
Reviews

Adaptive governance and water conflict: new institutions for collaborative planning edited by J T Scholz, B Stiftel; Resources for the Future Press, Washington, DC, 2005, 274 pages, \$75.00 cloth, \$32.95 paper (£50.00, £20.00) ISBN 1933115 18 1, 1933115 19 X

Governing water: contentious transnational politics and global institution building by K Conca; MIT Press, Cambridge, MA, 2006, 468 pages, \$70.00 cloth, \$28.00 paper (£45.95, £18.95) ISBN 0 262 03339 9, 0 262 53273 5

Those of us concerned with international transboundary water relations would do well to read both of these books. Each contributes to the discussion by exploring the fundamental areas where the problems and challenges lie—in the fundamentally political question of who gets what, when, where, and how. The books are similar also in that they both hail from the US, are deeply informed, inherently interdisciplinary, and focus on transboundary water governance. The political contexts within which each explores tensions over water conflict, however, could not be more different. John Scholz and Bruce Stiftel's edited volume *Adaptive Governance and Water Conflict* focuses on the relatively well-regulated US state of Florida. Ken Conca's *Governing Water* explores transboundary water governance in the much more chaotic international context. The way that 'power' plays out in each setting ultimately informs the marked difference in tone, conclusions drawn, and paths charted for progress.

The nine chapters of *Governing Water* form a comprehensive overview of issues ranging from environmental regimes to transboundary integrated water resources management and antimarketization activism. As such, it is the latest contribution in a underpopulated but growing body of work applying international relations theory to global water issues. The fourth chapter, for instance, builds on the international transboundary water work of Aaron Wolf's Basins at Risk (BAR) project, which has also been built upon by Nils Petter Gleditsch and researchers at the Peace Research Institute of Oslo. [For an interesting review of the evolution of the BAR, and a more thorough review of Conca's book, see Turton (2005)]. The bulk of Conca's effort is devoted to an informed and thorough examination of the limitations of international water regimes and institutions in grappling with transboundary water challenges. Conca reminds us that it is not helpful to continue with attempts to replicate global environmental regimes (such as the Montreal Protocol) onto the peculiarities of specific international river basins. He directs a cool passion against dogmatic proponents of regime theory and regime formation. There is, Conca persuades us, a danger in conflating the existence of an institution devoted to transboundary water issues with a functioning regime that actually guides interaction.

Conca notes that discursive processes leading to regimes are slow and clumsy because of nation-state notions of sovereignty, but unfortunately does not examine how national preferences may be projected through various forms of power. [Waterbury (2002), for instance, examines such aspects on the Nile River]. Subnational or transnational conflicts are emphasised. These battles play out between lending institutions (eg the World Bank), NGO activists (International Rivers Network), and government ministries. Collectively, the struggles may serve to institutionalise what Conca calls "watershed democracy" (page 201). The influence of such competing forces are elegantly exemplified through case studies of Brazil and South Africa. Though both countries are in the midst of modernizing through sociopolitical and economic reforms, their reaction to the opposing tensions and attempts to codify water into national law are usefully contrasted.

Scholz and Stiftel's edited volume is similar to Conca's for its comprehensive approach. Twelve analytical pieces and eight case studies shed light on the underexamined and fascinating world of Floridian water conflicts. As with the much drier and more studied Western US context, competition for water and water-derived benefits involves groups from all administrative and political boundaries. Competition can be fierce between cities, between the municipalities and the agricultural sector, between counties, and between state institutions and those of

the federal government. The “new water conflicts” (page 2) that the editors are keen to address derive in fact from an evolution in how successive US governments (following the pressure of civil society) relate to nature. The early engineering response of the federal institutions such as the Bureau of Reclamation engendered environmental agencies like the Environmental Protection Agency. But these second generation institutions have proven unable to deal with the new competitive forces, and they have failed in the face of ever-greater environmental uncertainty and in generating win–win sustainable solutions.

Adaptive Governance is the method the authors propose to deal with such ‘second-order’ conflicts. In theory at least, the approach builds upon adaptive management techniques, integrating these across sectors and allowing room for change. Specific policy recommendations include proposals derived from conflict resolution techniques, including representation, decision processes, scientific learning, public learning, and problem responsiveness. The volume is impressively cohesive in that most authors either apply or add nuance to the framework. It remains to be seen how the efforts are taken into policy, and if they may be replicated, for instance, in Spain, Ethiopia, or Nepal.

The role of power in determining the outcome of contentious issues is central to both Conca’s and Scholz and Stiftel’s work, though this is not explicitly acknowledged. The more powerful actor in a struggle between countries that share common state and federal legislation—and whose citizens generally share common ideologies, outlooks, and passions—is compromised by these cultural and political binds. The relatively robust legal context makes it possible, for example, for water jurist Richard Hamann to conclude that litigation is one effective way to challenge “the power of the status quo” (chapter 11). The more powerful nation-state involved in a struggle for interests on international transboundary waters, on the other hand, is held accountable only to the essentially lawless dynamics of international relations. And these, evidently, can be ruthless. Transnational conflicts between anti- and pro-water marketization forces are similarly shaped by an uneven playing field. Unlike Hamann, Conca cannot offer litigation as a way out. He relies instead on calls for better analysis through the development of social theory and democracy at the basin level for more equitable and reasonable utilisation.

As such, Scholz and Stiftel call for tweaking an imperfect system, while Conca calls for a radical rethinking of international water regimes and institutions. If we recall just how unique each watershed is, both books are highly recommended reading for their contributions to the muddled world of transboundary water relations.

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Designs on nature: science and democracy in Europe and the United States by S Jasanoff; Princeton University Press, Princeton, NJ, 2005, 344 pages \$35.00 cloth, \$18.95 paper (£22.95, £12.50) ISBN 0 691 11811 6, 0 691 13042 2

It is often presumed that science is essentially a universal enterprise. Indeed, this promise is crucial to its practical success and to the international diffusion of scientific innovations. And yet, as science and technology have come to play an increasingly ubiquitous role in everyday life, it has also become difficult to generalise about a singular brand of ‘science’, insofar as its advance has thrown up different moral, political, and economic problems in different places. Why, for instance, have US citizens accepted genetically modified foods on their supermarket shelves whereas Europeans have refused? Or why is embryonic stem cell research permitted in the UK and not in Germany or the US?

Sheila Jasanoff's *Designs on Nature* attempts to answer these questions with an innovative comparative study of the dynamics of science and policy making. She emphasises the emergence of biotechnology as a robust and definable technoscientific entity, which, she argues, was enacted through social and political contingencies that can be studied at the national policy level. In *Designs on Nature* she develops her 'idiom of coproduction', articulated in her edited book *States of Knowledge* (2004), through a comparative study of biotechnology and political culture in the UK, Germany, and the US. These three countries were chosen because they have governed biotechnology in distinctive ways: legislative actions in the US spurred on a competitive globalised marketplace for biotechnology products; regulatory reforms in the UK developed a robust and adaptive climate in which research could continue; and Germany carries a painful history that continues to inhibit biomedical research involving human subjects. Jasanoff charts the journal of both agricultural biotechnology and medical biotechnology, which, she acknowledges, pose "somewhat different scientific debates, ethical concerns, and political questions", but she handles them deftly with clear prose and comprehensive chapters that stand alone as individual essays as well as being integrative to the book as a whole.

Her methodology is comparative analysis drawing on discursive readings of major public documents and media texts. She also uses data from interviews she conducted with policy makers and officials in the respective countries, and occasionally peppers the text with anecdotal evidence from meetings and summits where governing biotechnology is deliberated across national divides. Perhaps because she is Sheila Jasanoff she can get away with being methodologically quite thin. She gives no indication of whom she spoke to and why, when she conducted interviews and how many, nor does she qualify why she chose to illustrate her arguments with certain quotations and not others. In justifying a comparative method she focuses her energies on identifying what she is comparing, and this she ties up neatly by using three frames that defined the governance of biotechnology when it first came to political prominence in the 1970s and 1980s: "as a technoscientific *process*, as a stream of *products*, and as a *program* of governance and control" (page 45). These frames act like narrative cues to guide her reader through the complicated networks of actors enrolled in governing biotechnology over the last few decades. Whether they are politicians, experts, publics, nongovernmental organisations, and so on, Jasanoff plays with textual analysis to illustrate the discourses through which stakeholders and actors are constructed in and through these processes and the effects this has had on the future direction of technological innovation and national governance. It is through these frames that varying patterns in the political culture of the three nation-states come into focus. To simplify the equation, she identifies the US as product-led, the UK as process-led, and Germany as programme-led.

The book is structured so that the first three chapters establish her methodology and theoretical framework. Jasanoff then delves into the particulars of biotechnology governance in the middle chapters, in which she looks at issues that have had salience in one country and not another. Chapter 4 charts the rise of regulation of genetically modified organisms, which were initially defined as a problem in purely technical terms. Jasanoff looks at the institutionalised growth of risk assessment and management in the US, versus the precautionary principle adopted in Europe. Chapter 5 continues this theme by looking at genetically modified foods starting with recent controversies about food safety in Europe. Her chapters identify chronological links between the ways governments, expert communities, and publics have attempted to stabilise the impact of new technologies. Chapter 6 is about assisted reproductive technologies (ARTs) and illustrates how US regulation of in vitro fertilisation and embryo research was couched in abortion law that prioritised the individual rights of women. In Germany, respect for human life carries an entirely different meaning, and the advent of ARTs in Germany forced the government to devise a new conceptual language in order to regulate their use and potential in biomedical research. Chapter 7 carries this forward to look at developments in the ethical governance of biomedical research involving human subjects. In this chapter Jasanoff looks at the emergence of official bioethics, and how philosophical principles about the status of 'life', 'human dignity', and 'justice' came to be defined through institutional praxis. She points to an interesting contradiction in the ethical regulation of biotechnology: while it attempts to provide a normative framework that protects human research subjects, it is

constantly being undercut by technological advances that threaten to change the very meaning of life itself.

All the chapters are divided into sections that focus on national characteristics. This creates a sense of true comparison, but it also becomes evident that Jasanoff is weighted in favour of the US. Her US illustrations and examples are lent greater depth over those of the UK and Germany. Her bias towards the US is perhaps in light of the fact that she is a Harvard scholar and most of her previous research discusses expertise in relation to US legal and regulatory systems.

Towards the end of the book Jasanoff reflects more broadly on changes in science–society relations in the context of the new social contract for science (chapter 9). She introduces the notion of civic epistemologies to suggest that citizens are increasingly part of validating technical knowledge in the public sphere. It is here that Jasanoff puts forward her most normative claims as she appears to campaign for a democratisation of science by strengthening its public dimensions. Thus, Jasanoff injects liberal sensibilities into her vision of how we should proceed scientifically and politically.

In *Designs on Nature*, Jasanoff confronts long-standing notions that science and politics are entirely separate activities, with politics generally left to deal with the effects of scientific innovation. She counters any such moves towards technological determinism through demonstrating convincingly that science and political orders are symbiotic. Her contribution to the science and technology studies literature is undeniable and this book, in particular, provides impetus to extend comparative studies beyond Europe or North America to ask questions about the governance of biotechnology in Asian or African nations, for example, where nation-states become locked into international ethical and economic regimes, which pose immediate challenges when thinking about relationships between science and democratic governance. *Designs on Nature* will be key reading for anyone interested in the geographies of science, a burgeoning area of study that has much to offer our understanding of international political and knowledge regimes.

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Disposable cities: garbage, governance and sustainable development in urban Africa by G A Myers; Ashgate, Aldershot, Hants, 2005, 204 pages £45.00 (US \$ 89.95) ISBN 0 7546 4374 3

Disposable Cities is not only about garbage. Rather, solid-waste management is used as an index of local states' varying abilities to govern three African cities—Dar es Salaam, Zanzibar, and Lusaka—in the context of rapid urbanisation and neoliberalism. Although these three East and Southern African cities have a number of differences, they share a number of commonalities. Two specific commonalities provide entry points to Myers's approach and analysis: first, they are all African cities, which collectively have been disregarded and underrepresented in Western media and academic urban studies. Second, they have all been subjects of the UN-funded Sustainable Cities Programme, steeped in the rhetoric of inclusivity, participation, decentralisation, and democratic planning systems. However, despite the opportunities offered by these ideals, the programme has failed all three of these cities. In understanding the varying reasons for this failure, the analysis places the study firmly on the urban studies agenda, whilst simultaneously providing a vivid snapshot of the three cities and the means by which everyday life is governed.

Myers regards the conceptual contribution of the approach used in the book to be one of "rematerializing cultural geography" (page x), with the interweaving of economic, environmental, and political issues with cultural issues. Indeed, the postscript to the book provides a compelling and convincing positioning of the study in the subdisciplines of cultural and development geography. This self-consciousness of the disciplinary roots and contribution of the study is to be commended, given the increasingly interdisciplinary and fluid nature of geography. However, this

overt positioning of the book might also result in it being overlooked by scholars outside the discipline of cultural geography. This book is indeed critical reading for anyone interested in the complexities of the intersection between political ecology and urban areas and the fluidity of state dynamics (or indeed each of these dynamics on their own). As such, the book's readership cannot be confined to scholars with an interest in cultural geography and African cities alone.

Myers's concern with the marginalisation of sub-Saharan Africa in academic urban studies is the key *raison d'être* behind this book. Although he does not directly address the reasons behind this imbalance, implicit within Myers's study is the questioning of the extent to which the current theoretical frameworks that underpin and shape urban studies are adequate for African cities. Herein lies the strength of the intersection between the four themes of the book: neoliberalism, sustainable development, good governance, and the politics of cultural difference. By bringing these previously dispersed themes together within a single analytical framework Myers has generated an empirical account of the three cities that is extremely rich and multi-layered. In uncovering the empirical uniqueness of each of the cities and their governance processes he provides a first and significant step towards rethinking and reframing questions within urban studies, and subsequently towards its theoretical realignment and Africanisation. Given Myers's commitment to bringing scholarship on African cities into the mainstream, the price of this book (£45.00, \$89.95) might well provide yet another structural barrier to accessibility for African scholars, who are perhaps best placed to further develop the solid foundations laid by this study.

The case studies are developed to show how "global economic structures, unequal power relationships, and fractious cultures are embedded in the dynamics of environmental problems associated with solid waste" (page 15). In order to cover such a wide range of issues and scales, the approach used by Myers in capturing over a decade of fieldwork in these three cities is necessarily eclectic. The analysis draws on a range of methodological approaches ranging from ethnographic accounts and vignettes of the life and times of individuals and efforts around solid-waste management at the ward level, to complex institutional analyses and critiques of the emerging geographies of governance. In addressing these themes—questions of governance, HIV/AIDS, donors, privatisation, religion, fashion—Myers has provided a textured, tangible, and colourful account of the three cities and their governance processes.

The focus on the Sustainable Cities Programme in the three case-study cities allows for an analysis and a critical account of the processes of state formation and reconstitution. Myers concludes that the new forms of governance that arise through these different scales and geographies of governance are seldom as progressive or liberatory as the rhetoric surrounding them. Myers's detailed study shows that "Neoliberal privatisation often sows discord and selfishness; sustainable development programmes seldom improve either the environment or the livelihood of the poor; good governance recreates and improves upon the exclusionary democracies of late colonialism; and the politics of cultural difference produce debilitating battles over emplacing identity that usually leave the Other Sides of cities right where they were" (page 15).

Despite these seemingly pessimistic conclusions, this book by no means perpetuates the 'African as a basket case' image of the continent. Instead, it is a brave study of hope, daring to uncover the underlying historical colonial and current global causes of the systems of governance and consequent underdevelopment we witness today. By recasting the gaze on Africa, and asking different sets of questions about the future of the continent's cities, the international community might well be provided with a better understanding of the challenges facing African cities, allowing for the design of more useful and sustainable solutions together with a more inclusive approach to urban studies.

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Books received

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