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Reviews

Two reviews of:

Fluid city: transforming Melbourne's urban waterfront by K Dovey, with L Sandercock, Q Stevens, I Woodcock, S Wood; University of New South Wales Press, Sydney (distributed in the United Kingdom by Routledge), 2004, 277 pages, A $59.95 (£25.00 paper) ISBN 0 415 35923 6

This book illustrates all that is best and worst about contemporary writing in urban studies and planning: 'best' because the theoretical themes about the dynamics of cities and planning are clear and coherent, 'worst' because the case studies are written in such a way that the reader really needs to know the places before sense can be made of the arguments which are developed. Let me elaborate. This is clearly a book that has been put together from a series of vignettes, commentaries, and small projects organized largely by Ken Dovey over the last ten years with his students and colleagues. These focus on understanding how Melbourne has responded to the interlocking themes of industrial restructuring, packaging the city through entertainment, and the wider quest to project itself onto the global stage as a world city. It is rather a well-written set of essays which do succeed in telling the reader what has gone along Melbourne's river waterfront as well as the trials and tribulations of its experiences with docklands redevelopment. The entire discussion is set against the wider frame of thinking about these developments as part and parcel of the contemporary dynamics of city life and political action. It is this that Dovey refers to as 'flows', building on the contemporary language of postmodernism which has imported all kinds of terminologies from the physical sciences, not always very successfully I might add, to describe what is happening in modern societies with respect to global capitalism, local action, and the concern for image and media.

Serious students of fluids and flows know of course that the critical unsolved problems which dominate this field involve turbulence. Dovey uses analogies to flow in a somewhat double-edged way with his case studies reflecting water, rivers, and docks as well as the political turmoil of local politics and the movement of capital for financing large projects. Although widely used by others writing about globalization and dislocation in cities, this does help him paint a picture of continuing political change and media hype which has come to dominate high-profile schemes of central import to Melbourne's planning over the last twenty years. Where I depart from his argument a little is in his assumption that this theoretical language of flows is something that has evolved as cities have become more transient and more changeable. In fact, I think that cities have always been systems far from equilibrium, where flow and change are the watchwords. It is our own blinkered thinking from the mid-20th century that forced us to fail to recognize that cities could never be stable, are ever turbulent, and that their space has always been a space of flows. This is not something new, although our awareness of it, as revealed in this book and many others, has come as something of a revelation to us all.

The reason why I took on this review relates to my second criticism. I read this book as one in which these ideas about fluidity and flow used as analogies for urban change are developed through very specific case studies which in this case are in Melbourne. Like all such commentaries, there is a fine line between theory and practice and in this case, the detail about Melbourne is much greater than the development of postmodern theory that is used to interpret the various planning and design schemes that are revealed. I took on the review not because I know very much about this kind of theory, although it is hardly rocket science, but because I had recently spent two months in the city (early 2004) and had visited many of the places and projects discussed in this book. Moreover I spent three months there some twenty-two years ago before many of these projects began, in an earlier age so-to-speak, and thus I have some minimal perspective on how the city has and continues to change. The riverfront developments which began in the mid to late 1980s were largely entertainment focused and were based on opening up the Yarra river to such uses while the docklands developments which started a little later reflect many of the same kinds of development that have occurred

in many Western cities as they have lost their maritime functions and as the world has changed towards containerization and the movement of goods through other modes of transport.

The book is divided into three major sections, the first two dealing with the riverfront development and then docklands. The last section is rather short in that it deals with inner-city development along Melbourne's upper Bay and as such is probably more to do with inner-city housing than the kinds of high-profile schemes that have dominated the waterfront and the docklands themselves. Dovey and his colleagues do a very good job in describing what went on from the mid-1980s to the modern day. They show how the various developments along the river and in the docklands were continually frustrated and changed through political actions and how these schemes became the political whipping boys as well as the electoral carrots in the superficially stable but underlying vicious turmoil of Victorian State politics. Most of the book relates design to these politics. Not much is said about cost and sustainability of the various schemes but the authors do succeed in giving the reader a good sense of how design relates to politics and vice versa. In my own view, the riverfront, notwithstanding the debacle over the casino, appears to have been rather successful in terms of its current use and design while the dockland schemes have been a disaster. Earlier last year, each day I drove out from central Melbourne towards Geelong to the west through the docklands and I can only say that this area is currently an uncoordinated mess. The biggest problems it now faces are with respect to the poor-quality design of what are yuppie housing developments spread around the area in an ad hoc manner. What will happen to these when the housing market crashes is anybody's guess but what I think the Melbourne experience reinforces is what we know from the West in general: that most dockland schemes have led to low-quality private housing built for middle and upper income singles and empty nesters and that the only one that has been successful in any sense is the London Docklands—and that is because the London Docklands is London's second central business district, the essential safety valve for the financial quarter—the City—which has kept London vibrant. There was never such a possibility in Melbourne.

There is no doubt that the kinds of schemes discussed in this book are those that have been key to Melbourne's planning over the last twenty years. But in terms of the sheer scale of physical development in the city, it could be argued that there has been far greater change elsewhere. The continuing love–hate debate over the suburbs continues to rage in the city as, year after year, it grows further outwards. In terms of the actual amount of physical change and the scale of investment, much more has gone into such development than the high-profile projects reviewed here. Transportation has also been a major issue while issues about heritage and conservation also loom large. For my own view, I would like to have seen a little more in this book about this wider context, putting into perspective how these schemes figure within the bigger picture. I would also like to have seen more analysis of what they have meant in terms of people and jobs. I think that the current problems of both the riverfront and the docklands particularly involve what is happening in the housing sector that has become quite important in sustaining their activity. Housing markets continually overreach themselves in Australian cities and the possibilities of very serious busts which will reduce values substantially and lead to negative equity continually figure in the flows that dominate these kinds of schemes. What is also of concern is the relationship between the public and private sectors in financing these schemes. Although noted in this book several times, I did not get much sense of the extent to which public monies underpinned these schemes. What we clearly need for Melbourne as well as many other cities that have and continue to have similar projects is a much clearer analysis of the costs and benefits and of the extent to which our political masters are underpinning the private sector of developers and financial institutions which are central to such schemes.

All in all, this is a useful, readable book. It may seem petty but what I meant at the beginning of this review by the case studies lacking some grounding is that anyone reading this who did not know Melbourne could be forgiven for not having any clue as to the scale of these developments. Maps lack orientation and scale and I believe that the whole discussion could have been enriched with some better maps and graphics that would have set the reader at ease as to where these places were and how big they were. It is a detail, I know, but I believe

that we should be extremely careful in developing theory through case studies and case studies through theory in that we need the most detailed of signposts for readers who find themselves in foreign territory. The short and cogent discussion here in terms of theory is good, but I would have liked more on the case studies and their context. Nevertheless, this is a good book which I hope will be picked up by many people other than those in Australia and Melbourne because I think the case studies and the analysis contained therein are important to all of us involved in understanding and trying to change the contemporary city.

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This book is a 'good read' for the most part—provided you live in Melbourne, Australia. Fortunately, I do. Hence it was a great pleasure to track the more recent sagas of urban design and development along Melbourne's waterfront. Into the bargain I have become better informed about architecture, urban design, public art, theory, practice, professional behavior, and politics. The book achieves this in three parts. Approximately the first 100 pages deal with 'riverscapes' by chronicling development in both the inner-city river precinct and its neighboring Federation Square. The next 100 or so pages similarly treat Melbourne's Docklands. Finally, just 40 pages cover some of the developments along the shores of Port Phillip Bay, including a final chapter of 10 pages that is entitled "Loose ends".

Let us begin with some of the book's minor deficiencies. First, starting with the inexplicably 'reversed' panorama on the front cover, and continued via the many architectural diagrams and models whose location and north points are omitted, the book seems determined to partially disorient the reader. The author's superb photographs of real buildings may compensate slightly, but readers unfamiliar with Melbourne will frequently find it impossible to relate the discussion to actual places. At the risk of being accused of having a low tolerance for ambiguity, surely clear place orientation is better than what is offered here—obfuscation of place identity so as to earn the applause of like-minded architectural commentators.

Second, the theoretical chapters, of which there are two, stand out like the proverbial 'sore thumb'. The first, written with Quentin Stevens, takes a walk along Southbank and waxes lyrical about the symbolism of various designs as the authors perceive it. It is quite entertaining in its way, but surely it is utterly subjective and, therefore, open to considerable dispute which, of course, is never acknowledged. The second, written with Steven Wood as the first author, is even heavier going, albeit mercifully short. Without any evidence for its viability other than its own internal logic, this chapter divides up Dockland's "constructing of desires" into three phases, it invokes neo-Marxist theory as well as concepts such as deterritorialisation–reterritorialisation, power, identity, transcendence, and immanence, and it pays copious homage to like-writing authors such as Deleuze and Guattari.

Yet it is a good bet that people attracted by the cover of this book will be less interested in the abstract and categorical, and more interested in the animate and sensible. Therefore, concepts used by Kim Dovey writing by himself, such as "permeable edges" and "symbolic capital", with their more concrete meaning, should better enhance readers' appreciation of the material discussed. Again, at the risk of being said to lack the intellectual perceptiveness to follow supersensitive design theorists across the bridges that they say they have built from architectural theory to architectural practice, it is surely up to the theoreticians themselves to show they have reached the holy grail of achieving "nothing so practical as a good theory ...". They should never be allowed to obscure the wood of realism by overuse of the trees of abstraction.

Yet the very title of this book, *Fluid Cities*, does just this. The title is an attempt to convey that urban environments are never stable, but the metaphor is mostly instantiated through continual reference to flows of "capital" and of "desire" which apparently "intersect" at places like Docklands. However, desires occur *within* people, and they do not flow anywhere; and capital is stored within banks, wire services, or in the ether of Internet transactions. Nobody ever felt such flows, or picked them up, or held them up to the light to see them better. Therefore, although the flow metaphor seems a glib way of saying what this book wants to say, it will almost certainly lose many readers because it lacks genuine imagery and plausibility.

Moreover, the dominant theoretical stance of this book further contributes to abstraction overshadowing realism. In chapter 1 it is stated that production of “symbolic capital” is architects’ key market niche, and that their avant garde role is necessary to reinvigorate codes of aesthetic taste to prevent mainstream attitudes becoming stale. Well, I think the proletariat might disagree. Few people, apart from architects, visit built-up places just to inspect the latest avant garde fetish. Most people commune far more deeply with more emotionally meaningful ‘designs’, such as parks, gardens, rivers, and natural surroundings, for which Melbourne is famous.

Hence if the Federation Square project had been given over to public participation, rather than designed through a competition between architects, there is a good chance that the blue stone vaults alongside the river would have been demolished, the square depressed downwards several levels and the wonderful southern river bank, with its boat sheds, parks, botanical gardens, and Government House beyond, would have become visually connected to the city at last. Indeed, such a connection could have limped along northwards, through the park between the cathedral and Swanston Walk, not to mention what is left of the City Square, and eventually reach the very centre of Melbourne, at the Town Hall itself.

A depressed Federation Square could also have been directly connected to Southbank, to the ‘aesthetic’ axis of the Sandridge railway and to the struggling concept of a boulevard to Port Melbourne. In turn, this axis might have one day extended through the new Birrarung Marr park on the northern river bank to the sporting precincts in the southeast, to the wonderful Treasury Gardens, Fitzroy Gardens, State Parliament, and State Treasury buildings in the east, and even (notionally) to the Exhibition Building and new museum in the north. What a wonderful opportunity for Melbourne to relate to its parks, gardens, river, civic buildings, and history, all at once, by actually bringing them into the very center of town, via intersecting perpendicular axes, through a pivotal Federation Square.

Instead, we now have an avant garde Federation Square perched on an elevated platform that manages to destroy both axes simultaneously. Undeterred, the designing architects of Federation Square are now much revered, by other architects, and this book is particularly effusive about the meanings and symbolisms of the square, even to the extent of claiming that it is like an Escher drawing in its ability to become something else (page 107). This book seems so dazzled by the architecture profession’s self-proclaimed production of “symbolic capital” that it is blinded to the tragic loss of the potential intersecting axes that would have made the city even more symbolically successful. Worse, it is not pointed out how the architecture profession will eventually claim the design of Federation Square to be an unmitigated success because of its massive visitor numbers, despite a large number of visitors being inevitable for *any* design that houses a visitors’ centre directly across the street from Melbourne’s main railway station.

Therefore, readers’ appreciation of this book is likely to depend on whether they believe that the populace should shape their own environment or whether the self-indulgence of architects, as the purveyors of ‘public art’, should be permitted to get in the way. Despite Dovey’s assertion on page 245 that the “presumed broader knowledge, skill and taste of the professional classes ... cannot stand in for broader public interests ...”, his words elsewhere belie such a belief—he seems to think that the wisdom of designers is factual. Of course, it can never be factual, because designers frequently disagree amongst themselves, and with architecture being not a science, such disputes can never be resolved. The result is that poor Joe and Josephine Public are left at the mercy of which particular designer is currently succeeding in imposing his or her own will upon the shaping of buildings within public places.

If readers are committed social scientists to boot, they will probably also complain that this book offers no revelations of the ‘social’ kind. One hardly needs to be a professional to predict that with state governments crying poor, development processes within unpopulated areas will be dominated by corporate interests, secrecy, a whiff of corruption, overbuilding, and maximized profits. The point is frequently made in the book that it would have been better to have process transparency, public consultation, state profits, and a genuine social mix amongst eventual waterfront residents, but in the current climate of festival cities competing in the global tourism and investment market, and with no residents living nearby to object, such ideals tend to be the inevitable casualties of the new world order of nonplanning mixed with market fundamentalism.

This is why the truncation of part C is so disappointing. Bayside Melbourne is actually populated. Yet, although the book cites instances of where large numbers of local objectors actually did, and continue to, stop some of the worst excesses of overdevelopment, its treatment of resident groundswell movements is sketchy. Everyone knows that, whenever Melbourne suburbanites' local amenity, or real-estate values are threatened, they nearly always mobilize massively against any change, giving rise to such movements as "Save Our Suburbs (SOS)", which is not even mentioned here.

Instead, the book seems to suggest that bayside Melbourne should become a wall of medium/high-density buildings along the complete length of the foreshore, like some sort of scaled-down version of the port or resort in Santos, Brazil. Such a designer solution, it is argued, is better than a market-generated wall of tower blocks that will overshadow and ruin the beach's amenity forever. It is also stated as being better than having local residents inevitably fail to preserve their "unsustainable heritage" of "pockmarked" development (page 241). Worse, any residents' resistance to this inevitable 'flow' towards the designer compromise solution, because such residents resent the design's almost certain pollution, overcrowding, excessive dog walking, and general beach degradation, is labeled as a lack of imagination and an example of Melbournian "provincialism".

Yet no acknowledgement is ever made of the imaginative preservation of existing environments at locations such as Bondi beach in Sydney and in Paris. The author does not seem aware of such outcomes, let alone willing to acknowledge the possibility that groundswell preservationist movements might also succeed in Melbourne's bayside because they are stronger than the force of any theorized, design solution. For that matter, no comparisons are ever made between Melbourne's river precinct and similar precincts around the world, nor between Melbourne's docklands and dockland redevelopments elsewhere. So to the social scientist, the failure of this book to learn from comparable experiences will be its most glaring flaw.

Nevertheless, designers will probably love this book because of the insights it generates. It should serve as an eagerly devoured architecture text for years to come. By contrast, social scientists will probably ignore it, which is a shame given the author's sincerely held intention of bridging the gap between the designer mind set and the planner/social scientist's approach. He is still apparently trying to do this on the very last page, where he lauds transparent community participation in the Habermasian ideal of communicative rationality, but also cautions against the latter's supposed tendency to limit new ideas by fostering reactive rather than affirmative planning decisions. This could result in urban design being controlled by "priests" rather than by "prophets"—the imperative is to unleash the "poets" and "prophets" whilst still subjecting their visions to critical debate.

It is a pity that the truncated part C did not start to explore how this might be achieved. A good start would have been *not* simply to paper over the enormous gulf between the designer and analytical mind sets by declaring that urban design is "multi-disciplinary" (page 248). It would be better to suggest that this gulf needs to be honestly acknowledged before the two disciplines can harmoniously work together, in a spirit of mutual tolerance, outside of universities. Nevertheless, the book still stands as a noble, if partial attempt to further our understanding of urban design processes.

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GIS, environmental modelling and engineering by A Brimicombe; Taylor and Francis, London, 2003, 288 pages, £65.00 cloth, £24.99 paper (US $95.00, $39.95) ISBN 0 415 25922 3, 0 415 25923 1

Since the early days of GIS development, the field of environmental management and monitoring has made a clear contribution both to geographical information systems (GIS) and to geographical information science (GIScience). From Ian McHarg's *Design with Nature* (1969), through Borrough's (1986) *Principles of GIS*, to the successful series of conferences on GIS and Environmental Modelling the challenges of environmental problem solving have pushed forward development and innovation in GIS and GIScience.

Allan Brimicombe's *GIS, Environmental Modelling and Engineering* draws on this legacy and aims to provide a textbook that summarises this vast literature in a digestible form, suitable for "final year undergraduates, postgraduates and professional practitioners" (page 5). This is a challenging endeavour: in order to develop a reliable and well-functioning environmental model within a GIS, the readers must be introduced to a range of conceptual frameworks, methods, and techniques that are based on different domains of knowledge. This is nigh impossible within the limits of 280 pages.

Brimicombe's approach is to provide the readers with three sections: a brief introduction to GIS and GIScience; discussion of modelling in general and environmental modelling in particular; and coverage of the theoretical and practical issues that the modeller should pay attention to when integrating environmental models with GIS.

The first section of the book (chapters 2 and 3) provides a brief introduction to GIS, GIScience, and also to the applications of GIScience to problem-solving, termed here "geo-information engineering". This review is relatively brief, covering the history of GIS, the major data structures used in GIS, the main functionality of GIS, and a review of the main areas of GIScience research.

The second section (chapters 4 and 5) is dedicated to definitions of different modelling frameworks, methods, and techniques. In this section, the book uses landslides and topographic modelling as examples of modelling the real world with various GIS techniques. Within the discussion of environmental models, the book mentions historical processes that have raised environmental awareness and dedicates special attention to environmental impact assessment (EIA). Probably, EIA is the most important process in terms of regular, day-to-day use of environmental models in practice, and deserves special attention. Finally, this section looks at the current interest in sustainable development and mitigation of risks and hazards.

In the third section (chapters 6 – 10), the book turns to case studies, implementation of environmental models, and the challenges of implementing environmental models with a GIS. In chapter 6 several case studies are discussed to demonstrate how environmental models are constructed. The next three chapters cover the difficulties of environmental modelling in GIS: chapter 7 discusses the issues with coupling models with GIS; chapter 8 is dedicated to quality of data and the way error and uncertainty are handled in GIS; and chapter 9 deals with modelling problems, such as scale, cost, and complexity of implementation. Finally, the rather brief chapter 10 deals with the use of models in decisionmaking and concludes the book with the advantages and disadvantages of GIS applications for environmental modelling.

The book tries to meet the significant challenge and cover a lot of ground within its limit of 280 pages, and is full of figures and formulae to illuminate certain issues. Data collection and visualisation are not covered and, although this allows a clearer focus on the modelling process itself, a proper model will not be complete without these elements. Most of the major issues that are required to produce environmental models within GIS are covered here, and Brimicombe's rich experience clearly shows. As such, the book is a useful guide to the core information about the workings of environmental models and their development.

However, the description of most of the topics is brief, and the reader is referred to other sources to extend his or her knowledge about GIS or the modelling of uncertainty. As such, the strength of the book is as introductory material and readers will need to explore the wider literature in order to develop their knowledge fully. Of the topics that suffer from the brevity of the book, the introduction to GIScience and the social and political contexts of environmental modelling stand out: in these two areas, the reader would need background knowledge to understand the material in the book.

All in all, the time is right for an introductory book on GIS and environmental modelling and this book can be used to supplement postgraduate courses on the use of GIS and environmental modelling, as an introduction to the existing literature.

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Landscape simulation modeling: a spatially explicit, dynamic approach edited by R Costanza, A Voinov; Springer, Berlin, 2004, 300 pages, €74.95 (£57.50; US $69.95) ISBN 0 387 00835 7

This book is a much-needed addition to the geospatial modeling literature, providing theoretical and practical information, as well as an Open Source modular software for integrated land-change modeling. The charge of the book is clear from the beginning, and has been echoed in many venues. The authors state that environmental change and our ability to predict and manage it for the future depend on our successful embracing of the spatial components of the environmental/economic system. These linkages are important: spatially articulated modeling at multiple scales has to integrate natural and social sciences and "develop a common framework for understanding linked ecological economic systems" (page 3). This is a tall order, and one that is met very well, but with some variability throughout the book.

The book is divided into two sections. There are four introductory chapters dealing with spatial modeling theory, the mechanics of model creation, and the Open Source model used throughout the book—called Spatial Modeling Environment (SME). The second portion of the book is devoted to eight case studies from around the United States that use the SME model for various modeling scenarios. This format is useful, and provides a logical and cohesive structure to the book.

The introduction gives a good overview of the components of spatial modeling in general, and the SME in particular, including: horizontal fluxes, issues of scaling, aggregation, hierarchy, and the trade-offs between resolution and predictability, and complexity. Spatially articulated models are useful for several reasons: they can handle the necessary complexity of environmental/economic systems, they can be used to examine past environmental/economic system behavior, to examine the possible impacts of management decisions. And the authors make a good argument that modular approaches to spatial modeling convey an additional advantage, in that they engender collaborations between interested parties. For example, later in the book Deal et al use chapter 11 to describe how the hierarchically based modular modeling environment of the SME facilitates collaborative model construction, with teams of specialists working on modules, especially important when linking expertise in population models, epidemiology, and landscape structure. For those interested in the guts of the Open Source program made available via this text, chapter 2 is very detailed and helpful, with language examples and a thorough case study walking the reader through a modeling example. The SME system (comprised of a module translator, code generator, driver, and Java user interface) is designed to work with off-the-shelf graphical modeling tools, and at present has a formal language linkage with STELLA.

SME is a modular modeling environment, using an xml-based language, linking numerous mechanistic modules (for example, a module for soil erosion from a cell, or a population viability analysis model), and allowing feedbacks between modules. The authors make a strong case for reusable software modules, noting their extendibility and flexibility for approaching different cases. To this end, the authors present their existing Library of Hydro-Ecological Modules (LHEM), available via the web, that includes physical, hydrological, nutrient, biological, and detritus modules for SME that are customizable for use by the modeling community. The authors stress that they are not providing a compendium of existing models, but rather are offering flexible, and transparent modules for user adoption. To judge from the case studies provided in the book, this has been a successful approach.

The second part of the book details eight case studies, all of which have employed the SME program. I enjoyed the second part of the book tremendously. The case studies are diverse, multiscale, and compelling in their description of the management problems being tackled. This section of the book is unified by several commonalities across cases. First, each case study begins by describing a pressing environmental management problem to be tackled (for example, loss of wetlands, increased nutrient runoff and eelgrass restoration, endangered species habitat protection, water quality, and disease spread). The management challenges in these chapters are all clearly described and are compelling. Such focus is important. Second, all cases use the SME modeling environment, and all cases share a positive assessment of the benefits of the SME approach for their problem, although some cases are more advanced, with several years' application of the SME model. In addition, the cases discuss

model fundamentals, such as input data constraints, calibration, simulation, verification, and other model mechanics. Finally, the cases end with a discussion of the potential management implications of the results.

Differences between the chapters and case studies are also numerous, as might be expected from a collection of applications that address a range of environments and have been developed over different timescales. There are examples of work that has gone through years of iterations and extensive calibrations (for example, Reyes et al, and Fitz et al have clearly been working with SME for some time); others are fairly preliminary, and the results are only just beginning to suggest more approaches to the researchers. The scale of approach also varies. The SME model environment is raster based, and grid resolutions vary across the case studies, from 1 ha to $100km^2$. This multiscale approach is necessary: landscape processes and changes occur at multiple scales, as does environmental management. Although critically important, I found only some of the case studies adopted truly multiscale analysis, and there was a disproportionate analysis of the possible scale effects associated with choice of native grid cell resolution. Fitz et al (chapter 6) and Voinov et al (chapter 8) explicitly varied their choice of scale and examined model outputs, recognizing the complexity of their study-area watershed. Others simply adopted a native grid resolution based on data availability, or for other reasons. For example, those interested in modeling animal populations (Shapiro et al in chapter 9 deal with endangered passarines, Aycrigg et al in chapter 10 deal with desert tortoise populations, and Deal et al in chapter 11 model disease in fox populations) chose cell size that approximates the target animal's home range, which can affect population analysis results. Deal et al (chapter 11) suggest that there are problems associated with simplification of the population data: they can model only population density, and not individual animals. In their study, 1km resolution was used because it approximates the size of tortoise home range. However, spatial heterogeneity within home range is presumably tremendous, and important. Their model cannot incorporate this. Given the complexity of these models, the authors can be forgiven for not varying input scale of the data. Still, it would be interesting to understand how model results might be affected by choice of cell size. Finally, there are differences with respect to how successful each model was in predicting actual landscape patterns. For example, Reyes et al (chapter 5) achieve good results in their relatively coarse-scale modeling of the habitat changes in LA wetlands, where they use historical habitat maps and climate models. By contrast, Behm et al (chapter 7) report less success in capturing actual eelgrass habitat through modeling.

The promises outlined at the beginning of the book are not universally realized. Most case studies use physical/biological-based modules, and there is little focus on socioeconomic systems. Reyes et al (chapter 5) and Fitz et al (chapter 6) incorporate the human system by simulating different management scenarios, but they do not explicitly include a socioeconomic module in their SME environment. Voinov et al (chapter 8) develop a model environment that links economic and environmental models: however, the economic module is not discussed in this work. That said, the integration of physical and biological process in a spatially articulated modeling environment is of tremendous importance, and the authors should be commended for their efforts here. We can hope that further implementation of socioeconomic drivers to change can be incorporated by them, or by others adopting this system.

A final criticism (a minor one) is that the figures produced by the SME, which are ubiquitous throughout the case studies, are poor in reproduction. Notwithstanding the requirements of black and white graphic production, the visualization capacity of the model could be enhanced. There are extreme problems with some of the figures, especially those that use a graduated scale between two colors, which in black and white means that high and low values are impossible to differentiate. Not all of these figures appear to have color complements on the accompanying CD.

In conclusion, this is a valuable contribution to the literature on dynamic spatial modeling in particular, and integrated land-change research in general. Although collected works with multiple authors and projects can read as if they are forced together, and can be uneven in quality and message, such is not the case with this book. The clearly articulated unifying theme of the importance of spatial modeling for environmental management, and the fact that all

the case studies utilize the same software, make for a well-constructed, compelling, informative, and interesting read. I will certainly evaluate this approach and program for my own work.

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Profiling machines: mapping the personal information economy by G Elmer; MIT Press, Cambridge, MA, 2004, 179 pages, $25.00 (£16.95) ISBN 0 262 05073 0
Surveillance as social sorting: privacy, risk and digital discrimination edited by D Lyon; Routledge, London, 2003, 287 pages, £65.00 cloth, £18.99 paper (US $90.00, $28.95) ISBN 0 415 27872 4, 0 415 27873 2

"It's my impression that these machines may know too damn much", commented Congressman James C Oliver in 1960 regarding the growing trend to computerise data processing by the US government (quoted in Westin, 1967, page 301). Over the following forty years the 'machines'—the databases, transaction log files, itemised billing, and customer relation management systems—of the myriad different organisations that service modern living have come to know vastly more about each of us. And this is rapidly increasing as more interactions and transactions become computer mediated and thus easily captured by the 'machines'.

What are the implications of the undoubted intensification of everyday surveillance of everyone's interests and activities in the last decade? How can the costs and benefits of the proliferation of personalised data profiles be evaluated? As evidenced by these two timely volumes, current analytical approaches to surveillance are not so much focused on the defence of privacy rights but more on documenting how people are being measured, ranked, and judged based on their data profiles. I believe there is a lot of merit to this approach, although it is not a wholly new perspective, as others, such as Gandy (1993), have argued for a political critique of surveillance as a fundamentally discriminatory practice with consequent dangers for the equitable operation of a democratic polity.

Greg Elmer's book *Profiling Machines* sets out to examine critically contemporary technologies and practices of consumer surveillance in terms of tracking new media usage, especially on the Internet. His aim is to understand the politics of profiling by identifying the specific sites "at which human tastes, desires, and opinions are actively solicited or accumulated" (page 17), and where the practices oscillate between seemingly rewarding participation and punishing attempts to elect not to divulge personal information" (page 6). The book opens with a review of profiling in relation to surveillance theories, drawing on poststructuralist ideas from communication and cultural studies. In the second chapter Elmer critiques existing surveillance perspectives and develops his own theory of 'diagrammatic surveillance' which builds from Foucaultian and Deleuzian ideas to "account for both the automation of solicitation technologies and the simulational dimension of demographic mapping" (page 23). Here diagrams are conceptualised not as fixed "moulds", but as "modulating" processes, that "allow us to trace the everyday data economy in which habits, routines, rhythms, and flows are digitized, coded, and diagnosed for the purposes of control" (page 47). I found these open theoretical chapters somewhat dense and heavy-going in parts, but the central thesis on the nature of profiling seems novel and worthy of investigation.

Having set up an interesting theoretical framework, the book then largely fails to deliver substantive insight in the following, more descriptive and empirical chapters. The key weakness is the failure to apply Elmer's diagrammatic theory to explain in detail how these automated solicitations work, who instigates them, what exactly they get in terms of personal data, and how this is then processed and fed back to channel consumer choices. Further, the empirical evidence used provides a very narrow view of consumption activities, with no consideration of profiling in health, education, or financial services for example. Chapter 3, "Consumption in the network age", gives a limited historical review of the automation and digitisation of consumer marketing and retail activities. The following chapter, entitled "Mapping consumer profiles", touches on the significance of geographic referencing of personal data, the emergence of social area classification systems and the role of GIS as a powerful analytical engine in profiling,

but it is all rather sketchy. The potted history of GIS presented is of dubious veracity (page 83). The two case studies (chapters 5 and 6) employed to illustrate the working of diagrammatic surveillance are event marketing by Canadian brewing corporations, and a quite technical examination of the use of 'cookies' on the web to track users. These are not wholly convincing examples, especially given the raft of other contentious consumer-profiling cases that could be considered. The book tails off with a rather weak concluding chapter that fails to round out the analysis or suggest where the project to analyse the politics of profiling should go. Although the book is nicely produced by MIT Press, it is short in length (just 140-odd pages of text with generous margins) and reads rather disjointedly. Much of the material is pieced together from existing published articles and, given the lack of breadth and depth in the empirical analysis, I would not recommend it.

The broad thesis of the second book, *Surveillance as Social Sorting*, edited by David Lyon, is that surveillance systems, as a powerful means of gathering, storing, retrieving, and analysing personal data, are being primarily deployed for the purposes of *automating* the judgment of people. As Lyon asserts in the introduction, "surveillance today sorts people into categories, assigning worth or risk, in ways that have real effects on their life-chances. Deep discrimination occurs, thus making surveillance not merely a matter of personal privacy but of social justice" (page 1). The twelve essays in the volume provide a wide range of case studies which try to support, to varying degrees, the notion of 'social sorting' as discriminatory, based on data profile and software algorithms. The analysis is diverse in approach, as in any edited book, but is in most cases well supported by empirically grounded research. The surveillance domains tackled include workplace surveillance, biometric identification, closed-circuit television (CCTV), genetic profiling, and tracking online activities. Of particular interest to readers of this journal are the ways in which social sorting is operationalised through spatially defined inclusions and exclusions of selected people and groups, detailed best in the chapters by Bennett and colleagues on monitoring mobility within 'intelligent transport systems', and Phillips and Curry's critique of geodemographic systems.

I found the final chapter by Norris particularly useful. He provides a nuanced reading of the panoptic power of video surveillance, contrasting the potential of remote CCTV-mediated suspicion with that of conventional face-to-face social surveillance in public space. Drawing on his empirical work on CCTV practice in the United Kingdom, Norris illustrates persuasively the discriminatory potential of this form of surveillance. Further, he argues that the move from analogue to digital video systems with software for searching and analysing the recordings will greatly enhance the power of the CCTV in sorting people, concluding that "it is the computer—not the camera—that heralds the panopticonization of urban space" (page 278).

Fears of the computer in terms of tracking activities and linking personal data together are not new. Westin's (1967) classic study of privacy, for example, devoted a chapter to the dangers of computerised data surveillance. Beyond the quantitative improvements in efficiency, how exactly does the computer *qualitatively* affect the scope for surveillance, with all its discriminatory implications? Lyon attempts to answer this in his chapter, arguing that computer code facilitates new degrees of searching, matching, and individualised assessment not previously possible, such that all kinds of institutions can apply profiles to whole populations which are increasingly mobile. Software sorting is increasingly necessary for institutions in structuring power relations in ways favourable to them, such that "The gates and barriers that contain, channel, and sort populations and persons have become virtual" (page 14). I think there is still much to be done to expose the power of software—as Lyon acknowledges: "The grammar of codes offers rich veins for social research" (page 26). Yet it is also the case that the social sciences still lack practical ways to understand and theorise the effects of software on people and the everyday production of space.

One point of weakness that I would highlight in this volume is the lack of consideration for the counterarguments, that is the *positive* benefits of social sorting. Although Lyon notes the role of everyday profiling in "permitting new levels of efficiency, productivity, convenience, and comfort that many in the technologically advanced societies take for granted" (page 18), none of the contributions really deals with this 'upside' of the surveillance coin. Yet, for a balanced understanding of contemporary surveillance and profiling, consideration does need to

be given to how these practices enable lower transaction costs and widen choice for many people (McCullagh, 2004). This point aside, *Surveillance as Social Sorting* is an interesting collection. It is well produced and makes a valuable contribution to the burgeoning field of 'surveillance studies'. The breadth of coverage also means this book represents an excellent starting point for those interested in, but unfamiliar with, social science analysis of contemporary surveillance issues.

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Dialogues in urban and regional planning 1 edited by B Stiftel, V Watson; Routledge, London, 2004, 368 pages, £75.00 (US $148.50) ISBN 0 415 34693 2

Dialogues in Urban and Regional Planning 1 brings together a selection of specially chosen essays based on papers presented at World Planning Association international conferences over the last few years. The objective of the collection, which originated at the World Planning Congress in Shanghai in 2001, was to improve entry to 'foreign' scholarship for urban planners working in each of the world's nations and languages and to promote better integration, cross-fertilization, and criticism.

The papers, nominated and chosen by the nine member organizations of the Global Planning Education Association Network (GPEAN) for their outstanding quality and contribution to planning academe, and then further refereed by an international editorial board of which the editors here formed two members, cover a disparate set of topics, grouped under three headings: planning and the economy; environment and conservation; and planning processes and decisionmaking. The papers comprise a wide range of debates. Those on development, for example, include mixed-use development in Canada (Grant), Olympic stadium construction in Sydney (Searle), and market forces and urban space in Buenos Aires (Lombardo et al). Conservation issues addressed are biodiversity in the United Kingdom (Dolman et al), the conflicts between conservation and regeneration in Shanghai (Zhang), and the economic effects on the Amazon (Acselrad). Planning processes contains papers on cultural diversity in Hawaii (Umemoto), participation and planning in Belfast, Jerusalem, and Johannesburg (Bollens) and in Canada (Jamal et al), normative planning theory in a South Africa context (Watson), the use of storytelling to aid mutual understanding (Sandercock), and critical planning theory and power (Mäntysalo). Some of these chapters are authored by internationally recognisable names, although it should be noted that all bar one chapter have been published previously. The work represents quality and one cannot find fault with the thorough editing task that has occurred on several layers to bring together so many nationalities and differing standards and approaches to writing.

This English-language volume is intended to be the first in a biennial series available both in print and electronically that will eventually be translated into additional languages when funds permit. The editors view this edited collection series as a way of overcoming barriers to planning-academe communication across the globe and, partly, to open up windows on parts of the world that are often neglected through publication and case-study work led, invariably, by the West. More particularly, research undertaken by GPEAN suggested that much of the work done by planning scholars is unknown outside their home countries. By bringing together scholarly work from each of the planning association regions in this book, the editors hope that this broad array of work will suggest new models for study and lead scholars to new resources.

These are very laudable sentiments and there may indeed be a case to find alternative ways (a) to generate enhanced worldwide academic dialogue and communication through the published form and (b) to positively discriminate towards countries and academic planning communities which would not normally publish in the European and North American edited international journals. In the context of the UK Research Assessment Exercise, for example, there is a genuine concern about the quality of some outputs reaching journals and a growing danger of publishing but not interacting, of talking but not necessarily listening or responding. The fact that most of these contributions have been published previously does not necessarily matter, as long as the book manages to open up the contributions to parts of the academic community that would not otherwise have been able to gain access to the output, and that it does meet the objective of generating reactions.

It is unfortunate that the editors' high academic drivers, of mutual learning and global research communication, were not matched by the publisher which has taken, perhaps what may be viewed as, a very commercial approach to the work, by publishing *Dialogues* in hardback only and at the exorbitant price of £75. But this, in itself, demonstrates the commercial barriers that academics in the West especially are facing currently in their attempts to achieve research-based dialogue and create fora and frameworks in the interest of academic research. With publishers eager to market and sell books to students, in a book market that appears to be dwindling, it seems easier for academics to get permission to publish textbooks rather than research-based books.

One note of criticism is necessary: although the editors provide an introductory chapter, they do not provide a deeper analytical concluding chapter, nor have they grouped the chapters corresponding to the three themes into appropriate sections. As a result, it appears as though the editors are keeping their fingers crossed about take-up of the ideas and arguments contained in the chapters. If this book has the benefit of realising some greater academic dialogue between different parts of the world on common issues and interests in published format, then it will have succeeded at least at one level. It may appear to be a novel idea today, but one that is undoubtedly worth pursuing.

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