

Original Article

A typology of Urban Design theories and its application to the shared body of knowledge

Hooman Foroughmand Araabi

Bartlett School of Planning, University College London, Central, House 14 Upper Woburn Place, London, WC1H 0NN, UK.

E-mail: Hooman.araabi.11@ucl.ac.uk

Abstract This article consists of two parts. The first part suggests a typology for urban design theories in order to provide a new way of understanding the nature and function of the, seemingly opposing, debates existing in the field. This typology is based on distinguishing between subjects, object and knowledge of urban design. In the second part, the typology is applied to the shared body of knowledge. In order to do so, this article attempts to give an overview of the current shared body of knowledge in the field of urban design. The reading lists of urban design theory courses, drawn from different universities in the United States, United Kingdom and Australia, are analysed to identify common texts. These texts are then considered to be one reading of what constitutes the shared body of knowledge. A comparison is made between this list of titles and those texts offered in various urban design readers to provide a better overall picture of the shared body of knowledge. Finally, a chronological analysis is made to illustrate the development of the three types of urban design theory.

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Introduction

Communicating ideas in any field requires a level of common understanding of the professional language. Usually, a number of influential texts, recognized as describing key concepts, generate the shared professional language. This common understanding of the professional language is both derived from and informs the shared body of knowledge of the field.

Certain scholars have tried to provide a list of key texts of urban design. Moudon (1992), in her epistemological map of urban design debates, shows and categorizes texts she considers important for different topics in urban design, Ellin's (1999) *The Postmodern Urbanism* provides a chronological map of texts and events that inform urban design debates, More recently, Cuthbert (2007a) proposed 40 influential texts of mainstream urban design. These attempts suggest a need to define and understand what the important texts are. For these scholars, the texts they consider important

are those they think make up some of the shared body of knowledge. While useful, there are two pertinent issues with these texts. First, as knowledge develops, the picture will require updating. Second, the methodology behind the choice of texts is not clear. Therefore an updated and systematically selected view of the key texts is required. Providing an overview of the knowledge is challenging. As fundamentally different types of texts are gathered under the title of urban design it is necessary to have a model to interpret the existing literature.

Knowledge being broader than theory, it is the theory that gives meaning to knowledge and makes it applicable. Therefore, in mapping the knowledge of urban design, the first part of the article focuses on theories. It is necessary here to clarify what is meant by urban design theory and how it differs from scientific theory. Scientific theory is mostly based on generalization and refutation (Curd and Cover, 1998). The concept of refutability has been applied to urban design

(Cuthbert, 2007b), but this is problematic because each case of urban design has its own particular conditions. As urban design strives to make better places, the concept of *a good place* (normative aspects) recurs throughout the literature. The problem with applying the concept of refutability and the inclusion of normative direction means urban design theory is not a pure scientific theory. Despite this, urban design theory can still achieve some of the expected goals of a successful scientific theory, such as 'a method of organizing and categorizing', 'prediction of future events', 'explanations of past events', 'a sense of understanding' and 'the potential to control events' (Davidson Reynolds, 2007). This definition puts theory at the heart of knowledge. The typology offered in the first part of this article is one model for mapping knowledge. This typology relies on distinguishing between subjects, object and knowledge of urban design.

The second part of this article explores more general understanding of the knowledge of urban design. It is important to recognize that the shared body of knowledge will, by its very nature, consist of texts selected using a variety of criteria and will sometimes reflect opposing aims or approaches. Nevertheless, the shared body of knowledge plays an important role in both the legitimizing of the profession and the emergence of professionalized institutes. The shared body of knowledge and the institutionalization of knowledge are thus mutually reinforcing. In this article, texts are only considered as belonging to the shared body of knowledge if they are commonly recommended by numerous universities. The universities scrutinized were from the United States, United Kingdom and Australia. These universities use literature in the English language even though they are located in different political economies. A comparison of common texts reveals some differences in what is being regarded as urban design in different countries. After providing its reading of the shared body of knowledge, this article demonstrates an application of the typology presented in the first part to the shared body of knowledge.

Each part of this article is presented discretely so as to allow room for thinking about further applications of both the shared body of knowledge and the typology. As Inam (2014) mentioned, one of the reasons for mapping bodies of knowledge is to enable the asking of critical questions (p. 9). In the conclusion, further possibilities for such critical research are suggested.

Part one – Typology

Introduction: Necessity for structure

In order to have a comprehensive understanding of theoretical debates within the field, a structure connecting discrete theories is needed. Such a structure would be derived from studying the existing knowledge rather than imposing pre-existing categories. Typology is a method of classification which meets most of the requirements for a useful structure. The typology suggested here is derived from the literature but does not purport to be comprehensive. Instead, the aim is to present a model that makes sense of different functions of theory in the domain of urban design.

Typology is a familiar concept in the field of urban design – different typologies of space, behaviours, processes and products are present within the literature (Lang, 2005; Krieger and Saunders, 2009). Yet the word 'typology' is ambiguous. In its purest sense it refers to 'the study and theory of types and of classification systems' (Lang, 2005, p. 43). Classification systems and the idea of type have long been used by human beings in order to make sense of the world. 'Theories of typology can be traced back to concepts of Platonic ideal form and to the Enlightenment practice of botanical categorization and encyclopedic method' (Larice and Macdonald, 2007, p. 251). The idea of typology is most helpful when some similarity exists between phenomena. However, typology does not just act to highlight similarities – it also shows the difference between types.

The development of the typology being presented here was not a linear process. It was derived through testing and retesting how the model fits with the literature. Therefore, the typology could have been presented after the shared body of knowledge in this article. However, the current order was chosen because it makes clear that this typology is only one possible model with which to organize different sets of urban design theories.

A typology is generally considered successful if it is based on a method of classification that results in exhaustive and exclusive categories. It is helpful if the typology can have uses beyond basic classification (Davidson Reynolds, 2007). Owing to the nature of urban design debates, an absolutely exhaustive and exclusive typology is not possible. Nevertheless, a typology of urban design can still succeed by meeting three basic objectives: correcting misconceptions and confusion by systematically classifying related concepts, effectively

organizing knowledge and facilitating theorizing (Allmendinger, 2009, p. 34).

Three types of urban design theory in the literature

There are numerous possible criteria for developing categories in order to produce a typology of theories. Examples are political direction, philosophical approach, language, product and scale. Each of them might be useful for a specific purpose. The typology proposed here classifies theories based on their aims rather than their approaches, strategies or philosophical perspectives. This results in a more practical overview of the knowledge because the theories that try to achieve similar goals fall into one category. The following categorization has been done by answering the question: 'What is this theory about?'

The analysis examining the subjects of urban design theories led to three distinguishable types of theory as: *theories about the subjects within urban design*, *theories about the object of urban design* and *theories about the knowledge of urban design*. In order to clarify the categories within the typology, the following descriptions use examples of appropriate texts to present one among many possible readings of the literature.

Type one: theories about the subjects within urban design

This type of theory focuses on the *subjects* within urban design. Such a theory usually says what needs to be done in order to achieve an intended result. For example, *The Image of the City* (Lynch, 1960) explains what to do in order to achieve a clearer mind map of cities. Type one theories are akin to 'what-if's – they provide 'the potential to control events'. However, their understanding is only about one specific aspect of real city life. In actual practice, designers tend to adjust such theories in order to adapt them for specific cases. Theories in this category often start by explaining a real problem of the built environment, and end with some general concepts that explain a relation between two or more parameters which could be applied in different cases.

Texts of this type do not tend to use the term *theory* in their discussions. They also tend to reflect widely accepted values, such as democracy, safety, justice or common sense. This type of theory has one or more cohesive concepts at its core. But each text has a different background, reflected in the

human knowledge and research strategy supporting it. Some categories of this type include:

- *Theories of composition of mass and space* (such as *City Planning According to Artistic Principles* (Sitte, 2013), *Collage City* (Rowe and Koetter, 1978), *Space Syntax* (Hillier and Hanson, 1984) and *Finding Lost Space* (Trancik, 1986)) – these theories are those that explain how the physical shape of cities should be drawn on the map. This category traditionally involves only two dimensions, but sometimes three dimensions are considered. In other cases, the social impact of the city grids and shape are also considered. There are rich examples in the literature of texts on this topic and various strategies are demonstrated in them. (The strategy of space syntax is based on a scientific study of city spaces, although for Sitte, artistic values are of greater importance.) These theories are close to morphological debates (Larkham, Conzen, and Lilley, 2014).
- *Theories about visual aspects of public spaces* (such as *Townscape* (Cullen, 2012)) – these theories explain how three-dimensional design should happen. There are many theories about a building's facade and the composition of new buildings within their context. Traditionally, architectural design feeds this category, but more recently it has been informed by semiotic studies and visual anthropology.
- *Theories of the image of the city* (such as *The Image of the City* (Lynch, 1960)) – Lynch's work was deeply influential in the field. His theories examine mental maps of cities and people's perceptions of the built environment. Following the publication of his book, the study and improvement of the image of cities became an important topic in urban design.
- *Theories of safety* (such as *The Death and Life of Great American Cities* (Jacobs, 1984)) – these theories suggest different strategies, such as lighting spaces to supporting mixed land use and eyes on the street to bring about security and safety. These theories have been affected by environmental studies as well as critical appraisals of modern cities.
- *Theories to evoke social interaction* (such as *The Social Life Of Small Urban Spaces* (Whyte, 1980) and *Life Between Buildings* (Gehl, 2011)) – these theories try to enhance social interaction and make public places more convivial. It seems that, historically, this type of urban design theory has become more and more inclusive; nowadays debates about different groups in public spaces

and public interactions as social capital fall into this type.

- *Theories to enhance identity, studying history and the meaning of cities* (such as *Urban Space* (Krier, 1993), *Collage City* (Rowe and Koetter, 1978) and *The City Shaped* (Kostof, 1999)) – these theories are concerned with the history of a city and its meaning for people currently using it. Theories in this category try to grasp a sense of identity and enhance it through design principles. These theories see the built environment as a tool with symbolic potential for communicating the socio historically built meanings. General classic examples of the theory of the meaning of the built environment are usually close to political theories on the built environment, and recent ones typically talk about different actors and power in the post-modern context.

There are other influential subcategories for this type which do not often feature in the shared body of knowledge (discussed in the second part of this article). Some examples are theories about economy of urban design, health as impacted by urban design, urban design management and sustainability. By having different methodology and aims, various categorizations are possible. The logic behind the categorization in this article is highlighted because it facilitates navigation in the literature.

Type two: theories about the object of urban design

Theories of the first type do not allow a comprehensive view of urban design, nor do they provide a theoretical context for the field of urban design. In order to have such a field, another kind of theoretical debate is needed, one which makes sense of all the separate theories. Therefore, the second category is that of theories which portray urban design as a cohesive field. These theories explain how *designing as a conscious activity* forms urban places. While type one could be seen as theories *in* urban design and type two as theories *of* urban design, following Faludi's (1986) classification for planning theories it is possible to consider type two theories as *theories about the object of urban design*.

Theories about the object of urban design are based on theories from the first layer. Type two theories try to integrate theories that can improve *specific* aspects of public space, to create a comprehensive field that can improve public spaces in general. Attempts at theorizing the object of urban design can be divided into two categories: those

that provide a comprehensive view of what urban design object is about (descriptive emphasis) and those that try to explain how to improve the object of urban design (prescriptive emphasis). This categorization does not mean that the subcategories are fundamentally discrete, but a successful prescription relies on a proper description. Nonetheless, since the aims of the texts falling into subcategories are fundamentally different, it is helpful to distinguish them here.

- *Comprehensive view of what urban design object is about (descriptive emphasis)*: Even though scholars have different understandings of the object of urban design, texts falling into this subcategory deeply reflect the existing literature in response to the object of urban design. *A Theory of Good City Form* (Lynch, 1981) and *Public Places Urban Spaces* (Carmona *et al*, 2003) are examples of this subcategory. Despite the fact that they do not propose a manual, they are insightful for understanding of the topic.
- *How to improve the object of urban design (prescriptive emphasis)*: Texts belong to this subcategory try to operationalize discussions from the previous categories. *Responsive Environments* (Bentley, 1987) is one of the earliest texts that can be allocated to this subcategory. Since the practice of urban design has been in a high demand of guidelines, there are many texts written with similar intention. In some cases these texts provide generic solutions for generic problems, for example, the permeability (Bentley, 1987). When applying these generic solutions, it is important not to let theory dominate the first-hand understanding of the problems. Otherwise, generic solutions imposed on the contexts may well generate more problems. In other words, unquestioning application of a generic solution could restrict new thinking.

Type two theories provide an understanding of urban design as a combination of a wide range of theories, some of which may be contradictory. In order to present an integral understanding of urban design, type two theories need theoretical arguments to connect the sometimes controversial theories they use. For example, *Making People-Friendly Towns* (Tibbalds, 2000) applies the concept of *place* as the key concept that binds the theory.

Comprehensiveness distinguishes the first type of theory from the second. However, being comprehensive is a relative concept. Texts considered comprehensive when published can later be regarded as incomprehensive. One example of a

re-evaluated text is *Finding Lost Spaces* (Trancik, 1986).¹ Once regarded as a comprehensive theory of urban design, the development of urban design arguments means it can no longer be placed in the second category. A dynamic typology of knowledge reflecting time and place is clearly needed.

In allocating a theoretical text to this type, there can be a problem of deciding whether a book provides a new theory or is a new combination of old theories. Urban design handbooks (Llewellyn, 2000; Cowan, 2002) and readers (Carmona and Tiesdell, 2007; Larice and Macdonald, 2007) are examples of this point.

Are they merely a new amalgamation of previous theories, or are they suggesting new arguments? There might not be a robust answer to this question. There are texts that might be seen as falling on the borderline between a collection of theories and an integral theory. This article considers them to fall into type two.

Type three: Theories about the knowledge of urban design

The third type of urban design theory includes theories that consider the actual *knowledge* of urban design as the subject of their study. They are relatively less concerned with specific case studies and may not have a direct impact on designing cities.

Generally, type three theories emerged after the second type. An example of type three is *Design of Urban Space* (Madanipour, 1996) where it is argued that urban design derives from both spatial and social processes. As another example, in *Urban Design* (Lang, 2005) the author proposes a theoretical framework in order to make sense of projects, procedures and paradigms that are currently existing in urban design.

Theories belonging to type three can be criticized as unhelpful to actual urban design practice. Considering the practical nature of urban design, there might be some reluctance to consider these theories as urban design theories. Nevertheless, because they provide 'a sense of understanding' of the field of urban design, they are considered in this article as valid theories.

Type three texts are intellectual studies of theories falling into the categories of type one or two. As a result, applications of this type are typically found in theoretical endeavour, such as in post-graduate courses and research.

There are two subcategories distinguishable within this type. Both attempt to construct theories

about urban design, but their aims are slightly different. The first subcategory of this type consists of texts that are trying to study urban design knowledge in connection with other disciplines. The second focuses on urban design from within its own theoretical domain.

- *Theorising urban design knowledge from the perspective of other disciplines:* Texts in this type are trying to define the discipline by applying more fundamental concepts from other disciplines, usually social sciences. For example, in *Design of Urban Space* (Madanipour, 1996) the concept of *space*, which is seen from a social science perspective, is the key element. In this example, space is seen as a social production, and its inevitable relation to power and economy is of extreme importance. Texts belonging to this subcategory generally explain the forms of cities and the knowledge related to them as the extension of socio-economic forces. They are often less interested in studying the physical forms of urban spaces than texts falling into the second subcategory.
- *Theorising urban design knowledge from within:* Texts that fall into this subcategory are grounded within the existing problems of the urban design discourse. However, these arguments may be informed by discussions from various fields. Owing to the theoretical stance of texts belonging to this category, they are concerned with the actual space and the ways in which it changes (such as Carmona, 2014). These texts are less critical of the existing body of knowledge compared to the previous subcategory of this type. However, there is a limited number of texts that can fall into this subcategory.

How do the three types interact? A three-tiered model of urban design theories

The type of urban design theory suggested here rests on the idea of layers: to have a second layer, the first layer is necessary, and for the third, the first two are needed. This means that these types are working as layers upon which the next layer forms. Urban design as a field became established only when a comprehensive knowledge claiming to improve public places for people – the second type theories – emerged. Institutes and universities then legitimized this new field.

Understanding the interaction between the three types of theory can provide a framework for

following their application in practice and academia. The typology proposed here could also improve general understanding of theories of urban design. Theories that have been used in urban design date back to different periods, but a theoretical framework of urban design that sees these theories in a cohesive manner (the second layer) emerged in the second half of the twentieth century. The proposed typology can help to explain the development of urban design theory more comprehensively. This is explored in the second part of this article.

There is potential in this typology to highlight the connection of urban design theories to other disciplines. Theories of type one can be borrowed from other fields, but the borrowing of entire theories from other fields is less likely with the second type. In many cases, theories of the third type assist urban design to define its relationship with other fields.

Part Two – The Shared Body of Knowledge

Knowledge is a general term. Individuals, whether professional or not, have their own knowledge. But study for a profession requires awareness of a specific and commonly recognized body of knowledge. The second part of this article draws on urban design courses at universities in the United States, United Kingdom and Australia, and on the contents of urban design readers to present a shared body of knowledge.

Universities

Universities have two complementary but distinctive roles in relation to the shared body of knowledge: *teaching* and *research* (Ringer, 1990). Both roles are discrete despite encouraging interaction (Robertson and Bond, 2001, p. 6). Teaching involves educating (transferring knowledge) and training. In addition to transferring knowledge, good education should foster critical thinking, possibly leading to innovation in both practice and theory. Training is more concerned with developing established skills and methods, which may have no implications in terms of the development of theory. These categorizations are subjective, nevertheless they can be helpful in highlighting the different aspects of teaching and their relation to the development of theory.

Research is of two kinds: exploring areas that have not previously been investigated, and documenting existing processes using current theories and discourses. The shared body of knowledge presented here is concerned with teaching in the sense of transferring knowledge (educating), and research in the sense of documenting existing processes.

Teaching and research are generally defined in relation to theories of the discipline. Research contributes to the shared body of knowledge by expanding the available theories or generating new theories, whereas teaching involves disseminating the shared knowledge. Predominantly, it could be concluded that research aims to develop theory and teaching aims to develop practice. Thus, looking at the shared body of knowledge can be a departure point for studying the interaction between the theory and practice of urban design.

Despite universities with urban design courses having similar functions, they have developed different approaches. The political economy of countries, as well as the individual views of academics, have contributed to this. Consequently, urban design in different contexts and countries developed different focuses. *Postmodern Urbanism* has examples of how the European and American axes of urban design developed in response to their contexts (Ellin, 1999). What universities teach and research differs according to the individual context.

The co-evolution of universities and the shared body of knowledge is traceable by studying when and why certain texts became important. Many influential books about urban design were either intended for or actually produced by universities themselves. Madanipour's book (1996) is mostly the result of research into developing an urban design course for the university of Newcastle. The ideas of students have contributed greatly to several books, such as those by Alexander (1987), Bentley (1987) and Rowe and Koetter (1978).

Given the function of universities in relation to knowledge, it is useful to start the study of the shared body of knowledge by examining that being disseminated by universities. Similarities and differences between what is taught at the various universities must be noted to map the knowledge of urban design. It should also be recognized that influential works can appear outside of the university, but this falls outside of the scope of this article.

In order to map the knowledge of urban design, this article investigates the approach to urban



design theory at different universities and examines what common ground there is between universities' reading lists. The result reveals the mainstream urban design texts. This study needs to be understood in its historical and geographical context. The conclusions of this part of this research show differences in the preferences of reading lists, depending on whether the course is one offered in Australia, the United States or the United Kingdom.

The shared body of knowledge at universities

The reading lists used for this research came from courses at both BA and MA level. The list of universities was derived from two sources: the article on pedagogical traditions of urban design (Banerjee and Loukaitou-Sideris, 2011, pp. 41–52), and the list provided by RUDI (2014). The majority of universities have modules on urban design theory, while some have modules on theory and history or theory and methods. Where the university did not have a module explicitly on urban design theory, the reading list for its most relevant module was requested. This was to expand on the methodology of a previous study (Klosterman, 2011), which restricted the courses studied to only those explicitly titled urban design theory.

Thirty-three universities with urban design courses were asked for their reading lists, and 25 reading lists were obtained. The reading lists of some universities were already available online, but others needed to be asked via email. All the lists acquired are for the academic year 2013–2014.

A first analysis showed that different universities have different approaches towards providing a reading list. Some universities (for example, Ball State University in the United States) do not provide a set reading list of book for students; Ball State said that it 'focus[es] on practice, with theory being taught as an integral part of studio and methods courses'. At this university, the course tutors hold that since the majority of their students go into practice, they do not need theoretical debates over and above urban design projects at studios.

A challenge that arises in the analysis of the lists is that of comparing them. The number of books in different reading lists varies dramatically from as few as five to more than 120. However, it is the books common to the reading lists which are being identified here. Therefore, even if there are disparities in the number of titles recommended on any

particular list, they do not prevent identification of those shared texts which can be considered as the shared body of knowledge.

A count of all titles suggested by the reading lists revealed 817. Of these, 650 appeared only once. Since the majority of texts were not repeated across the reading lists, it suggests that an immense variety of texts are not part of the shared body of knowledge.

Table 1 shows the books that appear most frequently in reading lists. It is not possible to judge whether this shows strong agreement between professionals on the shared body of knowledge or not. In fact, the most frequently suggested text (*The Image of the Cities*) was absent from 32 per cent of the reading lists. This does not necessarily mean that there is not a common understanding of urban design. If the same study were to be carried out in the future, a comparison would reveal whether or not the basic vocabulary between academics is getting stronger – books present on reading lists in the future that are already popular now must be seen as the absolute core of urban design. A comparison with a similar study on planning theory at various universities (Klosterman, 2011, p. 323) shows that the list above is more up-to-date and specific.

Table 1 shows that there is some consensus among universities on certain key texts of urban design – texts mostly written between 1960 and 1980. Indeed, many texts recommended by more than 25 per cent of universities worldwide are either from more than 40 years ago or are comprehensive texts that provide an overall view of urban design (type two). Finally, the table shows which texts can be associated with which type of the typology presented earlier in this article.

Despite the fact that some of the texts in this list have had influential impact on other fields,² they were all originally written for urban design. This suggests that urban design is producing its main references, and is not merely a subsection of another area of study.

Comparing the shared body of knowledge in the US, UK and Australia

Considering the list of texts common in US universities, it seems that it is not a priority for US universities to define urban design as a comprehensive body of theories. They pay far less attention to texts that try to show what urban design is compared with texts which consider practical and

Table 1: Shows the texts that are repeated in university reading lists. The last column shows what type the text is

Title	Author	Year	Frequency	Present in readers	Type
The Image of the City	Lynch, Kevin	1960	17	•	1
The Death and Life of Great American Cities	Jane Jacobs	1961	15	•	1
Public Places Urban Spaces: The Dimensions of Urban Design	Carmona, M, Heath T, Oc T & Tiesdell S	2003	12	•	2
Townscape	Cullen, G	1961	11	•	1
The Architecture of the City	Rossi, Aldo	1966	10	•	1
Responsive Environments : A Manual for Designers	Bentley I. and others	1985	10	X	2
City Planning According to Artistic Principles	Sitte, Camillo	1889	10	•	1
Life Between Buildings: Using Public Space	Jan Gehl	1971	9	•	1
Urban Design Compendium 1	Llewellyn Davies	2000	8	X	2
Collage City	Rowe, C and Koetter, F	1978	8	•	1
A New Theory of Urban Design	Alexander, C	1987	7	•	1
Urban Space	Krier, R (trans. C. Czehowski and G Black)	1979	7	•	1
The Urban Design Reader	Larice, Michael, and Elizabeth Macdonald	2007	7	—	3
A Pattern Language	Alexander, Christopher	1977	7	•	1
Learning from Las Vegas: The Forgotten Symbolism of Architectural Form	Venturi, Robert, Denise Scott Brown	1977	6	•	1
The City Assembled	Kostof, Spiro	1999	6	X	1
Designing Cities: Critical Readings in Urban Design	Cuthbert, A (ed)	2003	6	—	3
Urban Design Reader	Carmona, M, & Tiesdell S (ed)	2007	6	—	2
Town Planning in Practice	Unwin, Raymond	1909	6	•	1
The Social Life of Small Urban Spaces	Whyte, W H	1980	6	•	1
The City of Tomorrow and its Planning	Le Corbusier	1924	6	•	1
Making People-Friendly Towns: Improving the Public Environment ins and Cities	Tibbalds, Francis	1992	6	•	2
Cities for People	Gehl, J.	2010	5	—	1
Garden Cities of To-Morrow	Howard, Ebenezer	1902	5	•	1
Design of Urban Space	Madanipour, A	1996	5	•	3
Finding Lost Space – Theories of Urban Design	Trancik, R.	1986	5	•	1
A Theory of Good City Form	Lynch, K	1981	5	•	2
Urban Design Guidance – Urban Design Frameworks, Development Briefs and Master Plans	Cowan. R	2002	5	X	2
Urban Design: Methods and Techniques	Moughtin, J.C, Rafael Cuesta, Christine Sarris, Paola Signoretta	2003	5	X	2
Urban Design – Street and Square	Moughtin, C. et al	2003	5	X	2
The City Shaped	Spiro Kostof	1993	5	•	1

historical debates about urban design. Courses at US universities seem to place emphasis on historical texts, whereas in the United Kingdom the emphasis is more on normative aspects. It seems that in the United States and the United Kingdom two different questions are being addressed. The shared body of knowledge in the United States focuses on how urban design knowledge and theories have emerged; in the United Kingdom there is more emphasis on how theory informs design.

The predominant theoretical debates in the United States are close to what are called theories *in* urban design or theories that are focused on one aspect of urban design (type one). They do not necessarily provide an overview of the theoretical

debates. It could be concluded that in the United States the literature is more problem-based, providing the historical context of the problem and the theories related to it. In the United Kingdom the literature is more knowledge-based, in that it tries to provide the students with an overview of the body of knowledge which supposedly will enable them to apply proper methods when addressing a problem. (Table 2)

Compared with universities in the United Kingdom and Australia, universities in the United States use more varied texts for their courses, and the agreement and repetition of texts between their universities is far less. Lists from US universities refer more to US writers than those from universities outside America. This confirms that

Table 2: shows the texts that are recommended at universities in the US and the number of times they repeat in the lists

<i>Title</i>	<i>Author</i>	<i>Year</i>	<i>Frequency</i>
The Image of the City	Lynch, Kevin	1960	4
The Death and Life of Great American Cities	Jane Jacobs	1961	4
The Urban Design Reader	Larice, Michael, and Elizabeth Macdonald	2007	3
The City of Tomorrow and its Planning	Le Corbusier	1924	3
City Planning According to Artistic Principles	Sitte, Camillo	1889	2
Collage City	Rowe, C and Koetter, F	1978	2
Town Planning in Practice	Unwin, Raymond	1909	2
The Social Life of Small Urban Spaces	Whyte, W H	1980	2
Garden Cities of To-Morrow	Howard, Ebenezer	1902	2
A Theory of Good City Form	Lynch, K	1981	2
The History of the City	Benevolo, L	1980	2
Suburba	Duany, Andres, et.al	2000	2

Table 3: Shows the texts that are recommended at universities in the UK and the number of times they repeat in the lists

<i>Title</i>	<i>Author</i>	<i>Year</i>	<i>Frequency</i>
The Image of the City	Lynch, Kevin	1960	10
Public Places Urban Spaces: The Dimensions of Urban Design	Carmona, M, Heath T, Oc T & Tiesdell S	2003	9
The Death and Life of Great American Cities	Jane Jacobs	1961	8
Responsive Environments: A Manual for Designers	Bentley I. and others	1985	8
Townscape	Cullen, G	1961	7
City Planning According to Artistic Principles	Sitte, Camillo	1889	6
Life Between Buildings: Using Public Space	Jan Gehl	1971	6
Urban Design Compendium 1	Llewellyn Davies	2000	6
Making People-Friendly Towns: Improving the Public Environment in Towns and Cities	Tibbalds, Francis	1992	6
The Architecture of the City	Rossi, Aldo	1966	5
A Pattern Lan	Alexander, Christopher	1977	5
A New Theory of Urban Design	Alexander, C	1987	5
Urban Design Guidance – Urban Design Frameworks, Development Briefs and Master Plans	Cowan. R	2002	5
Urban Design: Methods and Techniques	Moughtin, J.C,Rafael Cuesta, Christine Sarris, Paola Signoretta, Raf Cuesta	2003	5
Urban Design – Street and Square	Moughtin, C. et al	2003	5

universities in different contexts are crystallizing different trends. Some classical texts, mostly from architecture, are advocated frequently in US universities. There, Le Corbusier’s work is regularly commented on in the literature of urban design; in other countries, universities rarely put his books on the reading list. (Table 3)

UK universities have much more agreement between their reading lists. Just as US universities pay more attention to American authors, universities in the United Kingdom refer more to British writers. Whereas Moughtin (2003) is not suggested by urban design courses in the United States, in the United Kingdom his books are considered to be important to theoretical debates. (Table 4)

The core body of urban design in Australian universities draws from both UK and US literature

and trends, and could be seen as a synthesis of both. Though only four Australian universities were surveyed for this article, the agreement between their lists as to what constitutes key texts is high.

The shared body of knowledge in urban design readers

Readers on urban design are books that try to select the most important texts of the field from the editors’ point of view. For example, Carmona and Tiesdell’s reader ‘presents a selection of key texts’. The authors declare their intention is ‘to produce a “useful” reader that includes a good range of “classic” or “staple” texts – that is, those

Table 4: shows the texts that are recommended at universities in Australia and the number of times they repeat in the lists

Title	Author	Year	Frequency
The Image of the City	Lynch, Kevin	1960	3
The Death and Life of Great American Cities	Jane Jacobs	1961	3
Townscape	Cullen, G	1961	3
The Architecture of the City	Rossi, Aldo	1966	3
Collage City	Rowe, C and Koetter, F	1978	3
Design with Nature	Mc Harg, I	1969	3
Public Places Urban Spaces: The Dimensions of Urban Design	Carmona, M, Heath T, Oc T & Tiesdell S	2003	2
City Planning According to Artistic Principles	Sitte, Camillo	1889	2
Responsive Environments: A Manual for Designers	Bentley I. and others	1985	2
Life Between Buildings: Using Public Space	Jan Gehl	1971	2
Urban Space	Krier, R	1979	2
A New Theory of Urban Design	Alexander, C	1987	2
The Urban Design Reader	Larice, Michael, and Elizabeth Macdonald	2007	2
Town Planning in Practice	Unwin, Raymond	1909	2
Learning from Las Vegas: The Forgotten Symbolism of Architectural Form	Venturi, Robert, Denise Scott Brown	1977	2
The Social Life of Small Urban Spaces	Whyte, W H	1980	2
Designing Cities: Critical Readings in Urban Design	Cuthbert, A (ed)	2003	2
Urban Design Reader	Carmona, M, & Tiesdell S (ed)	2007	2
Garden Cities of To-Morrow	Howard, Ebenezer	1902	2
The Next American Metropolis	Calthorp, Peter	1993	2
Urban Design: the American Experience	Lang, J	1994	2
Everyday Urbanism	Chase, John et al	2008	2
A City is not a Tree	Alexander, C	1965	2
Invisible Cities	Calvino, I	1974	2
The City as a Growth Machine	Harvey Luskin Molotch	1980	2
Space is the Machine	Hillier B	1987	2
Emerging Concepts in Space Design	Broadbent G	1990	2
Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design and City Theory	Shane D.G	2005	2
The Endles	Burdett R and Sudjic D (Eds)	2007	2

that are referred to again and again' (Carmona and Tiesdell, 2007, p. 3). This article shares with the editors of urban design readers the goal of finding key texts. Thus, the content of readers has been studied to see if the same picture of the texts making up the shared body of knowledge emerges from the readers as is found by the earlier analysis of the reading lists of universities.

There are many urban design readers attempting to incorporate important texts (Cuthbert, 2003; Watson, 2003; Carmona and Tiesdell, 2007; Larice and Macdonald, 2007; Banerjee, 2013), almost all published in the last 12 years. Indeed, Cuthbert (2010) believes 'that the market is nearing saturation point'.

The various readers on urban design provide different collections of texts and serve different purposes, even if a number of well-known writers can appear often. *Time-Saver Standards of Urban Design* (Watson, et al, 2003), an extensive book with

a broad scope, is the only reader which includes a focus on practical debates. *Designing Cities* (Cuthbert, 2003) looks at urban design from the angle of political economy. *Urban Design Reader* (Carmona and Tiesdell, 2007), not to be confused with *The Urban Design Reader* (Larice and Macdonald, 2007), focuses on dimensions of urban design as defined in the authors' previous book. *The Urban Design Reader* is published in two editions, both of which try to represent the key debates. The first is more concerned with debates within urban design (Larice and Macdonald, 2007), and the second considers classic texts as well as more recent debates in order to provide a holistic view of urban design (Larice and Macdonald, 2013). *Urban Design Reader* attempts to identify texts which are considered as the main core of urban design. *Urban Design* is the latest and the most comprehensive collection of the literature, with 99 texts located in various chapters according

to their topics (Banerjee, 2013). This massive collection might not be generally accessible to many urban designers, student or professional, because of its high price, but it still contributes to the structuring of knowledge by its choice and categorization of content. Because it is generally held that the editors of the readers are aware of other readers, all of them together can be assumed to cover the key debates of urban design.

Almost every text that is common between university reading lists is also represented in urban design readers. Table 1 shows which texts are found in readers as well as the reading lists. This repetition supports the idea that a common understanding of a shared body of knowledge exists. However, some titles that appear frequently in the readers do not feature regularly in universities' reading lists. Examples of such texts are those by Relph (1976), Zukin (1995, 2010), Oldenburg (1999), and Hayden (1997). This means that there is a shared body of knowledge in the readers that is not considered important in the reading lists. This could have two explanations. The urban design theory course tutors may exclude these texts from their reading lists because the texts were already reflected in the readers, or this may represent the slightly different perspectives of editors and the tutors. It is interesting that the editors' views have some similarities that seem not to be shared by the majority of professors teaching urban design theory courses. This shows again the possibility that different groups have slightly different understandings of what constitutes urban design.

Analysis of the shared body of knowledge

Consideration of the date when common texts were published helps with mapping the development of the shared body of knowledge. The key debates of urban design are generally held to have emerged during the 1960s. This is usually explained as a response to the post-war built environment (Moudon 1992; Krieger and Saunders, 2009; Mumford, 2009).

More recent texts appear more often in university reading lists, but at the same time, are repeated less across the reading lists – few lists have them in common. In contrast, fewer older texts appear on the reading lists, but when they do, they are seen on the reading lists of several universities. This shows that the core body of knowledge was established over time, with key texts proving relevant

decades after publication. This process can be seen as the institutionalization of the knowledge.

As indicated, the total number of texts in the reading lists was 817. Figure 1 is the histogram of the dates of publication of all 817 texts. It is clear that in reading lists, recent texts are generally suggested more frequently than older ones.

Figure 2 shows from which decades the texts common to university reading lists come. The general trend confirms that more recent texts are more popular. Texts from the last decade, despite being highly reflected in the reading lists, were of greater variety, meaning that lists had fewer texts in common. This would be expected because it reflects the idea that a text must stand the test of time before being accepted into the shared body.

Worth noting is that texts from the 1960s are not greater in number on the lists than texts from the later decades. It could therefore be argued that while key debates emerged in the 1960s, texts from later decades discuss them more usefully. The publication dates of the texts included in the readers follow the same trend.

Historical analysis of the texts shows a preponderance of more recent texts. The very emergence

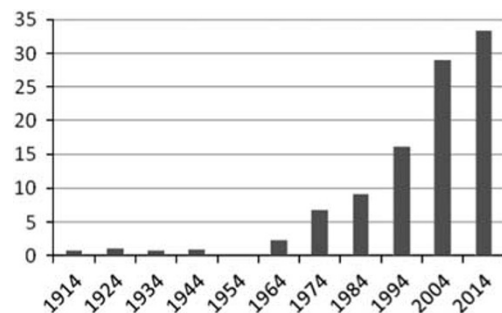


Figure 1: Shows the percentage of texts appearing in different universities' reading lists, by decade of publication date.

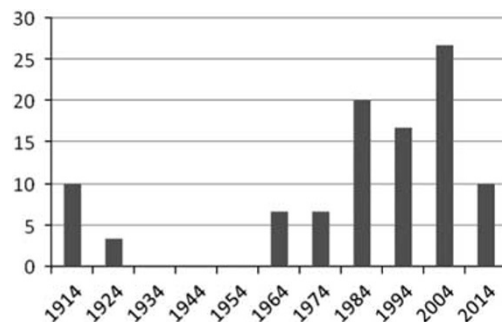


Figure 2: Looks at those books common to more than one university reading list. It shows the percentage of the list each decade of publication date makes up.

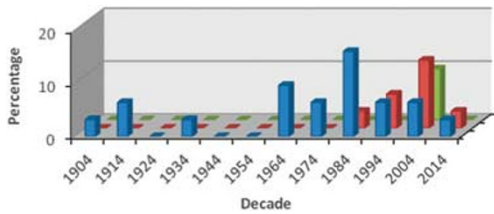


Figure 3: Shows texts belonging to different types and decades. Blue is type one, red is type two and green is type three.

of readers in the last decade could be seen as reflecting a growth in urban design writing. Readers become necessary when there are many texts on the topic, as some sort of structure or selection helps to make sense of the volume of ideas (Foroughmand Araabi, 2014).

Figure 3 shows when texts belonging to different types were first published. The types have been mentioned in Table 1. In general, the texts belonging to each type appear to have emerged consecutively; type one texts emerged before type two texts, which in turn emerged before type three texts. This is not merely a coincidence and is because of the fact that the earlier types are necessary for the formation of the later types.

The number of texts that could be allocated to type three is considerably less than type two, which in turn is considerably less than type one. However, texts from all three types appear in various reading lists. This suggests that there is a common understanding among numerous professors who teach urban design theory of the need to introduce all types of theory to students.

Conclusion

This article tackles important issues concerning the role of theory in urban design by offering a model for understanding various functions of theory within the literature. The article opens up two main areas for discussion. The first is that of possible applications, criticism and development of the typology. The second encourages further debate about what forms the shared body of knowledge in urban design should take, and ways in which to structure and understand the knowledge.

If different types of theory are considered to have their own specific functions, it would follow that they should also have different applications within the various sectors involved in producing and applying the knowledge of urban design.

However, this could only be tested through further research. Thus, this article should be considered as an introduction to the topic which also raises further questions to be answered.

This article analytically maps a set of key texts on urban design. Readings of the shared body of knowledge can vary through different methodologies, contexts and times. In this article, a study of university reading lists for urban design theory courses provides a view of the shared body of knowledge. This view is supported by what is selected by editors for inclusion in urban design readers. This indicates some agreement about which texts are the key texts of urban design. But is this agreement inspiring for the practice of urban design or does it reflect an orthodoxy within the profession? What is the function of the texts which could be considered as the non-shared body of knowledge? These are important questions that remain to be answered.

In order to enhance an understanding of the shared body of knowledge, the suggested typology is applied. A chronological analysis confirms that debates from the second and third types are more recent than debates from the first, almost certainly because the previous type was necessary for the second and third types to develop.

The suggested typology paves the way for more critical analysis. Established 'accepted' knowledge is required before testing of such knowledge can take place. This reading of the shared body of knowledge and the typology is not intended to stifle creative urban design thought and activities, but rather to provide a basic vocabulary for communication between professionals and a departure point for future research.

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Notes

- 1 Following the logic of this typology, *The Death and Life of Great American Cities* (Jacobs, 1984) could be considered to belong to the first type since, despite addressing various aspects of urbanity, it does not have a theoretical argument that comprehensively theorises the object of urban design.
- 2 For example Jacobs (1961) is frequently referred to in the field of sociology, Lynch (1960) is used in architectural studies, and Alexander (1987) has been referenced in many different fields – from architecture to gaming.



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