



ESSAY

Top-Down and Bottom-Up City Building

What Makes Urban Design Work

Urban design is the understanding, balancing and orchestration of politics, finance and design, argues **Alexandros Washburn**, Visiting Fellow of CLC. And for cities to succeed in urban design, there must be a commitment to enable a mix of top-down and bottom-up approaches to city planning.

Nothing important can be built in a city without an alignment of politics, finance and design. Politics is the strongest force of the three, determining the purpose and whether something can be built at all. Finance is the multiplier, allowing the project to scale at the speed of capital flow. Design is the weakest force. When politics decides on a course of action and finance figures out a way to make money at it, little time is left for design. Yet that time is critical to the success of a project—and to the success of a city.

Understanding, balancing and properly orchestrating these three forces is the process of urban design.

A commitment to reality differentiates mere design from urban design. Urban designers are willing to understand and work under the intense pressure of political compromise and profit motive for good design to get built. They balance long-term perspectives with the imperatives of politics and finance, arranging for a series of short-term political and financial successes to land on, like stepping stones across a creek.

Good urban design can be a rare achievement, but the benefits of getting it right are worth it—as with the High Line Park in New York City (NYC). Once an elevated freight rail line on Manhattan's West Side, the High Line is today the most visited public park in America per acre.



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The third and final phase of the High Line concluded in 2014.

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The High Line encompasses the ideals of my heroes of NYC urban design: the quality of community planner Jane Jacobs, the quantity of Master Builder Robert Moses, and the nature of Central Park’s creator Frederick Law Olmsted. Seven years after first peeking out onto the abandoned tracks, I would walk my daughter through the finished park to her trapeze class, give many happy tours to grade school classes and prime ministers, and work on extending the High Line to Hudson Yards as Chief Urban Designer under Mayor Michael Bloomberg.

An Idea Seeded from the Bottom

Saving the High Line was the idea of two locals, Josh David and Robert Hammond, who started a civic group called Friends of the High Line. They invited a photographer to the High Line, and his images of the space enchanted the world. Among the early friends of the High Line was Amanda Burden, who eventually became Chair of City Planning when Mayor Bloomberg took office. When that happened, the project became popular politically.

However, landowners remained opposed to the High Line, fearing that the redevelopment would result in a huge drop in land values.

The solution: zoning. Ms Burden charged the Department of City Planning to develop a strategy that linked the renewal of the High Line with the renewal of the neighbourhood; the aim was to let landowners realise the value of their land and hence drop their demands for demolition.

The result was Article IX, Chapter 8, Section 98 of the New York City Zoning Code.

The goals were to transform the High Line into a unique linear park; provide new housing for the neighbourhood; preserve the character of the existing gallery district; add a mix of uses to the neighbourhood; and ensure that new buildings were shaped to enhance light and air to the new park and fit in with surrounding neighbourhoods.

The zoning created a large catchment area—the Special West Chelsea District—and the High Line Transfer Corridor, defined 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 mixed-use perimeter of the district. With this, the owners of the land under the High Line could sell their old manufacturing development rights to the perimeter residential sites, allowing the High Line to stand while making a very smart profit.

With the design, specifically, the urban design, of the transfer corridor, the political problem of landowner opposition was solved with the financial gain of land use change from manufacturing to residential. This allowed value capture by both the landowners and the general public, leveraging US\$100 million (\$133 million) of public funds into US\$3 billion (\$4 billion) of complementary private development.

More recently, the new Hudson Yards redevelopment extended the High Line Park north to 34th Street, adding another US\$10 billion (\$13.3 billion) in private investment. When urban design works, it really works.

The Pedestrian Point of View

The High Line started as a bottom-up project. In fact, the previous mayor had already signed an order to demolish the old elevated freight line. But the story that unfolded highlights the value of bringing a pedestrian point of view to the process.

Point of view in urban design is about making values visible. Different points of view are adapted to different value systems. A bird's eye point of view promotes order over experience. A driver's point of view prioritises personal mobility. However, values that respect the environment, economy and society are best represented by a point of view that is sustainable, humanist and experiential.

The pedestrian point of view is all of these. It is what makes walking through New York on a summer evening so exhilarating. Frank Sinatra and Alicia Keys have sung about it. The diversity and the democracy of the multitude of people pulsing through a public space is glorious.

The pedestrian point of view is also an excellent counter to the top-down approach common in master planning. NYC is unique in that it does not have a master plan. It has a Zoning Map and a Zoning Text, and a procedure to adapt them to changing conditions. It was the addition of the Uniform Land Use Review Procedure (ULURP) to the mix that made the High Line a reality.

ULURP is a legislated form of dialogue that marries top-down with bottom-up in a complex, adaptive system. The bottom-up movement is legally empowered to be heard through the land use review hearings, while the top-down structure retains the power to set the agenda of what comes before the Planning Commission.

This three-year process, which involved negotiating the terms of the zoning to align the interests of the stakeholders with the overall vision, ensured that when the zoning was finally passed and developers began building, what they built was in the public interest. This was an amalgamation of bottom-up and top-down approaches to city design.

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Is Singapore Ready for Renaissance?

Singapore is a wonder of top-down planning. But have its large-scale successes come at the expense of fine-grain livability?

I would say yes. I am a law-abiding (visiting) fellow, but to avoid tripling my daily pedestrian commute from the hotel to CLC's office, I had to tread on grass, walk in the street and jaywalk. This walk, or human interface, felt clumsy and not well thought-out. If my cell phone had such an interface, I would trade it in.

It's not easy to make the pedestrian experience feel "just right". To ensure continuity for important walks, urban planners have to treat every sidewalk as an "urban room" to be designed as carefully as any work of architecture. A city is a very complex system and making it feel "just right" requires immense attention to detail from the pedestrian perspective.

One reason that Singapore is behind the global city curve on pedestrian quality is the lack of mixed-use zoning. When living and working quarters are less than 700 m apart, transportation is feet-first. Longer distances force people into vehicles. Over time, the separation between living and working becomes cultural. We spend the night in one part of a city and the day in another, and we grumble at the agonising commutes without even asking "Why?"

Perhaps what Singapore needs is a Brooklyn-like community, a kaleidoscope of walkable diversity. Tech artisans 3-D print new inventions in waterfront factories while young families stroll along a shore park outside; electrical substations sit next to gleaming new waterfront towers.

01 The vibrancy from the pedestrian point of view can be found from Times Square to neighbourhoods such as Van Brunt Street.

02 Brooklyn Bridge Park, a 2.1-km-long park that was formerly a waterfront industry.



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This is the Brooklyn culture—a renaissance that began in the late 2000s. It is a bottom-up culture, fuelled by the creativity that was chased away by high prices in Manhattan. This culture found a home in the mixed neighbourhoods of Brooklyn and quickly led to walkable neighbourhoods where everything is within reach.

This Brooklyn is also a portable state of mind. Can it make itself at home in Singapore? If so, it just needs a place with a kernel of beauty. Waterfront spaces are always beautiful. The Raffles Marina in the Tuas industrial zone was an eye-opener when I visited. Could this juxtaposition be a catalyst for a whole live-in community of creative people? It would be brawny, brainy and hold the semi-secret luxury of a waterfront marina at its heart.

Brooklyn's waterfront was affordable because vast tracks were occupied by power stations and heavy industry. Seeing Tuas Bay

reminded me of this landscape in the late 1990s. When factories were converted first to creative offices in Brooklyn, we didn't mind the adjacent power stations. They were part of the landscape. When the creative offices were later converted to luxury housing, the power stations remained and the new residents accepted them.

This would have shocked the modernists with their theory of the separation of functions in the city. They would have told us that such proximity was dangerous to our health and safety. But is it really?

First, the healthiest thing you can do in a city is to walk. A lot. Second, the risk to our health and safety has been vastly miscalculated. I have never heard of a factory or electrical substation blowing up in NYC. But I have lived through the terrorist attacks of 9/11 and the Hurricane Sandy flood. In NYC, this is the big picture on which we focus our attention and money.

01 Waterfront spaces such as the Raffles Marina could be the drawing factor for Singapore's next mixed-use neighbourhood.

02 An artist's impression of JTC's Space @ Tuas, which integrates manufacturing industrial space, a dormitory and recreational facilities for workers.



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Is NYC Ready for Singapore?

Yet, Singapore does have a new mixed-use design approach to urban manufacturing that I am eager to bring back to NYC.

Our city has many hectares of vacant, former manufacturing land. We retain the manufacturing zoning hoping that factories and jobs will return one day, but at the cost of limiting housing.

We have fantasised about buildings that could combine manufacturing with housing. JTC's Space @ Tuas has actually done it, with floors of flexible factory space connected by a spiral ramp. On top, there is a garden and workers' dormitory. If only we could adapt this concept and bring it to NYC's waterfront.

Tech firms like Google found out a decade ago that the best young talent wants to live in cities. As manufacturing becomes more technical and roboticised, manufacturing

firms will discover the same applies to their workers, who will be young and technically sophisticated. An NYC version of Space @ Tuas could bring jobs to where the workers are, to mix manufacturing and housing on the shores of Brooklyn.

Given my Department of City Planning background, I have a very simple fix to the zoning code to allow such a building. Manufacturing zone M2-1 requires one square metre of parking to be built on site for every square metre of factory in Red Hook, Brooklyn. This rule—created in 1961—assumed workers drove to work. Today, young workers would rather walk to work. So let's change the rules for M2-1 to require one square metre of housing to be built on site for every square metre of factory built instead.

So let's get busy on urban design where the right combination of politics, finance and design, as well as top-down and bottom-up city planning, can make things happen. ●