



BOOK REVIEWS

Sprawl: a compact history by *Robert Bruegmann* University of Chicago Press, Chicago, Illinois, USA, 2005, 301pp. ISBN 0-226-079690-3.

This book is a history, mostly American based, laid out in three main sections: sprawl in different historical periods (including an inconclusive explanation of its causes), arguments and campaigns against sprawl, and remedies that have been applied in different periods. Forty-six pages of endnotes might make the beginning of a journey of personal research but are difficult to refer to as one moves with the flow of the text.

The author offers an interpretation of sprawl which he defines on page 18 as 'low-density scattered, urban development without systematic large-scale or regional public land-use planning.' His definition has left me wondering whether he considered the many kinds of, and reasons for, sprawl: is this very large-sack term a holdall for many categories? He follows this with what, in my opinion, is likely to be an unsafe observation: 'using this definition, we can safely say that sprawl has been a persistent feature in cities since the beginning of urban history'. I find myself uneasy too about his description of the growth of London, in particular its timing.

It seems to me that in England there is a different sort of sprawl: it is a sprawl governed (even ordained) since the early post-war years by the planning system. Before that time, sprawl was of a very limited kind: in Victorian and Edwardian London outward growth was mostly compact, albeit piecemeal. In lesser towns and cities growth (was it sprawl?) was influenced by the needs of industry-based housing or facilitated by trams, trains and buses. In the 1930s, which marked the advent of the car for the aspiring middle class in England, there was ribbon development and this laid the rays between which speculative builders laid out their 'semis'. One of these bridging the Second World

War in south Manchester is 1km across, but that surely is small in the context of Los Angeles. London's growth, like that of many larger British cities, focussed around older villages, which then became engulfed but are still visible today (Stoke Newington, Barnes and Harrow are examples).

Today's English sprawl is mostly contained in growth areas and often determined by ring roads. Is this sprawl or incremental urban accretion? Will the planned new settlement north-east of Exeter be defined as sprawl? Devonians will call it that.

Bruegmann has the fluency to help us through the many gently differing arguments and proposals but leaves this evidence-orientated reader looking for bedrock statements. Many, I believe, would wish to find in such a book some firmly held objectivized personal views built on his 13 years of research. Which is not to deny that they will find a useful iteration of campaigns and remedies and a lot of valuable observation.

In the chapter on the causes of sprawl, many alternative explanations put forward by different groups are considered. It is concluded that the most convincing answer as to why sprawl has persisted over so many centuries seems to be that it allows privacy, mobility and choice.

Bruegmann has chosen a difficult topic: the history (over many years) of sprawl (problematic to define) in several countries (most of them radically different) within different landscapes (hardly discussed). I came to the book as someone whose job it is to analyse urban function and structure and its history by the hundred square kilometre and to define urban growth from aerial photographs. In this I am supported by historical maps and fieldwork. I warm therefore to his comment (p. 93) on the widespread lack of understanding of new urban areas by those who should be equipped to describe them – historians, social scientists, planners and urban theorists – but who have never looked carefully at them. For that is my opinion too. I warm also to his views on intellectual prejudice as a barrier to observation (Lewis

Mumford is cited) and to his own practical observation that ‘even a little time spent studying the map and then driving around an urban area will disprove [its undifferentiated character]’. The author has also profited by the view from the plane window and chooses this as his picture overview to start and finish the book. Quite right too.

As to remedies, Portland, Oregon, with its strong planning, is discussed. Is this reminiscent of England? Perhaps the creation (as at Poundbury, Dorchester) of high-density, mixed-era replica housing (attached to older suburbs) is one way. This is being imitated widely.

Conversely we might choose to follow Mischa Balen’s prescription (see ‘Land Economy’, a 40-page report from the Adam Smith Institute) and turn over 3 per cent of conveniently-placed farmland to wooded spacey housing – then we have a prescription for sprawl American style.

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Suburban form: an international perspective, edited by Kiril Stanilov and Brenda Case Scheer, Routledge, London, UK, 2004, 270 pp. ISBN 0-415-31476-3

Though little-commemorated, the year 2006 marks the sixtieth anniversary of the post-war suburban boom. It is, perhaps, sobering to note that suburban landscapes, so ubiquitous in the modern world, are no longer footnotes to the development of older cities, but are instead established urban phenomena in their own right. Existing suburban development shapes and constrains new expansion, while older areas, aging rapidly, confront planners with questions of conservation and renewal. Despite this current relevance, however, the urban form of the suburb has received far less attention than that of the central city. While these areas are all too often dismissed as essentially uniform and uninteresting, a trained eye can uncover rich complexity in suburban landscapes. *Suburban form: an international perspective*, edited by Kiril Stanilov and Brenda Case Scheer, explores this complexity. This volume, a collection of eleven essays presented at the 2001 conference of ISUF, draws together case studies of suburban morphology from four continents. These essays reveal that suburban landscapes worldwide vary greatly and begin to explore the suburb’s guiding principles and the

planning dilemmas they create.

In addition to their regional diversity, the case studies comprising this volume draw on a variety of disciplinary perspectives, ranging from geography to planning to architectural design. The essays’ authors raise numerous themes and concepts, many of which are still in their infancy. In light of this background, Stanilov and Scheer present the essays as explorations of a multitude of issues, rather than arguments advancing any single central thesis. Indeed, the introduction to the work has only limited success in developing a classification typology for the case studies. (‘Sprawl,’ the editors note on p. 7, ‘is often applied to every type of suburban extension’.) Therefore, Stanilov and Scheer organize the book not by the type or origin of each case, but rather by a loose division of the essays according to their thematic emphases. While the volume is formally divided into four parts, two main themes emerge: first the origin, variety, and operating principles of suburban areas, and secondly the role of planning in the suburb’s past, present, and future.

The first half of the book begins by showcasing the worldwide diversity of suburban environments, considering both differences between different cultures and variation of built environments within particular areas. This part opens by comparing the post-war development of Cupertino, California, USA and Toyokawa, Japan – two heavily technology-driven cities which nonetheless show their separate cultural backgrounds in their built form. Next, a research team from Laval University presents an analysis of five suburban areas surrounding Québec City, showing the partial – but far from uniform – influence of traditional French-Canadian long-lots. Finally, six *favelas* in Rio de Janeiro are examined, tracing the historical antecedents of their surprisingly different forms.

The focus then shifts away from the specific details of each case study, seeking to derive more fundamental principles of suburban geography from individual studies. Thus, in Chapter 4, Tatom reconstructs the historical development of two suburbs near Lyons, but uses this pattern to generalize conclusions about the differing tendencies of large and small land parcels over time. Similarly, in the next chapter Scheer develops the definition of ‘elastic tissue’ – rapidly-changing commercial development, as opposed to more static suburban housing. These are among the most interesting chapters of the book, as they openly invite further research to test their ideas’ applicability to other areas.

In contrast to the arms-length perspective of the

first half of the volume, the remainder of the work more directly confronts the historical role of urban planning in shaping the suburb. This part opens, somewhat surprisingly, with an overview of the development of new towns in Singapore – highly directed suburban expansions which stand in stark contrast to the previous case studies. Next, Corsini investigates the effects of the disconnection in architectural vocabulary between Rome's housing projects and historic city. Stanilov, however, offers the most scathing indictment of the potential weaknesses of planning, showing how a sprawling regional shopping centre outside Cincinnati grew with the direct involvement and co-operation of local planning authorities. The remaining chapters then examine the roles of planners, developers, and citizens in shaping the future of the suburb. Topics covered include efforts to remodel and retrofit Swedish public housing to modern architectural styles and energy standards, the effect of Portland, Oregon, USA's urban growth boundary on the morphology of new developments, and debates over official conservation for aging English suburbs.

While the two halves of the book raise intriguing ideas, several weaknesses stifle the strength of the volume as a whole. Perhaps the most significant of these is the sparseness of the editorial commentary through most of the work. Although Stanilov and Scheer provide a short introduction to the work, it seems tangential to many of the issues raised in the chapters. The editors' introductions to each of the book's four parts are even briefer, functioning more as outlines than as explorations of the common themes among the essays. A clearer articulation of these themes – for instance, a more explicit discussion of differing attitudes toward planning as a cause of suburban variation, or an application of the principles proposed at the end of the volume's first half to the cases discussed in its second half – would make the work far more cohesive. Furthermore, the varying standards of illustration among the eleven chapters can be frustrating to the reader. While most essays are well-appointed with clear and relevant maps and photographs, those on Singapore and Rio de Janeiro – areas with which many readers may not be familiar – are notably minimally illustrated. Public housing in Singapore forms an important counterpoint to many of the other case studies, yet its morphology is presented primarily through abstract, often poorly-labelled schematic maps and not a single photograph.

Both of these weaknesses, however, are fairly minor. While many of the diverse ideas threaded through these case studies are not immediately

apparent, they are a feast for the dedicated reader. Stanilov and Scheer offer the reader a wide-ranging and thought-provoking review of suburban morphology, presenting both new insights on familiar suburban landscapes and an introduction to alternative paths.

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Morphologie urbaine. Géographie, aménagement et architecture de la ville, by *Rémy Allain*, Armand Colin, Paris, France, 2004, 254pp. ISBN 2-200-26262-0.

This book is a comprehensive coverage of the different components of urban morphology.¹ It addresses the spatial and social relationships involved at every scale of urban form. The author aims to cover in a synthetic way, and with reference to major theoretical works, the main characteristics of the Italian, British and French schools of urban morphology. From the perception of urban reality, to the study of its constituent parts, and finally to development and redevelopment processes (*rénovation urbaine*), this book complements the main publications dedicated to urban morphology in French in the last 5 years.

The intended principal readership is students of architecture, urban planning and geography. The book's structure and content accord with city planners' preoccupations with such contemporary questions as the renewal of the urban fabric and gentrification. The diachronic approach found in the book *Formes urbaines*,² which concentrates on a single scale of investigation, is supplemented in this book by an attempt to systematize complex relationships at various scales. In the absence of a glossary, the reading of this book becomes even more profitable if accompanied by the recent book by Gauthiez,³ albeit that not all the complex processes described here are systematically defined in Gauthiez's '*vocabulaire*'.

The five core chapters of the book (namely Chapter 3 on *La macroforme: morphogenèse et contrôle*; Chapter 4 on *Plan et maillage: le dessin des rues*; Chapter 5 on *De la maille à la parcelle*; Chapter 6 on *Volume urbain et tissu constructif*; and Chapter 7 on *Rues, places et parcs: les espaces publics en tissu continu*) give a sequential analysis,

at various scales, of the different dimensions and components of urban form. At each scale considerable insight is provided, combined with excellent self-explanatory figures and many examples. In the following chapters, the use of a systemic approach also offers the possibility for the author to give some clues to the study of various 'old' and 'new' processes, such as the vertical city, urban sprawl and urban renewal.

A clear overview of urban morphological concepts is provided. From a conceptual point of view, the first two chapters are surely the richest of the entire book. In Chapter 1 (*Formes urbaines et paysages urbains*) there are three main issues for urban morphology: an epistemological embedding, a systemic approach and a semantic questioning. This chapter is concerned with specific meanings of 'urban form' and 'cityscape'. It starts with the ambiguity of the concept of form, which is related to, on the one hand, a perceived reality (a phenomenological point of view) and, on the other hand, the expression of a constructed reality (a constructivist point of view). He explores both the perceived and experienced urban landscape, linked to and influenced by, for example, the position of the observer, the emotions and the rhythms of discovering the city. This approach is quite close to Henri Lefebvre's tripartite distinction (*espace perçu, espace conçu* and *espace vécu*) and therefore gives an appealing epistemological embedding of the discipline. Rémy Allain echoes here some current issues of French social theory, which have also been studied by some American geographers, such as Edward Soja.⁴ In doing so the author combines various sources of knowledge, such as the sociology of perception and the geographical analysis of landscapes inspired by phenomenology and adapted to the city, and provides an interesting framework for work in urban design and urban studies linked directly to urban morphology.

Allain's systemic approach uses the interlocking of scales as the main thread of his exposition. It leads us to a robust intellectual construction of the complex relationships between forms, means (*moyens*) and ideologies. Aiming at a cross-disciplinary integration, this book provides an excellent, comprehensible method for a more global study of urban morphology, including the historical understanding of urban systems as a whole. As every system is historically determined, urban morphologists should deal simultaneously with the evolution of the built environment and the evolution of functional and productive systems. By doing so, full account is taken of the temporal dimension, seen as another kind of scale for morphological

study. This multi-scale analysis allows the specific morphological sub-system (built forms), to be grasped. When combined with economic and political sub-systems, the main aspects of the configuration of the urban system (*système urbain*) are covered.

In the first chapter there is also a very interesting, although very short, discussion of the semantics of urban morphology. The author chooses Albert Lévy's spatial terms, 'urban distribution' (*distribution urbaine*) and 'urban conformation' (*conformation urbaine*), to analyse the meaning of urban facts. Urban distribution informs us about the relative position-relationships, like north-south, in-out, or continuity-discontinuity, which express social links and their characteristic representations. Urban conformation, as a subsumed concept of urban distribution, is better understood as a relational system of the component elements. It results, for example, in the geometry of street networks and the polarization of forms. If we follow the logic exposed here, it becomes possible to reduce the concept of urban fabric to an instantiation of the global concept of urban conformation.

This idea of 'spatial language' still leaves open a wide range of possible semantic questions about urban form. In fact, the concept of 'language' found here is chiefly metaphorical. Thus, by basing the semantic analysis on an analogy of its constructive principles only, and without fully developing the methodological tools of linguistics, the author risks reducing the semantics of urban form to its figurative use only. In other terms one can surely build an interpretative model starting with the concept of urban fabric, which is to be understood as the set of physical elements working as a system, though one must also understand it as the result of several other systems, each one having its own expression. This singularity can therefore be called the condition of unicity of urban form. Although urban form is multiple in its expression as a result of different processes, in its temporal and spatial scales and in the ways we perceive it, it is unique as a signifying structure. Indeed, morphological structures are meaningful because of their representation, but also because of the act of utterance. In fact, the historical context in which the interpretation process is performed is essential to the comprehension of the relational system (synchronic point of view). This argument is reassuring in that the semantic model used in urban morphology comes within the scope of pragmatics, initiated by Charles S. Peirce.

At the end of this complex chapter, Rémy Allain

describes the main methods and sources for the analysis of urban form, which are developed in the following chapters. Here, the sources and the scales of analysis are well described in a very short but relevant way. This methodology, together with the systemic approach and the relational semantic system, is the framework for the construction of a 'grammar' and can provide a useful paradigm for a systematic study of urban form.

To complete the requirements of the dynamic analysis, the diachronic point of view is then specified, in Chapter 2 on *L'économie et l'utopie: les facteurs explicatifs des formes urbaines*. This deals with the concept of process. Here, the author develops his argument by deconstructing different causal modes: first, he shows the influence of each cause (social, economic, political and cultural) separately over the evolution of urban form. Then, by using again the systemic analysis of the interaction of different causes, he gives a comprehensive insight into the complexity of morphological processes.

This approach, seen as a system of complex causality, is based on a dialectical point of view in which the confrontation between processes and inertial elements is the main explanatory engine of morphological changes. Indeed, the creation and transformation of the city shape is analysed via the dynamics induced by socio-economic developments, innovative techniques and cultural or political influences on the production of forms. These productive forces encounter a 'site resistance' illustrated by topography and cultural legacy. Here Allain uses Fernand Braudel's conjuncture cycles (the French traditional analysis of temporal, economic and historical analysis of urban growth) as the main framework for the economic study of cities and shows the difference between the Kondratieff cycle of about 50 years and the Conzenian concept of the morphological period. This analysis is therefore completed with the examination of the cultural filters and 'unconscious schemes', called by the author 'utopias', that counterbalance the importance of the economic trends. By doing so, he aims to generalize this multi-causal influence as the main temporal key to the comprehension of the evolution of urban form but avoids deterministic and cyclical types of explanation.

This book can be regarded as a very useful bridge between a classical descriptive and aesthetic approach to old places and manuals on urban studies, which still see the city only as the 'spatial bucket' for social and economic processes. It is also the starting point for a renewal of interest in the

dynamics of urban form and its multiple interaction with social theory. In this sense this book reflects an excellent and contemporary analysis, showing that the main questions about the future of city forms cannot be simply thought of, or taught, as an old and dusty discipline. The definition of our twenty-first century's inhabited space is not reduced to museum or generic cities, but instead is full of opportunities for the reinvention of urban form with a better understanding of historically complex processes.

Notes

1. Special thanks to Sylvain Malfroy for his advice on a draft of this review and to Jeremy Whitehand for his corrections to the final draft.
2. Panerai, Ph., Castex, J. and Depaule, J-Ch. (1977) *Formes urbaines, de l'ilot à la barre* (Dunod, Paris). See also Panerai, Ph., Castex, J. and Depaule, J-Ch., English edition and additional material by Ivor Samuels, translated by Olga Vitale Samuels (2004) *Urban forms: the death and life of the urban block* (Architectural Press, Oxford).
3. Gauthiez, B. (2003) *Espace urbain. Vocabulaire et morphologie* (Editions du Patrimoine, Paris).
4. Soja, E.W. (2000) *Postmetropolis: critical studies of cities and regions* (Blackwell, Oxford).

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Building Utopia: erecting Russia's first modern city, 1930 by *Richard Cartwright Austin*, Kent State University Press, Kent, Ohio, 2004, 225 pp. ISBN 0-87338-730-9.

Building Utopia combines family biography with business and revolutionary history, telling the story of the Austin Company's efforts to design and construct a factory town near the Russian town of Nizhnii Novgorod in the early 1930s. The narrative revolves around a hitherto untouched source – namely, letters sent by 25 year-old Allen Austin, then a young engineer working in Nizhnii Novgorod, to his father Wilbert Austin, Austin Company owner and head, in Cleveland, Ohio. By adding commentary, background detail, and

excerpts from other Austin Company memos and internal correspondence, Richard Cartwright Austin (Allen Austin's son) produces a fluid, engaging family chronicle – one that describes their business practices, personal beliefs, and their commitment to realizing their contract to build the Gorky Automobile Factory in Soviet Russia. As such, this book does not offer a well defined scholarly argument or thesis, but rather presents an American and 'Austin Company' perspective on the Soviet experiment, particularly as realized (or partially realized) through the building of the Gorky Automobile Factory near Nizhnii Novgorod.

Austin's authority as author derives from his relationship to the Austin Company, not from any formal training in urban or Soviet Russian history. He is literally the heir to the familial, father-son correspondence upon which the book is based, and he has generously made it available to researchers through this monograph as well as by placing the letters in the care of the Western Reserve Historical Society in Cleveland, Ohio. Because of this, readers should not expect a careful, objective and extensive study of Soviet urban design. The monograph does not discuss the existing literature on the Soviet experiment or the socialist city, and it makes no reference to similar construction projects in other areas of the Soviet Union. Austin does not engage historic debates over the nature of the socialist city, although the concept of the socialist city underwent dramatic changes at the turn of the 1930s. The author, being unable to read Russian, apparently relied on assistants in conducting his research in the Nizhnii Novgorod archives. References to those materials are scarce, and they lack the standard academic reference elements – that is, a listing of the *fond*, *opis*, *delo* and *list*.

This book's value lies in its personalized nature and its unique source. As heir not only to these letters, but also to family traditions and stories, Richard Cartwright Austin is well placed to divulge the Austin Company's perspective on its activities in Russia, including its sympathies with the Soviet socialist project of modernization through economic development and education – a value that the company's mostly Methodist and capitalist directors shared with their atheist, communist counterparts in Russia. Through the letters, Austin also shares company frustration with the confused priorities of Soviet authorities, who struggled to balance the Soviet government's ambitious goals in construction with the concomitant necessity of exporting goods to earn foreign currency for technology purchases. (For instance, the regime exported high quality local lumber of the sort that

engineers needed on the construction site.) The book clearly communicates the challenges of urban development in Soviet Russia before the Second World War, when shortages of skilled labour and mechanized equipment and excesses of bureaucratic intervention produced real and metaphorical quagmires – nightmares for the Austin Company engineers on site. Readers will come to sympathize with the challenges faced by this team of American capitalists in working to build a new, factory town in communist Soviet Russia.

This monograph represents the sole English-language monograph dedicated to the making of the socialist factory town six miles up the Oka River from Nizhnii Novgorod. Those interested in the structure of this particular socialist city will enjoy reading Austin's reprint of his father's English-language news article describing the structural features of the socialist city. Although written by Allen Austin, the article arguably doubled as Soviet propaganda for American audiences, for it depicted an idealized city, not the real city – something of which most American newspaper readers were probably unaware. The article outlined Soviet plans to create a city with broad avenues, communal housing (i.e. units designed to break down the family into age units, so that individuals lived with peers rather than biological relatives), as well as 'transitional combines' (i.e. glorified communal apartments, in which families lived as a single unit, sharing kitchen and washing facilities with two other families). Richard Cartwright Austin proceeds to explore the degree to which these abstract visions were realized, tracing the history of the socialist city near Nizhnii Novgorod to the present day.

Scholars interested in urban morphology will need to turn to other sources for careful analysis of the ideological values and governing institutions that defined the fate of this city. Contrary to this book's claim to discuss a unique Soviet project, such ambitious plans for the making of Soviet factory towns (dubbed 'socialist cities') were replicated in many areas of the Soviet Union, the best-known case probably being Magnitogorsk, the subject of a superb, fairly recent scholarly monograph (Kotkin, 1995). Unlike this study, Kotkin's work outlines the current literature and provides an up-to-date bibliography of the research in the field with regard to both the socialist city and the Stalinist period of Soviet history. That said, readers may appreciate this book's numerous photographs, which come from both the Gorky Automobile Factory Museum in Nizhnii Novgorod and from Austin Company archives. Austin's detailed

descriptions and careful identification of the objects and people in the photographs serve to clearly and vividly illustrate the Soviet construction project. In sum, Austin's *Building Utopia* is not the story of the ideological conceptualization of the socialist city, but a detailed, engaging account of the adventures (and misadventures) of the American engineers and technicians of the Austin Company, who struggled to build the Gorky Automobile Factory from 1930 to 1931.

Reference

Kotkin, S. (1995) *Magnetic mountain: Stalinism as a civilization* (University of California Press, Berkeley, CA).

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Reforming suburbia: the planned communities of Irvine, Columbia, and the Woodlands by *Ann Forsyth*, University of California Press, Berkeley, Calif., USA, 2005, 379 pp. ISBN 0-520-24166-5.

A persistent undercurrent running throughout Ann Forsyth's study of three American master-planned communities of the 1960s and 1970s is the newness of the so-called 'New Urbanism'. While the earlier massive developments of Irvine Ranch in southern California, Columbia in Maryland, and the Woodlands in Texas may not look like 'new urbanist' projects, they do fulfill most of the design principles of the more recent movement trading under the sobriquets of New Urbanism and 'smart growth'. Forsyth thus treats these case studies not as fossils from another epoch, but as sober examples for planners today of what can still be considered cutting-edge planning ideas put into practice over three decades.

The bulk of the study is composed of an exhaustive planning history of the three case studies. With the aid of official planning materials, newspaper articles, and numerous interviews, Forsyth provides a rich narrative of the defining values and goals behind the implementation of these developments. The planned towns arose from the

'new communities' movement which defined itself in opposition to the prevalent pattern of unplanned subdivisions and 'packaged suburbs' such as Levittown, New Jersey. While the three communities shared long-term planning visions, with like-minded planners, and large scale – and they continue to be financially profitable – they differ from each other in important ways. The Irving Ranch has remained private and has focused on built form; Columbia, led by James Rouse, has pursued social goals such as racial integration and income mixing; while the Woodlands arose free of zoning but was shaped by the ecological and environmental concerns of Title VII designation. These contrasts permit Forsyth to explore nuances in their relationship to current development philosophies.

Chapter 6, 'Alternatives to sprawl?', provides a comparative study of the new communities with New Urbanism's Kentlands in Maryland and the Stapleton Airport Reuse project in Colorado. Forsyth chose not to examine some of the earlier and most publicized New Urbanist developments, such as Seaside, which lacks economic diversity, or Celebration, which does not achieve sufficient densities. Overall the developments were compared on the basis of density, aesthetics, design, identity, social equity, diversity, efficiency of access, and environmental issues. By the set criteria, Forsyth's case study communities did exceedingly well, which is a testament to their planning given their large size and maturity. In general, 'where [the new communities] have weaknesses, so do the current proposals for a new generation of best practices, because in large part the new practices mirror this older generation of responses to sprawl' (p. 271). The one area where New Urbanist developments show some strength is in their efforts to reduce automobile dependence. Conceived during the 1960s, the new communities Forsyth examines lacked transit-oriented development and the automobile remained the primary mode of transport. Nevertheless, she found that 'densities that conform to smart growth and new urbanist practices, pedestrian paths, and even mixed-use layouts are not enough in themselves to significantly shift inhabitants away from car use' (p. 269). In other words, some changes to design and layout do not lead to dramatic lifestyle changes.

Of particular interest to urban morphologists will be Forsyth's fifth chapter, 'Organizing the metropolis'. Here she examines the physical layout of the new communities, both as self-contained entities and as part of the larger metropolis. Looking to the internal organization of each

community, Forsyth proposes a three-part typology: cell, corridor-and-centre, and landscape-frame. This typology is useful and corresponds to the planners' development concepts in each case. Irvine's planners, for example, used and explicitly cited Kevin Lynch's *The image of the city* (1960) as their cardinal idea in creating a legible landscape within their development (pp. 73–7). Here, as elsewhere in the text, Forsyth's presentation would have been more effective had she used maps to illustrate the point. Their paucity is perhaps a by-product of the book's intention to reach a general audience and spurs a complaint which geographers will forever voice. Nevertheless, Forsyth's proposed typology is helpful in understanding the various communities as their developers saw them, as well as how they have grown over time.

Ultimately, *Reforming suburbia* is a sobering reminder to those enthusiastic about the possibility for, and potential speed of, change that planning horizons have to be long, and that the newest models of anti-sprawl urbanism are not necessarily superior to past innovative efforts. The three communities studied here were backed by massive private financing, by corporations comfortable with small immediate dollar returns. After nearly four decades of continuous habitation and continued planning, these communities, judged by the satisfaction of residents and the regard of outsiders, are still on the cutting edge. Surprisingly or not, for example, this year's *Money* magazine listed Columbia as the fourth-best place to live in America. Forsyth is right to turn the planning world's gaze back to communities that stand as good design ideas put into practice. The book's extensive research, comparative analysis, and lengthy appendices make it a valuable addition to understanding the complexity of truly revolutionary design.

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Geology and settlement: Greco-Roman patterns by *Dora P. Crouch*, Oxford University Press, New York, USA, 2004, 372 pp. ISBN 0-19-508324-5.

Dora Crouch has been a force in international archaeology for more than three decades, making

major contributions to understanding cities in both the Old and New Worlds. The co-author of *Spanish City Planning in North America* (Crouch et al., 1982) and *Traditions in architecture: Africa, America, Asia, and Oceania* (Crouch and Johnson, 2001) has now written a broad survey of urban site conditions and environmental history in the Classical World. Her latest book concerns the role played in urban morphology and ancient city life by the physical nature of the ground beneath towns and the influence natural events such as earthquakes and volcanoes had on them. The book extends her earlier study, *Water management in ancient Greek cities* (Crouch, 1993), on a more interdisciplinary basis.

For a long time, understanding of ancient cities has been approached through historical, literary, and archaeological sources, with little concern for geology or engineering. This new work seeks to extend and deepen the attention archaeologists pay to the geomorphological composition of the environs surrounding ancient settlement sites. Although the necessity for considering this dimension of earth-human relations in settlement history was laid out by Karl Butzer in *Environment and archaeology* (Butzer, 1964) four decades ago, detailed and systematic studies answering his call have been slow in coming. Here the relation of city infrastructure to environmental resources and limits is emphasized, particularly its influence in shaping urban form and development. The book is organized in three parts: background, case studies (the bulk of the study), and findings and reflections.

In laying out her task, Crouch seeks to demonstrate several key propositions: that (1) similar physical environments engender similar urban morphological outcomes; (2) departures from ideal city planning can sometimes be explained by responses to different geomorphological conditions; and (3) the relations between the geological 'challenge' and the human 'response' are reciprocal, each being influenced, and changed, by the other. A major accomplishment of the book is the way in which it confronts the artifactual evidence of standard historical and archaeological study with that from the very different time scale of geological investigations, and the way it interprets them within a common framework.

The topic is approached through careful examination of ten Greco-Roman cities, selected as clusters of nearby sites in three representative Mediterranean regions: four on the island of Sicily (Agrigento, Morgantina, Selinus, and Syracuse);

three in central Greece (Argos, Corinth, and Delphi); and three on the southwestern coast of Turkey (Miletus, Priene, and Ephesus, these last all within a 50 km radius of modern Söke).

In each case, geological and geomorphological conditions are presented in detail, and in many climatological and hydrological aspects also. The combinations and saliency of these range widely because of the sometimes quite different physical settings and historical purposes of the places selected (some coastal ports, others inland centres). For most cases, substantial information is given on the nature and structure of bedrocks (including tectonics and sea-level changes, and their implications for water quality and supply, and for quarries for building materials); geomorphological processes in history (sedimentation and erosion, whether fluvial, karstic, or coastal); and extreme events such as flooding, earthquakes, and volcanic eruptions. On the human side, the occupation history of each site is presented in some detail, including the record of construction, destruction, followed by consideration of the geological significance to be found in variable patterns of such things as building materials, urban relocations, water chemistry and supply (affecting sustenance, sanitation, and burial practices), geotechnical degradation (for example, rates of decay in stone, and deforestation and land erosion), weather modification, and the like.

The last part of the book summarizes the substantive findings from the case studies in light of the propositions advanced at the outset. There are two appendices presenting site chronologies for each place, useful for readers unfamiliar with the detailed history of these cities, and a 55-page multilingual, widely interdisciplinary bibliography whose entries reach far beyond the Ancient World. The work is replete with generally effective maps, diagrams, site plans, and photographs that give volume and plasticity to the verbal discussions in the text.

Crouch's study succeeds on several levels. It amply demonstrates the emphatic role that environmental resources played in shaping these particular cities in ancient times. Beyond that, the implication that such a generalization extends across all human time and geography, regardless of technological stage, is consequently hard to resist, insofar as technological triumph over adverse environmental obstacles itself carries costs that shape cities in any period. The work demonstrates

the feasibility of incorporating geology, geomorphology, climatology, hydrology, biogeography, and soil science, where appropriate, in archaeological studies – how much more complicated and interdisciplinary must such work become? It also reminds this reviewer how analogous this integrated approach appears to the small but resilient tradition of morphological settlement studies within historical geography, ancient and modern, that has been around in the literature for a long time.

With Crouch's study, and its emphasis on water supply, the question arises how applicable her findings are to the wider world of settlement history in environments where karst conditions have not been historically so key, and whether or not the variety of responses to environment she found in these sublimely selected cases represent the kind of internal variation to be found in other culture areas. In gauging design responses to environmental challenge how much influence for similar outcomes versus diverse ones belongs to the environment as opposed to local human ingenuity or broader cultural adoption, and how much the other way round? Crouch offers us a number of stimulating ways forward in tackling such issues. While the study will appeal first and foremost to Greco-Roman archaeologists and classical scholars, there are important demonstrations here of complex human adaptations to environment over long periods of time that will interest urban morphologists with less ancient passions.

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