



# GEORGOFILI WORLD

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## WHAT IS A GREEN CITY?

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Before proceeding to answer this question, a few terms must be defined. First, even if the specific challenges that the city centers are facing are often highlighted in articles, the term "city" generally refers to a broader metropolitan area. For example, "Milan" represents the large metropolitan area surrounding the city, not just the city lying within the city limits. The

same applies to other major cities in different parts of the world, such as Chicago, London, Tokyo, São Paulo, etc.

A metropolitan area is made up of a central area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that nucleus. Metropolitan areas may therefore include several cities/urban agglomerations. Focusing on metropolitan areas makes sense because the majority of people and jobs are concentrated in metropolitan areas (over 50% worldwide and 70% in Europe), but outside of the proper "center".

Defining a "green" metropolis is a more difficult task. Most of us have an intuitive sense of what defines a green city, like Portland, Oregon, as compared to urban centers defined as "gray", like Mexico City.

Apart from having cleaner air, green cities also encourage "green behaviors", like the use of public transport, with their environmental impact being relatively low so as, in some cases, to almost arrive at zero impact. Can this definition of a green city be translated into objective indicators of urban environmental quality?

In this sense, there are different types of evaluations. Environmentalists stress the importance of monitoring the size of a city's ecological footprint. This approach focuses on what people consume and how much carbon dioxide is produced as a byproduct of urban consumption and manufacturing.

Instead, public health experts have concentrated on health consequences resulting from exposure to air and water pollutants as well as other environmental factors that favor the onset of diseases. On the basis of this approach, a city is considered green if the incidence of diseases related to environmental issues is relatively low. Lastly, many economists evaluate the urban environment by examining the differences in real estate prices in various cities (with varying degrees of "green"), at a point in time or for the same city over time according to the purely hedonist principle starting from the assumption that real estate prices are affected by the presence or absence of a given environmental asset and, therefore, establish the magnitude of the environmental effect. In accordance with this principle, if house prices are much higher in the city X (green) as compared to Y (gray), this suggests that people prefer to live in X in part because of its superior environmental quality. Each approach has its advantages and disadvantages. Equally important is that the three approaches can lead to different conclusions about urban environmental quality. For example, some cities have low levels of local pollution and a high quality of life, but generate relatively high levels of greenhouse gases.

Are they "green cities"? The answer to this question depends on the priority given to local urban challenges, like smog, with respect to such long-term global challenges as climate change. This problem can be addressed by proposing a combination of various indicators to create a "green city" index. Although the data necessary to construct this index are currently lacking, this exercise helps to clarify what we mean when we say that a city is

"green." My opinion is that a green city should score high both locally, and globally. In other words, besides enjoying the benefits of clean air and water, its residents are to avoid imposing negative externalities on the people who live beyond the city's borders.

To correct the ecological damage caused by today's "gray" city, we must in fact change our perceptions. It is impossible to get out of the urban ecological crisis with the same kind of thinking that created it. We must learn to think "ecologically" and learn how to integrate new, and sometimes seemingly paradoxical, ways of thinking and perceiving. We must consider and plan cities as if they are living systems that use, transform, and release materials and energy, that grow and adapt, and that interact with living beings and other ecosystems. They must therefore be managed and protected like any other ecosystem. By rethinking urban design, architecture, and transport planning, we can transform our cities and urban landscapes into "urban ecosystems", at the forefront of mitigating and adjusting to climate change. In this way, new job opportunities are created, developing the market for new technologies and landscape architecture: a city is, therefore, a human ecosystem in a landscape.

Moreover, from a functional point of view, ecosystems supply most of the goods and services needed for our basic existence that, among the various functions, include UV protection, water purification, supplying oxygen, flood protection, and climate control.

As mentioned, these services known as "ecosystem" are essential to civilization and are increasingly endangered by such large-scale human activities as urban sprawl, wetlands destruction, deforestation, and pollution. In the long run, society must ask itself questions on how we should build cities to preserve ecosystem services and what the city would look like if its structure were in part a manifestation of these life processes. These questions have no simple answers because, to quote Wendell Berry (author of the famous "Manifesto: The Mad Farmer Liberation Front"), many of us are only inhabitants while others live in their place (citizens). The same can be said for cities. The green city cannot remain merely a set of abstract, portable, and stereotyped ideas. The green city is found in a particular place that is the area in which we carry out our lives. Its topography and natural features make powerful perceptual containers that increase our awareness.

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