements and the relationships that exist between them. Linn gives the concept of type a central position. He argues that

in order to understand the [urban] structure one has to start from a conception of types, which in different ways are changeable and modified in their real implementation. New contributions can only fit in satisfactorily if they are related to types and structure (Linn, 1981, p. 118).

He considers Caniggia's study of Como to be the most consistent example of such a typological approach and pleads for similar studies in Sweden. Already in his dissertation of 1974, Linn introduces the spatial relationship between the city or district considered at the macro-level and the building at the micro-level, and calls for attention to be given to the intermediate level of the building

pattern (*bebyggelsemönster*) (Linn, 1974). It is at the level of the building pattern that relationships between individual buildings and between buildings and open spaces can be identified and characterized. Linn uses this approach to identify a building type, which he calls a 'big building block' (*storgårds-kvarteret*) (a building block with a large inner yard), which was a fundamental structuring element of European cities in the 1910s and 1920s. Linn's typological approach starts out from the conception of the ideal building pattern and investigates its variation and deformation, which are responses to topographical conditions, available techniques and material, and economic considerations. The building pattern approach constitutes a methodological framework that is similar to Caniggia's 'typological process'. Its purpose is to identify categories of building types and investigate their variation and modification. The aim is to create a general explicative theory.

The concept of type is also investigated by Kristina Allpere in her dissertation *Om typbegreppet i arkitektur (On the concept of type in architecture)* (Allpere, 1985). The object of her study is the interpretation of the concept of type in Italian urban research since the 1960s. In her interpretation, analysis and comparison of the different conceptions of type, Allpere neglects Saverio Muratori and his school of thought. A central position is instead given to Aldo Rossi and Carlo Aymonino, whose theoretical framework of the conception of the city as architecture and the dialectical relation between typology and morphology (Aymonino and Rossi, 1970) is compared to urban studies in Sweden.

Several researchers emphasized in their work the importance of a conceptual system of interpretation and analysis that aims to inform the design process. Finn Werne proposes a theoretical basis for the study of traditional building techniques and material (Werne, 1980). This approach is further developed in his subsequent work and especially in the study of different areas of the city of Göteborg, which he and a group of fellow researchers undertook (Werne *et al.*, 1985).

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The study of the Vasa district in this city is based on the classification of different building types, each relating to specific planning and building conditions, which had an impact on the form and structure of the district.

### Recent integrative approaches

Hans Bjur focuses attention on the planning and development of urban fringes, and implements a far-reaching methodology, which is inspired by the *civic surveys* of Patrick Geddes. His aim is to identify the *genius* of the city and its components (Bjur, 1984). Planning problems and the loss of coherence of the peripheries and other parts of cities were investigated by a group of researchers under the leadership of Bjur in the 1990s. The outcome was several dissertations that deal with morphological regions within the urban fabric (Olshammar, 2002). Another focus was the morphology of housing-estate suburbs developed in Sweden between the 1940s and the 1970s (Klasander, 2003). The study by Klasander has the advantage of integrating both typo-morphology and space syntax in an analytical approach to new urban structures. The focus is the transformation and spatial configuration of the relationship between the components of modern urban forms. Klasander argues that this transformation has led to the loss of legibility in the modern built environment. He stresses the importance of a coherent relationship between the pattern of movement and the pattern of building.

Critiques of the functional city and modern urban planning are recurrent themes in Swedish urban research, but studies tend to be focused on specific issues, rather than adopting a comprehensive approach. Johan Rådberg is among the exceptions to this. In his critical approach to modern urban planning he attempts a holistic description and analysis of the theoretical bases and form components of the functional city (Rådberg, 1988). His investigation of modern town planning tends to relate aspects and forms of the functional city to the elements and characteristics of

traditional urban forms, showing for instance that some principles attributed to functionalism, such as hygiene, were integrated into planning long before the 1930s. Rådberg has supplemented his work with a descriptive system based on Italian building typology (Rådberg and Friberg, 1996). The research report entitled *Svenska stadstyper* (*Swedish urban types*) refers to the Italian approach to building typology and the Conzenian approach to town-plan analysis, but the presentation of Swedish urban types is in reality a presentation of building types.

### The current organization of research

The study of urban form in Sweden has until recently been undertaken almost entirely by individual researchers. It is only within the last few years that research groups and networks of researchers have become significant features of the research environment. Two approaches to the study of urban form are now established. They are that of the space syntax research group in the School of Architecture at the Royal Institute of Technology, in Stockholm under the leadership of Lars Marcus, and the Nordic Network of Urban Morphology in the Department of Spatial Planning at the Blekinge Institute of Technology, in Karlskrona under my leadership. Recent activities of the former are documented elsewhere (see, for example, Koch *et al.*, 2009). The recent rise of the latter constitutes an appropriate postscript to this review.

I encountered the typo-morphological approach in the early 1980s when, as a student of architecture in Belgium, I attended a course in urban morphology for which the book *Formes urbaines de l'ilot à la barre* (Panerai *et al.*, 1977) was a recommended text. After I moved to Sweden in the late 1980s, my PhD thesis was supervised by Björn Linn, in Göteborg. Linn was at the time interested in developing links between his department and researchers concerned with urban patterns and typologies. My PhD thesis on Mediterranean urban patterns uses the concept of type as a

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central idea. It is concerned with the relationship between the components of urban form and the Caniggian typological process (Abarkan, 1995). This typological approach is developed further in the studies of urban form that I completed at the School of Architecture in Stockholm between 1996 and 2006 (Abarkan, 2000, 2006).

My links with ISUF started in the late 1990s, through contacts with Jeremy Whitehand at the University of Birmingham. ISUF thereafter became the main platform for my work as an urban morphologist. As professor and chair of spatial planning at the Blekinge Institute of Technology, my working environment is, like that of ISUF, fundamentally multidisciplinary. Most importantly planning is a field in which urban morphology needs to develop new theoretical and methodological frameworks relating to current city development.

The study of urban form in Sweden has, during the last few years, developed important links with the three principal schools of urban morphology gathered together within ISUF. In 2006 I established the Nordic Network of Urban Morphology. This now helps to connect individual researchers and individual research projects in urban morphology to each other, both nationally and across the Scandinavian countries. Since the organization of ISUF's Fourteenth International Seminar in September 2006 in Stockholm, several seminars and workshops have followed in Sweden, Norway and Finland. The Nordic Network of Urban Morphology has now become a significant platform for research and teaching in urban morphology within Scandinavia.

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## Seventh International Space Syntax Symposium, Stockholm, Sweden, 9-11 June 2009

Space syntax symposia have established a reputation in international architectural research for combining scientific rigour with relevance for architectural practice. The seventh in the series, hosted by the School of Architecture and the Built Environment at the Royal Institute of Technology (KTH) in Stockholm, turned out to be no exception. The event attracted 198 delegates from 36 countries and 62 universities, who enjoyed 130 scientific papers as well as a feast of keynote addresses, themed debates and public and social events.

The scientific conference proper was preceded by a sell-out public event on 8 June. The venue for this, the iconic Modernist Kulturhuset on Sergels Torg, Stockholm's much-debated central public square, provided an apt reminder of just how controversial the built environment can be. Provocatively entitled 'The competitive edge in architecture', this seminar addressed the challenges that architects face in today's complex and

competitive world by inviting a series of prominent practitioners to consider the knowledge and skills required to build and manage large architectural and planning projects, and the role that research might play in leading to a more sustainable urban environment.

Bill Hillier (University College London) and Bjark Ingels, founder of the radical Copenhagen-based architectural practice BIG, discussed the importance of architectural knowledge and found a surprising meeting of minds over the proposition that architectural design is hypothetico-deductive. Spencer de Grey from the leading UK firm of Foster and Partners, and Ellen Hellsten, a partner in the small Norwegian architectural practice Ghilardi and Hellsten, spoke about the challenges large and small practices face in managing complex urban and building projects, and Tim Stonor (Space Syntax Limited) and Alexander Stähle, a landscape architect from the Swedish practice Spacescape,

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