

DOSSIER EDITORIAL: Urban Morphology

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“Urban Morphology” started to take shape as an organized field of knowledge at the end of the nineteenth century. The use of town plans as a source of urban history and geography, and as data of urban planning led to major developments in the historical and analytical aspects of urban morphology (See Gauthier, 2004; Whitehand 2007). It has been only during the last decade of the twentieth century that an international organizing frame of the field came into existence, with the foundation of ISUF by a group of researchers from various geographical origins and from several disciplines. The first members were predominantly geographers, architects and historians. Many other academic and social associations, such as archaeologists or social anthropologists, analyse urban morphology from different viewpoints and the way of their addressing the subject vary according to their disciplinary background. It can be accepted that the core focus of urban morphology as being “the study of the city as human habitat” (Moudon 1997) or “the study of urban form” (Whitehand 2012). Its’ aim is to progress “the dynamics of our build world” (Moudon 1989), in other words, to analyse the process of the formation and transformation of the man-made build environment. It can also be considered shortly as urban morphology is “the study of urban tissue”. The study of “urban morphology” seeks to understand the spatial structure and character of a metropolitan area, city, town or village by examining the patterns of its component parts and the ownership or control and occupation. The city is the accumulation and integration of many individual and small groups of actions; they being governed by cultural traditions and shaped by social and economic forces over time.

Morphologists from several disciplines formalized the International Seminar on Urban Form (ISUF) in 1996, in order to coordinate meetings to explain, compare, and discuss their work. These meetings acknowledged the expansion of Urban Morphology beyond its’ original boundaries in geography and its’ emergence as an interdisciplinary field. They highlighted the need to promote international exchanges and to investigate the scope of the field’s theoretical basis (Moudon 1997). Bringing together relevant researchers from different disciplines has identified several benefits from such interdisciplinary commitment, in particular the advantages of Muratorian, the Conzenian and the French Schools with their architectural, geographical, and social disciplinary backgrounds respectively. The contributions of the “Italian” school, first Muratori then Cannigia, principally on architectural typology, are well known today, as are the contributions of the “English” school initiated by M.R.G. Conzen (b. 1907). Conzen is best known for his detailed study of Alnwick, which can be accepted as a quantitative revolution in

urban geography. On the other hand, Muratori used his self-termed “operational histories” of Venice and Rome (Muratori 1959, 1963) as the theoretical basis for architectural and urban design fields. Whitehand pushed the limits of urban morphology into urban economic fields, researching the relationship between the city, its’ habitats, and the dynamics of building industry.

It is also possible to find more developments beyond the founding schools of thought. There are other perspectives that have been evident, for example, based on Geographical Information Systems, Historical GIS (Gilliard, 2005) and Space Syntax, (as a quantitative approach to Urban Morphology). See for example (Gil et al., 2013, Koster, 2009, Hillier and Hanson, 1984, 1998; Kubat 1997, 1999, 2004; Yu and Van Nes, 2014). Current advances in parcel based GIS can help to move the center of urban morphological research from its’ foundation in the study of small historic towns to today’s large urbanized regions, and from applications in urban conservation to management of future urban development (Moudon, 1997). As an advanced study in Urban Morphology, Historical GIS connects the past and the present using historical maps. By the use of Historical GIS, the digitized selected layers, which are created by scanning and rectifying historical maps, can be integrated with socioeconomic data in geo-database.

ISUF Regional Networks such as Italian (2007), Chinese (2015), Cypriot (2018), Polish (2016), Portuguese (2013), Serbian, Hispanic (2015) as well as Turkish (2014) were founded to provide contacts between members by organizing conferences, seminars and meetings and also to develop links with other international organizations concerned with the built environment. One of the main purposes of “the Turkish Network of Urban Morphology-TNUM” is to facilitate the sharing of studies concerned with urban morphology, and to discuss the development of collaborative studies of urban form at the national and international levels. It is also a platform for knowledge exchange and networking among researchers and practitioners in the field of urban, architectural and social studies that have a specific interest in Turkey and the wider Eastern Mediterranean region. It has been agreed to develop in particular a commonly accepted vocabulary of urban morphology in the Turkish language, and strengthen the place of urban morphology in education.

This special issue on “Urban Morphology” which is based on ten articles, addresses significant architectural, urban, historico-geographical, quantitative topics. It also confirms that several generations of scholars are active in urban morphology not only from England, Italy or France but also from Turkey and that many individual researchers from a variety of other countries are contributing to the field.

To conclude, I can proudly say that the papers in this special issue of ICONARP in “URBAN MORPHOLOGY” address not only the state-of-art in the field, but also the most recent methods and implementation tools.

1.

An impressive contribution to the field of Urban Morphology comes from the article titled **“Introducing supergrids, superblocks, areas, networks, and levels to urban morphological analyses”** by **Anne Vernes Moudon**. Moudon mentions the new elements and proposes that are formally recognized in urban morphology. As cities have grown in geographic size disproportionately to their growth in population over the past seven decades, new elements have been introduced that structure their form. A conceptual framework for a multilevel structure of urban space using areas and networks and including supergrids and superblocks to guide morphological analyses are presented in her manuscript. She also proposes a table that can serve studies in the framework that can be placed according to the specific elements they focus on. This will help to identify appropriate levels that are standardized to facilitate comparison between these studies.

2.

A fascinating piece of work comes from **Sigríður KRISTJÁNSDÓTTIR** with her article titled **“Roots of Urban Morphology”** which delves into a comprehensive review of the research field of urban morphology: the study of urban form. In her work, Dr. Kristjánsdóttir discusses the evolution of urban morphology from its conceptual foundations in research on the physical form of urban areas. This discussion will shed light on various research perspectives of urban morphology, as well as discussing similarities and differences between the geographical and the architectural approaches to urban form studies. This is followed by a closer look at the theories and works developed by Gianfranco Caniggia and MRG Conzen, which have been an inspiration for many practitioners and researchers, including Whitehand, Maffei, and Moudon.

3.

In recent decades, there has been a significant growth in the amount of research on the study of the phenomenon of architectural and urban “knotting”, which is considered as one of the most interesting in the formation of the modern city in Italy. Therefore, this paper makes great contribution to the studies, which analyse urban form with this architectural methodology and morphological knotting. **Giuseppe STRAPPA** with his article titled, **“The ‘Knotting’ as a Morphological Phenomenon: An Interpretation of the Italian Chamber of Deputies Forming Process”** makes an innovative contribution to this special issue not only by presenting a study on transformation of existing buildings and designing them with the knotting idea, but also by focussing on an interesting case areas of modern Italian architecture, the palaces of the Chamber of Deputies in Turin, Florence and Rome.

4.

Another interesting paper titled **“Managing The Urban Change: A Morphological Perspective for Planning”** comes from **Tolga ÜNLÜ**, in which he argues the awareness of planners on the intrinsic qualities of the built environment in shaping of urban form in Turkey throughout a centennial period after the foundation of the Turkish Republic in 1923. The research work of Tolga Ünlü, suggests a morphological framework, to develop such an evaluation, which is based on three basic principles: the historicity of urban forms, the hierarchical nesting of urban form elements, and their reconciliation within a complex interaction with each other in a part-to-whole relationship. It is regarded as an initial attempt to develop a brief discussion about a morphological perspective to be utilized in planning practice. It is asserted that the centennial development of planning practice in Turkey brought to light that the professionals lost their concern on the intrinsic qualities of urban form, on how it is evolved historically, and on how its’ elements are related to each other. The paper highlights the need for a new morphological perspective that would take into account the morphological unity of urban form elements within their interplay in order to develop a responsive planning approach.

5.

The fascinating piece of work comes from **Peter J. LARKHAM** and **David ADAMS** with their article titled **“Persistence, Inertia, Adaptation and Life Cycle: Applying Urban Morphological Ideas to Conceptualise Sustainable City-Centre Change”** in which they consider that the speed and scale of change of urban forms has a long history in urban morphological thought. Their paper explores issues of the persistence and adaptation of some urban forms, focusing on the central business district of Birmingham, UK. Much of this is now protected as a conservation area, and some of its’ forms have persisted for centuries. Yet, there have been periods of rapid change, and we examine the extent of change following Second World War bomb damage. This allows discussions of the dynamics of change and the agents and agencies responsible for producing new urban forms or retaining existing ones; and this informs exploration of the potential contribution of longevity of form to sustainability. The rapid recycling of some structures, after only a couple of decades, may be very unsustainable – impracticable and unaffordable – in an urban context. With its brand-new perspective on the topic, the work, although exploratory, makes significant contribution to the field.

6.

This article of **Ayşe Sema KUBAT** deals with a topic **“Exploring The Fringe-Belt Phenomenon in a Multi-Nuclear City: The Case of Istanbul”** that is fundamental to understanding the historico-geographical structure of urban areas. The study, which is an attempt to codify the results from 10 years of academic research and a

hard-working effort of Kubat, uses the concept of fringe-belt specifically adapting it to the multi-centered cities of the developing world with a special concern on Istanbul, a large-scaled and complex city. This work investigates the development of the fringe-belt concept and takes a detailed look at the five distinct areas in the European and Anatolian sides of İstanbul through the use of historical maps. Previous studies of the fringe belt have mostly focused on small-scale cities that still contain their original regions or structures, or on those, which have special meaning. However, there has been a limited examination of the fringe belt concept with regard to the multi-centered metropolises such as Istanbul. This study seeks to fill this gap by giving special attention to Istanbul, and by examining the impact of urban growth and CBD transformation on the formation and modification processes of its fringe-belt areas. Formation of a fringe belt can also give clues about the growth direction of the physical development of an urban area. The author reached to a conclusion that these once peripheral but now embedded fringe-belts adjust to the ever-changing dynamics of urban land-use and CBD development of Istanbul. Furthermore, this study of fringe-belts illustrates how Istanbul is different from its counterparts in other parts of the world and cannot be analysed in the same manner.

7.

A unique contribution to this special issue is the article titled **“Swedish Typo-Morphology - Conceptualizations and Implication for Urban Design”** by **Todor STOJANOVSKI**. The article addresses a significant and current issue on “Typo-morphology” which is a branch of urban morphology that deals with the formation and transformation of cities with use of types and typologies. The paper deals with the typo-morphological approaches of 1980’s influenced urban planning and design practices from the point of the Swedish urban morphologists. Typo-morphological approaches and their applications both in practical world and research are described, and discussion in a context of urban design and planning practices is carried both in Stockholm and Malmö. The research extends to a new method on participatory planning based on building and neighbourhood types and this makes the article quite novel.

8.

In their work titled **“Design For Mitigating Urban Heat Island: Proposal of a Parametric Model”**, **Olgu ÇALIŞKAN** and **Begüm SAKAR** address an innovative approach that researches the microclimatic conditions of cities, and induce the ‘Urban Heat Island’ (UHI) effect, which generates many undesirable conditions in the living environment. This research aims to propose a parametric model for analysing the key morphological components of urban tissues with regards to the UHI intensity on the basis of ‘Sky View Factor’ (SVF) while testing the alternatives in generative manner. The proposed (parametric) model, therefore, stands on the close-correlation between the algorithmic simulation based on the selected parameters and morphological analysis. The model calculates SVF values of the different building settings calculated with reference to the basic building codes of

the development planning system in Turkey (i.e. FAR, building height and setback) in an actual context. Then the proposed model is tested in the case of one of the transformation areas in Ankara, Turkey. The major contribution of the study lies in its attempt to create a methodical framework for a climate responsive urban design process to mitigate urban heat island.

9.

All historical cities over the world, although with some differences, are growing quickly. Their elements are in constant transformation, and the new urban spaces take form with its' citizens, embedded with different cultures. Istanbul, embodying with its' distinctive morphological characteristics, has always been a "laboratory" for architectural and urban studies. A unique contribution that addressed this subject to this special issue is the article titled "**An Interstitial Reading of Istanbul**" by **Mahyar AREFI** and **Fatma Pelin EKDI**. The article addresses a significant and current issue on exploring a comprehensive model for reading the city. The city is constantly being woven with new layers, which change, flourish and overlap. This paper offers a reading of Istanbul's intersecting and interstitial layers, the constitutive features of urban space, and the impacts of the urban development processes over time. Using a qualitative approach from both the archival and visual data sources, this study provides a better understanding of complex layers of urbanism that guide urban planners, policy makers and decision makers in developing more convenient solutions to urban problems.

10.

Within the context of Space Syntax, an interesting article titled "**Morphological Structures of Historical Turkish Cities**", comes from **Mehmet TOPÇU**. The work of Topçu provides comparative analyses on the morphological structures of historical urban fabrics of selected cities from different geographic and climatic conditions of Turkey, which have been shaped under the influence of various cultures. Fourteen cities from the seven different geographical regions of Turkey are analysed quantitatively through a mathematical approach called Space Syntax. Detailed information was presented about the morphological structures of the urban forms both on urban and regional levels. It could be stated that the results obtained from this study, by adapting a quantitative and analytical technique as Space syntax, will made a significant contribution on the studies on urban morphology. The study on comparative analyses of the Turkish cities from Anatolia and Thrace within the framework of the specified methodological approach; deserves all the credit that it needs a very hard-working effort, especially in such complex and intrinsic historical backgrounds of the city structures of Turkey.

11.

Lastly the "**Viewpoint**" of the issue comes from **Tim STONOR** with his interesting work titled, "**Measuring Intensity - Describing and Analysing the Urban**

Buzz". As the managing director of the Space Syntax Ltd, Tim Stonor explains an important missing point of urban planners that "great urban places are not created by density; they are created by *intensity*". And he concludes by presenting a choice for designers: continue to disagree about the best way to measure density or embrace intensity and anticipate the radical transformation of place.

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As it always has been, my last thanks go to all our readers for the support they provide to the Journal. We really look forward to your comments, contributions, suggestions, and criticisms.

ICONARP International Journal of Architecture & Planning is nothing without you. Enjoy your reading and meet with us again in the next issue of the forthcoming year, 2020.

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