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# Urban Forestry & Urban Greening

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## Power in urban social-ecological systems: Processes and practices of governance and marginalization<sup>☆</sup>



Historically, the urban forestry literature, including the work featured in *Urban Forestry and Urban Greening*, has focused primarily on either quantitative, positivistic analyses of human-environment dynamics, or applied research to inform the management of natural resources, without sufficiently problematizing the effects of power within these processes (Bentsen et al., 2010; Krajter Ostoić and Konijnendijk van den Bosch, 2015 but see Lawrence et al., 2013). In past decades, the study of urban social-ecological systems has evolved into a mature field that explores patterns, processes, drivers, and dynamics of urban spaces as ecosystems that include social institutions, social order, and cycles of change (Pickett et al., 1997; Machlis et al., 1997; Alberti et al., 2003; Pickett et al., 2008; Pickett and Grove, 2009; Grove et al., 2015). Greater understanding of the politics and power dynamics shaping urban ecosystems is becoming vital in an age in which expanding urban populations test the limits of the ecological strata, both within and beyond the city, on which urban life depends. Simultaneously, these same densities of human populations, and the thick relational networks in which they are embedded, make cities fertile sites where new organizations, policies, and practices emerge to manage, and indeed to reconstitute, urban nature. This special section offers a collection of papers that move urban social-ecological research further in this direction by demonstrating the utility of critical social theory for understanding the complex social processes and mechanisms that govern the management of urban ecosystems.

Before describing the articles themselves, we wish to highlight two scholarly traditions that have informed the work collected here, each of which helps to develop modes of inquiry that conceptualize and interrogate power and its operation in unique but complementary ways. The first is the long tradition in community forestry and community-based natural resource management (CBNRM). This tradition challenges top-down management approaches and seeks to empower communities in the governance of their local environments, particularly by acknowledging the importance of local ecological knowledge. CBNRM has been applied in a range of settings, including both rural areas and the global south—such as community forestry development projects in Nepal—as well as urban centers in the global north—including programs such as the Urban Resources Initiative in New Haven, CT and the Parks and People Foundation in

Baltimore, MD focusing on community greening efforts in underserved urban neighborhoods (Haque, 1987; Burch and Grove, 1993; Kuchelmeister and Braatz, 1993; Weber, 2000; Howitt, 2001; Lawrence et al., 2001; Murphy-Dunning, 2009).

The second scholarly tradition we wish to highlight, political ecology, has its origins in human geography, critical environmental history, and cultural ecology, and has intersected with and contributed to urban forestry literature for more than a decade. Political ecology makes two important theoretical contributions. First, it has drawn on Marxist political economy to understand marginalization and inequality in the context of natural resource management. Second, it has employed post-structural and post-humanist theory to examine the specific practices by which power is exerted, consolidated, and reconfigured (respectively, through knowledge production and networks of association). This retheorization of power has also led to a broadened notion of who exerts power, beyond the traditional categorical ‘players’ (e.g. the state, civil society, the public) (Gandy, 2002; Heynen, 2003; Emery and Pierce, 2005; Brownlow, 2006; Heynen and Perkins, 2007; Gabriel, 2014; McLain et al., 2012).

While both community-based natural resource management and political ecology have contributed toward an understanding of power, governance, and marginalization, the significance of critical approaches within the mainstream of scholarly discourse in urban forestry and urban greening remains underdeveloped. Contributors to this special section explore the ways in which analyses of power can be incorporated into urban forestry and urban greening research, focusing on two core areas of inquiry: *processes of marginalization* and an examination of *how governance happens*.

A focus on marginalization has long been explicit in political ecology, and changing those relations has been a normative goal of community-based natural resource management. These concerns are carried forward in this special section with an attention to issues of inclusion and exclusion in order to highlight underrepresented voices, building upon both scholarly literature and activism in environmental justice and political ecology. For example, in her examination of planning processes surrounding the Gowanus Canal, a Superfund site in Brooklyn, New York, Jessica Ty Miller (2016) focuses on how gentrification can become enmeshed with environmental remediation and restoration efforts, empowering some groups while disempowering others. Catarina Passidomo (2016) draws from Lefebvre’s notion of the right to the city to identify a politics of inhabitation surrounding urban agriculture movements in New Orleans, in which urban agriculturalists transform vacant lots and, in doing so, make political claims on the

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city. Megan Heckert and Tina Rosan's article (2016) uses an equity planning approach to green infrastructure in Philadelphia that serves as a novel methodology for managing urban ecosystems while addressing the structural inequalities that many urban citizens face. Finally, Adrina Bardekjian (2016) examines processes of marginalization in which arborists are sometimes rendered invisible through the state's construction and management of urban forests in Ontario, Canada, but which can be countered through the telling of arborists' personal, embodied stories.

The second intervention in this collection is to conceptualize how governance happens, by examining political interactions among multiple sites, networked actors, and interlocking scales. In Lindsay Campbell's paper (2016), an attention to the effects of narrative framings on social networks that blur traditional state/civil society boundaries reveals the ways in which variegated power dynamics shape iterative policymaking processes of urban agriculture and food systems in New York City. Focusing on the intersection of power and knowledge in the management of urban parks, Nate Gabriel's (2016) contribution reads neoliberalism—a favorite object of inquiry in critical social science—as a site of negotiation, in which parks become tools for highly contingent processes of economic development, cultural preservation, and meaning-making among urban residents. Finally, Gwendolin McCrea's piece (2016) on *Castor canadensis* draws upon assemblage-oriented approaches to conceptualize beavers (and other non-human animals) as active participants in environmental management and governance.

Taken together, the papers collected here are intended to extend the reach of scholarly inquiry with respect to urban social-ecological systems while keeping our gaze trained on the day-to-day management of urban ecosystems. The recent proliferation of investment in green infrastructure, such as large-scale urban tree planning campaigns and coastal protection projects (see, e.g. Pincetl, 2010; Young and McPherson, 2013; Campbell, 2014), has drawn new attention to the need for understanding the politics and power relations of these efforts. The articles work across a range of ecosystems and physical sites, from wetlands to tree tops, from parks to community gardens, from rooftop farms to the streetscape. Contributors use novel modes of inquiry that help to suggest future pathways for managing urban ecosystems in ways that are socially just. In so doing, we intend to advance dialogue in urban ecosystem planning, policymaking, management, and stewardship. We hope that the papers collected here prove useful both for scholars working in the field of urban greening to apply concepts from social theory to their objects of study and for practitioners who seek to expand their understanding of power in their work.

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