

Introduction

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The collection of writings presented in this volume offer a starting point for a multidisciplinary understanding of *Restorative Commons*. Although the notion of commons is broad and includes natural commons, such as the atmosphere, international waters, and rangeland; as well as information commons from folktales and myths to freeware and shareware; we focus here on open space and its interface with the built environment. For open space to function as a *commons*, it should be publicly accessible, nonexcludable, and managed through shared governance. We consider sites *restorative* if they contribute to the health and well-being of individuals, communities, and the landscape. Individual health includes physical, mental, emotional, and social health; community health is considered in terms of rights, empowerment, and neighborhood efficacy; and landscape health is measured by ecosystem function and resilience — all of which act together in a complex web of relationships.

Vandana Shiva (2005) argues that democracy and environmentalism have mutual underpinnings in ubiquitous models of common natural resource management across time and cultures. There are long legacies as well as substantial contemporary efforts in community stewardship in both rural, developing contexts (such as community forestry in Nepal and Bhutan; peasant farming in India; or cooperative ecotourism in Namibia) and urban contexts (such as the Urban Resources Initiative programs in Baltimore and New Haven discussed here). It is no coincidence that these interventions are successful at a local scale. The notion of a global commons seems almost untenable, and potentially susceptible to the “tragedy of the commons” or the failures of collective action among large

groups (Hardin 1968, Olson 1971). However, at the localized scale, social institutions, myths, mores, norms of reciprocity, kinship, and community ties can enable the development of sustainably managed commons. There is evidence in a variety of contexts of enduring common property regimes that successfully manage natural resources through shared, local decision-making (see, for example, Ostrom 1990). Thus, this volume emphasizes cases and models of community-based, civic stewardship.

Parks, community gardens, building exteriors, rights-of-way, botanical gardens, urban farms, vacant lots, public housing campuses, and closed landfills offer unique opportunities for restoring social and ecological function in the public, urban sphere. These fragments of the commons must be considered as individual and unique, and simultaneously as parts of a larger system. Even a jail's yard can serve as a restorative space for the inmates and staff. Cooperation with land owners, developers, designers, building managers, and tenants will be required to work creatively at the critical junctures where public meets private urban land: including apartment and office building interiors, front yards, and rooftops. Humans are unique in that we actively participate in creating conditions for our own health through the design of our buildings, neighborhoods, and cities at a global scale. Thus, innovative design is a key approach for building Restorative Commons.

Human Health and Well-being

The notion of linking human health and the form and function of open space is not new. For example, Robert Martensen discusses how American landscape architects of the 19th century developed parks in collaboration with medical expertise to positively influence public health even when relationships between environments and disease were not fully understood and mechanisms were under-theorized. While the development of germ theory unlocked many mysteries about the spread and treatment of disease, it is worth considering what may also have been lost by abandoning our more holistic understanding of “salubrity” and beneficial environments. **Without full understanding of the causal mechanisms between mental and physical health and local environments, can we design spaces guided by the precautionary principle?** Can we use our intuition — and perhaps even our evolutionary

impulses—as guides toward what sorts of environments are vital to promoting health and quality of life, such as access to sunlight, water, clean air, and vegetative diversity? Evolutionary psychologist Judith Heerwagen details elemental features of nature that convey feelings of safety, opportunity, connection, and pleasure in our environment. Both the foreword of Dr. Oliver Sacks and the broader work of biophilic design theory suggest that positive references to our shared evolutionary heritage in the design of our current habitats can confer psychological benefits and promote healing at the neurological level in ways we are just beginning to understand (Kellert et al. 2008).

As the absence of disease in human life does not constitute health (WHO 1946) so, too, the absence of contamination in our environment does not constitute environmental health. Indeed, the World Health Organization's constitution defines human health as “the state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Can we craft an equally complete definition for environmental health? Global climate change impacts and the accompanying encroachment of new and resurgent diseases illuminate our vulnerability and the intimacy of the health of our land, the health of our communities, and strength of our relationships within our community. Wendell Berry (1994) writes:

“If we speak of a healthy community, we cannot be speaking of a community that is merely human. We are talking about a neighborhood of humans in a place, plus the place itself: its soil, its water, its air, and all the families and tribes of the nonhuman creatures that belong to it. What is more, it is only if this whole community is healthy ...[and] the human economy is in practical harmony with the nature of the place, that its members can remain healthy and be healthy in body and mind and live in a sustainable manner.”

How do we proceed to expand our definition of health to include the health of the land and further, to invest in the health of our landscapes as part of our healthcare programs? What would it look like for a hospital to steward the land it inhabits and that of the neighborhood it serves?

Current research in health-related fields reveals patterns in human healing processes that affirm the experiences recounted in the cases

studies of this volume. Psychoneuroimmunology, the study of connections between psychological states and the nervous, endocrine, and immune systems, tells us that “mind-body interactions are so ubiquitous that it may no longer be possible to refer to body and mind as separate entities” (Lerner 1994). This means that our physical health, safety and welfare may profoundly affect our emotional and mental health, including our ability to form relationships, to conduct productive work, and to enjoy recreation. Reciprocally, emotional states of mind and behavioral patterns may profoundly affect our physiological health. (Lerner 1994). Further, studies of trauma survivors suggest that people become traumatized not by a catastrophic event alone, but by the ensuing breach in a former relationship or community of *safety, connection, acceptance, and empowerment* (Herman 1997). Can we design public places that elicit feelings of security and connection? If we invite activities that foster experiences of acceptance and empowerment, can we build places that strengthen community health?

We also consider the notion that health outcomes are tied to the *impacts of our social and economic status*. One public health theory holds that “social conditions and self-management are more powerful determinants of health than access to care” (Pincus 1998). An editorial in the American Journal of Public Health states:

“That certain conditions commonly referred to as social determinants — including access to affordable healthy food, potable water, safe housing, and supportive social networks — are linked to health outcomes is something on which most of us can agree. The unequal distribution of these conditions across various populations is increasingly understood as a significant contributor to persistent and pervasive health disparities. If attention is not paid to these conditions, we will most surely fail in our efforts to eliminate health disparities.” (Baker et al. 2005)

Many of the cases in this volume describe programs that are built on the above assumption. How can we continue to build from these models to create local economic systems that are rooted in stewardship of the urban environment? Can socioeconomic status be improved *in situ*, at the neighborhood scale, without causing gentrification and displacement? What are the limits to what natural resource

management can accomplish?

Finally, there are both ends-based and rights-based reasons for considering the health of the natural environment. As health is increasingly recognized as a human right, environmental health that promotes human health and well-being is also being considered by some as a human right (Earthjustice 2004, Taylor 2004).

Civic Stewardship

As the human population in both the United States and globally becomes — for the first time — more urban than rural, new approaches to urban planning, urban design, social service delivery, and the management of open spaces, are required. To that end, local governments have demonstrated ability to lead, as exemplified by the 127 initiatives in New York City Mayor Michael Bloomberg’s long-term sustainability plan known as PlaNYC 2030. This plan has fostered a new era in development of parks and open space in New York City, and dedicated the most resources to parks creation and maintenance since the time of Robert Moses. Unlike that period, a new understanding of citizen knowledge and shared governance has shaped the values and methods of urban planning. From the individual citizen pruner, to the block association beautification committee, to the community garden, to the parks conservancy group, and to the nonprofit land trust — civil society has articulated a wide array of responses at many scales addressing the management of the urban ecosystem. Many innovations in the design and maintenance of parks and the public rights-of-way were inspired by the pioneering work of civic groups that sought creative solutions to old neighborhood-based problems.

This publication focuses largely on programs that encourage citizen stewardship and caretaking of the land as a means to promoting health. Perhaps the “hortophilia” that Oliver Sacks posits does indeed exist. Or perhaps, as Erika Svendsen suggests, there is something basic and important for the quality of human life in the ability to create change in the physical environment. The significance of citizen self-help through environmental stewardship is explored through the practitioner writings of Edie Stone, Colleen Murphy-Dunning, and Rob Bennaton. As sustainability interventions move from plan, to policy, to implementation, they will rest on the engaged actions of citizen

stewards. One million newly planted trees will not survive without constituents to care for them; community supported agriculture cannot exist without its members; farmers' markets require consumers; and green buildings require tenants. In essence, the urban ecosystem cannot function without citizen engagement.

Stewardship consists not only of physical land management, but also of longer-term engagement in education and advocacy. Experiential, field-based environmental education is taking myriad forms that occur off school grounds, sometimes with formal classroom partners and sometimes without. A recent assessment of New York City stewardship groups conducted by the Forest Service Northern Research Station (STEW-MAP) found that 83 percent of these groups say that they aim to educate friends, neighbors, and representatives about the environment and 38 percent say that their *primary* focus is "education" — which was second only to "environment" (Svendsen et al. 2008). A number of the projects profiled in this publication focus on education, employment, and capacity building. Ian Marvy offers a model of youth empowerment, local economy, and food justice at Added Value's Red Hook Community Farm; James Jiler teaches horticulture and job-readiness through the Rikers Island Prison Horticulture Program; Susan Lacerte discusses culturally specific educational events that were developed with and for the most diverse county in America at the Queens Botanic Garden. Human health and well-being are intimately connected to a sense of agency that can be cultivated through education and community organizing, particularly when focusing on underserved populations, such as youths, racial and ethnic minorities, inmates, or ex-offenders.

Open space stewardship is being used in response to grave tragedies such as war, ethnic conflict, and loss of human life — pushing the boundaries of how we believe natural resources can be used. Surely, gardens cannot solve the problem of war, but they do offer tools for reconciliation, rebuilding, and self-reliance, even in the most devastated of environments, as shown by Davorin Brdanovic's Bosnia and Herzegovina community garden program. These gardens provide not only income and food security, but they also serve as common, unprogrammed space — as a space in which people once divided by war can come together on their own terms. The Living Memorials

Project research shows the way in which hundreds of individuals, community groups, and towns chose to use trees and open space in remembrance of September 11, 2001, as a way of marking a tragic event and reflecting on the cycle of life. Lindsay Campbell's case study of the Brian Joseph Murphy Memorial Preservation Land probes how landscape can function as a living memorial, serving another basic human need — to remember.

These case studies offer new approaches to the old paradigm of “natural resource management.” **Are we witnessing the beginning of a new environmental stewardship ethic, one that moves us beyond ‘control over’, or even ‘responsibility for’, to an ethic based on mutual nourishment between people and the landscape?** What are the inherent returns to our health and well-being that we receive by engaging in this reciprocal act of caring?

Design

Without attempting to define or categorize all types of ecological design, we highlight forms that create unique opportunities for social and ecological interactions at multiple scales, including the individual/experiential and the collective/systems level. We explore the development of biophilic and systems design and the codification of high performance infrastructure guidelines. We believe that the examples of public design documented in this volume achieve the efficiency of the green building movement, while retaining the “sensuous experience of nature” — to quote Hillary Brown. Brown contends that designers should create high performance buildings and infrastructure that take cues from natural features and systems. Further, Heerwagen encourages designers and decision-makers to “create places imbued with positive emotional experiences — enjoyment, pleasure, interest, fascination, and wonder — that are the precursors of human attachment to and caring for place.”

Architects and landscape architects are generating rich, new models of buildings and open space that expose and explore human-environment relationships. For example, the Monroe Center for the Arts in Hoboken, NJ, emerges from Victoria Marshall's practice of “thinking about the nature we want to create.” With her emphasis on processes, Marshall's design works to restore the function of whole systems.



Social Network
Map of the 2800 civic
stewardship groups in
New York City.

DATA SOURCE: STEW-MAP,
U.S. FOREST SERVICE UNPUBLISHED
DATA AS OF MAY 2008; MAP CREATED
BY JARLATH O'NEIL-DUNNE,
UNIVERSITY OF VERMONT

In this case, a building complex is designed to engage the Hudson River Estuary and the water cycle more generally in the daily lives and thus daily consciousness of the buildings' occupants. Marshall writes about the potential to cultivate stewards, so, too, does Susan Lacerte present the Queens Botanical Garden's (QBG) LEED platinum certified building, its publicly accessible green roof and on-site stormwater management system, and the broader QBG grounds as a site for ecological education. John Seitz recalls early efforts of earth artists and community gardeners to focus attention on nature and natural systems in New York City — introducing interactivity with the landscape, as opposed to prior models based more on creating pastoral viewsheds. These efforts helped to catalyze the current greening of infrastructure, by capturing public attention and imagination as to what might be possible.

David Kamp's designs show an attention to the variety of intimate impressions that all people can experience in a single space. Design considerations for the restorative garden at the Cleveland Botanical Garden were developed by Kamp and reflect collaboration with healthcare and horticultural therapy professionals. Indeed, we can think of David Kamp's garden designs as clinically informed approaches to many of the infirmities and disabilities that Sacks highlights in the foreword. While designed to accommodate the needs of those physically and mentally disabled, the garden ultimately is intended to engage all garden dwellers in healing benefits. In the words of Nancy Gerlach-Spriggs (1998), "...a Restorative Garden is intended by its planners to evoke rhythms that energize the body, inform the spirit and ultimately enhance the recuperative powers inherent in [the] body or mind."

This raises the important question, particularly in an urban context: How can we design with the broadest understanding of local needs? Jeff Sugarman offers the example of the redevelopment of Fresh Kills landfill into Fresh Kills Park. The project is a model in pioneering restorative/ecological design at a grand scale that responded first and foremost to community priorities and needs. The notion of participatory planning explored in Sugarman's case study brings design full circle to the notion of civic stewardship. Erika Svendsen illustrates that we can use open space not only to accommodate multiple users, or even respond to community priorities, but further, to strengthen social capital and foster resilience in our social systems.

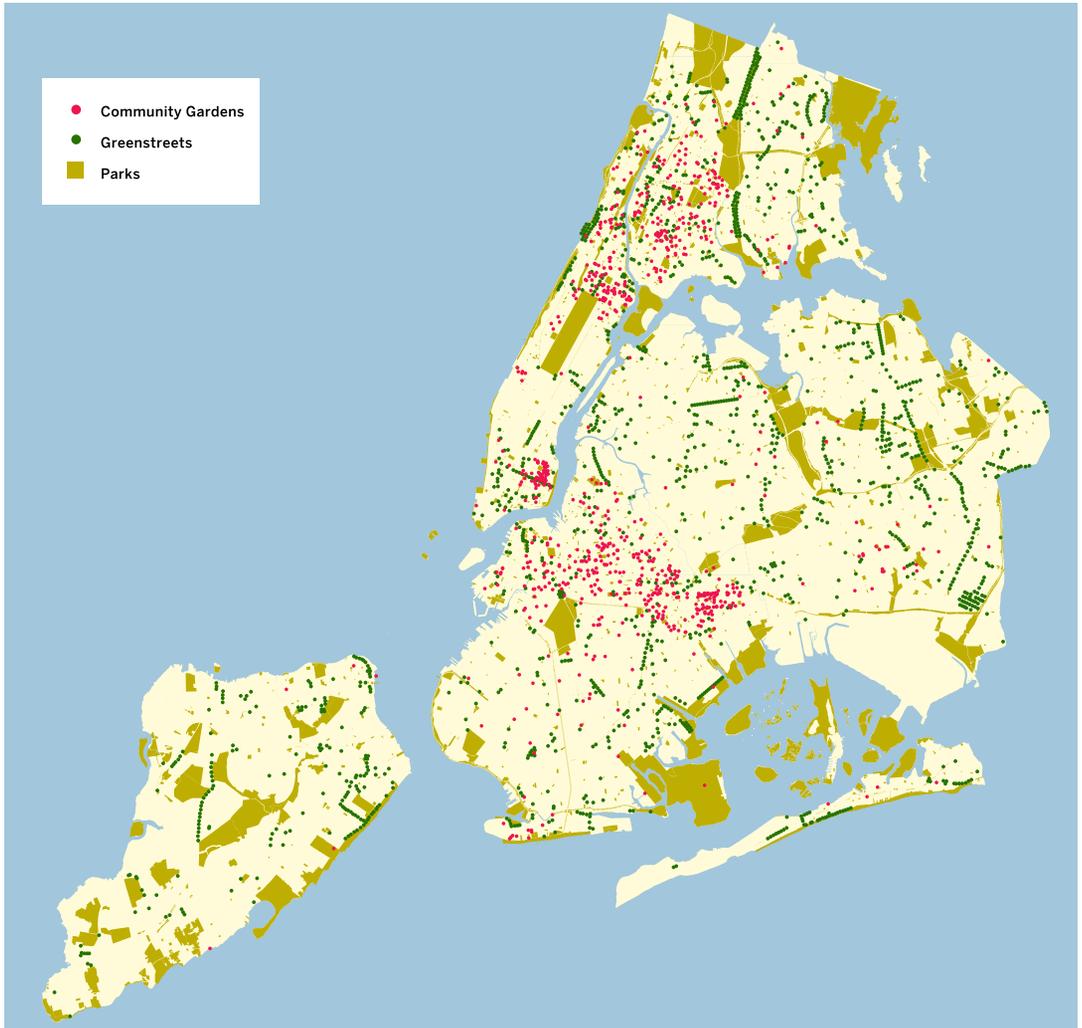
This volume offers exemplary cases of designs that recognize the need to cultivate stewards and stewards working toward ecological design — design that is flexible, adaptive to use, and that exposes the relationships between people and their environments.

Lessons Learned and Persistent Questions

Collected together and considered as a body of data, certain principles begin to emerge across the research, programs, and sites explored here. To support healthy cities, we must engage with multiple open space site-types using systems thinking, while championing civic creativity and self-expression. Understanding the profound impacts of social and economic inequality on health outcomes, we must commit to social justice; promote social cohesion; tailor programs to serve diversely resourced communities; and cultivate local economic systems. Retaining the best of previous calls for sustainability, there is a need to support future generations through education and youth empowerment.

This publication also discusses challenges that prevent projects from realizing their fullest potential. It may indeed be the case that some of these innovations work best at the small scale and in a specific context. But if so, what does this mean for the broader urban environment and the population as a whole? And what components of models can be adapted from one site-type to another (green building to green infrastructure), from one discipline to another (ecology to public health), and from one nation to another (Bosnia to America)? An area for further exploration is the question of how programs can strike a productive balance between “expert” ecological and therapeutic design and the local knowledge of community based stewards. A final challenge arises from the issue of adaptability. Even the most thoughtfully designed space originates at a particular place and time. How should sites be designed to adapt to changing conditions and populations?

This volume is intended to provoke further debate. How can our basic human needs be respected in the development of our cities, including in the many new forms of emergent green infrastructure? Can we imagine the city as a mosaic of gardens — products of both nature and culture that serve both? What policies will help us to build the resilient communities we need to meet imminent challenges? What kind of nature do we want to create?



Green Infrastructure
Map of parks, community gardens, and greenstreets in New York City.

DATA SOURCE: NYC DEPT OF PARKS AND RECREATION AND COUNCIL ON THE ENVIRONMENT OF NEW YORK CITY; MAP CREATED BY JARLATH O'NEIL-DUNNE, UNIVERSITY OF VERMONT

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