

Lesson 11: Designing the City of the Future

Background for Educators

Some Native Species found in Mannahatta's Waterfront Communities:

Marine deep water and tidal river: blue crab, American shad, snowy egret, harbor seal, Atlantic sturgeon, bald eagle, loggerhead sea turtle

Marine eelgrass meadow: graceful red weed, sea lettuce, horseshoe crab, American black duck, northern quahog, naked goby

Maritime beach and tidal mudflats: Eskimo curlew, osprey, harbor seal, horseshoe crab, blue mussel, sand fiddler crab, eastern hognose snake, tiger beetle, sand dune sandbur

Salt marsh: great blue heron, snowy egret, black sedge, blue mussel, sand fiddler crab, diamondback terrapin, American bittern, lined seahorse, seaside sparrow, osprey, inland saltgrass, river otter

Thinking Forward to the Future City:

[From Eric Sanderson's *Mannahatta: A Natural History of New York City*.]

Manhattan is the quintessential example of a meaningful city in early the 21st century. Manhattan has over 1,200 churches, synagogues and other places of faith. A recent summer spawned 124 street fairs and festivals, 36 parades, and at least 85 free outdoor concerts; there are over 18,000 places to eat-out in New York City. Manhattan provides extraordinary opportunities for epicures, sports fans, dog lovers, film buffs, art viewers, musiophiles, ball players, hipsters and parents. Of all the ways in which people find meaning in the world, the one which is not satisfied to the hilt in Manhattan is the one that the original dwellers on Mannahatta, the Lenape, found most important: a connection to nature.

It's not that the connection to nature is entirely absent. What would Manhattan be without its great Central Park, a respite of greenness in the stony city? Or the forests of Inwood? Or the stirring waters of the harbor and rivers? All the parks and open places give to the consciously looking some sense of the natural world. Even for those who choose not to look, the natural world unceasingly asserts itself in thunderstorms and snow drifts, in bird migrations (and collisions – darn those glass-walled buildings), in coyotes and turkeys (or a beaver!) sneaking back into the city. Even for the unconsciously seeking, nature lurks, offers herself, pirouettes in small, quiet places, while we rush on to the next appointment.

The problem is that the other requirements -- of food, water and shelter -- for 1.5 million people, accommodating another million workers and perhaps a 120,000 tourists per day, gets in the way of whatever the rest of nature might want to do. Not only are the material requirements for that large number of people huge, but the costs of getting those materials to an island of concentrated humanity magnify the requirements exponentially, as we dedicate large swaths of our city and our atmosphere to transportation and extend the reach of the city until it embraces literally the entire world.

If we recall our Lenape friends living on Mannahatta in 1609, we can conclude without much trouble that they met nearly all their requirements from the environs of Mannahatta and they and their ancestors did so for perhaps as many as a hundred and fifty generations prior to Hudson. Their resource-shed, in analogy to a watershed, was Manhattan and the local waters. They found their food in the wild-growing plants and animals and what they grew themselves; they drank local waters supplied by local rain; they built shelters from the trees that sheltered their island. If they peeled the bark of too many trees, if they burned the land too harshly, if they over-extended their harvest of deer for lust beyond necessity – they knew it because they lived it, with scant margin for a second

chance. As a result, they were not wasteful, they were careful, and they found meaning in living and supporting a world that lived and supported them.

There is no going back, but there is going forward. The conundrum of the modern world is that we need to provide habitat requirements for 6.6 billion people (and rising) while simultaneously minimizing our impact on the planet. So far we have only taken the first part of this challenge seriously, developing a truly remarkable economic system that by and large delivers the goods, though not in a particularly equitable fashion.

But, alas, in our rush to secure the basic requirements, we have neglected the second half of the statement: the necessity to minimize our impact. No self-respecting Lenape would cut down three trees where one would do – what would be the point? – but our American way of life seems predicated on doing just that, much to the consternation of many of us, whom, having secured the basic habitat requirements, want more meaning, and less smog, congestion and disposable shrink-wrapping plaguing our lives. As the recent outrageous success of hybrid cars has shown, all other things being equal, why wouldn't you pick a car that uses less gas, produces less pollution and still gets you to work?

In no place are these choices clearer, or more compelling, than in cities. Cities with their über-populations face these questions every day; cities with wealth have the opportunity to try new solutions to old problems. And cities are becoming the way of the world. Although we are only vaguely aware of it in America, twentieth-first century humanity is on a major urbanizing trend. The United Nations predicts that by 2030, more than 50% of the world's population will live in mega-cities of 10 million people or more. The New York was the first mega-city in the history of the world (in 1950). Can the relentless energy and drive to create the future, and forget the past, which has characterized New York since Dutch days, be harnessed to create cities which are livable and sustainable?

Fortunately for Manhattan many of the fundamentals are still in place – not only is New York endowed with a gorgeous and recovering estuary, a diverse flora and fauna, and more than a few green corners, New York is also blessed with a well-educated and affluent populace, a bully pulpit in media and communications, and a diversity of perspectives and experiences literally drawn from all over the world. No one loves their place as much as New Yorkers do; how shall we express our love in our neighborhoods, on our islands, in our hearts, for our city?