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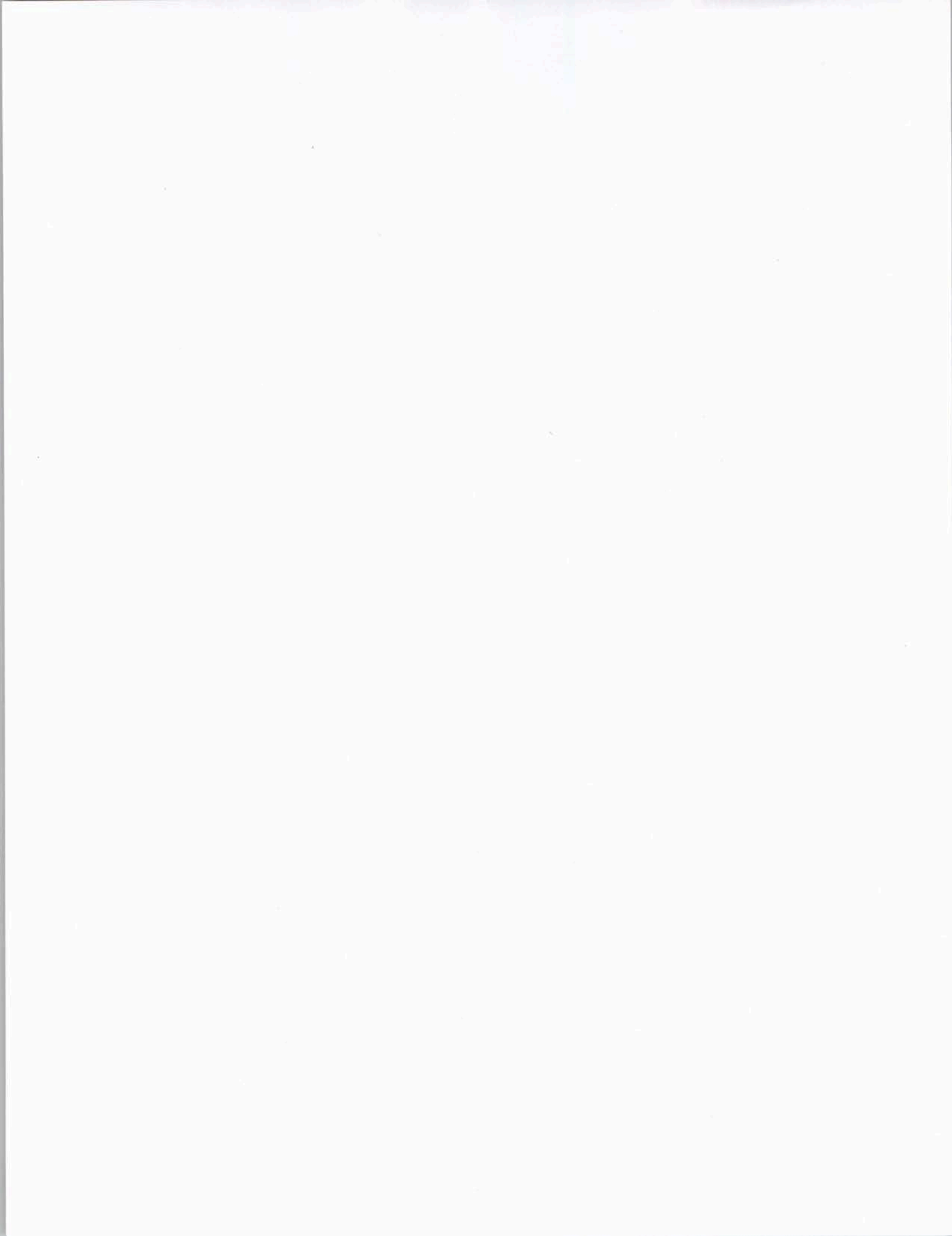
sustain

a journal of environmental and sustainability issues

The
Kentucky Institute
for the Environment
and Sustainable
Development



**Environmentally
Responsible
Land Use**



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The Institute provides a forum to conduct interdisciplinary research, applied scholarly analysis, public service and educational outreach on environmental and sustainable development issues at the local, state, national and international levels.

KIESD is comprised of eight thematic program centers: Environmental Education, Environmental Science, Environmental Law, Sustainable Urban Neighborhoods, Pollution Prevention, Environmental and Occupational Health Sciences, Environmental Policy and Management, and Environmental Engineering.

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Cover: Tony Arnold examining land use at Louisville's Waterfront Park.

Photo courtesy University of Louisville

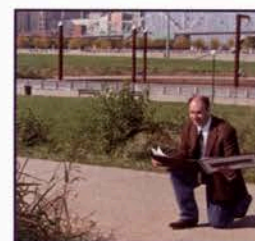




Photo courtesy of University of Louisville

Preface: Exemplary Research in Environmentally Responsible Land Use

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This issue of *Sustain: A Journal of Environmental and Sustainability Issues* focuses on environmentally responsible land use. It collects excerpts from 12 scholarly works on land use and the environment, which together represent a diverse array of exemplary research and thinking on environmentally responsible land use issues.

U.S. society has a critical and obvious need for research and ideas about environmentally responsible land use. We see abundant examples that our land use practices and patterns are environmentally irresponsible. Our metropolitan areas gobble up prime farmland, species' habitat, forests and prairies, wetlands, floodplains, shorelands, and other ecologically functioning lands, replacing them with sprawling development that fragments our landscapes and degrades ecosystems. We structure our transportation infrastructure and policies and make individual transportation choices with strong biases towards frequent automobile trips and long commutes in automobiles. We design development sites in ways that contribute pollutants to our waters, increase the quantity and velocity of stormwater runoff, and use water inefficiently. The adverse impacts of water pollution, runoff, and use come not only from urban land uses, but also from agriculture, forestry, mining, and other resource-using activities across our landscapes. Both land-use policies and land-use practices have resulted in the disproportionate proximity of low-income and minority communities to environmental hazards and intensive land uses. These communities also often lack the infrastructure or participatory planning opportunities to enhance their vitality. In many communities, contaminated brownfields remain unremediated and underutilized, and deteriorating housing, commercial properties, and the like reflect a society more concerned with new development than with re-use of existing development. And many aspects of our environments alienate us from nature, community, and sense of place. The list could go on.

The University of Louisville is attempting to improve our understanding about what environmentally responsible land use might mean. This includes work on the relationships between land-use and natural and human environments. It includes work on various concepts of individual and collective responsibility for the ways we use land. It includes work on methods of improving individual and organizational behaviors and commitments, institutional structures and processes, and public policies and laws. Much of this work involves the Center for Land Use and Environmental Responsibility (www.louisville.edu/landuse), one of several centers within the Kentucky Institute for the Environment and Sustainable Development. For example, the Center has conceived and implemented grant-funded initiatives that have: 1) involved inner-city high school students in analyzing environmental injustices, land uses, and community revitalization opportunities in a predominantly low-income African American neighborhood in West Louisville; and 2) assisted with workshops and prepared a comprehensive handbook for Kentucky communities on how to improve land uses to support water quality, water conservation, and overall watershed health (Arnold, Norton, & Wallen *Kentucky*

Wet Growth Tools for Sustainable Development: A Handbook on Land Use and Water for Kentucky Communities (2009)). The Center has also supported cutting-edge research on land use and the environment, the Boehl Distinguished Lecture Series in Land Use Policy, Habitat-for-Humanity service projects, a symposium program on children, nature, and land use, an EPA regional conference on brownfields, and several other academic or public programs. Much of the work on environmentally responsible land use also occurs within the Brandeis School of Law and the School of Urban and Public Affairs, both of which offer curricula that engage students in hands-on service-learning projects, simulations, and other projects that require integrated thinking and problem-solving at the intersection of land-use and the environment. In fact, an interdisciplinary course in land use planning and law was recently identified in the *Journal of Legal Education* as an example of “best practices” in land use education among law schools nationwide. A J.D.-M.U.P. dual degree program between the two schools also contributes to interdisciplinary cross-fertilization of research, courses, and programming. Faculty members in these schools are producing significant research on environmentally responsible land use. However, substantial work on environmentally responsible land use is also occurring in other KIESD centers and University academic units, including the Center for Environmental Policy and Management, the EPA Region 4 Environmental Finance Center, the City Solutions Center, the Center for Hazards Research and Policy Development, the Center for Sustainable Urban Neighborhoods, the Urban Design Studio, the Center for Real Estate Studies, the Center for Geographic Information Systems, the Logistics and Distribution Institute, the Sociology Department, the Biology Department, the Philosophy Department, the School of Public Health and Information Sciences, and the Speed School of Engineering, among others.

One of the fortunate benefits of working in research on the intersection between land use and the environment is that there has been a proliferation of good research in recent years, making it difficult to select just 12 exemplary works for this anthology issue of *Sustain*. The 12 works in this issue were selected for: 1) their important contributions to ideas and understanding of the intersection between land use and the environment; 2) their collective coverage of a diverse array of cutting-edge issues; 3) their use of insights from more than one discipline; and 4) their willingness to explore not only particular aspects of what environmentally responsible land use might mean but also the methods to make land use practices more environmentally responsible. In some cases, works of broader coverage were selected over works of more focused coverage, in order to give our readers exposure to the scope of issues that a particular topic raises.

The selected works, unranked, are:

1. **Randolph T. Hester**, *Design for Ecological Democracy* (MIT Press 2006).
2. **Eric T. Freyfogle**, *Bounded People, Boundless Lands: Envisioning a New Land Ethic* (Island Press 1998).
3. **Ben A. Minteer**, *The Landscape of Reform: Civic Pragmatism and Environmental Thought in America* (MIT Press 2006).
4. **Patricia E. Salkin**, *Intersection Between Environmental Justice and Land Use Planning*, 58(5) *Planning and Environmental Law* 3 (2006).
5. **Timothy Beatley and Kristy Manning**, *The Ecology of Place: Planning for Environment, Economy, and Community* (Island Press 1997).
6. **Craig Anthony (Tony) Arnold**, *The Structure of the Land Use Regulatory System in the United States*, 22 *Journal of Land Use & Environmental Law* 441 (2007).
7. **Nancy Perkins**, *Charm in the City: Thoughts on Urban Ecosystem Management*, 16 *Journal of Land Use and Environmental Law* 153 (2001).
8. **Nicole M. Ardoin**, *Toward an Interdisciplinary Understanding of Place: Lessons for Environmental Education*, 11 *Canadian Journal of Environmental Education* 112 (2006).
9. **Reed F. Noss**, *Conservation Thresholds: Overview and Commentary*, in *Lasting Landscapes: Reflections on the Role of Conservation Science in Land Use Planning* 1 (Environmental Law Institute 2007).
10. **J.B. Ruhl**, *Agriculture and Ecosystem Services: Strategies for State and Local Governments*, 17 *New York University Environmental Law Journal* 424 (2008).
11. **Carol Necole Brown**, *A Time to Preserve: A Call for Formal Private-Party Rights in Perpetual Conservation Easements*, 40 *Georgia Law Review* 85 (2005).
12. **Michael Allan Wolf**, *Supreme Guidance for Wet Growth: Lessons from the High Court on the Powers and Responsibilities of Local Governments*, 9 *Chapman Law Review* 233 (2006).

What appear in this issue are merely excerpts or adapted excerpts of these works. To meet space constraints and facilitate the flow of these excerpts, substantial portions have been omitted without indication, sources have been omitted unless directly quoted or referenced in the text, and some sentences have been modified or added to summarize key points succinctly. The original works are far broader in scope and far more valuable in contributions of ideas and information than can be fully represented in this anthology issue. We strongly encourage you to read the original sources in their entirety.

The 12 works are organized around 3 themes in environmentally responsible land use: a) community; b) place; and c) reform.

The first theme is **community**. Land use practices can affect, shape, disturb, harm, and contribute to both human communities and natural communities (e.g., ecosystems, wildlife habitats). Moreover, human and natural communities are interconnected and interdependent. Many of our concepts of responsibility for our uses of land are grounded in our responsibilities to other people (e.g., neighbors, society) and to nature. The following four works explore community and environmentally responsible land use:

Randolph T. Hester takes on the relationships among healthy democracy, ecological vitality, and good design principles in his landmark book **Design for Ecological Democracy (MIT Press 2006)**. He argues that we have not designed our cities to build community, because we have failed to take advantage of natural factors and human interconnectedness with nature. He calls for combining applied ecology and direct democracy in a concept of “ecological democracy” that can be achieved by integrating urban form with landscape vitality. In particular, he describes a number of ecological democracy design principles based on urban form that enables community, is ecologically resilient, and impels us through joy, interconnectedness, and a sense of identity to be good stewards of our environment. **Randolph Hester** is Professor of Landscape Architecture & Environmental Planning and Urban Design at the University of California, Berkeley. Active in communities on urban and participatory design, he is one of the founders of the research movement to apply sociology to the design of neighborhoods, cities and landscapes. He received the Paul Davidoff Award from the Association of Collegiate Schools of Planning for *Design for Ecological Democracy*. His other works include *A Theory for Building Community* (1999) (with Chang); *The Meaning of Gardens* (1990) (with Francis); and *Planning Neighborhood Space with People* (1982).

In ***Bounded People, Boundless Lands: Envisioning a New Land Ethic (Island Press 1998)***, **Eric T. Freyfogle** addresses both the ethical and ecological implications of land use practices and structures that harm overall land health, including the privatization, individualization, and consumption of our landscapes. Weaving together insights from famed conservationist Aldo Leopold, cultural critiques, legal analysis, and numerous real-world examples, Freyfogle makes the case for holistic, community-based conservation grounded in a new land ethic by which the land owner has responsibilities as part of a broader ecological community. In particular, he contrasts libertarian, traditional economic-focused, community-centered, and biocentric concepts of land ownership in order to distill a concept of private ownership that promotes land health. **Eric Freyfogle** is the Max L. Rowe Professor of Law at the University of Illinois, Urbana-Champaign, and was a Distinguished Visitor at the University of Auckland in New Zealand in 2009. He serves on the Board of Prairie Rivers Network. His other works include *Why Conservation is Failing and How It Can Regain Ground* (2006), *The Land We Share: Private Property and the Common Good* (2003), and *The New Agrarianism* (2001).

Ben A. Minteer contends that the intellectual foundations of American environmentalism rest in civic pragmatism in his book ***The Landscape of Reform: Civic Pragmatism and Environmental Thought in America (MIT Press 2006)***. He draws on the work and ideas of four major U.S. leaders in conservation and land use planning from the first half of the 20th century. Aldo Leopold; Benton MacKaye; Lewis Mumford; and Liberty Hyde Bailey. Minteer argues that these thinkers rejected tensions between ecocentric preservationism and anthropocentric utilitarianism. Instead, they saw environmentalism, particularly in land use policy, as part of a larger moral and political effort to reform American society and political culture. This reform program emphasizes democratic and environmental citizenship, land health, the vitality of community identity and regional culture, and the pursuit of a broadly defined public interest. **Ben Minteer** is Assistant Professor of Environmental Ethics and Policy in the School of Life Sciences and the Center for Biology and Society at Arizona State University. He is also affiliated with ASU’s School of Sustainability and Department of Philosophy. Minteer has served as a consultant to the National Park Service. His other works include *Nature in Common? Environmental Ethics and The Contested Foundation of Environmental Policy* (2009), *Reconstructing Conservation: Finding Common Ground* (2003), and *Democracy and the Claims of Nature* (2002).

In “**Intersection Between Environmental Justice and Land Use Planning**,” **58(5) *Planning and Environmental Law* 3 (2006)**, **Patricia E. Salkin** addresses the geographic, procedural, and social equity implications of land use planning and regulation, with particular emphasis on environmental justice – the efforts of low-income and minority communities to address disparities in community conditions. She summarizes many of the issues arising at the intersection of land use and environmental justice, but gives particular attention to a variety of planning and regulatory tools that can be used to achieve a more equitable environment for low-income and minority communities. **Patricia Salkin** is the Raymond and Ella Smith Distinguished Professor at the Albany Law School, where she directs the Government Law Center, serves as an Associate Dean, and also teaches in the University of Albany Department of Geography and Planning. She is a member of the U.S. Environmental Protection Agency’s National Environmental Justice Advisory Council, and co-chairs the American Planning Association’s Amicus Curiae Committee. Her other works include “Understanding Community Benefit Agreements: Equitable Development, Social Justice and Other Considerations for Developers, Municipalities and Community Organizations,” *26 UCLA Journal of Environmental Law & Policy* 291 (2008) (with Lavine),

“Squaring the Circle on Sprawl: What More Can We Do? Progress Toward Sustainable Land Use in Other States,” 16 *Widener Lsw Journal* 787(2007), and “From Euclid to Growing Smart: The Transformation of The American Local Land Use Ethic Into Local Land Use and Environmental Controls,” 20 *Pace Environmental Law Review* 109 (2002).

The second theme is **place**. A “sense of place” is a powerful force that frames, shapes, and manifests human relationships with land and the environment. Harmful and irresponsible land use practices frequently correlate with a failure to appreciate the natural and human characteristics of special places, whether they are neighborhoods, historic districts, urban spaces, rural landscapes, waterways and watersheds, ecosystems, forest, coastal, mountain, or prairie landscapes, or other ways of conceptualizing place. Conversely, efforts to improve land use practices often arise out of people’s connections with special places and their desire to protect or promote the special natural and human characteristics of particular places.

The Ecology of Place: Planning for Environment, Economy, and Community (Island Press 1997), co-authored by **Timothy Beatley** and the late **Kristy Manning**, addresses the impacts of growth, development, and land use patterns on the sustainability or unsustainability of places. The co-authors lament the kind of “placelessness,” ecological and economic costs, and greedy wastefulness that characterize current practices. Drawing on countless examples from many different communities, they identify the features of: 1) sustainable urban form; 2) an ecology of place that considers the environmental context and ecological impacts of development; 3) a restorative (i.e., environmentally responsible) economy; and 4) an equitable, participatory, and interconnected civic community – all of which are components of sustainable places. **Timothy Beatley** is the Teresa Heinz Professor of Sustainable Communities in the Department of Urban and Environmental Planning, School of Architecture at the University of Virginia. He is involved in sustainability and local foods projects with both the University of Virginia and the Charlottesville area. His other works include *Native to Nowhere: Sustaining Home and Community in a Global Age* (2004), *Green Urbanism: Learning from European Cities* (2000), *Ethical Land Use* (1994). The late **Kristy Manning** was director and vice-president for programs at Island Press, where she was responsible for 4 initiatives: 1) Compass; 2) The Island Press Consortium on Teaching and Learning; 3) The Consortium on Biodiversity and Land Use; and 4) The Knowledge Environment Collaborative. She also worked for the U.S. Agency for International Development and Duke University’s Nicholas School for the Environment.

Craig Anthony (Tony) Arnold contends that if land use practices are to become more environmentally responsible and sustainable, we must understand the land use regulatory system as a functional, adaptive, and dynamic system which mediates between people and places. He seeks to develop such an understanding in “**The Structure of the Land Use Regulatory System in the United States**,” 22 *Journal of Land Use & Environmental Law* 441 (2007). Instead of being inherently inequitable, inefficient, or environmentally destructive, the land use regulatory system functions to mediate between people and places, between communities and power, and between boundaries and freedom. Our land use patterns and practices result from multiple and diverse forces, values, and processes occurring at multiple and diverse scales. However, according to Arnold, the land use regulatory system evolves, and will increasingly effectuate ecosystem conservation goals and methods. **Tony Arnold** is the Boehl Chair in Property and Land Use, Professor of Law, Affiliated Professor of Urban Planning, and Chair of the Center for Land Use and Environmental Responsibility at the University of Louisville. He has served as Chairman of the Planning Commission in Anaheim, CA, a city attorney in Texas, and a member of numerous nonprofit boards and government task forces in Kentucky, California, and Texas. His other works include *Fair and Healthy Land Use: Environmental Justice and Planning* (2007), *Wet Growth: Should Water Law Control Land Use?* (2005), and “The Reconstitution of Property: Property as a Web of Interests,” 26 *Harvard Environmental Law Review* 281 (2002).

In “**Charm in the City: Thoughts on Urban Ecosystem Management**,” 16 *Journal of Land Use and Environmental Law* 153 (2001), **Nancy Perkins** addresses whether ecosystem management concepts should be applied to urban environments, which have been altered, created, and dominated by humans to a greater degree than the public lands or the suburban edges that are often perceived as needing control of human impacts on ecosystems. Drawing on a diverse array of disciplines in the arts and sciences, including ecology, evolutionary biology, phenomenology, geography, aesthetics, urban design and form, feminist theory, and others, Perkins makes an argument for a local-based, flexible management principle of “charm” for urban ecosystems that integrates goals of ecological resilience with the resilience of human-defined and human-supporting sense of place. **Nancy Perkins** is the Associate Dean for Academic Affairs, and Professor of Law at Duquesne University law School. She is Vice Chair of the Sustainable Pennsylvania Program for the Pennsylvania Consortium for Interdisciplinary Environmental Policy, and a member of the Executive Council of the Allegheny County Bar Association Environmental Law Section. Her other works include “What’s Land Got to Do with It?: Rhetoric and Indeterminacy in Land’s Favored Legal Status,” 52 *Buffalo Law Review* 387 (2004), “The Land Use – Environmental Law Distinction: A Geo-Feminist Critique,” 13 *Duke Environmental Law and Policy Forum* 55 (2002), and “Public Participation in Environmental Decisionmaking at the New Millennium: Structuring New Spheres of Public Influence,” 26 *Boston College Environmental Affairs Law Review* 263 (1998-1999).

Nicole M. Ardoin also synthesizes a broad and diverse range of disciplines to understand how “place” shapes humans’ relationships with their environments and how the concept of place should be incorporated into environmental education. In her article “**Toward an Interdisciplinary Understanding of Place: Lessons for Environmental Education,**” 11 *Canadian Journal of Environmental Education* 112 (2006), Ardoin develops an integrated multidimensional concept of sense of place with its biophysical setting, psychological elements, sociocultural elements, and political economic elements, and describes an environmental education framework that reconnects people to places. Nicole Ardoin is Assistant Professor at Stanford University, where she holds joint appointments with the School of Education and the Woods Institute for the Environment and is an affiliated faculty member of the Emmett Interdisciplinary Program in Environment and Resources. She is a member of the Board of the North American Association for Environmental Education, the National Environmental Education Advisory Council of the U.S. Environmental Protection Agency, and the Education Committee of the Society for Conservation Biology. Her other works include “Behavior Change Theories and Free-Choice Environmental Learning,” in, *Free-Choice Learning and the Environment* (Falk, Heimlich, & Foutz, eds.) (2009), “What Difference Does It Make? Assessing Outcomes from Participation in a Residential Environmental Education Program.” 39(4) *Journal of Environmental Education* 31 (2008) (with Stern & Powell), and “A Sustainable Evaluation Framework and Its Application,” 5 *Applied Environmental Education and Communications: An International Journal* 231 (2006) (with Stern & Powell).

The third theme is **reform**. Achieving environmentally responsible land use practices requires an understanding that many of our current practices are not as environmentally responsible as they could or should be. However, opinions and research diverge on exactly what we need to improve, which reforms ought to be pursued and which methods should be used to implement these reforms, who ought to engage in reform, how we should evaluate reforms both pre- and post-adoption, and what are the opportunities for and barriers to reform. The 4 works here represent a diversity of reform approaches: incorporation of conservation science more robustly (or even at all) into land use planning; financial incentives and payments for farmers to engage in ecosystem-supporting uses of land; legal recognition of the public’s right to enforce – by litigation if necessary – the conservation purposes of private property conservation easements; and local governments’ use of their broad yet bounded authority under U.S. constitutional law to adopt land use controls that integrate water quality and water supply concerns. A primary lesson from these works as a group is that no single method or area of reform will be a cure-all. Instead, we need multiple and diverse methods of reforms across multiple and diverse scales of action, aimed at multiple and diverse land-use practices having multiple and diverse impacts on our environments.

In “**Conservation Science for Planners,**” **Reed F. Noss** has updated and adapted his “**Conservation Thresholds: Overview and Commentary,**” in *Lasting Landscapes: Reflections on the Role of Conservation Science in Land Use Planning 1* (Environmental Law Institute 2007). Noss addresses the impacts of land use and development decisions on the conservation of native species diversity and species’ habitat. He examines the opportunities for and obstacles to the systematic incorporation of conservation thresholds – concrete conservation targets developed from research in conservation biology – into land use plans and decisions. He refers to insights from 7 chapters written by land use planners and environmental scientists in an Environmental Law Institute publication devoted to the use of conservation science in land use planning and regulation. **Reed Noss** is the Davis-Shine Professor of Conservation Biology at the University of Central Florida, has served as an ecologist for federal and state environmental agencies for over 35 years, and was Editor-in-Chief of *Conservation Biology*, the leading journal in the field, from 1993 to 1997. His other works include “Integrating Restoration Ecology and Conservation Biology: A Case Study from Ponderosa Pine Forests of the Southwestern USA,” 14 *Restoration Ecology* 4 (2006) (with multiple co-authors), “Policy-driven vs. Evidence-based Conservation: A Review of Political Targets and Biological Needs,” 55 *BioScience* 989 (2005) (with multiple co-authors), and “Extinction Debt of Protected Areas in Developing Landscapes, 18 *Conservation Biology* 1110 (2004) (with multiple co-authors).

In “**Agriculture and Ecosystem Services: Strategies for State and Local Governments,**” 17 *New York University Environmental Law Journal* 424 (2008), **J.B. Ruhl** explores the impact of agricultural land uses on the environment, particularly ecosystem services, which are the many services that nature’s ecological systems provide to human communities and economies (i.e., “natural capital”). Noting that agriculture has long evaded effective state and local land use policies, he makes the case that farms are multifunctional land uses and that state and local land use policies, supported by federal policies, should compensate smaller-scale farmers for the ecosystem services that their farms provide local and regional communities. **J.B. Ruhl** is the Matthew & Hawkins Professor of Property at the Florida State University College of Law. He served as Chair of the Natural Resources Law Section of the Association of American Law Schools, was a member of the Keystone Center’s Endangered Species Act Working Group, and is an elected member of the American Law Institute. He holds not only a J.D. and LL.M., but also a Ph.D. in Geography. His other works include “Cities, Green Construction, and the Endangered Species Act,” 27 *Virginia Environmental Law Journal* 147 (2009), *The Law and Policy of Ecosystem Services* (2007) (with Lant & Kraft), and “Currencies and the Commodification of Environmental Law,” 53 *Stanford Law Review* 607 (2000) (with Salzman).

Carol Necole Brown, the author of “A Time to Preserve: A Call for Formal Private-Party Rights in Perpetual Conservation Easements,” 40 *Georgia Law Review* 85 (2005), addresses the use of conservation easements – private landowner grants of restrictions on development rights to nonprofit or government land trusts for conservation purposes while retaining private ownership of the land – as important tools in land conservation efforts. She makes the case that the public is an intended beneficiary of conservation easements and will be harmed if easement holders and landowners fail to abide by the restrictions in the easements; therefore, the common law of property should recognize private party rights to enforce these easements. **Carol Brown** is Associate Professor of Law at the University of North Carolina, Chapel Hill. She is also the Chair of the Property Law Section and the Secretary of the Real Estate Transactions Sections, both of the Association of American Law Schools, and a member of the Board of Trustees of Heifer International Foundation. Her other works include “Kelo v. City of New London and the Prospects of Development after Natural Disaster,” in *Private Property, Community Development and Eminent Domain* (Malloy ed.) (2008). “Drinking from a Deep Well: The Public Trust Doctrine and Western Water Law,” 34 *Florida State University Law Review* 1 (2006), and “Taking the Takings Claim: A Policy and Economic Analysis of the Survival of Takings Claims After Property Transfers,” 36 *Connecticut Law Review* 7 (2003).

Michael Allan Wolf is the author of “Supreme Guidance for Wet Growth: Lessons from the High Court on the Powers and Responsibilities of Local Governments,” 9 *Chapman Law Review* 233 (2006). Wolf addresses the legal authority and limits of local governments to integrate water quality concerns and water supply planning into land use planning, regulation, and decision making, a trend known as “wet growth.” He examines several hypothetical scenarios that a fictional city – Hydro City – might undertake to control land use in order to protect water resources, in light of 14 lessons about local government powers that can be taken from the guidance of U.S. Supreme Court opinions from 1984 to 2005. **Michael Wolf** is the Richard E. Nelson Chair in Local Government Law at the University of Florida Levin College of Law. He has served as a consultant to the U.S. Department of Housing and Urban Development, and is the editor of the renowned property law treatise *Powell on Real Property*. He holds not only a J.D., but also a Ph.D. in History. His other works include *The Zoning of America: Euclid v. Ambler* (2008), “Euclid Lives: The Survival of Progressive Jurisprudence,” 115 *Harvard Law Review* 2158 (2002) (with Haar), and “Earning Deference: Reflections on the Merger of Environmental and Land-Use Law,” 32 *Environmental Law Reporter* 11190 (2002).

Barely scratching the surface of research on environmentally responsible land use, these 12 excerpted works ideally will stimulate interest in the original works themselves and in the growing “landscape” of research on this topic, which in turn is a key component of environmental sustainability.

Design for Ecological Democracy

Randolph T. Hester

[Republished from Randolph T. Hester, *Design for Ecological Democracy* (MIT Press 2006), with permission of Randolph T. Hester and MIT Press.]



Photo courtesy of Tony Arnold

This book is about building ecological democracy through design. It is about remaking American cities so that we can better work with our neighbors and others; solve intricate community problems that help us sustain our liberty, our way of life, and the ecological systems on which liberty and life depend; and gain pleasure from the places where we dwell. Places that attract an informed and active citizenry, that are resilient ecologically, and that enhance our lives through their livability are the foundation for an ecological democracy that is essential to our nation's long-term health and to lives that are more rewarding than most of us presently live.

The State of American Habitation

What is wrong with the cities we have created? According to most researchers, the way we presently inhabit the earth is not sustainable. They point to the greenhouse effect, to global economics that create international cities and exploit backwaters, to developing-country inequities, and to the loss of cultural and biological diversity. All are critical issues of urbanity.

For example, one thousand species of plants and animals are going extinct each week, primarily because of habitat destruction, and present city forms are in large measure responsible for these declines in biological diversity. But the problems we face every day are more personal and insidious than the loss of biological or even cultural diversity. If we do not address daily issues of habitation, we have little chance of solving more remote ones.

For the last fifty years, at an ever-accelerating pace, cities, subdivisions, parks, even our houses have diminished our daily lives, often in ways about which we are unaware. Poor city design divides us from others in our communities, undermines our sense of community and place, destroys natural habitats that once gave us immeasurable joy (and provided niches for many of those extinct species, some of whose songs welcomed us each morning), and fails to inspire our spirits. In the name of progress, we destroy the best neighborhoods to build highways that are still unable to relieve traffic congestion. The vehicles that ride on ever wider streets add deadly pollutants to our everyday environments, make

neighborhood play unsafe for our children, and turn across-the-street neighbors into strangers. As we improve environments for cars, we neglect walking and grow less healthy. We have subverted the intention of separated land uses to such an extreme that zoning segregation makes it nearly impossible to earn a living and be a parent at the same time. We sanitize our suburbs, but we can't make places where we feel safe. We have lost the balance that makes a city clean enough to be healthy and dirty enough to be happy. We have created pockets of poverty and wealth that cannot be escaped. When people are locked in and locked out, alienated from each other, can these be civilized cities?

In the process of city building, building community has been lost. Traditions of barn raising, through which both physical and social communities were nurtured simultaneously, have been replaced by technical experts, none of whose specialties include making community. They attend to bricks and mortar, street widths and lights, zoning and subdivision rules, contracts and financial bottom lines. Nurturing a sense of community is not a goal, and decisions are made that preclude our ability to work together. A popular downtown post office might be closed and a new one built far from downtown, making chance meetings less likely for downtown business people or shoppers. The budget-saving design of the new post office may further diminish community by eliminating a lobby where people might stop and chat.

We have designed cities that do not take advantage of natural factors. Inspired by their regional characteristics, cities could save billions of dollars in energy, food, drinking-water costs, and waste disposal while providing recreational amenities, local identity, and sense of place. But city makers continue to design urban areas more and more the same and less and less particular to vegetative mosaics, microclimates, air-movement patterns, and hydrologic cycles. We still call resulting urban wildfires, energy shortages, and flood damage "natural disasters." Even innocuous-seeming conveniences of air conditioning, television, home delivery of mail, private swimming pools, the Internet, and underground storm-drainage systems separate us from local environments and render us ecologically illiterate.



I recently worked in a neighborhood where twenty years earlier residents culverted the creek running through their community as part of a city flood-control plan. Although there was no history of flooding on that creek, the underground culvert was seen as a modern improvement, and from that point on, residents were denied access to wildlife along the stream. Today, children in that neighborhood never creek walk or pile rocks to divert water or explore riparian mysteries. They never chase native frogs or dragonflies or marvel at the magic of a tadpole or nymph. In fact, residents of the neighborhood today, adults and children, are unaware that a natural stream ever existed there. Such diminishment of joy have sapped our cities of their ability to nurture us in fundamental ways. We don't know what we've got until it's gone and maybe not even then.

None of these actions—a street widening here, a post office relocation there, air conditioning, stream channelization—seems particularly harmful, but the cumulative effect is devastating on the livability of our cities and on us as human beings. These forces also contribute to environmental and community anomie. From the root anomia, meaning “lawlessness,” anomie is a disease-like state of confusion individuals have developed about how to act toward their neighbors, their fellow citizens, and the landscape. Citizens of the United States and other developed countries have gained freedom from environmental constraints through technology, standardization, and specialization. We no longer experience ecological interdependence in our daily lives as, say, a farmer does. This freedom and affluence have freed us from community responsibility because we can so often provide privately what was once attainable only if shared. Facilities like parks, schools, swimming pools, gyms, and movie theaters used to be provided only in the public realm but now are routinely afforded privately, making civic engagement less essential. Independence from the world around us and disassociation from community offer us enormous short-term freedoms, but adverse long-term consequences—not just for human beings but also for cities—have thoughtlessly resulted. Anomie undermines our humanity and cripples our ability to create fulfilling, inspiring cities. Seemingly freed from our dependence on community and environment, we must choose and forge new relationships with both.

Ecological Democracy

The vicious iterative cycle in which insecure and unrooted individuals make insecure and unrooted cities, which make even more insecure and unrooted individuals, was generations in the making and will be generations in the undoing. Shifts that disrupt the unhealthy cycle are essential. This is the great challenge of our time.

Neither applied ecology nor direct democracy alone can overcome these problems, but when combined they offer hope. Ecological democracy is an antidote to the poisons we have inflicted on ourselves and habitation. More important, ecological

democracy represents the best possible life we can achieve. It offers no quick fix but rather a path for a long journey.

Democracy is government by the people. It is exercised directly through active involvement in a locality and indirectly through elections, following principles of equality and attending to individual needs and broader community goods. Ecology is the science of the relationships between organisms, including our environments and us. It encompasses the study of natural processes, ecosystems, and interactions of humans with each other, other species, and the cities we occupy. It includes principles of social and environmental function and interconnection. It is also a comprehensive, long-term way to think creatively.

Ecological democracy, then, is government by the people emphasizing direct, hands-on involvement. Actions are guided by understanding natural processes and social relationships within our locality and the larger environmental context. This causes us to creatively reassess individual needs, happiness, and long-term community goods in the places we inhabit. Ecological democracy can change the form that our cities take creating a new urban ecology. In turn, the form of our cities, from the shape of regional watersheds to a bench at a post office, can help build ecological democracy.

Life, Death, and Rebirth of Ecological Democracy

Ecological democracy is almost like wedding apparel, “something old, something new, something recurring, something true.” The founders of our country articulated a rural version of ecological democracy that underlies our independence and constitution. Thomas Jefferson envisioned a yeoman farmer who was so in tune with the local landscape that rainfall, stream patterns, forests, soil, and crops informed his every action, public and private. Farmers stewarded the land in Jefferson's vision. Likewise, farmers stewarded democracy through native ecological wisdom and direct grassroots participation. This vision—in spite of being flawed at the time and romanticized now—serves as a recurring American ideal. It is part of our unconscious identity, a self-evident truth. Over time, however, citizenship that was grounded in land stewardship and direct democracy declined to near extinction. Agrarian society became urban, mobile, and specialized. For over a hundred years—from the Civil War to the civil rights movement—our government was run increasingly by professionals and less by lay citizens. Representative government freed us from obligations of local involvement. Urban specialization freed us from dependence on local ecology.

Near death, ecology and direct democracy reawakened in the second half of the twentieth century. They were separately rediscovered in forms that are radically more complex than those that Jefferson likely imagined: something old became something utterly new. New and powerful enough to be considered among the most important discoveries of our time, applied ecological



science and participatory democracy are two forces that most influenced the shift in the postmodern world view. After Rachel Carson sounded the alarm in *Silent Spring* in 1962, ecological principles slowly reworked their way into our consciousness. It became apparent that the built environment must be formed by applied ecology. At first, this ecological thinking focused exclusively on what wild land to conserve and where not to build. But urban ecological design has evolved into a comprehensive understanding of organisms, habitats, and events—natural and political. Likewise democracy has grown! There are twice as many democratic countries in the world today as twenty-five years ago, and in that time, more than sixty-six nations have made a transition from authoritarian regimes. Around the world, a desire for freedom and the associated expectations of citizens to participate directly in city-design decisions are rising and, in many cases, erupting. But these social movements are only infrequently informed by ecological thinking in local governance or the design of democratic habitation. Ecology and democracy are powerful but separate entities.

The Marriage of Necessity and Happiness

Applied ecology and direct democracy have seldom been partners in modern life, either in the political landscape or in the mundane details of everyday life. In my own profession of landscape architecture and environmental planning, applied ecology and participatory democracy were formed from different ideologies. Landscape ecology, even with its holistic view, is based in fragmented scientific study that is theoretical, objective, abstracted, leery of human emotion and magic, and confounded by democratic impulses. Those who first applied ecology to city design saw a crisis so immediate and severe that solutions had to be imposed top down with minimal citizen participation. Skeptical of lay people, ecological scientists echo the words of the legalist scholar, Han Fei-Tzu, who claimed that the intelligence of the general public is not to be relied on any more than the mind of a baby. Direct citizen participation in city design did not come of age in the United States until the 1960s era of civil rights, and it did so with religious, not scientific, zeal. A passion for freedom and equality and a disregard for top-down authority were essential ingredients for grassroots success. The adage “Don’t Trust the Experts” expresses the reciprocal skepticism that democratic movements have for state and corporate science, which so often is biased against the less powerful—and the less powerful include most of us. Of course, it is not this simple. There are good reasons that the application of ecological science to city design and participatory democracy have developed separately and antagonistically.

Whatever legitimate bases for the schism, applied ecology and participatory democracy must be married, otherwise human habitation and life itself cannot be enduring and joyful. Even when combined, ecology and democracy face formidable challengers in the struggle for centrality in the design of our cities. In this struggle between ecological democracy and ever bigger and unaccountable economies, exploitative oppression, global cultural dominance, and our own status seeking, success will depend in large measure

on the strength of the union formed between ecology and democracy.

Urban ecology and active democracy strengthen each other and can make a more vigorous city landscape together. Democracy bestows freedom—the dream of all who do not have it. Freedom can fuel personal fulfillment and, if unchecked, alienation, selfishness, and irresponsibility. Ecology explains our interconnected roles to even the lowliest creatures and makes us think comprehensively and outside narrow confines. In so doing, ecology creates responsible freedom. In a democracy, ecology is the constituency for the future. Ecology provides “the rightly understood” in the political phrase “self-interest rightly understood.” It forges the basis for civil society to address a shared public good among fractured interests. Ecological processes also inspire the form of human habitation in ways that are efficient, cost effective, locally distinctive, and minimally consumptive.

In return, direct democracy enlivens ecology with local wisdom and overcomes the alienation, anomie, and bleakness that some see in a world of severe limits. Hands-on participation shows ecology how to recultivate fallow community and environmental caring. Involvement awakens us to the poetry of place and civic creativity. Enhanced by ecological knowledge, active engagement reveals the joys of nature itself. In spite of biological caution, democracy accommodates human passion for security, new experience, recognition, and sensual response. Direct democracy provides the forum through which ecological thinking becomes part of daily life and decision making. Together—and only when integrated—ecology and democracy provide the foundation for making informed choices and better cities and for discovering more fulfilling lives. The union of ecology and democracy is essential for making a sustainable future and providing us with greater happiness.

Design of City and Landscape Together

Ecological democracy will produce radically new forms of habitation, not in extravagant architecture but rather in a search for roots, foundations, and fundamentals—the basics of a satisfying life. First, however, these new forms of habitation must be created to nourish, sustain, and make a fledgling ecological democracy appealing. I focus on an urban form that encourages us to choose and then create ecological democracy.

I concentrate on the form of the city not because I think that economic and government institutions are less important or that city form determines human behavior but because physical design is what I know best. This book is not about participatory process. I have written about participation elsewhere, and in spite of my commitment to process, I observe that the physical city must be made differently for us to attain the needed social transformation. Form matters to participation. Form matters to ecological democracy. City form influences our daily lives. City form concretizes our values and reflects them back to us. City form can make us a more resilient society and more fulfilled individuals.



Enabling, Resilient, and Impelling Form

There are three fundamental issues of habitation and therefore only three roots to be reformulated to make better cities. To effect the transformation to ecological democracy, our inhabited landscapes need to be attended in these ways. First, our cities and landscapes must enable us to act where we are now debilitated. Second, our cities and landscapes must be made to withstand short-term shocks to which both are vulnerable. Third, our cities and landscapes must be alluring rather than simply consumptive or, conversely, limiting. This metamorphosis of the inhabited landscape must be guided by three fundamental and interrelated traits that integrate democracy and ecology—enabling form, resilient form, and impelling form. These traits are the building blocks of cities where ecological democracy can flourish.

Each of these three foundations is defined by design principles that are grounded in human values, everyday behavior, participatory actions, and ecological processes. By marrying the concepts of the social and natural sciences that are essential for designing the urban landscape, I have distilled fifteen design principles that form a practical thesis for reforming the landscape—from the region, city, and town to the neighborhood, street corner, garden, and household. These fifteen principles are embedded in enabling, resilient, and impelling form.

Enabling Form: “We Got to Know Our Neighbors”

We need to reform our cities so that we can act as communities and not divide and debilitate our deliberative democracy. Enabling form helps us get to know unfamiliar neighbors and facilitates working with them and others to solve difficult problems. Enabling form provides the centeredness that is necessary for both neighboring and shared experiences. A bench at the post office illustrates. It encourages people to linger in a public setting, meet others on their way to get mail, and share news of the locality. Enabling form reveals how interconnected we are to other people and to our landscape. As connectedness permeates our consciousness, it instills the responsibility to care for others far beyond our circle of family and friends. Fairness becomes not a matter of guilt or altruism but a matter of fact. Enabling form allows us to pursue healthy status seeking through the discovery of what is sacred in our everyday habitation. This develops rootedness and a collective destiny that is tied to place and inspires a shared higher civic purpose.

Resilient Form: Life, Liberty, and the Pursuit of Sustainable Happiness

We need to reform our cities to be ecologically resilient. Rather than being ecologically impoverished and imperiled, constantly requiring a technological fix to right the catastrophe prompted by a previous technological fix, resilient cities derive

from the particular character of the surrounding ecology—climate, hydrology, vegetation, and building materials. For example,

buildings can be designed to heat and cool themselves naturally and to provide healthy air, water, food, and shelter for human and wilder inhabitants. Good cities deliver buoyant natural processes, promoting biological and cultural diversity while selectively balancing unity and complexity in city design. Resilient form turns density and smallness from scorn to advantage and limits the extent of urbanization within the bounds of a region, thus enhancing sustainability and providing healthy doses of natural magic for everyday life. The city becomes adaptable and more financially secure. Resilient form fuels life, liberty, and the pursuit of sustainable happiness.

Impelling Form: “Make a City to Touch the People’s Hearts”

We need to reform our cities to impel us by joy rather than compel us by insecurity, fear, and force. The urbanism of mindless free enterprise compels us through insecurity. Domsday regulators compel us through fear and force. Neither is appropriate in an ecological democracy. We must, instead, make cities that impel us because they touch our hearts. Even though future habitation may be fundamentally different than today’s, it will derive from recognizable everyday patterns. Impelling form invites us to be our natural selves. It inhabits our daily lives with the science that is needed to help us be good citizens and also to enrich us. Good cities make us conscious of our oneness with and distinctiveness within the ecosystem, which results in a sense of identity with the places we live, relatedness, and childlike awe. Impelling form produces multiple avenues for stewardship that make both the earth and the stewards themselves healthier. Impelling form provides a variety of urban tempos from light speed to snail’s pace.

Such cities exude joy. They acknowledge grief and despair, but above all, they celebrate lives. An impelling city uplifts us in spite of all else. That is the wonder of good cities.

The Glocal Design Process

Implicit to ecological democracy is a design process that is participatory, scientific, and adventuresome. Because ecological democracy stresses the direct involvement of citizens in local decision making, future habitation will be designed at the grassroots level through direct face-to-face participatory actions. These actions will be holistically informed by local wisdom, attachment to place, and networks of interconnectedness and ecological thinking. They will be neither local nor global but *glocal*. The design process of *glocalization*, in which local decisions are made in the context of external forces and ramifications, is fundamental to ecological democracy. I have articulated this process in previous books, most expressly in *Planning Neighborhood Space with People* (1984) and *Community Design Primer* (1990). This process creates a forum where our best and lesser intentions struggle with each other. It facilitates the uncovering of residents’ best intentions and incites them to act on those intentions.



The Focus Is Design

This book is not about the participatory process itself. It is about city form. It emphasizes how the urban landscape can be shaped to encourage ecological democracy. I explain—through the principles of enabling, resilient, and impelling form—what to think about and give priority to in designing the landscape. I explain how to analyze and synthesize the urban landscape in a focused, efficient way. I use case studies to show how to form places that support ecological democracy. These projects are more inspired by local natural processes and traditional culture than most present city design. The designs are idiosyncratic: they are more ecologically diverse, culturally expressive, integrated, contextually responsive, and internally satisfying and less subject to formalistic fads and status-seeking than most recent modern urbanity. These projects demonstrate that ecological democracy is at once both visionary and achievable. Most of the cases were dreams just out of the grasp of a community but were attained via concerted collective action. They and thousands of similar successes around the country and world are indicators that ecological democracy is emerging. But the foundations and principles, not singular projects, are fundamental to designing for ecological democracy because the foundations of enabling, resilient, and impelling form will inspire landscapes of ecological democracy not yet imagined.

How do these foundations relate as theory? My primary thesis is simple. To create settings for ecological democracy, every design action must simultaneously address enabling, resilient, and impelling form, not separately but together. In this regard, successful designers craft all three into a single fabric. The most rational way to do this is to ask if each of fifteen design principles is being optimized as the design takes shape. I find this theory most applicable when I am wrestling with one aspect of the design problem. I make myself pause and in orderly fashion check each principle to see which principles are being ignored. Usually some are. Rectifying those omissions enriches the design. In this way, the principles serve as a theoretical checklist. Any useful theory of city design should serve this purpose foremost.

But are some principles more important than others? There are two answers. Theoreticians address this question by analyzing which principles explain most of a phenomenon, in this case the design of cities to encourage ecological democracy. In this regard the single most powerful principle is sacredness for both content and operational importance. It expresses values held most dear and that influence urban form directly. Sacredness encompasses centeredness, connectedness, limited extent, and particularness explicitly and all other principles indirectly. This does not conclude causality but rather singular interrelatedness. In the same manner, centeredness, connectedness, limited extent, and particularness rank as more interrelated than other principles. Theoretically, they are more important.

The principles exert parallel catalyst influences on each other, but some are exceptional. For example, sacredness triggers

stewardship and fairness through empathic connectedness. It also counters unhealthy status seeking, which otherwise has a disproportionate negative influence on various principles. Several principles (notably inhabiting science and stewardship), although less connected to others, forge new relationships with place that are based on an understanding of local ecological processes. Catalyst impacts make less connected principles theoretically vital to ecological democracy.

The practical answer to the question of which principles are most important is that it depends on the context of each city region. For example, centering and limited extent are lacking in most American cities and need to be the first order of business, from both a theoretical perspective and the nitty gritty of city making. But in cities like Boulder, Colorado, and Los Angeles, where limited extent is being addressed, other principles take precedence. Similarly, the lack of density is a first-order priority in most American cities but less so in Honolulu. The principles should be continually evaluated so that focused attention can be paid to the most critical issues rather than to symptoms of any given region. This must be done without losing sight of the overriding consideration that these principles are interconnected and must be addressed simultaneously.

Bounded People, Boundless Lands: Envisioning a New Land Ethic

Eric T. Freyfogle



Photo courtesy of Tony Arnold

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In America, settlers began thinking about land and landownership the moment they stepped ashore, seeking to make sense of the unexplored continent and to figure out their role on it. Americans' focus on boundaries and working the land has continued ever since, framing societal attitudes toward private property ownership to the present day.

Tales of Eden, Old and New

As the first colonists went about their backbreaking work, they instinctively turned to the Bible to supply meaning and context for their lives. For some of them, the New World was a promised land, not unlike the land Moses sought in the Exodus. For John Winthrop and his band of Puritans, New England was the place God had chosen for them to erect their city on a hill that their light might shine forth in accordance with the Sermon on the Mount. Over and over, though, it was the Book of Genesis, and, within Genesis, the story of Adam and Eve in the Garden of Eden that gave the colonists a sense of what they were about.

The Eden narrative fascinated the colonists just as it had caught the interest of generations before them. Their fascination arose, paradoxically, as much from the story's ambiguity and malleability as from its importance. The Eden story wasn't so much a single tale as a collection of raw materials from which several tales might arise. One narrative that took root likened the New World to the Garden of Eden itself. Just as Adam and Eve had been placed in Eden, so, too, were the colonists led to America. It was a lush, fertile land, this America, so wonderfully designed and so abundant in its yield that the colonists' needs would be met forever. In this interpretive myth, America was a friendly, productive place. The unbroken forests represented wealth, as did the rivers teeming with fish. To enjoy this garden, the colonists needed merely to live in it, in as godly a way as they knew how.

Alongside this America-as-Eden narrative grew a second, much different one. In this alternative story, America wasn't Eden; it was the wilderness to which Adam and Eve had been banished when they misbehaved. Now, this wilderness had much

potential, but the colonists needed to transform it with their labor, taming it and controlling it, before the land would be habitable. In this story, the ideal garden was not the unaltered land that greeted the colonists when they first arrived but rather the well-tended, pastoral countryside around a New England village or a Virginia plantation. Trees had to be cut, the land plowed, fences erected, and wild beasts driven off before Eden would rise again.

This second narrative diminished the luster of the raw New World, but it comported better with the realities of hardworking frontier life. It also fit well with the institution of private landownership, so important in the colonists' lives. Adam and Eve might have frolicked and gamboled, feeding on grapes at their leisure, but colonists had to work hard for their bread. And they didn't want to work without knowing they could reliably harvest what they planted. They wanted, that is, their own private property. Back in England, land had been hard to get. In the New World, land was plentiful, and few colonists were content to go without. By the time of the Revolution, colonial culture had changed markedly, and the economy had changed along with it. Individualism had become much stronger, and nature was increasingly viewed as a collection of natural resources rather than a mysterious, organic whole. In the economic realm, more and more farming was done to produce surplus crops or livestock for the market rather than food for home consumption. A true market economy was rapidly developing. To Americans wrapped up in this change, John Locke's writings made a good deal of sense. Locke celebrated the common individual, arguing that he possessed natural rights that existed independently of the state and that trumped even the powers of the king. Preeminent among those rights was the right to own property. As Locke interpreted the Bible, God originally gave Earth to humankind as collective property, yet any individual could seize a piece of land from the common stock and make it his own simply by mixing labor with it. Before labor was added, the land had no value. Once labor was applied, however, value arose and the tilled land became private property.

Locke's theory of property ownership made particularly good sense in North America, more so than in England. Frontier



colonists could readily agree that labor was essential to the creation of value. Moreover, because land was plentiful, one person's occupation of land didn't deny others the chance to gain land, too. By contrast, in England a person had to buy property or inherit it, and one person's occupation of land did limit another's chance to do the same.

Americans instinctively linked Locke's theory of property ownership to the second interpretation of the Garden of Eden story, the narrative of progress in which labor transformed the dangerous wilderness into a peaceful, pastoral garden. North America was the raw land described by Locke, waiting to be seized. By laboring on it, the colonists gained property rights at the same time that they transformed the land into the new Eden. Private landownership, it turned out, was a highly effective engine of progress, providing just the incentive needed to induce the rebuilding of paradise.

Eventually, this progressive story of human labor taming the wilderness overshadowed the first interpretation of the Eden story, which valued more highly the untouched land. Thomas Jefferson kept alive this first narrative when he defended the beauty and perfection of North America to his doubtful European correspondents. And by the time Jefferson died, in 1826, the first tradition enjoyed renewed favor among romantic writers, who looked to nature for meaning and inspiration. But writers were an elite few, and it wasn't until the end of the nineteenth century that this interpretation regained much support. By then, the frontier era had ended and people were beginning to mourn the loss of wild places. Outdoor hiking and camping became the rage as people sought to regain contact with the dwindling wilds. The Boy Scouts of America and Camp Fire organization (now the Camp Fire Boys and Girls) were founded. John Muir regaled readers with his adventures in the Sierra Nevada and Alaska and gained a rapt audience when he spoke of the inherent value of wildlands. In *The Call of the Wild*, Jack London captured the public imagination with his tale of a domestic dog that joined the wolves. Then there was the true blockbuster of the day, the captivating tale of an English infant reared in the jungle, *Tarzan of the Apes*.

By the late nineteenth century the altered American landscape itself had become more ambiguous in its messages, just like the Eden story in Genesis. Labor could indeed add value to the land and make it more productive, just as John Locke said it did. But land also had value without labor, and it was becoming clear that too much labor could be as bad as too little. When misapplied, labor could bring ruin to the land, scraping away trees, eroding soil, and polluting waters. To alter the wilderness was sometimes to bring not progress but decline.

As the countryside showed more scars of misuse, this declensional interpretation made greater sense to people, prompting calls for conservation, pollution control, and preservation of wildlife refuges and wilderness areas.

Conservation measures became more numerous, placing limits on the expanding market economy that Locke's reasoning had helped propel. At the same time, ethical attitudes toward the land were shifting. To see inherent value in the land, as John Muir and others were doing, was to reaffirm that humans alone had not created all value. If the land had been a fruitful garden before people entered it, then people were merely tenders of that garden subject to divine instructions, and the private property rights they held were limited accordingly. This way of thinking represented a demotion in status for people, from conquerors and creators of value to something less than that, stewards of value that already existed, shepherds of animals and plants lent to humankind in trust.

Over the centuries, Americans have rarely thought of giving up private property or reducing its importance, but they've eagerly debated what property ownership ought to entail. By the end of the twentieth century, the debate over private property ownership had produced four competing views or interpretations: a libertarian view based on maximum individual autonomy; a more traditional view focused on economic opportunity; a community-centered view in which landownership is an evolving tool to meet community needs; and a biocentric view that looks to the land itself to prescribe the rules for its use. All four interpretations contain nuggets of wisdom, and all four need to be understood to see how land health and measures promoting it can fit together with the institution of private property ownership.

The Libertarian Ideal

Over the course of American history, tensions have always existed between the individual landowner and the surrounding community. On one hand, property ownership reflects values associated with individualism, such as privacy, autonomy, and opportunity; on the other, it reflects values linked to community, such as mutual aid and solidarity. In recent years, individualism has resurged, with vocal defenders of individual liberties attempting to chip away at the community's power. Contemporary champions of the individual have not drawn openly on the Bible, but their rhetoric is recognizable as the Lockean version of paradise regained, with private property ownership as the source of traction.

The centerpiece of this powerful rhetoric is the autonomous human, possessor of essential rights and vigorous participant in the market economy.

This first perspective on private property ownership, emphasizing individualism, gained considerable ground in the late 1980s. It was spurred on not only by unpopular environmental constraints but also by the publication of a book that presented the view coherently and passionately — *Takings*, by a libertarian law professor, Richard Epstein. Epstein's book leveled a wide-ranging attack on government regulation, particularly land-use rules. It struck a responsive chord and



quickly became a leading text not only among libertarian scholars but also among wise-use groups, ardent free-market advocates, and all manner of opponents of environmental rules.

Epstein argued that the rights of a landowner were so fixed and secure that governments could do little to diminish them without paying compensation for any resulting drop in value. The only exception was a law that banned an owner from engaging in land uses so obviously harmful to neighbors as to amount to a physically invasive type of common-law nuisance. As Epstein saw things, a landowner could use his land as he pleased so long as he didn't spew pollution onto neighboring lands or otherwise physically disturb what a neighbor was doing. Laws that went beyond banning such invasive nuisances to restrict other, noninvasive activities interfered with a landowner's vested private rights.

Epstein began his book with a story similar to John Locke's. In the early days of pre-history, according to Epstein, humans lived without governments or other communal structures. Land was unowned, and any person could gain ownership of a vacant parcel simply by occupying it. But tensions arose because some people failed to respect the property rights of others, selfishly seizing the fruits of their neighbors' work. Tensions also arose as resources became scarce and people had trouble finding vacant land. In response, people created governments to protect their private rights, vesting them with just enough power to maintain peace. In short, Epstein asserted, ownership of private property came first, and governments were formed to keep it secure.

In his argument, Epstein made extensive use of Locke's writings, particularly Locke's fundamental claim that individual rights existed independently of government and hence trumped the wishes of lawmaking majorities. But where the details of Locke's labor theory didn't really fit his thesis, Epstein quickly revised the theory to meet his needs. The beginning chapter of Locke's story, God's gift of Earth to humans in common, had no place in Epstein's narrative, which was written for a secular audience. Nor did the notion of land initially being owned collectively. If land was owned by everyone, it would be hard to explain how a single individual could seize a parcel and claim ownership without first obtaining group consent. Epstein also rewrote the very centerpiece of Locke's theory — the idea that property rights arose through labor. If working the land translated into ownership, awkward questions quickly arose: How much labor did a person need to expend, and for how long? Could one merely scratch the soil and plant a few seeds, or was major effort required? And what about vacant, undeveloped land? Could a person ever claim ownership of such land, or must it remain unowned until someone finally put it to use? For Locke, the quantity-of-labor issue was a minor detail in his world of presumed abundance, and as for vacant lands, they became government property as soon as governments were created. But all this posed problems for Epstein's argument. In a world of scarcity, the quantity-of-labor questions was simply too important

to ignore. And if the government took over vacant land, it would presumably possess broad discretion to dictate the terms under which people might use it.

In the face of these challenges, Epstein revised Locke's story materially. Epstein's story begins with unowned land, on which an individual need not labor to gain ownership; he or she merely needed to be the first to occupy it. By eliminating the requirement of labor and allowing a person to gain title to vacant land, Epstein avoided problems with Locke's argument and denied governments excessive power over unaltered land. Yet as Epstein made these changes to Locke's story, he wiped out all sense that private landownership rewarded a person for labor expended and thus stimulated that labor. He undercut, that is, Locke's primary reason for viewing ownership of private property as a natural right rather than a social creation.

Epstein plainly was calling for a radical shift in the meaning of private property ownership and in the protection it received under the United States Constitution. He was proposing to his readers, and to the United States Supreme Court, a libertarian alternative to traditional ideas of landownership, an alternative that maximized the freedom of the individual owner to engage in intensive land uses even when these conflicted with the well-being of surrounding communities.

The Traditional Understanding

The second and more truly conservative perspective on private property ownership sinks its roots into traditional understanding of what private property has meant to generations of Americans. It, too, contains an implicit tale of individualism, but its emphasis lies less on autonomy than on self-reliance, mutual respect, and, above all, opportunity. On the contemporary scene, this perspective enjoys support among various members of the United States Supreme Court, most notably Justice Antonin Scalia.

The traditional understanding of property ownership places great weight on property's role in American history, particularly in the late nineteenth century, when the frontier conquest was complete and a market economy dominated. For generations, landless poor from around the world had come to America, gained land, and produced wealth. Along with being a land of opportunity, America was a place of rapid economic growth, and private property ownership was central to that as well. By the end of the nineteenth century, property law had adapted to the new industrial market economy. It had become mature, and in its mature state it protected the individual land parcel as a discrete market commodity and as the indispensable site of domestic life and economic enterprise.

Like Epstein's libertarian view of property ownership, the traditional interpretation sees human labor as adding value to the land. Because landowners can reliably reap where they have



libertarians note, people act industriously only when they stand to gain as individuals, so private landownership must offer them chances to labor and earn wealth. Land development must remain possible, and economic expectations must be protected.

Unlike the libertarian view, however, the traditional interpretation recognizes the reality and utility of human communities. Because land uses are not as discrete as John Locke supposed — their effects spillover property boundaries — the community has the right to regulate an owner's rights and to change them over time, a function largely denied it in the libertarian scheme. But such changes can occur only if property's traditional core functions are adequately preserved.

The traditional understanding of private property ownership — the “historical compact,” as Justice Scalia would call it— protects particular core rights, including the right to build a home and otherwise labor on the land in time-honored ways. Landowners have the right to exclude anyone from their property as well as rights to reap, and profit from, the land's produce and to transfer ownership of the land at will. The community has no legitimate interest in what the landowner does within the bounds of his or her own land: A landowner who wants to ruin the soil, strip the trees, or destroy wildlife habitat is free to do so, so long as the harmful effects of such conduct don't traverse the all-important boundary. What the community can rightly control are the adverse effects a landowner has on neighboring land and on the community as a whole — not just physical invasions of neighbors' property, as in the libertarian vision of landownership, but also the effects of land uses that clearly threaten the public's health, safety or welfare.

This traditional interpretation appeared in several prominent Supreme Court decisions in the late 1980s and early 1990s, most of them written by Justice Scalia. The first prominent case, *Nollan v. California Coastal Commission*, arose in California and involved a landowning couple, the Nollans, who sought a permit to convert their beachfront vacation cottage into a much larger, year-round home. The California Coastal Commission, charged with protecting and enhancing the coastal zone for the common good, was willing to allow the construction but only if the Nollans in return granted the public permission to walk along their beach, up to the high-tide line. As the Supreme Court viewed it, however, this regulatory requirement cut too deeply into the core values of private property ownership, both the right to exclude and the right to build a structure as ordinary as a home.

A second Supreme Court decision, *Lucas v. South Carolina Coastal Council*, was also warmly received by conservative audiences. The case involved a land developer, David Lucas, who owned two vacant lots on a barrier island off the coast of South Carolina. Other landowners on the island had built homes, and Lucas merely wanted to do the same. But before he broke ground, the South Carolina legislature, in response to evidence that construction on fragile barrier islands caused many problems,

imposed a ban on construction close to the water — a ban that covered David Lucas's lots. As in the Nollans' case, the Supreme Court viewed the state law as the equivalent of a physical taking of Lucas's land. The law, Justice Scalia announced, undercut Lucas's legitimate expectations. As a landowner, he was entitled to make economic use of his land so long as he avoided doing anything traditionally considered harmful, and building a home was almost by definition not harmful. If the state wanted Lucas's land set aside as a nature preserve, it should buy it from him.

As it went about resolving these cases, the Supreme Court appeared troubled by the prospect that a group of lawmakers could simply awaken one day and change all the rules of landownership, with no compensation to those most affected. That power, the Court seemed to say, posed too much of a threat to property's core entitlements.

The *Lucas* decision drew strong dissent from other members of the Supreme Court who were willing to give South Carolina's legislature greater leeway in balancing environmental goals with the benefits of secure development rights. Over time, the dissenters pointed out, circumstances and values change. Conduct once considered innocuous, even building a house, can come to be viewed as harmful. Ecological effects once ignored or tolerated can become more worrisome. A legislature that had allowed unwise development in the past, before ill effects became known, shouldn't be prevented from changing its course.

As embraced by Justice Scalia, the traditional view of property ownership displays a certain distrust of democracy. Lawmakers can act to halt newly identified harms, but they can't suddenly ban ordinary development even on ecologically sensitive land, at least when landowners have little advance notice. They can't cut too deeply into property ownership's core attributes, and they can do nothing to reduce the landowner's cherished right to exclude.

Property and the Evolving Community

A third understanding of private property ownership focuses on the social community and the ways in which property rules serve the community's evolving needs. Lacking any single author as conspicuous as Richard Epstein or Antonin Scalia, this perspective nonetheless shows up regularly in the discourse and writings of many community advocates, cultural critics, and academics, some concerned with environmental degradation, others with pervasive urban and social ills.

The community-centered perspective takes direct issue with John Locke's imagined history of private property's origins. Property really came into existence, advocates of this position note, after, rather than before, human communities arose. Indeed, private property ownership is an institution that makes sense only within a community, among people who have shared interests and who respect one another's entitlements. Far from pre-dating the



emergence of states, property is a creation of states; a creation of communities that use it as a means of achieving particular aims, such as maintaining communal solidarity and promoting economic enterprise.

Viewed from this perspective, private property ownership is very much an organic institution, created by people and subject to change by them. Community interests are paramount, and the community can set limits on what landowners do. In the interest of environmental protection, for instance, a community could ban development on ecologically sensitive lands or require landowners to take affirmative steps to promote the welfare of wildlife, or limit harmful drainage practices, or mandate particular types of forestry management.

Proponents of this view warmly embrace the study of history, often noting how landownership rules have varied widely in different times and in different cultures. What they derive from history is not the more tradition-bound bundle of substantive property rights—as in the case of the traditional view of property—but the overriding lessons of continuous change and community control.

Strong individual property rights are not at odds with this view of landownership. A community might decide, for instance, that extensive individual rights usefully promote economic activity and thus indirectly benefit the whole community. But in the end, the benefits that come from secure property rights are subject to conflicting values and trade-offs, and it is up to the community to make those trade-offs—to decide when the individual's wishes will prevail and when the community's will.

The Land as Lawgiver

The fourth view of landownership, based on the land's natural uses, shares features with both the libertarian view and the community-centered view. Like the libertarian alternative, it reflects a great suspicion of democracy and seeks to ground landownership normal in durable values, protected from a misguided populace. Yet it also sees a landscape made up of interdependent pieces, with property rights limited by the community's needs.

In the legal literature, this natural-use narrative found its classic expression in 1972 in a decision of the Supreme Court of Wisconsin. The decision was rendered in the case of *Just v. Marinette County*, involving the validity of a then novel regulation protecting sensitive wetlands. The legal issue before the court was a constitutional one—did the wetland regulation affect the landowner's core property rights to such an extent that the community ought to compensate the landowner for the loss? To get to that constitutional issue, however, the court first had to define ownership, with particular reference to a sensitive parcel such as a wetland.

Early in its opinion, the Wisconsin court framed the relevant questions as plainly as it could: "Is the ownership of a parcel of land so absolute," it queried, "that man can change its nature to suit any of his purposes?" To this court, knowing what it did about the ecological roles of wetlands, the answer seemed clear:

An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others.

To own sensitive land such as a wetland, the court announced, was to have the right merely to use land in "its natural state" and for its "natural uses"; it didn't include the right to change "the character of the land at the expense of harm to public rights." Nature set its own limits on how land could be used and on the rights landowners could possess.

More than any of the other three views of private property ownership, the natural-use view implicitly embraces the Eden narrative of decline, which portrays the untouched land as a bountiful garden and human-induced change as a cause of degradation. From this perspective, the land itself is the lawgiver, supplier not of the details of ownership but of broad limits beyond which owners may not wander. Landowners may neither materially alter their land nor do anything to disrupt natural ecosystem processes. By vesting such power in the land, this perspective limits considerably the range of private property rights a community can create and thus impose constraints on democratic processes.

Just v. Marinette County remains a well-loved decision among committed environmentalists, but its pure version of natural property rights has not caught on. Even admirers of the decision realize that nature's ways are not so clear and predictable as to always distinguish good land uses from bad. Ecological processes are complex, and it's often hard to know what effects a land-use change will have on surrounding lands and whether the change will or will not diminish land health. Beyond the nagging difficulties of scientific uncertainty there is discomfort with the idea that people can't make their own laws. To embrace nature itself as a source of rules, binding on lawmakers and without human interpretation, tinkers with much more than the law of private property: It alters the entire idea of sovereignty and public power. The natural-use perspective therefore needs revision to make it tolerable to the modern democratic mind. Nature's integrity can remain a bedrock value and limit, but humans must control the lawmaking process, interpreting the land scientifically and ethically and translating their conclusions and choices into new landownership norms.

Toward a New Narrative of Owning

The environmental movement has stumbled during the past decade in no small part because of clashes over property rights.



Community

As many people see it, laws protecting the environment threaten the core values of private property ownership, and the threat seems to be growing. The story of America has been about economic opportunity, landowner independence, and private property ownership—and environmentalism seems to threaten them all; it threatens, that is, the entire progressive narrative that's been so central to American's self-image.

Despite recent Supreme Court decisions such as *Nollan* and *Lucas*, the Constitution's protection of private property rights imposes only minor restraints on the power of governments to reshape property laws. Legally, states have considerable leeway in drafting land-use rules, banning activities deemed harmful and insisting that landowners fulfill newly imposed obligations. In other words, states have the power to adopt any of the four perspectives on private property and shape their property laws accordingly. Over the long run, their choices will be based on public sentiment along with raw political power, which means the state and local governments will embrace a more ecologically oriented view of property only when the public asks for it or at least stands willing to support it. Public sentiment, of course, is affected by many factors, including awareness of environmental problems and willingness to change behaviors to alleviate them. But to many, property ownership by its very nature is linked with freedom, opportunity, and progress—all at the heart of America's self-identity—and when the law tinkers with ownership rights, it threatens these core values as well.

A central task in the promotion of land health will be the crafting of a new perspective on landownership and, surrounding that, a new perspective on the larger American enterprise. Hardly any conservation task is more important, and work on it has only begun.

Third Way Environmentalism and the Promise of New Urbanism

from *The Landscape of Reform*

Ben A. Minter



Photo courtesy of Patty Tabbert

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The American environmental tradition is often said to be torn between two diametrically opposed moral visions. On the one side lay “anthropocentrism,” with its penchant for viewing the environment through the lens of human interests (and usually in the colors of economic good). On the other lay “ecocentrism,” with its unbending defense of the “intrinsic value” or “inherent worth” of wild species and ecosystems. The stories we have told about the historical development of American environmental thought have certainly tended to reinforce the dualistic understanding. For example, historians and philosophers often trace the alleged rupture in the moral foundation of American environmentalism to the showdown between John Muir and Gifford Pinchot over the damming of the Hetch Hetchy valley in Yosemite National Park in the early part of the 20th century. The Muir-Pinchot row over Hetch Hetchy, and its subsequent interpretation by scholars, has done much to solidify the most infamous incarnation of the environmentalist dualism: the divide between “conservation,” referring to the “wise” or sustainable development and use of natural resources, and “preservation” (or in some cases, simply “environmentalism”), denoting the protection of environmental systems from the insults of human use.

While the dualistic narrative captures a real tension running through the history of environmental thought and policy reform, I think that the anthropocentrism vs. ecocentrism/ conservation vs. preservation framework, especially in its more dogmatic varieties, has tended to oversimplify what is in fact a very complex and rich moral tradition, one that is not nearly as bifurcated as the received account would have us believe. In particular, the black-and-white nature of this narrative has had the effect of foreclosing the possibility of a more tempered and philosophically pluralistic approach to environmental ethics and politics; that is, the option of a pragmatic alternative running between the zealous “humans first!” and “nature first!” camps.

This alternative, “third way” tradition in environmental thought is marked by its embrace of a pluralistic model of environmental value and action that accommodates both the prudent use and preservation of nature, rather than demanding that we must always choose between these commitments. The

third way view supports a wider and more integrative perspective in which human ideals and interests (including economic interests, but also other nonmaterial social, cultural, and political values) are seen as wrapped up in the natural and built environment, and are secured and promoted through deliberate and broad-based planning and conservation efforts. It is also a politically-grounded and civic-spirited tradition in environmental thought: environmental planning and conservation efforts are not socially autonomous pursuits focused just on the protection of nature and landscapes, but are powerful means for advancing the ends of civic regeneration and social improvement.

Key historical figures in this tradition include Liberty Hyde Bailey, a horticultural scientist and rural reformer who was a leading figure in the agrarian wing of the Roosevelt conservation movement; Lewis Mumford, an urban theorist, cultural critic, and regional planning thinker active in the Regional Planning Association of America (RPAA) during the interwar period; Benton MacKaye, a forester and conservationist (and Mumford’s RPAA colleague) who proposed the Appalachian Trail in the 1920s; and finally Aldo Leopold, the forester-philosopher and author of the environmentalist classic *A Sand County Almanac* (1949). Despite their differences, all of these thinkers were deeply concerned about the health of American political culture and the civic capacity of the community in the face of industrial and urbanizing forces in the first half of the twentieth century.

Even though they were often occupied — especially Bailey and Leopold — with the moral character of our relations with the natural world (in some cases going so far as to express a commitment to the intrinsic value of the environment), the figures in this third way tradition also viewed citizens’ attitudes towards nature as playing a pragmatic or instrumental role in the criticism and transformation of American social and political experience. Their proposals for land conservation and their regional and wilderness planning efforts were at the same time attempts to assert environmental values — and especially the ideal of a “balanced” or “healthy” landscape — as vital public commitments and essential parts of the good life within a modern democratic community.



Today, the third way tradition finds practical expression in a variety of planning, policy, and management efforts, from the rise of “integrated conservation and development projects” in international protected area programs, to the intertwining ecological and social goals of local/civic agriculture, to the multiple expressions of community-based resource management. One of the more intriguing examples of third way or pragmatic environmentalism to emerge in the past two decades has been advanced by a group of architects and planners under the banner of “New Urbanism.” In general, New Urbanists are focused on reshaping urban and suburban landscape planning and design at several scales, from the individual building and the block, to the neighborhood and city, to the ecological region or watershed. The more ecologically-oriented practitioners of the movement have articulated a comprehensive agenda that attempts to incorporate a respect for natural and agricultural systems, parks and open space – all within a proposed framework of traditional neighborhood planning. Many of the New Urbanist ideas are not original to the movement, but are in fact a creative repackaging of earlier planning and architectural traditions.

For example, we can see some of the social philosophy and design elements of the Garden City and City Beautiful Movements, as well as the regionalism of Mumford, MacKaye, and their allies in the New Urbanist program. From the Garden City idea and the regionalists, New Urbanists have borrowed the dense design pattern and the emphasis on incorporating natural elements in the urban plan (e.g., parks and greenbelts), as well as many of the earlier movements’ communitarian aims. From the City Beautiful Movement, they have inherited a concern for civic architecture and public spaces, and the overarching desire for aesthetic improvements in the built environment. New Urbanism also demonstrates the affinity for diverse, mixed-use neighborhoods and compact community structure found in the work of the urban theorist and cultural critic Jane Jacobs, especially her classic 1961 book, *The Death and Life of Great American Cities*.

Although the New Urbanists are a diverse lot — with some practitioners focusing more at the scale of the building and street, others on the neighborhood, the city, and/or the region, etc. — they are of one mind in their hostility to the dominant post-World War II development pattern and its impact on the built and natural environment. New Urbanists have thus emerged as some of the fiercest critics of the various types of suburban “sprawl”: the rise of low-density settlements on the metropolitan fringe comprised of single-family households in homogenous subdivisions. New Urbanists are particularly concerned about how sprawl development has led to the loss of the traditional (compact) mixed-use neighborhood, and how it has promoted the blurring of spatial distinctions and physical boundaries at the center and edges of the city. They also lament how this process has promoted the physical and socio-economic decay of the inner city, and are greatly troubled by the erosion of a local sense of place as well as the decline of community cohesion and civic spirit.

Much of the New Urbanist critique of contemporary sprawl focuses on the negative environmental and social impacts that have resulted from poor land use and planning decisions over the past five-plus decades. On the environmental report card, New Urbanists – as well as most other critics — give the sprawl pattern a failing grade. They emphasize in particular how peripheral suburban development and longstanding single-use zoning practices (in which residential, commercial, and industrial land uses are spatially segregated, with residences often located far beyond walking distance to jobs, shopping, and other services) have forced citizens into an arrested state of automobile dependence. This dependence produces unsustainable and polluting burning of fossil fuels, which in turn generates local and regional air pollution and contributes to greenhouse gas concentrations (exacerbating the problem of anthropogenic global warming). In addition, each new sprawl-type development built on former greenfield sites either degrades and destroys natural communities and various types of open space, or removes rural farmlands from production.

Moreover, New Urbanists argue that these modern suburban fringe settlements and their automobile-centered transportation systems are also socially corrosive. Among other problems, forced automobile reliance produces greater commuter stress, increases the risk of injury and death due to traffic accidents, and is at least partly responsible for higher levels of obesity in the population (since we are driving to places where we might have walked if we lived within a traditional compact, mixed-use neighborhood design). Furthermore, the burdens of auto-dependency are not equitably distributed. The poor who cannot afford to buy and maintain cars are disproportionately impacted, as are the elderly, who become “trapped” in suburbia if they become unable to drive. For New Urbanists, all of these conditions, combined with a lack of adequate public transportation alternatives, paint an environmentally destructive and socially unjust picture of contemporary suburban and urban development.

New Urbanists have also, as mentioned earlier, made a point of eulogizing the loss of a sense of “community” in the contemporary suburban neighborhood, and they have decried the shrinking domain of public space and the disappearance of inspiring civic architecture in American towns and cities. It is clear that many in the movement view the physical and social realms as closely connected, with physical design and planning seen as allowing, and in many cases encouraging, various forms of valued social interaction (e.g., pedestrians meeting on the street, the sharing of public transportation, gathering in public places, etc.) seen as being essential to building a vital and close-knit neighborhood life. As two of the movement’s most influential founders, Andres Duany and Elizabeth Plater-Zyberk write in their New Urbanist manifesto, *Suburban Nation* (co-authored with Jeff Speck), “Community cannot form in the absence of communal space, without places for people to get together...In the absence of walkable public places – streets,



squares, and parks, the public realm – people of diverse ages, races, and beliefs are unlikely to meet and talk.”¹ Civic life, as historian Christopher Lasch observed, rests upon conversation among citizens in public spaces where people meet as equals (e.g., the park, the coffeehouse, the street corner). With the decline of public space and civic institutions generally, Lasch believed, the opportunity to practice and develop this all-important civic art of conversation has been dramatically diminished.²

These sorts of views about the relationship between physical design, environmental protection, and civic life are set forth and ratified in the New Urbanist Charter, which was formally adopted at the Fourth Congress of New Urbanism in 1996. “The Congress of the New Urbanism,” the Charter’s preamble reads, “views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society’s built heritage as one interrelated community-building challenge.”³ While admitting that physical design solutions “by themselves” will not solve these social and economic problems, the preamble states that “neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.”⁴ New Urbanists thus hope to create what many observers have referred to as a “social architecture”: they seek to encourage social interchange and to renew civic bonds and public values through the implementation of neo-traditional physical designs and features on the landscape.

The Charter proceeds to enumerate a set of architectural and planning principles that cover the scalar range from the single building to the wider ecological region. Several of the principles address the conservation and protection of the natural environment in tandem with suggested reforms for the design and layout of the built landscape. For example, the Charter points out that properly conceived metropolitan areas are not independent of natural systems and their limits; i.e., cities cannot exploit resources, generate waste, pollute land, air, and water, and expand with wild abandon. Instead, they are “finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins,” places that have a “necessary and fragile relationship” to their surrounding agricultural and natural landscapes.⁵

Accordingly, the Charter encourages growth strategies such as “infill development” whenever possible; that is, the siting of new development in existing areas within the city or established suburb in order to avoid further blurring the metropolitan boundaries at the periphery and, in the process, conserving natural resources and keeping the “social fabric” of the neighborhood and city from becoming frayed by scattering its citizens far afield. Not surprisingly, transportation alternatives to the automobile are also accented in several of the principles, with

the development of pedestrian, bicycle, and public transit systems claimed to yield both environmental and social benefits (of the sort discussed above). Furthermore, the Charter principles suggest incorporating naturalistic landscape elements (such as parks and community gardens) within neighborhoods, and also the construction of buildings that are both climatically and topographically appropriate and energy-efficient. There is also a call to support the preservation of historic structures and landscapes, suggesting that these features “affirm the evolution and continuity of urban society.”⁶

Portland, Oregon is widely considered to be the most successful example of this kind of coordination, with its integration of a popular light-rail and bus system, bike paths and walkways, and a famous (and largely effective) urban growth boundary to contain metropolitan development. Portland’s approach, including its attempt to bring the built environment into balance with the natural one through the inclusion of greenbelts, parks, and similar features; and its efforts to humanize the scale of architecture and reinvigorate public space, has led several observers to note the direct influence of Lewis Mumford’s earlier regionalist ideas on the city’s land use reforms over the past three-plus decades, not to mention his legacy for Portland’s much-deserved reputation as an icon of progressive planning.⁷

Despite the great enthusiasm of many New Urbanist leaders, the reception of New Urbanist ideas among the professional design community has been lukewarm at best (and at worst, downright hostile). Architectural critics have been particularly scathing in their remarks about New Urbanists’ celebration and employment of neo-traditional building styles, suggesting that these predilections stifle creativity and shackle architects to the conservatism and worn-out forms of the past. New Urbanists like Duany and Plater-Zyberk have replied that their embrace of traditional building design is not a sentimental exercise in nostalgia for nostalgia’s sake, but an attempt to return to the human-scaled, functional, and regional styles that characterized the pre-sprawl landscape. They have also argued that this broad stylistic commitment need not imprison aesthetic creativity, since it allows for the imaginative interpretation of local vernacular forms and site characteristics. The real problem, many New Urbanists suggest, lies with the modernist architects who are “violently allergic” to traditional-style architecture and dismiss it out-of-hand, even as their own avant-garde designs contribute little to facilitate human communication and personalization.⁸ Architect Daniel Solomon, another co-founder of the Congress for the New Urbanism, has written that the New Urbanist penchant for traditional forms is in fact a healthy revolt against the vacuous trendiness of modern architectural designs. “The willingness of New Urbanists to use architectural style, in some cases even – dare one say it – historical styles, as a weapon in the struggle against the dreadful tide of homogenization of places is an affront to the fundamental ethos of orthodox modernism,” he argues.⁹



Other critics are suspicious of the social and political aspirations of the New Urbanists. Several commentators, for example, have pointed out the failure of some New Urbanist projects to become the demographically-pluralistic-yet-communal enclaves promised by the movement and sanctioned by its Charter. Still, it is clear that New Urbanists are serious enough about these ends to make them defining features of their program. Even if New Urbanist projects fail to live up to one or more of the movement's principles, for example, the Charter acts as a critical normative standard for evaluating their performance, and the principles are also tools that can stimulate further deliberation, self-criticism, and correction as the movement advances and improves its project execution. Nevertheless, some detractors, such as Alex Marshall, have faulted New Urbanism for being too utopian, avoiding hard choices about infrastructure and growth control, and selling an idyllic urban image that bears little resemblance to the complexity and difficulties of real urban experience.¹⁰

While these criticisms may apply to some projects being advanced under the New Urbanist banner, I don't think that they accurately characterize New Urbanism as a whole. New Urbanists like Peter Calthorpe, for example, have long been occupied with the challenges of integrating regional growth, transportation, and infrastructure issues. Moreover, the increasing number of urban infill projects following New Urbanist principles – projects which also include a range of affordable housing alternatives – suggest that the movement's goals for an “authentically urban” experience are increasingly being met, though perhaps not as often and as significantly as its critics would like.

The environmental credentials of the movement have also been called into question. Some critics have argued, for example, that in practice New Urbanist projects do not, in fact, end up as urban infills, but are built instead on greenfield (undeveloped) sites on the suburban fringe, thus contributing further to sprawl development and to the loss of natural areas and farmland. Others – even New Urbanist sympathizers – have noted that New Urbanists often do not go far enough in their integration of ecological principles in their projects, including their traditional neglect of green building practices and their failure in some cases to link new developments to convenient transportation systems (which, as we have seen, is a hallmark of the New Urbanist design philosophy).

While it is certainly true that environmentalist concerns among the New Urbanist thinkers vary in their scope and intensity, and that these ideals are not always fully realized in practice, environmental commitments do play a prominent role in the New Urbanist Charter, as we have seen. Furthermore, although greenfield developments may have been more prominent in the early years of the movement, as mentioned above New Urbanists can point today to scores of successful infill projects, including Crawford Square in Pittsburgh, the Vermont

Village Plaza in South Central Los Angeles, and the much-heralded Fruitvale station area in Oakland, California.

There are also promising signs that ecological design principles are now playing a much greater role in New Urbanist projects. This is evidenced by two high-profile infill buildings – the Chicago Center for Green Technology and the Natural Resource Defense Council's Robert Redford Building in Santa Monica, California – designed by New Urbanist architects – that have received platinum ratings from the United States Green Building Council. Perhaps because of some of the earlier criticisms, New Urbanists seem to be engaging environmentalist concerns more deliberately and seriously of late. The 12th congress held in Chicago in June 2004, for example, not only included a plenary session devoted to “The Sustainable City,” but also held a discussion about amending the Charter to clarify the relationship of New Urbanism to environmental issues and concerns. And the increasingly ubiquitous phrase “Green Urbanism,” which has been bandied about recently among some New Urbanists and their allies, clearly suggests a more overt connection with green architecture, urban ecology, nature conservation, and other environmentalist issues and initiatives.

Indeed, just as New Urbanists can take lessons from the organizational power and political commitment of environmentalists, the latter can learn from New Urbanists that the city and the neighborhood are an important part of a truly comprehensive environmentalist agenda. Given the growing environmental thrust of New Urbanism, as well as the increasing number of calls for a more urban agenda in environmentalism, the establishment of a strong philosophical, strategic, and tactical relationship between the New Urbanist and environmental movements would seem to be both pragmatically appealing and intellectually compelling for both camps.

The New Urbanist movement thus offers an interesting and potentially very potent mix of architectural, environmental, and social-political elements, all of which are intended to counteract what its supporters see as the devastating impacts of sprawl development on the natural and built environments and its toll on the social, political, and economic life of communities. It is a broad and humanistic environmental vision: New Urbanists believe that our communities should be attractive, equitable, diverse, human-scaled, and pedestrian-oriented places that are solicitous of nature, while also reinforcing neighborhood pride and a common sense of place and civic identity. It is also a pragmatic and pluralistic vision; environmental values and ends (e.g., protection of natural areas, energy efficiency, improved air quality, etc.) are secured hand-in-hand with social improvements (e.g., aesthetic enhancement, improvements in pedestrian health and safety, development of a sense of community and civic spiritedness, etc.). There would appear, in fact, to be an intriguing convergence of environmentalist commitments (which may even include intrinsic-value of-nature positions) and various social values in the New Urbanist argument for creating compact,



pedestrian-friendly, mixed-use, communities that are also sensitive to the rhythms and values of the natural world.

The Charter's emphasis on the provision of public space and its encouragement of the interaction and communication between citizens of all ethnic and socio-economic backgrounds underscores as well the civic intentions of the movement, in which physical planning and design are used as tools to foster the development of what New Urbanists see as authentic community life in an era of privatization and placeless sprawl landscapes. In their criticisms and their prescriptions for a reformed physical and social environment, New Urbanists resurrect many of the arguments of Lewis Mumford, Benton MacKaye, and their regionalist colleagues in the 1920s and 1930s, especially the ideals of integrating urban forms in the natural world and creating a human-scaled communal environment appropriate to a democratic political culture. We can also see shades of philosopher John Dewey's democratic thought in the New Urbanist emphasis on the local face-to-face community and their concerns about providing a means for a democratic public to recognize itself as a common enterprise, one that all citizens have a material and social interest in promoting and sustaining.

Clearly, one of the political and policy strengths of the New Urbanists is their "big tent" philosophy. The New Urbanist agenda has a place not only for architectural and planning reformers, but environmentalists, housing advocates, landscape architects and engineers, business leaders, real estate developers, public officials, and others interested in healthy, livable, and successful communities that also have the potential to reduce the human ecological footprint. By adopting an integrative and inclusive platform, one that addresses issues pertaining to the built and natural environment as well as the social, economic, and political vitality of such communities, New Urbanists appeal to a potentially powerful democratic coalition of groups and interests, thus building a large constituency for their design and land-use reform goals.

While New Urbanists often struggle internally over the commitments of the movement and its strategic focus (e.g., whether they should emphasize the individual building and block, the neighborhood, or the region in their projects), they are ultimately a practice-oriented, pragmatic movement committed to building more livable communities – places that respect environmental constraints and human social, cultural, and economic needs. These in-house debates therefore do not immobilize them; they do not keep them from carrying out important and much-needed projects. In the end, by not purging human values and actions from the land, New Urbanists show how it is possible (just as their third way predecessors did) to pragmatically reconcile human needs, ideals, and ambitions with the health of the environment. Such efforts suggest a more humanistic, pluralistic, and civic-minded agenda for environmentalism and land use reform, an integrative social and political vision that is just as concerned with the inner city, the

subdivision, and the wheat field as it is with the wolf, the mountain wilderness, and the old growth forest.

Notes

- ¹ Duany, Plater-Zyberk and Speck, *Suburban Nation*, p. 60
- ² Christopher Lasch, *The Revolt of the Elites and the Betrayal of Democracy* (New York: W. W. Norton & Company, 1995), pp. 117-128.
- ³ Congress for the New Urbanism, *Charter of the New Urbanism* (New York: McGraw-Hill, 2000), p. v.
- ⁴ *Charter of the New Urbanism*, p. v.
- ⁵ *Charter*, pp. 23; 29.
- ⁶ *Charter*, pp. 113, 155; quote p. 173.
- ⁷ Carl J. Abbot, "The Capital of Good Planning: Metropolitan Portland Since 1970," in Robert Fishman, ed., *The American Planning Tradition*, ed. Robert Fishman (Washington, DC: The Woodrow Wilson Center Press, 2000), pp. 241-261. See also Martha J. Bianco, "Robert Moses and Lewis Mumford: Competing Paradigms of Growth in Portland, Oregon," in *Planning Perspectives* 16 (2001): 95-114.
- ⁸ Duany, Plater-Zyberk, and Speck, *Suburban Nation*, pp. 209-210.
- ⁹ Solomon, *Global City Blues*, p. 102
- ¹⁰ Alex Marshall, *How Cities Work: Suburbs, Sprawl, and the Roads Not Taken* (University of Texas Press, 2000).



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Intersection Between Environmental Justice and Land Use Planning

Patricia E. Salkin

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Introduction

Environmental justice goes to the core of traditional land use decisions: choosing sites for locally unwanted land uses (geographic equity); the process for deciding where to site these unwanted land uses, including the location and timing of public hearings (procedural equity); and sociological factors, including which groups hold the political power inherent in land use decisions (social equity).

As one scholar has explained, "Environmental hazards fall disproportionately on the poor and minority communities who have borne the brunt of waste siting decisions. Race is the single best statistical indicator for predicting the location of a commercial hazardous waste site. Evidence of this environmental racism indicates the extent to which society has denied minorities the rights and benefits the majority culture enjoys."¹ Another expert has defined environmental justice as, "the idea that minority and low-income individuals, communities, and populations should not be disproportionately exposed to environmental hazards, and that they should share fully in making the decisions that affect their environment."² On February 11, 1994, President William J. Clinton took action to help reach this objective by signing Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*,³ requiring that:

To the greatest extent practicable and permitted by law . . . each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States . . . Within

three months, the Administrator of the Environmental Protection Agency shall convene an interagency Federal Working Group on Environmental Justice . . . to provide guidance to federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations . . . to coordinate with, provide guidance to, and serve as a clearinghouse for, each federal agency as it develops an environmental justice strategy . . . to assist in coordinating research by, and stimulating cooperation among EPA, DHHS, HUD, and other agencies . . .

Even following the enactment of the Civil Rights Act of 1964, "the property regulation, planning, and zoning policies of many cities around the country had what must be called a negative impact on EJ."⁴ One researcher notes that "zoning tends to act as the 'gatekeeper' in terms of where noxious uses can be legally sited within a municipality, but the ramifications of zoning on environmental health and equity have been somewhat hidden."⁵ Another scholar has proclaimed, "The next frontier for both the movement and the focus of environmental justice scholarship . . . is land use planning."⁶

For more than 80 years, local officials have held the power to control the use of land by making decisions about what can be located where in a given area. Because, in almost every state, decisions on land use planning and adoption of land use laws to implement these plans is entirely a function of local government, it is critical to examine the relationship between the legal and regulatory schemes within which these decisions are made and their relationship to environmental justice issues. Commenting on Justice Sutherland's passing distinction in *Euclid* between the



“general public interest” and “the interest of the municipality,” Alfred Bettman noted: “This passage in the opinion is noteworthy in that it presents the conflict not as one between the individual and the community, but rather as between different communities, different social groups, or social interests, which is, when profoundly comprehended, true of all police power constitutional issues.”⁷ At the start of the 21st century, there is a renewed interest in modernizing and reforming outmoded planning and zoning laws of many states. This interest presents a unique opportunity for environmental justice advocates to provide leadership by securing the passage of revised state enabling statutes that empower local governments to address these issues more effectively through land use planning and zoning.

Comprehensive Land Use Plans

Zoning is one of several legal techniques for controlling the use of land within a municipality. Zoning is usually based upon a comprehensive plan, and that plan is generally defined as “an official public document, preferably (but often not) adopted as law by the local government, [that serves] as a policy guide to decisions about the physical development of the community.”⁸ The process of developing a locality’s comprehensive land use plan “provides a chance to look broadly at programs a local government may initiate regarding housing, economic development, provision of public infrastructure and services, environmental protection, and natural and manmade hazards and how they relate to one another.”⁹ State governments typically leave the detailed contents of comprehensive planning to individual municipalities. But suggestions or guidelines about the elements of a plan may be adopted by state statute.

One specific goal of the smart growth movement should be to incorporate environmental justice concerns into any proposed list of factors and topics that should be or may be addressed in local comprehensive plans. This goal can easily be accomplished through training, education, and technical assistance for local planners and other officials. In 2001, California legislation required the Governor’s Office of Planning and Research to adopt guidelines for local agencies when addressing environmental justice issues in their general plans.¹⁰ Even prior to passage of the legislation, the City of Los Angeles included a goal in its general plan for the “physically balanced distribution of land uses,”¹¹ thus providing a foundation for the city to ensure that its future zoning ordinances take environmental justice into account.

Citizen Participation in Preparation of the Comprehensive Plan

One way around the barriers preventing consideration of environmental justice concerns in local decisions is to make certain that local officials provide traditionally underrepresented populations with a meaningful role in the future development of their neighborhoods and communities through active citizen participation in the development of comprehensive land use plans. For most localities, municipal officials are already

empowered to ensure that effective citizen participation can occur because state enabling statutes usually give local officials broad authority to develop their plans with little or no guidance; often there is little mention of the process by which such plans are to be developed and adopted.

Traditionally, however, citizen participation in the development of comprehensive plans and in the process for adopting zoning has been limited to participation in the single public hearing that is typically required by state law prior to the local legislative body’s official adoption of the plan or zoning ordinances. APA’s *Growing Smart Guidebook* urges local officials to do more:

The processes for engaging the public in planning are not made clear in many planning statutes. Requirements for public notice, public hearings, workshops, and distribution and publication of plans and development regulations are often improvised. Consequently, the public may find its role and the use of its input uncertain, and it may be suspicious of plans and decisions that emerge. Planning should be doing the opposite; it should be engaging citizens positively at all steps in the planning process, acknowledging and responding to their comments and concerns. Through collaborative approaches, planning should build support for outcomes that ensure that what the public wants indeed will happen.¹²

While this observation is certainly true, environmental justice issues require an even more careful and proactive approach to ensuring effective participation by all citizen interest groups. Otherwise, “ensuring what the public wants” may not offer a level playing field for local low-income and people-of-color communities which are often disillusioned, if not disenfranchised, by most local decision-making processes. States have taken varied approaches when adopting statutes to encourage or require effective citizen participation in local land use planning. Maine and Arizona laws offer two examples.

In order to ensure citizen participation in the development of a local growth management program, municipalities may adopt local growth management programs only after soliciting and considering a broad range of public review and comment. The intent of this subsection is to provide for the broad dissemination of proposals and alternatives, opportunity for written comments, open discussions, information dissemination and consideration of and response to public comments. (Maine, 30-A ME. REV. STAT., sec. 4324(3)(1995).



Community

agencies to provide local officials with access to meaningful environmental information so that they can make more considered land use and zoning decisions.

In most localities, environmental justice considerations will be factored into local land use planning, zoning, and siting decisions only where the impacted communities are represented on the bodies empowered to make these critical decisions. A 1987 survey by the American Planning Association revealed that:

- Nearly eight out of 10 members of planning boards were men;
- More than nine out of 10 members were white, although in some larger cities the number was closer to seven out of 10;
- Almost eight out of 10 were 40 years of age or older; and
- Most board members were professionals such as businesspeople, lawyers, engineers, educators, and real estate agents.¹⁷

This arguable “elitism” in the composition of local boards is a major barrier to addressing environmental justice concerns and promoting effective citizen participation for all communities in local planning and zoning decision making. This data also explains and substantiates the fact that marginalized citizens are not empowered to impact community development decisions.

To address this situation, states could advocate or require that localities appoint board members who represent the diversity of the community as a whole, in terms of race, gender, income, age, and status as home owners or renters. There is also precedent for states to authorize, but not require, that municipalities appoint individuals to planning boards who may serve in a representative capacity.

Because these studies documenting membership on planning boards are now 15 to 20 years old and did not include membership on zoning boards of appeal or other local land use bodies, a new nationwide study is needed to determine the current extent to which low-income or people-of-color groups are underrepresented among the members of local planning and zoning boards. A new survey would not only yield updated data, but also could include an explanation of environmental justice concerns and how they relate to the planning and zoning decision-making process, thus providing another opportunity for educating local officials about how they can address these issues.

Conclusion

The National Academy of Public Administration, in conjunction with the Government Law Center of the Albany Law School, conducted three regional workshops last winter to provide assistance to state and local public administrators

involved in planning and zoning issues. The workshops raised awareness about environmental justice and identified practical tools and strategies to assist in preventing and mitigating environmental justice problems. The regional workshops focused on the intersection between environmental justice and local land use planning and zoning and followed up on the Academy’s 2003 study, *Addressing Community Concerns: How Environmental Justice Relates to Land Use Planning and Zoning* (www.napawash.org/Pubs/EJ.pdf).

Nearly 300 local zoning and planning officials from the Chicago, Albany, and San Francisco metropolitan areas heard leading national and regional practitioners and experts offer practical advice and case studies to demonstrate how environmental justice goals are being effectively integrated into local planning regulations and zoning laws. The American Planning Association hosted the workshop in Chicago. A clearinghouse of the conference materials can be found on the Academy’s website: www.napawash.org/ejworkshops. Some of the materials from the workshop are highlighted in the Environmental Justice Resource list included at the end of this article.

Commentators, professors of environmental and land use law, and community advocates have only recently started to write about the critical connections between environmental justice problems and local land use planning and zoning decision making. While there are significant challenges to incorporating environmental justice principles into our nation’s planning and zoning system in large part due to the fragmented nature of local land use decisions, the opportunities and potential rewards are great. Given the magnitude of local land use planning and zoning efforts, environmental justice advocates should not ignore this critical step in community decision making and development.

Arnold argues that “land use planning and regulation foster choice, self-determination, and self-definition for local neighborhoods, not paternalism that insists that there is a single correct environmental justice goal.”¹⁸ From a timing perspective, the opportunity for changes that address environmental justice concerns has never been better due to the currently active national movement for modernizing state planning and zoning enabling laws. Significant investments in training and education through a network of partnerships are necessary, but can yield substantial returns to enable local officials to address environmental justice concerns.

There is already a growing network of public, private, and nonprofit interests, all committed to ensuring that environmental justice issues are taken into account through local planning and zoning. Increasing collaboration and cooperation, shared resources, and joint efforts will help to remedy past environmental justice problems and prevent their repetition in the future.



Notes

- ¹ Robert W. Collin, *Environmental Equity: A Law and Planning Approach in Environmental Racism*, 11 VA. ENVTL. L.J. 495, 496 (1992), cited in Michael B. Gerrard, "Environmental Justice and Local Land Use Decisionmaking," in *TRENDS IN LAND USE LAW FROM A TO Z: ADULT USES TO ZONING* (Salkin, ed.) (American Bar Association, 2001).
- ² Michael B. Gerrard, "Environmental Justice and Local Land Use Decisionmaking," 126, in *TRENDS IN LAND USE LAW FROM A TO Z: ADULT USES TO ZONING* (Salkin, ed.) (American Bar Association, 2001).
- ³ See www.eoa.gov/fedrgstr/eo/eo12898.htm.
- ⁴ *Id.*
- ⁵ See Juliana Maantay, *Zoning Law, Health, and Environmental Justice: What's the Connection?* 4 J. OF LAW, MEDICINE AND ETHICS 572 (December 2002).
- ⁶ Craig Anthony Arnold, *Planning Milagros: Environmental Justice and Land Use Regulation*, 76 DENVER U.L.R. 1 (1998).
- ⁷ RICHARD F. BABCOCK, *THE ZONING GAME: MUNICIPAL PRACTICES AND POLICIES*, (The University of Wisconsin Press, 1966) at 145-6 citing Bettman, *City and Regional Planning Papers*, 55.
- ⁸ JURGENSMEYER AND ROBERTS, *LAND USE PLANNING AND CONTROL LAW* at 26 (West Group 1998).
- ⁹ STUART MECK, FAICP, gen. ed., *GROWING SMART LEGISLATIVE GUIDEBOOK* (American Planning Association, 2002) at p.7-6.
- ¹⁰ Chapter 762 of the California Laws of 2001.
- ¹¹ CLIFFORD RECHTSCHAFFEN AND EILEEN GAUNA, *ENVIRONMENTAL JUSTICE: LAW, POLICY & REGULATION* (Carolina Academic Press 2002) at 301 citing the City of Los Angeles General Plan, Ch.3 Goal 3A.
- ¹² STUART MECK, FAICP, gen. ed., *GROWING SMART LEGISLATIVE GUIDEBOOK* (American Planning Association 2002) at xlvii.
- ¹³ Craig Anthony Arnold, *Land Use Regulation and Environmental Justice*, 30 ELR 10395, 10407-8 (June 2000).
- ¹⁴ Craig Anthony Arnold, *Planning Milagros: Environmental Justice and Land Use Regulation*, 76 DENVER U.L.R. 1 (1998), reprinted in part in CLIFFORD RECHTSCHAFFEN AND EILEEN GAUNA, *ENVIRONMENTAL JUSTICE LAW, POLICY & REGULATION* (Carolina Academic Press, 2002), 299.
- ¹⁵ Arnold, *supra* note 6 at 148.
- ¹⁶ Arnold, *supra* note 13 at 10415- 10420.
- ¹⁷ See STUART MECK, FAICP, gen. ed., *GROWING SMART LEGISLATIVE GUIDEBOOK* (American Planning Association 2002) at Chapter 7, citing WELFORD SANDERS AND JUDITH GETZELS, *THE PLANNING COMMISSION: ITS COMPOSITION AND FUNCTION*, Planning Advisory Service Report No. 400 (American Planning Association 1987), 4-6 (based upon 4,380 nationwide questionnaires).
- ¹⁸ Arnold, *supra* note 13 at 10427.

The Ecology of Place

From
**The Ecology of Place: Planning for
Environment, Economy, and Community**

Timothy Beatley and Kristy Manning



Photo courtesy of Tony Arnold

[Republished from Timothy Beatley and Kristy Manning, *The Ecology of Place: Planning for Environment, Economy, and Community* (Island Press 1997), with permission of Timothy Beatley and Island Press, © 1997 Island Press, Washington, D.C.]

Regions, cities, and other human settlements are inextricably and profoundly embedded in an ever-present and ever-changing environmental and ecological context. The paradigm of sustainable places holds that we must increasingly understand regions and cities as organic entities—entities that require environmental goods and inputs that interact with one another, modify and influence the natural environment, and transform resources from one form to another.

The planning and design fields have devoted much greater attention to environmental conservation issues in the last thirty to forty years. Ian McHarg's *Design with Nature* was particularly influential in changing the way we approach planning and development. And there is no question that, beginning in earnest with the environmental movement of the 1960s, communities, states, and the federal government have given serious and unprecedented attention to environmental protection and preservation issues.

Natural Cycles and Ecological Footprints

The emergence of geographic information systems (GIS) technology, moreover, has enabled McHargian-style environmental analysis to become a commonplace methodological step in undertaking almost any form of local planning. But while these analyses, and their resulting policies, are extremely important, a more comprehensive and holistic approach is required. In addition, for example, to steering development away from an environmentally sensitive site—say, an area of high scenic value or productive farmland—planners must concern themselves with the impact of the materials and design of the resulting structure itself, as well as the source and impacts of the energy used to construct and operate the structure. They must consider the ways in which people earn their livelihoods and the impacts of the economic base and sector on the environment. To paraphrase Paul Hawken, we need an “ecology of commerce” as much as an ecology of place (Hawken

1993). In the same way, while the operation and management of cities create environmental stresses, they also hold a significant piece of the solution to environmental and ecological sustainability.

A second, related notion has to do with how we view nature. The ecological view of cities and towns rejects the tendency to view nature as “somewhere else”—as outside and separate from where people live and work. Nature is all around us, and with this appreciation may emerge a sense of the ecological significance and aesthetic importance of many different types of lands and landscapes, whether it be the corner woodlot, the suburban creekbed, or the urban waterfront. In other words, nature does not reside exclusively in national parks and other protected areas.

The concept of sustainability also implies that our cities, towns, and communities should strive to function as ecosystems do. Architect William McDonough talks about the fundamental laws of nature that can inform design. The first of these is that there is no such thing in nature as waste: “All materials given to us by nature are constantly returned to the earth without even the concept of waste as we understand it. Everything is cycled constantly with all waste equaling food for other living systems.” (McDonough 1993, p. 7). Second, these natural cycles rely upon and are powered by the energy of the sun; in this way, nature operates on “current solar income.” Finally, nature functions the way it does, and is able to sustain itself, because of the diversity of life. According to McDonough, “What prevents living systems from running down and veering into chaos is a miraculously intricate and symbiotic relationship between millions of organisms, no two of which are alike” (p. 8).

Viewed from this perspective, sustainable communities strive to replicate the basic processes and principles of nature: they strive to generate only substances or by-products that are “food for nature”; minimize the production of things that can only truly be considered waste (e.g., toxics); live off current income



(e.g., solar and renewable sources of energy); and, finally, respect and preserve diversity.

Another basic idea is that communities should strive to “fit” within and nurture their ecological home, or, that is, the environmental, biological, topographical, and geohydrological conditions within which cities and communities are inherently situated. A community should attempt to live within these conditions and to forge a sustainable relationship with its ecological home, recognizing natural carrying capacities and limits, and planning and functioning within them.

Urban populations have considerable resource needs and generate tremendous amounts of waste. Resource needs often strain regional ecosystems (for example, through the overdraw of aquifers), and waste generation often exceeds the natural assimilative capacities of the local and regional environment (e.g., degradation of estuaries such as the Chesapeake Bay as a result of nonpoint source pollutants). Often, resources such as water and food are imported while their wastes are exported, whether to outlying landfills or as carbon dioxide pumped into the atmosphere.

William Rees’s concept of the “ecological footprint” has done much to educate about the resource needs and ecological impacts of an average individual. The “footprint” of the average North American is quite large, and the resource requirements of North American population centers extend well beyond their limited jurisdictional boundaries. Rees’s analysis of the lower Fraser Valley in British Columbia is particularly telling. He finds that the land requirements of the 1.7 million inhabitants of the region—requirements for such needs as food production and forest uptake of carbon dioxide—total 8.3 million hectares. The region, however, comprises only 400,000 hectares. Thus, the resident population of the lower Fraser Valley requires something like twenty times its total amount of land to meet its own needs. The result is the need to “appropriate” the carrying capacities of other regions to supply these needs.

This analysis suggests that sustainable communities should be conscious of their resource needs and waste streams, ensure that they do not destroy and exhaust the bioregion in which they are situated, and seek to minimize the environmental pressures placed on other regions and countries. Moreover, they should attempt to estimate, analyze, and track these demands and take a long view in planning for future resource needs.

Of course, the development of a more compact urban form will go a long way toward reducing wastes and the unnecessary consumption of resources. Reducing the role of the automobile and providing more energy efficient, less-polluting forms of mobility are also clearly important to ecological sustainability.

The Greening of Cities and Towns

A compact, sustainable city need not be a sterile one. Indeed, sustainable communities seek the greening of urban life and emphasize such design features as extensive trees and landscaping, urban parks and community gardens, and connected systems of regional open space (Platt, Roundtree, and Muick 1994; Gordon 1990). There are a variety of ways in which existing cities and towns can be made “greener,” many requiring only modest cost and effort. One of the most straightforward strategies is to look for ways to increase the amount of vegetation and green areas within the urban landscape.

There is increasing evidence that trees and vegetation provide benefits that are even more profound than those considerable aesthetic and environmental benefits usually cited. Dwyer et al. argue convincingly, for instance, that humans have very deep emotional, symbolic, and spiritual ties to trees (Dwyer, Schroeder, and Gobster 1994). There is, moreover, considerable evidence of the positive health benefits of trees and, more generally, vegetation. Positive physiological reactions—lowered heartbeats and blood pressure—and calming effects have been recorded among humans in response to urban scenes that contain trees, forests, and vegetation (Ulrich 1981). Trees can induce feelings of serenity that can be measured physiologically. The greening of the urban environment, then, is clearly critical to our psychological and emotional well-being, as well as to our general health.

Urban parks represent an important element in creating green places, serving as areas of both reflection and more active recreation. Many cities have made important strides in providing parks and green space and in promoting the significance of these areas to the quality of life of residents. Impressive examples include Golden Gate Park in San Francisco, Fairmount Park in Philadelphia, Central Park in Manhattan, and Prospect Park in Brooklyn. For the residents of these large cities, these parks (all of which, perhaps not coincidentally, were designed by Frederick Law Olmsted a century ago) add tremendous value to city life. In addition to their greenery, they provide excellent recreational facilities, such as ball fields, boathouses, and even skating rinks; in warmer months, they offer cultural activities such as outdoor concerts and plays.

To some critics, the provision of extensive parks and open space within urban boundaries conflicts with the goals of compact development and growth. But this does not necessarily have to be the case. Growth and development patterns can occur in very compact ways, protecting natural lands, farmlands, and open areas outside UGBs while at the same time providing significant exposure to nature within these growth areas. Portland, Oregon, is a case in point. Despite a compact growth pattern and containment of growth within a UGB, the city has



implemented an impressive network of parks and open spaces. Within Portland alone, there are some 280 parks; in fact, the city has one of the highest acreages of parks per capita of any major city. They include 4,800-acre Forest Park (a wilderness area virtually a stone's throw from downtown) and Mt. Tabor Park, an extinct volcano. Portland's network of local parks and open space is closely linked to its regional open space and greenway systems, forming a broad-based, multifaceted approach to greening the city.

To protect these sensitive areas, Portland has implemented an interesting system of environmental zoning overlays. About 17 percent of Portland's land area is included within the overlays, which consist of wetlands, wildlife habitat, flood plains, buttes, and other sensitive areas. Two classifications are provided: environmental protection zones and environmental conservation zones. Building in conservation zones is allowed, but only if unavoidable, and then only as subject to mitigation requirements. Development in protection zones involves much more stringent approval criteria and is therefore virtually prohibited. In both cases, development decisions in these areas are guided by more detailed natural area and watershed protection plans. For landowners who are unable to build in the protection zones, there are provisions that allow the transfer of unused density to other sites in the city; in some cases, the city will purchase these lands.

Many European cities have developed parks based on the "city farm" concept. These are essentially farms that provide a host of different experiences and opportunities; they typically include community gardens and greenhouses, livestock and horse and pony stables, arts and crafts, and other activities that encourage hands-on involvement on the part of visitors. These "farms" can also serve an important educational function. While they are often located on the edges of cities, city farms have been suggested as a model for inner-city neighborhoods as well (Hough 1995).

Another important issue to consider is the ease with which residents of a city can reach surrounding forests, farms, and open space. In addition to consuming these areas, sprawling development patterns often serve to distance open and natural lands even farther away from urban residents. With a compact development pattern, these areas can exist only a short distance away (Newman and Kenworthy 1992); in most compact European cities it is a short ride, perhaps a half-hour, to reach these open areas).

Part of making cities greener requires making the natural systems and processes upon which they rely as visible to its citizens as possible. Communities can take many actions to make important ecological processes more visible or apparent to its residents. Many cities have begun to "daylight" streams and creeks—that is, to restore and bring back to the surface waterways and natural drainage patterns that had been piped and channeled underground. The result is often a more ecologically

responsible drainage approach that allows natural percolation, restores flora and fauna, and keeps storm water out of the flow sent to sewage treatment plants.

Equally important, these systems provide valuable green spaces while enhancing public appreciation of the hydrological system.

Trees play an extremely important role in virtually any ecological place. American Forests has estimated that urban trees provide \$4 billion in energy savings each year (e.g., through shading and cooling) and that this savings could be doubled if a program were undertaken to plant trees in strategic vacant places (Moll 1995). In fact, a number of cities now have active urban forestry programs and on-staff arborists. Urban forestry programs involve actively promoting the planting of new trees as well as the reforestation of urban areas where die-out of trees has occurred in the past. A number of communities have enacted local ordinances that restrict the cutting of trees, usually of a certain diameter or size, as well as requirements to mitigate for tree losses that might occur during new development.

Adopted in 1983, Austin's tree protection ordinance is one of the oldest in the country and requires a permit for the removal of any tree measuring more than nineteen inches in diameter. The city has aggressively applied the ordinance, and many builders and developers have been asked to redesign projects to avoid the need for tree removal. (A developer must also submit a detailed inventory of all trees exceeding eight inches in diameter on a site.) The city has also prepared a comprehensive urban forest plan, which applies to trees on public property, and has appointed an Urban Forestry Board to oversee its implementation. Other communities have mandated that development must meet minimum tree "density factors"—for example, Fulton County, Georgia, mandates fifteen basal units per acre—or provide for the maintenance of a certain percentage of woodland cover (e.g., Prince George's County, Maryland, Woodland Preservation Ordinance; see Redwood 1994).

There are a variety of additional, creative ways to make urban environments green and wild, and more ecologically sustainable ways in which to maintain natural urban landscapes. Some communities are making an effort to implement less environmentally destructive management practices—for example, by curtailing completely the use of pesticides and herbicides in parks and greenspaces. Others are planting trees wherever possible, utilizing vacant spaces throughout the city for greenspaces, and even converting rooftops to urban gardens and forests. Converting the spaces around and between buildings from turf and grass to trees, meadows, and more heavily (and diversely) vegetated areas will reduce the costs of mowing and the need to apply damaging chemicals, and will create important natural areas for children and adults to explore and enjoy. In the hills above Oakland, California, extensive sheep grazing is helping to control grass and vegetation growth to minimize the potential threat of wildfire.



One of the most dramatic examples of a U.S. city that has recast itself in terms of green principles is Chattanooga, Tennessee. This city of 152,000 residents has transformed from one of the country's most heavily polluted industrial cities to a community that is proud to declare itself the "Environmental City." While the greening of Chattanooga is definitely a work in progress, its transformation, and particularly the community-wide, collaborative effort that has driven that transformation, is striking. The result of more than sixteen years of active community participation and the infusion of millions of dollars of private capital, Chattanooga's successes include a plan for a twenty-two-mile-long river park greenway, six miles of which have already been completed, and a vision to expand it to regional greenway of seventy-five miles. Plans are under way for an "eco-industrial" park. Most important, Chattanooga's two-decade metamorphosis has infused its citizenry with pride and a greater awareness of nature and environmental principles.

Ecological Infrastructure and Natural Capital

The ecology of sustainable places also assumes an understanding and appreciation of the topography, landscape, ecological conditions, and processes—the natural or ecological infrastructure—within which a city or community functions. Its wetlands, hillsides, shorelines, flood plains, riparian areas, forests, and habitats comprise its ecological wealth—natural capital that provides many local and regional benefits, and that should be understood and protected. These landscapes and ecological features provide many important benefits and functions.

One important way in which many communities and cities are understanding and protecting this ecological infrastructure and natural capital is through the development of systems of greenways and open space. Greenways may consist of many different types of land, from pristine wilderness to heavily used recreational land. Increasingly, communities are viewing the protection of greenways and open space as critical to ensuring the quality of life.

In many cities, rivers and waterfronts make up the core area of greenways. Atlanta has been working to establish a greenway along the Chattahoochee River. Washington, D.C.'s Rock Creek Park is an impressive greenway that winds throughout the city, providing easy access to areas and paths for biking and jogging. In Boston, the greenbelt along the Charles River provides a pleasant pedestrian path connecting Boston to Cambridge. The protection of these lands can provide important natural services and benefits and, rather than being costly, can actually save community funds.

Flood plains and other natural hazard areas are best left in an undeveloped state, and maintaining them in this way helps to keep people and property out of harm's way. Maintenance of natural wetland areas can provide important ecological benefits in

the form of storm water management and flood water retention. Forested lands can help to improve air quality and moderate the urban heat island effect. And, as described earlier, preserving agricultural lands in and around a city can protect food production capabilities. Evidence suggests, as well, that these features are valued highly by housing consumers, as property adjacent to parks and greenways is consistently more valuable than similar property elsewhere (Grove 1994) and may make developments more saleable (Beatley 1994a).

Recent reconsideration of the economic effects of restrictions on extractive uses in the American West (largely in response to fears about possible devastating effects of logging restrictions as a result of the spotted owl case) is instructive. Increasingly, it is being recognized that extractive industries such as timber, mining, and ranching do not account for as much economic activity and as many jobs as once thought, and that maintaining and protecting the natural environment may have a much greater positive economic effect (Power 1996b). Thus, preserving a region's ecological capital—its forests, mountains, rivers, and open lands—can be one of the most effective economic development strategies possible.

Ecosystems and Bioregions

The ecological view of sustainable places recognizes that urban areas are embedded in larger ecosystems. In recent years considerable attention has been given to the concept of ecosystem management, as well as a growing consensus that this should be the organizing paradigm for resource management activities. Increasingly, cities and towns must understand and connect with the larger ecological context in which they are situated, assuming an ecosystem perspective when making decisions about land conservation, recreation, and placement of new development.

David Crockett, the city council member most often recognized as one of the key figures behind Chattanooga's renaissance, describes the importance of Chattanooga's sense of place as a special scenic area, one of the most biologically diverse temperate regions in the country, "where the mountains meet the cotton." "The key elements in talking about Chattanooga's history," he explains, "always start with what God made and with what was here (personal communication 1995)." Crockett's words define the very essence of the bioregional perspective—the ability to view one's community as inhabiting a larger ecological community organized around natural processes.

There are a number of examples of efforts to assume ecosystemic or bioregional perspectives. The Portland, Oregon, Metropolitan Greenspaces Program is one such example. Spearheaded by the Portland Metropolitan Service District ("Metro"), it has involved a comprehensive analysis and mapping of the region's natural areas and greenspaces through the use of aerial photography, on-site survey data, and classification of natural areas, all entered into a GIS database (Poracsky and



Houck 1994). The analysis covers not only the Oregon portions of the region, but land in Washington state as well. The ultimate goal is to create a regional system of protected areas, and acquisition of lands has already begun as a result of the approval of a \$135 million regional bond measure to fund open space acquisition.

The regional system also yields a comprehensive picture of the existing natural systems and biodiversity of the region, which can be invaluable in regional and local planning. The Greenspaces Program experience also shows the advantages of regional, cooperative strategies—local communities have begun to work toward a common protection goal or vision for the region and have already begun to incorporate the data and maps from the program into their own local plans and planning decision making (Poracsky and Houck 1994).

Another important example is the development of a regional habitat conservation plan near Austin, Texas. The plan, known as the Balcones Canyonlands Conservation Plan (BCCP), addresses a sensitive area to the west and northwest of the city. This is an area of canyons, ridgetops, and plateaus that is home to a number of endangered species, including two species of migratory songbird, several species of salamanders, rare plants, and a number of unique, cave-adapted invertebrates that live in the subterranean limestone habitats of the Texas Hill Country. Beginning in the late 1980s, a collaborative community process, including development and conservation interests, worked on developing an acceptable plan for conserving the habitat and natural features while also allowing development to take place. Extensive regional-scale analysis of the habitat was conducted using remotely sensed data and GIS technology. The process of designing a system of protected areas also sought to build onto the existing system of parks and protected lands in the area (including, for instance, lands that could not be developed under Austin's comprehensive watersheds ordinance). The plan also took a watersheds, or ecosystem, approach, attempting to protect larger regional ecological functions and conditions.

The final plan, recently approved by the U.S. Fish & Wildlife Service, calls for the creation of a regional preserve system that will protect some 30,000 acres of land in six primary preserve units that range in size from 400 acres to more than 9,000 acres. The Balcones Canyonlands National Wildlife Reserve is also a direct result of this planning process and will itself be 35,000 acres in size. Ultimately, about 70,000 acres of natural lands will be set aside, making it one of the largest land acquisition programs in an urban area ever.

The BCCP is an admirable effort in many respects. It takes a regional, ecosystem approach to habitat protection and considers the habitat needs of multiple species (including candidate species). It seeks to dovetail habitat conservation with other important local objectives, including water quality and open space preservation. It also involves a collaborative partnership between groups that are often adversarial.

Nevertheless, the Balcones Canyonlands approach also illustrates the inherent difficulties in effectively undertaking such broad-scale efforts. The plan has been criticized by some in the environmental community, for instance, as not protecting enough land and resulting in a highly fragmented system of habitat (see Beatley 1994c). The plan also ended up not being as ecosystemic and regional in scale as hoped, and the plan has been criticized for opening up some 200,000 acres of land for development characterized by low-density sprawl. This example also illustrates just how expensive such ecosystem conservation strategies can be, with the entire program ultimately costing about \$170 million.

In some ways, an even bolder program—and one that covers a much larger area and many jurisdictions—is presented in the Third Regional Plan for the New York metropolitan region. The plan's "greensward" campaign presents an ambitious vision for a regional, multistate system of natural areas and greenspace. The goals of such a regional system are many, but key purposes are to protect the region's "environmental infrastructure" (and the many, resource and recreational values these areas provide) and to help induce a more sustainable pattern of development (i.e., to place limits on urban expansion). The system would result in, among other things, an extensive network of bicycle and walking trails that "directly reconnects the cities to the big natural systems at the water's edge or just beyond the urban core" (Yaro and Hiss 1996, p. 88).

The campaign specifically proposes the creation of a system of eleven regional reserves comprised of, and tying together, the region's major estuaries, rivers, waterfront areas, mountains (e.g., the Catskills), and forests (e.g., the New Jersey Pinelands, the Long Island Pine Barrens). These reserves range in size from 100,000 to 3 million acres. Building upon existing parks and protected areas, additional land acquisition appears to be the key implementation strategy, though use of other measures (regulation and TDR) is also envisioned, with a heavy emphasis on collaboration and alliance building to bring it about (Yaro and Hiss 1996).

The plan, however, is an advisory document—and the Regional Plan Association, which produced it, an advisory body. Ultimately, it will require strong advocacy and convincing a variety of agencies to pursue its vision. But as a visionary document, the plan accomplishes some important things: it explicitly acknowledges the reliance of cities and city populations on the ecology of the region and the vast ecological services provided by it (from drinking water supplies to food production to recreation) and, like Portland's Greenspaces Program, creates a template through which more coordinated regional, ecosystem-based action can occur.

Conclusions

Human settlements create tremendous pressures on the environment in terms of wastes generated and demands for food,



electricity, water, and other resources. Communities must function with a clearer understanding of these demands and pressures, and should be planned and managed according to the principles of the natural environment in which they are embedded. Wastes can be minimized and treated as productive inputs to other activities (e.g., industrial). Cities should strive to live off of ecological interest and to protect their ecological capital, protecting and restoring diversity in the urban ecosystem.

All actions, policies, and decisions that a community makes should be examined for their environmental and resource implications, both within and outside its own bioregion. More sustainable practices, moreover, extend from regional conservation down to the ecology of neighborhoods and development projects, and indeed to the ecology of individual buildings.

The Structure of the Land Use Regulatory System in the United States

Craig Anthony (Tony) Arnold

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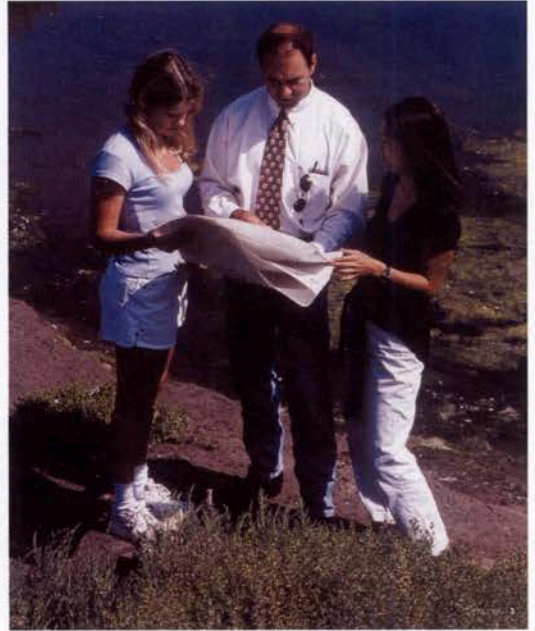


Photo courtesy of Tony Arnold

Introduction

Land use regulation is one of the most poorly understood areas of law and public policy in the United States. Land use law and policy are blamed for many social problems, such as urban sprawl, racial segregation, environmental injustice, degraded water quality and watershed health, loss of biodiversity and natural habitat for imperiled species, poor air quality, and inadequate supplies of affordable housing. The land use regulatory system is regarded as: 1) merely a sub-field of another area of law, such as environmental, property, or constitutional law (i.e., diminutive); 2) inherently inefficient, unfair, or destructive (i.e., venal); or 3) failing to produce desired substantive results and solve particular public policy problems (i.e., inadequate).

These criticisms reflect misunderstandings of land use law and policy. The analytical starting point of these critical assessments is a set of theoretical and arguably misplaced assumptions about how land use regulation is or ought to be structured, instead of how land use regulation actually operates in the United States.

If we are to improve our land use practices in the United States, land use law and policy should be studied and understood as a system with its own distinctive characteristics and functions. Understanding any system requires studying its structure on its own terms, instead of imposing a set of expectations on it. Land use planning, regulation, and law form a system of institutions and processes. The system has functions, scale, components, processes, and values. The system is dynamic, adaptive, and functional.

In addition, the structure of the land use regulatory system can tell us quite a bit about the role that land use regulation can play in addressing specific public policy problems. There is little doubt that we should be giving attention to the relationship between land use and ecosystem management and conservation. Land use patterns and practices harm ecosystems and the services

that ecosystems provide to nature and society. This article argues that the land use regulatory system has great potential for incorporating concepts and considerations of ecosystem services into land use actions and decisions, provided that we understand that the land use regulatory system at its core is not an ecosystem protection system but is concerned with the multitude of meanings and values of land. It is likely that the land use regulatory system will continue to adapt to value and conserve ecosystem services, and more generally to protect certain aspects of ecosystems that are increasingly valued in society.

The Mediating Functions of the Land Use Regulatory System

At its core, the land use regulatory system functions primarily as a mediating system. The core concept behind the mediating system is that the law itself does not define social outcomes. Instead, the law is the vehicle by which social forces define social outcomes. The land use regulatory system facilitates and mediates relationships between the social environment and the physical environment, between people and places, and between human communities and nature's communities. In doing so, the land use regulatory system also mediates between power and community and between freedom and boundaries.

1. People and Places

How land is used in the United States is the result of countless decisions by individuals, entities, communities, and governmental bodies, as well as the operation of complex, multi-faceted social forces. The land use regulatory system has developed to give order to and create processes for making and implementing these decisions and for resolving conflicts among goals and ideas about how land should be used. More broadly, the land use regulatory system aims to facilitate deliberations and decisions about what an ideal society looks like, situated geographically. The land use regulatory system is the intermediary between our aspirations and our environment.



Most essentially, the land use regulatory system is a mediator between people and places. These relationships include relationships between social environments and physical environments, and between the built environment and the natural environment.

First, the system mediates between the natural meanings and social meanings of land. Land has both natural meaning and social meaning. Land has natural meaning defined by its place in nature. Any given area of land exists as an integral, interconnected part of nature, a component of ecosystems, a participant in ecological processes, and a performer of ecological functions. Land had an existence and a set of characteristics before any humans interacted with it. Humans may modify, affect, alter, and even destroy the characteristics of land and the physical, biological, and chemical environment in which it exists, but these changes are in relation to natural conditions and characteristics. Thus, even though the post-modernist would contend that our knowledge or understanding of land and nature and any references to a “natural meaning” of land are inherently human constructs, there is relatively widespread acceptance that land has existence and characteristics that do not depend on human definition.

Land also has social meanings. Land may be considered sacred or holy. Thus, issues over road development in a forest area sacred to Native American tribes, prayer meetings in homes, or the permissibility of faith-mandated shelters for the homeless involve faith-based meanings of land. Whether land or nature has inherent value, or merely utilitarian value, is an issue of human ethics. Thus, decisions about whether or not to protect the Delhi Sands from development in growth-pressured Southern California or to modify land use practices that are degrading the Mackinaw River in Illinois depend on the ethical choices or frameworks in the communities making those decisions. Land is a means of defining community, and therefore land becomes infused with community meanings. The island of Puerto Rico has a particular social, political, and cultural meaning, for example. Land often has personal meaning, such as the personhood-shaping meanings of the old farmstead, our home, the store where we had our first job, or that riverbank where we used to meet. Land has economic value, with this parcel being valued at \$345,000 and that parcel, of different size, location, and characteristics, being valued at \$270,000.

The land use regulatory system is an intermediary between the natural and social meanings of land, with the social meanings of land being shaped, in part, by the land’s physical and natural characteristics, and the land’s physical and natural characteristics being altered by social determinations about its meaning and functions. For example, whether to develop a hillside meadow overlooking a river to be used for offices and condominiums or whether to maintain it as a park is a choice that will be made within the land use regulatory system. The local community and its decision makers consider and define the community’s

relationships with the views of the river, the butterfly-filled meadow, the flow of runoff from the hillside into the river, the growth and development of nearby office parks and residences, and the potential for riverfront land as a place to do business, a place to live, or a place to play and relax.

Second, land use planning—a significant component of the land use regulatory system—creates, enhances, and protects a “sense of place.” Gene Bunnell (2002), both a scholar and a practitioner of land use planning, asserts that a critical—and core—function of planning is “making places special.” In observing that people yearn for “good places” or “special places,” Bunnell draws on the empirical work of Kevin Lynch, documenting the role of especially valued places in people’s “mental maps” of their local landscape, and Terry Pindell, identifying how communities developed a vision for cities that stood apart as distinctive, attractive, and beloved. As Bunnell points out, the characteristics of “good places” are varied and numerous but tend to stand in contradiction to the sprawling, monotonous, and alienating outskirts of many contemporary urban areas. He refers to several characteristics that have been identified by planner Mark Hinshaw as making places special: connectivity, drama and dignity, variety and whimsy, reflection of local values, sociable settings, and many choices and things to do.

Planning experts Timothy Beatley and Kristy Manning, in their book *The Ecology of Place: Planning for Environment, Economy, and Community* (1997, pp. 86-136), also call attention to the importance of “place” in land use planning and regulation, but with a particular focus on ecologically sustainable places. Beatley and Manning argue for places that are consistent with the natural environment’s carrying capacity, restorative and regenerative, integrative and holistic, and promote community, a high quality of life, land use ethics, and social justice and fairness, all in contrast to the ecologically unsustainable current patterns of “low-density, auto-dependent, sprawling growth.” (Beatley & Manning 1997, p.1) Bunnell and Beatley and Manning support their points with abundant case studies and examples of local communities that are engaged in visionary place-making.

Even more broadly, social ecologist Stephen Kellert (2005) presents research showing that the human experience with natural environments is critical to human physical and mental well-being. In Kellert’s analysis a “sense of place” or a “spirit of place” is a mediator between ecological features and human quality of life: ecological functions and services support preferred landscape features, which support environmental values, which support a sense of place, which support quality of life. He identifies several features of healthy places: continuous, iterative interactions between society and nature producing outcomes not attributable solely to environmental forces alone or social forces alone, connections between culture and nature within biogeographical context, design to reflect the landscape’s natural and social characteristics, community relations among people, diverse



controls, at least in effect or impact, are project-by-project negotiated discretionary permits authorizing private landowners to engage specific land uses but subject to certain conditions, exactions, and limits under: a) broad decision making standards, b) standardized yet relatively adaptable procedures, c) the dominance of local government regulation, and d) the super-dominance of private property norms.

The Location and Scale of the Land Use Regulatory System

The land use regulatory system is located primarily at the local level of governance and decision making in the United States, despite the rise of federal and state statutes and regulations that govern certain aspects of land use. The bulk of government control over land use comes from the planning activities, zoning codes, permitting requirements and permit conditions, and subdivision controls of the tens of thousands of cities and counties for which land use regulation is one of their core governmental functions.

Local land use regulation occurs in the shadow of the super-dominance of private control of land, though. This super-dominance has three manifestations. The first manifestation is the set of legal constraints on land use regulatory powers to protect private property rights. The second manifestation of the super-dominance of private control of land is the cultural, political, and psychological regard for private property rights and the value of the private property system in the United States. Private property norms serve as political, cultural, and even psychological constraints on decision makers from exercising strong government control over privately owned lands. The third manifestation is the dependence on private landowners for land uses and land use patterns, even if government regulation can effectively constrain or prohibit certain uses. In other words, the land use regulatory system largely defines what may not occur, but it usually does not mandate that landowners use their land in any particular way.

The result is a regime of “regulatory patches” influenced by political and legal disturbances, not a system of nested hierarchies (as federalism is sometimes characterized). Insights about ecosystem scale help to understand the scale of different human systems. Some ecosystems, like watersheds, are organized as nested hierarchies, with smaller units nested inside larger units, which are nested inside still larger units. However, many ecosystems are organized by “patch dynamics,” which is “[t]he idea that communities are a mosaic of different areas (patches) within which nonbiological disturbances (climate, etc.) and biological interactions proceed.” (Art, ed. 1993, p. 397)

Federal and state agencies’ assertions of power or pursuit of authority over land use decisions can serve as “disturbances” to prompt local government action. Local governments will seek to maintain their niche and primary authority over land use regulation, and often will respond to threats to their dominant

functions or competition from other units of government by developing policy innovations to address prominent land use issues. Alternatively, federal and state assistance to localities or the assumption of federal or state responsibility for specific land use issues may serve to strengthen local capacity to regulate land use or may fill regulatory gaps left by localities. The “patterns” of regulatory authority look far more like patchy mosaics than nested hierarchies.

The Components of the Land Use Regulatory System

The land use regulatory system is composed of numerous component parts. Most obviously, the system is defined by its object: land.

The “law” component of the land use regulatory system contains legal authority and limits. However, the land use regulatory system does not have a thick, deep, far-reaching, substantial set of legal principles and rules, at least in comparison to other areas of law. Instead, the land use regulatory system contains a wide variety of tools for managing land uses and gives broad authority and discretion to various participants in the system to make choices about land use. In other words, the “law” of land use regulation is only partly about rules, limits, and remedies; instead, the greater portion of land use “law” is about flexible regulatory and planning tools, discretionary choice, and public policy. Thus the terms “rules and tools,” “discretionary judgment,” and “thin law, thick policy” characterize the land use regulatory system.

The real “law” of land use regulation exists mostly in zoning codes and regulatory procedures, as well as in the actions or decisions of local land use regulatory bodies. Consider all the planning, zoning, and regulatory permitting decisions (e.g., conditional use permits, variances, subdivision maps or plats, site plans, planned unit developments, development agreements) that are made every week throughout the year, in comparison to the number of reported judicial opinions or even lawsuits that are resolved by the courts on the merits on land use issues in any given year. For example, in 2000, the Anaheim (California) Planning Commission considered and made one or more decisions (in many cases multiple decisions) on 225 land use projects. In the same year, no reported judicial opinions addressed land use issues in Anaheim.

Finally, a number of forces shape land use regulatory decisions and human relationships with the land, and thus are component parts of the land use regulatory system. Political power and interests have strong influence in this area of public policy and public law. Social norms, institutions, and networks also play a substantial role. Land use choices are both powered by and limited by economic forces and interests. In land use policy and regulation, we see framing effects and the psychology of expectations and judgment. We may also see ethical, spiritual, and humanistic aspirations contained within pragmatic realities.



Local culture and local knowledge determine to some degree the content of land use regulations and how they are applied to make specific decisions. Both professional experts (such as planners, engineers, and lawyers) and lay persons (especially members of the public) share authority. Professional norms and public values may be consistent with one another or may be in tension with one another. And of course, biological, chemical, and physical forces in nature shape land and land use. The critical point to understand is that the land use regulatory system is not a self-contained legal system that shapes land use, but is instead a medium of various forces in society.

The Values of the Land Use Regulatory System

Finally, there is no single set of principles or values governing land use decisions in the United States. In the 1940s, naturalist Aldo Leopold (1949, pp. 201-26) called for a “land ethic,” defining good and right practices by their promotion of the health and integrity of the land biotic system. Although his vision has normative power and appeal, it does not empirically describe the governing principles of the land use regulatory system. Instead of adhering to a single “land use” ethic, the system is characterized by ethical pluralism: a diversity of values. Fred Bosselman (1994) argues that four different ethics characterize land use policies: order, reform, responsibility, and opportunity. Timothy Beatley (1994) also contends that moral pluralism describes the land use regulatory system. He discusses several different sets of land use ethics, including: utilitarianism and free market control; harm prevention; rights-based ethics; distributive duties; environmental ethics; and obligations to future generations. The land use regulatory system is the means by which people consider, deliberate about, interact over, and make choices among land use ethics. It is also the means by which they implement their value judgments through policies, practices, and actions.

However, the land use regulatory system is not devoid of ethical considerations. It does not need to be an amoral agent of purely utilitarian objectives or the relentless pursuit of self-serving interests. To the contrary, ethics and values feature prominently in land use decisions, even though no single ethical system controls. The land use regulatory system facilitates people’s engagement with the ethical implications of their land use choices. Thus, the land use regulatory system mediates among people, their environments, and their ethics or values. Through land use decisions and practices, people and communities make concrete ethical choices and do not merely contemplate ethics in the abstract. The concrete nature of land use decisions offers great potential for moral development among all of us, including the development of ethical, socio-cultural, and personal commitments to the health and integrity of ecosystems. The place-based nature of land use decisions is particularly relevant to the development of an environmental ethic. Studies in psychology, philosophy, geography, planning, evolutionary

biology, and other fields document the role that concrete experiences with one’s environment—particularly special places—have in the development of environmental ethics and values. These experiences include the ways in which people use land and the decisions they make about their social and physical environments.

Three obstacles stand in the way of a nature-regarding ethic pervading land use regulation and practices. First, the legal, political, and administrative units of land management fragment land use decisions and actions by individual parcels and discrete local units of government. This fragmentation could prevent policies, regulations, and decisions that correspond to the interconnected, trans-boundary scales of ecosystems. Second, the land use regulatory system focuses on land and land use, potentially ignoring the ecosystem functions, processes, and components that are not defined or measured by geography. Third, the non-ecological aspects of land use decisions and practices may inevitably undermine any real ability or willingness by American society to use land within nature’s carrying capacity. However, in a growing number of case studies, local communities have begun to incorporate conservation principles into their land use practices. These examples demonstrate that people can—and will—think and act beyond: 1) the boundaries of individualized property ownership and fragmented local regulatory authority, even if they are addressing issues at a local level; 2) the land-focused aspects of ecosystems, even if they are making choices about land use; and 3) the false dichotomy between human welfare and nature’s welfare, even if their decisions still leave some footprint on nature. These changes do not happen in ways that are quick, easy, complete, or ideal. Yet they happen as relationships that people have with their natural environment and within their social, political, and economic communities change in concrete ways.

Conclusion

The task before us is to improve our land use practices and decisions. While the system through which these practices emerge and these decisions are made is a functional system, it does not necessarily follow that we are using the system well. The system’s utility does not absolve us of our ethical responsibilities for the use of land. To the contrary, we face the moral blame and practical consequences of poor land use choices.

We are more likely to find good means of addressing these problems if we turn from blaming the land use regulatory system itself for imagined inherent defects and instead turn to studying how the functions, components, scale, processes, and values of this adaptive system can be used to achieve better land use practices, including practices that value and conserve nature’s services. What is at stake are the qualities of the places in which we form and maintain communities.



Place

Sources:

Art, Henry W., ed. 1993. *The Dictionary of Ecology and Environmental Science*.

Beatley, Timothy. 1994. *Ethical Land Use: Principles of Policy and Planning*.

Beatley, Timothy & Kristy Manning. 1997. *The Ecology of Place: Planning for Environment, Economy, and Community*.

Bosselman, Fred. 1994. "Four Land Ethics: Order, Reform, Responsibility, Opportunity." *Environmental Law*. 24: 1439.

Bunnell, Gene. 2002. *Making Places Special: Stories of Real Places Made Better by Planning*.

Kellert, Stephen R. 2005. *Building for Life: Designing and Understanding the Human-Nature Connection*.

Leopold, Aldo. 1949. *A Sand County Almanac and Sketches Here and There*.

Note:

¹ Village of Belle Terre v. Boraas, 416 U.S. 1, 9 (1974).

Charm in the City: Thoughts on Urban Ecosystem Management

Nancy D. Perkins



Photo courtesy of Tony Arnold

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From a rear window in my 75-year-old urban home, I look out on my small backyard and those of my neighbors. ... Sights, smells, and sounds, juxtaposing the natural and the human, are experienced daily in my neighborhood, one that is far from state parks and wilderness reserves, removed from edge cities and sprawl. It's a neighborhood densely packed with humans, one that is very close to busy, often murky rivers fed by distant tributaries, fish-rich and pristine. It's a neighborhood that simultaneously hints at urban degradation and the richness of nature: a city neighborhood awaiting charm.

Ecosystem management has become the mantra of environmental regulation in recent years. Literature abounds on the subject, but the majority of the commentary deals with managing ecosystems on large expanses of public lands. A few law review articles treat ecosystem management with a more local focus, touching on private land use issues and sprawl. Still, there is a dearth of scholarship devoted to ecosystem management and cities, that is, scholarship that explores whether urban environments, with all their trappings of the human condition, should be integrated into regional ecosystem management, and if so, how it should be accomplished.

Urban ecosystem management is not an oxymoron. It can be achieved at various levels by implementing two principles. The first will require cities to confront and celebrate their unique places within ecosystems rather than perpetuate the patterns of post-war urban development that have resulted in the bland, homogenous cityscapes we know today. The second will require cities to acknowledge that the human species dominates their ecosystems, and to accordingly make ecosystem management choices that will enhance human health and spirit. Thus, the twin concepts that should guide urban ecosystem management are celebration of place and respect for human well-being. In order to put these concepts into practice, city residents, planners, and elected officials need to make a commitment to experience their ecosystems and build upon that experience.

“Experiencing the ecosystem” is a loaded phrase. It refers to developing a recognition of, and respect for the charm, or spirit, of nature. It draws on the phenomenologist school of philosophy which for over a century has focused on experience in general, and the experience of nature in particular, in an attempt to better understand time and space.

This experiential interaction with nature, when considered along with recent insights from the arts and sciences and commentary from the fields of urban design and the law, suggests that the time is right to forge ahead. When taken together, these concepts lead to the conclusion that the truest and most meaningful manifestation of ecosystem management at the urban level will arise by implementing a philosophy of urban charm.

I. Ecosystem Management

A. Foundations

In the past decade, ecosystem protection has received a remarkable amount of attention and made steady gains in acceptance. “Ecosystem management,” as understood today, is interdisciplinary, embracing ecology, sociology, and economics. Cities have been described as human-dominated ecosystems that rely on fossil fuels to produce energy for cars, machines, and industrial processes.

The goal of ecosystem management is to allow that degree of human appropriation of ecosystem resources which will ensure the continued vitality of ecosystem processes and their attendant services. By far, the most influential ecosystem management principles have been borrowed from the field of conservation biology, which emphasizes the importance of preserving biodiversity within ecosystems. Other principles have also emerged. Because ecosystem science is inexact, the precautionary principle is often invoked. This principle essentially promotes a less-is-more approach: less human exploitation yields more ecosystem protection. Two other themes



common to ecosystem management include flexibility, which instructs ecosystem managers to employ management strategies that are capable of adapting to ecosystem changes; and efficiency, which recognizes that ecosystem management entails costs and benefits that must be accounted for and balanced.

Successful ecosystem management strategies have also begun to take shape. Whether termed a baseline, goal, or hook, numerous commentators agree that ecosystem management needs more of a starting point than a vaguely-worded save-the-habitat policy. A broad-based coalition of decision makers is also needed. With these preliminary steps in place, the actual ecosystem management plan can be developed. Plans must be tied to specific standards that provide certainty for participants. Successful plans must also make those standards mandatory and include monitoring protocols. Further, plans must be flexible enough to adapt to changed circumstance and, as noted, come to grips with costs and benefits.

B. Ecosystem Management and Cities

A few writers have addressed ecosystem management in locations that are heavily populated by people. These authors point to the value of local action, noting that local governments are more likely to experiment, are more aggressive, and can more easily coordinate their efforts with other programs. Local decision making is particularly powerful because it is informed by a connection to place that is often lacking in top-down hierarchical structures. Still, there is a need for the federal and state governments to be involved at some level, which raises questions as to how to establish the proper balance between regional and local interests and how to find the proper place for humans within ecosystems.

One way to alleviate intergovernmental tensions is to rely on a bottom-heavy organization model. Under this type of framework, the federal government would assume the role of ecosystem management overseer, pronouncing national ecosystem protection goals, defining national ecosystem boundaries, and producing science-driven baseline standards to ensure the on-going functioning of ecosystem processes. This oversight authority would also entail monitoring incoming data to determine whether the baseline standards are being met. States, in turn, would oversee and coordinate ecosystem management efforts within their boundaries while remaining free to adopt more protective standards.

It should, however, be left to the localities within each ecosystem to ultimately determine how to meet national or state baselines. They should have the flexibility to determine their own place-specific goals that take into account the baselines as well as positive peculiarities of place. The new organizational structure would invigorate local communities by allowing them to create unique ecosystem-based identities and improve their quality of place while at the same time creating ecosystem synergies that would help restore and maintain ecosystem processes remote from them.

The ability of localities to define themselves in relation to their immediately surrounding ecosystems would add a measure of empowerment that is missing from traditional top-down models. Being given a maximum opportunity to be creative and to meet broad baselines in ways that celebrate place recognizes that people know their own land and resources better than those who live and work in far away. For cities, this more loosely-structured hierarchy holds promise.

II. Urban Woes

The cities that need to be included within ecosystems are, by many accounts, dysfunctional. But their problems are slowly being addressed by a new generation of urban designers and artists who have taken up the dual principles of celebration of place and respect for human kind. The Congress for the New Urbanism, for example, endorses "Traditional Neighborhood Development" (TND), which attempts to restore a pedestrian focus to cities. TND uses neighborhoods as building blocks, promoting the design of small scale urban areas to create communities. On another front, a new breed of artists has chosen to embrace styles of art that are more directly tied to place, reinvigorating their work by focusing on the connections between humans and their immediate natural surroundings. By merging culture with the environment, this novel approach to art is subtly changing our sense of aesthetics in ways that makes us more attuned to our natural surroundings.

Both the TND and new art movements address weaknesses in the human portion of the connective tissue that holds our urban ecosystems together. Together they suggest that current urban maladies can be improved by fostering diversity and by thinking local and small.

III. Interdisciplinary Perspectives

Recent scholarship in the arts and sciences, teachings from the philosophical school of phenomenology, and current trends in legal theory further serve to buttress the argument that cities, the human-dense subregions within ecosystems, should become focal points of ecosystem management.

A. Arts and Sciences

Overemphasizing the importance of patterns in science would be difficult; patterns are, as one scientist has stated, "the very stuff of science."¹ Some argue that the arts could benefit by studying patterns as the sciences do. The art-science link should come as no surprise; it has been shown that our capacity for both scientific thought and aesthetic appreciation is the probable result of evolutionary adaptations that allowed us to recognize and appreciate patterns in nature. The fact that aesthetic responses have evolved from early adaptations to environmental conditions establishes a scientific underpinning of the visual arts, a link that should not be ignored by urban planners.



This glimpse at scientific and aesthetic connections reveals the importance of nature's primordial patterns and explains how humans, throughout their evolution, have used those patterns in diverse ways that have led to advancements in the arts and sciences. City planners and designers should become more attuned to ecological patterns and ecosystem science, and ecosystem scientists should likewise become more conscious of urban sociological patterns. These professionals should reject as impoverished narrowly-focused approaches to ecosystem management and instead search for linkages between patterns in city life and those in the natural environment.

Encouraging urban planners and ecosystem scientists to examine patterns in this manner may be a useful step in developing a framework for urban ecosystem management, but it could face opposition by those who resist more expansive thinking and regulatory complexity, even if designed with public health and well-being in mind. Cities thus need an additional underpinning to make urban ecosystem management more widely acceptable.

B. Philosophy

In his book *The Spell of the Sensuous*, David Abram describes how ancient humans were slowly pulled away from their close relationship with nature by the development of language and the written word. He endorses a nature-based model of phenomenology that seeks to renew the human experience of the natural world. This recaptured experience is participatory and synaesthetic, simultaneously involving multiple senses. Abram repeatedly points out that this nature-based experience is common to indigenous peoples who share a sense of the sacredness of place. This "magic of place" recognizes the uniqueness of the earth's many ecosystems even to the extent of imposing their own personalities upon them.²

Civilized cultures have moved far away from an experience-based closeness to the earth. To the extent we experience the environment at all, it is abrupt and one-sided, not meaningful and reciprocal. City life perhaps best exemplifies the ultimate degradation of the spiritual connection between humans and their natural surroundings. To rectify this deficiency, we need to experience our physical place on earth and realize that each place has its own mind, or what Abram calls "a place-specific intelligence shared by all the humans that dwell therein..."³

C. Charm

The place-based, reciprocal experiential philosophy that builds upon the spirit of nature can be described as a philosophy of charm. Charm provides an urban-ecosystem foundation that accommodates arts' and sciences' emphasis on broad, interdisciplinary exposure to nature's patterns as well as phenomenology's quest for a heightened experience of nature.

Charm is not to be confused with beauty, and the difference is pivotal. There are many beautiful people whom we would never describe as charming, and the opposite is likewise true. Beauty is a quality that pleases our sense of aesthetics because of an object's line, color, or design. Charm, on the other hand, touches us more deeply. It is a quality that pleases in an irresistible way, that allures us, that tugs at our hearts. Charm accomplishes something beauty does not: it invites us to a greater experience, it holds promise.

The charm of nature encompasses more than nature's beauty; it is the spiritual quality of nature that beckons toward the sublime. The charm of the village is similar. It has been described as "the quality of inviting us to participate in another pattern, ... to glimpse the pattern of another personality through the veil of manners, customs, pretense."⁴ It is both spiritual and welcoming, and is what today's cities and sprawling suburbs lack. To retrieve charm will require us to develop a new appreciation for our environment. Traditional neighborhood design is a step in this direction because its principles are charm-based, from its focus on local communities and its celebration of and respect for place to its goal of creating engaging neighborhoods that invite residents to walk about and interact with one another.

Like the themes from the arts and sciences, the philosophy of charm stresses the importance of locality, natural elements, and pattern. But its encouragement of a new, focused, experiential way of being demands more than an appreciation of nature. It seeks an interaction with nature that will allow us to be charmed by it. It is this charm, that arises from nature's place-specific and unique patterns, that cities should attempt to capture.

D. The Law

Legal formalists and positivists promote ideals of beauty, not charm. They are uncomfortable with legal processes that invite exploration of extra-legal considerations. Their idea of beauty lies in simplicity; they strive for a level of certainty, believing the law cannot be informed by moral pronouncements or community-imposed values and obligations. A legal culture that is so closed, so predisposed to clarity and certainty would not be hospitable to charm, especially if introduced into the already spongy world of ecosystem management and regulation.

Still, charm is not as strange a legal bedfellow as it may appear. The law has, at times, retreated from pseudoscientific, unbending modes of analysis and settled on more flexible and inviting paradigms, often in response to environmental problems. Few would argue that, since the 1970's, environmentalism has redefined the relationship between humans and the environment, leading to dramatic changes in the law. Further, some legal commentators have expressed a willingness to look beyond the law for patterns, suggesting, for example, that extra-legal patterns can aid in statutory interpretation. Even more creative and



aggressive legal approaches have been called for, some of which show an increased respect for localities, custom, nature, and other disciplines.

At the margins, some believe that nothing less than a legal renaissance is in order, one characterized by a redesigned legal architecture that reflects the “intense connectivity between humans and nature, humans and the spirit ... and humans and humans all over the globe.”⁵ This vision would do far more than empower local communities; its emphasis on the human-nature connection would set the stage for the charm-based thinking described above.

IV. The Beginnings of Urban Ecosystem Management

The logical starting point for an urban ecosystem management program is a city’s ecosystem. Planners must first recognize that their city is part of an ecosystem and determine what that ecosystem means to the city. To do so, city planners will need to fully experience and reflect on the surrounding environment.

Planners must also accept that city residents, as the dominant species in their urban ecosystems, are to be protected and nurtured. It is here that the concept of charm can further inform and enrich ecosystem management. City planners must treat ecosystem benefits and services, including the unique make up and diversity of the city’s human population, as things not merely to be protected, but celebrated. They need to emphasize the novelty of a city’s natural setting and tie city residents and their neighborhoods into that ecosystem while at the same time making them aware of the full array of ecosystem services they enjoy. In this way city ecosystem planning will become more immediate and meaningful to the people. The starting point, then, should be one of creating, maintaining, and augmenting a city’s charm derived from ecosystem amenities. Attention must also be given to the players in the urban ecosystem management plan and their respective roles.

As noted earlier, a bottom-heavy organizational structure is needed to make cities and their residents feel they play important roles in such a collaboration. The federal government’s role would be limited to setting national ecosystem policy, defining ecosystem boundaries, providing scientific data, establishing the broadest possible minimum standards to ensure the continued health of the nation’s ecosystems, and monitoring the overall functioning of ecosystems to determine whether adaptive management strategies are in order. States, in turn, would utilize federal information and apply national baselines within their boundaries, remaining free to adopt more protective standards. Cities would devise their concepts of charm in conjunction with state standards. Cities should seek the assistance of non-governmental organizations to coordinate lateral networks to facilitate efficiency and inclusiveness, and elicit the participation of all neighborhoods and diverse interest sectors in ways that help

them understand that the undertaking will improve not only their health, but their quality of life.

The city could then turn its attention to the ecosystem management plan itself. It is in devising the plan that the law can become particularly creative by devising flexible mechanisms to help a city realize its vision of charm. To recap, a successful plan must at the very least include specifics, deal honestly with costs and benefits, provide for monitoring, and contain mandatory provisions. A fifth component - one targeting public education - would also prove beneficial.

The national ecosystem baseline standards, as modified by the state, will offer an important level of specificity for the city. But as mentioned, those standards will merely reflect what is necessary, at a minimum, to assure the functioning of ecosystem processes. The city must accept those standards, but it should also use them to define its charm-based starting point.

The methods chosen to implement charm must also be specific. The adoption of traditional neighborhood development strategies would be one way to promote charm in a meaningful and specific way. Its focus on neighborhood design, decreased car use, connective corridors between city sectors, diversity, and increased human interaction embodies the human-environment connection that is the basis of charm.

City governments will have to work with, integrate, and possibly revise numerous laws to accommodate charm-based ecosystem management. They will have to consider the wisdom of existing single-use zoning and property tax laws. Brownfield laws and local government laws governing special districts, regional coordination, and project funding must also be reviewed. It is crucial that cities seek opportunities for decentralization, interdisciplinary research, and creative lawyering in devising the means to achieve their objectives.

Ecosystem management carried out in this fashion will be costly, and a city will have to address the distribution of costs and benefits. Exploring innovative funding mechanisms should be pursued, with a priority placed on using incentives to encourage pro-environment behavior. Other cost-benefit distribution techniques could mandate environmental justice reviews for all ecosystem planning projects as well as cost-benefit analyses that accurately value losses and gains in ecosystem services. It is clear, however, that a mix of market-based approaches and collective response will be needed to achieve the best results.

Monitoring is a third component that cities cannot overlook. While the federal government should be the ultimate monitor of ecosystem health, there are many opportunities for cities to participate in a comprehensive monitoring program. Cities should be directly responsible for day-to-day monitoring. This type of hands-on assessment would impose additional costs, but by enlisting volunteers such as individual city residents, local



environmental groups, seniors organizations, and school groups, a city could defray monitoring costs. Reliance on residents and local groups would bring them in direct contact with the ecosystem and provide them with a deeper understanding of, and appreciation for their city's concept of charm.

Bringing the concept of charm home to the people would be an integral part of each urban ecosystem management proposal. Volunteers who assist in monitoring activities will begin to understand charm, as will those who are fortunate enough to live in TND neighborhoods. But charm should not be confined to a handful of residents and residential areas throughout the city. Cities will have a broader impact if, in addition, their own structures are designed in furtherance of charm and their streets are treated as outdoor rooms to be enjoyed by people, not merely used by cars.

Still other opportunities exist for more direct public exposure to charm. Urban ecosystem management plans should be enhanced by including a separate public education component that requires city school districts to include local ecosystem science in their curricula. Field trips that help school children experience the connections between the urban world and the local ecosystem should be encouraged. City-wide signage programs can also be developed to inform people about everything from native plant species and ecosystem services to structures that have been built or remodeled with charm in mind. Cities can further educate their citizens and expose them to charm by instituting public art programs that require artists to reinforce the city's vision of charm in their work.

Conclusion

Ecosystem management must be implemented in ways that embrace cities and that recognize that humans are the primary species for whose survival and well-being the urban habitat should be designed and preserved. Charm promises to make cities willing, rather than reluctant, players in ecosystem management by allowing them the flexibility to define themselves in unique ways that will offer protection not only for natural resources, but for their citizens as well.

Notes

- ¹ NILES ELDRIDGE, *THE PATTERN OF EVOLUTION* 23 (1999).
- ² DAVID ABRAM, *THE SPELL OF THE SENSUOUS* 182 (Pantheon Books ed. 1996).
- ³ *Id.*
- ⁴ JAMES HOWARD KUNSTLER, *HOME FROM NOWHERE* 82 – 83 (1996).

- ⁵ James M. Cooper, *Toward a New Architecture: Creative Problem Solving and the Evolution of Law*, 34 CAL. W. L. REV. 297, 301 (1998) (quoting Jon Spayde, *The New Renaissance*, UTNE READER, Feb. 1998, at 42 - 43).

Toward an Interdisciplinary Understanding of Place: Lessons for Environmental Education

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Photo courtesy of Tracy Arnold Chapman

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Introduction

Many cultures celebrate a sense of place created and recreated through personal experience, fathers’ stories, and grandmothers’ songs. Sense of place is elusive, subjective, and personal. While constantly changing, sense of place often appears to be fixed. This complex phenomenon results from myriad interacting factors—situational, historical, cultural, political, environmental, personal, and social, among others. Sense of place does not describe only a physical reality—rather it represents belief in the spirit of a locale, the living force that makes “undifferentiated space [become] place as we get to know it better and endow it with value” (Tuan, 1977, p. 6).

“Place” as a concept has been explored within a variety of disciplines as diverse as geography, cultural anthropology, architecture, leisure studies, and forest science to name a few. Additionally, as the internet becomes more prominent in the daily lives of so many people, explorations of emerging areas such as educational technology, communities of practice, and virtual places are also on the rise. Each field of study seeks to understand how people relate to places and what connection to place means. Some explore action-related implications, such as examining how relationships with place affect conservation and resource-management strategies. However, one of the greatest barriers to clarity and continuity in place-related studies has been developing a unified theoretical framework and common agreement on the “meanings of core concepts related to the ways in which people connect with places” (Stedman, 2002, p. 561).

Defining Sense of Place

Although “few fields of inquiry are so clearly interdisciplinary in nature” (Shumaker & Hankin, 1984, p. 60), researchers often approach sense of place from a distinctly disciplinary perspective. Psychology, for example, focuses on personal identity, while sociology examines social processes and place characteris-

tics. Anthropology looks to cultural symbols, while geography pursues concepts such as rootedness, uprootedness, and notions of how “lived experiences” create places. Political science considers place as an impetus for community action and empowerment. Environmental studies, which are often inherently interdisciplinary, speak to the importance of firsthand experiences with nature to create a place-based sense of connection and compassion. Hummon (1992) attributes the “theoretical complexity” of place research to the fact that “the emotional bonds of people and places arise from locales that are at once ecological, built, social, and symbolic environments” (p. 253).

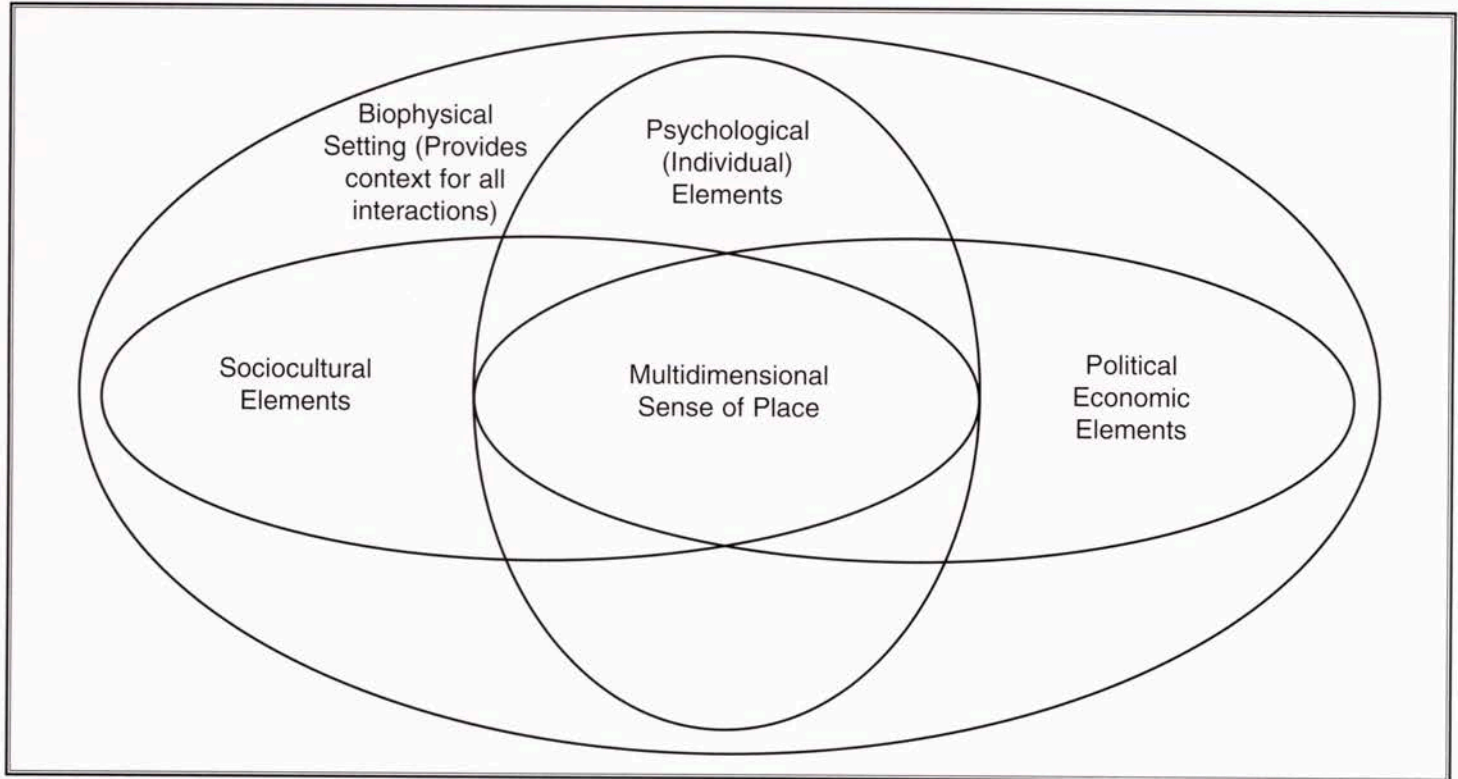
Each of the aforementioned disciplines recognizes a range of factors that contribute to creating a robust connection with places. However, few rigorously tackle place as a holistic, multidimensional concept. Through an extensive interdisciplinary literature review and preliminary field-based research, four consistent dimensions of “sense of place” have emerged: the biophysical environment; the personal/psychological element; the social and cultural context; and the political economic milieu. (See Figure 1.)

The Biophysical Dimension: Providing a Context

Without the physical environment as a context, there could be no sense of place. Pyle (1993) asserts, “When people connect with nature, it happens *somewhere*. Almost everyone who cares deeply about the outdoors can identify a particular place where contact occurred” (p. xv, emphasis original). However, sense of place as it relates to the biophysical dimension does not occur only in the outdoors; rather, the built environment also provides a powerful physical context. Kellert (2005a) describes a process of restorative environmental design, which moves beyond minimizing the built environment’s negative impact on the natural environment and strives to enhance the human–nature relationship, an important element of which is a connection to place.



Figure 1



Certain places evoke an almost-immediately intimate and emotional connection, creating what has been termed a spirit of place. Magnificent vistas, from the Grand Canyon to the Great Rift Valley, and sparkling shores, from Lake Tahoe to the Caspian Sea, represent landscapes and biophysical elements that seem to be innately attractive to humans. Steele (1981) describes places “so potent that they evoke similar responses. . . . These settings have what we call a strong spirit of place that acts in a powerful, predictable manner on everybody who encounters them” (p. 13).

Despite the seemingly obvious importance of the biophysical environment, both natural and built, its impact is often ignored. In many studies, the biophysical environment is either mentioned only in passing or not considered at all in relation to the development of place attachment, place identity, or sense of place.

While the social, cultural, and psychological elements are undoubtedly key, they cannot stand alone. Says Stedman (2003), “Although social constructions are important, they hardly arise out of thin air: The local environment sets bounds and gives form to these [social] constructions” (p. 671). The physical setting provides the context—as some have called it, the “stage”—for human/environment interactions. Moreover, deep and meaningful human connections with the biophysical world arise from direct experience with places. Therefore, it is critical to continually consider the biophysical setting in which “places are sensed” (Feld, 1996, p. 91)

Psychological Dimensions: The Individual

Located within a particular biophysical setting, all humans first—and most directly—experience places as individuals. Because this is the most obvious and personal entrée into experiencing a place, psychological dimensions receive great attention. Particular interest arises from the field of environmental psychology, which strives to better understand people’s interactions with biophysical places.

One of the most studied psychological concepts is place identity, which builds on traditional foundations of identity theory, but also includes the environment as an important factor in developing self concept. Moore and Graefe (1994) assert that place identity develops through relationships not only with people, but also with places that represent the setting for everyday life. As Wendell Berry poetically states, “If you don’t know where you are, you don’t know who you are” (in Stegner, 1992, p. 199).

Another equally important psychological factor is place dependence. This functional attachment “reflects the importance of a place in providing features and conditions that support specific goals or desired activities” (Williams & Vaske, 2003, p. 831). Stokols and Shumaker (1981) posit that locales that facilitate and serve as the setting for important and valued activities create a sense of place dependence and nurture attachment.



Place identity and dependence contribute to place attachment, although attachment moves beyond the purely psychological to include sociocultural components. Place attachment refers to an individual's experience and set of beliefs that build on cultural, often symbolic, experiences shared among families, communities, and societies. Although place attachment is similar to sense of place, the terms are not interchangeable. Low and Altman (1992) describe this complexity: "Place attachment subsumes or is subsumed by a variety of analogous ideas, including topophilia, place identity, insideness, genres of place, sense of place or rootedness, environmental embeddedness, community sentiment and identity, to name a few" (p. 3).

Sociocultural Dimensions: Society and Culture

Sociocultural dimensions are central to developing and maintaining a sense of place for a range of reasons—from providing a community context in which to interact with places to creating a cultural backdrop for understanding and interpreting places. Entrikin (1991) says, "Place presents itself to us as a condition of human experience. As agents in the world we are always 'in place,' much as we are always 'in culture'" (p. 1).

Social scientists emphasize the importance of places in making us who we are, and as part of understanding where we are. Williams (2002) attributes the intimacy of people-place interactions to the social construction of places: While a physical reality clearly exists, the ways in which humans understand place is an outcome of sociocultural processes by which "the meaning of . . . reality is continuously created and recreated through social interactions and practices" (p. 123).

Two intermingling threads comprise the sociocultural dimension. First, the individual functions as a part of society, which develops, portrays, and often promotes an aggregate understanding of place. Second, the cultural and symbolic elements sustain society's views of and beliefs related to place. The former is most often the purview of sociology; the latter of anthropology.

Sociology considers patterns in individual behaviour and how those behaviours manifest in society, particularly through social structures. From this perspective, place attachment "generates identification with place and fosters social and political involvement in the preservation of the physical and social features that characterize a neighborhood" (Mesch & Manor, 1998, p. 505). Geographers and sociologists often refer to the concept of dwelling, described by Heidegger (1971), as a core of people-place relationships.

Anthropologists focus on shared cultural symbols that constitute, create, and maintain a sense of place within a society through narrative practices, physical and historical landmarks, rituals and traditions, and even the seemingly mundane activities of everyday life. Basso alleges that "place-making is . . . a form of

cultural activity, and so . . . it can be grasped only in relation to the ideas and practices with which it is accomplished" (1996a, p. 7).

Political Economic Dimensions: Place-Based Involvement

Economies and politics reflect localized ways-of-being in the landscape nested in a shared, community-based understanding and image of place. Examining political economies requires recognition that "territorial states are made out of places" (Agnew, 1987, p. 1) and that places are not isolated entities but, rather, have innumerable visible and invisible connections with other places. The political economic dimension recognizes the continual process of place-making and eschews the concept of a static place, frozen in time. Agnew (1987) explains that, "'Active socialization' in place produces particular political outcomes" and "it is in specific places that the causes of political behavior . . . are to be found" (p. 44).

The bioregional movement has focused on political economic dimensions of place, promoting decentralized, place-based, often small-scale communities. Bioregionalists emphasize the importance of collective community action within a scale defined by the local bioregion. Reacting to increased industrialization and global-scale societies that exist further than ever before from ecological systems, bioregionalists fear that society's ability to adapt to change is diminishing alongside declining biodiversity. To address the reduced local capacity to deal with ecological and social flux, bioregionalists believe that community-based governance should empower communities to take actions appropriate to, and reflective of, the local bioregion (Sale, 2001).

Bioregionalists are not the only critics of today's political culture, which many see as lacking vivacity. Some political theorists blame the atrophied relationships between the natural world and the places in which our communities are based. Kemmis laments a "general placelessness of . . . political thought [that] weakens both our sense of politics and of place" (1990, p. 7) and posits that "public life can only be reclaimed by understanding and then practicing its connection to real, identifiable places" (p. 6).

While political and economic considerations are clearly critical, few researchers consider how to most appropriately "locate relationships to places within a social, historical, and political milieu" (Manzo, 2003, p. 54). Manzo argues for a contextual, political understanding of people-place relationships. Understanding the larger milieu in which a place exists helps recognize the power and impact of connections among places. Considering the broader context also forces acknowledgement of the social, cultural, historical, and political flows that constantly reshape places, as well as the people and power structures that operate within them.



The political economic dimension provides fertile ground for deeper understanding of the larger-scale implications of people-place connections. Questions of power and identity, particularly as manifested in place-based political movements and economic structures, explore some of the most transformative ideas linked to the relationships between people and place.

Toward an Integrated View of Place

Three decades ago, Proshansky et al. (1976) called for place studies to “evolve in an interdisciplinary superstructure of theoretical constructs and principles rooted in the basic formulations and empirical findings of many separate disciplines” (p. 5). However, as described above, research has primarily remained within disciplinary boundaries. Many studies employ single-method designs and cursorily provide a token nod to place’s interdisciplinary nature. Only recently have environmental, natural resource, and recreation professionals more seriously considered the importance of incorporating the sense of place concept into conservation and planning efforts.

Fields that focus on practice—in addition to theory—represent the vanguard of interdisciplinary place-related work. Natural resource management and forest science journals, for example, have published studies that incorporate a range of meanings and values of place. Heritage interpretation and tourism journals also publish work that considers sense of place as a multifaceted and complex concept incorporating not only biophysical, but also social and cultural, meanings. Applied fields—including environmental education—have a significant opportunity to reinvigorate and enhance the relevance of sense of place by engaging multiple dimensions. The following section considers how an integrated understanding of place may affect the design and practice of environmental education.

Sense of Place: An Educational Framework

Sense of place describes the complex cognitive, affective, and evaluative relationships people develop with social and ecological communities through a variety of mechanisms. While these relationships are often believed to mature over an extended period within a specific environmental context, they can also occur in a shorter time period through an intense experience or through a strong functional dependence on a certain type of place. Alternatively, a sense of place can also refer to an array of emotional relationships that enhance connections with a variety of social and ecological places. An educational framework predicated on creating and nurturing a sense of place—whether rooted or mobile—can relate these concepts and opportunities to real-world issues of environmental learning, involvement, action, and community-based conservation.

Environmental education literature links connection with place to environmentally responsible behaviour through progressive models. Mueller Worster and Abrams (2005) describe the

steps as “(1) ecological knowledge of the place, which leads to ecological identity; (2) knowledge of the local institution/social context . . . ; and (3) place attachment to a region,” which “theoretically leads to the environmentally responsible behavior” (p. 526).

The hypothesized connection between caring for a place and demonstrating environmentally responsible behaviours has encouraged a renewed interest in place-based education. Interest in place-based education often derives from the belief that encouraging an emotional attachment to a place will lead people to care and learn about that place and, subsequently, produce a desire to protect the place. Sanger (1997), for example, encourages direct, place-based experiences that link with cultural and natural history, with the intention of producing responsible citizens grounded in their place. Thomashow (2002) asserts that, “People are typically interested in understanding who they are in relationship to where they live. By exploring the places that are most important to them, they are most likely to take an interest in the human and ecological communities of those places” (p. 76).

Years of education theory and practice also indicate that involvement in one’s community leads to real-life learning, which may translate to real-life action. Dewey (1915), for instance, asserts that, “All studies arise from aspects of the one earth and the one life lived upon it” (p. 91), and emphasizes the importance of developing an educational system in which “the sense of reality [is] acquired through first-hand contact with actualities” (p. 11). Dewey describes community-based educational opportunities that incorporate learning about the natural, built, and managed environments within the context of a civic-minded historical, economic, and political culture.

To date, many place-based explorations suggest the need for curricular revision in the K-12 education system. Many researchers and educators argue for the need to incorporate a sense of place into formal curriculum models, often through experiential explorations, community-service learning, and outdoor education.

While young people and students are a critical audience, place-based education must be broader than K-12 education. Adults, as well as children, can have deep, transformational relationships with place, while also having an inordinate impact on our world’s resources. Reconnecting people with places may enhance psychological, social, and spiritual well-being while also raising awareness of human impacts on the environment. As Orr (1992) laments, “[O]ur immediate places are no longer sources of food, water, livelihood, energy, materials, friends, recreation, or sacred inspiration. . . . [We are] supplied with all these and more from places around the world that are largely unknown to us” (p. 126). So long as modern lifestyles divorce people from biophysical places—the source of natural resources, such as food, water, and clean air—it is nearly impossible to fathom the intricate connections with the natural world in general, or individual places in



particular—whether those connections be physical, cultural, social, or political.

Care should be taken, however, in efforts to reconnect people with place. Many current place-based educational efforts represent only one dimension of place (the biophysical) and heavily privilege only one avenue to developing a sense of place (rootedness). The tradition of writing about place—particularly in the environmental field, which has most deeply influenced environmental education—has tended to privilege a rooted perspective, reifying an ancestrally based sense of place above all others.

Yet, in today's increasingly transient world, a rooted, ancestral connection to place is becoming increasingly rare. Therefore, place-based education programs may be most effective when they recognize the diversity of place attachments that exist and cumulate from a range of relationships with the landscape, including familial, spiritual, and economic, among others.

Place-based education should strive to reach a range of community members through building on individual, unique perspectives, rather than privileging only a rooted sense of place.⁴ A multidimensional model embraces people whose sense of place is complex and built on an array of factors, rather than only focusing on ancestral histories. Basso (1996a) epitomizes this robust model when he calls for a celebration of different types of senses of place:

[Y]our sense of place will center on localities different than mine. . . . [T]hat each of us should be drawn to particular pieces of territory, and for reasons we take to be relatively uncomplicated, is radically expectable. A sense of place, everyone presumes, is everyone's possession. But the sense of place is not possessed by everyone in similar manner or like configuration, and that pervasive fact is part of what makes it interesting. (p. 144)

Conclusion

Sense of place is not something we consciously consider. Orr (1992) attributes this to "the ease with which we miss the immediate and mundane. Those things nearest at hand are often the most difficult to see" (p. 126)—or, as Basso (1996a) says, "sense of place quite simply *is*" (p. xii).

Yet sense of place is deceptively complex. All at once, a sense of place incorporates psychological being, social community, cultural symbols, biophysical territory, and political and economic systems. By privileging one dimension over the other, the development of holistic, healthy, and fulfilling relationships with places is stifled. By recognizing these interconnected dimensions, an understanding of sense of place as a multifaceted and integrated concept arises. To realistically and honestly assess, address, and explore sense of place, environmental education initiatives must recognize the multiplicity of meanings, sources, and expressions of sense of place.

The field of environmental education stands to benefit from actively acknowledging the holistic nature of sense of place. Working in a field that is inherently interdisciplinary and that celebrates ecological and cultural diversity, we are presented with a great opportunity to embrace a phenomenon that is essentially human. Incorporating a variety of dimensions into environmental education programs honours the many ways in which locales, communities, and cultures texture our life stories. Celebrating a multidimensional sense of place encourages recognition of the uniqueness of each individual's connections with the places that provide rich, meaningful context to our lives.

References

- Agnew, J. A. (1987). *Place and politics: The geographical mediation of state and society*. Boston: Allen & Unwin.
- Basso, K. (1996a). *Wisdom sits in places: Landscape and language among the western Apache*. Albuquerque: University of New Mexico Press.
- Dewey, J. (1915). *The school and society and the child and the curriculum*. Chicago: The University of Chicago Press.
- Entrikin, J. N. (1991). *The betweenness of place: Towards a geography of modernity*. Baltimore: Johns Hopkins University Press.
- Feld, S. (1996). Waterfalls of song: An acoustemology of place resounding in Bosavi, Papua New Guinea. In S. Feld & K. Basso (Eds.), *Senses of place* (pp. 91-135). Santa Fe: School of American Research Press.
- Heidegger, M. (1971). *Poetry, language, thought* (translated by Albert Hofstadter). New York: Harper Colophon Books.
- Hummon, D. M. (1992). Community attachment: Local sentiment and sense of place. In I. Altman & S. Low (Eds.), *Place attachment* (pp. 253-278). New York: Plenum Press.
- Kellert, S. R. (2005a). *Building for life: Designing and understanding the human-nature connection*. Washington, DC: Island Press.
- Low, S. M. & Altman, I. (1992). Place attachment: A conceptual inquiry. In I. Altman & S. Low (Eds.), *Place attachment* (pp. 1-12). New York: Plenum Press.
- Manzo, L. C. (2003). Beyond house and haven: Toward a re-visioning of emotional relationships with places. *Journal of Environmental Psychology*, 23, 47-61.
- Mesch, G. S. & Manor, O. (1998). Social ties, environmental perception, and local attachment. *Environment and Behavior*, 30(4), 504-519.
- Moore, R. L. & Graefe, A. R. (1994). Attachments to recreation settings: The case of Rail-Trail users. *Leisure Sciences*, 16, 17-31.



- Mueller Worster, A. & Abrams, E. (2005). Sense of place among New England commercial fishermen and organic farmers: Implications for socially constructed environmental education. *Environmental Education Research*, 11(5), 525-535.
- Orr, D. W. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany: State University of New York Press.
- Proshansky, H. M., Ittleson, W. H., & Rivlin, L. G. (Eds.). (1976). *Environmental psychology: People and their physical settings (second edition)*. New York: Holt, Rinehart, and Winston.
- Pyle, R. M. (1993). *The thunder tree: Lessons from an urban wildland*. Boston: Houghton Mifflin Company.
- Sanger, M. (1997). *Sense of place and education*. *Journal of Environmental Education*, 29(1), 4-12.
- Shumaker, S. A. & Hankin, J. (1984). The bonds between people and their residential environments: Theory and research. *Population and Environment*, 7, 59-60.
- Stedman, R. C. (2002). Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. *Environment and Behavior*, 34(5), 561-581.
- Stedman, R. C. (2003). Is it really just a social construction?: The contributions of the physical environment to sense of place. *Society and Natural Resources*, 16, 671-685.
- Steele, F. (1981). *The sense of place*. Boston: CBI Publishing Company.
- Stegner, W. (1992). *Where the bluebird sings to the lemonade springs: Living and writing in the West*. New York: Random House, Inc.
- Stokowski, P. A. (2002). Languages of place and discourses of power: Constructing new senses of place. *Journal of Leisure Research* 34(4), 368-382.
- Stokols, D. & Shumaker, S. A. (1981). People in places: A transactional view of settings. In J. H. Harvey (Ed.), *Cognition, social behavior, and the environment* (pp. 441-488). Hillsdale, NJ: Erlbaum.
- Thomashow, M. (2002). *Bringing the biosphere home: Learning to perceive global environmental change*. Cambridge, MA: MIT Press.
- Tuan, Y. F. 1977. *Space and place: The perspective of experience*. Minneapolis: University of Minnesota Press.
- Williams, D. R. (2002). Social construction of Arctic wilderness: Place meanings, value pluralism, and globalization. In A. E. Watson, L. Alessa, & J. Sproull (Eds.), *Wilderness in the circumpolar North* (pp. 120-132). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Williams, D. R. & Vaske, J. J. (2003). The measure of place attachment: Validity and generalizability of a psychometric approach. *Forest Science*, 49(6), 830-840.

Conservation Science for Land-Use Planning

From
Conservation Thresholds:
Overview and Commentary

Reed F. Noss



Photo courtesy of Tony Arnold

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Introduction

Biological impoverishment, where the global rate of extinction outpaces the rate of speciation, is well underway. Because the greatest threat to biodiversity is the loss, degradation, and fragmentation of habitat – now made more worrisome by climate change – policies and programs that affect human use of the land must keep pace with scientific knowledge of the relationship between land use and biodiversity. Unfortunately, land-use planning usually is poorly linked to scientific information or conservation planning. A recent survey of county, municipal, and tribal planning efforts in the United States found that biodiversity is seldom a consideration in planning, regulations requiring conservation actions are uncommon, and planners seldom make use of scientific methods, information, or conservation planning tools (Miller et al. 2008).

The link between conservation science and land-use planning must be strengthened in order to not only maintain existing biodiversity, but to restore biodiversity and ecological services in areas where they have been compromised. Healing the land must begin with good planning, for there are so many ways we can go wrong—or at least waste time and money—if we do not proceed intelligently and on the basis of the best available information.

The Science in Land-Use Planning

Land-use planners and conservation biologists need to interact – more often and more substantively. Many planners and decision-makers now accept that land-use planning should be science-based, or at least science-informed. As a positive sign, major land-use plans across the U.S. are now often, if not routinely, reviewed by at least some people with biological training. For some large plans, scientific advisory panels are established to provide independent review of plans; ideally this

happens early in the planning process so that planning can be proactive instead of reactive. The tools for conservation and land-use planning – GIS, remote sensing, reserve selection algorithms, planning and decision-support software, and more – are growing both more sophisticated and more user-friendly day by day. Nevertheless, much more can be done to assure that plans systematically incorporate rigorous methods and the best available information.

Some common understanding of the nature of science is needed before we can define the proper role of science in land-use planning. Science is conventionally defined by such phrases as “the observation, identification, description, experimental investigation, and theoretical explanation of phenomena,” “systematic knowledge of the physical or material world gained through observation and experimentation,” or “knowledge, as of facts or principles; knowledge gained by systematic study” (www.dictionary.com). The conventional model of science is the empiricist model, which produced “the scientific method” that we all learned in school. The strict empiricist model of science has been challenged recently, however, with some scholars defining science more broadly as “an interactive, social activity in which multiple forms of reasoning and evidence, together with critical discussion, take place among a diverse scientific community” (Wallington and Moore 2005).

In comparison with other ways of obtaining knowledge, science is distinguished by critical thinking. Objectivity is a primary and indispensable norm of science, but as pointed out by Stern (2005) with some irony: “Science, despite its famous emphasis on achieving objectivity by eliminating human error, can make its claims of objectivity only because it relies on the subjective judgments of fallible human beings and social institutions to detect and correct errors made by other fallible humans and institutions.”



In conservation planning, science is an ongoing, multi-stage, iterative process of identifying real-world problems, posing questions and hypotheses about mechanisms and possible solutions to these problems, gathering and analyzing map-based (e.g., GIS) data, testing preliminary maps against new data, developing alternative future scenarios, and coming up with a proposed solution, often in the form of a spatially explicit conservation design. Science can and should inform goal-setting, but it cannot provide the philosophical basis for goals. In many cases conflicts that develop in planning exercises are more about values than about the role of science.

What precisely does science have to offer land-use planning? Planners appear to be grasping for rules of thumb – relatively simple guidelines for how large parks should be, how wide corridors should be, and so on. Scientists, on the other hand, emphasize uncertainty and contingency. Not long ago I was approached by a planner from a neighboring county who needed to know how wide corridors for Florida Scrub-Jays (a federally Threatened species) need to be. They were writing new regulations and needed a precise number. My answer was “it depends.” In this case, it depends on habitat quality within the corridor (for example, the jays will not travel far through unsuitable habitat, such as closed forest), the length of the corridor (they only disperse so far), and the nature of adjacent habitat (if it is highly hostile, such as a dense subdivision or busy road, the corridor will need to be wider). I assured her that for any particular case, an expert on scrub-jays could provide a reasonably defensible recommendation on corridor width. But this was not good enough; she needed a fixed number that would apply across the board. Unfortunately, a fixed number is biologically indefensible, even if it stands up in court.

Some general rules of thumb for science based planning can be defended. For example, Wilcove and Murphy (1991) offered spatial planning principles to avoid the habitat fragmentation that imperils species such as the Northern Spotted Owl. Noss et al. (1997) rephrased these principles and offered several others to guide comprehensive conservation planning. Among the principles that have withstood the test of time reasonably well are the following:

- *Nature is full of surprises.* Ecosystems are dynamic, not static, and often display non-linear dynamics with unpredictable outcomes. The issue is at whose expense the surprises will occur. It is reasonable to offer assurances to landowners and other parties who entered into a conservation plan that they will not bear the full cost of surprises. And it is reasonable to provide substantial public support for monitoring and adaptive management, which must often include changes in land-use plans over time.
- *The fewer data or more uncertainty, the more conservative a conservation plan should be.* This is a risk-averse or precautionary strategy, being willing to

err on the side of protecting too much rather than too little.

- *Large conservation areas are better than small areas, all else being equal.* This does not mean that one large area is better than several smaller areas; that will vary case by case.
- *More conservation areas, spread across the planning landscape, are better than fewer areas.* This will assure that beta diversity (turnover in species composition among sites) is captured in the reserve network, and will help avoid “contagious catastrophes” and synchrony in population dynamics that could bring multiple populations of a species to extinction at once.
- *Connected is better than disconnected, all else being equal.* Here I am talking about maintaining or restoring natural connections (either through corridors or through permeability of the landscape matrix), not creating artificial corridors such as roadsides or powerline swaths. Connectivity, however, is very species-specific and landscape-specific.
- *Unfragmented habitat is better than fragmented habitat.* This refers to anthropogenic habitat fragmentation (by roads, developments, etc.), not to the heterogeneity or patchiness that is inherent to natural landscapes.
- *Roads are generally bad.* It would be difficult to think of a landscape feature with more consistently negative ecological impacts than roads. Because human-inhabited landscapes will almost always contain roads, more research is required to understand wildlife-road interactions and to develop functional wildlife crossings and other mitigation measures.

It should be remembered that rules of thumb function best as empirical generalizations to guide planning in situations where case-specific data are lacking.

Growth, Densities, and Zoning: Not as Simple as it May Seem

Writer Ed Abbey famously pointed out that “growth for the sake of growth is the philosophy of the cancer cell.” Nevertheless, we live in a society thoroughly committed to the philosophy that growth is good. At the same time, when surveyed in polls citizens often rank growth and associated ills such as sprawl and traffic congestion among their primary concerns. It’s a quality of life issue, but it’s also much more than that – it is an issue of biological survival.

A landmark Supreme Court decision in 1926 (*Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365) held that “every community has the right to determine its own character



and the nature of development within.” This right includes a decision of whether or not to grow. A few communities have established strict limits to growth, but more often, even when citizens demand an end to sprawl, county commissioners, city councils, and the developers who support them assure that growth continues unfettered by meaningful restrictions. And the public keeps putting these people back into office. Yes, we have land-use planning, but it can be argued that “traditional planning is essentially a mechanism for development of land, where development is broadly defined as moving from natural to more human-modified” (Theobald 2007).

Land-use planning of some kind has been carried out through all of American history. In the late 1960s and 1970s, however, several factors converged to provide a basis for today’s land-use planning – notably, the great increase in public concern about environmental issues and the publication the seminal book, *Design with Nature* (McHarg 1969), which linked planning to the biophysical qualities of particular landscapes. It was not until the 1980s that the scientific basis for planning to conserve biodiversity started to come together under the banner of the new discipline of conservation biology. This field continues to develop new tools and approaches to conservation and land-use planning.

Berke (2007) cites several examples of communities integrating scientific information and protection policies into local planning, but notes that ecological protection provisions tend to be the exception rather than the rule. Few programs take a balanced or holistic approach to planning. Among the core values that come through strongest in high-quality comprehensive plans is livability, an anthropocentric concept that encompasses a sense of place, social cohesion, attractive buildings and landscapes, safety, and accessibility to a mix of land uses. Application of science-based data and methods to planning is weak in virtually every case. Implementation of plan conservation elements, for example land acquisition to protect sensitive places from development, is typically poor. Even in Florida, where ca. \$6 billion was spent over two decades in conservation land acquisition, Brody (2003) found that local comprehensive plans generally ignore data on biodiversity hotspots and other critical information. Only when an urgent threat arose – for example, a major new development proposal – did counties consult such data. Therefore, despite increasing awareness among scientists, planners, and some decision-makers that planning must be proactive in order to avoid policy “train wrecks,” planning remains generally reactive.

It has traditionally been assumed that zoning exurban areas as agricultural or low-density will limit sprawl and help assure that much of the natural and scenic character of the landscape is maintained. Recently that assumption has been questioned. Merenlender (2007) points out that “policies that may curtail urban sprawl may not be the same as those needed for reducing exurban expansion trends.” She notes that urban growth boundaries, which are a popular measure for reducing sprawl, can

have “the perverse effect of pushing development beyond the cities.” Colton and Ruther (2007) express a similar concern for Pima County, Arizona, home of the landmark Sonoran Desert Conservation Plan, which was developed as a Habitat Conservation Plan (HCP) under Section 10 of the U.S. Endangered Species Act.

Exurban development is increasingly recognized as a serious threat to the integrity of landscapes. Theobald (2007) provides data showing that the rate of growth of exurban areas exceeds the growth of urban areas. Large urban areas of relatively low density are growing 60% faster than smaller urban areas with higher density. The result is an overall footprint of low-density development 10-15 times larger than urban high-density development. This is a significant problem, especially where exurban development occurs in wildlands. But is low-density development having 10-15 times the impact on biodiversity? Merenlender (2007) cites studies showing strong impacts of low-density development on native fauna. Other studies, however, have shown that loss of native biodiversity and threats to adjacent natural areas increase with housing density. For example, Wilcove (1985) found that woodlots surrounded by suburban developments suffered higher rates of predation on artificial bird nests than woodlots surrounded by agricultural land with low housing densities, very likely because the suburbs contained subsidized populations of opportunistic mesopredators (e.g., house cats, raccoons, opossums). Many studies show that species diversity peaks approximately midway along urban-wildland gradients, but that the most sensitive species are retained only in the lowest density or wildland areas. Thus, moderate levels of urbanization or human disturbance in general may increase diversity locally but decrease diversity regionally as the most sensitive species are lost.

The only study I’ve found that directly compares 1) exurban clustered (high-density) housing developments and retained open space with 2) dispersed (low-density) housing developments is from Colorado (Lenth et al. 2006). This study, which used undeveloped areas as controls, found that the two patterns of development generally did not differ in terms of densities of songbirds, nest density and survival of ground-nesting birds, presence of mammals, or percent cover and proportion of native vs. non-native plants. Both types of development were inferior to undeveloped areas in terms of native biodiversity. My reading of the literature suggests that the jury is still out over which is preferable for promoting viable populations of native species – clustered housing with clustered open space or the same amount of housing dispersed across larger lots that still maintain “backyard” habitat. I suggest that case-specific details of habitat quantity (patch size, etc.), configuration (e.g., connectivity), and quality relative to the needs of particular species and effects on ecological processes will determine the desirability of one development scenario over another.

Biophilia, the love of living things (Wilson 1984), is not nurtured by high-density living, where your only neighbors are



other people, household pets, lawn turf, rats, and cockroaches. People need contact with wild nature. It is not surprising, that according to studies cited by Merenlender (2007) nearly half of all city dwellers would rather be living in the country or in small towns. But with our growing population, such a spread of humanity into the countryside would be disastrous. We have a real dilemma!

What, then, is the best possible world of regional land-use planning? I suggest it should include the following elements:

- 1) We need much more conservation area, as strictly protected as possible through public acquisition (including conservation easements), trading (transfer) of development rights, or other incentives. Functional corridors should be provided to connect conservation areas.
- 2) The landscape surrounding conservation areas should be kept at very low housing density and low-intensity land use to provide buffer zones between conservation areas and higher-density development and to provide a permeable landscape that will enable many organisms to move among conservation areas.
- 3) Limit high-density development to lands within strictly defined urban growth boundaries. Provide parks and, where possible, connecting corridors throughout this landscape, both to serve the needs of native species and to make nature accessible to people.

This three-part scenario may be considered unrealistic by those who assume that 1) continued high population growth is inevitable; and 2) not enough public money is available to protect land. I do not accept either assumption. First, as we've seen, the Supreme Court has affirmed the right of communities to determine their own nature, which may include limiting growth. Second, considering the vast amount of money that society (through its government) is willing to spend on war and other questionable causes, to ask that a significant chunk of that money be shifted to nature conservation is not unreasonable. Moreover, the number of billionaires in the world has been increasing. Surely some of those people will be willing to make a substantial investment in conservation.

Hierarchical Planning and Regionalism

Effective and comprehensive land-use planning must be carried out at multiple spatial scales. Berke (2007) points out the spatial mismatch "between the scale at which local governments need to plan and manage to effectively protect landscape ecological resources and the scale at which land use planning and decision making is traditionally done." A proliferation of disconnected local plans makes coordinated regional planning extremely difficult. Regionalism may be experiencing a rebirth, however, as exemplified by the devolution of responsibility for

habitat protection for endangered species from federal agencies to regional public and private entities. Regional-scale Habitat Conservation Plans (HCPs) and, in California, Natural Community Conservation Plans (NCCPs) are representative of this trend. When properly guided by independent science advisors (which is required in the case of NCCPs) such plans often make substantial contributions to conservation while making permitting less arduous for developers and landowners.

Conservation Planning Methods, Performance Measures, and Thresholds

For conservation planning an overarching question is at what level of habitat loss and fragmentation does population viability and richness of native species begin to decline precipitously? A defensible land-use plan would be one that maintains natural habitat in an amount, configuration, and quality safely above that threshold. The concept of the "minimum viable population (MVP) size," above which persistence is virtually assured, dominated much of early conservation biology (Shaffer 1981). Unease about specifying such a limit in the face of uncertainty, combined with the fear that managers may manage a population down to an ostensible MVP, which later proves to be too small, has brought the concept into disfavor. Theoretically, MVP thresholds may exist, but our ability to specify such thresholds is limited.

There may also be a "minimum viable metapopulation size," the number of subpopulations that allow a metapopulation to persist (Hanski et al. 1996). In such cases a species may occupy a decreasing fraction of the available habitat until a threshold is reached, at which point the species is not able to maintain a positive balance between local extinctions and local recolonizations; the result is extinction even if some suitable habitat remains. Critical thresholds of habitat have been found for some organisms, for example amphibians and butterflies. Based on computer simulations, Fahrig (1997) suggested that above 20% habitat cover, species persistence was virtually assured, regardless of habitat configuration. Other studies, however, have found that fragmentation of habitat can lead to declines beyond those attributable to habitat loss.

The flip side to the question of habitat loss thresholds is a question commonly asked of conservation planners: how much is enough? That is, how much land must be conserved in relatively natural condition to meet conservation goals? Although my generalization (Noss 1992) that roughly 50% of a region must be maintained as natural area in order to meet such well-accepted conservation goals as maintaining viable populations of native species, representing natural ecosystems across their range of variation, and maintaining ecological and evolutionary processes, has been questioned, individual studies and reviews have generally supported this estimate. Although the required amount of land will vary widely from region to region due to such factors as environmental heterogeneity and the degree of endemism, the range of estimates generally falls within 25-75%.



Agriculture and Ecosystem Services: Strategies for State and Local Governments

J.B. Ruhl



Photo courtesy of Tracy Arnold Chapman

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Introduction

This Article focuses on hints of movement in a new direction for agriculture. The impetus comes not primarily from the federal government, but arises, ironically, out of a merger between the age-old practice of paying farmers to do what is right, the fear of losing agricultural lands to suburban development, the rising fiscal burdens to state and local jurisdictions presented by new suburban development, and the new understanding that farms may hold tremendous untapped value as providers of ecosystem services to local, regional, and national communities. The goal in this new policy movement is to unlock the multifunctional capacity of farms to contribute to the environmental and economic wellbeing of the landscape while continuing to serve as our primary source of food and fiber, and it is playing out with promise at the state and local level.

One might think implementing this win-win for agriculture and the environment is a policy "no-brainer," but agriculture has long been the Rubik's Cube of environmental policy. Although agriculture is a leading cause of pollution and other environmental harms, it has been resistant to regulation and, for the most part, remarkably successful at being paid to do the right thing. While other industries have advanced to flexible, market-based "second generation" environmental policies and beyond, agriculture somehow keeps dodging the bullet. Federal and state agencies have tried to overlay small pieces of conventional regulation on farms, which farm interests have resisted at every turn, and Congress opens debate on Farm Bills every few years with promises of innovative policy reform, only to drift back into business as usual. Seldom has so much time, money, and energy been expended year after year, decade upon decade, to keep policy of any other kind exactly where it started out.

Farms have long been understood as land units that have the capacity to contribute to environmental and cultural values. In recent years, however, ecologists and economists focusing on agriculture have forged a more complete vision of the capacity of

agricultural lands. They see farms as housing the natural capital capable of providing a stream of diverse goods and services, including ecosystem services such as increased biodiversity, carbon sequestration, pollination, groundwater recharge, and improvement of water quality. To be sure, farms taking this working landscape model to heart would look and behave differently from conventional operations based on intensive monoculture crops and concentrated livestock, but they unmistakably would be active and potentially prosperous agricultural operations.

Unfortunately, federal policy has been slow to move in this direction. While it has become a rite of passage to begin each five-year cycle of Farm Bill work with great fanfare over the prospect of stepping up the "green subsidy" and farm preservation programs, the rhetoric and content each time are steadily watered down until the programs look about as they started. The long prevailing system of farm income supports, including green subsidies, simply do not tap into or promote a sense that there is more to agriculture than supplying food, fiber, and energy commodities and a dose of cultural nostalgia.

With little prospect of the Farm Bill moving off this position, it is time to consider how state and local governments can become more active in bringing about farm multifunctionality and how the federal government can help them. That is the focus of this Article. It explores the emerging theme of farms as multifunctional land uses and suggests that state and local governments can best help ground it through flexible, efficient policy instruments. The message for Congress is to realign federal farm policy to facilitate the delivery of a more sustainable profile of farm goods and services through state and local programs. Although federal farm subsidy programs surely could be repositioned to better promote farm multifunctionality directly, the benefits of multifunctional agricultural production, compared to the conventional commodity production orientation, are primarily local.



On this policy front, therefore, I propose that federal policy support state and local innovations rather than dominate the field as has been the case historically. In Part I of the Article I examine the theme of farms as multifunctional production units as it is developing in ecological literature, then examine the potential future scenarios of agricultural land uses and the tools state and local policy could use to help break the logjam of agriculture-environment policy by promoting the multifunctionality of farms.

Part II of the Article then uses two case studies from Florida to focus on two such tools in particular—payments for ecosystem services (PES) and transferable development rights (TDR). Although distinct in several ways, including fiscal impact, the role of regulation, and the medium through which provision of ecosystem services is rewarded, these two approaches share

design issues being worked out in two newly-initiated programs in Florida, as summarized in Part II. It is the funding and promotion of this kind of state and local programs I envision as becoming a focal point of federal policy.

I. Promoting Farm Multifunctionality through State and Local Land Use Policy

The vision of agriculture has vacillated in the public eye over time. *Nature's Services*, edited by Gretchen Daily, began the new vision. Published in 1997, *Nature's Services* was the first comprehensive treatment of the ecosystem services concept grounded in practical ecological foundations. One emerging focal point of the new intellectual wave is the concept of farm multifunctionality.

Table 1

Ecosystem Service Type	Conventional Farming	Multifunctional Farming
Provisioning —food, fiber, energy sources, pharmaceuticals, and other consumed commodities supplied by nature	Land and resources are managed primarily to produce food and fiber commodities and, increasingly, biomass fuels	Food, fiber, and fuel production remain a primary purpose of land and resource management
Regulating —services that modulate ecosystem processes with economic relevance to humans, such as gas composition, air and water temperature, nutrient flows, and waste decomposition	Land unsuitable for cultivation or grazing and land taken out of production through CRP and other subsidy programs will provide incidental regulating service benefits; land in cultivation and active grazing has diminished capacity to provide regulating services	Riparian habitat is actively managed to promote nutrient and sediment capture, provide flood control, and provide thermal regulation of stream flows; interior wetland areas are managed to promote groundwater recharge and suppress dry freeze effects; woody and grassy biomass is managed for carbon sequestration
Cultural —services that enhance human use and appreciation of natural resources and the built environment, including recreation, aesthetic appreciation, scientific research, and cultural, spiritual, and intellectual inspiration	Active farmlands are devoted primarily to food and fiber production and not generally open to public; existence of farming lands in community provides some background cultural significance	Active farmlands could be opened to public cultural activities such as stay-and-work, school visits, or bed-and-breakfast; areas managed for regulating and supporting services could provide eco-tourism, recreational, and scientific opportunities
Preserving —services that maintain ecological resilience and the diversity of ecological futures	None of significance	Areas are actively managed as seed banks, wildlife habitat, and to restore native grasses and other vegetation
Supporting —services that sustain other forms of service flows	Land unsuitable for cultivation or grazing and land taken out of production through CRP and other subsidy programs will provide incidental supporting service benefits such as pollination, seed dispersal, and biological pest control; land in cultivation and active grazing has diminished capacity	Areas are actively managed with the specific purpose of enhancing pollination, pest control, seed dispersal, and other supporting services.



The Emerging Vision of Farm Multifunctionality

Following the lead of *Nature's Services*, the growing science and policy literature on ecosystem services divides them into five types: *provisioning services* that underlie the production of commodities; *regulating services* that moderate dynamic natural phenomena; *cultural services* that provide human psychic satisfaction; *preserving services* that maintain ecological diversity and resilience, and *supporting services* that promote the capacity of ecosystems to produce the other service types. The story of conventional crop and livestock agriculture has been largely one of managing provisioning (food and fiber) and cultural (farmland character) services and their associated supporting services, primarily because these are essential for farms to produce marketable commodities and retain their charmed status in the public eye. Only recently has the focus turned to expanding agriculture's position as a source of regulating services valuable to surrounding local, regional, and national communities, the problem being how to provide farmers the incentive to manage for such services when no market yet exists for them.

By contrast, agricultural multifunctionality emphasizes the joint production of standard commodities and ecological services on the premise that major additional gains may result from a "working landscape" approach. Methods a multifunctional farm would use to achieve this more balanced production profile would include precision farming, no-till farming, organic farming, rotational cropping, crop residue usage, bio-pest controls, riparian cover, filter strips, contour farming, incorporated pollinator habitat, and water retention and recharge ponds. Table 1 illustrates the different ecosystem service production profiles of conventional and multifunctional agricultural land uses.

The problem, of course, is that farmers have no inherent incentive to move from the conventional model to the multifunctional model. To put it in economic terms, farmers view the provision of regulating services to outside communities as a positive externality—doing so benefits others, but nobody is willing to pay for the benefits. The market rewards farmers for producing commodities, and federal farm subsidies force a tradeoff between commodity production and ecological conservation. Why is it that farms cannot be rewarded for producing commodities *and* ecosystem services?

Conceiving Alternative Futures for Agricultural Lands

Even if farming as usual is a superior land use option for a community as compared to, say, cookie-cutter sprawl, those do not exhaust the alternatives. Rather, a spectrum of potential future scenarios presenting different tradeoffs must be considered before land use policy can make sensible comparisons. For my purposes I simplify those additional scenarios to the following four, the advantages and disadvantages of which are explored in the next section:

1. *Agricultural Use with Increased Environmental Performance Baseline.* Under this scenario farms are regulated more heavily than is the current practice, primarily to enhance environmental performance. For example, riparian buffers would be mandated, onsite water recharge features would be required, and tillage practiced would be specified. Of course, this is the scenario agriculture has steadfastly and thus far successfully resisted, but it is nonetheless an option.
2. *Conversion to Multifunctional Working Landscape.* Under this scenario a baseline performance level of agricultural practices would first be specified, either at conventional levels or through regulation at more demanding levels (as above), and then incentive programs would be designed to compensate farmers for enhancing the flow of regulating ecosystem services above the baseline to identified off-farm populations and areas. For example, if riparian buffers and onsite recharge features were not required under the baseline, providing them would entitle a farmer to some compensatory benefit in return.
3. *Conversion to Open Space.* Under this scenario public or private interests would simply buy out all or substantially all of the land use rights associated with agricultural lands, either through conservation easements or fee title. From there the land management regime might include management for ecosystem service flows (perhaps even selling them where markets or other compensatory incentives can be identified).
4. *Conversion to Planned Mixed-Use, Mixed-Density Development.* Under this scenario agricultural lands are converted to development, but not as uniform low-density "sprawl." Rather, either through land use regulation or in response to market demand, the buildout is comprehensively planned and includes clustered high-density development, mixed commercial, office, and residential uses, and substantial recreational and conservation open space. Some working agricultural uses might be retained, and the planning of land use locations could take into account the location of natural capital and its associated ecosystem services flows.

State and Local Policy Instruments

With the expanded slate of scenarios in hand, state and local jurisdictions wishing to favor one or another must explore the policy instruments at their disposal and the advantages and disadvantages of using particular instruments to achieve the desired scenario. Many of the tools are designed to preserve existing farmland "as is." This "save farming" premise permeates federal and state policy. The American Farmland Trust (AFT) in



particular has been a vocal advocate on behalf of farmland conservation. AFT has been quite successful, helping to bring about the Farmland Protection Policy Act in the 1981 Farm Bill and a host of farmland protection measures in the Farm and Ranch Lands Protection Program renewed in the 2002 Farm Bill. But many state and local programs are designed to serve the same objective.

For example, one way farmland can be “saved” in this sense is to configure local zoning regulations to prohibit it from being converted from agricultural uses, or to impose insurmountable barriers to converting it to suburban development, a method some states and localities have used over vociferous objections of the very landowners ostensibly being protected. Whether this status quo lock-in approach saves farms or saves existing suburbanites from yet more suburban development is, of course, a matter for debate and is largely in the eyes of the beholder. In any event, courts have generally rejected the argument that these “exclusive agricultural use zoning” restrictions constitute regulatory takings.

Another technique is to use tax policy to favor continuation of agricultural land uses. For example, many state and local governments adopt “differential property tax assessment” provisions that provide lower assessment rates for agricultural land uses and thereby, in theory, deter conversion to higher rate land uses. But the evidence is that these measures do not deter conversion to development at the urban fringe, where returns on development frequently more than offset the higher tax rates.

By contrast to the state and local exclusive agricultural use zoning and tax relief programs, the early thrust of state and local efforts, later supported by the federal farmland protection initiative, was funding of programs for purchase of development rights (PDR) and purchase of agricultural conservation easements (PACE), the effect being to preclude conversion to more intense development. For perhaps obvious reasons, AFT has strongly advocated PDR/PACE programs, with over half the states and 50 local governments adopting such programs and the 2002 Farm Bill providing \$600 million in federal matching dollars for PDR/PACE acquisitions, as implemented by the USDA’s Commodity Credit Corporation.

Zoning, tax breaks, and PDR/PACE programs involve either regulation or public financing. Another alternative for farmland preservation, one that neither regulates farms directly nor demands public revenue financing, is the local use of TDRs to reward an agricultural landowner who withdraws land from potential conversion to development with “credits” that can be used in other areas to go above and beyond the baseline of allowable development parameters, such as density of units. The obvious attraction to TDRs for purposes of farmland preservation is that they impose no fiscal burden on the public; on the other hand, the potential downfall of TDRs is that they depend on developer demand for the credits.

The techniques mentioned thus far may be useful in maintaining agricultural land uses in status quo, but they do not inherently promote better farming practices to reduce environmental harms or enhance regulating and supporting services. The chief method of improving the “baseline” environmental performance of farms has been through the promulgation of “best management practices” (BMPs), such as tillage methods, integrated pest management, and retention of riparian habitat. To be comprehensively effective, these would have to be regulatory mandates, whereas they have been employed mostly as voluntary guidelines or as the “cross-compliance” condition to receive subsidies or other incentives.

The underlying assumption of this collection of instruments is that farming remains on the landscape in some substantial form, whereas some of the alternative scenarios involve removing agricultural uses altogether. At one extreme, the conversion to open space can be accomplished through purchase of permanent conservation easements restricting all but passive uses, or by acquisition of title with similar deed restrictions. Some state and local governments, as well as private land trusts, have been aggressive at accomplishing these land use conversions, though often some level of agricultural use is contemplated. Agricultural interests have not always been keen about programs designed to convert agriculture into open space, however, as the concern exists that the agricultural land base in an area may fall below the “critical mass” necessary to support a cohesive agricultural economy including seed and equipment suppliers and produce distributors.

At the other conversion extreme, the image AFT and other “save farming” advocates portray as the inevitable alternative to farming is conversion to the uniform low-density residential buildout characteristic of conventional zoning—the scenario most associated with sprawl—even though mixed-use, mixed-density planned unit development scenarios are viable options in many agricultural localities. At the core of either kind of buildout scenario is the local zoning power, in these cases exercised not to restrict agricultural landowners to farming but to liberate them from it.

Nowhere in the list thus far have ecosystem services been the central focus. Of course, ecosystem service delivery can be integrated into *any* of the described programs as an output goal, but two instruments in particular have become most closely associated with proposals for promoting farm multifunctionality. One is obvious: pay for enhanced environmental services directly through PES programs tied to the costs local jurisdictions avoid by substituting regulating ecosystem services for technological service infrastructure. Used this way PES are neither a subsidy nor a payment for intrinsic or ecological benefits such as endangered species habitat; rather, they are what the name implies—a demand-driven payment for a valuable service rendered. In areas where the development market has put extreme pressure on agricultural lands, however, PES payment rates may



Table 2

Future Scenario	Policy Tools	Advantages	Disadvantages
Compete in Land Market to Maintain Status Quo Agricultural Use	Tax incentives; subsidies	Maintains agricultural land uses	May not compete successfully against high value suburban development; potentially expensive to maintain competitive edge; does not alter ecosystem service profile
Lock-in of Status Quo Agricultural Use	Exclusive agricultural use zoning districts; purchase of development rights (e.g., PDR/PACE programs)	Maintains agricultural land uses	Politically controversial if zoning used; does not alter ecosystem service profile; restricts land market
Agricultural Use with Increased Environmental Performance Baseline	Command-and-control regulation mandate of best management practices; incentives such as subsidies and tax relief; possibly also zoning	Maintains agricultural land uses; reduces environmental harms; possible shift of ecosystem service profile toward regulating and supporting services	Potentially undermines financial stability of agricultural uses by increasing compliance costs and reducing production potential; requires new managerial skills; politically controversial; requires more regulatory infrastructure; expensive if incentives used; could prompt conversions to development scenarios if exclusive agricultural use zoning not also used
Transformation to Multifunctional Working Landscape	Payment for environmental services; transferable development rights; pollutant trading programs; certification programs; planned unit development zoning for any areas being developed	Maintains some agricultural land uses; likely to increase open space and associated ecosystem services; likely to significantly shift ecosystem service profile toward regulating and supporting services; requires only moderate use of regulation	Possible reduction in food and fiber production; requires public expenditures for PES (potentially offset by cost savings); requires new managerial skills; possible increased density of development within community if transferable development rights are used
Conversion to Open Space	Purchase of conservation easement with enforceable terms or fee simple title with deed restrictions	Eliminates environmental harms; nonregulatory; responds to land market; likely to significantly shift ecosystem service profile toward regulating and supporting services	Expensive; loss of agricultural land; reduction in food and fiber production; restricts future land market if terms or restrictions are comprehensive and permanent
Conversion to New Urbanism Mixed-Use, Mixed-Density Development	Planned unit development zoning; transferable development rights	Responds to land market; likely to increase open space and associated ecosystem services; promotes affordability of housing stock	Loss of rural and agricultural land; reduction in food and fiber production; loss of opportunity to enhance ecosystem service flows; increased fiscal and infrastructure demands on local community
Conversion to Uniform Low-Density Development	Conventional uniform, low-density residential district zoning	Responds to land market; promotes affordability of housing stock	Loss of rural and agricultural land; reduction in food and fiber production; loss of opportunity to enhance ecosystem service flows; increased fiscal and infrastructure demands on local community



not be adequate to compete with alternative land uses to preserve agricultural uses. In that scenario, TDRs, because they tap into development market values, may provide sufficient incentive to retain some agricultural land use integrity. Here the TDR credit calculus is not limited to preservation of farmland or cultural amenities, but includes also the level of ecosystem service delivery expected from the natural capital that is secured through altered agricultural practices. Either instrument, therefore, can promote ecosystem service delivery to an important, if not driving component of the valuation calculus on which the PES transfer or TDR credit is based.

Putting it all together, the different future scenario alternatives and the different policy instruments, with their associated advantages and disadvantages, can be matched up as shown in Table 2.

Designing PES and TDR Programs for Agricultural Ecosystem Services: Case Studies from Florida

Because of their potentially prominent role in encouraging the conversion of conventional farming to multifunctional agricultural land uses, this section focuses on the use of PES and TDR programs built around ecosystem service values. The two approaches share several general design features in addition to presenting their respective characteristics and differences. If appropriately designed and managed, however, PES and TDR programs can contribute significantly to state and local policies designed to enhance farm multifunctionality.

Designing Agricultural PES Programs—The Florida Ranchlands Environmental Services Project

The Florida Ranchlands Environmental Services Project (FRESP), launched in 2005 by the World Wildlife Fund (WWF) and private and public partners, is a pilot PES program designed to pay ranchers in an 850,000-acre area of central Florida to enhance delivery of three regulating ecosystem services—water retention, phosphorous load reduction, and wetlands habitat expansion. The target area is located north of Lake Okeechobee, with cow-calf operations as the dominant agricultural land use. A 2004 study WWF conducted for state agencies concluded that changing water management practices in the ranchlands could be a cost-effective alternative to regional water treatment facilities in moderating water flows and phosphorous loads to lake Okeechobee. Most significantly, the study demonstrated that the agencies could buy these services from cattle ranchers at a lower cost than producing the services by building new public works projects. Hence, whereas WWF might normally have targeted payments from its limited funds for wildlife habitat conservation, the idea behind the program is to identify cost savings to local jurisdictions and state agencies that make paying for ecosystem services an efficient expenditure of public resources, with the incidental benefit of increased wildlife habitat conservation.

Designing Agricultural TDRs for Ecosystem Service Enhancement—The Florida Rural Lands Stewardship Act

In 2001 the Florida Legislature enacted the Rural Land Stewardship Act (RLSA), which allows counties to designate all or portions of agricultural and rural lands in the jurisdiction as a rural land stewardship (RLS) area. Within RLS areas, the local government applies planning and economic incentives consistent with guidelines to be developed by the Florida Department of Community Affairs (DCA) to encourage the implementation of innovative and flexible planning and development strategies and creative land use planning techniques, with TDRs as the primary policy mechanism.

Like any TDR-based program, RLS areas contain “stewardship sending areas” within which natural resources and rural land values are conserved, and “receiving areas” within which development is authorized to occur, with the TDR linking the two areas. A landowner who conserves rural and natural resource values in the sending area accrues “stewardship credits” entitling the landowner to TDRs, known in RLSA parlance as transferable rural land use credits, allowing greater development densities in receiving areas than would apply under the otherwise applicable zoning rules. These credits may be assigned at different ratios of credits per acre according to the natural resource or other beneficial use characteristics of the land and according to the land use remaining following the transfer of credits, with the highest number of credits per acre assigned to the most environmentally valuable lands or, in locations where the retention of open space and agricultural land is a priority, to such lands.

RLSA strikes a chord very close to the farm multifunctionality theme. The statute specifies six goals that must be served by creation and operation of a RLS area: (1) restoration and maintenance of the economic value of rural land; (2) control of urban sprawl; (3) identification and protection of ecosystems, habitats, and natural resources; (4) promotion of rural economic activity; (5) maintenance of the viability of Florida’s agricultural economy; and (6) protection of the character of rural areas of Florida. These goals evidence an advance in thinking beyond prior practice in agricultural TDRs. On its face at least, RLSA thus is more than a farmland status quo or cultural amenity preservation program—it focuses on providing incentives tied to the economic value of rural land and natural resources integrated within working landscapes.

Matching PES and TDR Programs with Context

One unmistakable theme from the preceding sections is that, by comparison, PES programs are simple and TDR programs are complex. A PES program in essence is simply a market exchange bringing willing buyers and sellers together, providing the information and market monitoring and enforcement both parties need to enter confidently into transactions. By contrast, TDR



Table 3

	PES	TDRs
Advantages	Provides opportunity for public capital infrastructure cost savings; based purely on market incentives; can be applied at large scales where regional ecosystem services are valued; simple by comparison	No expenditure of public resources required for creation of credits; provides opportunity for public capital infrastructure cost savings; receiving area can be positioned near market demand for development while sending area can be rural; value of credits can be managed through regulation of receiving areas and kept sufficiently high to deter conversion to development
Disadvantages	Requires expenditure from public (or private) resources; less likely to be viable in rural areas where no immediate market exists for the services; payments may not be sufficient to deter conversion to development scenarios; requires new managerial skills	Requires regulation in receiving area; results in increased development and costs associated with resulting demand on public infrastructure; depends on active development market demand in receiving area; requires new managerial skills
Major Design Issues	Deciding the baseline expected performance levels of agricultural land uses; identifying the economic values of the enhanced ecosystem services and their pathways of delivery; downscaling macro-level to parcel-level; calibrating altered land use practices with enhanced ecosystem service flows; documenting the altered management practices	All of the PES design issues plus: managing supply and demand equilibrium between the sending and receiving markets; setting conversion rates between enhanced ecosystem service values and development rights in receiving areas; meeting fiscal and infrastructure demands imposed by the increased development rights in receiving areas

programs require no public expenditure to generate credits, though by all means they depend on demand for urban development to make the credits valuable. The point is that PES and TDR programs are different, and as such may be suited to different contexts. A summary of some of those differences is provided in the Table 3.

Conclusion

Federal farm policy should encourage and support state and local PES and TDR initiatives that promote farm multifunctionality, as it is in the national interest to maintain and enhance the natural capital that agricultural lands contain and can deliver locally across the landscape. Measures Congress might take include:

- Fund research to determine how to calibrate farm practices with ecosystem service delivery at local scales, as USDA has done with FRESP.
- Develop national standards for quantifying ecosystem service values associated with agricultural lands, including the development of proxies that can inexpensively be measured to estimate service delivery potential

- Give preference in federal “green subsidy” payments programs for farms that would actually deliver ecosystem service values to identifiable local and regional populations
- Fund pilot and permanent demand-based state and local farm multifunctionality programs such as FRESP

The 2008 Farm Bill took a modest step in this direction. Section 2709 of the Food, Conservation, and Energy Act of 2008 requires the Department of Agriculture to “establish technical guidelines that outline science-based methods to measure the environmental services benefits from conservation and land management activities in order to facilitate the participation of farmers, ranchers, and forest landowners in emerging environmental services markets” and to establish guidelines to develop a procedure to measure environmental services benefits, a protocol to report environmental services benefits, and a registry to collect, record and maintain the benefits measured. Ideally, the agency will develop procedures and protocols that are relevant to state and local efforts such as RLSA and FRESP, as well as to other federal regulatory land management agencies, thereby promoting national uniformity of standards.



Conventional agriculture is at a crossroads, facing pressure to improve its environmental performance profile at the same time it is facing pressure to produce more food, fiber, and fuel commodities on the one hand or to give way to urban development on the other. In the best of all worlds, markets would fully recognize the value of ecosystem service flows and farms could make appropriate balances between providing services, commodities, or land development opportunities. But hoping for this seems quixotic, as markets have proven time and again to be poor at valuing the multifunctional capacity of ecological landscapes.

Understanding the multifunctional capacity of agricultural lands, however, provides insight into how state and local governments, with federal guidance and support, could promote alternatives that blend enhanced environmental performance with better development planning. RLSA and FRESP could become model farm policy programs in this respect, or they could recede into the ways of “old agriculture.” Whatever their future, however, it is promising to find state and local governments beginning to act strategically to influence the future scenarios of existing agricultural land uses notwithstanding the substantial design challenges these techniques face.

A Time to Preserve: A Call for Formal Private-Party Rights in Perpetual Conservation Easements

Carol Necole Brown

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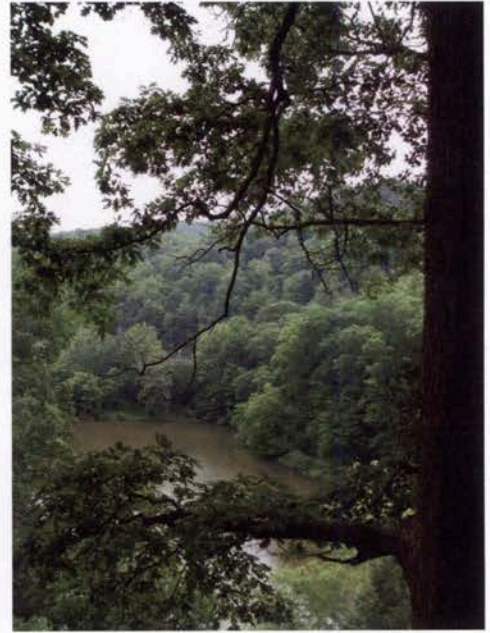


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I. Introduction

For more than a century, conservation easements have been used in the United States to maintain open space or to protect the environment. Such easements produce a public good. They increase the amount of protected landscapes by shielding property from development inconsistent with the conservation easement, while allowing grantors the flexibility to negotiate the retention of development rights tailored to meet grantors' needs.

My thesis posits that private parties should have a common law property interest in conservation easements sufficient to confer standing to seek injunctive relief. Such an interest would allow private parties to enforce conservation easements and to sue for damages when these easements are violated. In this Article, private parties are defined as members of the public—either individuals or public-private entities—who are not owners of an interest in real property affected by a conservation easement, holders of conservation easements, possessors of a third-party right of enforcement, or individuals authorized by some other law to bring an action affecting conservation easements.

My proposal relates to that of Abraham Bell and Gideon Parchomovsky, who attempt to achieve the optimal level of land preservation by designing a private property regime that formalizes the de facto interests of neighbors of public parks. This Article argues that protecting the rights of property owners to transfer perpetual conservation easements and giving private parties legal property entitlements to enforce these easements are efficient and socially beneficial.

II. Conservation Easements: The Timeless Pursuit of Preservation and a Strong Private Property Regime

The concept of land transactions aimed at promoting land conservation emanated from two historical developments. The first was the creation of land trusts, which are nonprofit organizations that seek to conserve open space for the public benefit. Land trusts achieve this mission by becoming directly involved in land transactions—acquiring land through purchase or donation, acquiring and monitoring conservation easements, and

partnering with private and governmental conservation agencies. The second development in the land conservation movement was the creation, by state enabling legislation, of the conservation easement, which allowed land trusts to acquire preservation rights without purchasing use or possessory rights.

Voluntary exchanges of property by competent participants, particularly when the exchange serves to protect resources important to the public, allow property owners to use their private resources in a manner that is both efficient and consistent with principles of social justice. The notion of freedom of alienation regarding real property coincides with the freedom of property owners to decide that they want certain obligations to run with the land for conservation purposes. Undermining a property owner's intent to impose a perpetual conservation easement on the owner's property substitutes the desires of future property owners for the desires of present property owners. Such a policy effectively diminishes a property owner's present property rights by weakening the owner's ability to negotiate the transfer of a valuable property interest.

III. Perpetual Conservation Easements, The Doctrine of Changed Conditions, and the Importance of Private-Party Standing

A. Perpetual Conservation Easements and the Doctrine of Changed Conditions

The doctrine of changed conditions reflects intergenerational conflict about the propriety of placing perpetual preservation restrictions on land. Grantors view conservation easements as a tool for achieving their preservationist goals while simultaneously reducing their tax burden. Successive property owners often perceive conservation easements as imposing undesirable limitations on their property rights in the form of development restrictions.

Conservation easements are critically important to protecting private property. Their private property and public benefit aspects make conservation easements unique. Conservation easements acknowledge society's interest in preserving certain land as undeveloped, recognizing that some land is most valuable in an



undeveloped state. In most instances, changes in surrounding areas make perpetual conservation easement purposes and objectives more important, not less.

Generally, conservation easements are designed to protect property in perpetuity by prohibiting the use of conservation property in a manner that alters the property's ecological, open, natural state, or scenic quality. Achieving these conservation purposes almost necessarily requires that conservation easements exist in perpetuity. For this reason, a property owner's contribution of a conservation easement may qualify as a deductible charitable donation under federal law only if the restriction is perpetual.

B. The Significance of Private-Party Standing

It is difficult to predict the degree of judicial resistance conservation property owners will meet when attempting to avoid conservation easements. The durability of conservation easements has not been challenged by significant numbers of owners of conservation property, but the possibility of challenges remains a viable threat to holders of conservation easements, preservationists, and private parties interested in defending against termination or undue amendment of conservation easements. Additionally, the increasing complexity of environmental concerns and natural resources law raises questions about the ability of courts to protect the environment. Formalizing private-party standing is tantamount to creating a property interest in the maintenance of conservation property in its protected state.

Recognition of private-party standing could alter the focus of the changed conditions analysis. Instead of determining the viability of a conservation easement challenge based upon the impact of changed conditions on the burdened property, decision makers would include in their decision making process an analysis of the benefit of the conservation easement to private parties. Equally important, recognition of a property interest in a conservation easement would give private parties the necessary standing to maintain an enforcement action independent of whether the holder or an entity with a third-party right of enforcement pursued a cause of action.

States take varying positions regarding who may bring actions to enforce, modify, or terminate conservation easements. Recognition of a private-party common law property interest in conservation easements would establish the right of such individuals to bring actions affecting conservation easements and free them from ambiguous state laws.

IV. Conservation Easements-Efficiency and Social Justice Rationales

A. Efficiency Maximization

Property rights arise when it becomes economically rational for affected persons to internalize external costs and benefits. Perpetual conservation easements are the product of measuring their external costs and benefits and of a subsequent decision to internalize these costs and benefits by creating limited societal ownership interests in them. Compelling utility and efficiency

rationales underlie the argument for creating private-party standing to enforce perpetual conservation easements. Laws that measurably maximize societal and individual benefits, typically in economic terms, are preferable. Utilitarianism considers legal rules and allocative mechanisms from the perspective of the social consequences produced. Rule-utilitarianism seeks to maximize welfare over an extended period of time, in contrast to act-utilitarianism's focus on immediate welfare. When measuring utility maximization, the relevant qualities include the extent to which society derives satisfaction, pleasure, or happiness from a given allocation of property. Relatedly, efficiency requires the allocation of scarce resources in a way to maximize the amount of derived utility or happiness. Thus, to determine whether perpetual conservation easements are efficient and utility-maximizing, it is necessary to define the relevant geographic areas and, in so doing, the affected participants.

Because of the overwhelming public interest in conservation, the relevant group for gauging efficiency should not be narrowly construed. Certainly, the larger community has an interest in maintaining open spaces and preserved land. For example, successors to the conservation property are not the only future generations affected by perpetual conservation easements. Private parties are also among the "future generations," and an efficiency analysis should therefore consider their interests in the conservation easement as well as the intergenerational effect of perpetual conservation easements.

Land possesses unique qualities attributable not only to its particular physical characteristics, but also to its relationship to other, surrounding parcels of land. Thus, conservation property benefits not only its owner, but also has significant economic and social implications for the surrounding community and its citizens. The public benefits flowing from conservation efforts demand that an efficiency analysis include the larger community and region in which conservation property is located. At a minimum, the most conservative approach would certainly include the interests of abutting property owners. A more liberal and preferred approach, however, would recognize the interests of more distant property owners and the value that nonproperty owners receive from conservation property.

1. Parties to the Conservation Easement Transaction and Government Achieve Efficient Outcomes Through Perpetual Conservation Easements.

Proponents of economic approaches to the law apply several efficiency related theories. In this Article, "efficiency" is used in the Kaldor-Hicks sense of the term. A transfer or reallocation of interests is efficient pursuant to Kaldor-Hicks if the value of the gain to the beneficiaries exceeds the amount of loss as determined by the losers. Society's interests are furthered and efficiency increased when government upholds and enforces voluntary contracts for the transfer of perpetual conservation easements, especially when these contracts promote not only the interests of the contracting parties, but also the public good.

The efficient outcome allows property owners to measure the costs of transferring a perpetual conservation easement against the gains. If the gains exceed the costs, the owner should be



allowed to negotiate its transfer while assuring the holder that the perpetual nature of the easement will be enforced, even against successors in title. The property owner can only command the highest price for the conservation easement if the easement holder is confident of its enforceability. Even in situations where the conveyance of the conservation easement is gratuitous, all parties benefit from the certainty that voluntarily negotiated conveyances of perpetual easements will be upheld.

2. Private Parties-Both Property Owners and Nonproperty Owners-Achieve Efficient Outcomes Through Perpetual Conservation Easements.

Conservation easements are valuable to neighboring property owners because in addition to receiving the general public goods produced by conservation easements, these owners realize unique benefits attributable to their physical proximity to the conservation property. Even the most developed and intensely used property benefits from certainty regarding the permissible uses to which neighboring property may be subjected. The added value of open space, development restrictions, and other preservationists measures can be assessed by comparing properties that abut conservation property with properties that do not.

Nonproximate property owners and citizens who do not own any property realize distinct, tangible environmental benefits from conservation property as well. Scenic views and historic places are public goods; their benefits are felt community-wide, and their conservation value is tangible. The value of conservation easements to the larger community should be considered when addressing challenges to conservation easements.

B. Social Justice and Civic-Minded Conception of Private Property

When evaluating a request to terminate or modify a perpetual conservation easement, it is appropriate to consider the impact of the conservation easement not only from an economic perspective, but also from a social justice perspective and civic conception of property. Socializing relationships allows society to capture value that might otherwise be ignored or underappreciated in traditional efficiency and utility theories. After all, conservation easements typically do not benefit a discrete parcel of land or a discernable estate in land. Usually, their benefits reach entire communities and neighboring property owners.

When private property owners voluntarily negotiate the perpetual alienation of a conservation easement, the transaction reflects a simultaneous concern for individual rights as well as for the local community and the general society. This type of market transaction, in which private property is voluntarily dedicated to an important public service, serves private rights and public interests simultaneously. Certainly, successors to the conservation property may object to the deal struck by their predecessors. The present economic, environmental, and property entitlements of the parties to the conservation easement conveyance, however, should outweigh the future interests of successors. Grantors have

economic and social incentives to account for value when they convey perpetual conservation easements. For instance, they may eventually want to sell the property, make a gift of it, or transfer it upon their death. These incentives sufficiently motivate grantors to make responsible decisions when negotiating the extent of the perpetual restriction they are willing to impose on their property.

V. Decentralization-Antiproperty Theory and Private-Party Rights

This Article does not advocate forced decentralization of property. Rather, it considers the current constitution of the bundle of property rights in the context of conservation easements. It suggests expanding the traditional notion of the bundle of property rights to achieve the sustained conservation of privately owned property while remaining sensitive to efficiency and social justice concerns. One way to decentralize property ownership is to allow property owners to participate in the market for conservation easements and then to recognize in the public, which is widely understood to be a beneficiary of conservation easements, a property interest in the conservation easement. This property interest would assume the form of private-party standing to enforce and defend against challenges to perpetual conservation easements.

Abraham Bell and Gideon Parchomovsky advocate for decentralization of property interests through creation of antiproperty rights in private parties. Antiproperty rights, also called antiproperty easements, are formalized negative easements that give significant numbers of private parties a right to veto a proposed land use. Bell and Parchomovsky propose granting certain property owners an antiproperty easement that would vest them with a right to veto proposed development of the designated property.

Bell and Parchomovsky's antiproperty easement corresponds to this Article's suggestion of a formal private-party interest in conservation easements. Both the antiproperty easement and private-party standing decentralize oversight and enforcement by empowering private property owners to monitor and enforce conservation efforts.

Despite their common, decentralizing effect on property ownership, antiproperty rights and private-party standing differ conceptually. Private-party standing arises when private property owners burden their property by transferring nonpossessory interests to what is typically a public or quasi-public organization. Antiproperty rights result from government's creation of a private property interest in public or quasi-public property. The distributive justice concerns that arise when government benefits some private property owners to the exclusion of other property and nonproperty owners by giving them a heightened property interest in public or quasi-public property are not present with conservation easements and private-party standing. Conservation easements arise from private negotiations and concern purely private property, and although the conservation easement creates public benefits, the property itself never loses its private property qualities.



VI. Some Compelling Objections to Private-Party Standing

The objections to private-party standing are numerous and persuasive. Below, I have suggested ways to conceptualize and to respond to these more persuasive arguments.

A. Dead Hand Control, Indirect Restraints on Alienation, and the Anticommons

Opponents contend that conservation easements result in dead hand control and indirectly restrain alienation, resulting in the fragmentation of property such that it becomes vulnerable to underutilization—the problem of the anticommons. The fragmentation concern, in its various forms, is an argument about maintaining markets for real property. An underlying assumption of this argument is that the more unified the bundle of property rights, the more viable the market for property.

Dead Hand Control and Indirect Restraints on Alienation

A fundamental principle underlies the assertion that one way to decentralize property rights and entitlements is to expand private-party standing. Conservation and preservation of real property by private citizens and government is socially beneficial and should be encouraged and rewarded. Some reject this assertion, at least insofar as it suggests that property owners and government should be able to impose their preservationist ambitions on future generations. Those who hold this view contend that, as with the property rules that traditionally governed the estates system, property law should discourage fragmentation of property for extended periods of time and instead encourage the retention and transfer by present owners of the fee simple absolute. More specifically, advocates for this perspective often refer to problems attending over-fragmentation of land and the sometimes insurmountable costs associated with reunification.

The dead hand argument asserts that defeasible estates and other temporal fragmentation of real property maintain land uses that may be obsolete or inefficient. The concerns regarding dead hand control that shaped the development of the estates system are inapposite to conservation easements and to their holders.

General public policy favoring alienability and the free use of land does not refer merely to the ability of successors to take property in the most unrestricted state possible. The free alienability concept also anticipates the freedom of property owners with respect to their property and how they transfer it.

Fragmentation and the Anticommons

Excessive fragmentation can lead to what has been termed the problem of the anticommons, the wasting of real property through underuse. Underuse occurs when property ownership and entitlement becomes so fragmented that there are too many excluders, or persons with the ability to block the productive use of property and valuable resources. Reunification of property interests entails transaction costs that often exceed the cost of originally fragmenting the property. As a result, optimal and economically efficient reunification of fragmented interests may not occur.

Private market systems may still offer a solution to the reunification hurdle created by transaction costs. Acknowledging private property interests in conservation easements encourages private firms and organizations to engage in environmental conservation and to become stewards of conservation property. Respecting decisions of private property owners to place permanent restrictions in favor of conservation on their lands may lead to fragmentation of property interests, but it may also produce efficient outcomes.

Similarly, the holdout problem is not unique to conservation easements. One might even assert that the holdout problem is not really a problem at all; rather, the right to withhold one's consent is at the essence of the definition of ownership in the fee simple absolute context. The ability to disrupt the holdout right is more disturbing in the conservation easement context, however, because unlike the government's exercise of its eminent domain power, the interference is often by an insider, an original party to the conservation agreement or the original party's privy. Parties to conservation agreements should be discouraged from undermining their own agreement merely because a change in economic conditions has made their bargain less attractive.

So long as the original parties to the conservation agreement were aware of the various difficulties that might accompany the conveyance of the conservation easement, including the possibility of holdouts, the best legal rule is one which enforces private agreements. Concern over the limited ability of the present generation to anticipate the effects of fragmentation and the anticommons on future generations is not a sufficient reason to deny private-party standing.

B. Perpetual Conservation Easements are Unresponsive to Developing Community Needs

Perpetual conservation easements are sometimes characterized as overly aggressive regulations that stymie effective development, undermine responsible future planning, and fail to respond to altering community needs. The community's needs can be thought of as the future needs of individuals and the entire community for housing, transportation, and new jobs. Some argue that perpetual easements impede responsible and appropriate development.

Private-party standing allows consideration of community interests and preferences when parties seek to undo or weaken perpetual conservation easements. By denying private-party standing, decisionmakers may forego the benefit of the community's judgment about the reasonableness of modifying a perpetual conservation easement. Unchallenged by community involvement, advocates would articulate the reasonableness standards of those desirous of developing protected resources, leaving already disadvantaged courts with even greater obstacles to confront.

C. The Windfall Argument and Analogies to the Public Trust Doctrine

1. The Windfall Argument



Some argue that private-party standing produces undeserved windfalls. According to this argument, private parties will file frivolous lawsuits either hoping to extract settlements or seeking to benefit from injunctive relief when they have made no investment in the conservation easement or property. The windfall and litigation issues also reflect disagreement over the appropriate size of the class that should be eligible for private-party standing. Others argue that the general public reaps a windfall if enforcement rights are conferred upon it because the public has not directly paid for the conservation easement. Further, any expectations of the general public in the continuation of a conservation easement are unearned and not backed by any investment.

The potential harm from under-enforcement of perpetual conservation easements is a public harm and is not restricted to the original parties, their successors, or to neighboring property owners. As stated previously, the benefits of conservation are public and affect a broad community. Excessive litigiousness and the accompanying social costs are important concerns, but the need for public representation in suits seeking to undermine perpetual conservation easements outweighs these concerns.

2. The Public Trust Doctrine

Important analogies exist between private-party standing and the public trust doctrine. Both the public trust doctrine and private-party standing concern property involving a public interest; both protect and express a recognition of a right in the public to the enjoyment and limited use of property. Simultaneously, both private-party standing and the public trust doctrine acknowledge that the public does not own the property in the way ownership is understood in a private transaction, where no overarching public interest concerns exist.

Illinois Central Railroad Co. v. Illinois is perhaps the best expression of the modern public trust doctrine. The Court identified at least three distinct interests in trust resources: the *jus privatum*—the private property right, the *jus publicum*—the public trust, and the *jus regium*—the power of regulation, currently recognized as the police power. According to the Court, property transferred by the state under its *jus privatum* power remained subject to the preexisting and paramount *jus publicum* because the public right in trust resources could not be destroyed by transfer of a private property right. Similarly, private property dedicated to conservationist purposes through attachment of a conservation easement is a significant public resource, one appropriate for heightened protection through recognition of private-party standing. Private-party standing is an important bulwark against undue infringements on conservation resources that are the subject of protection via perpetual conservation easements.

Subsequent to *Illinois Central Railroad*, the Supreme Court expanded the reach of the public trust doctrine. Legislative provision for perpetual conservation easements represented an expansion of the common law of easements, covenants, and servitudes. In this context, state legislative expansion of the limitations of conservation easements so as to validate perpetual grants is reasonable and fulfills the reasonable expectations of

private parties. A presumption of private-party standing under the common law would afford the uniformity and predictability valued by the Court regarding issues affecting the public's interest in public resources.

D. The Numerus Clausus Principle—Time Honored Standardization of Property Rights

Numerus clausus, meaning “closed number,” is a civil law doctrine restricting the categories of legally recognized property rights. The phrase stands for the principle that certain standardized forms should govern property law and that property rights should conform to these standards.

Conservation easements are created by state legislatures, consistent with the numerus clausus emphasis on the legislature as the proper source of legal reform. Moreover, these easements are not an entirely new form of property; they are closely analogous to the “implied reciprocal servitude” or “implied reciprocal negative easement,” a theory most frequently discussed in the context of subdivision controls.

VII. Conclusion

There is a time to develop and a time to conserve natural resources, a season for all things. Once a property owner decides the time to conserve is now, the owner may choose to express his or her sense of timeliness by conveying a perpetual conservation easement. Recognition of private-party standing, combined with existing public law regulation of environmentally designated properties and species, provides the best opportunity for achieving the optimal level of efficient conservation.

Supreme Guidance for Wet Growth: Lessons from the High Court on the Powers and Responsibilities of Local Government

Michael Allan Wolf



Photo courtesy of Tony Arnold

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I. Introduction: Moving Wet Growth from Idea to Implementation

When Chapman University School of Law last assembled a set of nationally recognized experts to discuss the idea of managing growth through water law, the convener, Professor Tony Arnold, did a masterful job of summing up the “Wet Growth” movement. He noted,

There is a need for a concept of “wet growth”: integration of concerns about water quality and the availability of water supply into the density, form, pattern, and location of land development. This “wet growth idea”—that growth and land use should be sustainable with respect to aquatic ecosystems and water resources—may simply be an aspect of a broad smart growth agenda (or an even broader sustainability agenda) or may carve out its own identity as a planning and regulatory concept.

While several commentators (academics and practitioners alike) have endorsed this merger of water law and planning, and although there has been some experimentation on (and below) the ground, we have not yet seen widespread adoption of integrative controls on the local and state level. In other words, there has not yet been an extensive shift from the idea stage to the implementation stage.

Before such a shift can occur, local and state regulators need strong guidance from experts in the field, not only in extra-legal fields such as planning, hydrology, geology, engineering, biology, and transportation, but also in mainstream legal areas including legislation (local, state, and federal), administrative law, and enforcement. The purpose of this article is to identify a somewhat unorthodox source of guidance—the United States Supreme Court, specifically the Rehnquist Court from October, 1984, through June, 2005, a period of remarkable stability for the nation’s highest tribunal. From the October 1994 Term, when Associate Justice Stephen Breyer joined the Court, through the

October 2004 Term, after which Chief Justice William Rehnquist died, the membership of the Court did not change, making it the longest-serving group of nine Justices in the history of the Court.

The powers and responsibilities of local governments comprised one of the significant areas addressed by the legal commentators comprising the Rehnquist Court from the eleven terms during which there was no change in Court membership, as demonstrated in Part IV. This article refers to several Supreme Court cases involving local governments, decided during those selected Terms, which contain lessons from the commentators pertinent to the application of wet growth controls. The facts, outcomes, and rationales of fourteen, highly relevant cases are reviewed, along with the specific lessons they provide.

The last section includes four examples in a hypothetical city, Hydro City, that illustrate how the Court’s lessons can afford guidance to wet growth regulators, to landowners and developers, and to the public and private sector attorneys who represent their interests. The article concludes with observations concerning the potential usefulness of the Rehnquist Court’s lessons in furthering the goals of advocates of wet growth controls.

II. Wet Growth Controls in Hydro City

The imaginary municipality of Hydro City is the county seat of Orange County, located on the coast of California. Hydro City’s population stands at one million, and the city is experiencing extreme pressures to grow even more rapidly. The city is located in one of most attractive regions in one of the nation’s most populous states, a state that features a long coastal border, many freshwater lakes, and a temperate climate. The Tributaria River flows through the center of Hydro City and empties into the ocean only twenty miles away.

Concerned about the negative externalities attending unbridled real estate development—including, but certainly not limited to, nonpoint source pollution of sensitive surface water



bodies and groundwater, the destruction of functional wetlands, and the destruction of critical habitat for endangered and threatened species—the Hydro City Council, after two years of study and consultation with scientific, engineering, legal and planning experts, followed by extensive public hearings, announced a package of proposed new regulations and enforcement strategies. Hydro City’s proposed “wet growth package” consists of the following ten tools:

- Development moratoria;
- Riparian buffer zones;
- Prohibition of certain uses in lands bordering water bodies;
- Density limitations in watersheds;
- Aquifer recharge overlay zones prohibiting some uses and requiring special use permits or the use of best management practices (BMPs) for other uses;
- Aggressive enforcement of existing regulations against certain developers;
- Variable water pricing, increasing cost as usage rises;
- Performance zoning standards;
- Incentive and bonus zoning; and
- Conditional grants of building permits.

In many ways, city officials have cherry-picked some of the wet growth controls that show the greatest potential for success in restricting development that poses the greatest harms to sensitive water bodies and in encouraging positive steps by those who choose to make more intensive use of land.

Not surprisingly, given the litigious climate that has long typified the American ethos, landowners and developers in the region who are skeptical about most, if not all of these proposed regulations, have already lined up some skillful legal talent to investigate the possibility of a frontal attack on any new tools that the local government chooses to employ. Indeed, several legal activists who champion private property rights have offered their services in the national struggle against regulations these true believers deem to be confiscatory, arbitrary, and retributive.

Rather than wait for the inevitable facial or as-applied challenge to their wet growth tools, counsel for the city should—before the local legislature votes on any ordinances and before local regulators implement new enforcement policies, incentives, or conditional permitting—conduct research into the legality, feasibility, and advisability of the proposed package.

Most of research sources consulted by the local government attorneys will be routine: ordinances from other California communities, state and federal decisional law, and the

commentary written by experts from law, environmental science, and related fields. As the next part of this article explains, today there is one additional source of guidance available to Hydro City’s counsel and to the living and breathing local government attorneys who are actually advising real municipalities—the legal commentary of the Rehnquist Court.

III. Gleaning Lessons from the Commentators

During the eleven Terms in which the membership of the United States Supreme Court remained stable, this body of legal commentators issued opinions in fourteen cases that provide important guidance for local governments seeking to implement or enforce wet-growth tools. While only half of these cases actually concerned land-use planning, and only a couple addressed wet-growth controls, the lessons they convey apply to situations far beyond, though analogous to, the facts of each dispute.

Lesson #1: The Court Looks at Actual Intent and Does Not Accept Sham Purposes

Lesson #2: The Court Is Skeptical About Claims to Property That Are Unsubstantiated by State Law

Lesson #3: Comprehensive Planning Earns Deference and Trumps Private Rights-Based Arguments

Lesson #4: Ripeness Requirements Continue to Be Significant Hurdles for Those Bringing Regulatory Takings Challenges

Lesson #5: The Text Trumps Legislative History

Lesson #6: Judges Appreciate the Administrative Burdens Faced by Local Officials

Lesson #7: Congress May Subject Municipalities to Suit in State Court Without Violating “State Sovereignty”

Lesson #8: It Takes Egregious or Arbitrary Government Conduct for Property Owners to Prove Substantive Due Process Violations

Lesson #9: The Court Endorses Careful Planning for Environmentally Sensitive Lands

Lesson #10: Regulators Must Ensure That Landowners Retain Something More Than Token Value

Lesson #11: Judges Will Not Tolerate Backdoor Strategies

Lesson #12: The Equal Protection Clause Remains Potentially Effective as an Avenue of Relief Against Municipalities That Abuse Regulatory Power

Lesson #13: Multiple Refusals of a Landowner’s Reasonable Development Requests Could Lead to a Substantial Jury Award

Lesson #14: Immunity for Local Legislators Is the Same as That of Their Federal and State Counterparts



IV. Applying the Commentators' Lessons in Hydro City

As we return to our hypothetical municipality—Hydro City—it is helpful to consider the Supreme Court Commentators' lessons in context. Consider the following four scenarios involving the implementation of wet-growth tools.

Scenario A

Hydro City officials have decided to be more rigorous in their inspections during pre-construction and construction phases and to assess additional fines in the event of violations. Some of the developers with poor compliance track records have filed suit against the city and the individual officials, claiming that they (developers) have a property right to fair enforcement of land regulations.

City officials would be wise to consider the following four lessons in planning their defense for possible lawsuits by these developers: First, the Court is skeptical about claims to property that are unsubstantiated by state law (Lesson #2). A naked assertion of a "property right to fair enforcement" should not be deemed sufficient to trigger judicial concern. Second, the Commentators have emphasized that comprehensive planning earns deference and trumps private rights-based arguments (Lesson #3). If city officials are acting in accordance with standard procedures in support of published plans, they reduce the likelihood of judicial interference. Third, it takes egregious or arbitrary government conduct for property owners to prove substantive due process violations (Lesson #8). The enforcement of otherwise valid regulations against landowners is not the kind of government activity that triggers heightened judicial scrutiny. The private party challenging the regulation carries a heavy burden in the face of significant judicial deference. Fourth, immunity for local legislators is the same as that of their federal and state counterparts (Lesson #14). While 42 U.S.C. § 1983 provides strong incentives to sue local governments and their officials for constitutional torts, local lawmakers are protected from disgruntled landowners who claim that their constitutional rights have been violated by the enactment of faulty ordinances or by other legislative acts.

Scenario B

SuperMegaMart has acquired land for a new discount retail facility on the city's north side. The city has responded by imposing a six-month moratorium on permits for big-box stores, ostensibly pending the drafting and adoption of a new set of regulations for 100,000+ square-foot stores. When the first moratorium was about to expire, a second six-month moratorium followed. While no real work has been performed on the ordinance, the city is considering a third moratorium.

Four of the lessons from the Court Commentators indicate that Hydro City officials are on shaky ground. First, the court looks at actual intent and does not accept sham purposes (Lesson

#1). As each month passes without the introduction of an actual ordinance, the chances grow that a reviewing court will see through this charade. Second, the Justices will not tolerate back-door strategies (Lesson #11). Store counsel can effectively use the legislative history of the series of moratoria in a court challenge brought against the city. Third, the Equal Protection Clause remains potentially effective as an avenue of relief against municipalities that abuse regulatory power (Lesson #12). It is possible that a court will find that local officials have crossed the line between careful deliberation and unreasonable, retributive behavior. Fourth, multiple refusals of a landowner's reasonable development requests could lead to a substantial jury award (Lesson #13). Members of a jury in a § 1983 case, introduced to a landowner complying with existing land-use regulations who has met with a non-responsive or even belligerent response, could inflict costly damage on the taxpayers of Hydro City.

Scenario C

No new permanent buildings are permitted in buffer zones bordering the river, and owners of existing structures may not make additions or improvements. Owners who can show a seventy-five percent reduction in value can apply for a variance. Owners who can show a ninety percent reduction will be given rights to develop non-sensitive properties elsewhere.

There are three lessons from the Court that indicate the difficulties local governments face when implementing environmental regulations that have a significant impact on land values and uses. First, ripeness requirements continue to be significant hurdles for those bringing regulatory takings challenges (Lesson #4). Landowners and developers bringing regulatory takings challenges often find themselves forced to make difficult and time-consuming strategic choices concerning the choice of forum and the need to request permission or a variance after being denied relief initially (or even repeatedly). Second, the Court endorses careful planning for environmentally sensitive lands (Lesson #9). Courts have signaled their support for the development of comprehensive programs directed to reap defined and concrete environmental benefits for the entire community. Third, regulators must ensure that landowners retain something more than token value (Lesson #10). There is a point at which the financial burdens carried by one or a group of landowners are deemed too onerous, and local regulators must be aware of the general and specific effects of their actions.

Scenario D

City officials, concerned about water consumption, pass an ordinance that imposes a sliding scale—tying costs to usage (the more usage, the higher the per-unit cost). In order to secure enough votes to pass the ordinance, sponsors of the ordinance exempted existing users and other in-state companies from the new scheme. Lawsuits are threatened.

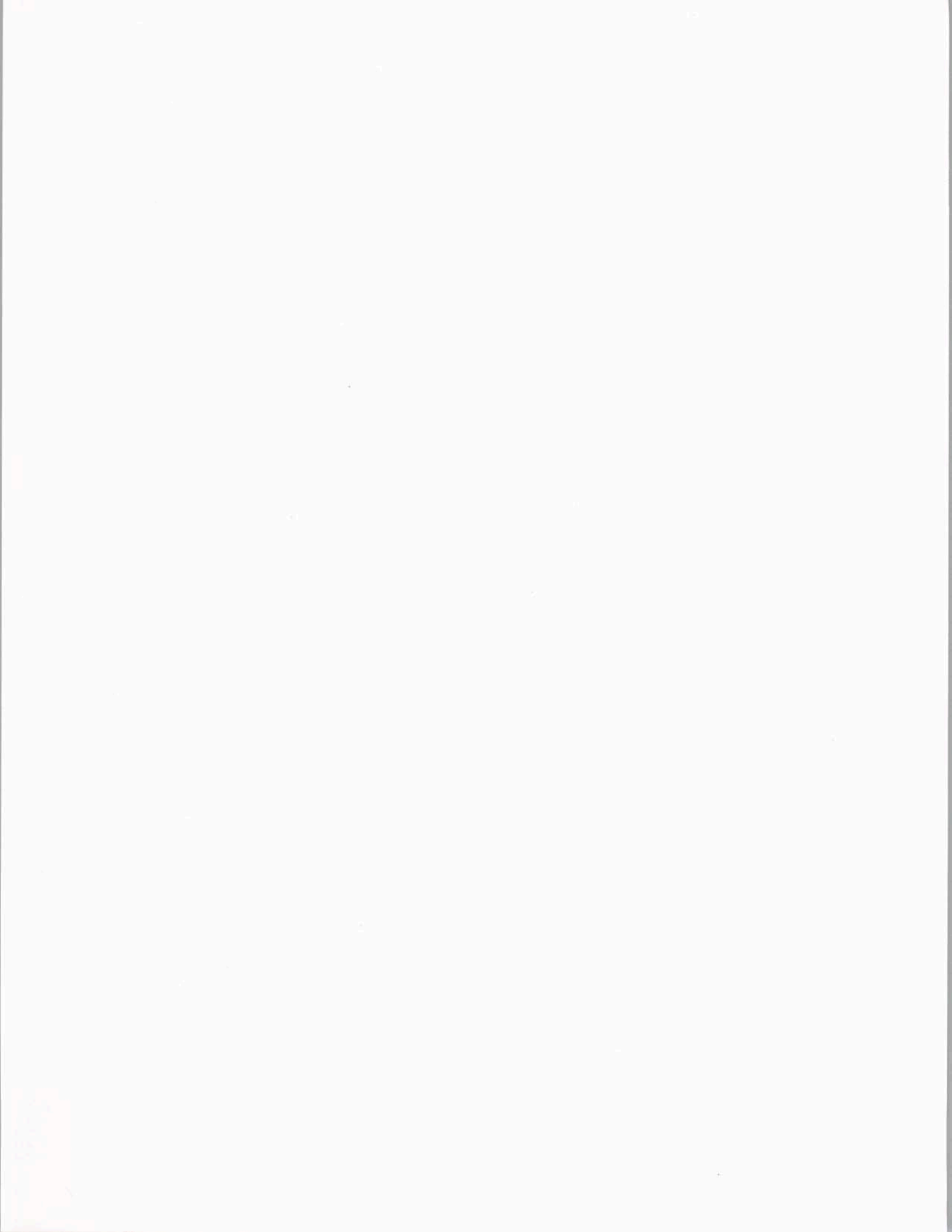


The Commentators have provided three lessons that address the fairness questions raised by these hypothetical facts. First, the text trumps legislative history (Lesson #5). If a piece of legislation creates unfair or illegal categories, even the best of intentions preceding its enactment will be deemed irrelevant. Second, judges appreciate the administrative burdens faced by local officials (Lesson #6). Though a separate branch, the judiciary is not unmindful of the significant challenges facing local legislatures today, when raising taxes is extremely difficult (and potentially fatal to a political career) and when financial support from Washington, D.C. is often insubstantial. Third, Congress may subject municipalities to suit in state court without violating “state sovereignty” (Lesson #7). Unlike the states who created them (and have the power to alter their powers and boundaries), municipalities are vulnerable to costly and otherwise injurious litigation. This fact alone should lead to caution by local officials when they create distinctions that leave some landowners outside the benefited class.

V. On the Threshold of Change

Only time will tell whether recent changes to the Court’s erstwhile stable membership (Roberts for Rehnquist and Alito for O’Connor) will mean a return to larger numbers of opinions, the formation of new alliances, or the creation of new, internal, institutional developments. For now and the foreseeable future, local government officials engaged in or considering the implementation of innovative wet-growth controls can benefit from heeding the lessons of the body of legal commentators comprising the Rehnquist Court over its last eleven Terms.

Considered together, the fourteen lessons caution a balanced approach to local, environmentally based regulations that have the potential not only to protect sensitive water bodies and lands and to benefit the human and nonhuman life that share our watersheds, but also to reduce the value and potential productive use of land by owners who are particularly burdened by even the wisest regulatory tools. This balance is suggested in the Court’s skepticism about sham purposes and back-door methods on the one hand, and its generous deference to local officials on the other. The balance is embodied in the Justices’ refusal to recognize municipal sovereignty, while shielding local lawmakers with absolute immunity. Most importantly, the balance is reflected in the Rehnquist Court commentators’ strong endorsement of comprehensive land-use and environmental planning, while opening the door to relief for landowners who are left with no more than token value or who are mistreated by arbitrary and non-responsive public servants. It is this author’s hope that, when we look back on the work product of the Roberts Court after it establishes its institutional persona, the same kind of beneficial balance will be readily apparent.



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