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TO: Jennifer Page, Editorial Assistant

RE: Review of Sustainable Urban Development Reader

FM: Keith Pezzoli, Ph.D.

DT: December 20, 2006

The first edition of Wheeler and Beatley's (2004) Sustainable Urban Development Reader is a very good resource for those interested in the theory and practice of urban sustainability. I think the second edition, based on my reading of their proposal, will be even better. In my opinion, Routledge should support production of the second edition. When the second edition becomes available I will use it next time I have to teach my sustainable development class at the University of California, San Diego (Urban Studies and Planning Program). The notes I provide below follow your reviewer guidelines. I hope my evaluation and suggestions prove useful.

Subject Area

The subject area of the book is still widely taught. In my own university (UC San Diego), the emphasis on sustainability has in fact become increasingly important over the past several years. Indeed, UCSD's Chancellor recently approved the creation of a new *Environment and Sustainability Initiative* (ESI). One of the fundamental aims of UCSD's ESI is to promote sustainability as a core principle—across all academic divisions—in ways that integrate civically-engaged research, outreach and pedagogy. This is not unusual. As Wheeler and Beatley point out in their proposal:

Many colleges and universities are now developing courses and curricula related to sustainability. In North America for example, the Association for the Advancement of Sustainability in Higher Education (AASHE) was formed in early 2006, consisting of literally hundreds of campuses that are undertaking sustainability curricula and campus planning initiatives. Many of the new courses related to the topic of sustainability will be offered not just within urban studies and planning departments, but within environmental studies, ecology, geography, the social sciences, engineering, and other disciplines.

The ESI's institutional birth at UC San Diego supports Wheeler and Beatley's observation (above). Likewise, so do a number of core activities being pursued by the multi university-based Regional Workbench Consortium (RWBC) active in the San Diego-Tijuana cross-border city-region. The RWBC is

an internet based knowledge-action collaborative aimed at promoting sustainable city-region development. The RWBC won two awards from the American Planning Association: one for academic leadership in 2004, and one for Best Use of Technology in a University Urban and Regional Planning Program in 2006. My comments regarding the Wheeler and Beatley Reader draw upon my experience with ESI, RWBC, and as an instructor who teaches classes with a major emphasis on sustainability. I also bring to this task my experience building on-line resources (including a curriculum data base) for the ACSP's Global Planning Educators Interest Group (GPEIG). One of GPEIG's foci concerns progressive regionalism –including sustainability at the scale of city-regions. I am leading a GPEIG effort with several colleagues to examine how we might better federate efforts across the world's city-regions to promote sustainable development. This effort includes a strong emphasis on cyberinfrastructure, sustainability science, technology, organizational culture and globalization. My experience (in research, outreach and pedagogy) involving ESI, the RWBC and GPEIG leads me to make certain suggestions that I hope will help strengthen the second edition of Wheeler and Beatley's Reader.

The Publication

General Suggestions

Currently I am not using the Sustainable Urban Development Reader as a required text in a course –this is because I have been using grant funds to buy myself out of teaching my course in Sustainable Development (USP 171). Someone else has been teaching this course for me. The colleague who teaches the class (Dr. Lawrence Herzog) uses Wheeler's (2004) Planning for Sustainability and a couple other texts (Register's Ecocities, and Herzog's Shared Space). Although I don't currently use the Reader as a required text, I do list it as recommended reading in my undergraduate class about cities and the environment from a global perspective (USP2: Urban World System).

The Reader is also relevant in the context of my grants. I have a grant from the National Institute of Environmental Health Sciences (NIEHS) to run the Research Translation Core and Community Outreach Core of UC San Diego's Superfund Basic Research Program (SBRP). The SBRP grant focuses on molecular mechanisms (New Biology) and models of environmental exposure. The work I do for the SBRP program—which ties into the ESI, RWBC, and GPEIG initiatives outlined above—concentrates on linking science-to-society for sustainability. Hence I've referred to the Sustainable Urban Development Reader, along with many other guides and handbooks, as a general resource. While the Reader has proven itself to be relevant and useful, there is content that I would like to see added.

4) In general terms are there any topics that are omitted, or require greater or less coverage?

I like the structure of the Reader; I do not see any topics that require less coverage. But I do see an important gap. There is an increasingly crucial cluster of subjects that merit integration: sustainability science, the role of universities and cyberinfrastructure. Coverage of this trilogy can, and should, be done from an urban (city-region) perspective. I am well aware that a reader cannot be encyclopedic, and you will get comments from reviewers suggesting that this or that subject get greater or less attention. So, what I say here could be limited to a new chapter (but there is arguably enough meat here that it could also merit a new Part or section of the Reader).

Regarding sustainability science, much work has been done over the past decade. The benchmark work along these lines is National Research Council's (2000) book titled, Our common journey : a transition toward sustainability. Washington, D.C., National Academy Press. What is noteworthy about this book is the emphasis placed on the region as a locus for bringing the local and global together in the context of promoting sustainability. Along these lines, the NRC underscores the importance of building university-based "knowledge-action collaboratives." This strikes me as crucial. To promote sustainability, we need science and technology. But we all know the limits posed by relying on science as a panacea on autopilot headed down the mythic road of progress. The Reader does not miss this critical point: it is included in the chapter by Meadows, et al. (Perspectives, Problems and Models). Yet, the Meadows chapter (p. 43) is the only place where science is referenced in the Readers index. Pointing out the limits of science and technology, however, is no longer adequate. We need culture change in the heartland of knowledge production (i.e., our great research universities), and this will not happen automatically either. We need university-based knowledge-action collaboratives that enable not only science-to-science integration (multidisciplinarity) but also science-to-society integration (civically-engaged approaches). And this needs to be done in a way that links knowledge production/sharing to problem solving in each university's own backyard (the city within which the university is embedded along with its larger environment-- from the regional to global scale). This is not merely an add on point. It strikes me as crucial dimension; one of the most urgent frontiers in seeking urban and other forms of sustainability. It is the challenge we are struggling with in the interrelated set of initiatives mentioned above (ESI, RWBC, GPEIG, SBRP).

So far I've touched on the importance of bringing together sustainability science and the role of research universities in a city-regions context. But, in my opening statement about the gap I see in the Reader, I also mentioned the importance of cyberinfrastructure. Cyberinfrastructure is essential to the knowledge economy in many respects; and it is hard to imagine any effort at promoting urban sustainability that does not address its prospects (barriers as well as bridges). Cyberinfrastructure is essential to a whole host of tasks vital to quest for sustainability: tapping science and technology for the common good, enabling multidisciplinary work that is civically-engaged and aims for continual improvement in problem-solving ways, creating and sharing visions/stories of alternative development, improving access to distributed archives by federating distributed intelligence through knowledge networking, bridging the digital divide, and much more. The Reader gets at some of this tangentially in the section on Tools (pp. 199-232). But it does not bring these three things together (science, universities, cyberinfrastructure) in a way that, I think, is crucial and merits our most serious attention. Likewise, the Further Reading section should include an asset map of the best approaches in the world where internet-based Knowledge-Action Collaboratives are up and running with the aim to promote sustainable city-region development (work at the University of Manchester, including efforts by Joe Ravetz who wrote City-Region 2020, is a good example). I am not writing this memo to advocate the work of our RWBC and GPEIG, but I will say that we are also grappling with this effort to join science, culture change within universities, and cyberinfrastructure for knowledge networking at the city-region scale and among city-regions worldwide. We think of the role of university as building progressive ecologies of actors that can ultimately scale up from the neighborhood to city-region and federation of city-regions globally. This raises many challenges and new frontiers of research (some of the more interesting conceptual work adds value along such lines with the metaphors of flows and networks).

5) Are the extracts within the reader in terms of the five parts structured in the most logical and helpful way?

The arrangement strikes me as pretty good. But as you might guess from my comments above I suggest adding a more central focus on the role of science and technology in a context that critically examines the organizational culture and role of research universities, including efforts to build cyberinfrastructure and sustainability informatics. Citizen participation in science at an urban-regional level would be a good way to go about this, but there are other ways too.

6) How useful do you and your students find the general, section and extract introductions? Are these written in an engaging and accessible manner? Very useful, and the text is well written.

7) Do you think the further reading should be at the end of each chapter, or where it is currently placed at the end of the book? I'd prefer to see it at the end of each chapter.

Comments on the authors proposed changes

8) Please comment on the changes proposed by the editors in the enclosed proposal.

I think the main rationale for the new edition is correct: “developments in the field and reader desires for an up-to-date text merit a second edition with some additions and changes” (p. 1). In particular, the three areas the authors plan to add in greater depth make sense: (1) worldwide concern about global warming, (2) issues related to rapid urbanization and development in China, India, and other developing nations, and (3) green building standards such as LEED (Leadership for Energy and Environmental Design) in the U.S. The plan to include more case studies (success stories) focused on implementing sustainable development initiatives around the world makes sense too.

The key changes spelled out on page 2 make good sense. But again, I would add the kind of focus I noted above. The Reader strikes me as incomplete if it does not include a more central focus on the role of science and technology—not in and of itself as a tool of discovery and innovation—but as a socio-technical system, embedded in market forces and organizational culture, that needs much more rigorous analysis. Nor does the case I am presenting here mean that “western science” is necessarily the only way to go. I think the book by Flyvbjerg (2001) Making social science matter : why social inquiry fails and how it can count again, helps put the promise and perils of mainstream science into perspective. This kind of discussion needs to be rooted in the actual process of knowledge production, and how at the level of city-regions we might better harness the power of research universities (in part through new forms of cyberinfrastructure that go beyond mapping, modeling and scenarios, etc) to understand/enable the quest for sustainable development. The Reader might usefully include a chapter that speaks to the issue of building “regional workbenches” for sustainable city-region development, much like biologists have build “biology workbenches” to advance their frontiers in the “new biology.” But again, for something like sustainability, we cannot look to the natural sciences for our model. So when I call for a greater emphasis on science, I do so in a way that would problematize science (take into account its promise and perils). Perhaps we need to integrate urban studies with science studies –this is in part happening in the realm of sustainability science (see the work led by Bill Clark out of Harvard University).

To illustrate this point about science, below I copy an excerpt from note we recently submitted to the NIEHS. It relates our effort at UC San Diego (as part of the “Community Outreach Core” of the SBRP grant I mentioned above) to examine issues of science in a tribal and environmental justice context. This

actually suggests another theme : the role of indigenous cultures and tribal science in the context of city-region development (San Diego has the highest concentration of tribal lands in the entire US, city-region planning here is finally beginning to incorporate the views of tribal partners).

EXCERPT from our SBRP Community Outreach Core: Accomplishments that meet the directives of the NIEHS Strategic Plan. RE: GOAL IV: Improve and expand community-linked research.

Our Community Outreach Core is working with low income tribal communities that are impacted by high concentrations of environmental contaminants. Over the past several months the COC has made significant progress toward its aim to integrate tribal environmental science with western scientific approaches to risk assessment. We have created a partnership with the tribal leaders and EPA scientists at the 29 Palms and Campo/Kumeyaay reservations. The project is significant because 1) it will push two different scientific paradigms to expand and consider new ways of framing risk, risk assessment, and environmental remediation; and 2) we expect that this will eventually lead to the production of new knowledge that will support the use of cutting edge science on tribal lands, which will bolster the resources and visibility of tribal environmental protection agencies in particular and tribal environmental science in general. This project will allow Tribal EPA's access to more accurate information on environmental threats so that they may establish priorities that can lead to the reintroduction of native flora and fauna, the restoration of habitat, the development of more effective standards for pollution prevention, and the strengthening of risk assessment methods more generally. Additionally, each of these goals is important because tribal communities continue to face greater environmental threats than the general public and they have less leverage over policy making institutions to reverse these trends.

While the example above is a good one, there are many others. The role of "citizen science" in linking science-to-society within city-regions might also be a good angle to include. We address this theme in a paper I just submitted to the NIEHS journal called Environmental Health Perspectives:

Pezzoli K, Tukey R, Sarabia H, Zaslavsky I, Miranda ML, Suk WA, Lin A and Ellisman M. In Preparation. The NIEHS Environmental Health Sciences Data Resource Portal: Placing Advanced Technologies in Service to Vulnerable Communities. Environmental Health Perspectives.(re-submitted, with revisions, December 18, 2006).

9) Please indicate on the enclosed contents of the 1st edition you views on retaining or replacing existing extracts. We would welcome alternative suggestions. (see below)

10) Would it be advantageous to have all the extracts from the urban readers series (e.g. City Cultures Reader, Cybercities Reader, Urban Sociology Reader, The City Reader etc) available on-line? The intention here would be to allow the instructor to produce a customised reader. YES, very good idea!

Pedagogy

9) How useful do you and your students find the Case Studies in Part 6? Are they a suitable length? How could they be improved?

The case studies are quite short, which is ok I guess. One thing I'd like to see is an on-line complement to these cases. In other words can you build a web site to accompany the Reader? –said web site could be data base driven and allow for search capability. This is actually something we are aiming to do as a part our RWBC/GPEIG mission. That is, we want to build a global set of case studies useful for urban and regional planning. There are efforts already underway that we can leverage. And there is an institutional need along such lines. The new PAB requirements for planning schools in the US demand some attention to global mindedness. Certainly sustainability (especially efforts that draw into view global flows; along the lines of what the Reader does in the section covering “Energy and Material Use”) can be one way to meet this new PAB requirement. Good case material is much needed.

10) Are the Planning Exercises in Part 7 a useful tool for applying students' knowledge? Do you think one planning exercise at the end of each chapter is more useful for students than a group of exercises at the end of the book? I like the current arrangement.

11) Are there are any other pedagogical features that would aid you or your students? Yes, an interactive web-based complement to the Reader as mentioned above.

12) How useful do you consider the utility, quality and positioning of the plates in the 1st edition? Very useful.

Additional Comments

10) Please provide any additional comments that you feel would be helpful to the editors. No additional comments.

Competition

11) Who are the Sustainable Urban Development Readers main competitors and what are their relative strengths and weaknesses? (in relation to the Sustainable Urban Development Reader). The list the authors provide in their proposal does a good job on this task. But here is a list of texts that you may want to cull from for inclusion in the new edition (I list these below).

12) Within your area of expertise are there any textbooks or monographs that you feel need to be written or topics/fields which lack a worthwhile textbook? Yes, we need a good book that covers in depth the issue of creating cyberinfrastructure for progressive regionalism and sustainability.

Contents of The Sustainable Urban Development Reader Edition 1

Please give your opinions on whether we should retain the readings from this edition. Five would indicate strongly in favour of retaining and one strongly in favour of removing. There is also a line for you to suggest an alternative if you think one is necessary.

Ok, see my scores below. Also, here is a list of other readings that you may want to cull from for inclusion in the new edition. This list draws attention to the kind of work I think will fill the Reader's gap (as noted above).

(O'Connor 1994; Low, Gleeson et al. 2000; National Research Council (U.S.). Policy Division. Board on Sustainable Development. 2000; Ravetz, Sustainable City-Region Working Group. et al. 2000; Flyvbjerg 2001; Forrant 2001; Graham and Marvin 2001; Eckstein and Throgmorton 2003; Kasemir, Jill Jager et al. 2003; United Nations Human Settlements Programme. 2004; Corburn 2005; Friedmann 2005; Gilderbloom and Mullins 2005; Corey and Wilson 2006; Forrant and Silka 2006)

- Corburn, J. (2005). Street science : community knowledge and environmental health justice. Cambridge, MA, MIT Press.
- Corey, K. E. and M. I. Wilson (2006). Urban and regional technology planning : planning practice in the global knowledge economy. New York, Routledge.
- Eckstein, B. J. and J. A. Throgmorton (2003). Story and sustainability : planning, practice, and possibility for American cities. Cambridge, Mass., MIT Press.
- Flyvbjerg, B. (2001). Making social science matter : why social inquiry fails and how it can count again. Oxford, UK ; New York, Cambridge University Press.
- Forrant, R., Jean L. Pyle, William Lazonick, and Charles Levenstein, Ed. (2001). Approaches to sustainable development : the public university in the regional economy. Amherst, University of Massachusetts Press.
- Forrant, R. and L. Silka, Eds. (2006). Inside and out : universities and education for sustainable development. Work, health and environment series. Amityville, NY, Baywood.
- Friedmann, J. (2005). "Globalization and the emerging culture of planning." Progress in Planning **64**(3): 183-234.
- Gilderbloom, J. I. and R. L. Mullins (2005). Promise and betrayal : universities and the battle for sustainable urban neighborhoods. Albany, State University of New York Press.
- Graham, S. and S. Marvin (2001). Splintering urbanism : networked infrastructures, technological mobilities and the urban condition. London ; New York, Routledge.
- Kasemir, B., Jill Jager, et al. (2003). Public participation in sustainability science : a handbook. Cambridge, UK ; New York, NY, Cambridge University Press.
- Low, N., B. Gleeson, et al., Eds. (2000). Consuming cities : the urban environment in the global economy after the Rio Declaration. London ; New York, Routledge.
- National Research Council (U.S.). Policy Division. Board on Sustainable Development. (2000). Our common journey : a transition toward sustainability. Washington, D.C., National Academy Press.
- O'Connor, M. (1994). Is capitalism sustainable? : political economy and the politics of ecology. New York, Guilford Press.
- Ravetz, J., Sustainable City-Region Working Group., et al. (2000). City-region 2020 : integrated planning for a sustainable environment. London, Earthscan.
- United Nations Human Settlements Programme. (2004). The state of the world's cities : globalization and urban culture. Sterling, Va., Earthscan.

Declaration on Environment and Development					
<i>Suggested Alternative: More current work on urban sustainability –the UN dialogue on this subject at the 2004 Barcelona World Urban Forum, also include the urban elements of the UN Millennium Development Goals.</i>					
PART 2					
Calthorpe, The Next American Metropolis					X
<i>Suggested Alternative</i>					
Gehl, Outdoor Space and Outdoor Activities			X		
<i>Suggested Alternative</i>					
Cervero, Transit and the Metropolis: Finding Harmony				X	
<i>Suggested Alternative</i>					
Newman/Kenworthy, Traffic Calming				X	
<i>Suggested Alternative</i>					
Pucher/Komanoff/Shimek, Bicycling Renaissance in North America?					X
<i>Suggested Alternative</i>					
Spirn, City and Nature				X	
<i>Suggested Alternative</i>					
Beatley, Land Development and Endangered Species: Emerging Conflicts					X
<i>Suggested Alternative</i>					
Riley, What is Restoration?				X	
<i>Suggested Alternative</i>					
Giradet, The Metabolism of Cities					X
<i>Suggested Alternative</i>					

Lyle, Waste as a Resource				X	
<i>Suggested Alternative</i>					
Bullard, People-of-Color Environmentalism					X
<i>Suggested Alternative</i>					
Hayden, Domesticating Urban Space					X

<i>Suggested Alternative</i>					
Pearce/Barbier, The Economic System and Natural Environments				X	
<i>Suggested Alternative</i>					
Hawken, Natural Capitalism					
<i>Suggested Alternative: Add here a more critical perspective as well –along the lines of what Martin O’Connor does in the text already mentioned above, Is Sustainable Capitalism Possible?</i>					
Shuman, Import Replacement				X	
<i>Suggested Alternative</i>					
McDonough, Design, Ecology, Ethics and the Making of Things				X	
<i>Suggested Alternative</i>					
Vale/Vale, Principles of Green Architecture				X	
<i>Suggested Alternative</i>					
Eisenberg/Yost, Sustainability and Building Codes				X	
<i>Suggested Alternative</i>					
PART 3					
Maclaren, Urban Sustainability Reporting					X

<i>Suggested Alternative</i>					
Wackernagel/Rees, What Is an Ecological Footprint?					X
<i>Suggested Alternative</i>					
Jacobs, Seeing Change				X	
<i>Suggested Alternative</i>					
Lerner, A Progressive Politics of Meaning				X	
<i>Suggested Alternative</i>					
PART 4					
Rabinovitch/Leitman, Urban Planning in Curitiba				X	
<i>Suggested Alternative</i>					
Beatley, Planning for Sustainability in European Cities: A Review of Practice in Leading Cities					X
<i>Suggested Alternative</i>					
Hsiao/Liu, Collective Action Toward a Sustainable City: Citizens' Movements and Environmental Politics in Taipei				X	
<i>Suggested Alternative</i>					
PART 5					
Howard, The Town-Country Magnet					X
<i>Suggested Alternative</i>					
Callenbach, The Streets of Ecotopia's Capital/ Car-Less Living in Ecotopia's New Towns				X	
<i>Suggested Alternative</i>					

Le Guin, Description of Abbenay				x	
<i>Suggested Alternative</i>					

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