

Rethinking Communities: Environmental Ethics in an Urbanized World

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Humans have largely transformed the natural environment and there is scarcely an area of the world which has not been affected by human activity. Human domination of the environment, in particular by the creation of infrastructure, urbanization, and conversion to agriculture, has mostly proceeded in an unplanned and frequently destructive manner. Almost fifty percent of humans already live in cities and this proportion will continue to grow. However, issues of urbanization are little addressed in the environmental philosophical literature. I explore community and sustainability in an urban context, drawing on the work of the landscape architect Ian McHarg who, I argue, may have more to offer an urbanized world than iconic figures such as Aldo Leopold.

INTRODUCTION

Humans have used technology to transform the natural world. Many other animals adapt the physical environment to make it livable—bees, ants, beavers, and coral organisms spring to mind. But we are the only species that is able to live and thrive on every part of the Earth, even to venture into outer space. As one author puts it, “The limits of all human societies have largely been defined by their engineering achievements.”¹ Therefore, whatever ethics we adopt will have to enable us to flourish in a technologically transformed world. Unfortunately, the central concerns of environmental ethics have been and largely continue to be heavily slanted towards animals, plants, endangered species, wilderness, and traditional cultures and not toward the problems of life in industrialized, urbanized society where most people now live.

Most environmental philosophers accept that the various “conventional” approaches to ethics (utilitarian, rights, virtue, contract, etc.) are inadequate to deal with a range of issues involving nonhuman beings and natural systems, and that some other approach to ethics is therefore needed.² Typically, environ-

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¹ R. J. Bogumil, “Social Implications of Technology: The Past and the Future,” *Technology and Society* 9, no. 1 (September 1981): 22.

² But see Kristin Schrader-Frechette who advocates a utilitarian approach in *Environmental Ethics* (Pacific Grove, Calif.: Boxwood Press, 1981).

mental ethics is *axiological*—deriving duties from value—and *nonanthropocentric*—insisting that some things are valuable regardless of their value to humans.

We might expect environmental ethics to do two things. First, it should offer a *theoretical model* of the relationship of humans to the rest of nature. It is a commonplace observation that in Western philosophy and religion humans are not part of nature. The United States Wilderness Act 1964, for example, defines *wilderness* as follows:

A wilderness, in contrast to those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.

As Callicott points out, the conventional view of wilderness is highly ethnocentric: the early European immigrants to North America “in fact found a man-made landscape, but they thought it was a wilderness because it didn’t look like the man-made landscape that they had left behind.”³ Interestingly, by contrast, the New Zealand Resource Management Act 1991 (S. 2) defines “environment” broadly to include people, their values, and the built environment:

“Environment” includes—

- (a) Ecosystems and their constituent parts, including people and communities; and
- (b) All natural and physical resources; and
- (c) Amenity values; and
- (d) The social, economic, and cultural conditions which affect the matters stated in Paragraphs (a) to (c) of this definition or which are affected by those matters.

Second, we should expect environmental ethics to provide at least a sketch of how we should *act*: for instance, what sort of systems should we be setting up for environmental decision making, what kind of world should we be bequeathing to our descendants, what values should we be trying to balance, and how should we balance them?

Ethical humanism, as Callicott calls it,⁴ has been under attack for decades, sometimes in a way that is reminiscent of the misanthropy of early environmentalist writers such as Ruskin, Thoreau, and Muir. The advocacy of “biocentric egalitarianism” by writers such as Leopold, Callicott and Paul Taylor,⁵ and also

³J. Baird Callicott, “The Wilderness Idea Revisited: The Sustainable Development Alternative,” *Environmental Professional* 13 (1991): 236–45, in Lori Gruen and Dale Jamieson, eds., *Reflecting on Nature* (New York: Oxford University Press, 1994), pp. 261–62.

⁴J. Baird Callicott, “Animal Liberation: A Triangular Affair,” *Environmental Ethics* 2 (1980): 311–38.

⁵All references to Aldo Leopold are to *A Sand County Almanac with Essays on Conservation from Round River* (New York: Ballantine, 1966); Paul Taylor, *Respect for Nature* (Princeton: Princeton University Press, 1986).

criticisms of “speciesism” and “human chauvinism” in the animal liberation literature require us to avoid favoring humans over animals and the rest of nature, but this proposition is simply incredible to most people. Some critics have decried environmentalism as elitist,⁶ or as a “post-affluent” phenomenon:

[A] flat rejection of the values of over-consumption, technical efficiency and economic growth that has dominated American society. . . . [but] Only those who have been reared in affluent suburbs can rebel against over-consumption and the banality of materialism.⁷

Environmental ethics will have to address the problems of the twenty-first century and beyond in a world with few areas of wilderness, with billions of people living in towns and increasingly in cities, and in the context of rapid technological change. No amount of calls for a radically new ethic, on their own, will change this situation, and calls to abandon modern technology and to return to a simpler life style will fall mostly on deaf ears.

Whatever biocentric egalitarians (and animal liberationists) may say, we humans are *not* just one species among 10, 20, or 100 million. As the Scottish ecological planner and landscape architect Ian McHarg puts it, “Man is that uniquely conscious creature who can perceive and express. He must become the steward of the biosphere. To do so he must design with nature.” Like Leopold, McHarg starts from ecology, “Nature can be considered as interacting process, responsive to laws, constituting a value system, offering intrinsic opportunities and limitations to human uses.”⁸ However, McHarg recognizes the inevitability of an urbanized world and tries to develop an ethical basis for planning such a world and in this context, I argue in this paper, Leopold’s view of humans and their place in nature is largely irrelevant.

SUSTAINABLE CITIES

The number and proportion of the Earth’s population living in cities has grown exponentially over the past two centuries.⁹ In 1800, around two per cent

⁶E.g., Richard Neuhaus, *In Defense of People* (New York: Macmillan, 1971); William Tucker, *Progress and Privilege* (New York: Anchor, 1982).

⁷Norman J. Faramelli, “Ecological Responsibility and Economic Justice,” *Andover Newton Quarterly* 11 (November 1970): 81–93, reprinted in Ian G. Barbour, ed., *Western Man and Environmental Ethics* (Reading, Mass: Addison Wesley, 1973), p. 191.

⁸Ian McHarg, *Design with Nature* (Garden City, N.Y.: Doubleday, 1969), p. 55. McHarg, who was born in 1922, is a professor in the Department of Landscape Architecture and Regional Planning at the University of Pennsylvania and has worked extensively in city and regional planning in the United States. He describes this book as “a workman’s code—an ecological manual for the good steward who aspires to art,” p. 29.

⁹Two important recent publications in this field are Herbert Girardet, *The Gaia Atlas of Cities: New Directions for Sustainable Urban Living* (Stroud, U.K.: Gaia Books, 1996) and *An Urbanizing World: Global Report on Human Settlements* (New York: UNCHS/Oxford University Press, 1996).

of the population lived in the fifty or so cities of 100,000 or more; in 1950, twenty-nine percent lived in such cities, while by 2000 the figure will be almost fifty percent. In 1940, one percent lived in cities of one million or more and only London and New York had more than five million inhabitants; by 1980, one in ten lived in a city of over a million and in 1990 there were thirty cities of over five million people.¹⁰

Some writers have seen the city as the culmination of human progress. According to McHarg “all of preindustrial urbanism was based on the . . . premise that only in the city could the best conjunction of social and physical environment be achieved.”¹¹ Certainly, cities represent the greatest transformation that humans have wrought. As Marcus and Detwyler note,

Cities are nodes of man’s greatest impact on nature, the places where he has most altered the essential resources of land, air, organisms, and water. The city is the quintessence of man’s capacity to inaugurate and control changes in his habitat. Through urbanization man has created new ecosystems within which the interactions of man, his works, and nature are complex. This complexity—and the importance of our understanding it—grows as cities burgeon in the modern world.¹²

Many influential thinkers in the American tradition have detested cities. Agricultural family values romantic Thomas Jefferson believed that “The mobs of the great cities add just as much to the support of pure government as sores do to the strength of the human body,” and he wrote in a letter to Thomas Rush, “I view great cities as pestilential to the morals, the health and the liberties of man.” The celebrated architect Frank Lloyd Wright

. . . throughout his life saw the city as ugly, brutal, and impersonal. He often drew an analogy between cities and malignant tumors, with the architect having the responsibility to ‘take away all urban stricture and depravity . . . and then—absorb and regenerate the tissue poisoned by cancerous overgrowth.’¹³

This view of cities is particularly prominent in the American tradition—obvious examples include Emerson, Frost, Faulkner, Hemingway, Muir, and

¹⁰ H. W. Eldredge, “People: Urbanization and City Growth,” in H. W. Eldredge, ed., *Taming Megalopolis* (Garden City, N.Y.: Doubleday, 1967): 93–102; World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987); *World Resources 1996–97* (Washington, D.C.: World Resources Institute, 1996).

¹¹ Ian McHarg, “The Place of Nature in the City of Man,” *Annals of the American Academy of Political and Social Science* 352 (March 1964): 2–12; reprinted in Barbour, *Western Man*, p. 177.

¹² Melvin G. Marcus and Thomas R. Detwyler, “Urbanization and Environment in Perspective,” in Thomas R. Detwyler et al., *Urbanization and Environment* (Belmont, Calif.: Duxbury 1972), p. 3.

¹³ All references from Dale Jamieson, “The City Around Us,” in Tom Regan, ed., *Earthbound* (New York, Random House, 1984), pp. 41–42.

Thoreau. It is not, of course, restricted to Americans, and figures as diverse as Theocritus, Virgil, Duns Scotus, John Scotus Erigena, Francis of Assisi, Goethe, Wordsworth, Ruskin, and Gerald Manley Hopkins have sung the praises of the pastoral ideal.¹⁴

A visit to many of the world's largest cities would undoubtedly confirm antiurban writers in their opinions: they are not communities that are conducive to human flourishing. According to the World Commission on Environment and Development,

In most developing-world cities, there is little low-cost housing. . . . Whatever form it takes, low-income accommodation generally shares three characteristics. First, it has inadequate or no infrastructure or services—including piped water, sewers, or other means of hygienically disposing of human wastes. Second, people live in crowded and cramped conditions under which communicable diseases can flourish, particularly where malnutrition lowers resistance. Third, poor people usually build on land unsuited for human habitation: floodplains, dusty deserts, hills subject to landslide, or next to polluting industries. They choose these sites because the land's low commercial value means they stand a better chance of not being evicted.¹⁵

Much the same may be said of the sewers, cardboard boxes, shop doorways, and abandoned vehicles in which increasing numbers of the homeless sleep in great cities such as New York and London.

A major difference between the natural and the human-made environment is the loss of biodiversity. The total biomass in many cities—trees, garden plants, humans, birds, invertebrates, pet, and pest animals—may be equal to or greater than the total biomass that existed in the original unmodified area—probably much greater in desert cities such as Las Vegas and Tucson—but it is much less diverse. It is clear that the maintenance of biodiversity is crucial to sustainability; yet we are constantly reducing it at an ever increasing rate.

Moreover, large cities frequently have major adverse environmental effects, in particular, air and water pollution, waste production, and resource consumption, and indirect effects such as depopulation of rural areas and small towns. These effects apply just as much to some ancient societies as to those of the present-day:

For example, in Athens and Rome, the first great urban-based pre-industrial civilizations, when the rapid growth of city populations put heavy pressure on the productive capacity of the land, more distant areas were plundered. Hills, mountains and forests were laid bare. Outlying provinces in Southern Europe and North Africa were ruthlessly exploited, exhausted, and abandoned one by one to feed a

¹⁴ McHarg, "Place of Nature"; Leo Marx, "Pastoral Ideals and City Troubles," in *The Fitness of Man's Environment*, Smithsonian Annual II (Washington D.C.: Smithsonian Institution, 1964), reprinted in Barbour, *Western Man*, pp. 93–115.

¹⁵ *Our Common Future*, p. 250.

growing proletariat and enrich the prosperous with loot. The huge granaries of Rome, Latium, Campania, Sardinia, Sicily, Spain, and northern Africa were all successively reduced to barren wastes, swamplands, and deserts, and few of them have ever recovered from the devastating effects of that era.¹⁶

The ancient cities declined as their resource base collapsed. Why should modern urban centers fare any better?

Urban development always reduces the life-supporting capacity of air, water, soil, and ecosystems. A city is inevitably an “open system.” There have never been self-contained cities. As Marcus and Detwyler note, “Urban places cannot exist without exchanging matter and energy with a much larger environment.”¹⁷ An “ecological model of the metropolis” is therefore urgently needed, to

. . . identify the regional inventory of material in atmosphere, hydrosphere, lithosphere, and biosphere, identify inputs and outputs, and both describe and quantify the cycling and recycling of materials in the system.¹⁸

Singapore, the only totally urbanized nation in the world, is a city that depends entirely on the outside world for its lifeblood—water from Malaysia, landfill from Indonesia, food and other products from all over the world. However, Singapore is only an extreme version of life in a globalized economy. Most people probably think of a country such as New Zealand as only an exporter of primary products, yet it also imports food and forest products from many countries including fruits, vegetables and timber from Australia, Southeast Asia, Polynesia and even Southern Africa.

Low density cities may of course be quite “green.” In Brisbane, one of the most suburbanized cities in the world, bird life has increased in recent years as people plant more native trees and as existing native trees mature. Still, suburban sprawl always degrades the natural environment, especially because of the huge amount of land and other resources devoted to the infrastructure of a physically devolved community—roads, water supply, solid waste, and wastewater collection.¹⁹ I discuss this point in more detail in the conclusion.

Could there ever be an urban culture that is sustainable? The New Zealand Resource Management Act of 1991 states the purpose of the act to be “to

¹⁶ T. I. Blair, *The International Urban Crisis* (St. Albans, U.K.: Granada, 1974), pp. 27–28.

¹⁷ Marcus and Detwyler, “Urbanization,” p. 11.

¹⁸ Ian McHarg, “The Place of Nature in the City of Man,” *Annals of the American Academy of Political and Social Science* 352 (March 1964): 2–12; reprinted in Barbour, *Western Man*, p. 180. Such an inventory would include, for instance, the depressing statistic that every year in Britain 3.5 billion bricks are produced—and 2.5 billion are destroyed when buildings are demolished (*New Zealand Herald*, 22 May 1996).

¹⁹ Population spread is a major contributor to environmental degradation, and as more people seek suburban and exurban life styles, more farmland is converted to “life style” properties and more remote land is converted to farmland, putting further pressure on “undeveloped” land. See

promote the sustainable management of natural and physical resources, and defines *sustainable management* as

. . . managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and their communities to provide for their social, economic, and cultural well-being and for their health and safety while

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

In order to apply these principles to the growth and character of cities, we must learn to direct our technology along sustainable lines:

It is transportation and technology that allow the city to absorb basic resources, remake them, and distribute them to a marketing hinterland. Once energy and natural resources are in the city, technology provides the means by which construction, industrial production, and communication are achieved. And most important, technology and transportation have made it possible for the city to concentrate the resources needed to fulfil the biological requirements of its dense population.²⁰

Nonetheless, it is possible to talk about a sustainable city as one that is integrated into a larger region to which it makes a positive contribution as well as being supported by the rest of the region. In return for the resources that it receives, the city can provide specialist services such as distance education, telecommunications, health care, and technical advice to farmers. The region as a whole, including the city, provides for the well-being of present and future generations, thus forming part of a much larger community. Traditionally this has not been the case, as the examples of Athens and Rome discussed earlier indicate. Probably, this integration will not happen unless there is adequate planning at both local and national level.

Alastair Gunn and Carolyn McCallig, "Environmental Values and Environmental Law in New Zealand," *Ethics and Environment* 2 (1997): 103–20. Intensive development may reduce environmental impact, for instance, plantation exotic forestry may increase timber production and thus reduce pressure on indigenous forests, as suggested by an anonymous referee for this article.

²⁰ Marcus and Detwyler, "Urbanization," pp. 15–16.

URBAN COMMUNITIES

A persistent theme in the anti-urban literature is the identification of cities with the *unnatural*. Of course, there are many different conceptions of nature and the natural,²¹ but the sense in which cities are most clearly unnatural is tied to the artificial, the mechanical, the complex. Although there are many useful and efficient machines, the machine image in, for instance, Carlyle and Lewis Mumford is associated with

. . . the more unpleasant features of the urban-industrial landscape: the ugliness, the noise, the poisoned air, the chaotic overabundance of stimuli, the symptoms of social disorganization, and the general impression of incoherence and individual powerlessness.²²

As McHarg points out, humans cannot live in environments that are completely natural in the sense of being unaffected by humans:

Yet the certainty that man must adapt nature and himself does not diminish his dependence upon natural, nonhuman processes. . . . Man, too, is natural in the sense that he responds to the same laws as do all physical and biological systems.²³

Perhaps the most relevant conception of the natural for urbanized humans is something like this: to the extent that human beings are able to thrive in a given environment—to live long lives, to be physically and psychologically healthy, to fulfill a significant proportion of their potential—then that environment is natural for humans. Because we are so adaptable, there are a wide variety of environments that are natural for humans in this sense. Nevertheless, there are limits, and not just biological limits in a narrow sense. It is for this reason that I proceed to discuss the concept of community in some detail.

Precisely because humans are able to create the conditions for their own flourishing, there is no fixed form of human community. However, when people regret the loss of community in modern society, they often do so in the context of the suburban, impersonal city: “the metropolitan area” which, McHarg says, is “more a convenience for cartographers than a social organism.”²⁴ Villages and traditional urban communities provided for their members’ needs by face to face contact and informal support networks, and therefore required close physical proximity. In villages and small towns, housing is clustered: buildings

²¹ Arthur Lovejoy once listed sixty-six uses of the word *nature* in politics, ethics, and metaphysics, and another twenty in aesthetics, according to Neil Evernden, “Nature in Industrial Society,” in Ian Angus and Sut Jhally, eds., *Cultural Politics in Contemporary America* (New York: Routledge, 1989), pp. 151–64.

²² Marx, “Pastoral Ideals,” p. 107.

²³ McHarg, “Place of Nature,” pp. 177–78.

²⁴ McHarg, *Design With Nature*, p. 153.

are tightly grouped around common open space. This pattern was repeated in the development of cities as ethnic or tribal neighborhoods replaced the village, and this pattern can still be found in parts of cities such as New York, Melbourne, Kuala Lumpur, Penang, London, and Jakarta. However,

The American dream . . . did not see that a suburb is not a community, that the sum of sub-divisions that make a suburb is not a community, that the sum of suburbs that compose the metropolitan fringe of the city does not constitute community nor does a metropolitan region.²⁵

Conditions that middle-class suburbanites consider to be intolerably crowded in fact offer many advantages. A well-known study of tenements in Kowloon, Hong Kong, found that one building contained 3200 persons in an area of 4589 square meters, which is much less space per person than is available in the worst prisons in most countries. But people spent most of their lives in public spaces, which precisely because of the population density offered a great range of amenities within a short distance of home. Most residents were between two and fifteen minutes walk from their workplaces; within a five minutes walk they had access to a wide variety of shops, markets, businesses, restaurants, cinemas and other recreational activities. Because of the pedestrian traffic few vehicles used the area, so it was essentially car free, and everyone had access to excellent public transport.²⁶

Similar advantages have been noted in English cities. A study of Bethnal Green, a low-income district of London noted that while the home is usually a private place to which only relatives are invited,

[T]he continuous babble among non-kin neighbours reverberates at such places as corridors, front stoops, streets, taverns, stores and . . . from window-to-window and window-to-street. The street thus becomes an extension of the house, itself a place where people live, and where much of the social interaction takes place. Where the house is the habitat of kin, the street is the habitat of neighbours. And, in striking contrast to middle-class groups, *social organization* (encompassing both family and friends) is *territorially coterminous with neighbourhood place*.²⁷

However, city planners have usually considered such communities to be slums, targets for “urban renewal.” Their replacements may be technically superior—cleaner, more hygienic, more spacious—but the price in human terms is high. “Slum clearance” usually replaces low-cost housing with office buildings, apartment blocks, hotels and banks, while the inhabitants are scattered to high-rise apartments or suburbia. As McHarg notes,

²⁵ Ibid., p. 153.

²⁶ M. Hugo-Brunt, “Hong Kong Housing,” in Eldredge, *Taming Megalopolis*, pp. 477–93.

²⁷ M. M. and C. C. Webber, “Culture, Territoriality, and the Elastic Mile,” in Eldredge, *Taming Megalopolis*, p. 42 (emphasis in original).

In the original community, there is usually an intermeshed fabric of social dependence and a considerable tolerance of ethnic and religious variation. When the slum is destroyed, there is normally a large number of persons who are deprived of the social support of the community and who gravitate to institutions. Welfare and social services markedly increase. There is good evidence that the old community is destroyed. There is little evidence that renewal creates community or that the displaced find new community.²⁸

The problem is not urbanization as such, but the destruction of successful urban communities, and this situation is just as sad, and just as avoidable, as the destruction of woodland or wetland communities. Heritage is also often lost as historic buildings are torn down to make room for new ones.

Well-managed, high-density cities can be some of the healthiest, most prosperous, and safest communities because all forms of services—water supply, sanitation, drainage, waste management, transportation, education, health, and emergency services—can be provided more efficiently in them than in lower-density communities. Singapore represents the state of the art in all these respects. High-density living offers various environmental as well as social advantages, especially if existing pollution of land and waterways is cleaned up, because in a given area there will be more non-built spaces, thus allowing lakes, wetlands, and woodlands to exist contiguously with the adjacent developed areas. London and Buenos Aires (carefully selected examples, admittedly) are cities in which “nature” in the form of birds, mammals, fish, invertebrates, and flora, has a much greater place than, say, fifty years ago, because of increases in high quality public and private space.

However, we should not conclude from the fact that urban renewal projects typically destroy communities that high-density cities are a necessary condition of a successful community. We should also avoid romanticizing about traditional urban communities. Andrew Brennan (personal communication) notes that life in the Gorbals, a notorious slum area of Glasgow, was unhealthy and violent and did not provide the inhabitants with satisfactory living conditions. The solution was to tear down the tenements and rehouse people in tower blocks. There were considerable health benefits—tuberculosis and other diseases which had been prevalent disappeared—but the crime rate stayed high and there were huge social costs. The health benefits, according to Brennan, could have been achieved at much less financial and social cost simply by refurbishing the existing housing, thus leaving community structures intact.

²⁸McHarg, *Design With Nature*, p. 195. Modern transportation and electronic communications have undoubtedly expanded the scope of our communities. Many services which used to require face-to-face interaction can now be provided at a distance, for instance remote diagnosis in medicine. Friendships and even romances flourish via e-mail and the Internet. But while the virtual community extends conventional communities, it does not replace them: telephone sex, I imagine, is no substitute for real sex.

HUMAN AND BIOLOGICAL COMMUNITIES

Humans have always lived in groups, and the key figures in Western philosophy (Rousseau excepted) have explicitly or implicitly accepted urban life as normal for humans. An examination of the idea of community is surely crucial to our understanding of our place in the world. As Callicott puts it,

. . . we may expect to find that the scope and specific conditions of ethics will reflect both the perceived boundaries and actual structure or organization of a cooperative community or society. *Ethics and society or community are correlative.*²⁹

Yet, this key concept is rarely discussed in the environmental ethics literature, and when it is, it is usually Leopold's ecological notion of a biotic community.³⁰ In Leopold's thought, according to Callicott, "the focus of moral concern shifts gradually away from plants, animals, soils, and waters severally to the biotic community collectively," so that the biotic community is not just or even primarily a collection of members but "a corporate entity."³¹

In this section, I examine a number of similarities and differences between human and biotic communities, concluding that the concept of community that inspired Leopold and his followers may turn out not be an appropriate model for our world. As Callicott himself notes in "Conceptual Foundations," the biotic community does not fit our standard conception of a human community. In his view, it doesn't fit because of the emphasis placed in the modern Western tradition on the importance of the individual and his or her rights.³² However, I believe that there are more fundamental differences. Here, I discuss three respects in which biotic and human communities differ utterly: species composition, types of relationships between members, and intentionality.

Biological and urban communities consist of populations interacting in such a way as to produce a dynamic equilibrium. This is a stable state, not in the sense that it stays the same—the population mix varies with the seasons and some species experience frequent population explosions followed by crashes and steady recovery. But there is a fluctuation around a norm, and the average

²⁹ Callicott, "Conceptual Foundations," p. 191 (emphasis in original).

³⁰ See Jon N. Moline, "Aldo Leopold and the Moral Community," *Environmental Ethics* 8 (1986): 99–120; Gus diZerega, "Individuality, Human and Natural Communities, and the Foundations of Ethics," *Environmental Ethics* 17 (1995): 23–37.

³¹ Callicott, "Conceptual Foundations," pp. 196, 198.

³² In a recent article, "Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethic?" *Environmental Ethics* 18 (1996): 353–72, J. Baird Callicott states that "The community concept in ecology is a metaphor" (p. 366); "Biotic communities [are] analogous to human communities" (p. 372). Thus, Leopold was a hunter, but not a murderer (Callicott, personal communication). However, a literal reading of Leopold suggests to me that he sought to broaden our conception of community rather than merely drawing analogies. More importantly, metaphor and analogy are meant to draw attention to the elements of two concepts, and the central feature of a community is surely the relationships between its members.

life of a species is hundreds of thousands or millions of years. Sometimes, cataclysmic events such as volcanic eruptions and major fires and climate changes such as ice ages destroy climax vegetation and its associated fauna and successional communities develop—lakes gradually become forest. At the other extreme, areas such as peninsular Malaysia have changed very little over tens of millions of years.

The science of human ecology studies human interactions on an ecological model, focusing on the relations between humans and their environment and the role of changes in the environment in shaping communities and their interactions. To some extent, we may indeed try to understand human communities on an ecological model. Some communities, such as those of the Australian Aborigines, were stable for tens of thousands of years, like tropical rain forests or Antarctica. Crossroads communities such as those of Bali and West Asia have successfully adapted to outside influences and invasions, paralleling the adaptability of temperate grassland and woodland communities. In contrast, Neanderthal society and many Aboriginal communities were destroyed by colonial and nomadic invasions, just as the marsupial fauna of North America were destroyed by the arrival of placental mammals. Yet others succumbed to environmental changes, and these extinctions may be compared to those of ice-age ecosystems in interglacial periods.

To continue the comparison, the areas where Rome, Sydney, and Johannesburg now stand may be seen as offering vacant niches which were occupied by opportunistic humans in the form of hill village, convict settlement, and mining camp respectively. These settlements gradually grew into small towns and, eventually, great cities. Other colonizations are temporary responses to disruption—military encampments, squatter townships, refugee camps—which will last just so long as the extraordinary conditions that made them possible continue, like transitional biotic communities after a major forest fire. Human history is too short to determine whether the metropolis—the human equivalent of climax forest, perhaps—is capable of achieving equilibrium. The history of many cities of growth, prosperity, decline and deconstruction into fragmented suburbs suggests otherwise, but the (so far) limited success of urban renewal suggests a possible cycle from decay to recovery to a new climax—albeit one that is characterized by car parks, banks, offices, theaters, and upmarket malls rather than the earlier urban environment of public transportation, dense housing, and small business.

Tempting though this analogy may be, it is limited. A major difference is that at all stages of development, a biotic community is characterized by a variety of different species, whereas urban communities are dominated by just one species and its associated microorganisms. The relationship between diversity and stability is uncertain and controversial, and the species mix can change without destroying equilibrium, but the loss of a large amount of biodiversity or even of one key species such as a pollinator or decomposer can cause the

whole community to unravel. Humans, of course, need other species to survive, but we do not need to live in a community with them. The interactions between humans and food are quite different from those in a biotic community, as Callicott has noted with regret,³³ and most of us who hunt, fish, gather shellfish, and grow fruit and vegetables do so largely for recreation. We only play at being hunter-gatherers and horticulturalists. We do not need to interact with the species that we eat, unlike animals which live in association with their food or, in the case of grazers, literally on it. An understanding of biotic communities is achieved by understanding the relations between various species, but there need be no such relations in a city.

A second difference is that human communities are controlled by the dominant species, via technology. It is true that even the most transformed environment contains populations of other species, but they are there only because we permit them (or are unable to eradicate them). It is humans who decide whether there will be urban woodlands, parks, gardens, wetlands, and dunes and, to a large extent, which species will inhabit them. There are also nuisance species—weeds, rodents, disease organisms, and their vectors—which we would eradicate if we could. A city is improved, from our point of view, if it has no rats and mice to spoil our food, mosquitos to spread malaria and dengue fever, thistles, poison ivy, aphids and insect pests to invade our gardens, and so on. If we encourage urban biodiversity, it is because we like to watch cute squirrels, to see and listen to birds, appreciate the shade, shelter and other environmental services provided by trees, value the relaxing, calming effect of semi-natural areas, and enjoy the companionship of cats and dogs.

The half of the human species that does not live in cities certainly has frequent contact with other species, but, again, largely on its own terms. Within the limits of the physical environment, farmers and pastoralists have transformed the areas where they live to suit *their own* requirements and preferences. A livestock farm contains a number of species of plants and animals, and a well run farm forms a sustainable community, but it is a centrally controlled community, and it exists for the benefit of the farmer, not for the sake of the plants and animals. There is no sense in which a biotic community exists for the sake of one species. Even when we set up a community to preserve a nonhuman species or an association of species—reserves to protect tigers, marine mammals, whooping cranes, elephants, penguins, or national parks to protect a type of forest, wetland, or desert—we do so because we value the species and choose to put resources into protecting it.

The most important characteristic that a human community has, and a biotic community lacks, is *intentionality*.³⁴ Humans, uniquely, are moral agents—

³³ Callicott, "Animal Liberation," pp. 335–36.

³⁴ This is not to say that intentionality is *sufficient* to form a community. Kurt Vonnegut, Jr., in his philosophical fantasy novel *Cat's Cradle* (London: Gollancz, 1963) introduces a number

they are the only beings that *intentionally* conform to social norms. When Arne Naess refers to “mixed communities of humans, bears, sheep and wolves,”³⁵ he is not describing a group of beings that *identify themselves* as a community. I question whether even the human members can authentically see themselves as members of a community with bears, sheep, and wolves. There are no mutually desired relationships between the “members” who mostly try to avoid interactions. Rather than a community, they are an assemblage, a collection.³⁶

To make my point about the nature of community clearer, consider, by way of a hypothetical-fantastic analogy, Annie, an astronaut who is stranded on a distant planet with no means of contacting earth. Luckily the planet is earth-like and supports beings with the same ecological requirements as humans, and indeed some human like beings have evolved. However, they have not developed intellectually, culturally, emotionally, and socially to the level that earth humans have. This situation is fine ecologically. Annie is able to interact in some ways with these creatures—she finds them rather like cats in human form and, being fond of cats, she is quite happy to be with them. But, not unreasonably, she misses what she had when she was a member of a *real* community where jokes are told, songs sung, trips planned and executed, and games of “remember when” played. Maybe she talks to them—I talk to my cats, though I don’t expect an answer—but she doesn’t have conversations with them. She might even have sex with them, although hardly sexual relations; perhaps she treats them as sex objects, since no mutual, equal, respectful relationship is possible. (When animals have sex among themselves, we call it “mating.”)

Annie, in short, finds herself in a community which is *ecologically* adequate but not *socially* adequate. Likewise, the humans in Naess’ romanticized example, albeit basically by avoiding each other, live in a certain biological harmony—what ecologists mean by a community—but the harmony required for satisfactory human life is social and interactive in a way that colonies consisting of just bees, or of bees and the plants they pollinate and feed on, or of bees, plants, and bee eaters, are not.

What, then, would an urban community look like? Minimally, it would meet

of useful concepts including a *karass*, which is a number of people who are engaged in a common enterprise, whether or not they realize it. The main reason for introducing this concept, I suspect, is so that he can tell us about a *granfalloon*, or false karass, which is a group of people who falsely imagine that they are engaged in a common enterprise. Examples include political parties, nation states, and some universities. The conception of community advanced here might be described in Vonnegut’s terminology as an intentional karass—a group who live together intentionally and who share common concerns.

³⁵ Arne Naess, “Self Realisation in Mixed Communities of Humans, Bears, Sheep and Wolves,” *Inquiry* 22 (1979): 231–41.

³⁶ I owe this point to Andrew Brennan, who also informs me that the last wolf in northern Norway was shot—by local people—in about 1990, thus leaving the “community” one species short.

whatever material and social needs humans have, and that have been met in past and present societies. No doubt there are many ways of meeting these needs: there had better be, because of the environmental differences—climate, terrain, topography, water supply, location, resource base—between different areas. What works for the Inuit, in the sense of providing for their needs and a reasonable proportion of their wants, will not work in New York City or rural Java. Different styles of community will be successful to the extent that they facilitate the flourishing of their members, though what counts as flourishing will be determined partly by culture.

The simplified individualistic picture of human nature presented by Maslow³⁷ in his “hierarchy of needs” suggests that all communities need to deliver certain goods in order that the members flourish. A community all of whose members are well-fed self-actualizers living deeply meaningful lives and surrounded by friends is one kind of ideal community—it is the realization of one ideal of human life. Of course, there will be more or less satisfactory communities, and sometimes we may not be able to decide whether we are looking at a very unsatisfactory community or something which is not a community at all. Slave-owning societies—where the interests of slaves simply do not count and no one (except the slaves) cares whether they flourish or not—and those modern cities where some people are desperately poor, ill, and homeless are *not* communities; or, more precisely, those whose needs *are* being met constitute a community from which the rest are excluded.

URBAN ENVIRONMENTAL ETHICS

Most of the literature in environmental ethics has little direct relevance to the lives of city dwellers. Three recent texts³⁸ contain between them nearly 200 readings, none of which deals explicitly with cities. Less than twenty-five percent deal directly with issues of pollution, resource use, population, economics, development, social equity, and other issues about how we ought to live in a world that continues to be transformed by humans.

I would go so far as to say that Leopold’s writings are largely irrelevant to modern human communities because he has so little to say about human-modified environments, other than agriculture. His best known, lyrical writings are celebrations of an existence in the wild. He exhibits no hostility to technology as such, and his contempt for modern (in 1948) “contraptions,” “gadgets” (p. 214) and “mechanized recreation” (p. 272) and “motorized tourists”

³⁷ Abraham H. Maslow, *Towards a Psychology of Being* (Princeton: Van Nostrand, 1968).

³⁸ Donald VanDeVeer and Christine Pierce, eds., *Environmental Ethics and Policy Book: Philosophy, Ecology, Economics*, 2d ed. (Belmont, Calif: Wadsworth, 1995); Gruen and Jamieson, *Reflecting on Nature*; Pierce and VanDeVeer, *People, Penguins and Plastic Trees*. I don’t mean to imply that environmental ethicists should become urban planners, just that they should address urban issues.

(p. 281) is balanced by his belief that the hunter and camper may “use mechanical aids, in moderation, without being used by them” (p. 215). But the examples he gives are of outdoor pursuits in an affluent society. Thus, in his short article, “On a Monument to the Pigeon” (erected in memory of the once abundant Passenger Pigeon, the last specimen of which died in 1914 in Cincinnati Zoo, Leopold states:

Our grandfathers were less well-housed, well-fed, well-clothed than we are. The strivings by which they bettered their lot are also those which deprived us of pigeons. Perhaps we grieve because we are not sure, in our hearts, that we have gained by the exchange. The gadgets of industry bring us more comforts than the pigeons did, but do they add as much to the glory of the spring?³⁹

That is fine for someone whose family is comfortably off, but again I am reminded of those who want, not *more* material comfort, but *some*.

Callicott evidently believes that Leopoldian thinking can be applied to the modern, developed world. Like Leopold, though, he has little to say about modern society. For instance, he asks how, if humans and other animals form a community, we can ethically allow and cause suffering and death to fellow members. This is an important question, but his attempt at an answer uses a model derived from Algonkian woodland peoples whose lives were very different from those in the “greenest” modern city. This is quite characteristic of deep ecologists who, when asked for examples or models of ecologically desirable life styles, invariably point to low density hunter-gatherer, pastoralist, or technologically primitive societies.⁴⁰ We can indeed learn broad principles from such societies, but they cannot be models of relationships with nature for us to emulate.

Almost everything that has ever been said about cities in general is true of at least some cities. Calcutta, Lagos, and Mexico City are huge, polluted, and full of homeless people. Parts of Johannesburg, Washington, D.C., and Detroit are like active war zones. Los Angeles has unbreathable air, Bangkok has impossible traffic conditions, Venice is sinking, London is dirty, and Salt Lake City is boring. San Francisco, Kyoto, and Cape Town are breathtakingly beautiful, Paris and Melbourne have great food, Prague is an architectural gem, Kuching is pretty, Singapore is safe, and Seattle has an exciting music scene.

All large cities have three things in common. First, they have dense and usually growing human populations, many of whom live in conditions that are not conducive to flourishing and in areas that have little if any natural vegetation, soil and water. Second, they are unsustainable at present levels of consumption and environmental impact. A recent Canadian book⁴¹ quantifies the environ-

³⁹ Leopold, *Sand County Almanac*, p. 116.

⁴⁰ See n. 30.

⁴¹ Mathis Wackernagel and William Rees, *Our Ecological Footprint* (Gabriola Island, B.C.: New Society Publishers, 1996).

mental effects of cities via a process called “ecological footprint,” which is an accounting tool for environmental resources. According to this technique, the ecological footprint—the area of land that supports the life style of a person, including energy, forestry, food, and other consumer products—of the average Canadian is 4.8 hectares. As an example, the Lower Fraser Basin, an urbanized area of two million people, uses the resources of an area twenty-two times larger than what is actually available in the Basin, and as the area’s population increases, so do its demands. The figure for large cities is even more dramatic—London’s population uses the productive output of an area 120 times the size of the city, while the figure for Vancouver is over 200.⁴² The deficit, the book notes, is “appropriated” from elsewhere by importing resources into the region (pp. 369–71). Third, they have centers of scientific and medical expertise and specialization, art, learning, sport, and recreation, which can exist only in densely populated locations. An environmental ethic for an urbanized world has to acknowledge all these facts and say something meaningful not only about the problems of cities, but also about their positive value. Without cities we would not have smog; however, neither would we have environmental ethics programs; nor indeed this journal.

As McHarg notes, “We need nature as much in the city as we do in the countryside,”⁴³ Earlier he wrote:

Once upon a time, nature lay outside the city gates a fair prospect from the city walls, but no longer. Climb the highest office tower in the city, when atmospheric pollution is only normal, and nature may be seen as a green rim on the horizon. But this is hardly a common condition and so nature lies outside of workaday experience for most urban people.⁴⁴

To the purist, there is and can be no nature in the city, but there are surely degrees of naturalness. London is a more natural environment than it used to be because various species of fish, birds and other life forms now flourish in the Thames, the parks, squares, and gardens to a much greater degree than was the case fifty years ago. London’s air is polluted, but less than would it be if it were not for the large protected park areas—there are three hectares of green space for every 1,000 inhabitants.⁴⁵ The extensive public spaces improve the quality of life for everyone, in contrast to cities where the only high quality open spaces are found in the suburban gardens of the better off. Projects that

⁴² William Rees, “Ecological Footprints of the Future,” internet edition of *People and the Planet*, special Habitat II edition, 1996, at <http://oneworld.org.patp/index.html>.

⁴³ McHarg, *Design with Nature*, p. 5

⁴⁴ McHarg, “Place of Nature,” p. 172.

⁴⁵ In contrast, Bombay—the fifth most polluted city in the world—has about twelve square meters per 1,000 people, though park areas are being developed and many trees planted via joint initiatives involving local people and government, business and various organizations, and an ambitious plan to turn five square kilometers of downtown Bombay into a “Clean Air Island” is underway. Charlie Pye-Smith, “Building Green Islands in Bombay,” in *People and the Planet*, n. 45.

degrade the urban improvement degrade it for everyone, but they impact much more on the poor, whose neighborhoods are divided by freeways and who work (or don't work) in the oldest, most neglected, least natural parts of cities, where biodiversity is reduced to a few highly adaptable species such as sparrows, pigeons, rats, cockroaches, fleas, and dandelions.

Because towns and cities usually grew up in fertile, well-watered land, when the urban environment declined over the century and suburbs grew up, some of the world's best farmland was covered in houses and roads. This change led to the conversion of surrounding areas into farmland, and the process continues with the move to exurban small holdings.⁴⁶ Most large cities are also located on coasts or navigable rivers and large lakes, thus impacting on the most ecologically significant and sensitive region, the land-water interface. If this relentless spread of ecosystem simplification and reduced biodiversity continues unchecked, the only moderately natural areas remaining will be in national and state parks and other reserves. These in turn will be degraded by increasing recreational use.⁴⁷

If inner cities were more pleasant places to live (which they would be if they were more natural), many more people would choose to live in them, thus reversing suburban and exurban drift and repopulating central cities with people who have a commitment to maintaining a cleaner and more natural environment. To some extent this kind of reversal is already happening in cities around the world, as decaying centers have been revived. Now that the rate of population growth is slowing worldwide and population levels in rich countries have stabilized, one of the biggest environmental challenges that we face is the reduction of population *spread*, which will happen only if we halt and reverse urban decay. Cities could be transformed, not just by grand-scale municipal schemes, but also by many small-scale restoration projects, on both public and private land, preferably focusing on indigenous vegetation. For instance, Tui 2000, a project in Hamilton, New Zealand, is aimed at recreating habitat for a native honey eater which is common in the native forest and is also found in nearby seminatural rural areas, but can no longer be found in the city. In addition to restoration by city councils, widespread involvement by local people is seen as a key to the project's success, for instance, individuals and schools planting large nesting and roosting trees and nectar-bearing trees and shrubs in their yards and volunteering to help with planting and maintenance of disused public land, discouraging and controlling introduced Indian mynahs and Australian magpies that harass native birds, and destroying introduced wasps that eat the nectar on which tui feed.

"Green" cities harbor more invertebrate, bird and mammal life, thus increasing biodiversity. Freya Matthews (personal communication) has pointed out to

⁴⁶ "The impulse to find more natural environments became the impulse that destroyed nature." McHarg, *Design With Nature*, p. 154.

⁴⁷ See Mark Morgan, "Resources, Recreationists, and Revenues: A Policy Dilemma for Today's State Park Systems," *Environmental Ethics* 18 (1996): 279-90.

me that people need to be around nature, not just because it is enjoyable and for the sake of their psychological health, but also so that they can see why the environment needs to be protected: people who have never experienced relatively undisturbed natural environments are unlikely to have any sense of its value and why it should be preserved. Urban fruit, vegetable, and flower gardens provide food⁴⁸ and aesthetic pleasure and promote a community spirit and an understanding of and identification with natural processes. I would like to see environmental ethicists working with city officials, conservation societies, community groups, school, church, and other religious centers and residents' associations and business to develop and promote a range of environmental enhancement and restoration projects.

Most importantly, urban environmental restoration will not work if it is imposed from the top. The poor are fed up with researchers, task forces, and do gooders telling them what is good for them. The top-down "War on Drugs" program has been an utter (and predictable) failure and has resulted in ridiculous incidents involving suspension of students for possessing medications such as mild painkillers that anyone can buy in any store. Meanwhile, children continue to sell each other crack cocaine and heroin and to drive around shooting at each other—a clearer case of rearranging the deck chairs on the Titanic could not be imagined. Successful initiatives are usually begun at local level, often by churches. Urban restoration projects are also more likely to be successful if they are initiated and carried out by local people with government and business providing resources and technical advice. A good example that combines environmental restoration and justice is Water for Life, an engineers' organization that responds to requests from communities for assistance with water supply and wastewater disposal. Volunteer engineers design simple, small scale projects in cities and villages in collaboration with local people and oversee their construction. Most materials are locally sourced. The organization, which is funded by members and supporters, also provides materials that cannot be locally sourced. Each project improves public health (and in rural areas frees women from the burden of carrying water for great distances for their families) and improves water quality by reducing pollution, thus increasing biodiversity and abundance of aquatic life.

CONCLUSION

Cities are not inherently cancerous, as Frank Lloyd Wright thought. Life in most large cities can be heaven or hell, largely depending on whether the

⁴⁸According to one study, almost a third of urban households in Kenya farm crops in town, and the average production of urban farm plots in the capital, Nairobi, is 9,000 kilograms per hectare; forty percent of the urban farmers interviewed in the study said they would starve if they were unable to continue to grow food. Diana Lee-Smith, "Time to Help the City Farmers of Africa," in *People and Planet*, n. 45.

citizen is rich or poor. The obligation to make cities habitable is a matter of both environmental health and justice, and the two are connected because it is the poor people who live in the most degraded environments, where environmental quality is low and crime rates are highest. The conditions that degrade the natural environment also degrade the people who live in it, and those people are likely to care little about the natural environment, partly because they are so unfamiliar with it. Thus, environmental ethicists should concern themselves with urban environmental restoration.

Environmental ethicists can promote environmental justice as citizens, by politically and financially supporting suitable projects. We can also contribute by promoting environmental justice in our writings in professional and general interest publications and via our membership in conservation and community groups. If we are seen as promoting and supporting environmental justice, people will take us more seriously when we advocate the protection of wilderness and biodiversity, rather than, as too often happens, dismissing us as elitists.

In chapter one of *Design with Nature*, McHarg contrasts the “two diametrically different environments” in which he grew up in the 1930s. McHarg lived about fifteen kilometers from Glasgow, “a no-place, despondent, dreary beyond description, grimy, gritty, squalid, enduringly ugly and dispiriting” whereas in the opposite direction “the path was always exhilarating, and joy could be found in quite small events.” Yet,

... in spite of the excoriation of Glasgow, this memoir is not the catalogue of an evolving prejudice in favor of the country and against cities. . . . if we can create the humane city, rather than the city of bondage to toil, then the choice of city or countryside will be a choice between two excellences each indispensable, each different, both complementary, both life-enhancing. *Man in Nature*.⁴⁹

If environmental ethics needs a patron saint, it should not be Aldo Leopold nor, for that matter, St. Francis, who was declared the patron saint of ecology by the Pope in 1980. I propose Ian McHarg.

⁴⁹ Roderick F. Nash, *The Rights of Nature* (Madison: University of Madison Press, 1989), p. 93.