WILD URBANISM
Vertical Ecologies in Manhattan

Sam Naylor
I had a professor whom told me a story about a conference he went to. To begin the lecture the presenter asked the crowd of 100 professionals in the field of architecture to picture in their minds their most favorite place. To imagine being right there, wherever it was.

Now open your eyes...

Where was your place?
In your bed?
In a bar?
In the office?

The presenter asked everyone to raise their hands who imagined a place outside...every single person raised their hand.
STATEMENT

The psychological benefits associated with nature can be codified into an urban tower; reclaiming the typology into a civic space and metropolitan escape.
ABSTRACT

Personal and shared events have led me to regard nature as providing a space in which certain beneficial experiences are unique. Reinforced by popular culture and scientific inquiry this primordial disposition to the environmentally natural is hardly investigated through architecture. The term ecological in design is mostly attributed to bio-mimicry form making and resource sustainable design, but is under-explored as a purely human psychological benefit.

Evidence of the unique American connection to nature is clear in our tradition of exploration and camping. While the current disconnect with nature is tied directly to politics, economy, and urban extents of the American landscape.

Traditional urban parks find subtractions in the city to preserve or sometimes create a natural environmental state. The last century of urban disinvestment combined with the aforementioned hinterland expansion has led to even less creating of parks, and more hyper-capitalistic intrusion into the public realm. Most recently a wave of downtown resurgence, both by the citizen and developer makes it the ideal spot for a new civic park.

This vertical park located in the Financial District of New York City will respond to the ultimate of American urban verticality and synthetic form. And its purposeful inefficiency as a profit generator can partially sustain itself through luxury profit nodes catered to the surrounding community. Inspired by computational design, Japanese patterns and layers, and synthetic replication of the organic; the towers only resemblance to typical skyscrapers is in its ambition.
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INTRODUCTION

This thesis is as much academic as it is personal. It is an extrapolation of my own experiences and others work.

It should not be read as final, but a beginning into an investigation of varying topics. I hope you will disagree, get angry, and excited over the work, great projects come from intense scrutiny. It is not a purely scientific exploration, nor should it be read as a holey artistic venture; a melding of the two allows for more amplitude of thought and agency.

The research and design work were carried out in the 2015-2016 school year, and coexisted alongside one another, creating a symbiotic relationship between theory and practice.
WHY NATURE?
In a recent conversation between the great nature documentarian David Attenborough and President Obama this very subject came up,

Obama: “How did you get interested in nature…”

Attenborough: “I’ve never met a child who’s not interested in natural history… the simplest thing, turning over a rock and finding a slug… and it’s just, what a treasure! How does it live? What are those things on the front? Kids love it, kids understand the natural world, and are fascinated by it… so the question is how did you lose it? How did anyone lose the interest?”

The simplest answer is why not? Nature not only represents the original architecture, it is also the overlooked fundamental grounding for our psychology. Organicism is only a contemporary design term for the unending interest we as humans have had in shaping our world towards what pre-exists. Today there is more interest than ever before in returning to some pre-historic modes of dieting, exercising, and medicating. Now is the time to revaluate why we intuitively are drawn towards the organic.

2009 Surprise encounter with a stingray.
INHERENT
The complex relationship between humans and nature is in itself a paradox. The premise divides the understanding of the world into synthetic and organic, as two separate camps. Whereas the reality is a cohesive universe in which every constituent part is linked to another. 1The environment has become a burden for governments to bailout and a sick child many are racing to cure. Its current diagnosis has led architects to develop buildings that use less energy, reduce their waste, and even produce electricity. Thus has driven our profession to more rigorously consider our resource allocation, but this crisis hasn’t led to the discussion over our personal connection to the natural world.

"Perhaps the limits of further modernisation will be dictated not so much by the ecological sustainability of our exterior environment, but rather by our inner life - by the psychological processing capacities of the increasingly mobile and accelerated individual." 2

Just as citizens connect more with law enforcement whom walk rather than drive on patrol 3, the psychological connection of humans to nature must take a more prominent role. Rarely studied in architecture are the measurable and intangible connection between the organic and the human mind. It is hardly even known how social media is altering the way we communicate let alone the massive spatio-social structure in which we live in compared to the natural world we inhabited as pre-historic humans. It is estimated that 12,000 years ago marked the start of what we now call the Neolithic Revolution in human society 4. This marked the beginning of our transition from nomadic hunter-gatherers to agricultural harvesters and urban dwellers. Prior to this societal transformation our first hominin ancestors appeared 2.8 million years ago with our current species, homo sapiens dating back to at least 200,000 years ago 5. Throughout this pre-history our evolution into modern day humans occurred for 90% of the time in nomadic and environmentally immersed spaces. Environmental extremists like the author Paul Shepard have argued for a complete return to this spatial condition 6, but such a radical transformation is not necessary to achieve meaningful gains through eco-spatial integration.

In a recent lecture by Sanford Kwinter at The San Francisco
College of the Arts this primordial disposition was presented in another light. Kwinter emphasized his distaste for normative ‘sustainable’ thinking and challenged the audience to expand their ecological agency. First among his points was the assertion that “all is interaction” coined in German as “Alles ist Wechselwirkung” by the naturalist Alexander von Humboldt. Interaction among all forms of life was observed more closely by Kwinter himself on a journey to a nomadic tribe in rural Africa where he learned specifically about the hunting strategies, and necessary attuneness that one has with other animals around Kwinter came to his own emotional conclusions over a biological predisposition to the natural world. While stuck in a tree for several hours Kwinter was even able to partially replicate this himself, emotionally connecting to the sounds and smells around while being perfectly still.

Kwinters thesis of interaction is not only relevant for ecologists, but presents a clear path forward for architects and all those involved with spatio-planning. It is clear that this level of inter-species interaction happens little in modern society. Even finding a location devoid of human markers of civilization is terrible difficult. Almost no place on the earth exists any more to experience this kind of symbiotic lifestyle with nature, let alone it being a sustainable model for the global population. And so, as the world slowly ‘urbanizes’ more care must be taken to re-integrate natural ecologies into our lives. In the United States our most populous urban areas outranked all others on the planet in terms of land use (except Tokyo). Not only do these hinterlands contain the majority of the world population, but they also have grown to contain more power than the city center; thus becoming the strength of urban economies. Along with ubiquitous technological connectivity, this blanket of urbanism surrounding us further prevents any chance to dwell in the virgin wild.

Luckily I was able to spend a lot of my own childhood exploring the nearby woodlands. Adventuring through seemingly boundless forests, navigating frozen streams, and spelunking mysterious caves. The psychological benefits of venturing into nature was unmatched, and even now I continue the pursuit. Coincidently the birthplace of Calvin and Hobbes (in Chagrin Valley) was not far from my own home in Shaker Heights, Ohio. Calvins’ adventures, imagined and illustrated by Bill Watterson represent the ultimate extension of adolescent
imagination. The dream-scapes imposed by Calvin on the ecological surroundings of Chagrin Valley are simply unmatched by the ubiquitous urban condition in the United States. It would be a challenge to find anyone that does not connect most strongly to a piece of nature over any architecture. Primordially we must be connected somehow, and psychologically we have only adapted to live without this relationship as much.

Nature is the original architecture, and it also represents a version of our zeitgeist; eventful and organic. Its situations are vast in scale, complex, evolving, in motion, colorful, multi-sensory, cavernous and immense and unintelligible. Constantly being reshaped its underlying system has only recently started to become understood by humans. Think of your body, on the outside we may sculpt and prune, powder and paint ourselves for appearance or smell; but there is little we need to do in order to maintain homeostasis. Inside our biology is simultaneously carrying out a million operations, and in the natural world a multiplication of these innumerable number of interactions, collision, and events are occurring. Early mathematician theorists thought one day, with a long enough equation we may be able to predict and account for all actions everywhere. And today some physicists are still hunting for an elusive formula that might make sense of the universe. But currently we are at a loss. Massive supercomputers and academic research have only scratched the surface of understanding how it all works.

The natural world, in all its chaotic splendor is without equal, and in our lives we must try to interact with it as possible.
Calvin and Hobbes Exploring another world through the portal of the Chagrin Valley woods.
that while today the human mind is affected and shaped by the modern social world, its deep structure is inevitably adapted to, and informed by, the more-than-human natural environment in which it evolved.

Eco-psychologists study many primitive societies today and in the past whom have lived more harmoniously, and are more emotionally connected to nature. Their work, and this thesis aims to divert some attention away from the resource dwindling crisis of sustainability and argue for an emotional and psychological connection to the environment.

One large theory to come out of this research is called the Nature Deficit Disorder, a phrase originally invented to describe a lack of time spent outdoors for children. While its initial premise was limited to adolescent behavioral problems there are many resources that point to its implications for adults and the elderly. Far beyond the alleviation of anxiety scientific studies in this field have proven myriad health benefits that result from more exposure to nature.
The engagement of all senses that come from contact with a more natural environment have been proven to relieve post traumatic stress from veterans of war. More exposure has also been correlated with boosting intelligence in some people. And nature has proven to be particularly effective at restoring the mind from stress and fatigue. Schools with more windows to the natural world in their cafeterias and classrooms have been correlated with higher standardized test scores, higher percentages of students planning to attend college, and lower occurrences of criminal behavior. In addition, school policies of allowing students to eat lunch outdoors and to leave during lunch were related to enhanced test scores and college plans.

“We live in a world where, on the one hand technologies have taken the upper hand, on the other, a great need has arisen to return to the natural state.”

A focus on our more psychological connection to the natural world has recently been abound in the cultural phenomena happening today. A return to prehistoric human diets, naked running shoes, and the elimination of excessive sitting from office culture are among a few.

It seems that the rate of technological innovation is outpacing our ability to study the effects of these tools on us. In the post-war technological boom innovations for the home and office were often claimed as miracles and magic. New chemicals for cleaning and quick meals were little studied for their effectiveness or nutrition. Later the results of those technologies would sometimes turn out deviantly. The health implications of asbestos implementation in offices around the United States is still being fought in courts today. The implications of chemicals and building components are more regulated today but the new technologies of software and digital interfaces are our contemporary version of the post-war home tech boom.

“Your average piece-of-shit Windows desktop is so complex that no one person on Earth really knows what all of it is doing, of how,” wrote journalist Quinn Nortan in 2014. Coupled with Apple’s well known slogan - ‘it just works’ - these two expressions rest at the heart of conversations on magic, myth and technology which

The baby crate is patented in America. An innovative urban solution to alleviate space in the apartment and provide fresh air and sunshine to children.
Manoush Zomorodi is the host of New Tech City, a podcast and radio program investigating the effects of technology on our lives. One avenue of her investigation challenges users to stop defaulting to their smartphones in down time. So, when waiting for the bus or in transit the objective is to try and be bored again. Being bored has untold creative and thinking benefits that don’t come from constant entertainment. The mind needs breaks, moments to space out and think. Nature can provide an avenue for this mindless partial attention. The sounds of wind, rain, or crickets have been digitally recreated in innumerable technological platforms to reintroduce ecological static. Staring out a window at the gradually moving tree or bush provides a similar visual distraction.

Another widely supported psychological phenomena is that any change in an environment will impact an individual’s performance. More specifically in an office environment a team of researchers painted all the walls blue one day, productivity shot up immediately, and then slowly fell until the end of the month when it returned to the base level. The next month they painted the walls orange, and then green, cycling through various colors to find that it was not the specific hue applied, but more the change in environment that positively affected peoples performance. Today flexible workstations and the encouragement to get up and move around and common methods to increase worker satisfaction. The appearance of nature out a window, as proven effective in school, hospitals, and offices is parallel to this thinking. It is the static, unpredictable, and gradual change that is present in the natural environment that is among many other things, a massive tool to use.

In Madeline Gins and Arakawa’s East Hampton house completed in 2007 some of these theories are realized. By creating an ungelating concrete floor they propose the building as having inherit health effects that could delay death.

“Its architecture makes people use their bodies in unexpected ways to maintain equilibrium, and that, she said, will stimulate their immune systems.”

“...A lone traveler wanders...”
The house is an agent of de-familiarization. Similar to nature it introduces conflict to elicit a reaction in our bodies.

“Comfort, the thinking goes, is a precursor to death; the house is meant to lead its users into a perpetually ‘tentative’ relationship with their surroundings, and thereby keep them young.”

Similar to how sitting (as a support system for the core) makes us essentially weaker, so does walking on flat surfaces Gins and Arakawa propose. Their extrapolation, and a continuing theme of healing through nature, is that by introducing back these moments of fear, danger, mystery, and conflict we will be stronger and healthier.

The environment as a force of positive friction, and as a mind altering tool has been proven scientifically to provide numerous positive effects. And as technology outpaces our understanding it is imperative to reclaim this essential connection to nature.
PHENOMENOLOGICAL
The implicit desires within visions of our future are some of the most immature and honest representations. Martin Luther King Jr. once said of this,

"Any movement - any culture - will fail if it cannot paint a picture of the world that people will want to go to. The first brush-strokes are already visible." 16

During the early 20th century many American cities were experiencing a decline in interest due to their unattractive filth. For those who could afford to do so moving outside of the city center became the obvious choice. In response to this urban abandonment three great architects envisioned radical proposals for new cities. These wholistic schemes attempted to solve not only the look and feel of a city, but how it operated, its social problems and economies. These were attempts to not only solve the city, but also save the image of it from fading away in many peoples consciousness. Frank Lyod Wright in his Broadacre city scheme proposed the combination of a decentralized single family home lifestyle with hyper-desne and what he termed ‘organic’ towers. Le Courbusiers city for 3 million alleviated congestion through its multiplication. Users would live in high vertical density, and would also enjoy the benefits of nature through its proliferation between each piece of architecture. And Sir Ebenezer Howards’ garden city scheme for smaller towns married the benefits of a close agrarian resource in highly organized urban form. All three schemes were radical for the amount of content it meant to solve. More importantly all three shared an importance on an ecological integration, just in three separate modes. Their intentions were to create a place for the enjoyment of being surrounded by nature while still enjoying great urban conditions of proximity and social energy. This marriage of the town and country is evident today in their modern quasi-urban counterparts of suburbanism, park + tower, and some English towns. Since these proposals many other architects have produced projects of epic scale, but none have been to broad in their implications or far reaching outside of the discipline.

“Since the true utopia of the third millennium is the fusion between chaos and nature.” 17
This combinatory design is evident from architects and artists alike. However, the wildly complex urban designs of Thom Mayne and Stan Allen speak to more problem-solving than inhibited desires. One only needs to look at some of the most recent science fiction films to get a realized vision of our utopia.

“...But then science fiction is always about the present, so an archeology of science fiction is a history of hopes and fears frozen in fictional form.”

In Disney's most recent film *Tomorrowland* we follow the story of two individuals into the future where a utopian metropolis contains everything and everyone good (and devoid of government bureaucracy). The film's imagined future city isn't pastoral or wholly organic, but a synthetic mixture of both nature and technology. The man-made towers and aerial roadways share a certain compositional similarity but compete in space to create a whole new spatial complexity. From afar the city is a web of steel surrounded by a field of grass. In their future density drives innovation, and the enjoyment of technology does not preclude a proximity to nature or reliant on monotonous simple forms. The film is just one contemporary example of our desires and visions brought to light; a want for ecological proximity and seamless integration into the city.
Brussels Vertical Garden

2009 The City of the Waves


12. Arakawa and Madeline Gins, Reversible Destiny - Arakawa/Gins (We Have Decided Not To Die), exhibition catalogue (Guggenheim Museum, 1997); and interview with Jenna Sutela and Joke Post, 2014.

13. Arakawa and Madeline Gins, Reversible Destiny - Arakawa/Gins (We Have Decided Not To Die), exhibition catalogue (Guggenheim Museum, 1997); and interview with Jenna Sutela and Joke Post, 2014.


Images in order of appearance

A. Image by Author
B. Image by Author
H. Image by Author
O. Arakawa and Madeline Gins, Reversible Destiny - Arakawa/Gins (We Have Decided Not To Die), exhibition catalogue (Guggenheim Museum, 1997); and interview with Jenna Sutela and Joke Post, 2014.

Images in order of appearance

15. Arakawa and Madeline Gins, Reversible Destiny - Arakawa/Gins (We Have Decided Not To Die), exhibition catalogue (Guggenheim Museum, 1997); and interview with Jenna Sutela and Joke Post, 2014.
18. Jacob, Som. “MACHINES OF LOVING GRACE The City as a Distributed Robot &amp;amp; the Omnipresent Intelligence of Data Networks.” &lt;i&gt;Uncube&lt;/i&gt;: n. pag. Web. 24 Nov. 2015.
AN AMERICAN SETTING

Our history is littered with great cultural figures whom proclaimed a love for the natural world. Ralph Waldo Emerson, and later Henry David Thoreau held the natural world in high esteem. As did the landscape architect Robert Smithson, who saw his parks as essential to carrying forward our moral pastimes in the natural world. In Walt Whitman’s *The Leaves of Grass* he proclaims,

“I celebrate myself, and sing myself,  
And what I assume you shall assume,  
For every atom belonging to me as good belongs to you.”

First published in 1855, exemplifies the idea of American exceptionalism defined by an innumerable list of attributes. He praises the communality of Americans, and especially our agrarian lifestyle. The book was written at a time when most Americans were farmers, and its cultural connection reaffirmed this spatio-temporality. He writes,

“I believe a leaf of grass is no less than the journey work of the stars.”

An almost egalitarian prowess is exclaimed by Whitman, his work reaffirms the strength of the common mans work, and celebrates the rural connection Americans have to the earth. Praised by Emerson and Thereau The Leaves of Grass was the quintessential American cultural bible for a number of years and its lingering core beliefs can be felt today.

This connection to nature was strong and well valued in this pre-industrial America, but after the turn of the century and two world wars technologies influence on everyday life grew indeterminable. Frank Loyd Wrights work, over a number of years, coalesced his disdain for that zeitgeist. He once said,

“Stay close to nature, it will never fail you,”

and this adherence to an ecological design premise is thoroughly consistent in his work and life. His Falling Water house, Xanadu Gallery, and Marin Civic Center are emblematic of what he termed an ‘organic style’ meant to capitalize on the indeterminate qualities of nature. In his grandiose plans for
‘Broadacre City’ he states,

“As I see Architecture, the best architect is he who will devise forms nearest organic as features of human growth by way of changes natural to that growth.”

And later when describing the aesthetic of buildings to be built in this utopia,

“Organic Character is style. Such style has myriad forms inherently good.”

Both Whitman’s writings and Wright’s famous designs are emblematic of an American cultural fascination with the natural world for its own sake. Before scientific study, and even after it, American values have been rooted in our connection to the earth. The mysterious and undoubtably positive effects of the natural environment have been a moral obligation for generations past and must today occupy such an immediate concern.
UNINTENTIONAL FLATNESS

Unfortunately, our national urban condition of low density precludes any semblance of the truly natural that we once sought to live in.

The United States today contains some of the most populated and least dense cities in the history of the world. And it is widely understood that this sprawl was the result of manufactured desire rather than an eventual reality. New technology offered the opportunity for modular and quickly built homes while the stigma of a dirty industrial city no longer attracted a labor force that did not need to operate so close to those cores. The automobile had an amazing spatio-temporal shrinking of the landscape and gave rise to now understood false notions of transportation freedom. And strangely, the political motivations of the United States government in response to a possible USSR nuclear attack drove decentralizing the populous.

During this hay day of suburbia the ease of automobile transportation spawned an American fascination with road trips and camping. The invention of the pill-box trailer and mass development of rest stops were created to aid in this venture. Eventually it would contribute to the concrete patches of fast food and gas stations spreading from every interstate exit. But this interest in the escape, even from a marketed ‘perfect’ suburban lifestyle garners credence to the notion of a psychological and cultural desire to return to the natural. Today one in six homes are mobile, and the National Parks receive more visitors every year than every major sport combined. Our great surviving wildernesses and even urban parks are highly valued.

The Suburban lifestyle enjoyed a lengthy period of splendor and inspired much of the cultural works during the time. Only in the last decade have we come to understand these neighborhoods as generally unhealthy, unsustainable, and parasitic to an efficient nation. Low density areas use more energy than compact settlements. The abundance of automobile transportation has been shown to have many negative health effects and related social ailments. People die of heart attacks more often, their marriages fail more frequently, and they have highly living expenses. Politically the separation from blue in urban areas to red in rural ones is partially a result of the more
homogenous nature of these developments. Thus, the inhabitants are disconnected from many realities and problems facing our country. And while it is common to cite the world as half urban the reality is closer to a suburban condition.

Paradoxically while our cities continue to expand the agrarian countryside is growing as well. Rem Koolhaas and his research group AMO attempted to document the transformation over the recent past of various European towns. Investigating a small Swiss village Koolhaas reflected on its transformation over the span of 20 years,

“Since then, the village has become completely depopulated. Its original inhabitants have left, and yet the village is 2-3 times bigger.”

He later concludes,

“In architecture books we are bombarded with statistics confirming the ubiquity of the urban condition, while the symmetrical question is ignored – what are those moving to the city leaving behind?”

And finally, summarizing the mass systemization of what was once ruled by highly local customs and culture,

“The countryside is now the frontline of transformation. A world formerly dictated by the seasons and the organization of agriculture is now a toxic mix of genetic experiment, science, industrial nostalgia, seasonal immigration, territorial buying sprees, massive subsidies, incidental inhabitation, tax incentives, investment, political turmoil, in other words more volatile than the most accelerated city.”

Koolhaas observations on the countryside represent the clearest realization of the Lebfebreian ‘urban’ notion, where the extent of all things supporting the city are classified as such. All current trends point towards an increasingly urban world devoid of anything truly natural. Our chance to live nomadically, or even connect again with nature in the same way are slim to none. There must be a new direction into rekindling our psychological
attuneness that doesn’t heavily rely on past models of living. 
In *A Country of Cities*, Vishaan Chakrabarti proposes the future of our country is one of hyper-dense metropolises surrounded by an untouched ecological hinterland. Chakrabarti cites the development of Japanese farming communities, and the current city of Hong Kong as examples of communities who physically self-constrain in order to achieve sustainable growth. His thesis is reminiscent of the Eames house design. Where Charles and Ray realized with the first design that you cannot properly conserve a natural site by occupying the center.

The suburban dream of living in nature has reached its hilariously tragic end, and Americans must realize the extent of natural destruction caused by mass decentralization. Our modern society cannot both live in nature and protect it. Global populations, resource availability, and health concerns preclude an un-dense sustainable world. Density is our only option.
NEW YORK CITY

Manhattan has remained one of the strongest cultural, economic, and political centers of our country even during the expansion of its outer rim. Its peak international allure perhaps even occurring simultaneously with American decentralization. “Downtown” 12 (1964) as recorded by Petula Clark exemplified this metropolitan delight from the perspective of a foreigner. Whenever film or television with to portray a truly urban condition it is usually a version of New York City.13 It’s unique architectural character and phenomenology are best explained by Rem Koolhaas in Delirious New York,

“Manhattanism is the one urbanistic ideology that has fed, from its conception, on the splendors and miseries of the metropolitan condition—hyper-density—without once losing faith in it as the basis for a desirable modern culture. Manhattan’s architecture is a paradigm for the exploitation of congestion.” 14

Exploiting the Jeffersonian grid Manhattan has pushed modern ideals to the limit. In Koolhaas’s words, the stacking of unrelated floors into towers achieved an unbelievable amount of flexibility over time, and all without disturbing an architectural exterior; permanence within flexibility. If our future is to become more dense, Manhattan is the ideal location to imagine how we could introduce more ecology.

“She was born in 1898 in a barn, she dies on the 37th floor of a skyscraper; she’s an astronaut.” 15

The skyscraper is even more than an exploitation of any urban condition or even architectural spectacle; its cultural power as an agent of power and prestige are just as pervasive. The height (or level) of ones office is equated with status. With the views available being the real goal. Luxury apartments and condos make all the real estate along Central Park some of the most expensive in the city. Since all apartments accounting for size could be the same, the only symbol of prestige is left to how high one is, and what can be seen.

Recently, in an aim to realize more of these valuable views as apartments a flurry of super tall skyscrapers are being
constructed in midtown. Their recent appearance in part due to a more robust economy for the wealthy, but also because of modern technological exploitation on small lots. In search of a view of Central Park these structures have (and much to the dismay of many New Yorkers) inadvertently cast more shadows on the very park itself. So, now we can see how even the most essential and permanent public place of nature is susceptible to private infringement. And we also can theorize the need for a new urban park that faces the challenges of increasing shade and metropolitan morphology.
ANOTATED BIBLIOGRAPHY


Chakrabarti’s seminal text proposes a shift in the national urban agenda of the United States. The book explores the effects of policy, culture, and media on the current image of the American dream. In an effort to alter this course he proposes a restructuring of our tax laws and reframes our perception of common knowledge through authentic statistics. Not only exploring the environmental reduction that comes from converting to a hyper urban country, Chakrabarti also objectively proves the health benefits of city dwelling. His portrait of Americana and proposal for our urban future will be very useful in my research.


In his first book Rem Koolhaas explored the history and theorized a retroactive agenda for New York City. Extremely popular among architects the book was also hailed by academics and historians for its uncovering of overlooked events and poetic descriptions. The text adds a unique perspective to my site research, and through his chapter on Coney Island, will serve as precedent research for urban proposals that provide the congested urbanite an escape.


In this book Paul Shepard writes a critique on our current technologically saturated and sedentary lifestyle followed by a proposal seeking a stronger connection to nature through modeling of nomadic living principles. Surprisingly optimistic Shepard reframes the human mind as the battleground of current ‘sustainable’ reform. He argues that we must consider a deeper ecological relationship for both the environmental impacts and psychological implications. My thesis seeks a similar argument, but will attempt to propose his utopia as an urban intervention, augmenting our current urban sites.


Maria Palumbo catalogues various artistic and architectural projects that seek to explore the biological. From augmenting our bodies with robotic technology to sensory adaptive environments, the works presented range a variety of fields and scopes. A common thread is how human manifestations can alter our innate biology, and this perspective will be useful in my investigations on how we can adapt new technologies and architecture to respond to the bodies desires.


_Rachel Kaplan and Stephen Kaplan’s book is a comprehensive account of the various relationships the natural environment has with our biology. Uncovering and analysing psychological research and scientific data, the book will serve as an encyclopedia for the myriad of connections to be made from a biological and psychological perspective. As a break from the other texts, The Experience of Nature rarely touches on our built environment, preferring to focus on the human connection to the purely natural. In using this text I hope to also theorize on how synthetic reproductions of environmental spaces can influence our bodies in a similar fashion.


_With few overt connections to architecture, Sanford Kwinters’ lectures on the ecological and evolutionary development the brain has gone through. From intensive research into biology, and his personal accounts from a visit to the african wild, the lecture is a plethora of knowledge on our subconscious. Kwinter here, and in another journal article related, describes the importance of an ecological approach to understanding our own bodies. This perspective will be useful as I speculate on the implications of its significance in the built environment.


_Daniela Fabricius and Sanford Kwinters’ essay in Mutations provides a fresh account of the American urban zeitgeist. Covering all environments of our expansive country the text uses both statistics and observations to make its points. The book and especially the essay will prove very useful in uncovering a deeper understanding of the American landscape. Particularly in our establishment of uniquely American architecture the essay contains profound images which record our environmental destruction, urban sprawl, and ecological dominance.
Slides act as primary vertical downward circulation

Two 10 storey slides attach to the rear

Once outside you are flung back into the city, yet are able to climb, bounce, and crawl - navigating it in entirely different way
THE CITY MUSEUM

Reclaiming the 10 storey International Shoe Company building in downtown St. Louis The City Museum was founded by artist Bob Cassilly as a place for exploration. Perpetually reconstructing itself the 600,000 sq ft project houses artifacts from industrial and cultural origins. And, contrary to the traditional museum, its ethos is to encourage visitors to touch and crawl over everything. Engaging for both kids and adults the museum acts as a large urban playground.

Not only does it encourage interaction, but through deception it drives exploration. The map below only shows part of the building, other sectors are not diagramed for the visitor, and passageways into other rooms aren't immediately clear. Nature is brought in and on top of the building, with massive slides to ferry visitors gently down the building.

Almost an urban Disney Park, The City Museum embodies all the ideas of exploration, escape, and other-worldlyness.

All images


All Drawings

Ken Smith took cues from both Japanese Zen Gardens and army camouflage patterns in order to form the rooftop garden atop the Museum of Modern Art in New York City.

Required by the city to ameliorate the appearance of their roof decks, the museum needed to create an appearance of organic without the cost of retrofitting their building too much. The parameters given were to require no irrigation and limit the weight substantially. This led Smith to develop an entirely artificial green roof.

Using rubber scrap as gravel, milled foam for rocks, and molded plastic trees he was able to make an interesting surface for onlookers without the cost of real ecology. Always viewed from above and usually far above, the garden flattens itself into a pattern, and does not reveal its synthetic nature outright.

With New York City as such an established urban form with a decreasing amount of daylight this project shows just how one could create a completely synthetic environment that operates (at least in its appearance) organically.

---

Ken Smith

MOMA ROOF GARDENS

*All images

In a speculative proposal for the Evolo Skyscraper competition, a biome tower is proposed by the Polish studio BOMP. The architects describe that,

"Away from everyday routines, in a dense city center, a secret garden that combines architecture and a nature is born. The main goal of this project is to position non-architectural phenomena in an urban fabric. An inspiration rooted in nature allowed to form a representation of external worlds in the shape of a vertical structure. Overlapping landscapes like an ocean, a jungle, a cave or a waterfall will stimulate a diverse and complex range of visual, acoustic, thermal, olfactory, and kinesthetic experiences."

Taking a site in Midtown Manhattan their tower utilizes a regular floor plan, with all exterior structure and facilities + circulation cores on the periphery. The procession is one of ascension, climbing landscapes to discover the next ecosystem until you find yourself at the peak, and then descend back into the real world.

The power of this project for me is in its simplicity. Reminiscent of the writings in *Delirious New York* by Rem Koolhaas, sectionally anything can happen inside the tower. Through repetition of a frame, any and all possibilities are true. Whether they are of nature, housing, recreation, or otherwise.

Specifically, it appears as a contemporary New York Athletic Club. A vertical tower, with an exterior form that could resemble other towers, containing within it unbelievable possibilities on every floor.

Visualized to the right, their structure is more of a dominating force in the city, imagined to tower far above every other building. But, the lessons I am taking are not from its magnitude, but its concept. That a tower can exist to take our minds outside of the city, that through the brutal reconfiguration in section, any space can be transformed into a wonderland.

Moreover, since this project was the winner of its competition, it represents another addition to this collective desire of ecological exploration in an urban context. It is of a scale far more ambitious than the City Museum, and its section is more
free than the Garden House. It is a great example of architectural exploitation and reconfiguration to achieve an entirely new space.

All images


All Drawings


The peak of the tower also corresponds to the peak of a mountain. A chance to create conquer-able landscapes - or at least the appearance of virgin territory in the city
GARDEN AND HOUSE

This project is a five-storey townhouse for two writers in a commercial district of Tokyo. With only a four meter wide site Nishizawa tried to eliminate any and all walls as possible, relying on thick concrete floor slabs and minimal steel columns in between. Besides the floor dividing slabs, curtains, glass, and plants provide another level of transparency and enclosure.

In a similar fashion to the maison domino by Le Cuorbusier, the free plan achieved through cast concrete allows total flexibility and lightness. Nishizawa often chooses to pair down materials and form, preferring simplicity over redundancy. His architecture and work with SAANA are representative of the contemporary Japanese style. Almost Meisian, but without strict adherence to standardization, or geometric simplicity.

Utilizing such a narrow lot is a key feature of this project that will be useful to my investigation. Whether the site is Tokyo, New York, or elsewhere the same conditions exist, unused or undervalued in-fill lots.

With little distinction between inside or out, plants penetrate deep into the floors, and through utilizing pots versus beds, are able to be moved around independent of the structure. And while most Japanese houses are inward facing this one generates curiosity from the passerby - it is a house to be observed.

Inhabitants have to move in and out of conditioned space to reach critical areas of the house, and even in some instances, will have to wear slippers to occupy the dirt covered study terrace. Thus, it is a startling project from inside and out, rethinking normative methods of surface, transparency, and habitation.

All images

Sandwiched between two tall buildings you can see the setback even further from each one, allowing all possible light to enter.

Reminiscent of Shigeru Ban’s curtain house - movable fabric becomes facade.

Diagrammatic sections showing the lack of enclosure or program besides plants.
BIVOUAC

Thomas Stevenson

Founded by the artist Thomas Stevenson, BIVUAC is a traveling urban camping experience on the rooftops of New York City. The idea grew from the desire to utilize all the unused space on top of buildings. The artist, a Thoreau enthusiast, means for the experience to be one of escape from the city, and from people everyday lives. In a New York Times article on the project the author writes, “Yet there we were, eight mostly strangers, traipsing one by one or two by two past the meat wholesalers and storage warehouses of North Brooklyn, to live like our pre-electronic forebears, without Wi-Fi or electricity, if only for one night. ‘I’ve never heard of anything like it,’ said Michelle Moyer, who grew up in Nebraska and hadn’t realized how much she missed the outdoors since moving to Williamsburg. Her friends were all going to Rockaway Beach for a weekend revel, she said, but she wanted something more rustic.”

Perhaps it is a lingering to escape traditional means of vacation, to reconnect with nature, or at least with something wholly primitive. The experience, while far from a forest brings certain urban qualities of a natural environment, as the article describes, “Was the night tranquil? Perhaps, but in a wholly urban sense: dense, saturated with diffuse light and sound, the city’s pulse never subdued.”

Moving forward in the project Stevenson hopes to find a site in Midtown Manhattan, to bask in the height of neighboring skyscrapers. The project is one of escape, and vertical curiosity, and furthermore it is undeniably using the city as a new environment, changing peoples perspectives through their change of location. From the rooftop their everyday urbanism seems much different, like another world below; they are able to mentally retreat from it, even while within site of familiar elements.

SCHEDULE

18-19 _ Campers arrive, chose a tent + get aquantinted
20-23 _ Dinner time
23-8 _ Sleeping
8-9 _ Breakfast
9 _ Pack up + exit
9-18 _ Site closed

Campers bring their own gear + food

Tents are wooden lean-tos with canvas rain guards

The best part of the experience is socializing without the distraction of constant technology

All images


Other content

TREE TENTS

The design investigation for these tents, "originally [were] designed for the Road Alert Group in England. This group of activists fight against the over-construction of highways through forests. During their protests they cover themselves and hide and live in the trees to fight as long as possible against the rushing violence of the chain saws. The Tree tents would provide a comfortable place for them to stay during their habitation of the forest and prevent the trees from being cut down (256 Echavarria M.)."

But eventually these aerial capsules were instead used for rentable campsites. Supported solely by attachment to a tree or vertical element their only proximity to the ground comes from ease of circulation. One could imagine these floating bubbles to serve in a city as well as a forest, on traffic light poles and architectural columns. Along with the potential to aid spatial agency they have proven their marketability. With the growing desire for micro-houses and urban camping these light structures are a valuable research project for an architecture of escape.

Inside the Tree Tent

All images


Drawing by Author

Other content

No typology exists for my thesis proposal, rather a series of projects and aspects of those will combine to create the program of my proposed tower. The first case study, 1111 Lincoln road exemplifies the agency of this hybrid approach. The majority of space will be devoted to this vertical park, which is broken down by specific programmatic element. And then inserted at key moments will be retail, commercial, and residential. I am also proposing to utilize signage and graphics to illuminate the facade, as well as hold water on the roof.

PROGRAM

No typology exists for my thesis proposal, rather a series of projects and aspects of those will combine to create the program of my proposed tower. The first case study, 1111 Lincoln road exemplifies the agency of this hybrid approach. The majority of space will be devoted to this vertical park, which is broken down by specific programmatic element. And then inserted at key moments will be retail, commercial, and residential. I am also proposing to utilize signage and graphics to illuminate the facade, as well as hold water on the roof.

SQUARE FOOTAGE

<table>
<thead>
<tr>
<th>Site Area</th>
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<tr>
<td>path</td>
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<td>recreation</td>
<td>50,000</td>
</tr>
<tr>
<td>camping</td>
<td>50,000</td>
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<td><strong>RETAIL</strong></td>
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<td><strong>RESIDENCES</strong></td>
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<td></td>
<td>40,000</td>
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<tr>
<td><strong>SIGNAGE</strong></td>
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Garage with boutique highlighted in yellow

Open air and transparent programmatic use
1111 LINCOLN ROAD

Imagined as more than a parking garage by developer Robert Wennett and executed by Herzog and de Meuron, the structure creates a new typological mix of programs. Located in Miami Beach, Florida the building’s design is embodied as an open air parking garage with varying height floors to accommodate additional programmatic uses. The project is revolutionary and relevant because of its urban energy generated from an inefficient architecture. Parking here is generally four times as expensive as surrounding garages, and the infill of parking spaces is far from the maximum for what could be achieved in this size lot. But, by choosing to invest in architecture the result has yielded un-surprising value that cannot be overlooked.
EVENT SPACE

On the seventh floor a double height space with panoramic views of the city provides the ideal space for any event. The hugely successful marketing campaign is evident of the opportunity for occupation of a space independent of its surroundings. I would argue that if it weren’t for the architectural quality of this space, the event staging would not be as successful. It also is an example of utilizing Miami’s warm climate to create an unconditioned elevated space that works.

RESIDENCE

The original developer built his residence on the uppermost floor of this parking garage. Its penthouse location is not unique, but the camouflaging of it inside a simple parking garage is. The idea for my proposal will be to design two or three ultra luxury apartments inside the tower. Surrounded by nature these modules will be highly appealing, and with carefully controlled circulation and visibility they will be almost invisible to the public.

BOUTIQUE

Located on the fifth floor, a single glass volume holds one boutique clothing store. The elevated presence, panoramic views, and architectural quality of the space all help to draw patrons that are typically collected via a ground floor storefront. Similarly, the car and luxury culture typical of the companies clients allows them to rely less on opportunistic shoppers and more on regular shoppers and deliberate patrons.

The boutique is unique in its ability to operate both inside a parking garage, and high off the street level. The retail and commercial space inside my project will share a similar quality. They will be far removed from the flow of pedestrians, but must still find a way to lure shoppers.
NICOLAS G HAYEK CENTER

This new headquarters for the swatch watch group houses seven watch stores, office space, parking, and event space. The tower, located in a busy shopping district of Tokyo was designed by Shigeru Ban Architects. The absence of storefront availability for all stores was solved through a series of elevators on the first floor that elevate shoppers into one specific store. Pedestrians are drawn in through a large atrium space. And the building is further announced from its neighbors through an entirely operable facade, allowing uninterrupted views and fresh air.
The main program of this thesis is a vertical park. What follows will be the component parks of which this park will be broken down into: path, wilderness, view, water, recreation, and camping.

A continuous path through any civic park is essential, in Central Park many walkways loop and connect to one another. Movement is dictated through a hard surface, lined with trees and embroidered with benches and lamp posts. In this picturesque landscape the typical park path is elevated beyond that of pure circulation. The Gates project by Christo and Jeanne-Claude celebrated the path, exaggerating it as a procession for the masses.

In the National Parks staying on the path isn’t enforced through barriers or social pressure, but instead to preserve nature and to retain speed on a hike. The path is sometimes not even a path at all, red marks on a tree or rock signify only a direction, while at other times weather conditions preclude the visibility of any corridor. Planks of wood and metal cables mysteriously transported to the most remote locations aid in crossing mud, rivers, and ice. Architecture is at its most minimal to save cost on building and preserve the appearance of the ‘wild’.

The path through this project will be sometimes obvious and at others almost not present. It will be celebrated and hard to find. It will be simultaneously inefficient and expedient. The path will perhaps be the strongest component of this tower - a unifying element both architecturally and psychologically.
As one climbs higher up the tower the opportunity for views increases. Many civic parks feature a vista or local to gaze upon the city, and some (like the butte in Portland) exist solely for this purpose. Private-public space in the form of terraces, bars, or sky-lobbies is an increasing trend as cities densify. The tower proposed has an obligation to provide just this, and the ability to do even more. Views are one aspect, but the peak elevation of a park usually symbolizes itself in some monument. As public space this zone as well can provide for the much needed service of a beacon or lighthouse. To provide not just for the users of said peak, but also to act as a navigating symbol for the city, something so high, bright, and changing that it will be...

Most parks contain an area that could be deemed ‘wilderness’. It is their most unkempt and usually off-limits. These artificially created forests remain dense through eliminating human circulation. They become habitats for other creatures, and are pleasant to look upon. In less dense cities like Cleveland the metroparks are a forest amenity to those whom want to experience total immersion into nature. But in Manhattan and other urban areas the forests are more devious, dark and without voyeuristic opportunities they are a collection point for the homeless and devious adolescent behaviors. They are an off-limits location often occupied briefly by unnoticed visitors.

The wilderness through this project will remain officially off-limits. It will attract visitation through creating boundaries and deviant desire. It will hide devices of sound emission, mechanical zones, and unwanted infrastructures. As an ecosystem it will operate as best it can in such an urban area, and as a luxury it will exist as a more exclusive space than any boutique.
Under Frederick Law Olmstead many great civic parks were constructed featuring a large reservoir of water. These made the parks themselves operate on an infrastructural level as well as psychological. Combined with the New York tradition for rooftop water towers there is an opportunity to collect and utilize gravity to create a vertical river through the project. Thus, the water collection system will feed plants as well as cool the space.

Finally, to create a space of play and danger the jungle gym typically found in contained child recreation areas is a fairly limiting model. More contemporary examples of urban trampolines, balancing beams, rock walls, ropes courses, and the like are more aligned with this vision of an organic mode of play. Embedded in the building and branching beyond its facade these elements of ‘natural danger’ will resemble more eclectic forms and adventurous geometries.
CAMPING

Camping is the final component to this park. The idea will be for weary workers to grab a mid-day nap, or possibly stay overnight. There is a clear desire to spend more than a day in this ‘natural’ space, and a component of camping allows users to sleep, eat, and be fully immersed in the ecology.

Simultaneously it is a chance for solitude among the craziness of the city. With rents so high, and most usually having a long commute far away, camping provides the opportunity to stay a few nights right in the city, and it one can handle the rough accommodations, they will gain more seclusion than any affordable apartment.
SIGNAGE

Against the typical strategy of permanence on the exterior, I am hoping to explore how a tower can communicate rather than shroud. In order to sustain the elevated retail, vertical signage typical in Tokyo could be a case study for opportunities in advertising the interior.

Both to attract visitors and activate the tower at night, illuminated advertising could as well generate income and provide a static for other tower dwellers to gaze upon.

OMA’s proposal for a vertical collage is noteworthy here for their use of illuminated signage.

“The media façade integrates lighting and information within the same system. Its intensity and density is defined by potential user distances: towards the East the media façade shows clear information to Shinjuku station. To the North/South the building displays media that can be perceived from medium to long urban distances. The west façade communicates long amplitude messages.”
The second largest urban land area in the world, the combined New York City metropolitan region is an enormous blanket of dense urbanism. Manhattan is the cultural, political, and financial center of it all. It has also remained relevant as a city center despite the decline of American downtowns in the past century. Its modernity is clear in how its original function as a port has shaped the roads and landform, which now influence its operation as an entirely service economy. Central Park at the center embodies many democratic notions under fire by the hyper-captalist development. Its density has forced recreation to the rooftops and nature underground. It is the ideal location for an American implicating project that fights back against the developers with nature, and exploits the ubiquitous density.

Recent exploitations of small lots have spawned super tall towers that threaten the autonomy of Central Park as a public space. If this essential amenity to the city can be taken away by the rich how will other spaces survive unless they are more creative by design.

**DATA**

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<th>Density</th>
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<td>Founded</td>
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<td>Most Expensive Real Estate in the World</td>
<td>+$3 Trillion Total Value</td>
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Anchoring Manhattan this iconic peninsula contains Chinatown, the World Trade Center, Wall Street, and a milieu of recent and historical world events. Its distinction from the rest of Manhattan lies in the absence of an urban grid, and its weakness to storm events.

**DATA**

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<td>AVG WIND VELOCITY</td>
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COMFORT % of yr.  
w/ passive strategies  

6%  
20%
NEIGHBORHOOD

High towers contain a mix of unidentifiable programs, with spotted residences only affordable to the truly rich. Mostly white this neighborhood benefits from its rare glimpses to the ocean, pedestrian plazas, and occasional parks. Programmatic changes are indeterminable from the exterior, and narrow winding streets shroud most urban space in shade.

DATA

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<td>BLACKS</td>
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<td>CHANGE SINCE 2000</td>
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Street View

Mega towers surround the occupant, their statement is one of dominance

1994 Rem Koolhaas describes this programatic variety in otherwise banal tower exteriors
STREETSCAPE

The urban life here is constant during the work hours and almost dies at night due to the recent exodus after hurricane Sandy. However, more residential units are being constructed or converted. And a large effort is being made to reclaim pedestrian land, either by adding a few extra feet on the sidewalk or shutting down entire streets.

This specific node of the Financial District is closest to the waters edge and yet feels most distant. The hyper density driven by the historical intensity of finance has created some of the deepest urban canyons in Manhattan. Its proximity to the shore also increases risk during major storm events, and new FEMA flood lines are being put in place to incentivise building protections.

DATA

DISTANCE TO
POLICE STATION 1 mi
FIRE STATION .18 mi
PUBLIC ELEMENTARY SCHOOL .879
PRIVATE ELEMENTARY SCHOOL .016

NEIGHBORING TOXIC SITES 1
METRO STOPS
PEDESTRIAN ROAD

AREA OF MODERATE WAVE ACTION
1% ACF

HIGH RISK ADVISORY ZONE A
1% ACF
SITE

One block from Wall Street, this rare empty lot was recently purchased for $86 million dollars. Its impending development can be visualized through a series of past design proposals. Beyond the stated FAR restrictions, all of these projects multiply the figure by a factor of two. The site has potential to reach out into the pedestrian street and expand above a neighboring low-rise structure.

<table>
<thead>
<tr>
<th>SITE DIMENSIONS</th>
<th>SQ FT</th>
<th>FAR</th>
<th>MAX BUILDABLE AREA</th>
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<td>63.44 x 128.12</td>
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<td>15</td>
<td>198,030</td>
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</table>

ZONE: CENTRAL COMMERCIAL DISTRICT

TAX BILL /yr.: $407,056.66

RECENT SALE as of 10/23/2015: $86,000,000

43-47 BROAD STREET

41 BROAD

9 STOREY
91,000 sq ft
LEMAN PREPARATORY SCHOOL

60,000-100,000 sq ft
AVAILABLE AIR RIGHTS

55-59 BROAD

31 STOREY
406,000 sq ft
6 UNITS
CORNELL UNIVERSITY OFFICES
RETAIL

FTF = 12
FTF = 24
Images in order of appearance

THESIS PROJECT

Board Layout
THESIS PROJECT SITE DIAGRAMS

NORTHEASTERN MEgalOPOLIS

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<th>Parameter</th>
<th>Value</th>
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<td>% of US Pop</td>
<td>17%</td>
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<tr>
<td>% of US Land</td>
<td>&lt;2%</td>
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<tr>
<td>Density</td>
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<tr>
<td>US Avg. Density</td>
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WASHINGTON D.C.  BALTIMORE  PHILADELPHIA  NEW YORK CITY  BOSTON

100mi
<table>
<thead>
<tr>
<th>MANHATTAN</th>
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</thead>
<tbody>
<tr>
<td>POPULATION</td>
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<td>AREA</td>
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<tr>
<td>DENSITY</td>
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<td>FOUNDED</td>
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</table>
FINANCIAL DISTRICT

AVG WINTER TEMP  40
AVG SUMMER TEMP  70
AVG CLOUD COVER  58%
AVG WIND VELOCITY  12.5 mph

DISTRICT   CITY
6%  19%  parkland
6%  9%  parks and playgrounds
2.3  2.9  P&P per 1,000 residents
77%  61%  residents within 5 minute walk to a park
45 BROAD ST

126' x 62'
13,202 sq ft

$86 million worth
Lefebvre’s theory has come true – nothing remains wild.
Only the hybrid synthetic and natural zones are real “parks.”
In the face of growing concern for the viability of the city and the desire for the countryside, Wright, Howard, and Corbusier envisioned designs that would solve this dilemma—highlighting our utopian dreams for an ecological future.
VERTICALLITY

Manhattan is an island of unlimited possibilities. On every block is the opportunity to rise untold heights, and yet greenscapes have been historically relegated to only the horizontal. This discrepancy creates an inherent submissiveness for the park, and an inability to compete (and thrive) with the city.
RADICAL PARKS

In order to finance the modern tower verticality is pushed beyond the limits conceived when zoning rules were made.

The result are super-tall monoliths that cast long shadows and disrupt surrounding views.
TYPICAL TOWER

In order to finance the modern tower, verticallity is pushed beyond the limits conceived when zoning rules were made. The result are super-tall monoliths that cast long shadows and disrupt surrounding views.

PROPOSED TOWER

The high value apartments are all that is rented out. The result is a new typology, raising the property values of surrounding buildings through their new, park views, and perpetuating the public park.
A HYBRID TOWER
Mixing auxiliary programs with the vertical park-scape combines to create an economically and architecturally feasible typology.

4 APARTMENTS PER LEVEL @ $17m each
2 APARTMENTS PER LEVEL @ $35m each
1 APARTMENT PER LEVEL @ $65m each
3 LEVEL PENTHOUSE WITH ROOFTOP GREENHOUSE @ $150M
2 LEVEL PENTHOUSE @ $100M

$1,500,000,000 (1.5b)
$200,000
$1,800,000 ($5 per person @ 1,000 per day)
$1,000,000,000 (1b)

2.5 YEARS FULLY SOLD
YEARLY RENT
YEARLY PARK SALES
COST
2.5x RETURN RATE

With an extremely flexible layout the apartments can suit any need, and have more than enough floor space. At the very top the penthouse has access to the world's tallest greenhouse - a humid jungle hovering above the metropolis.

SKY BAR 8,000 sf
Abound with 360 degree views around and glass floor holes to see down this vertigo-inducing bar is sure to inspire more nightlife than currently exists in the neighborhood.

SOCIAL POOL 2,500 sf
Cantilevering more than 600 feet above the ground this aquatic delight is an attractive amenity for those who live above, and an expensive treat for those who can afford to get in.

RESTAURANT 4 x 3,000 sf
This circular restaurant ensures all patrons a view out - at greenery, or the city. Staff circulate via its core as well as the storage for all necessities.

SAUNA + SPA 6,000 sf
Contrasting with the adjacent campground this all inclusive spa contains two warm pools, two saunas, several treatment rooms, and more than enough space to relax and be pampered.

RETAIL SHOPS 5 x 2,000 sf
Lowest to the street level these retail spaces are extremely suited to the boutique - luxury brands and exclusive stores.
A HYBRID TOWER

Mixing auxiliary programs with the vertical park-scape combines to create an economically and architecturally feasible typology.

- FULLY SOLD = $1,500,000,000 (1.5b)
- YEARLY RENT = $200,000
- YEARLY PARK SALES = $1,800,000 ($5 per person @ 1,000 per day)
- COST = $1,000,000,000 (1b)
- 2.5x RETURN RATE IN 2.5 YEARS

2 APARTMENTS PER LEVEL @ $35m each
2 LEVEL PENTHOUSE @ $100M
3 LEVEL PENTHOUSE WITH ROOFTOP GREENHOUSE @ $150M
1 APARTMENT PER LEVEL @ $65m each

$1,500,000,000 (1.5b)
$200,000
$1,800,000 ($5 per person @ 1,000 per day)
$1,000,000,000 (1b)
2.5x RETURN RATE IN 2.5 YEARS
With an extremely flexible layout, the apartments can suit any need and have more than enough floor space. At the very top, the penthouse has access to the world’s tallest greenhouse - a humid jungle hovering above the metropolis.
78 APARTMENTS PER LEVEL
@ $17m each

2 APARTMENTS PER LEVEL
@ $35m each

4 APARTMENTS PER LEVEL
@ $17m each

RESTAURANT
This circular restaurant ensures all patrons a view out - at greenery, or the city. Staff circulate via core as well as the storage for all necessities.
SKY BAR
Abundant with 360° degree views around and glass floor holes to see down this vertigo-inducing bar is sure to inspire more nightlife than currently exists in the neighborhood.

SOCIAL POOL
Cantilevering more than 600 feet above the ground, this aquatic delight is an attractive amenity for those who live above, and an expensive treat for those who can afford to get in.
SAUNA + SPA
Contrasting with the adjacent campground this all inclusive spa contains two warm pools, two saunas, several treatment rooms, and more than enough space to relax and be pampered.

RETAIL SHOPS
Lowered to the street level these retail spaces are extremely suited to the boutique - luxury brands and exclusive stores.
<table>
<thead>
<tr>
<th>RETAIL SHOPS</th>
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<tbody>
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<td>Lowest to the street level, these retail spaces are extremely suited to the boutique - luxury brands and exclusive stores.</td>
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<tr>
<td>5 x 2,000 sf</td>
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THESIS PROJECT AXON SCENES

You arrive at the peak, either through climbing 900 vertical feet, or ascending in 2 minutes at the speed of a car.

It is the summit of a mountain, more than a viewing deck the natural surroundings of sandstone and pine trees collide with the vision of a metropolis on all sides.

You are at the height of human achievement, and humbled through perspective.
Design Proposal

Biome
Temperate Forest

Rock Formations
Slate
Sandstone

Grasses
Moss

Trees
Fir
Pine

Wind Speed: 14.7

Sunlight
MEADOWS

4’ tall grass plains
360° views

Surrounded on all sides by tall grasses the muddled dark urban scape contrasts with flowing plains of green and orange blades.

The ground isn’t quite flat, but neither is it too steep. A place not for mere mortals the surface (much like the house by Madeline Gins and Arakawa) hopes to stay death through unevenness.

At the edges vegetation continues beyound your reach -- how far can nature extend over the city?
Design Proposal

Biome: Temperate Forest

Grasses:
- Slender Wheatgrass
- Indiangrass

Rushes:
- Black Chokeberry
- Shield Fern

Wind Speed (mph):
13.7

Sunlight
Deep within a thicket of green and brown there exist only glimpses through the foliage of an everpresent metropolis. Slowly ascending your perspective changes and you are able to conquer the giants of the forest.

Sunlight beams from above but the air is brisk, New York’s largest balcony is also its most wild.
Design Proposal

Biome: Oak-Tulip Forest

Bushes:
- Speckled Alder
- Wild Geranium

Grasses:
- Red-osier Dogwood
- Big Bluestem
- 

Trees:
- American Beech
- Sweet Gum
- Chestnut Oak
- Red Maple
- American Hornbeam

Sunlight

Wind Speed: 12.7 mph
CAMPGROUNDS

- overnight stay in tent or hammock
- open fire pits
- no electronics

Eager to get away from your roommates, or escape for a weekend from the city, or perhaps you were working late and need a quick 5 hours. The only campground inside city limits is also the only time surrounded by such luxury you are without comfort.

Surrounding lofts and even a spa highlight the rough and bare accommodations. But here in the vertical alley of the financial district you huddle over a fire next to strangers — all bonding over a hot meal and some respite.
Design Proposal

Biome
Oak-Tulip Forest

Early Settlers
Lenape People

Grasses
Switchgrass

Trees
Flowering Dogwood
Box Elder
Sassafras

Wind Speed (mph)
11

Sunlight
Collapsing from a break in the streetscape appears a mass of earth and rock. Its shallow slope quickly ascends, wrapping behind the building. The very bedrock from this island has pushed its way through the lot, and people are climbing it. You have a choice, begin the harrowing ascent propelled by the human spirit, or slip inside a metal box and speed up at 60 feet per second.
THESIS PROJECT MODEL PHOTOS