A Conversation with Alexandros Washburn
October 15, 2013

Alexandros Washburn
Chief Urban Designer
New York City

Interviewer: Michael Simpson
Chair, Department of Environmental Studies
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Alexandros Washburn is the chief urban planner in NYC and author of *The Nature of Urban Design*. More than an Architect, Alex brings substantial city development experience to his position and his writing. Previously, he was the Pennsylvania Station Redevelopment Corporation President, and Public Works Advisor to Senator Daniel Patrick Moynihan. In *The Nature of Urban Design* Alex seeks to empower urbanites and lays the foundations for a new approach to design that will help cities to prosper in an uncertain future.

Michael Simpson is chair of the Department of Environmental Studies at Antioch University New England (AUNE). A licensed wetlands scientist, Michael actively researches and consults on the impact of climate change on land, infrastructures and communities, and was instrumental in developing AUNE's new MS in Environmental Studies with a concentration in Sustainable Development and Climate Change. Michael is currently helping to spearhead a project to prepare communities for impacts from changes to land use in the context of climate change trends under a National Oceanic and Atmospheric Administration grant. Michael will lead the interview.
The Nature of Urban Design

A New York perspective on resilience

Alexandros Washburn
even television stars. He had been a magnet for intellect in a broad range of fields. The political scientist Michael Barone had called him "the nation's best thinker among politicians since Lincoln, and its best politician among thinkers since Jefferson." What had attracted me to him was his record of building. He was the one who had transformed Pennsylvania Avenue in Washington, D.C., from a slum to America's Main Street, who had fought to reverse the effects of highways on America's downtowns, and who had saved numerous landmarks of architecture from destruction, including...
transformation
Paley Park on 52nd Street in midtown Manhattan is tiny, almost hidden, but its waterfall and grove of honey locust trees instantly calms you. My daughter Lelia was mesmerized.

(Credit: Alexander Washburn)
resilience

Integrated into the better-established notion of triple-bottom-line accounting, which seeks to evaluate a decision’s effect on “people, planet, and profit.” But the econometrics I am imagining are not immediately suited to the accountant’s ledger. They require integrating abstract strategies of risk avoidance. Mitigation, which deals in quantities of greenhouse gases not emitted, and adaptation, which deals with climate disasters avoided, are both successes if nothing happens. Both have different units of measure as well as processes of measure, the former hypothetical, the latter stochastic. Where they are related is through the notion of risk.

Risk = probability x consequence

New York City has a higher hurricane risk than New Orleans. Though the probability of a hurricane strike is lower, the consequences, because we are a larger city, are higher. Econometrics would use the risk equation to set up a decision-making relationship between mitigation and adaptation. Mitigation can be understood to affect probability: it can lower the index of greenhouse gases in the atmosphere and thereby generally help reduce the energy in the weather system and decrease the likelihood of future extreme weather events. Adaptation can be understood to affect consequences: a seawall might protect a city from a given storm surge. If my neighborhood had had a fourteen-foot-high seawall, there would have been very few consequences from Sandy’s storm surge. Of course with increasing greenhouse gases, the likelihood of the next storm surge being higher than fourteen feet is greater. Therefore, adaptation and mitigation are linked. The shorthand equation might read:

Risk = (probability – mitigation) x (consequence – adaptation)

So if we want to manage climate risk, everything we do should be designed to either lower probability or lower consequences. In other words, if there is no mitigation today, any adaptation will be overwhelmed tomorrow. But by writing equations, I don’t want to imply that a mathematical system of econometrics currently exists; it does not.
Sandy floodwaters outside of the author’s home.
Every month, approximately four million people leave villages and countryside for the fringes of an already established city.

and by extension, the true urbanite, “secretly believes that people living anywhere else have to be, in some sense, kidding.”

There is a wondrous attraction of cities, as powerful as our imagination. People so much want to live in cities that their migrations result in forming the equivalent of a city the size of Paris every month. But this is a woefully misleading statistic, which might suggest the monthly unveiling of a lovely new city with cafes, boulevards, art museums, and a great subway system. But the reality of rapid urbanization is nothing of the sort.

Every month, approximately four million people new arrivals to cities, statistics show they have probably made the right bet if they are looking for a better life. As a measure of prosperity, the World Bank records economic density—the amount of economic activity that takes place in a given land area—and finds that it correlates with urban density. Cities are indeed the land of opportunity. Today there are just over three billion people living in cities. According to
Compared to politics and finance, design is always the weakest force in determining whether a project gets built. Moreover, in the process of urban design, the window of opportunity for design opens only briefly. When politics decides on a course of action and finance figures out a way to make money at it, there is little time left for design changes. The window shuts and the frenzy of building begins based on the plans at hand.

The urban design process is always in a state of tension with politics and finance: though a weaker force, urban design is by definition a long-term enterprise, and therefore must challenge the assumption of compromise in politics and the profit motive in finance, both of which tend to the short-term. By always seeking to put transformation in a larger context, urban design plays the necessary role of helping a society see the forest for the trees.
The regulations and zoning of New York City have shaped not only the city but the buildings, sometimes with amazing results, as in the Chrysler Building. [Credits right] Skye Duncan. [left] Photo © David Pedre. Courtesy of iStockphoto.)

findings. The law changed the status quo of building in New York to ensure that light and air reached the street and no building occluded it neighbors. The urban design rule precluded boxy towers; instead, buildings competed for the tallest and most remarkable pyramidal form. The law stood the tests of the courts and the markets, and it guided the complete transformation of New York with masterworks such as the Chrysler Building. The rule is set out on page 109 in the section on form-based codes, but 1916 zoning achieved some pretty good urban design results for a relatively simple rule.

Those rules formed a status quo for almost fifty years. They were finally restructured by the 1961 zoning resolution, an urban design revolution that got rid of the earlier zoning's setback requirements. These had made it difficult to build cheaply the large, repetitive floors of office space piled high that developers wished to erect in the booming city.

Yet the public argument against the old zoning was that it provided too much space and the city would grow too large. The argument went that if the developer were allowed to build out the permitted building volumes on existing plots, the city would expand regardless of the need.
careful observation and a degree of critical thinking in deciding where to put the next line; the act of drawing forces you to filter and prioritize what is important about a place. Though critical faculty may operate subconsciously in a swirl of ink, the bottom line is that taking the time to draw forces you to look, and by looking, you learn. That is what I mean by observation.

If a place is worth remembering, it is worth measuring. A measuring device is an indispensable tool in observation, and as long as you record dimensions in a sketchbook, the device need be nothing more obvious than the length of your stride as you walk across a square. There is a ruler on the cover of this book for more precise measures. Use it. A camera is also a measuring device. If you know the dimension of one element in a picture, say the height of one story in a building facade, you can extrapolate most other dimensions in the picture.

I emphasize dimensioning as integral to observation because the success of a public place can depend on just a foot more or less for a sidewalk. By observing the dimensions of spaces you love, you will come to recognize commonality in certain critical dimensions. You will then be prepared to advocate and defend similar public space dimensions when they are challenged later in the design process by opposing interests.

Ultimately, it is the life in the space that you want to get to know. This requires little more than a “hello.” People love to interact, and by talking to them an urban designer acquires many new sets of eyes with which to see the space. Shyness is rarely a barrier if you are drawing; people will always come up to see what you are sketching.
highlights the great carbon savings of walkability, giving us our first best hope in helping our cities combat climate change. This leads me to believe the era of growth during cli-

Therefore, that simplistic, it also allows as a proper decisions. By applying the pe- provides an edge everything from streets of clients own door-to-door trip compared more sustainable to "walk" train rather than flying or.

The client is infrastructural decisions can client isn’t resiliently applying the pedes-trains the person and can be led to me that the dictionary itself, to gove New York’s streets, pedes-for-profit gro- have written songs about advantaged, i the world as exhilarating as All are stakeholder evening. This applies to the process -way neighborhoods. I have
er Center, and also on 37th

gout of the density, the divers-suppose pulsing through a public and so and my values are to make an urban action I take, difficult process requires the appl-usuallyistent point of view. No mat-region might feel the urban design into though it with the right values transpost pedestrian, and my values

of the tools. I saw this interesting contrast of people doing creative work, more creativity to the growth of my city and the improvement of its civic life. But in the urban design process, my values matter little. It is the ability to let a community see through a common point of view and to act upon shared values that changes first the
Unused, the High Line structure had long ago faded into the background, a silent mass of steel hovering above the street, its abandoned roadbed snaking through the neighborhood. At a community meeting to consider the demolition, two young local men happened to sit next to each other. Both had been intrigued by their neighborhood landmark, the giant steel structure sprouting trees. But neither had thought much about it until they realized it was threatened. They decided to save it. The structure would become a strange but beautiful, the structure had gone to seed over the decades, now it sprouted strange but beautiful.
In 2008, landscape construction and planting begins.

In 2009, section 1 of the High Line park opens to the public from Gansevoort Street to West Twentieth Street (June 9).

In 2010, in less than a year since opening, the two millionth visitor arrives at the park (April).\(^1\)

In 2011, section 2 opens to the public, from West Twentieth to West Thirty-sixth (June 8).

In 2012, the High Line had more than 4.4 million visitors, becoming the city’s most-visited park per acre.\(^2\)

Co-founders of Friends of the High Line, Joshua David and Robert Hammond on the third section of the High Line before its completion. ([Excalibur Photo by Joan Gavrin courtesy of Friends of the High Line])

@washburnync
Transfer mechanism used by the Department of City Planning. [Credit: New York City Department of City Planning]

Here is where the rezoning solved the problem of how to satisfy the economic interests of the owners of the land under the High Line and remove their opposition to the park. The definitions section created a High Line Transfer Corridor, defining it as “the area within which the High Line is located, where development rights may be transferred to receiving sites.” The receiving sites were in the new residential perimeter. The owners of the land under the High Line could sell their development rights to these developers, let the High Line stand, and make a smart profit.

There was so much demand for the development rights that the zoning could include a tool to increase the neighborhood’s supply of affordable housing in the same deal. In addition to the transfer of rights off the corridor,
The High Line as experienced from an apartment above. (Credit: Jeff Shumaker)
My three bosses: we did...
Transformation is the everyday business of urban design. In this closing chapter I examine the specific urban design strategies that can guide our cities’ growth to be sustainable and resilient. I propose a framework for evaluation of these strategies—a set of “ecometrics” that can help make real-time urban design decisions in support of long-term environmental goals. Project examples are examined from around the world that incorporate those strategies in their designs, leaving each city better adapted to its environment, more resilient in its operation, and more creative in its generation of resources, and in the process, richer in its civic life. And finally, I come home to Red Hook, Brooklyn, and ask if those same strategies can change my neighborhood, too.
Bubbles on a New York City street showing the percentage of carbon emitted by various sources.

(Credit: Alexandros Washburn)
boundaries, but instead uses finer-grain divisions called census tracts and then aggregates them into an MSA, which, in the case of the New York MSA, crosses the political boundaries of three states and hundreds of municipalities.

The choice of boundary, as we saw in the comparison of New York and Hong Kong, is critical for an honest comparison. And within each boundary, the choice of variable to be sampled is similarly critical. In trying to define what a city is, metrics and intuition, boundary and variable, must be made visible.

The complexity of a city can not be addressed with a single variable, such as population density; in fact, there is no limit to the variables we can use to describe a city. These variables could reflect what we care about in a city. They could be demographic variables and sample ethnicity or education levels or income; they could be infrastructure variables and sample sewer capacity or transit speed; they could be cultural variables and sample schools, museums, performing arts centers.

The accuracy of mapping has improved considerably through modern techniques of satellite imagery, laser radar, and building information systems so that a boundary can be drawn at almost any scale. The city of Sydney is working on a project to map not just the function of every building, but even the function of every room in the city.

But the true revolution in mapping is the ability to accurately associate diverse information to points on a map.
Through the blizzard of statistics it generates, the government of Singapore has determined that the best way to secure the city against climate change is to work with nature and not against it, building nature into the very fabric of the city. It recently named the former parks commissioner to be in charge of the city’s urban redevelopment agency, the most powerful arm of government in shaping the city. In tropical Singapore, combining nature and urban development gives a new twist to the term “concrete jungle.”

Singapore is betting that its success in managing the city is tied to its success in managing the environment. “Managing” is the key word, rather than “protecting,” as is typical with government agencies charged with dealing with the environment. Singapore recognizes that the environment is not something so fragile that it has to be insulated from all human activity. Instead, it has to be respected as a powerful force that can either help or hurt human development. To grow while protecting the city from the risks of the natural environment while also protecting the environment from the excesses of human activity is Singapore’s mission.

What is fascinating about Singapore is not only its environmental sustainability, but also its ability to fuse nature into the fabric of the city, creating a harmonious balance between human activity and natural processes.
the rules keep changing. A couple of months ago, the mayor issued an executive order mandating higher levels for rebuilding. Then the federal government issued a new set of standards—advisory base flood elevations—but now these are rumored to be changing. The new flood height is almost five feet above

I want to be able to evacuate, and when I return, get my house back up and running quickly and on my own. So I have come up with ideas for floor panels that I can attach with cables to new ceiling beams, and when the evacuation order comes, I can crank the floor panels up out of the reach of flood waters,
Flood wall as park; Copenhagen’s historic defense walls offer a precedent.

(Credit: Alexandros Washburn)
transformation

Favela child, Brazil.
(Credit: Davis Thompson-Moss)
The Nature of Urban Design

a New York perspective on resilience

Alexandros Washburn

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National Climate Assessment Series

Preparing the Nation for Change: Building a Sustained National Climate Assessment Process
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International Environmental Security Series

Session: International Water Security
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Hypothetical Scenario: A Middle East nation leases agricultural land in Ethiopia

February 4: panel on geo-engineering
Hypothetical Scenario: India decides to deploy aerosols to combat warming

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