**Urban Ecology**

For many the phrase “urban ecology” is an oxymoron, as urban development inevitably disrupts and destroys ecosystems. Yet with more than half the world’s population living in cities, we must learn to live more ecologically in urban environments. Solving urban problems begins with seeing each city, with its suburbs and surrounding countryside, as an evolving landscape within nature.

“The city is a granite garden, composed of many smaller gardens, set in a garden world. Parts of the granite garden are cultivated intensively, but the greater part is unrecognized and neglected.” To those with eyes to see, “nature in the city is far more than trees and gardens, and weeds in sidewalk cracks and vacant lots. It is the air we breathe, the earth we stand on, the water we drink and excrete, and the organisms with which we share our habitat.”

Nature in the city “is dogs and cats, rats in the basement, pigeons on the sidewalks, raccoons in culverts, and falcons crouched on skyscrapers. It is the consequence of a complex interaction between the multiple purposes and activities of human beings and other living creatures and of the natural processes that govern the transfer of energy, the movement of air, the erosion of the earth, and the hydrologic cycle.”**1**

Achieving a more ecological view of cities does require a new approach to urban planning. Nature’s ecosystems have a circular metabolism. Every output discharged by an organism also becomes an input. The web of life hangs together in a “chain of mutual benefit” through the flow of nutrients passing from one organism to another.**2** Cities also offer many mutual benefits for those living in them, but the largely linear “metabolism” of cities has devastated the natural environment.

Now, however, many cities are striving to create a circular economy that includes reducing pollution and recycling (and even upcycling) waste. City leaders realize that sustainable urban life involves creating “an adaptive, resilient, evolving, self-organizing” system that provides “a sustainable livelihood, whose ecological footprint is minimal, and which interfaces with natural systems in a way that promotes ecological integrity.”**3**

Does your city and county government understand and accept this “circular metabolism” view of city planning? If so, it should have a financial plan to upgrade recycling, transform trash into energy, and compost commercial and residential food waste for use in public parks and by residents in their yards and gardens. Buses using fossil fuel should be replaced by electric of hydrogen powered buses. Charging stations for cars should be available throughout the community. Vacant lots and flat roof tops should be gardens.

A balance of wild animal life in the city should be protected. Pesticides should not be used to kill rats, mice, squirrels, raccoons, deer, birds, butterflies, bees, ants, termites, spiders, or other insects unless there is no alternative way to maintain human safety and valuable property.

**If you embrace this vision of circular metabolism, I am sure you will discover more creative choices.**

Robert Traer, *Doing Environmental Ethics* (Routledge, third edition 2020).

1 Aaron Glantz, “In Historic First, World Population Now Majority Urban,” *OneWorld.net*, May 30, 2007, http://us.oneworld.net/article/view/149798/1/2091.

2 Herbert Girardet, “The Metabolism of Cities,” in Stephen M. Wheeler and Timothy Beatley, eds. *The Sustainable Urban Development Reader*, 125.

3 Kay, “On Complexity Theory, Exergy, and Industrial Ecology,” 96.