
Reviews

Loose space: possibility and diversity in urban life edited by K Franck, Q Stevens; Routledge, London, 2006, 320 pages, £84.00 cloth, £28.99 paper (US \$150.00, \$51.95) ISBN 978-0-415-70116-7, 978-0-415-70117-4

This is a very good book that provides one of the more intelligent and insightful contributions to recent debates about public space. Much of the debate about public spaces is characterised by hyperbole, caricature, and claims that are based on little or no empirical substance. One is often presented with deterministic perspectives about city living, a popular one being that the relentless privatisation of public places is degrading the urban realm and contributing to a process of heightened social control, social exclusion, and the marginalisation of some groups deemed to be deviant. In fact, many private–public spaces in cities may be experienced in positive terms, and not all privatised public places are characterised by, or reducible to, similarities of process or outcome.

It may also be the case that public spaces, whether privatised or not, can be moulded, appropriated, and fashioned by individuals and groups in ways not originally intended for those locations. This is what the editors refer to as ‘loose space’ or places in which the diverse activities of people are made possible by a combination of active appropriation of spaces and risk-taking activities. Loose spaces are, for the editors, outside of controlled, homogeneous, and themed environments, or places characterised by private and enclosed spaces where order is imposed by use and form. Rather, loose spaces are “less exclusive and more fluid”, with accessibility and choice “offering opportunities for exploration and discovery, for the unexpected, the unregulated, the spontaneous and the risky” (page 3).

The contributors to the book explore loose space through four thematic parts: appropriation, tension, resistance, and discovery. They do so, broadly, through the context of poststructural ideas and themes, deploying cultural critiques and, disappointingly, saying little about the social, political, or broader material processes involved in the production of public spaces. The first theme, ‘appropriation’, refers to people creating loose space through their own actions, often activities that are mundane and ordinary but challenging of the prescribed and regulated uses of public spaces. Chapter 2 refers to ‘found spaces’ or public settings appropriated by users for uses that permit ‘freedom of choice’. This theme is developed in chapters 3 and 4, with the focus on open-ended and liminal spaces or places that permit people to exert some control, although without guarantees of freedom.

The theme of ‘tension’ is explored through four chapters that, in contrasting ways, show how the introduction of “new people, objects or meanings into spaces that are already occupied” (page 95) reshapes places and provides different contexts from those intended by planners, from, for social interactions. Chapters 5 and 6 focus on the different ways in which small businesses mould public spaces and, in doing so, they outline contexts in which the expression of social, cultural, and religious identities occurs. In contrast, chapters 7 and 8 consider representational aspects of public spaces. Chapter 8 is a fascinating account of how the “subtle but pervasive power” (page 168) of the aesthetics of order in Central Park, New York creates a context for the anticipation and assimilation of disruption. Here, ‘looseness’ is tolerated or given scope for expression or outlet through the actions of the park’s management.

The third theme, ‘resistance’, refers to habitation of public spaces in ways that counter mainstream ways of living. The chapters in this part of the book document opposition to formal plans to change particular spaces that, as a consequence, would deprive marginal groups, such as Kurdish exiles in Rome, homeless people in San Francisco, and gay men in London parks, access to places that are part of their daily living. The chapters document interrelationships between artists, architects and others in seeking to open up, to popular consciousness, what are entitled ‘dead zones’ by Gil Doron in chapter 11, or places that are rendered invisible by official accounts. However, in chapter 9 it is suggested that segregation

can be breached and the author provides powerful illustrations of the crossing of boundaries and the softening of social and spatial divisions in public space.

The final part, 'discovery', includes insightful chapters that show how places, abandoned, hidden, or not open to public view, can be appropriated and occupied for pleasure, and in ways that are not scripted or controlled by authority. The chapters focus on building sites, empty, and with no designated use, and which present opportunities for new ways of occupation and use. These sites, as the editors suggest, provide the possibility for "alternative ways of being and doing" (page 231). In chapter 12, industrial ruins are presented as marginal spaces that enable activities to occur outside of what is termed "sensual and aesthetic regulation" (page 235). Likewise in chapter 13 the abandoned buildings of Buffalo's industrial past are regarded as part of a landscape of contradiction and tension, a place that is, for example, void of urban sounds but firmly entrenched within an urban setting.

The core idea of the book, 'looseness', is intriguing yet the way it is sometimes deployed and discussed is a weakness. The term seems to be used, by some authors, in a catch-all way to describe unregulated and spontaneous activities, in which looseness is counterpoised to spaces that are regulated and controlled. Thus, the term, in the way it is sometimes used, has a dualistic feel to it. Indeed it is unclear to me when a space is loose and when it is not. This is particularly so in relation to a caricature that, I feel, is reproduced in parts of the book, in which private–public spaces as themed, controlled, and homogenous are seen as rarely amenable to looseness. This understates the possibilities for looseness in such spaces, and overstates the potential of regulation and control in influencing the conduct of everyday lives.

However, the editors have done an excellent job in bringing together a talented range of writers and each chapter, without exception, adds to an understanding of the complexity of public spaces and the things that make them. The book is beautifully produced and illustrated, and the chapters are written in a refreshingly communicable style that does not undercut or compromise understanding of the complexity of processes that shape our public spaces. The structure of the book is imaginative and intriguing, and it will repay a careful reading. The book will work well on both final year undergraduate and master's courses, but it will also serve as a research-based text. This book is a major achievement and a significant advance in the understanding of the making and shaping of public spaces.

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Growth management in Florida: planning for paradise edited by T S Chapin, C E Connerly, H T Higgins; Ashgate, Aldershot, Hants, 2007, 338 pages £60.00 (US\$89.95)
ISBN 9780754648529

This book certainly reveals the feelings of twenty-two Florida academics (and one nonacademic) about their state's 1985 Growth Management Act. They proudly proclaim that it constitutes the most powerful example of comprehensive, hierarchically coordinated, land-use planning ever implemented within the United States. The conference that they called on its twenty-year anniversary in 2005 is what generated this book's sixteen chapters, which are bookended by an introduction and a conclusion written by the editors. There are chapters about the history of Florida's land-use planning and there are chapters about the impacts of the 1985 act on just about everything that one can imagine—coordinated development, compact neighbourhoods, economic growth, natural environment protection, housing affordability, safety from hurricanes, neighbourhood quality, urban expansion boundaries, transport concurrency, and governmental revenue raising.

Yet this is a most frustrating book to plough through because it is absolutely crammed with irrelevant details that divert the reader from the main argument(s) presented—presumably in the name of completeness. Moreover, there are too many tedious data tables that should have been summarized into charts, and the deficiencies in contributors' GIS education mean that maps which could have boosted the readability of the text hardly exist.

Even more infuriating is the failure of the editors to conclude anything definite. While they seem itching to conclude that the 1985 act was beneficial, literally every chapter produces

far less positive findings, and this makes it very difficult for them to say that it was. Contributors uncover a lack of political commitment to land-use planning, inadequate coordination between housing, infrastructure, and transport development, weak fiscal allocation by the state legislature, failure of local authorities to conform to the goals of overarching regional plans, and too little revenue raising to properly fund the enforcement of state, regional, and local plans. Hence theoretical optimism frequently collides head on with practical evidence, leading to the only conclusion possible—that the merits and demerits of the 1965 Growth Management act are unknown.

Little attempt is made to find a way out of this impasse. Many chapters make heroic efforts to compare statistics on housing prices, unemployment rates, neighbourhood densities, or whatever, for Florida's cities with those pertaining to other parts of the US, in order to see whether or not the 1985 act had any effect, yet this tactic is surely quixotic. It is well known that Florida has undergone huge growth, much of it fuelled by retirees and immigrants who want to live in the sun, thereby making the state's cities fundamentally different from the many cities that this book uses as yardsticks—Buffalo, Cincinnati, Minneapolis, Pittsburgh, Wichita, and so forth. So it seems naïve in the extreme to suggest that US cities' non-Floridian characteristics, and vice versa, might be due to the 1985 act when it is almost certain that the plethora of unmeasured factors caused such differences. Instead, cities without the 1985 act need to be compared—a study this book does not offer.

Predictably, therefore, the failure of most chapters to find significant correlations prompts the default conclusion that, while it is impossible to attribute any positive impacts to the 1985 act, no negative effects were found either, so the act seems to have done no harm. Such a forlorn argument that land-use planning seems to have inflicted no damage is the weakest imaginable defence of the discipline. Indeed, it begs the question of why anyone would want to spend any more time and money undertaking it.

It is most disappointing, therefore, that not even one contributor has bitten the bullet and suggested that strong land-use planning within any liberal democracy might be an oxymoron. Town planning always fails to some extent even in places such as England and its dominions where statutes are much more strongly enforced than they are within a more individual-rights-dominated nation like the USA. Because planning practitioners tend to realize this, they often have far more modest aims for their discipline, but only one such practitioner has contributed to this book.

So we are left with a text that epitomizes many academic researchers' faith in town planning even though, for example, some chapters actually find that planning regulations in Florida may have increased rather than decreased urban sprawl. Moreover, some of their attitudes are invariably and uncritically accepted as truisms only because they have become part of the planning gospel. A case in point is the assumed infallibility of compact development—after all, this is often referred to in the literature as 'smart' growth. Yet just like being 'gay' does not necessarily mean that one is, at least in the old-fashioned sense of the word, growth that is smart does not necessarily mean that it is, at least in the layperson's sense of the word. Appropriation of a label does not always make that label correct.

Yet it is precisely these label-based, group delusions that prevent contributors to this book from seeing any need to make suggestions about how land-use planning could be improved. The book does not fully discuss, for instance, better ways to grant tax concessions to those who build houses close to employment opportunities, improved incentives for developers to preserve environmentally sensitive areas, or more incisive provision of innovative public transit systems that actually entice motorized commuters to forsake their cars, all in the spirit of Levitt and Dubner's (2006) argument that people respond much better to incentives than to regulations. The silence in the absence of suggestions is deafening.

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Reference

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Managing business complexity: discovering strategic solutions with agent-based modeling and simulation by M J North, C M Macal; Oxford University Press, Oxford, 2007, 328 pages, £52.00 (US\$95.00) ISBN 9780195172119

Handbook of research on nature-inspired computing for economics and management edited by J-P Rennard; Idea Group Publishing, Hershey, PA, 2006, 989 pages, \$350.00 (£210.00) ISBN 9781591409847

Agent-based modelling (ABM) is at the forefront of computer modelling research focusing on the individual or groups of individuals and how these individuals interact to form emergent structures. In particular, the ABM paradigm is becoming an increasingly used technique to study cities and regions. The two books *Managing Business Complexity: Discovering Strategic Solutions with Agent-based Modelling and Simulation* by Michael North and Charles Macal and the *Handbook of Research on Nature-inspired Computing for Economics and Management* edited by Jean-Phillipe Rennard aim at outlining the fundamental concepts and principles of ABM supplemented with numerous applications. While there are many books relating to ABM, I was interested in reading these two books to see if they could successfully address the diverse literature pertaining to the rapidly growing field of ABM in a concise and simple way thus aiding understanding of ABM and their wider applications.

Managing Business Complexity has two goals. The first is to suggest to the reader how to think about agents, and the second is to teach the reader how to use agents in agent-based models and simulations to assist decision making. The book provides fifteen well-written chapters that together provide a consistent vocabulary for ABM, and this is something which is often missing from edited books. North and Macal claim the book offers a complete resource for agent-based modelling and simulation (ABMS). While this is a strong claim, they do go some way to meeting it. They tackle questions ranging from who needs agents, what are agents, where are agent applications being used, to when is it appropriate to use ABM, why agents are useful, and how one should think of agents. The ABMS paradigm is outlined, detailing the main approaches to implementing computational agents while relating it to several fields of knowledge (eg complexity science and network science) and technological advances. The authors emphasise the unique capabilities of ABMS and set out how it can be applied effectively and used alongside more traditional modelling approaches (a process that the authors term 'blended modelling') in order to further our understanding of systems of interest.

The book surveys a range of implementation environments that can be used to carry out ABMS, ranging from simple spreadsheets (eg Excel), to prototyping environments (eg NetLogo), to computational mathematics systems (eg MATLAB). These examples highlight how ABMS can be performed on standard office computers, along with presenting participatory ABMS (eg using people to act as agents) and large-scale ABMS and toolkits that support such development (eg Swarm).

The later chapters address some of the more challenging aspects of ABM, specifically of verification and validation, identifying which sorts of data should be fed into agent-based models and how the appropriate inputs for ABMS can be found. The authors discuss data collection and quality issues, and suggest ways of interpreting the outputs of an agent-based model through recording and analysing results. They also illustrate how these results can be used to make an impact, to supply useful information, and to support decision making. The penultimate chapter discusses how techniques for testing models, methods of data preparation, and approaches to using and communicating model results can be managed within organisations and suggests the roles that various protagonists might play in these processes. Throughout, there is an emphasis upon the need to formalise the research problem, the considerations that need to be taken into account in the design of an agent-based model, and the processes that need to be accommodated in order to accomplish this goal. Overall the book provides a good overview of ABMS, illustrated with many example applications devised by the authors themselves in order to solve real-world problems.

The authors write that the intended audiences for this book are managers, analysts, and software developers in business and government. This should not put off other readers from other fields, as this book provides a useful source of reference for anyone interested in ABM, no matter how much they know. For those who want to acquaint themselves with ABM this

book is an easy way to do so. For those who already have a basic understanding, this book will develop it. Additionally, it is reasonably priced at £52.00 (\$95.00). However, I do have one criticism about this book. While there is a host of illustrative examples (including tables and figures) to support the discussion, the book neglects to link them to the actual code and models that I believe would further help the readers improve their understanding and learning about ABMS.

The second book, *Handbook of Research on Nature-inspired Computing for Economics and Management*, is edited by Rennard. In many ways this complements the first book by highlighting how computational modelling is being utilized in a diverse set of fields. However, unlike the book by North and Macal, it is not intended to be a beginner's guide to modelling. Rather it presents more of a reference to the current state-of-the-art research topics in the field of nature-inspired computing from a wide range of disciplines, ranging from social sciences to operations research. The two edited volumes (comprising fifty-eight papers in total) together provide a concise, single-source reference guide to the varied role of nature-inspired computing, the more valuable as these topics and applications tend to be published in a diverse range of journals.

The main thread linking these papers is, to quote Eric Bonabeau, "human behaviour, individual or collective, and how it can be understood, modelled, approximated, or even enhanced using a range of techniques and approaches from 'complexity science' " (page xxviii). Such techniques include evolutionary algorithms swarm intelligence, social networks, and ABM. Many of these are also discussed in the book reviewed above and both illustrate how a variety of approaches can help advance science in a wide set of domains.

The book is split into ten sections. The first section explains and explores nature-inspired computing, specifically the approach of artificiality and simulation in the social sciences, by providing details on different modelling approaches and applications based on social insects—ants, bees, wasps, and termites—and how this has inspired social applications using analogies such as the use of pheromone trails for route planning. A short introduction to stochastic optimization algorithms such as simulated annealing, and evolutionary algorithms based upon neural networks and genetic programming is then provided, thus setting the scene for the following sections and example applications.

The sections include social modelling, with a particularly insightful paper by Robert Axelrod entitled "Simulation in the social sciences", which offers advice for the conduct of simulation research, focusing on the programming of a simulation model, analyzing the results, sharing the results, and replicating other people's simulations through use of source code or links to the code. While many of the other papers adhere to the spirit of this approach, providing links to actual code and data, or say that the code is available from the author upon request—therefore allowing for scientific replication and learning—this is not invariably the case.

The use of agents to explore economics (ie agent-based computational economics) is presented together with examples of where agent-based models have been used in economics. These include how agents can learn through the use of genetic algorithms, the use of neural networks for processing activities of firms, or use of agent-based models to explore the competitive advantages of geographical clusters. Other sections detail how nature-inspired computing can be used in design and manufacturing, particularly through use of evolutionary algorithms applied to design and project management. Other parts of the book explore operations and supply-chain management issues, specifically focusing upon how evolutionary computation can be used to resolve operational and supply-chain problems. Applications then illustrate how information systems can be informed by nature-inspired computing, focusing on knowledge gathering. Commercial and negotiation issues are also explored, as with the use of agents to study auctions through using genetic algorithms as a way for developing bidder strategies. Other examples use agents to study price wars between different brands or product propagation in marketing. In finance, house prices and stock markets are explored using evolutionary computing.

Unfortunately, I have several criticisms about this book. First, while it provides many example applications, it does not provide many spatially explicit examples. Second, while these applications provide a valuable insight into nature-inspired computing across many domains,

the papers do not flow particularly well—although in fairness this is to be expected from such a comprehensive book, assembled from the contributions of numerous authors. Third, while key terms are presented at the end of most papers, helping to clarify terminology used throughout the book and within each paper, this is not invariably the case. The fourth criticism is the cost: at £210.00 (\$350.00) this is an expensive reference book. Nevertheless, do not let these criticisms detract from the achievements of the book. Each paper adds knowledge to how nature-inspired computing can help us to tackle complex problems in a wide range of applications in economics and management.

As stated at the beginning of this review, I was interested in identifying whether these books could present clearly the diverse literature pertaining to ABM. Both books provide a good introduction and source of references pertaining to the current state of the art of ABM. Both of these books mainly highlight applications and examples from business and economics with relatively few spatially explicit examples. Much of this knowledge is inspired from a wide range of disciplines, commonly linked through complexity research, and provides a way of fostering cross-disciplinary research.

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Geocoding health data: the use of geographic codes in cancer prevention and control, research and practice edited by G Rushton, M P Armstrong, J Gittler, B R Greene; CRC Press, Boca Raton, FL, 2007, 256 pages, \$99.95 (£56.99) ISBN 9780849384196

Geographical analysis has become an integral part of epidemiological and public health service research. Judging from papers read at two recent conferences focusing upon Spatial Epidemiology (2006) and Medical Geography (2007), this area has over a short period of time moved to some very advanced topics, when compared with papers that just a few years ago would focus upon the usefulness of GIS primitives and basic map algebra (see Higgs and Gould, 2001; Twigg, 1989).

Geocoding Health Data by Gerard Rushton et al is the type of book that is much needed to fill the gap between the founding principles and the proliferation of advanced applications of GIS. Their aim is to present a book for the public health professional “[not] well versed in the characteristics and availability of geospatial data and in the methods used to link different types of geographical identifiers” (page 2). As an edited collection of papers it provides many answers for technical problems in the geocoding, matching, and analysis of cancer registry data in the USA. The methods and discussions of ethical and legal aspects would also be of interest to researchers working with microdata in other areas. The detailed description of the US framework for collecting and maintaining cancer registry data as well as a geographical base file may also be of interest for those designing similar systems elsewhere.

What are the highs and lows of this book? It is slightly let down by the conference proceedings format that often suggests a loosely connected sequence of papers, ephemeral in nature, overpriced, and, worse still, underdisseminated. At the same time, however, this book contains the type of valuable working knowledge that regrettably does not get published very often. It may also be said that it is tightly structured, so that the chapters in effect become largely complementary. Maps and aerial photography are used very successfully in the chapter by Marc Armstrong and Chetan Tiwari to explain problems of accuracy in geocoding (chapter 2). The chapter by Kirsten Beyer et al on US postal ZIP codes is also very clear in its description of the pitfalls that in many cases also apply more generally to other research based on postal geographies (chapter 3). The adaptive spatial filters (and software) for exploratory spatial data analysis of cancer incidences present a refreshing new take on the change of support problem (COSP). This area of research is of course particularly interesting for those working with very unevenly distributed populations. Some while ago, the State of Iowa provided the spatial analysis community with one of the most renowned examples of the modifiable areal unit problem (Openshaw and Taylor, 1979); this now looks set to be joined by one for COSP too.

Francis Boscoe raises some pertinent issues about record matching (chapter 5) and provides some interesting examples of how record linkage can make use of geographic imputation alongside multiple attribute record linkage. There have in recent years been some developments in this area (see Christen, 2008; Schnell et al, 2004), and it will be interesting to see how these tools will be assimilated into health research. Lance Waller has been given the difficult task to write a chapter about spatial statistics for a declared nonspecialist audience. In my opinion readers would, in this case, be better off going straight to his and Carol Gotway's excellent *Applied Spatial Statistics for Public Health Data* (Waller and Gotway, 2004).

Geocoding Health Data addresses essential methodological aspects of health microdata analysis and would be a valuable addition to libraries in academic and public health institutions.

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Sustainability and communities of place edited by C A Maida; Berghahn Books, Oxford, 2007, 261 pages, £45.00 cloth (US\$75.00) ISBN 9781845450168

As a volume in the Berghahn Books series—*Studies in Environmental Anthropology and Ethnobiology*—it might be assumed that this book is aimed at a specialist audience. On the contrary, however, the themes and analyses of the studies in this edited collection should appeal to anyone interested in how local communities engage with the thorny topic of sustainable development.

The volume provides eight local case studies in total, ranging across locations as diverse as Brazil, the Philippines, and Ghana, but with a strong emphasis on the USA (covering communities in Alaska, Kansas, California, Minneapolis, and Texas). In addition, there are two broader national studies of aboriginal land rights in Australia and the position of the Roma people in Hungary. These chapters are topped and tailed by a rather rudimentary introduction and two broader analyses of sustainability and globalisation.

As might be expected from chapters drawing on fieldwork in such diverse locations, the issues addressed touch on very different dimensions of sustainability. But across these, four themes can be identified. Interestingly, they can all be discussed across the conventional distinctions between developed and less developed, between rural and urban.

One theme is the way in which social capital is built and how it then operates within local communities. The fact that most of the case studies involve quite small populations, often isolated by geographical features or space, enables boundaries to be drawn around these communities and this eases the use of the social capital concept. Thus the semi-island location of Port Aransas in Texas provides an ideal locale for a social capital study. Yet the Minneapolis

local sustainability indicators project shows that the concept can be applied successfully in other contexts too.

Another theme emphasised in several case studies is that of the sustainability of local agriculture or food production industries. These are grappling with what it means to describe such activities as sustainable, a highly important topic given the scale and range of the food industry within a globalised world. The interface between agriculture and the meat packaging industry in Kansas with water resources is one example; the creolisation of local food trade in Accra, Ghana is another.

The role of institutional arrangements is another area examined, coming to the fore in several cases, with detailed discussion of property rights and contractual arrangements as well as community governance institutions. This is part of a more general trend recognising institutional design as central to the pursuit of sustainability. I found the account of the Alaskan Native Claims Settlements Act of 1971 particularly fascinating, with its story of how specific corporations were set up to provide for native Alaskan involvement in local resource exploitation and how these failed.

Finally, many of the cases explicitly address the environmental and social justice aspects of sustainability, with consideration of how marginalised groups are treated in terms of access to environmental resources and services, and protection from environmental harms. It is almost invidious to identify one of these studies as particularly interesting, but for Europeans, the appalling treatment of the Roma, which continues to this day, is too readily forgotten.

Where I would perhaps register some disappointment is in the lack of anything really distinctive in the methodological approach underpinning these case studies. The collection left me without a clear sense of how environmental anthropology or ethnobiology can make a unique contribution to our understanding of how local sustainability can be fostered. I would have welcomed some more discussion of the conceptual boundaries between these disciplines and the contributions arising from geography, environmental sociology, and environmental planning, say. It is generally a good thing when disciplinary boundaries are breached or overcome but, in this case, some mapping of those boundaries would have added to the understanding of the multifaceted concept of local sustainability provided in this engaging book.

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Planning models edited by A Reggiani, K Button, P Nijkamp; Edward Elgar, Cheltenham, Glos, 2007, 258 pages, £140.00 cloth (US \$240.00) ISBN 9781845420222

This is volume 2 in the *Classics in Planning Series*, a series in which a volume on social planning has already been published. At present, there are six further titles promised, to be edited by Kenneth Button and Peter Nijkamp, assisted by one or two other editors of repute in the relevant fields. The question arises whether, when papers are selected, they are presented in the most appropriate volume, given the inevitable degree of overlap between the volumes (for example, one future volume is titled *Urban Planning Models*)? This, of course, is a difficult decision to reach, not least because the majority of the volumes are as yet unpublished so this point can only be noted.

This volume, like the others, consists of a number of articles previously published in various journals. These are divided here into separate sections: location models, spatial interaction models, micro–macro models, dynamic models, and policy planning models. Each section has between four and six papers and together they have been chosen to best represent these topic areas. Any judgment on this process has to consider whether the chosen papers are suitable and whether papers that have not been included would have been more suitable than those that are. This, of course, is a notoriously difficult, and probably subjective, judgment, so I will content myself with largely confining my attention to the works actually included. However, critical comments on these papers are questionable as all have been previously published in reputable journals; the *Papers of the Regional Science Association*, for example, feature heavily. Little room is left for criticism of the individual content.

The editors' introduction provides an overview of the volume and in this they implicitly justify the choice of papers included. Although the selection at first sight appears very esoteric, the introduction claims to "focus... on the types of mathematical models that have been developed by social scientists in their efforts to explain... spatial location patterns" (page xvi). Authors such as John Roy, Manfred Fischer, Peter Nijkamp, Jean-Claude Thill, and Georgio Leonardi feature more than once as authors from the last forty years, but there is no place to directly reflect on the contributions, in no particular order, of Walter Isard, Alan Wilson, Tony Smith, Moss Madden, Peter Batey, Stan Openshaw, and others. In the case of Isard, his contributions are covered by Morton O'Kelly in the location modelling section where an overview of Isard's works on spatial interaction modelling is provided from a paper that first appeared in the *Journal of Geographical Systems*. The context from which Isard's work emerged is described as well as the works influenced by it. The contribution of *Methods in Regional Analysis* is seen to be important.

The classic paper by Eric Sheppard, that first appeared in *Geographical Analysis*, is included in the spatial interaction modelling section. This reviews the theoretical underpinnings of gravity models and refers to the work of Wilson as well as Isard, Huw Williams, Geoff Hyman, and John Neidercorn and Burley Bechdolt. It begins by posing the question: "If a researcher wishes to employ the gravity model and exploit its mathematical simplicity, what must be assumed about individual interactions in space?" (page 124). Sheppard considers deterministic utility models and choice-theoretical approaches before turning to stochastic utility theory. He concludes that it may be necessary to return to "intervening or 'extra-limitory' opportunities models" (page 136).

In the same section a paper by Roy and Thill provides a very useful guide to postgraduate reading, with an overview of the first development of spatial interaction models and the subsequent progress involving the inclusion of geographical advances—including activities as generators of travel, time-geography, recognition of spatial interdependencies, and neuro-computing. In particular they note the contributions of Tony Smith. Also in this section is a paper by Fischer that succinctly describes the moves from aggregate to disaggregate models, from deterministic to probabilistic models, and from static to dynamic views.

The dynamic models section has an interesting paper by Mike Batty and Paul Longley from *Area*. This features their work on fractals and contains an historical comparative static application to Cardiff's boundary. It importantly concludes that fractal dimensions vary with scale. Other papers examined by this reviewer were Kieran Donaghy's consideration of why little work had emerged as a result of Isard and Liossatos's *Spatial Dynamics and Optimal Time – Space Development*; Paul Krugman's advocacy that economists take note of developments in economic geography and for the geographers to learn from economists; and Albert-László Barabási and Réka Albert's paper in *Science*, marred by a tiny font size, on the development of large-scale networks and self-organizing phenomena.

This overview of a few of the papers cannot do justice to all thirty-two papers in the volume, but I hope it has provided the reader of this review with a helpful, albeit partial, insight. A final issue concerns pricing. The volume retails at £140 and \$240, which, call me old-fashioned, seems expensive and likely to deter individual purchase. In addition, both the typeface and pagination are retained from the originals, which is a shame. Besides, it may be that no individual has a demand for the total contents of the work, only wishing to consult the odd paper. In both these cases, the book is (literally) bound for library purchase. Then the question arises: are the original papers more accessible in electronic form in this downloadable age than in this volume? The answer to this depends on the contribution of this volume as a guide to the literature which in turn depends upon the introduction. My judgment on that is given above—it tends to be too esoteric for the uninitiated.

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The cost of land use decisions: applying transaction cost economics to planning and development

by E Buitelaar; Blackwell, Oxford, 2007, 208 pages, £52.50 paper (US \$124.99) ISBN 9781405151238

As the subtitle indicates, Edwin Buitelaar's book is about the role of transaction costs in property development and land-use planning—an area, he says, more purist versions of mainstream economics tend to ignore. In extreme cases, neoclassical economists can assume markets exist and that sales and purchases, bargains, and transactions occur more or less costlessly, that all transactions are like buying a newspaper from a newsvendor.

But the cost of carrying out many types of transactions can be high. To take a simple everyday example: car parking. To park a car in the road in a town centre, money will usually have to be put in a parking meter. From the car driver's point of view the sole transaction cost lies in ensuring an adequate supply of coins. But from the viewpoint of the local parking authority, the transaction costs are much higher—meters have to be provided and maintained, cash has to be collected from them, and wardens have to patrol them. But the balance of transaction costs can be altered. In central London, Westminster council has introduced pay-by-phone parking. To park, the car driver now needs no cash but does have to have a mobile phone and a credit card, be able to follow recorded spoken instructions in English, and spend between seven and eight minutes on the phone. The motorists' transaction costs are now substantial, but Westminster's are considerably reduced, particularly as there is now no cash to be stolen from meters.

One branch of transaction cost theory considered, for example by Webster and Lai (2003), would suggest that there is an incentive to minimise transaction costs and that, therefore, there will be a reduction in costs. But the example given above demonstrates the flaw in this argument. If one of the parties to a transaction is in a monopoly position, that party has little incentive to reduce the transaction costs of the other party. So, if you want to park in Westminster you do so according to Westminster's rules; and Westminster has vastly increased transaction costs in total but reduced them for itself.

I have used the example of parking charges because it provides a straightforward example of transaction costs. But the trouble is that most of the transaction costs incurred in property development are not of this type. Economists working outside of the mainstream, such as myself, would argue that the costs arise largely because the land and property market is not the perfect market of neoclassical assumptions, but rather is inefficient and imperfect. Therefore, resources have to be expended in, say, finding sites, putting them together, bargaining prices, and so on (Evans, 2004a).

Moreover, these transaction costs are largely culturally determined, so that if you want to develop land in, for example, Bristol, you have to do it within the English system of land and property purchase, the English system of land-use planning, and you have to deal with the local planning authority of Bristol. The same monopolistic element exists in that you can only avoid the transaction costs inherent in this location by choosing another location.

The three very interesting empirical studies at the heart of Buitelaar's book exemplify this. The studies are of medium-sized developments in Nijmegen, Bristol, and Houston, Texas. The studies set out in some considerable depth the development process in each case and the interactions and negotiations with the local planners. Readers will not be surprised to discover that the process is simplest and smoothest in Houston. British readers may be surprised to learn of the degree of involvement in the process of the Dutch authorities in Nijmegen, but will not be surprised to discover the relative politicisation of the process in Bristol.

There is, of course, a problem with the analysis of the costs of development in relation to planning, a problem which Buitelaar acknowledges in his final chapter. We know that some of this expenditure is a dead weight loss (Evans, 2004b), and it would be no surprise to learn that this dead weight might be large. A government is in a monopolistic situation, and increased transaction costs will not usually drive a development elsewhere. But this expenditure is intended to ensure a better environment, and one presumes that it does have this result. Sometimes it may be obvious that the costs will be excessive. The many years during which Heathrow's Terminal 5 was bogged down in the planning system is only the most egregious example.

Thus Buitelaar in the early chapters sets out the nature of transaction costs, before analysing the three developments and setting out the transaction costs over four categories: land exchange; making a land-use plan; reaching agreement between developer and local authority; and obtaining planning permission. But the lists are not lists of actual costs, only lists of the activities and the time that each takes. Despite his exhaustive work he cannot put values on these costs.

So that exercise does not in the end get us very far. We know that there are transaction costs, and that they may be substantial. But most of these costs are incurred not just to ensure that a transaction takes place, as in the earlier parking example, but to try to ensure that the development is better than it might be. So transaction costs are lower in Houston but, as Buitelaar implies, most Europeans, and probably most Americans, would accept that the Bristol or Nijmegen developments are a better part of the urban environment.

Certainly the identification of transaction costs is difficult and it is to his credit that Buitelaar achieves what he does. And certainly these costs should be reduced. But the allocation of transaction costs between dead weight loss and environmental enhancement is well nigh impossible.

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Planning on the edge: the context for planning at the rural – urban fringe by N Gallent, J Andersson, M Bianconi; Routledge, London, 2006, 232 pages, £79.00 cloth, £31.99 paper (US \$140.00, \$56.00) ISBN 9780415375719, 9780415402903

Urban sprawl in Europe: landscapes, land-use change and policy by C Couch, L Leontidou, G Petschel-Held; Blackwell, Oxford, 2007, 296 pages, £62.50 (US \$124.99, €84.40) ISBN 9781405139175

These two books are related to each other by virtue of dealing with the edge of the city and by focusing on the European rather than the much more fully documented North American context. They also overlap in their interest in the interface between the urban and the rural, with particular attention being given to landscape, land-use, and planning issues. They are both based on research projects carried out for policy-related clients: England's Countryside Agency in the case of *Planning on the Edge*, and the European Commission's Framework V 'City of the Future' research programme in the case of *Urban Sprawl in Europe*. Moreover, they both adopt an essentially qualitative approach, they both contain case studies, and they seem to concur in regarding this geographical zone as one of great diversity and complexity. It therefore comes as something of a surprise to find the two books to be very different.

Planning on the Edge is coauthored by three members of The Bartlett School of Planning in London, and it is written seamlessly as a critique of the way in which the rural–urban fringe has been treated in England in the past and as a discussion of the way in which things seem to be developing now. Its starting point is the neglect of the fringe by planners and policy makers, who have been much more concerned to keep development in the countryside to a minimum and to tidy up urban areas as far as possible. The main role of the fringe has been to act as a buffer both between one urban area and another, in which task its role has been reinforced by green belt status, and between town and country, keeping well apart the land where building should occur and the land where it should not. This blocking role has led to the fringe not receiving the same degree of careful planning attention that has gone into the shaping of both town and country. At the same time, almost unnoticed, it has taken on the role of receptacle for all the types of land-use activity that cannot be accommodated within a tidy and compact townscape and should not be allowed anywhere near England's real countryside.

As such, the fringe has a considerable dynamic of its own that has not been directed by a dedicated planning vision, with the result that much of it is not only diverse in nature but also extremely messy in appearance when viewed through the traditional spectacles of land-use planning.

But it would appear that things are beginning to change for the rural–urban fringe and—despite the critique of the current situation—possibly not for the better, according to the authors. In the first place, the threat of urban development looms larger now than at any point in the last seventy years, as the government wrestles with where to locate three million new homes and wants to demonstrate its environmental credentials by concentrating these in or near to existing urban areas in order to minimise both their carbon footprint and their countryside impact. Second, there is now widespread recognition of the lack of positive vision for the green belt and the fringe more generally, or, in the authors' words “very suddenly—almost overnight—it has been decided that the fringe must change: it must be planned, ... it must be tidied, ... essentially it must cease to be ‘fringe’” (page 212).

There would seem to be three options: let the fringe carry on filling up with urban detritus; zone out the fringe and create a ring of parkland; or seek to understand the processes that have made it what it is today and then work with them organically, so as to promote the better qualities of the fringe and rein back the processes that threaten it. No guesses are needed to identify the authors' preference. Their book is, in fact, very largely a celebration of the fringe as it now exists, though mindful of the need for some change. The core of the book is an exposition of the multiple roles that the fringe generally performs well, grouped under the five borrowed headings of “Historic Fringe”, “Aesthetic Fringe”, “Economic Fringe”, “Sociocultural Fringe”, and “Ecological Fringe”. This provides the context for the title of the book, along with chapters on the making of the English rural–urban fringe, on land-use planning and containment, and on planning reform and the spatial agenda. The latter comes as a bit of a disappointment in that the authors admit here that, rather than providing a blueprint for planning the fringe, they use their treatment of the multiple fringes as a context for identifying “the principles that might underpin future policy intervention” (page 181), these being couched in the very general terms of leadership, partnership, integrated management, and inclusion. Nevertheless, there are enough examples of good practice scatter through the book to show the way their thinking is moving. Indeed, the whole book makes highly compelling and thought-provoking reading, albeit tinged in my case with the depressing feeling that even this polemic will not be sufficient to alter some deeply held, and ultimately stultifying, prejudices about what England should look like.

England is just one of seven countries that form the laboratory for *Urban Sprawl in Europe*, the others being Austria, Germany, Greece, Poland, Slovenia, and Sweden. This book is rooted in the observation that “urban sprawl has been a matter of concern to planners for many years” (page xvii), while “climate change ... provided the initial driving force” behind it (page xviii). However, given the emphasis on America in the literature on suburbia and urban sprawl, there is seen to be a strong case for an examination of the European scene, where—with the notable exception of the UK—city living has traditionally been highly prized and sprawl has moved up the policy agenda only in the last few years. The data-based overview of forty-five conurbations in chapter 2 provides ample evidence of the timeliness of this increased salience, with thirty nine of them being found to be experiencing sprawl. The next four chapters, built around case-study work on one city from each country, are designed to show that there is not a single experience of this, as reflected in the chapter titles: “Infrastructure-related Urban Sprawl” (Athens), “Sprawl in the Post-Socialist City” (Leipzig, Ljubljana, and Warsaw), “Decline and Sprawl” (Leipzig again, and Liverpool), and “No Place Like Second Home” (Stockholm and Vienna). Then, based on work led by Gerhard Petschel-Held, to whom the surviving editors dedicate this book on account of his death shortly after the completion of the main report, a lengthy chapter 7 models urban sprawl using the sophisticated methodology of qualitative differential equations based on actor types, attractivity dimensions, and intervention goals. The authors round off with a review of policy mechanisms for controlling urban sprawl and a concluding chapter in which they identify three broad sets of dynamics behind sprawl (lifestyle driven, infrastructure related, and state regulated), contrast the northern

and southern cultures of urbanism in Europe, and speculate on the possibility of convergence between the two, with reurbanisation tendencies observed to be fuelling suggestions of the “Mediterraneanization of the North” (page 264).

A great wealth of research results has thus been made available in this book. However, it does not provide a very coherent or satisfying read. While the editors “have tried to produce a text that tells one story” (page xix), the whole is no more than the sum of its separately authored chapters. Much is made of the research term’s strength in being drawn from seven different disciplinary backgrounds but, as the editors freely admit, the great diversity that is apparent from reading the book stems from this cause as much as from the diversity in the phenomenon under study. There is also some inconsistency in the portrayal of the types of sprawl, with the four archetypes of chapters 3–6 not squaring neatly with the three broad sets of dynamics presented later, or with the earlier three-fold classification of the seven case-study cities based on sprawl and growth. The double treatment of the Leipzig case, with no cross-referencing between chapters 4 and 5, also seems strange. Finally, while the focus on understanding sprawl is a clear strength of the book, it is frustrating that climate change and the implications of sprawl for this issue are not revisited at the end of the book.

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City and environment by C G Boone, A Modarres; Temple University Press, Philadelphia, PA, 2006, 221 pages, \$74.50 cloth, \$24.95 paper (£52.00, £15.99) ISBN 9781592132836, 9781592132843

The relationship between urbanization and nature is a fundamental one and, in some significant ways, it lies at the core of modernity—that epoch which fundamentally transformed human affairs by irrevocably forcing the global population from rural to urban life. And for some of the same reasons that modernity is now seen as a deeply flawed process, so too our attitudes towards our cities have turned deeply ambivalent. It did not begin that way; as Carl Schorske (1988) points out, cities were initially seen as places of virtue, until the squalor of industrialization prompted the Romantic rejection of urbanization as creating places of vice—places that were unnatural. Most of the discourse within Western (and now global) environmentalism remains essentially antiurban, seeing cities as behemoths that consume raw land while casting a shadow of pollution and consumption across the natural landscape.

It is an engagement with this assumption that provides the starting point for this interdisciplinary volume from Christopher Boone and Ali Modarres. As they note at the outset, “The city/countryside, urban/rural, human/natural dichotomies are beginning to become blurred ... it may be better to think of urbanness or the attributes that make a place urban, rather than defining strict boundaries between cities and countryside” (pages xi–xii). Throughout the six crisply written chapters, they pursue this pragmatic and evenhanded approach. Chapter 1, “Urban Morphology and the Shaping of an Urban Ideal”, takes an historical overview of the manner in which cities have been planned and built. They necessarily offer a rapid view from space of several millenia of city form, but tease out the key contrasts and make the important point that urban morphology provides a basic yardstick of measurement of the extent to which a city nurtures and offers a particular quality of life to its inhabitants.

Chapter 2, “Population, Urbanization and the Environment”, explores the links between demography and urbanization. This is a complex relationship, and one that continues to shift. At various points in history, cities were, statistically at least, safe places; as commentators such as Friedrich Engels documented, this changed with industrialization. The authors argue that this remains the case, with a low quality of life typifying the American inner cities. However, it is interesting to note that very recent work points to the collapse of life expectancy rates in the US rural counties, which reminds us that even poor cities have a significant edge in terms of providing services, medicine included (Ezzati et al, 2008). Boone and Modarres do return to this very point later on (pages 134–135), and this is one of the strengths of the book, as basic issues are readdressed within different contexts.

In the third chapter, “Feeding Cities that Consume Farmland”, the authors discuss sprawl and the encroachment of the city onto farmland. The chapter has valuable content—it discusses the ecological footprint, and the potential of urban agriculture. It is, though, unfortunate that sprawl is taken to be such an unproblematic concept with uniformly negative outcomes. The huge costs imposed upon the environment by industrial farming are not really explored; nor are the social benefits of bringing cheap land into the housing market, in order to provide affordable homes. Similar debating points are generated in chapter 4, which focuses on “Urban Infrastructure”. Much is rightly made of the impacts of the automobile, but the demand for this technology continues to grow globally. Nor does this have that much to do with urban morphology; for example, the data presented by the authors show that there is not as much variance between US cities in terms of daily auto miles traveled as is often asserted (page 114). Their discussion of fuel substitution has been overtaken by events, which have shown that biofuels are as inefficient and as expensive as most agricultural products. Taken together, these insights might indicate that the real policy choice is to recognize that cities contain cars, and therefore it is necessary to allow fuel costs to rise in order that drivers are forced to use small efficient vehicles—other strategies simply encourage substitutions that produce hybrid SUVs, which solve nothing.

The fifth chapter examines “Healthy Cities and Environmental Justice”. The argument identifies a tension between the manner in which many cities are providing a better environment, such as slightly cleaner air, and the ways in which urban design is charged with contributing to poor health outcomes, such as obesity. This, however, is a classic example of the manner in which cities are blamed for everything bad, including broader social outcomes. The rising rural death rates identified above reflect the same issues of poor diet and declining exercise choices that are pandemic and really have little to do with urban design. It is always asserted that it is impossible to walk in the suburbs, when in fact gated communities with no through-traffic and low speed limits are the perfect environs for exercise. The challenge is thus a public health one, not a design question. This deterministic issue—does design produce “better citizens?”—returns in the sixth chapter, titled “Green Spaces, Green Governance and Urban Planning”, which concludes the book by exploring the relationship between green and brown agendas.

Much of what typically passes for analysis of the urban condition is muddleheaded, precisely because cities are seen as unnatural and therefore antinatural. Boone and Modarres do a good job in trying to renavigate through these debates, taking the issues seriously without pandering to the simplistic environmental position. As this review has shown, there are plenty of topics here that can be debated, but it is a strength of the volume that it produces debate rather than closing it down by reaching constantly for the moral high ground. The authors are to be congratulated for producing an evenhanded treatment that will work well in advanced undergraduate and introductory graduate courses.

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