

Addressing disciplinary, and academic and practitioner divides in thinking on the city: The case of the ekistics model in the development of planning theory and urban studies

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Abstract

This paper starts by introducing the ekistics model of human settlements in terms of its interdisciplinary approach to thinking on the city, and its advocating research as the link between the academic and practitioner divide. By means of a literature review of scientific journals, the ekistics model is shown to be weakly positioned in the development of planning theory and practice. The paper goes on to address the extent to which the broader field of urban studies has drawn on a number of the underlying principles of the ekistics model. It is argued that while land use planning practice has been restricted in its ability to adopt the progressive aspects of the ekistic model, the integrated approach advocated by Doxiadis' science of human settlements resonates with the work of scholars in the diverse disciplines comprising the field of urban studies, and finds echos in approaches used in a sample of current urban development projects.

Keywords

Ekistics model, planning theory, urban studies, interdisciplinarity, research.

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Introduction

While opinions vary as to the nature and impact of 'interdisciplinary' and 'policy relevant' research over the last twenty to thirty years, there is no doubt that the concepts have been important concerns of national and international research funding agencies. As a result, researchers from different disciplines have been brought together in teams addressing an entire problem or subject, not least amongst which has been the city and particularly the sustainable city (Shemlev and Shemlev, 2009). C.A. Doxiadis was ahead of this recent move towards interdisciplinarity and applied thinking on cities. This is reflected in the uncertainty which surrounds Doxiadis' own disciplinary belongings, with his being described as either an architect or a rational planner. While any attempt by a discipline to claim Doxiadis for itself would be futile, the impact of his work on any one discipline can provide insights into the way in which that discipline has developed its thinking on the city, which may in turn help to inform future thinking and practice relevant to cities and urban development. In this paper, the impact of Doxiadis' ekistic model on land use planning theory and urban studies is considered.

After a brief introduction to the interdisciplinary nature of the ekistics model, the results of a literature review of scholarly journals published since 1968 (i.e. the year in which *Ekistics: An Introduction to the Science of Human Settlements* was published) is outlined. This acts as the basis of a consideration of the general absence of explicit references to the ekistics model in planning theory in the 1970s. I will argue that the ekistics model has had more of an implicit influence in urban studies, particularly over the last 20 years. This leads on to the last section, which argues that, although there is evidence of key elements of the ekistics approach in the research methodology being advocated by certain strategic authorities concerned with the future development and planning of cities, urban scholars still face a number of challenges in helping to ensure that theoretically-informed research is translated into policy.

The interdisciplinary nature of the ekistics model

Although the ekistics model of human settlements is attributed to C. A. Doxiadis (Doxiadis, 1968), the scope and nature of the model is a reflection of the interdisciplinary team of scholars and practitioners whom Doxiadis brought together in order to develop a means of conceptualizing urban form and processes as a basis for research. In addition to the planners and architects working alongside Doxiadis, there were:

“mathematicians, geographers (Walter Christaller, Jean Gottmann, Emrys Jones, Brian Berry), writers (Koestler), architectural historians (Siegfried Giedion), historians (Toynbee), and names such as Buckminster Fuller, Margaret Mead, Barbara Ward, Richard Meier, Kenzo Tange, Jacqueline Tyrwhitt, Louis Wirth (and) Edward Hall” (Petsimeris, 2009, p. 433).

Doxiadis had a clear view of why he was bringing together leading scholars from a range of disciplines in order to build the ekistics model. This was to be far more than an exercise in collaboration:

“Let us not waste the time we have by trying simply to coordinate the multitude of important but dispersed areas of knowledge” (Doxiadis, 2006, p. 74).

Given the complexity of the city, Doxiadis saw the need for an interdisciplinary approach that would go beyond providing a means by which scholars could learn from each other, and would instead be aimed at uncovering the gaps in their combined knowledge:

“The role of Ekistics is to study human settlements in a coordinated, interdisciplinary way. Hence Ekistics is a new field of scientific knowledge, comprising the existing disciplines and sciences which study human settlements from their own point of view, and some which have not studied them at all...In our endeavour to study Ekistics we must remember that even though we have to study and learn many things, our main obligation is to study the gaps between elements and between disciplines; here is where the weakness lies” (Doxiadis, 2006 pp.75-76).

Doxiadis' contention that entire disciplines had failed to address the city, although more contentious than his claim that there were gaps in the knowledge of those disciplines most closely

associated with the study cities, was confirmed by historians. Just seven years before the publication of *Ekistics*, an international conference bringing together historians, scholars from other disciplines and planners was held at the Massachusetts Institute of Technology (MIT). The conference was organised in acknowledgement of the general absence of research on the historical development of cities, and the need for such research in order to better inform the planning of cities (Handlin and Burchard, 1963). The sense of almost disbelief that the planning of urban settlements was continuing to take place in the near absence of an historical account of their development over the last five thousand years pervaded both the papers presented at the MIT conference and Doxiadis' claims for an ekistics approach to planning.

The influence on the ekistics model of a range of leading academics drawn from different fields, variously linked with organisations of professional education and theoretical research (the Athens Centre for Ekistics, and the Athens Technological Institute), should not be set apart from that of the planners and architects who worked alongside Doxiadis. The organisation of Doxiadis' office helped to ensure that the formulation and the implementation of the ekistics model were closely linked. This was achieved by ensuring that planning projects and research informed by the ekistics model went hand in hand (Sarigiannis, 2009, p. 312). By making a distinction between the 'descriptive' and 'prescriptive' phases of the ekistics model Doxiadis encouraged his planners to adopt a rational approach. The descriptive element was concerned with the development of knowledge about human settlements, while the prescriptive element addressed directives for action. However, for Doxiadis the more theoretical descriptive element was bound to the more practice orientated prescriptive element in the form of a reciprocal relation:

“our knowledge will move from descriptive science to prescriptive disciplines, and will be based on theory and experience which will feed back its information, to

contribute towards a better theory” (Doxiadis, 2006, p. 79).

For the planners working alongside Doxiadis, planning as research played a key role in enabling theory to inform practice, and in providing a means by which to revise the theory-informed views of the city. While making the distinction between ekistics’ descriptive and prescriptive elements, and notwithstanding the complexity of human settlements, Doxiadis’ planners viewed policy-making and research as one and the same task.

This outline of the Doxiadis’ thinking on interdisciplinarity, and the role of planning and research in approaches to the city, touches on just two aspects of the ekistics model (an edited collection of Doxiadis’ work is provided by Kyrtis 2006, and a collection of reviews is provided in the proceedings of the ‘C.A. Doxiadis 30th Anniversary Meeting’ published by the Technical Chamber of Greece). As such it only considers a small part of the theory of ekistics and Doxiadis’ thinking about cities. His contribution towards the formulation and implementation of an urban theory constitutes an historical fact, and while we do not have to agree with his theoretical guidelines, a study of their place in urban planning can provide an insight into the development of thinking on the city in this discipline. It is to such a study that the paper now turns its attention.

Literature review: Ekistics and planning theory

The literature review was undertaken with the assistance of JSTOR, an online archive of scholarly journals across a broad range of disciplines. JSTOR is by no means complete, and articles appearing in those journals not contained in the archive will not have been included in the search. Furthermore, as the literature reviewed was carried out before JSTOR was extended to include books, all references to Doxiadis’ work in these sources will also not have been covered.

The archive's holdings of journals published since 1967 was searched by means of entering combinations of the following key words: Doxiadis, ekistics, planning theory, science of human settlements, and ecumenopolis. This search identified over 400 references, which were further sorted in order to eliminate book reviews (bringing the total down to 80) and references to persons by the name Doxiadis other than C.A. Doxiadis. A total of 52 articles quoted work published by C.A. Doxiadis.

Given the small number of articles it was not possible to undertake a detailed quantitative analysis, however, certain characteristics were apparent. Most of the articles followed shortly after the publication of *Ekistics* (the peak year was 1970 when 9 articles were published). In terms of discipline, Doxiadis' work had most appeal to people working in the fields of geography or architecture. However, a majority of articles quoting Doxiadis's work appeared in interdisciplinary or multidisciplinary journals, including such combinations as: technology and culture, economics and sociology, architecture and social history, architecture and education, and law and population. The ekistics model was addressed in relation to planning in only three articles (dealing with planning in general, urban planning models, and the environment and public policy). The small number of references linking the ekistics model with planning is in part explained by the fact that JSTOR does not include the specialist journals in the field of land use planning. Nevertheless, the fact that only three articles in the entire literature review drew a clear link between planning and Doxiadis' work points to a general absence of the ekistics model in planning theory, which requires explanation. For the purposes of this paper attention will be devoted to the development of planning theory in Britain, which is considered valid given the English-language bias of the journals held on JSTOR and the rich tradition of planning theory in Britain (Hague, 1991; Healey *et al*, 1982; Healey, 1996; Taylor, 1998; Thomas, 2004).

British planning theory in the 1970s

Doxiadis published *Ekistics: An Introduction to the Science of Human Settlements* in 1968, just as rational planning was going out of fashion in Britain and North America (Hemmens and Stiftel, 1980; Hudson, 1979). This coincidence only offers a partial explanation for the absence of the ekistics model in planning theory in the 1970s. It is certain that land use planners continued to guide change by frameworks produced with rational-technical methods throughout the 1970s, but planning theory appears to have turned a blind eye, or at least to the ekistics model. This leads us on to ask: what was the state of planning theory in Britain in the 1970s? On this point commentators are divided. Healey *et al* (1982) believe that 1970s land use planning theory was characterised by ‘theoretical pluralism’, with seven different theoretical positions and no dialogue between them (‘collective ignorance’). The seven theoretical positions identified by Healey *et al* (1982) are: procedural planning theory, incrementalism and other decision-making methodologies, implementation and policy, social planning and advocacy planning, political economy approach, the new humanism, and pragmatism. By contrast, Reade (1982) argues that these positions do not qualify as theories, on the grounds that (at the time of writing in the early 1980s) they were embryonic and had not been applied. Furthermore, Reade draws attention to the prescriptive or assertive nature of the different positions, and argues that the technocratic assumptions on which they are all based point to their each being variants of procedural planning theory rather than seven distinct positions. This leads Reade on to ask a further question of relevance to this paper: ‘Why is (land use) planning so deficient in any credible theoretical base?’ (1982 p47). In order to answer this question he draws on the work of Glass (1959) and Foley (1960). These authors convincingly argued that the institutionalization of land use planning as a legitimate state activity *prior* to the development of a theoretical position with which to justify its position meant that planning theory was not subsequently required. Because planners were never required to explain what they were doing, at least until the

1970s they were able to operate in an environment of ambiguity and mystification, offering forward no justification of planning. Seen from this perspective, it is not so much that the ekistics model was absent from planning theory in the 1970s, as that planning theory had yet to evolve. By the early 1980s, it would appear that planners and planning scholars were still preoccupied with the practicalities of planning.

This inappropriate search for the ekistics model in British planning theory finds an echo in the field of urban geography in the 1970s. In his overview of competing visions of the city put forward in urban geography over the decade, Goheen (2002) cites Harvey's *Social Justice and the City* (1973) as one of the key texts. Harvey does refer to Doxiadis' ekistics model, although dismissively as 'spectacular design-mysticism' (1973 p303). However, Goheen's observation that 'Harvey finds the city to be an awkward object of study', points once again to the weakness of theory within a discipline rather than providing a convincing rebuttal of the ekistics model in the 1970s.

The ekistics model and urban revival

During the 1960s and 1970s the 'death' of cities became an increasingly popular theme in discourse on the city in both Britain and North America. In his extensive analysis of discourse on the city, Beauregard (1993) quotes Doxiadis as one of the earliest references to be found on the 'death' of the cities. Referring to the major cities' inability to cope with traffic and increasing population, Doxiadis commented that: 'traffic clots main arteries....and then the "heart" slowly withers and dies.' (*Newsweek*, 1960). For Beauregard, discourses of urban decline play a role in framing the policy process:

"the meaning of the discourse....can be found in the ways that it conveys practical advice about how we should respond to urban decline and mediates among the choices made available to us, the values we collectively espouse, and our ability to act." (1993, p. 5).

There is, therefore, an irony in the fact that although Doxiadis' observations on the many problems facing post-war cities contributed to the 'voices of decline' in the 1960s and 1970s, the (implicit) influence of the ekistics model was to follow a decade later in what Beauregard identifies as a period of 'urban revival'. One of the reasons which helps to explain this mismatch between the times in which Doxiadis' versions of the problem and the remedy were taken up, is the generally optimistic stance of the ekistics model. While this did not suit the pessimistic outlook for cities which prevailed in the 1960s and 1970s, it was suited to (and formed part of) the much more hopeful discourse that prevailed from the 1980s onwards.

Developments within and between disciplines also help to account for the growth in interest in the ekistics model in the 1980s and 1990s. During this period, recognition of the need to understand the city as a holistic entity was coupled with increased activity in cross-disciplinary work (if not interdisciplinary work in the sense advocated by Doxiadis). At the same time, the theme of globalization came to dominate studies of the restructuring of cities. These trends have helped to create a research environment that is more sympathetic to the multidisciplinary nature of the ekistics approach. Old ideas re-emerge as new theories and positions are put forward. Cohen (1996), for example, has pointed to the growing convergence of the urban condition and urban problems between North and South, which is a reflection of Doxiadis's view of Ecumenopolis as a single 'global settlement'.

It is not possible to give an account of the influence of the ekistics model on urban studies over the recent past, not least because much of the influence is implicit rather than explicit. However, it is possible to point to a few important examples of recent work that are in line with the ekistics approach. It is generally acknowledged that the 'new urbanism' movement in North America of the 1980s and 1990s, which suggested that small pedestrian friendly villages should replace typical suburban developments, echoed many of Doxiadis' suggestions

(Calthorpe, 1993; Leccesse and McCormick, 2000). However, we can trace his influence beyond this particular approach to urban planning and design. Both the *Green Paper on the Urban Environment* (CEC, 1990a) and *Urbanization and the Functions of Cities in the European Community* (CEC, 1990b) put forward an integrated view of the sustainable city. Rather than seeing the city as separate from nature, emphasis is placed on the linkages between the city and the 'outside' world as well as the land use and environmental changes instigated by urban growth. With the aim of obtaining sustainability, urban policies are thus viewed in a wider and more integrated sense, and in line with the ekistics model.

The approach of Richard Burdett, director of the London School of Economic's Cities Programme's influential Urban Age project, and the principal design adviser on the London 2012 Olympics, provides a further example of the influence of the ekistics model. In 2006 Burdett was appointed director of the 10th Venice Architecture Biennale, when he set out to place architecture in the wider context of cities by means of linking the physical with the social. Students of the ekistics model may not find this a particularly novel approach, but the fact that Burdett felt that the link had to be (re)made tells us something about the state of the discipline at the start of the 21st century. In pursuing this objective Burdett travelled to study 16 world cities on all the continents, in the belief that they can teach us much about how best to plan future developments. For Doxiadis, and the historians at MIT, knowledge of the historic development of cities was crucial to our understanding of how best to plan for the future. Rather than reducing the story that cities can tell us to a dystopian nightmare, the study of cities was seen by Burdett and Doxiadis as the key to a politics of hope for urban development in the future.

In summarising what he had learnt from his travels, Burdett identified three things: the critical importance of the link between public transport and social justice; the importance of good governance in ensuring good planning; and the need to

understand that cities are evolving increasingly rapidly as landscapes of social and ethnic difference (*Financial Times*, 2006). Each of these themes is familiar to anyone who has studied ecumenopolis (Doxiadis' idea of a world city) and the ekistics model, and make Burdett's work (at least as director of the Venice Architecture Biennale) further testimony to the implicit influence of Doxiadis.

From research to policy

The approaches of the European Community and Burdett to the study and planning of cities show a positive turn which, when introduced by Doxiadis in the 1970s, was too often dismissed as a complicated method leading to ideological theory. The European Community puts forward an integrated view of the city and nature, while Burdett points to the study of the past planning and development of cities as the means of imagining the future of cities differently. The fact that the influence of Doxiadis is to be found in the work of two strategic authorities is no coincidence. While a strategic authority might be equal to the task of imagining the future of cities differently, local initiatives in the planning of cities will probably be too inward looking.

The fact that a number of key authorities in the field of urban studies are now advocating a more integrated, historically grounded yet imaginative approach to the study of cities is to be welcomed, albeit more than forty years after Doxiadis outlined the approach. Scholars and practitioners are being invited to consider what could be as well as what is. Nevertheless, they still face a challenge posed by Doxiadis, namely to show that such a methodological approach will not only be able to enrich urban theory but also make research relevant to policy. This is a critical challenge which must not be set aside by those who claim that they cannot understand the methodology or the message. It is possible that Doxiadis' approach has in the past been ignored because people could neither hear nor understand it. However, it is just as likely that people chose not to hear or understand, since

as Flyvbjerg has noted: ‘power often ignores or designs knowledge at its convenience’ (quoted in Imrie, 2004).

At the start of the twenty-first century urban scholars should no longer feel defensive about their subject, or apologetic to those who claim that they fail to engage with the real world. Cities are complex, and it is not always possible to offer clear guidance. At the same time, researchers in the field of urban studies should not assume that it is best left to others to transfer their ideas into practical terms. Doxiadis provided an important precedent in this respect, by bringing together theory, research and practice.

Conclusions

The literature review outlined in this paper is incomplete, confining its attention to those journals held by JSTOR. This excludes references to Doxiadis’ work in other media, and those journals not covered by JSTOR (most notably the *Town and Country Planning Review*, to which Doxiadis himself contributed). Nevertheless, the literature review does suggest that while he was not widely quoted in the field of land use planning, his work did have an appeal to scholars adopting an interdisciplinary approach.

The lack of influence of Doxiadis’s work on British planning theory in the 1970s can be explained by the general absence of theory from the discipline at this time. In the practice of land use planning, the fact that planners in Britain only control development (as opposed to promote it or carry it out) has meant that they have not been in the position to implement Doxiadis’s modernist planning and design models. Furthermore, the overwhelmingly negative accounts of urban conditions (to which Doxiadis was himself an early contributor), which came to dominate discourse on cities in the 1970s, left little room for more progressive visions of the city.

While Doxiadis helped to highlight many of the brutalizing elements of urban life, he also put forward an alternative perspective. Over the past 30 years, Doxiadis's hope for the future development of cities has found expression in the discourse of urban revival. This is an optimistic discourse, which is in line with and informed by Doxiadis' belief that we can learn about human settlements only from other settlements, their pasts and present. Such a study involves the growing range of disciplines under the broad umbrella of urban studies, many of the scholars of which are alive to the his-/ her- story of cities as a means of imagining the future differently.

The need for a critical approach to the planning and development and cities continues to exist today, over forty years after Doxiadis set out the ekistics approach. His emphasis on an integrated approach, and his belief that the analysis of past and present cities does not preclude the possibility of changing the city, can be used to inform methodology and develop theoretical work on the city. However, an important challenge remains, namely overcoming sectional interests in order to use research to inform policy.

In a leading handbook on urban studies, Paddison concluded his analysis of how cities have been studied over the past century by stating:

“How cities have been studied, then, is a complex weave of new theorizations and techniques of analysis along with an inheritance from the past of those ideas which have proved durable. In some cases...current theorizations have helped breathe new life into a well-tried methodology. While disciplinary perspectives remain identifiable, more than lip service is paid to the need for the study of cities to cut across disciplinary boundaries. Cities are too complex for it to be otherwise.” (Paddison, 2001, p. 7)

The ekistics model has contributed to this ‘state of the art’ in the study of cities. The extent to which it may continue to exert an influence on scholars and practitioners working in the broad field of urban studies may in part depend on their willingness to work across both professional and disciplinary boundaries, and

to bring theoreticians and practitioners together in developing ideas and practices in urban development.

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