

Laying Plans for Metutopia

from “The Meteorologically Utopian City” by Helmut Landsberg, in BAMS, February 1973

The cities, once the pride of nations, are decaying. Were it not for historic sites in some, or centers of communication and commerce in others, their doom as slum sites would be sealed...There are inescapable estimates that in this country between 20 and 30 million more people will have to be housed by the end of the century. There are other reasonable projections that new technology will permit, by that time, all the nation's crops to be raised with 3% of the work force. That will further intensify the flight from farm to town. All in all, there will be a dire need for more urban settlement...

[H]ow should a town be built and function? This question will be answered quite differently by persons of different background...We may ask ourselves: Do we have anything worthwhile to contribute?...Let me attempt an answer here. It will be given with an avowedly meteorological bias...

[U]rbanization invariably accelerates the runoff process and raises flood peaks...So meteorological

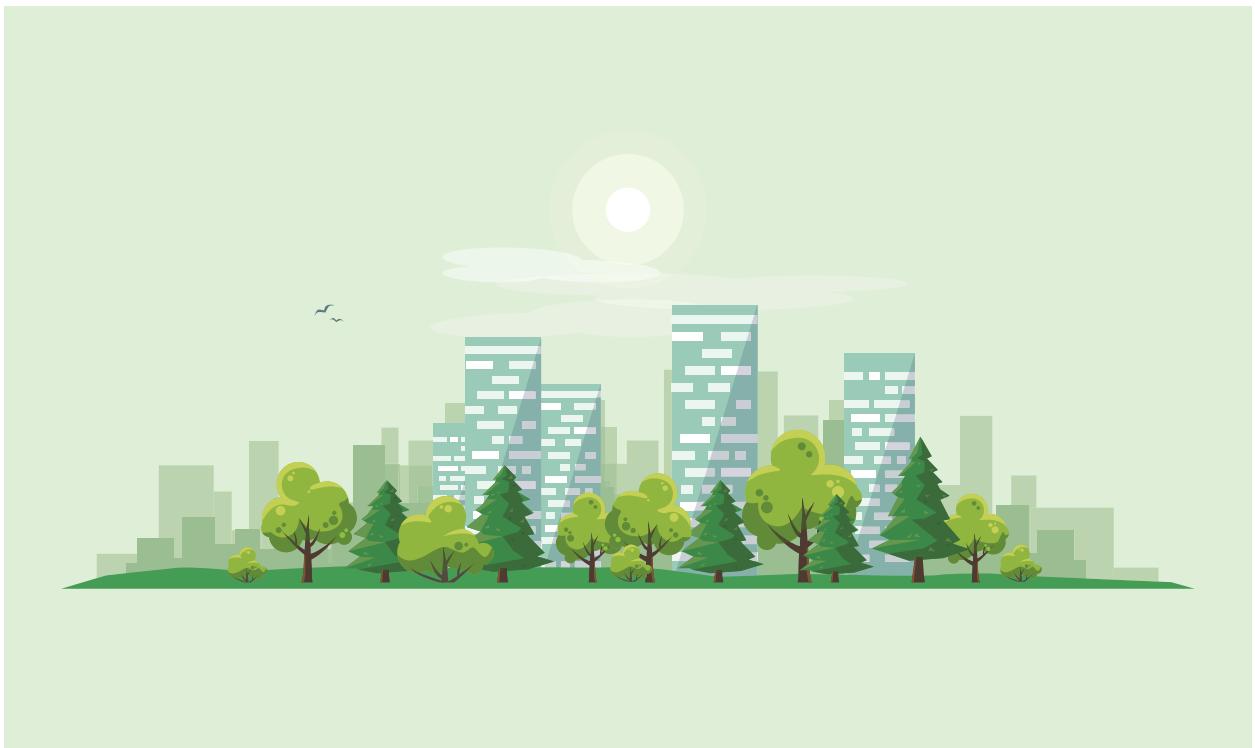
rule number one is not to use the flood plains, and a little more land above them, for houses and buildings...

Just as in the case of the floods, the summer heat island problem suggests that in our Utopian town we would leave as much of the surface as possible covered by vegetation...

In the Utopian town—let me call it Metutopia... wherever feasible new trees would be added. But we would also reduce the needs for surface space, much of which is now occupied by parking lots. In the first place these needs will be lowered by reduced use of cars...and whatever cars remain necessary will be parked underground or under buildings.

...In higher latitudes during the cold season, when spare heat might do some good, much better use will be made than at present of rejected heat from furnaces, factory smoke stacks, and

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cooling towers. Instead of dissipating this heat into the atmosphere—and perhaps producing unwanted weather modifications...this heat is to be channeled through smoke sewers under uncovered sidewalks, streets, highways, and bridges to melt snows that cause accidents and traffic jams. This will eliminate the need for expensive snow clearing equipment, standby crews, and ecology damaging salts. Centralized collection of smoke will also make deactivation of obnoxious effluents easier. In summer the heat rejection from furnaces will not be a factor, and that from other sources (such as power plants) can be diverted to horticulture, agriculture, and open air swimming pools...

When it comes to cars, trucks, and buses, the heavy hand of government is trying to regulate emissions and enforce its regulations. I am not very sanguine about the chance of success...In Metutopia the harrassed commuter, the shopper, and the school children will be offered adequate, that is, frequent and cheap, high speed, non-polluting electric transportation...

Obviously, Metutopia will not have incinerators, but burnable trash that cannot be recycled will be burned for power generation...However, by and large one will look toward atomic energy for the generation of electricity...

Metutopia should certainly not be located in the Southwest or in southern California, nor in central or southern Appalachia. There, air pollution potential is high and as long as agglomerations of people and their activities produce effluents—perhaps an unavoidable condition for some time—growth in these areas has to be curbed.

Others will have to address themselves to the question of optimal size for a city. But to the meteorologist it is obvious from the available analyses of present towns that the atmospheric effects emerge measurably with 10,000 inhabitants and become very pronounced perhaps uncontrollable, with a million inhabitants. As land utilization is becoming an important issue, it is my hope that meteorologists will become prominently involved in the planning processes and will use their professional competence to build with other professions livable cities of the future.



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