Celebrating the Mundane: Nature and the Built Environment

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Celebrating the mundane: Nature and the built environment

Dr. Lenore Newman, Canada Research Chair, Food Security and the Environment
Dept of Geography, University of the Fraser Valley, Abbotsford, Canada
Lenore.Newman@ufv.ca (contact author)

Dr. Ann Dale, Canada Research Chair, Sustainable Community Development
School of Environment and Sustainability, Royal Roads University,
Victoria, Canada. Ann.Dale@royalroads.ca

Abstract

The dualism of nature/culture widely present within Western society at large is out of step with an increasingly urbanizing world. Building on previous discussions of nature/culture duality, an integrative framework is presented that argues for the embracing of the "mundane nature" found within human landscapes. As over half of the human population interacts with nature primarily within urban landscapes, increasing our awareness of such spaces is critical to understanding our ecological consciousness. The examples of a recent rooftop greening bylaw in the city of Toronto and the social impacts of urban gardening are examined in this context.

Keywords

urban nature, green roofs, spatial capital, nearby nature, urban greening, access to nature, brownfield redevelopment.

Rethinking Nature

The dawn of a new decade sees both the sustainable development discourse and environmentalism as a whole focused on the highly politicized issue of climate change. Though important, the nature of the climate change issue has contributed to the retrenchment of the view that nature and human society are mutually exclusive and that one must be valued at the expense of the other. We are agents acting upon the climate, threatening iconic environments; that the polar bear is the mascot of climate change science speaks to this trend. The larger conversation concerning the relationship between nature and culture has been all but lost in the fight to sway the climate debate. The enormity of the issue and the complexity of society's response to adaptation and mitigation have obscured critical social questions that emerge from society's interaction with the natural world. What sort of animal is the human, and how does human society fit within the larger natural world given our continuingly increasing numbers and consumption? Though climate change is a critical issue in the same way that ozone depletion was an important issue, it is at its root merely a symptom of a larger problem; the artificial

separation of culture from nature. Nature and culture are two interconnected and evolving subsystems of a whole, changing dynamically over time (Newman, 2005).

The separation of culture from nature is a symptom of a Western worldview found in both debates on economic progress and within the environmental movement. One of the challenges for all social movements at this point is the need to move past a history of dualistic thinking that all nature must be pristine wilderness, and should be protected from human space and that human culture is not embedded in a natural context. With roots in the work of Thoreau, Muir, and Leopold, the environmental movement has a strong tradition of seeing "Nature" as an antidote to urban life. Cultural landscapes are at best framed as "second best" (O'Neill, 2007); the US Wilderness act defines wilderness as "providing opportunities for solitude" and "not being substantively modified by humans" (Ashley, 2007). Wilderness is idealized as a place of reflection (Havlick, 2006) that serves a sacred function similar to a church or temple; wilderness is a place where humans meditate upon the "other".

It is paradoxical that climate change makes this separation even more archaic, as no ecosystem remains completely untouched by human impacts. As Soja commented at the 2010 meeting of the American Association of Geographers, in a world where city's supply lines draw on every global ecosystem, the entire world is urban (2010). Bill McKibben in *The End of Nature* argues that we live in a "post-natural world" (McKibben, 1989) or, as it has been described, "we live in the era of the anthropocene" in which earth's system processes are strongly shaped by humanity (Crutzen & Stoermer, 2000). This separation also discounts that the "other" at work within ecosystems can be found in elements of nature within systems with a human element.

If environmentalists can be faulted for positioning nature and culture on two sides of a battle, social theorists have not always included nature in their analysis. In debates about access to the city, access to natural spaces is not considered on an equal footing to access to other amenities, nor is there sufficient link between natural space and its contribution to human agency. Although Richard Florida (2008) draws links between the amenities of a city and their ability to attract the creative class, he largely neglects how ecological features of urban landscapes may also serve as an attractor for the creative class beyond the function of recreation near the city. However local natural features are fundamental to how cities evolve; human societies have a long history of locating close to watersheds, rivers and coastal ecosystems that provide easier access to resources; humans stay in these locations despite environmental risks such as flooding because they are attracted to these natural landscape features. We are at heart creatures of our environments "Hybrid landscapes are where we spend our lives" (White, 2004, 8) and to understand these hybrid landscapes we need to re-embed nature into local spaces (Hansson & Wackernagel, 1999).

The nature found in the hybrid spaces created by human cultures is very different from our collective conception of "wild". It is a mundane nature; the nature found in the corners and forgotten spaces of our cities. The idea that the nature found in predominantly human spaces has value was captured strongly by William Cronin's collection *Common Ground* and in particular his essay "The Trouble with Wilderness". Cronin claims "the time has come to rethink wilderness" (Cronon, 1995, 69). He argues that the idea of wilderness as being intrinsically free of human presence is occasionally historically false, and that it creates a dualism that gives us

permission to evade responsibility for the lives we actually lead (Cronon, 1995). As long as nature is “out there” beyond the city limits, we don’t need to concern ourselves with the nature in our backyards. A growing number of thinkers agree; in her essay “Zoopolis”, Jennifer Wolch also argues that the nature/culture dualism is deeply destructive as it puts our dependency on nature in the background. She rightly points out that all cities contain an “animal town”; the plants and animals of this hidden world are not just skeletal remainders of the natural fabric that once existed on the site; they are species in symbiosis with the city around them. The plants and animals in an urban environment are adapted to the environmental effects of the city, and the food sources that our culture produces (Wolch, 1998). Urban spaces involve much more than human worlds and are often prime sites for both human and non-human ecologies. (Hinchliffe et al, 2005); the well functioning urban environment minimally must function well as a habitat for multiple species (Sheppard, 2006). The concept of mundane nature builds on Cronin's work, and the concept of "nearby nature"; (Kaplan & Kaplan, 1989; Kaplan & Austin, 2004) though the latter focused mainly on the effect of nature on human behavior; mundane nature encompasses the intrinsic value of ecological systems and their service value in the urban fabric. The following exploration expands and clarifies the concept we introduced in (Newman & Dale, 2009). There we argued that increasing the amount of mundane nature in our lives can strengthen both ecosystems and social relations; through mundane nature, we can reconnect with the ecosystems that support our lives.

The idea that humans are intrinsically a part of natural systems and that our cities can be situated as elements within such systems is a break from traditional thought. Our history is embedded in the belief that we are the top predator, that we have dominion over the earth, that we can understand the laws of the universe, that we are the only truly sentient beings. It challenges our religious, our intellectual and our social views of our ability to predict and control our lives, and perhaps even our identity and sense of place. To become comfortable with mundane nature we need to broaden our understanding of how we interact with these hidden ecosystems within our cities. Mundane nature is not uniform, however. There are several categories of nature within social spaces.

Clarifying Mundane Nature

We live in a highly urbanized world, dominated by three solitudes. The first, the human environment, has been actively planned to consider nature as an externality, to exclude nature and in effect, we have developed a monoculture where one species, the human, dominates. The second, the agricultural realm, has over the last century largely seen the exclusion of the remaining wild elements of ecosystems and the rich social fabric of farm life, as industrial farms and monocultures dominate the landscape. The third solitude is pristine wilderness, though these spaces have, as Cronin notes, occasionally been artificially cleared of human presences that often ran back for millennia; key symbioses in which human social systems related to the ecosystems they belonged to and passed down local ecological knowledge over generations have been lost.

Some remnant of the blending of realms remains on the urban edge spaces where nature and culture meet. These components work together to form the urban experience of everyday interactions with the broader natural world. At the largest scale are the elements of *ambient nature* as manifested by geography, topology, climate and weather. Modern societies still move

according to the rhythms of the seasons and we react to fluctuations in climate, especially as they become more severe and frequent. Though we like to deny it, the simple rhythm of day and night still largely defines our economies and societies. Ambient nature will not be discussed here and is not to be considered as a subset of the mundane nature under consideration.

The first form of mundane nature is the *remnant nature* found in even the most densely populated cities. This can include undevelopable spaces such as cliff faces and river banks, buffer spaces such as that found along railway lines, and intended remnants such as un-manicured parks and streams. Such landscape features, though, are usually heavily modified due to their large edge spaces and contact with human activity, pollutants, and invasive species and have yet to be valued for critical ecosystem services they could provide if regenerated with a view to reclaiming some of their original diversity. Another form is the *accidental nature* found in undeveloped tracts, vacant lots, abandoned spaces, and along roadways (Foster, 2007). Such space tends to be fairly ephemeral, and are often cleared in the name of safely and health. "Urban" wilds can seem to fall without even a cry being heard (Hinchliffe et al, 2005; 645), as the land is reincorporated into the developed cityscape, or even in the name of safety and crime prevention. The species in these accidental patches are quite interesting, as they are often exotics occupying very specific urban microclimates.

Urban spaces also include a c*ultivated nature.* This includes rooftop gardens, shade screens, living sewage treatment plants, breathing walls, city chicken production, and other industrial and agricultural applications of urban nature. The twentieth century was, for the most part, a time in which agriculture was banished from the city; there is a trend towards a reversal of that movement that is discussed further below. Ecosystem services are becoming more highly valued in urban spaces, and the amount of cultivated nature is growing in many urban areas.

One can also discuss *nature as display* within the city. Highly mediated spaces such as zoos, aquariums, parks, and formal gardens bring nature into the city, yet they are also, as Foucault notes, a sort of happy, universalizing heterotopia since the beginnings of antiquity (Foucault, 1967). Such spaces often are experienced in a very mediated fashion, and challenge the nature/culture duality less than other forms of mundane nature. This said spaces such as the sweeping landscapes such as those designed by Olmstead represent a hybrid space, where surprise is possible. Kaplan discusses how the failure to value all of the benefits of displayed nature can lead to serious declines in resident satisfaction (Kaplan & Kaplan, 1989).

Understanding Mundane Nature

The edges where nature and culture collide are spaces that can be understood in terms of Foucault's heterotopia (1967); places where critical reflection and innovation is occurring outside of mainstream social activity. In his essay "Of Other Spaces", Foucault argues that "The present epoch will perhaps be above all the epoch of space"; he argues that

> "perhaps our life is still governed by a certain number of oppositions that remain inviolable, that our institutions and practices have not yet dared to break down. These are oppositions that we regard as simple givens: for example between the

> private sphere and the public sphere, between family space and social space, between cultural space and useful space, between the space of leisure and that of work. All these are still nurtured by the hidden presence of the sacred." (Foucault, 1967: 1)

Rooftops are an interesting example; they are spaces that are often seen but not accessible, or with controlled access. They, are, however also panoptic, granting perspective on the surrounding urban fabric.

Lefebvre and Hetherington both argue that resistance to heterogeneity is found in the areas of life unmediated by commodification (Hetherington 1997; Lefebvre, 1974). Patches of mundane nature can serve such a function, as social ideals become real when they become inscribed in space and then shape that space (Soja, 1996). Soja talks of third spaces, those places within our habitat that are neither work nor home where we can interact and build our identities. Sites of mundane nature serve as third spaces with a difference; they allow us to reconnect to our animal nature and better understand ourselves and our relation to the larger world. A city that fully engages with its mundane nature could over time evolve to a place less single-mindedly wedded to the nature/culture duality, moving to more and more regeneration of critical landscape features necessary to ecosystem and human well-being.

As cities come to dominate our social landscape, our prime interaction with nature will be urban (Dunn et al, 2006). This "pigeon paradox" in which future wilderness preservation will depend on urban dwellers maintaining a connection with nature, is indicative in of the mass shifts facing the human animal; as we become more urban, and our impacts on natural systems grows worldwide, our survival depends on rapidly developing a much greater connection with the natural world that we have now. Ironically, "many naturalists start their journeys on ditchbanks and in empty lots" (Nabhan, 1994: xi). Mundane nature can remind us of our direct connection to larger ecosystem functions; the presence of food crops in our cities, for example, is a reminder of our daily interaction with other species that keep us alive.

The Benefits of Mundane Nature

It is argued here that mundane nature is intrinsically valuable, and that mundane nature creates third spaces within our cities that are sites of connection between species. However there are a number of additional reasons why a "wilder" city is ecologically and socially advantageous. Plant life controls the urban heat island effect through evapo-transpiration; shade trees can noticeably drop energy costs for summer cooling. For example stream restoration cut temperature measurably in Seoul when the Cheonggye stream was daylighted (Kim et al, 2008). Trees adjust wind speed and humidity (Georgi & Zafiriadis, 2006); leading to significant energy savings. Even minor greenery lowers ambient temperature, absorbs storm water, regulates humidity and improves air quality. So called "living machines" have been embraced in many ways; tertiary sewage treatment through wetland creation, green walls that reduce indoor air pollution, swales for flood control, and green roofs for insulation, cooling, and runoff control. Each of these innovations also broadens the urban habitat of what could be called the "unseen guild" the ecological grouping of animals and plants that thrive in an urban setting co-existing with humans. Selman (2009) discusses how the concept of "landscape multifunctionality" is

fostering the understanding of how urban ecosystem elements can have multiple uses. Mundane nature expands this concept into the sociological realm.

What has not yet been fully embraced by urban practitioners is the role and contributions that mundane nature can make to the social fabric of the city. Traditional planning dismissed desire for nature as romanticism, (van den Berg et al, 2007), but it has been shown that access to local nature, even just visually, has a direct impact on life satisfaction; our surrounding environment can increase our happiness (Brereton et al, 2008). Access to viewscapes mitigated the downsides of urban density (Kearney, 2006), as people didn't mind greater density if they could see simply see a piece of nature. As well, contrary to earlier thought, reflection doesn't just happen in pure wilderness, a study by Fuller et al. (2007) revealed that green space can foster reflection, which referred to the interviewee's reported ability to clear their heads, gain perspective on life and think more easily about personal matters. Kaplan notes the value we place on visible "nearby nature" and notes that our desire to see nature around us drives the development of suburbs on the rural fringe (Kaplan & Austin, 2004).

Our surroundings influence the way we come together as a society. Physical features have been shown to affect social capital in a community (Cattell, 2001) and it has been demonstrated that public space containing nature fosters greater community (Kearney, 2006). As well, there is a relationship between social and ecological resilience "the ability of groups or communities to cope with external stresses and disturbances as a result of social political and environmental change (Adger, 2000:1), which needs more research. One possible avenue of interest is the potential of mundane nature to give our urban landscapes a more human scale; scale questions are an important factor in creating diverse and resilient community (see Newman & Dale, 2008) and nonhuman elements of our surroundings could serve as important scale signifiers; contributing to our feeling of safety and belonging.

The importance of mundane nature does not discount or negate the importance of wild spaces and ecosystems without excessive influence. Our argument is for, if anything, a higher valuation for mundane nature in order to raise the overall integration of nature and culture.

Examples of Mundane Nature

Incorporating mundane nature into existing cityscapes can be a powerful but underutilized tool for urban renewal. The modern rooftop is an interesting example of a space that can host a wide variety of mundane natures. Historically, rooftops have been used to grow food, to serve as social space, to heat water, dry laundry and food, and gather energy. The modern rooftop does little but increase the urban heat island effect. On May 26th, 2009, Toronto followed the lead of several European cities and enacted a bylaw to require and govern the construction of green roofs for all new industrial development. The bylaw will apply to all new building permit applications made after January 31, 2010 (residential, commercial and institutional) and January 31, 2011 for all new industrial development. The new bylaw will be enforced on buildings exceeding 2,000m_ of Gross Floor Area and have a graduated coverage requirement ranging from 20-60% (City of Toronto, 2010)

In the fall of 2009, the first author visited two green rooftops in Toronto representing different methods of implementing the bylaw. The first, the green rooftop at the Gladstone Hotel, is shown in figure one. The oldest continuously operating hotel in Toronto, the Gladstone was built in 1889 as a stylish railway hotel. After falling into disrepair, the hotel was restored at the turn of the century and acts as a hub of artistic activity in the city. Partially funded by the city of Toronto through a grant to promote green business, the hotel installed a carpet of sedum pioneered by a local company, Xero Flor. The 2500 square feet of green rooftop fit the hotel's mandate to become a sustainable destination in the city, and also addressed a flooding problem. The sedum is particularly good at holding flood water and releasing it slowly. The sedum is low maintenance, which suits the limited access nature of the roof spaces of this heritage building. The sedum is also aesthetically appealing, and blends well with the artist-driven décor of the building's grand interiors.

Figure One: The rooftop of the Gladstone Hotel

The second rooftop, pictured in figure two, is located atop the Robertson building, home to the Toronto Centre for Social Innovation (CSI). The Centre for Social Innovation is driven by a mission to foster social innovation in the face of current economic, environmental, social and cultural challenges, and improve communities and the planet through innovation. Installed in 2004, this rooftop was a pioneer in the city and is notable for its size at over 4000 square feet, and for the complexity of its ecosystem. Designed and planted by Gardens in the Sky, the meadow contains ten species of native flower. The garden is bordered by an atrium and common area deck used by the tenants of the building, which is host to numerous not for profit groups and

creative enterprises. Biodiversity was embraced as a guiding principle for the roof, and aside from providing exposure to nature for the tenants it is designed to lower the urban heat island effect, control run off, reduce air pollutants, and cool the building, it also acts as critical bird habitat. The roof has become an important social habitat as well; the various tenants of the building meet upon the roof and share conversation and ideas.

The two roofs represent two expressions of mundane nature. Though both roofs require maintenance and human intervention, the second roof is a much more complex ecosystem and plays a larger role as a place for interaction between human and non-human ecosystems. This is not to say the second roof is superior; both roofs are constrained by space and structural demands; the ability of a human space to host nonhuman systems varies. Both roofs, however, show that fear surrounding the potential downsides of such spaces need to be challenged; there is space for a massive increase in the size and number of such installations.

Figure Two: The Rooftop of the Robinson Building

The social impact of the Robertson Building roof space was mirrored in an earlier study of urban garden plots. A study of urban farmers (Newman, 2009) found that the social aspect of growing

food in an urban setting was much stronger than expected. In Portland, Oregon, for example, the group, Your Backyard Farmers, started by offering to raise food for residents on their unneeded land. At the time of the interviews they were running 25 mini farms scattered throughout the urban and peri-urban fringe and provided consulting services for 25 additional urban farms that are maintained by the owners. They noted the high level of interest and engagement of participants; though many of their clients started out passively providing available ground they noted many people spent time in the gardens; outdoor furniture would appear near the planting areas. As the farms become established they found the residents asking questions such as “When will this be ready to harvest?” and “How do I cook it?” When they began the business they did everything from beginning to end, but in the second year several of the residents requested instruction in how to operate the plots themselves. The gardens grew to serve as a community meeting space, a phenomenon noted elsewhere in the literature on urban growing. Our "soft fascination" with nature (Hartig, 2004: 273) provides a point of contact and conversation. The presence of lawn chairs in urban gardens is a symbol of the pack nature of our species.

The Future of Mundane Nature

Understanding humans as one natural component among many others within nature, as a part of a natural system, is frightening because of what it makes clear; we are animals who live and die in the company of other species upon which we utterly depend for our survival. We eat nature and our minds respond to nature and we live and die under the influence of nature. "Nature is all around us if we only have eyes to see it" (Cronon 1995, 86). As we enter a time in which humanity can deeply affect the entire globe, we need to become much more aware of Earth's ecosytems and our place within them. There is a need to bring together what we understand of mundane nature; social and physical impacts, urban ecology, theories of space and place, and foster a transdiciplinary understanding of this particular element of our habitats. Beyond the theoretical understanding of such spaces, there is a need for urban planning that respects and values mundane nature and ideally encourages the creation of as much such space as possible. Though the opportunities for daily interactions within natural systems varies from place to place, the opportunities for creating new hybrid landscapes in which humans are seen and acknowledged as one species of many is vast. Ultimately, beyond climate change or any other single issue, we must accept our role as one species of many, or risk destroying our ecosystems, and thus ourselves.

Works Cited

Adger, N. (2000) Social and Ecological resilience: Are they related? *Progress in Human Geography*, **24**(3), 347- 364.

Ashley, P. (2007) Toward an understanding and definition of wilderness spirituality, *Australian Geographer*, **38**(1), 53-69.

Brereton, F, Clinch, J, & Ferreira, S. (2008) Happiness, geography, and the environment, *Ecological Economics*, **65**(2), 386-396.

Cattell, V. (2001) Poor People, poor places, and poor health: The mediating role of social networks and social capital, *Social Science and Medicine*, **52**(10), 1501-1516.

City of Toronto (2010) http://www.toronto.ca/greenroofs/

Cronon, W. (1995) The trouble with wilderness; or getting back to the wrong nature, in: Cronon, W. (ed.) *Uncommon Ground: Rethinking the Human Place in Nature*. New York: Norton & Co 69-90.

Crutzen, P, & Stoermer, E, (2000) The "anthropocene", *Global Change Newsletter*, **41**, 12-13.

Dunn, R, Gavin, M, Sanchez, M, & Soloman, J. (2006) The pigeon paradox: Dependence of global conservation on urban nature, *Conservation Biology*, **20**(6), 1814-1416.

Florida, R. (2002) *The Rise of the Creative Class. And How It's Transforming Work*, Leisure and Everyday Life, New York: Basic Books.

Foster, J. (2007) Toronto's Leslie Street Spit: Aesthetics and the ecology of marginal land, *Environmental Philosophy*, **4**(1/2), 117-133.

Foucault, M. (1967) Of other spaces, reproduced at http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html

Fuller, R, Irvine, K, Devine-Wright, P, Warren, P, & Gaston, K (2007) Psychological benefits of greenspace increase with biodiversity, *Biology Letters*, **22**, 3(4), 390-394.

Georgi, N, & Zafiriadis, K. (2006) The impact of park trees on microclimate in urban areas. *Urban Ecosystem*, **9**, 195-209.

Hansson, C, & Wackernagel, M. (1999) Rediscovering place and accounting space: How to re-embed the human economy. *Ecological Economics*, **29**, 203-213.

Hartig, T. (2004) Restorative environments, in: Spielberger, C. (ed) *Encyclopedia of Applied Psychology* **3**, San Diego, Ca: California Academic Press 273-279.

Havlick, D. (2006) Reconsidering wilderness: Prospective ethics for nature, technology, and society, *Ethics, Place and Environment*, **9**(1), 47-62.

Hetherington, K. (1997) *The Badlands of Modernity: Heterotopia and Social Ordering*, London, Routledge.

Hinchcliffe, S, Kearnes, M. Degan, M. & Whatmore, S. (2005) Urban wild things: A cosmopolitical experiement, *Environment and Planning D: Society and Space*, **23**, 643-658.

Kaplan, R. & Austin, M. (2004) Out in the country: Sprawl and the quest for nature nearby.

Landscape and Urban Planning **69**(2-3), 235-243.

Kaplan, R. & Kaplan, S. (1989) *The Experience of Nature: A Psychological Perspective*. Cambridge Press.

Kearney, A. (2006) Residentual development patterns and neighbourhood satisfaction: Impacts of density and nearby nature. *Environment & Behavior*, **38**(1), 112-139.

Kim, Y, Ryoo, S, Baik, J, Park, I, Koo, H, & Nam, J. (2008) Does the restoration of an inner-city stream in Seoul affect local thermal environment? *Theoretical Applied Climatology*, **92**, 239-248

Lefebvre, H. (1974) *The production of Space*, Trans. Donald Nicholson-Smith. Oxford: Blackwell, 1991.

McKibben, Bill. (1989) *The End of Nature*, New York: Random House.

Nabhan, G & Trimble, S. (1994) *The Geography of Childhood: Why Children Need Wild Places* Boston: Beacon Press.

Newman, L. (2005). Uncertainty, innovation, and dynamic sustainable development. *Sustainability: Science, Practice, & Policy, 1*(2)

Newman, L., & Dale, A. (2009). In praise of mundane nature. *Alternatives* 35(2)

Newman, L, & Dale, A. (2009) Large footprints in a small world: Towards a macroeconomics of scale, *Sustainability: Science, Practice, & Policy*, **5**(1)

Newman, L. (2009) Extreme local food: Two case studies in assisted urban small plot intensive agriculture, *Environments*, **36**(1), 33-43.

O'Neill, J. (2007) Wilderness, cultivation, and appropriation, *Philosophy & Geography*, **5**(1), 35-50.

Selman, P. (2009) Planning for landscape multifunctionality, *Sustainability: Science, Practice, and Policy*, **5**(2).

Sheppard, J. (2006) The paradox of urban environmentalism: *Problem and possibility. Ethics, Place and Environment*, **9**(3), 299-315.

Soja, E. (2010) After Postmetropolis, American Association of Geographers annual meeting, Washington, DC.

Soja, E. (1996) *Thirdspace: Journeys to Los Angeles and Other Real and Imagined Places*, London: Blackwell Publishers.

Van den Berg, A, Hartig, T, & Staats, H. (2007) Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustianability. *Journal of Social Issues*, **63**(1), 79-96.

Wolch, J. (1998) Zoopolis, in: Wolch, J, & Emel, J. (eds.) *Animal Geographies: Place, Politics, and Identity in the Nature-Culture Borderlands*, 119-138, London: Verso.