

Power to the People

A Pedestrian-Centric Manhattan

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Recent Occupy Wall Street protests have expressed discontent towards “an unsustainable global system based on poverty, oppression, and violence.” Many cite “growing disparities between rich and poor, frustrated by government policies that benefit a tiny elite at the expense of the majority.” Their signs read, “We are the 99%.”¹ Despite this commanding majority there is little concrete notion of what can or should be done to fix our prevailing inequalities. At least there seems to be some agreement that the site of our troubles lies in our nation’s political and governmental infrastructure.

Infrastructure is a complex word, because there are many different types of infrastructures, connections, and networks, ranging across all spectrums of social, political, and economic relationships. Their intertwining webs provide the often-unseen structure (commonly known as culture) that facilitates our daily lives. By calling for infrastructural change, the Occupy protests become cultural movements. They have cited the recent financial scandals on Wall Street as evidence that the privileged minority has been behaving poorly and negatively impacting the 99%. They argue that we must edit our legislative infrastructure so that such social and influential disparities cannot persist.

By all means, let’s edit these intangibles — our rules and legislation, our societal values and priorities — so that our culture becomes more representative and less oppressive. But what about our tangibles? What about the physical aftermath that remains? Regardless of how our society changes socially, we’re still living in the infrastructural ruins of 1950s America. The population boom of the post-war era meant that when public transport infrastructure was constructed, it was designed and built not just by the technology of the 1950s, but also by the culture of the 1950s, and in it we can see the same prejudices that era carried. It is no coincidence in that era the highways meandered through the poorest, most underrepresented minority neighborhoods. A six-lane expressway through the heart of black Detroit is no chance occurrence. White privilege, racism, oppression, classism — all justified, processed, and written into concrete and steel. We still drive through these same streets today. In fact, these streets continue to have a strong impact on our lives. Roads do more than simply guide our movement and structure the growth of our cities: they help us define our sense of time, space, and social status. Therefore, transport infrastructure designed with inherent prejudices produces a ripple effect that is expressed in our cities and felt in our society. If we’re willing to edit our intangible infrastructure to promote equality and lessen



1 Occupy Wall Street 2012



oppression, then argue that we absolutely can — and should — edit our physical infrastructure for the same reasons. As an appropriate example, let's head to the heart of the Occupy protests: Manhattan, NY.

Manhattan is relatively small but hyper-dense: there are 69,000 residents per square mile on an island 11 miles long and 2 miles wide. In 1.5 hours you could bike the perimeter and trace a circle around 1.5 million occupants.² If the roads weren't full of cars you'd be able to bike the width of the island in 10 minutes.

In Manhattan the actions of a privileged minority are having large-scale effects on the less-influential majority. One doesn't need a financial scandal as evidence; we can see it written into the physical infrastructure of Manhattan, where the transportation network is increasingly dominated by a private interest — namely, the culture of the Car. In Manhattan the minority population that can afford to drive and park a car has a disproportionately large impact on the built fabric of the city.

In Figure 1 to the left, there is a dot for each parking lot on the island of Manhattan, totaling approximately 900 lots.³ Each of these sites has a unique approach to car storage: there are surface lots, multi-story high-rise structures, multi-story subterranean structures, and every variation in between. As seen in the image below, many of them have started to use space-frame parking lifts to increase their storage capacity. Regardless of what means they use, the results are the same: lots that are devoted to parking typically become cultural voids in the city fabric.

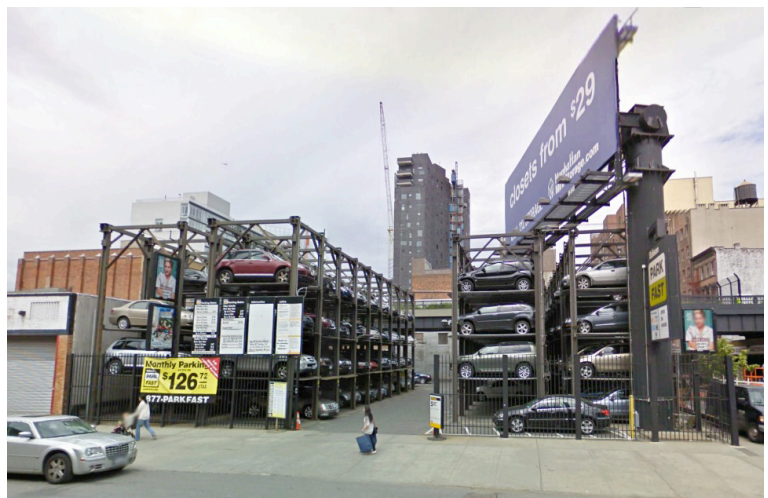


Figure 1: Distribution of parking lots in Manhattan

2 US Census 2010
3 Google Earth 2010

Despite the enormous amount of infrastructure dedicated to the car, it might come as a surprise that only 25% of Manhattan’s commuters drive to the island. Additionally, 20% of this car traffic only uses Manhattan as a stepping stone to bridge the Hudson River, bringing nothing but congestion and fumes to the city.⁴ The points where this traffic crosses the island are huge infrastructural scars in the urban fabric. Even bridges play an obtrusive role in the city: because they ramp down to mediate an elevation change, bridges must extend deep into Manhattan and then double back on themselves a few times before they can empty into the city streets.

If 75% of Manhattan’s population doesn’t drive, or even own a car, then why should the car and its infrastructure have such an iron grip on Manhattan? Can we edit Manhattan’s infrastructure to better serve its carless majority? For the remainder of this essay I will illustrate a hypothetical possibility for Manhattan’s future. It will illustrate, more than anything else, an ideal — a way of working and thinking that has been notably absent from the design of past public infrastructure projects.

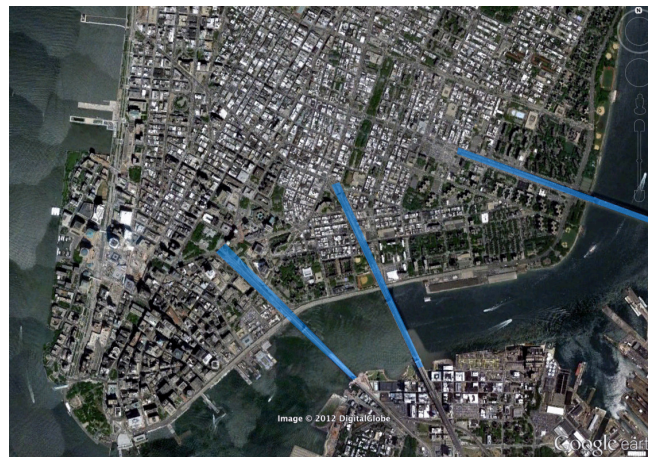
I don’t want to vilify the car, because it isn’t inherently bad. In actuality cars are a fantastic invention, and at this moment in time our culture is quite dependent on them. However, cars simply do not belong in the densest urban conditions of our cities. Compared to a pedestrian, the car is an inherently aggressive object, both physically and psychologically. I’m sure that you, reader, have experienced this firsthand. What kind of cultural exchanges, other than some expletives and unsavory gestures, happen in the middle of a five-lane road? Does a passing car have the ability — or the willpower — to help a person being mugged? I don’t want to sound like I’m pining for the past, but our streets used to be a locus of cultural interaction. The streets belonged to the people — as they should — because at ground level the street is the most minimal and basic kind of transportation infrastructure that exists, and it shouldn’t be dominated or denigrated by a privileged minority.

Therefore, in this proposal the car is banned from Manhattan’s city streets (with the exception of emergency vehicles).

⁴ Shaller Consulting 2007



A congested crossing point.

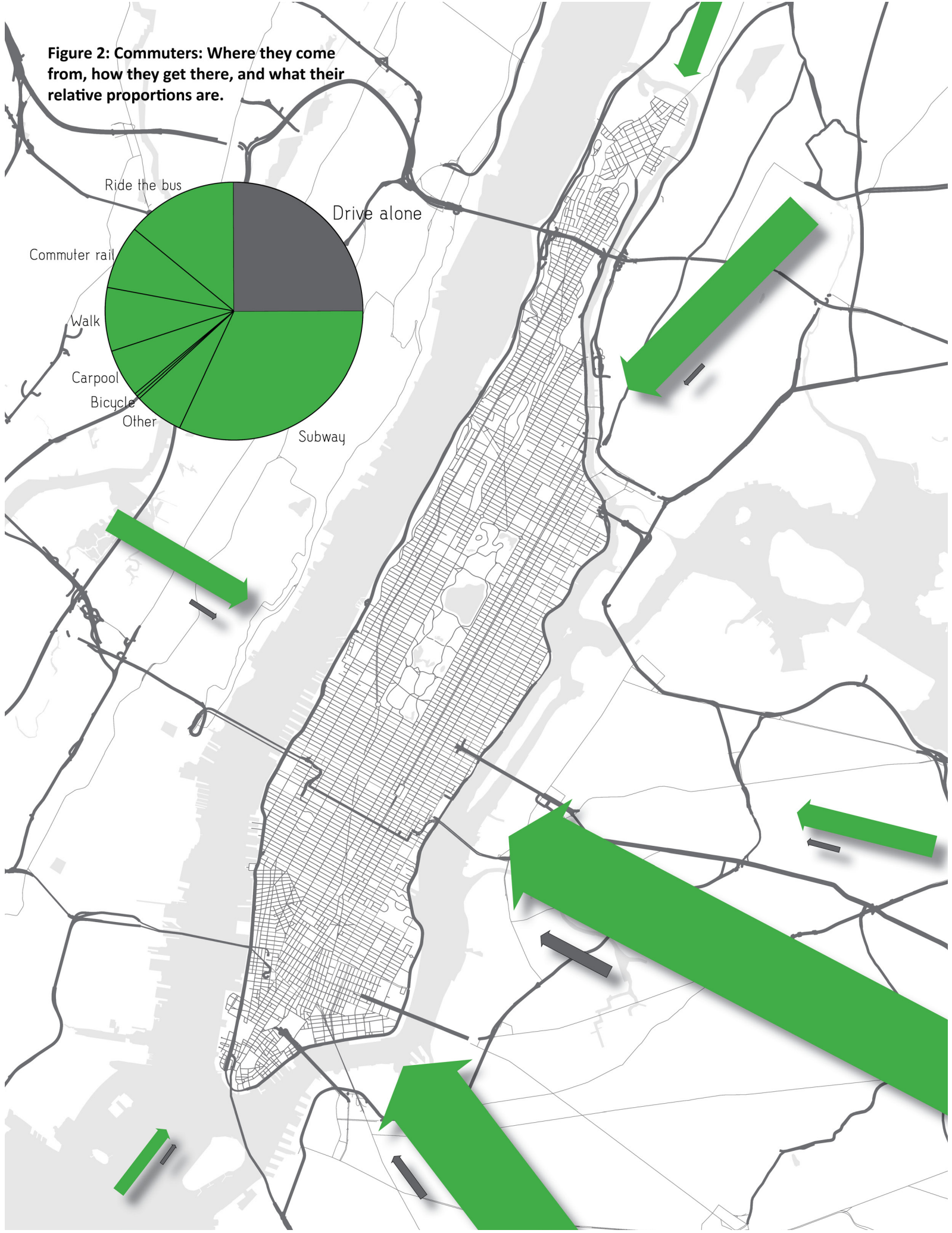


Bridges extend deep into the city.

It’s possible to assume that Manhattan could institute a ban on cars primarily because as an island, Manhattan exists in partial isolation, with distinct borders and access points. It’s important to recognize that everywhere outside of Manhattan will probably remain highly dependent on the car for transport, and there will still be a demand for those who wish to drive cars to the city. The optimal scheme anticipates car demand and facilitates the shift to a pedestrian occupation of the city streets.

For starters, let’s focus on the waterfront. With property values so high and skyline views so prized, one might assume that waterfront property is highly contested territory. In reality, there is no contest. Six-lane expressways, built during an era that was hooked on vehicular voyeurism, suffocate much of Manhattan’s shoreline. As a result, these

Figure 2: Commuters: Where they come from, how they get there, and what their relative proportions are.





expressways have fantastic views, and the drive is great — when there’s no traffic. Yet as a consequence, the population of Manhattan is physically disconnected from the water that surrounds it.

In this proposal, the waterfront expressways are lifted high into the air, to the same elevation as the bridges that feed traffic into the city. Lifting the expressways this high creates a massive, well-lit sheltered space beneath. At the ground level this opens up 22 miles of linear riverfront property and physically reconnects city occupants to their rivers. If the space is kept open and public, the condition becomes a linear urban park/beach, and brings with it enormous potential to invigorate the perimeter of the island with activity and function as a monumental civic resource. It is safe to suggest that the design of this park should seek to replicate the attitude and success of another linear park in Manhattan, the High Line.

Once the expressway is elevated, it can link into and accept commerce from the off-island bridges to expedite the movement of all cross-river traffic around the island, rather than through it. As a brief summation, so far the proposal includes a double-height ring road expressway looping traffic in both directions around the perimeter of the island, at an elevation of at least 70 feet.

What is then needed is an interface that acts as a filter and a sponge, accepting traffic from the elevated expressway and returning pedestrian foot traffic on the ground level. This project proposes that we utilize technology that already exists in Manhattan — space-frame parking lifts, which are automated so that space and material are utilized as efficiently as possible. The task is to scale the technology up and incorporate them into the expressway. If the car is banned from the island, about 138,000 vehicles will be displaced. This number includes the 38,000 cars that reside in the streets, and the peak number of 100,000 cars that arrive in the afternoon.⁵ This is a huge number of parking spaces, but if distributed at highly efficient parking hubs and diluted around 22 miles of expressway, the physical ramifications are greatly lessened. Because these interfaces will facilitate the movement of large quantities of people and goods into the city, the transportation hubs at ground level become a logical place to site public transportation amenities such as bus and light rail stops.

Because of the drive to accommodate the car, road infrastructure in Manhattan is quite large and extensive. The ordered accumulation of these roads composes a grid and helps facilitate much of Manhattan’s development. The grid is structured potential, a flexible system that can easily

5 Shaller Consulting 2007



adapt to change. Therefore, the grid holds great potential for re-use under the new paradigm.

This project recognizes that roads are only as destructive as the traffic they carry. Banning the space and resource-intensive demands of the automobile frees up the roads for new and alternative forms of transportation that are smaller and more pedestrian-friendly. Without the car, the streets become magnificent garden boulevards centered around public pedestrian traffic.

In *The Death and Life of Great American Cities*, Jane Jacobs argues that a strong pedestrian presence in the streets is the single most important factor in achieving lower crime rates.⁶ If Jacobs is correct, this proposal has the potential to transform Manhattan into a safer place for city occupants. Additionally, decreasing the volume of all kinds of traffic in the streets will result in a much more efficient traffic flow.

For the 75% of the population that already navigates Manhattan without the use of a car, life continues as normal — except now the sidewalks are larger, the air is cleaner, the streets are more efficient and less dangerous, and the city now operates on principles of equality and representation.

For the 25% that previously depended on a car to navigate

⁶ Jacobs 1961

Manhattan, the options are numerous: they can walk, ride a bike, hire a pedicab, hop on the bus, jump on the subway, or catch a ride on a light rail train.

Though this project is intended to have a positive effect on the city and empower a previously disenfranchised population, it is important to note the negative side effects of this proposal.

The no-car policy will undoubtedly be devastating for car garage and taxi services. Also, New Yorkers should be concerned about the policy's effect on their iconic skyline, and the resultant noise and blocked views that nearby buildings may experience.

Although this proposal would result in the loss of large sums of revenue from parking fees, the lost money would be at least partially replaced by revenues from the new parking hubs. Additionally, the City could offer assistance to taxi companies in order to help facilitate the shift from car-taxis to a more pedestrian-oriented fleet, such as pedicabs.

It is valid to be worried about the effect on Manhattan's skyline. However, it's a question of values: which is more important — the privatized, privileged views from high-rise buildings on Manhattan's perimeter, or the common ground

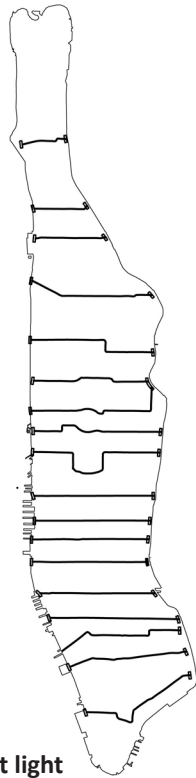
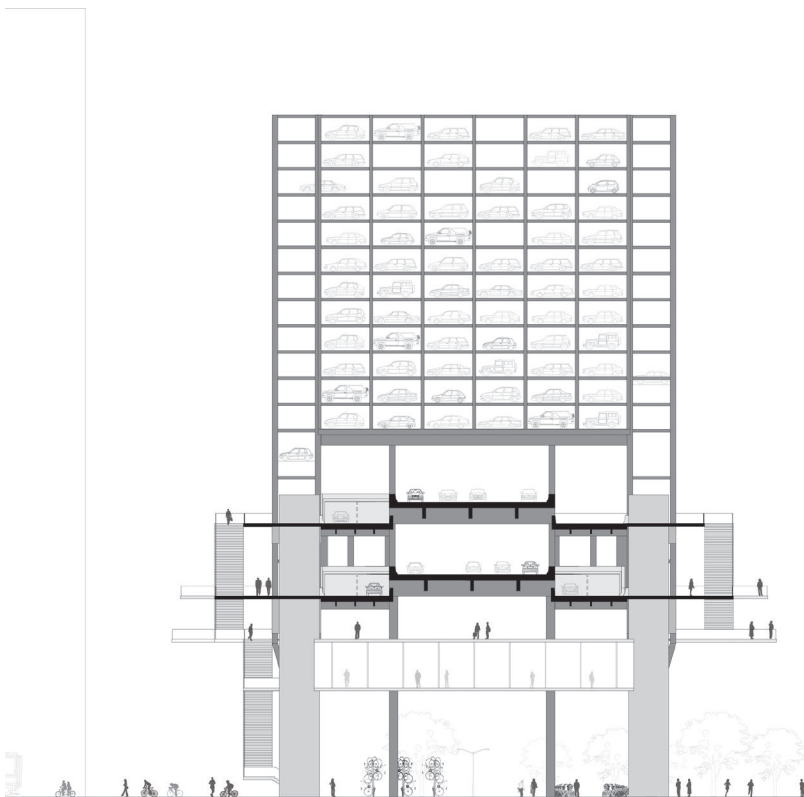
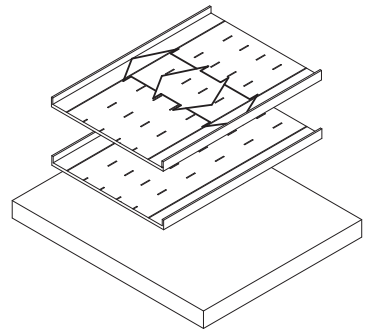
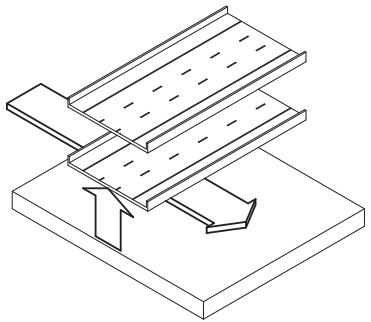
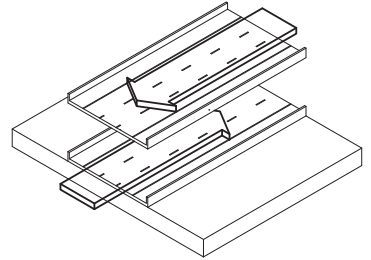
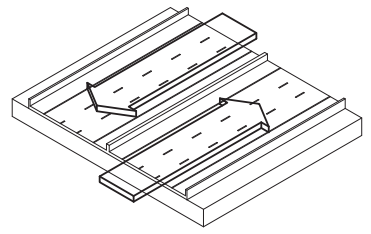


Figure 3: Location and number of transport hubs and the subsequent light rail routes they establish.



that the majority of Manhattan’s occupants experience on a daily basis? The image to the right shows the effect that this proposal would have on the skyline.

By catering to the needs of the majority rather than to the moneyed minority, the project seeks to find equilibrium – the very moment where the power structures from either side are equally balanced. Seventy-five percent of a population is a large majority, but is it large enough to stand up to Wall Street’s money? If we assume that individuals in the majority will vote for a proposal that is specifically crafted for them, then this proposal could easily pass — if put to a vote. Unfortunately, projects like this are never so straightforward. Therefore, the remainder of this essay will illustrate how this project can be beneficial for both sides — specifically, how this project can align with the needs of city occupants as well as those in the business of making money.

If the waterfront expressways are lifted to create 22 miles of linear park space, it goes without saying that it will be enjoyed by the entire city and itself enjoy a large amount of publicity. As noted previously, its design should seek to

replicate the success of the High Line, in terms of public draw and its acceptance by the city, as well as in terms of economic growth. In a recent lecture at the University of Michigan, Elizabeth Diller, an architect who collaborated in the construction of the High Line, explained that the High Line cost \$115 million dollars to construct but has generated over \$2 billion in private investment.⁷

The waterfront isn’t the only area that would enjoy a large amount of growth. At the beginning of this essay, the image below was used to illustrate the sheer quantity of parking lots in the city as justification to ban the car. If the car is indeed banned from the city, these 900 lots would all have potential for re-use, repurpose, or new construction — thereby transforming these cultural dead zones into areas of productivity and engagement.

Each new development has the opportunity to engage the pedestrian-oriented street condition and cement it into the built fabric of the city, ultimately leading to new modes and conditions of urbanism that are founded on principles of equality and representation.



7 Diller 2011

Works Cited

Diller, Elizabeth. (2011, Feb 1). Architect, Diller Scofidio + Renfro. Lecture at the University of Michigan.

Google Earth. (2011). New York City, Satellite view.

Jacobs, Jane. (1961). *The Death and Life of Great American Cities*. (Vintage Books edn.) New York: Random House.

Occupy Wall Street. (2012, Jan. 3). "2011: A Year in Revolt." <http://occupywallst.org/article/2011-year-revolt/>

Schaller Consulting, (2009, April). "CITYinFLUX: Understanding and Untangling Traffic and Transportation in New York City." <http://www.schallerconsult.com/pub/cityinflux.pdf>

US Census Bureau. (2010). "State and County Quick-Facts for New York." <http://quickfacts.census.gov/qfd/states/36/36061.html>

Images (in order of appearance):

Occupy protesters. Occupy Wall Street. (2012, Jan. 3). "2011: A Year in Revolt." <http://occupywallst.org/article/2011-year-revolt/>

Parking Lift: A Manhattan parking lift, New York, NY. Source: Google Maps Street View

"A Congested Crossing Point": Trans-Manhattan Expressway through Manhattan, New York, NY. Source: Google Maps Satellite View, 2011.

"Bridges extend deep into the city": Lower Manhattan, New York, NY. Source: Google Maps Satellite View, 2011.

Before and After rendering: FDR Drive near 37th Street, New York, NY. Source: Google Maps Street View, 2011.

Traffic in Mid-Manhattan: Mid-Manhattan, New York, NY. Source: Google Maps Satellite View, 2006.

Skyline Render: Lower Manhattan skyline, December 1991. Author: Lars Plougmann. Source: Wikimedia Commons.