Reconnecting the Urban Dwelling to the Urban Fabric with Wearable Architecture: Reshaping Urban Living
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Abstract

The purpose of this research is to take architecture to a more human scale, redefining how we interact with our built environment. As density levels begin to increase in cities such as New York, London, and Tokyo, our way of living is slowly adapting to that fast-paced intense urban-lifestyle redefining what makes a “home”, a home. Urban identities, cultures, and sociologies are beginning to form and take shape. This is where my thesis will play an important role in our congested built environment – reconnecting our urban dwelling to the urban fabric. As one of the early designers of minimal spaces, with the technological advancements we have today, the Metabolist Movement that was established 50 years ago could play a key role on how we design for the future. It is there where we can reconnect our urban dwelling to the urban fabric.

Goals

Inspired by the Metabolist Movement, my Doctorate Project Goals is to establish a design standard by utilizing the technological advances of today with the implementation of the Urban Deck and the creation of Wearable Architecture that will enable livable spaces respond to the density issues of urban cities. The Urban Deck and the Wearable Architecture will extend the home into the city by reconnecting the Urban Dwelling to the Urban Fabric. Then implementation of my design into the urban fabric of New York will illustrate how it will adjust to the specific needs and demands and lifestyles of those locations. The overall project goal is to create an innovative and practical design standard of Urban Living by Reconnecting the Urban Dwelling to the Urban Fabric.
Chapter 1 – A Growing City

The city is an organism, a living and breathing entity that is moving and growing fast. Its roads, its infrastructure, its sidewalks, and even its buildings are the arteries and capillaries of its body – that brings it life. There is a constant flow of energy coursing through its veins echoing the sounds of voices, footsteps, and laughter. This hustle and bustle sounds are of the city and what brings it to life are the people. They fill the veins deep underground through a vast array of tunnels of the subway system, dispersing them even deeper throughout the city. They fill the arteries and capillaries on the street level, roaming freely in any direction. They move vertically into the fibrous hairs of the organisms’ skin, the city’s skyscrapers that are growing taller and taller each year, which is growing in size and in number. Unfortunately like all organisms – they age.

In time, the veins of the city will no longer support the strong current of the people. And in time, the current will grow stronger and much larger in size. The street level, a terrain we are all familiar with, becomes congested and overpopulated. Before we even realize, the pleasant sounds that echoed in the air of laughter, voices, and footsteps, are now replaced with yelling, screaming, and engines roaring. But it is here, in this congested ground plane of the city, within the arteries and capillaries of the organism, is where we find ourselves, and it is here we keep returning to.

Fortunately as the city grows in population, technology continues to grow with it, slowly doing what it can shaping the many forms of the city to accommodate the density issues occurring right now. The subways move faster and can hold a much larger capacity than before, which also applies to buildings. Zoning regulations change, creating a much larger and denser business district by pushing many residential neighborhoods to the corners of the city. Unfortunately however, this common change in the city makes a much longer commute, and even a more
congested pedestrian ground plane. Fortunately enough, we’re humans, and we adapt.

Throughout the years of an ever-growing city, the city as an organism have shaped and transformed itself to what it is today. Through technological advancements, we were able to shape not only our built environment, but our patterns of living as well. We tend to adapt ourselves easily in a new environment and slowly as we mold the city, the city has molded us. Before we even realize, the city has created an urban lifestyle that those living in the city can recognize. It would only take a moment for someone to reflect on their daily activities and how much of an impact the city has had on what they did on a day to day basis. This ability to adapt and to shape the city, and the city's way of slowly accommodating our needs, has become a symbiotic relationship. Every working part, every person’s involvement in the creation and the ever changing manipulation of the city has generated an impact on our lives. As the city begins to slowly stretch its limps across the terrain of the world increasing its size, we are adapting to the commute and preparing ourselves for the ever growing demand of getting to one place to another, point A to point B. Regardless of what it is or to where we are going, whether from work to school, from home or to any other leisurely activity, there is a moment within point A to point B where we are immersed within the city. It is here again, within the city’s sidewalks, the roads, and in the buildings where we find ourselves, deep within the organisms’ arteries.

It is no question as you begin to reflect on your daily activities that you too are caught between the thresholds of two points in your life, from destination point A to destination point B. There is this quiet moment, your moment, where you find yourself alone either in your car, a bus, a subway, or even walking with others in the city. Regardless of how long the journey may take, whether 5 minutes to even 5 hours, there is this alone-time where it’s just you and the city. You may have to ask
yourself this question, how exactly have you occupied your time while you were in transit or while you were stationary? Whether for 5 minutes to 5 hours?

The transformation of cities is different from one place to another. The many interlacing circulatory paths of the city, such as its infrastructure, its sidewalks, and its building faces, create a woven tapestry known as the Urban Fabric. The Urban Fabric can be interpreted as the veins of the city, just as how I have mentioned it before to the city’s organism-like qualities. Between those circulatory paths like from street to street, from sidewalk to sidewalk, those spaces embody the Urban Pattern. Depending on the infinite routes and forms the Urban Fabric may take, its circulatory paths shape the between spaces of the Urban Pattern. The Urban Pattern consist of repetitive building footprints sprinkled throughout the Urban Fabric, like a decoupage of different functions such as commercial and residential spaces, that are repeated throughout. What begins as a collective group of houses, like how a village grows and continues to grow creating a pattern, the collective group of houses within a much larger group becomes the city. Within that city contains several micro patterns of spaces, such a religious, recreational, commercial, and residential spaces, is reflected as 3-Dimensional patterns of living. Together as a unit, along with the strands of movement such as the veins of the organism, the pattern is the cells that are slowly being developed. Soon they will grow creating internal patterns within its system. Despite the topology of an area or the culture, cities such as New York, London, and Tokyo share similar traits observed from an aerial view. They have a sense of organization that is tied together by the Urban Fabric, such as their subway system, freeways, and roads. Despite their differences, their citiescape and their typology are almost the same. Although one culture may differ from the other, the urban lifestyle that exists within the city is relatively similar. It’s fast and it’s fierce. In many different ways it also affects those who live beyond the city’s boundaries.

Before I unravel the Urban Fabric with the Urban Pattern, let me illustrate the commonality we all share that exists with those living in the city. When you first
picture either Tokyo or New York, perhaps one of the many images that pop in your mind would be the crowded congested sidewalks of many pedestrians making their way throughout the city. The bright lights, the tall buildings, the subways, whichever comes first, would usually follow after. The one thing they all have in common which is evident on street level is the density problem we are currently facing. Now exactly how does this involve a specific living pattern that you may or may not share? Whether or not you live in a city, there are three destinations we have in life, home, work, and whatever leisurely activity you would prefer to go besides the other two, which could be a park, coffee shop, library, or a shopping mall. Wherever you’re heading, you are carrying with you specific things you need for your trip. It could be in a backpack, suitcase, a duffle bag, purse, or even your pocket. Whatever the items are, they are things in which you believe you need to take with you.

I will examine later the different kinds of items we carry that we don’t realize why we’re carrying them. Nonetheless, we are carrying these items. They could vary in size, quantity or the sort, depending on what you do or where you’re going. But at whatever destination, we are again carrying these items. Whether we live in the city or in the suburb, we are carrying things we believe we will need later. The amount in which we carry is usually determined on our commute, on how we are getting there, to that target destination. They of course vary on demand, such as riding a bus, a subway, or a taxi cab. But unlike those living in the suburbs, which are places designed for automobile transportation, those living in the city don’t have the luxury of owning or driving their own personal vehicle. Owning and driving your own vehicle is like carrying your very own portable mobile locker. Those living in the city practically carry the items they believe they will need during their commute, which is typically through public transportation or by foot. With no other place to store their items besides the bags over their shoulders, the amount they carry is determined by how much they want to carry. Now how exactly do those living in the city and those living in the suburb have in common? We are all carrying the things we believe we will need on our journey to wherever we are going.
So how does “what we carry?” have to do with the Urban Fabric and the density issues we are facing today? As mentioned before, as the city grows, many changes within the Urban Fabric are occurring that are affecting the typology of the existing Urban Pattern. Buildings are growing taller, residential areas are being gentrified and are pushed along the edges of the city to make room for production. As we’re building more and building high, the Urban Fabric that once had control of the city, the living organism, spreads its arteries even further out into the terrain, basically longer freeways and subways. The further it spreads and stretches its arms, by creating new subway lines and freeways, new cells are emerging and newer and smaller Urban Patterns are arising. As more of the city grows, our Urban Dwelling is being affected. Our homes are even further away from where we work and almost simultaneously, are becoming even smaller. A look at Tokyo’s capsule apartments will be examined later, but from my own experience, living in a small and cramped space is typical for those willing to live in the heart of the city. A smaller living space demands little sacrifice that leaves us asking ourselves, “what should we carry?”

As our homes in the city are becoming further and further away from two of the three destinations of our lives, work and play, and our spaces are becoming even smaller, exactly how does one live in the city? What’s typically sacrificed from the home, such as a laundry room, dining room, or even a kitchen, the city will often provide, providing services such as restaurants, laundry mats and the sort. The city then becomes the “home”, a home that provides the amenities the city dweller needs. As more and more people are finding a room for their home away from home in the city, they begin to carry more things with them, to ensure that they have what they need for the entire day away from home. Although they may find a spot in some hole in the wall café shop somewhere deep in the city, it is a temporary spot than an extension of their home. What happens is people in this congested dense city wander aimlessly seeking for that spot in the city that will provide whatever amenity they need fulfilling, either because their home lacks that particular amenity or that their home is miles and miles away. This is where my research will play an important
role in our congested built environment. Now due to the density issues we are experiencing today, is there a way we can Reconnect Our Urban Dwelling to the Urban Fabric with Wearable Architecture?

Chapter 2 – The Future is Now

Finding solutions of alleviating the density issues we are facing today in hyper-dense cities isn’t a common practice that has just started now. In fact, many in the past have dove into the art of Urban Design. Although their intention wasn’t primarily to alleviate the density of cities by providing workable solutions, their designs in a way accommodated the density in a functional and hopefully practical way, even Frank Lloyd Wright got in on it, with his infamous Broadacre City. Here, in the early 1930’s, Wright’s proposal of a city was a detraction of what the city is now but of what urban sprawl is of today by giving every family one acre of land\(^1\). Wright exclaimed on February 12\(^{th}\) 1932 at the City Club of Chicago:

“We are living in cities of the past…”, “. We can not solve our living and transportation problems by burrowing under and climbing over, and why should we? We will spread out and in so doing will transform our human habitation sites into those allowing beauty of design and landscaping, sanitation and fresh air, privacy and playgrounds, and a plot whereon to raise things.”\(^2\)

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Despite how conceptual his ideals were back in the early 19th century illustrates how much of an impact of the reality it has today. “Between 1913 and 1930, the car and the telephone had already changed the way people experience distance,” cellular phones and subway lines of today changed the way people experienced connection. As Wright continued to work on his decentralization of the urban core with his suburban solution of the city, many other architects continued with their solution to

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3 (Zellner)
the redesign of a city such as the infamous Le Corbusier and his City of Tomorrow and a young group of futurist architects in Japan.

2.1 The Metabolist Movement

In the 1960’s of Japan, a small young group of young architects such as Kisho kurokawa, Kiyonori Kikutake, Fumihiko Maki, and Masato Otaka created a manuscript entitled Metabolism 1960. This manuscript contained the conceptual futurist ideas of what would later be known as the Metabolist Movement. “The Publication of Metabolism 1960 was an exploration into variations and alternative solutions to the megastructure principal set forth in Kenzo Tange’s Plan for Tokyo in the 1960’s.”

“Metabolism has come to be thought as a movement of futuristic, high-tech architecture, but that is only a superficial and partial description. The main points of the philosophy were:

- A challenge to the age of the machine through an emphasis on life and life forms.
- The revival of elements lost or overlooked in Modern architecture, such as historical traditions, local flavor and the nature of place.
- An emphasis not only on the whole but on the existence and autonomy of parts, sub-systems and sub-cultures.
- Cultural identity and regional character are not necessarily visible. Just as information in human beings is passed on to future generations through DNA, tradition should be valued for its invisible philosophies, lifestyles and aesthetic codes. This

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6 (Ross 30)
opens up the possibility of expression regional identities through the most advanced contemporary technology and materials.

- The architecture of metabolism as the architecture of temporariness. A dynamic balance expressed by Buddhism's concept of impermanence as an alternative to Western aesthetic ideals of the universal and the eternal.
- Considering architecture and the city as open systems both in time and space, like living organisms.
- Diachronicity, the symbiosis of past, present and future; and synchronicity, the symbiosis of different cultures.
- Sacred, intermediary zones, ambiguity, and the indefinite, which are the special features of life.
- The architecture of metabolism as the architecture of the information age. Invisible information technology, the life sciences and biotechnology produce architectural expression.
- Valuing relation more than reality itself.”

“The theory of Metabolism is based on two principles: diachronicity, or the symbiosis of different time periods, and the processes and changes that a creature undergoes as it lives, and synchronicity.” 

To extend the definition of how a city grows, the Metabolist Movement is by definition of that ability in which it grows. However, unlike a city that has the ability to grow progressively when needed, the Metabolist ideals were also implemented in other forms as well, such as buildings. One may think that when a building is finally completed and constructed, all the work that is required and needed has been fulfilled. At a Metabolist perspective, the building does not end there, but continues to grow progressively as time moves on. Initially,

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8 (Kurokawa, From Metabolism to Symbiosis 9)
“the first aim of the Metabolism movement was to introduce this regenerating process into architecture and city planning, the name being expressive of the conviction that a work of architecture should not be frozen once it is completed but should be apprehended instead as a thing – or a process – that evolves from past to present and from present to future”\textsuperscript{9}.

The Metabolist Movement perceived things as if anything that was created had or must have the ability to grow. Like all living organisms made of millions of cells and atoms whether big or small, have adapted and evolved depending on its surrounding environment. Because of its surrounding environment and adaptability, the organism was able to live a much longer life. Prolonging that life or extending that life by enabling such organism or object the ability to grow, multiply or regenerate, is the very meaning of the Metabolist Movement. “Adaptability to change was the basic ingredient common to all Metabolist projects.”\textsuperscript{10}

Although this ideal of adaptability and regeneration through the Metabolist Movement began almost half a century ago, their ideal of embracing technology as part of its major principles is what makes it relevant today. “People of ancient times did not rely on technology, machines, or scientific analysis. By honing their own sensibilities they were able to develop an awareness of natural forces. The twenty-first century will be the age when we abandon logocentrism and place equal importance on this direct communication with the cosmos. Architecture will move from the universalist International Style to an intercultural style that, unlike racialism and provincialism, aims for a symbiosis of the universal and regional.”\textsuperscript{11} To almost anticipate how much technology will have on the way we design or even to hone our skills, are more than being a futurist theory. It has prominence in what we do today, how we connect, communicate, obtain information, create information, design, build, basically everything we do has been made possible a machine or a

\textsuperscript{9} (Kurokawa, From Metabolism to Symbiosis 10)
\textsuperscript{10} (Ross 33)
\textsuperscript{11} (Kurokawa, From Metabolism to Symbiosis 7)
technological device requiring some sort of power. Many may see this as science fiction but in reality, it is this futuristic perceptive mentality that enabled them to foresee how drastic technology can move the way we do things and build.

Personally, the Metabolist Movement ideals are what inspired me at looking at the city as a living organism, that we each play a role in its upbringing and development. As our buildings grow, multiply, and regenerate over time, we too must do the following using technology as a key component to reconnect with the built environment. I believe that there is a symbiotic relationship that’s been forged between us and the built environment. As it grows, we must grow with it, occupying different spaces, creating different spaces, and adapting to the many changes we cause unto the city as well as to adapt to the many cultural changes the city has unto us. We are like the protons, the neutrons, the electrons, and the free radicals in an organism that repair and restore it to its working order. Simultaneously, we must instill a balance between the city and the natural environment where we not only take from the city and the city take from the Earth, but there’s an exchange going on, a dialog where all three systems can work together collectively. “Of course, architecture everywhere changes and grows due to changes in the society or economy that support it, but we were seeking a kind of architecture that would regenerate itself by stimulating the people living in it to participate. This led us to pursue new technological possibilities.”

Currently, there’s a lot of pressure occurring within the Urban Fabric, the arteries and capillaries of the city. There is so much activity, due to the increased population density of the city, that it creates an internal imbalance within the city. A closer look at this imbalance will be illustrated later within the paper, but in order for us to know where we are going we have to know where we have been. The Metabolist Movement as well as any other urban planning solution that emerged within that era simply didn’t come out of nowhere. There was a significant

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12 (Kurokawa, From Metabolism to Symbiosis 11)
population growth brewing within different parts of the world that finding a solution for a density problem wasn’t the case, but to plan ahead on how we handle this issue.

2.2 Density Issues

2.2.1 Tokyo, Japan

The Metabolisit Movement released their manuscript in 1960, illustrating many different ways of relieving and handling a potential population density issue by believing that cities and buildings have the ability to grow. Exactly what happened during that time to make one believe it so?

Trends in Population in Tokyo and Gross Metropolitan Product

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Please review the above info graphic. From 1940 to 1945, there was a significant decline of population, notably due to World War II, Hiroshima and Nagasaki Bombings and the Tokyo Fire Raids of 1945.14 In 1945, the population split by half. Within only 17 years, from 1945-1962, the population of Tokyo more than doubled its size. Subway lines began to open during that time, almost as if Japan knew how significant these subway lines will have later in the development of Tokyo, being the core of ecommerce and productivity. Slowly as if the city is trying to rebuild itself, it is reestablishing connections in all parts of Tokyo. To celebrate Japan’s success, “The Nagano Olympics saw Japan and Tokyo enjoy a new restoration and bullet trains were introduced, offering new opportunities for growth.”15

Tokyo Subway Map16


Tokyo Japan is perhaps a prime example of hyper-density urban living, wherein 2007, was estimated to have a population numbering at 12,790 million people, being the densest populated prefecture of all of Japan.\textsuperscript{17} At an area of only 2,187 square kilometers, Tokyo’s density level per square kilometer is 5,847 people.\textsuperscript{18} In total, its daytime population increases to an astonishing surplus of 2.5 million people.\textsuperscript{19} The following illustration depicts exactly where these numbers are coming from.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{population_commuting.png}
\caption{Population Commuting into Tokyo Metropolis by Prefecture, 2000\textsuperscript{20}}
\end{figure}

Being the heart of all business and commerce, like the Central Business District of New York City from 59\textsuperscript{th} Street to the Battery, Tokyo is the center of economy and production. Unlike New York however, where the bulk of the daytime

\textsuperscript{17} (Tokyo Metropolitan Government)
\textsuperscript{18} (Tokyo Metropolitan Government)
\textsuperscript{19} (Tokyo Metropolitan Government)
\textsuperscript{20} (Tokyo Metropolitan Government)
population is dispersed in other boroughs of New York, 67% of those who work in Tokyo live in Tokyo, illustrated in the following chart.

![Proportion of Workers in Tokyo Metropolis by Place of Residence](image)

There seems to be no escape from the hyper density problems Tokyo is facing. With even smaller spaces to live in an already densely populated city, the people of Tokyo have created their own sense of urban living by sacrificing the common necessities we believe is necessary to have when living in the city. Again, what they sacrifice the city provides. An example would be a personal computer.

Owning a laptop or a personal computer seems to be a thing of the past for those living in Tokyo. The one important device that seems to replace that extra 10 pounds of technology is their mobile phone. They email, browse the internet, and stay connected on that one little device. Since they too spend majority of their days out in the city, having a laptop or personal computer at home became an unnecessary piece of technology since they can do what they need at the palm of

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21 (Tokyo Metropolitan Government)
their hands, which is then neatly tucked away within their pockets. But what if they need to sit down and do some work? Tokyo has internet cafes. Similar to how coffee shops can be found on every block on every corner here in America, finding an internet café in Tokyo isn’t a problem, which is typical throughout Asia. With most of them being 24 hours, accessing a computer isn’t a problem. And just how popular coffee shops became social gathering spots, internet cafes in Japan became popular gathering spots. They’ve practically taken one of the comforts of home and placed it out in the city for everyone to share. This is actually one of the many examples of how unique the urban identity of Tokyo has evolved over time, creating its own sense of urban living. New York may not know it but by comparing the growth patterns of Tokyo in the following diagram, New York may be slowly following the footsteps of what we soon may become.

There is no denying that the rate of population and density is growing steadily and strong. Certain trends and lifestyles around the world are beginning take form in many different ways. Our design solutions to alleviate the problem is only isolated at one problem at a time, making the process slow. We design solutions at a macro level, our urban planning, but make no relation to the possibilities of our living environment. We design smaller living spaces, yet make no relationship to the program of the city. This is where my research comes in, where Wearable Architecture can actually Reshape Urban Living. This idea of “wearable architecture” will gain a new meaning and purpose to the necessity of how we interact with the built environment from home to city on a day to day basis. This idea of “wearable architecture” will not be an artistic expression using architectural elements in wearable form, i.e. fashion. It will be the key component to connect tying together a relationship of one space to the other, our even much smaller living space, our apt pod, to the space shared among the city. I believe this is the missing component that can make city living, comfortably livable, which will slowly reshape our urban living.
2.2.2 New York, NY

From 2000 to 2008, the population of New York increased from 18,976,457 to 19,490,297 with a 2.7% increase.\(^2\) The bulk of the population occurred in New York City with a 355,432 population increase and with Manhattan trailing at 97,600.\(^3\) The following is a list indicating the dramatic growth from April 2000 to July 2008 estimated by the Census Bureau and DCP:

\[
\begin{array}{|l|c|c|c|}
\hline
\text{Change in Population, Census Bureau and DCP Estimates} & \text{2000 Census} & \text{2008 Census Bureau} & \text{Change: Census 2000 and DCP 2008} \\
\text{} & \text{Number} & \text{Estimates} & \text{Number} & \text{Percent} \\
\hline
\text{New York State} & 18,976,457 & 19,490,297 & 513,840 & 2.7 \\
\text{New York City} & 8,008,278 & 8,363,710 & 355,432 & 4.4 \\
\text{Bronx} & 1,332,650 & 1,391,903 & 59,253 & 4.4 \\
\text{Brooklyn} & 2,465,326 & 2,556,598 & 91,272 & 3.7 \\
\text{Manhattan} & 1,537,195 & 1,634,795 & 97,600 & 6.3 \\
\text{Queens} & 2,229,379 & 2,293,007 & 63,628 & 2.9 \\
\text{Staten Island} & 443,728 & 487,407 & 43,679 & 9.8 \\
\hline
\end{array}
\]

Source: 2000 Census; Census Bureau Current Estimates Program

Within 8 years the population of the State of New York increased by a whopping 513,840 people where more than 50% of that was in New York City alone. By 2008, Manhattan ended with an estimated total population of 1,634,795. This figure is quite compelling when compared to the total population of Oahu Honolulu County, which in 2008 were merely a population of 905,034 people.\(^5\) It’s as if from


\(^{23}\) (Planning, NYC Department of City)

\(^{24}\) (Planning, NYC Department of City)

2000, New York City generated a growth of 44,429 people each year with Manhattan taking 12,200. This is only an estimation of those living in the Manhattan. Apply those who are working in Manhattan, the numbers increase dramatically.

According to Schaller Consulting’s 2006 Transportation Alternatives analysis, the daytime population of Manhattan’s Central Business District, home of 560,000 residents from 59th Street to the Battery, increases to a whopping 1.7 million people during the day.26 That’s an estimation of a little over one million people who fill the buildings and streets from Midtown to the Financial District. In November 2006 TIME Magazine released a cover story called The United Stats of America, breaking down every statistical data of who we are, where we are to even to what we do, depicted in diagrammatic form. The following below is a diagram taken from TIME.com illustrating the significance of daytime population density levels compared to nighttime population density levels.

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The diagrams illustrate the dispersion of the 1 million daytime population increase spread throughout Lower Manhattan. The variations of the graph indicated in the diagrams seem to almost mirror the physical built characteristics of the city, the many skyscrapers that fill the city’s skyline. The diagrams also illustrate how this increase has spread beyond the borders of Manhattan where in this case, into Brooklyn. But exactly where are all these people coming from?

When it comes to those commuting into the city, the New York City Subway is the number one means of transportation, with Manhattan at the core destination of it all. The Subway lines connect Manhattan to three other boroughs, Queens, Bronx, and Brooklyn, averaging to a ridership of 5,225,675 per weekday.29 According to Schaller Consulting’s research on Transportation Alternatives, the lines of commute don’t end there.

28 (Fielding Cage)
Illustrated above is a diagram indicating the amount of automobile commuters per area who commute to the Central Business District of Manhattan based on the 2000 Census. It illustrates clearly that despite the Subway lines, those who commute into the Central Business Districts come from even farther locations. Based upon their report, there are two categories of commuters who either commute by choice by taking the subway or by driving their own cars due to the absence of transit stations. Note a large amount of automobile commuters in the Upper Eastside Manhattan. Although they may have access to the train lines of the New York City Subway, they prefer to drive their own car. However, majority of those who are auto commuters are found in Jersey, Staten Island and East of Queens. It’s astonishing to think that the sum of all these parts congregate in

(Number of Central Business District Workers Commuting by Auto, Schaller Consulting, 2006)
Manhattan at the start of the day then disperse back out at the end of the day. With a staggering daytime versus nighttime population, it would make one wonder exactly how an urban dweller can live in a world primarily out of their homes and in the city.

2.3 The Urban Dwelling

2.3.1 New York Experience – Practicum 2008

In the fall of 2008 for an Internship Opportunity at the University of Hawaii School of Architecture Program, I spent a Practicum Semester interning for Kohn Pederson & Fox. I lived on the threshold of Midtown and Chelsea on 27th on 7th in New York City Manhattan in a three bedroom apartment with a square footage of roughly 200 ft.

For five months I lived in this tight space, which apparently was common among those lived in the city. Similar to those who lived in the city, I too spent majority of my days out of my apartment and in the city. My apartment was just too small to make it a comfortable living situation or even a productive working environment, which is illustrated in the following diagram.
There are in fact two important amenities my apartment lacked, a kitchen and a common living space. However, what my apartment lacked the city provided only walking distance away. The local coffee shops and restaurants became my kitchen, the nearby Starbucks and public library became my office, and the urban parks and streets became the common space shared with the rest of the local New Yorkers. Adaptation is one of the many great qualities we humans have, and to adapt is what I did. Surprisingly enough, this lifestyle was common in New York and is common in other cities around the world.

To extend my apartment-living into the streets of the city, I took the essential items I believed I needed with me. These items consisted of my computer, its power adapter and its miscellaneous cables, a camera, my cell phone, a Moleskine notebook, depending on the day perhaps work related materials, an extra jacket, mittens, a scarf, anything needed to do work and to do work comfortably. All these items were contained into two important storage parcels, a backpack and my laptop computer bag. Surprisingly enough, I’ve met people at KPF, the office I was interning at who carried with them not only the same necessities that I had, but included in their arsenal of living was a guitar, a gym bag, spare clothes, or even spare shoes. My roommate was a makeup artist and she carried with her a roll-around makeup kit.

What we did for a living dictated what we carried, which was a common quality we all shared. This commonality was seen and shared with everyone on the subway going from one destination to the next. People had bags of different sizes strapped all over them. They even had shopping bags disguised for extra storage spaces that contained spare shoes, an extra jacket, to almost anything. Each day seemed to be planned according to what we brought with us. Our actual homes regardless of size became only an ephemeral place of rest. Together, we’ve spent our lives living in the city where together, the city was our home.
Luckily enough, I lived in the heart of the city that made going to and from work convenient since it was roughly 15 blocks away. Unfortunately, not everyone had that luxury. Many who work in the city did not live in the city, which made it even more important for them to carry the things they need for everyday living of the city. The growing density levels of New York have impacted the way we lived and how we are living in the city, especially with the gentrifications of certain areas such as Soho and the East Village. The once thriving art community of Soho has pushed to Williamsburg Brooklyn. Slowly but surely, based on the rate it’s going, New York City will be a place of production rather than a place for living.

Typical Living Pattern in the City

The illustration I have above is basically what life was like on a typical weekday when I lived in New York City on 27\textsuperscript{th} and 7\textsuperscript{th}. Only two activities remain constant

\footnote{Google Earth (Version 5.1.3533.1731) [Software]. Mountain View, CA: Google Inc. 2009. 28 Oct 2009.}
during the weekday which was work and home. By the time I would get out of work at the end of the day, it would either be 6:30-7:30pm, basically not giving me enough time to venture throughout the city. Instead, I would go home and have dinner nearby with a few of my friends. The yellow zones indicate activity which is where I either have dinner, lunch, study, or simply to hang out. Even though on a weekday I would only go to two different locations, I carried with me my 10 lbs laptop. Since I had no internet at home, I would retreat into a nearby Starbucks and do some work require for Practicum such as my qualitative essays and proficiency units. On the weekend however, my daily routes differ tremendously.

![Typical Weekend Pattern in the City](Google Earth)

The above illustration is my typical weekend, which as you can tell, ventures out even further throughout the city. I'm no longer limited to the rigid two point

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32 (Google Earth)
destination of work at Bryant Park and my home on 27th on 7th. Here, my activities increase even further reflected in the distance I travel and the size of the yellow zones indicated throughout the plan. Although it’s a weekend, I still venture out on 40th street near my office to do some work at the New York Public Library. However, before I do all that, I begin my day with a run up and down Chelsea Piers with my roommate, which is indicated on the far left. Then we would have some breakfast near our apartment somewhere in Chelsea. Then I take off with my backpack full of school work and my laptop bag full of laptop equipment such as external hard drives and its wires to the New York Public Library. Since I don’t have internet at home and the Starbucks nearby usually fill with other students, I would do most of my work at the New York Public Library. Unfortunately, they’re only open for a short period time so I do what I can to make the best of what I can do. Despite whatever day it is, weekend or weekday, I carry my laptop with me wherever I go. Regardless of wherever I am, when I’m connected online, for some odd peculiar reason, I feel at home. Unfortunately during my stay in New York, I wasn’t equipped with a smart phone that enabled internet connection. However, this enabled me to find different ways of staying connected and finding out where the best hotspots there were throughout Manhattan. And it was there I realized that there were others just like me who knew where these places were and knew the best times to go there. Due to the increased density population of New York, smart phone internet services such as 3G technology aren’t as fast as one would hope. To obtain better service, people with their smart phones would go to these hotspots to use the internet wireless service. Although they’re equipped with a mobile device that is far superior to my laptop, they still are confined to the limitations of density issues even on an invisible network such as internet wireless activity.

My day continues to venture out to perhaps the furthest at Union Square, which is on 14th on 5th. Although its 13 streets away from my apartment, it is walking distance away. It may seem far to some, but there are plenty of places along the way where one can rest and warm up. Union Square for me and my friends who were
students at FIT, the Fashion Institute of Technology, felt as though Union Square was our hangout. It was the place where we felt most comfortable. The one thing about Union Square that made it so unique compared to places like Bryant Park was the activity levels that would go in and out of that area. Some days it would be an artists’ swap meet while others, would just be a vacant lot where people would just sit around and interact with each other putting on a display of all kinds of activity. In a way we were a part of that. We were part of that ensemble on stage which was Union Square Park. Then we would retreat and have some dinner around Chelsea or Hell’s Kitchen. At the end of the day and as the semester grew on as temperatures dropped and flurry became a constant fleet of snow, instead of going to Chelsea Piers every morning, I would go to 24hr Fitness instead. If I would look back on the kinds of activities on what I would do on those days, the things I carried reflected that moment enabling me to use my Apartment as not only a sleeping quarter, but a place of storage. Drop one bag pick up another. Again, not a lot of people have that luxury where they literally carry what they need per day on them, so they’re smart about it and use what they can to strategically place their valuables in a location they will need during their day.

2.3.2 Nakagin Capsule Apartment

The most remembered and iconic architectural piece that embodied the biological concepts of growth in Metabolist design would be Kisho Kurokawa’s Nakagin Capsule Apartment in 1972. Despite the fact that the timing of its arrival was at a point where technological innovations made it impossible to live in such a small space, I believe it can be a great foundation of where design of today’s minimal spaces can head in densely populated cities.
Chapter 3 – Wearable Art

3.1 Defining Wearable Architecture

If one searches “wearable architecture” on the internet, all kinds of fashion from all over the world will turn up. From architecturally designed shoes to tent-dresses, “wearable architecture” is not as defined as one may think. There are no set rules when it comes to “wearable architecture”. There is no code to define it nor does it contain no certain standard. It is an artistic concept or idea that blurs the line between the built

33 (Ross 70)
concrete functional forms of architecture with loose wearable apparel. The unique qualities that define these two objects are shared to create this idea of “wearable architecture”. To further illustrate this concept, I will provide you with a few examples of how loose this term is used in a variety of ways among artists and designers of today.

3.2 Robin Lasser

A literal interpretation of “wearable architecture” would be Robin Lasser’s collection of tent-dresses. A Professor of Art at San Jose State University, Lasser’s collection of Dress Tents was designed specifically with the following concept, which was derived from her website, Dress Tents: Nomadic Wearable Architecture:

“This project consists of wearable architecture and large-scale color photographs that merge the dress tent sculpture with its companion landscape construction a fashion of place.”

Working specifically with Photographer Adrienne Pao, Lasser’s work is appreciated more as art and fashion than of architecture. It’s even listed under Artwork on her website. Even though her work is site specific, where her Dress Tents relate to its surrounding environment, her work has no practical use. An example of her work would be her 2004 Lava Tube Top Dress Tent.

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Looking more like a caterpillar than a dress, this Dress Tent is designed to reflect the natural curves of the surrounding lava rock both in form and in materiality. This Dress Tent obviously has no real practical use since the width of its tubular form spans 4’ at most with a height of 2’ from the ground making it uninhabitable. However, Lasser do have Dress Tents in her collection designed with enough room within the tent to make it habitable, such as her 2008 Ice Queen: Glacial Retreat Dress Tent.

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35 (Lasser)
36 (Lasser)
The Glacial Retreat: Ice Queen Dress Tent spans a radius of roughly 12' and a height at roughly 8'. Unlike her previous Dress Tent the Lava Tube Top Dress Tent, this dress has enough room within its interior tent space to accommodate 8 people. Unfortunately like all her Dress Tents, they don’t. These pieces in her collection are only works of art depicted through Pao’s photographs. Although they may have the potential to be livable spaces, they are only designed to be appreciated as pieces of art to one of the many meanings of “wearable architecture”.

3.3 Lucy Orta

While Robin Lasser played with the idea of “wearable architecture” from an artistic point of view, Great Britain’s artist Lucy Orta took it to a more practical level. Since 1992, Orta have been designing wearable pieces of architecture that she called, “architectures with soul”. Over the years Orta have been creating collections and exhibitions such as Refuge Wear, Body Architecture, and Nexus Architecture, with each sharing an underlying quality that you can live in what you wear. They vary of course, where one is designed for the individual’s need, another is transformable wear such as briefcases that transform into temporary living quarters, and another that connects to other modular wearable pieces. Altogether, Orta “has produced numerous interventions and actions putting on stage crucial themes of contemporary world: the community and the social exclusion, dwelling, mobility, sustainable development, recycling.” Originally as a fashion designer, Orta has created a level of practicality in this undefined term of “wearable architecture” – one can actually live in it. But is this practicality practical in today’s modern world? After reviewing Lucy Orta’s collection of “wearable architecture”, I would argue - no.


38 (Orta)
As a visual artist, Lucy Orta has created a collection of compelling pieces of art that we can wear, live, and connect with other people. Unfortunately, her collection is still art. Looking at her collection objectively, they’re jumpsuits, sleeping bags, and tents with sleeves. Her underlying artistic message throughout her work and her perspective on society and culture as a whole can be interpreted in her design, but in reality, can her Refuge Wear be a practical solution to a temporary housing problem? As with Robin Lasser’s collection, they’re both living pieces of art – fashion. Since “wearable architecture” is currently an indefinable and ambiguous term, exactly what will it take for anything wearable to bridge outside the boundaries of fashion? Perhaps the term “wearable” isn’t the key to define here.

3.4 Michael Rackowitz

Similar to Lucy Orta’s Refuge Wear, Michael Rakowitz created his own collection of mobile housing called paraSITE, which is designed particularly for the homeless. Unlike Orta, Rakowitz’s designs were minimal that did not require an array of colors or materials to illustrate his artistic viewpoint on the subject. His design was a simple solution to an ongoing problem. His paraSITE design is an inflatable structure that attaches to the exhaust vents of buildings, both heating and inflating his structure. Once fully inflated, his paraSITE design transforms into a tent-like structure where the homeless can temporary reside in. When deflated, the collapsible structure can then be carried in one’s backpack.
Since his paraSITE design was designed for fulfilling and addressing a particular/practical need for the homeless, alternative temporary housing, his designs received a negative undertone among the many city onlookers. Although his design was a simple solution to the housing problem for the homeless, he wanted to address the following:

“This project does not present itself as a solution. It is not a proposal for affordable housing. Its point of departure is to present a symbolic strategy of survival for homeless existence within the city, amplifying the problematic relationship between those who have homes and those who do not have homes.”

The paraSITE project has been in effect since 1998 and has generated a lot of buzz on its political and social implications of the city. Like who would really want a paraSITE colony of homeless be attached to your building, basically filling the sidewalks with these balloon-like cocoons? Despite the negative feedback that his designs have been stimulating, the paraSITE idea within itself creates a practical need from an architectural point of view that might contribute to the definition of

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40 (Rakowitz)
“wearable architecture”. Just keep in mind here, his paraSITE design was not designed to be wearable, but due its collapsible nature, it has the potential to just be.

After looking at these three examples of “wearable architecture”, there is in fact one thing they all have in common – they create either mobile or wearable living spaces. For my Doctorate of Architecture project, my thesis will create and define a totally different kind of need for “wearable architecture”. Creating a need for “wearable architecture” will delineate itself from fashion. Like Rakowitz’s paraSITE, it satisfied a need for the homeless. With Orta’s Refuge Wear, there is no particular need to make her project practical let alone innovational. So exactly what is the need for my “wearable architecture”?

With every design every designer needs to put their design within context. Whether it’s a site like a city or a part of the human body, the design will then respond to the parameters of its context where its form follows its particular function. Satisfying a particular need with design will then make the design a programmatic necessity. Similar to both Orta and Rakowitz, the context of my “wearable architecture” design was inspired by the city. But what is it about the city that could generate a need for “wearable architecture”?

Chapter 4 – Urban Demographic

What separates my “wearable architecture” designs from those illustrated in previous chapters from designers like Lucy Orta and Robin Lasser is its target demographic. I must admit that they have created and generated an appeal to wearable design, but they haven’t solidified its place in the design world that makes their designs practical. Michael Rakowitz’s paraSITE mobile housing design success was due to the fact that he had a demographic in mind when he designed the inflatable refuges, creating a need of his design in the world. To hopefully spark a new design trend in the practical world, my target demographic is towards those in
the age category of 22 to 30 years of age. Why such an odd and peculiar number? Let me explain.

4.1 **22 to 30/ Young Professionals**

Earlier in my paper I have established two overly dense cities, Tokyo and New York, with a population in the millions. Within the bulk of the population, certain percentages are within the 23-30 years of age. Those who are in this age demographic consist of young professionals and college students. Why not focus on young professionals and why not focus on college students? Why even consider college students or young professionals? Simply, these two groups have either lived or are currently living in small spaces, whether a dorm or an apartment. It's sufficed to say that they have pretty much experienced and endured the lifestyle those living in dense cities that are experiencing and enduring now.

Early within the student’s college academic career, they are placed within these tight living quarters with minimum amenities. Some are equipped with nothing more than just a desk, a closet, and a bed. Bathrooms and dining facilities are often shared among other students. Ergo, they have adopted to a lifestyle that already established and manifested itself in the dense cities mentioned above. Living with only the minimum of what they need to have a successful academic career, they are slowly being accustomed to the lifestyle of having only what they need to survive on a day to day basis. But why at age 22 I am targeting my demographic?

By age 22, there are two things occurring. Some of these students are both graduating with their degree and embarking their life as a young professional while others continue schooling for a higher education towards a graduate degree. Despite this turning point in their lives, there is one thing they have in common, a certain level of financial independence. Opening my target demographic to all college students would include those in the 17-20 year range, which of course would mean that they are financially dependent either by their parents or some other aid
such as scholarships and financial aid. They haven’t developed the skills to be part of the working force that can generate enough funds for financial independence. What they are beginning to develop however is the lifestyle of minimum living, such as living in a habitat that did not include the comforts of home such as a kitchen, a dining room, or their own personal bathroom. This lifestyle will soon be awaiting them when they realize that being a young professional requires a level of living with the bare minimum. This is where that age 22 demographic includes those young professionals. But why stop at age 30?

By establishing and identifying their own personal essential necessities of everyday living within a minimum amount of space over the years by living in a dormitory room, once they graduate, young professionals have another level of living minimum by the minimum of financial funds. According to the National Center for Educational Statistics, the average salary for a Bachelors Degree is $41,000. Deduct rent, student loan, everyday expenses from the overall salary, the young professional isn’t left with much disposable income. However, place that young professional in a dense populated city such as New York, most likely he/she won’t be living in a luxury 3 bedroom condo but an affordable apartment resembling his/her previous living arrangement, the dorm room. By capping the age demographic to 30, I will not be including another transition that young professional will be embarking on, marriage or any other form of having a joint income. Ideally, the demographic age range from 22 to 30 will only represent independent individuals living in the city. This demographic will then hopefully move my design trend forward to become a much needed necessity for everyday living in New York.

4.2 What’s in Your Bag?

When it comes to backpacks, day bags, messenger bags, purses, duffels, to even man bags, every transient city goer is typically found with one. Containing within it can vary from all sorts of things. However, a commonality remains the same for every item in whatever bag he/she may carry. The person carrying it believes it has or may have some importance in their day-to-day activities. One who owns a bag and carries with it all kinds of gadgets and gizmos doesn’t always have to be someone who lives in the city. In fact, one doesn’t need a bag to have the same qualities that make up those in the city. What I mean by that is whether you’re living the suburbs or in the city, whenever you’re traveling, you take with you certain items that you believe you will need sometime during your venture. The three major items that are commonly taken when one leaves the house are their keys, their wallet, and in this day of age, their mobile phone. No what is it about a set of keys, a wallet, and a mobile phone that is found in everyone’s possession?

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The images above and below is from a series of photographs taken by Photographer Jason Travis of his Persona collection. It is a continuing series of work that showcase the many kinds of things people carry with them in their bags or in their pockets. What makes them each unique is that each photo captures exactly what the person is carrying on them in that moment and exposes a part of who they are that many don’t have the opportunity to see.

A commonality that everyone in his collection shares is that within their personal possessions are a set of keys, a wallet, and a mobile phone – security, identity, and connection. Of course all three can revolve around this idea of security.

43 (Travis)
44 (Travis)
We keep our identity records safe close to us, with us at all times, we ensure that the keys to our homes are kept safe, and in case of an emergency, we have our mobile phones available whenever we need it. The mobile phone however has a much more predominant impact other than security. It’s more than just a device that enables us to contact who we wish to contact, but it is our way of staying connected regardless where we are in the world or in the city. It contains with it all our contacts, our loved ones, our families and our friends. It is our voice on a loud speaker in a crowd of other voices. It is an extension of who we are to those who cannot reach us. And within it contains even more personal information than those contained in our wallets. And it is perhaps one of many things that draw us to certain spaces within the city. I will elaborate on that later where these electronic devices make us human batteries.

As you scour the images once again or may even sneak a peek inside your own bag, you’ll notice other things besides a mobile phone, a set of keys, and a wallet or two. You’ll notice cameras, makeup, chap sticks, notebooks, pens, paper, cards, toys, and an array of different items in their bags. You may be asking yourself why on earth are these people carrying all this stuff in their bags? Why the set of lighters? Why the flashlight? Why the assortment of books, magazines, and writing materials?

45 (Travis)
Why even their passports? These items, although different in many ways, can fall conveniently in three categories: Identification, Security, Protection, Connection, and most importantly, Collection.

Items such as sunscreen, chap stick, lip gloss, sunglasses, scarves, mittens, jackets or any other means of offering a certain level of protection from the elements such as the sun and the weather would fall under Protection. Keys, locks, or devices containing passwords or secured information would fall appropriately under Security. Anything identifying anyone such as IDs, drivers licenses, and passports would be listed under Identification. Devices or items that connect to a network whether a mobile phone would be fall under Connection. The group Collection on the other hand are an array of miscellaneous items that when grouped together create or generates a certain emotional response. Items such as trinkets, photographs, buttons, or any of the sort would fall under this category.
Generally speaking, these are the typical categories items we possess would fall into. However, the meanings of these categories are interchangeable. A key would provide all the necessary means of security, but that same key can also evoke certain level of identification, protection, and connection. An identification card could do more than just identify a particular person but could also be a key that unlocks a particular door or offer some other form of connectivity or access. Despite the obvious functions these items are typically used for, such as unlocking a door or applying a thin protective layer of sunscreen over your lips, the question of which door that key unlocks or even what flavor that chap stick is differs between one person to another. It is these differences, although minor, are the products of our choices that collectively, these items become something more than a bunch of objects stored away in a bag.
These items are what represent who we are. There is history within these objects, tiny slivers of memory that we tend to keep or hold on to. But why do we carry them?

Of course we could lighten the load of what we carry if we begin to leave a few things out. Like do we need to carry that many lighters? Should we always have our passports on us? These items are a reflection of who we are, our internal secrets, our memories and our pasts. Perhaps one prefers strawberry chap stick over banana and another would prefer lip gloss over chap stick. It is this general similarity of an object used for protection that we share, but it is these minute differences are what make us unique. Finding a bag and uncovering the insides is like finding buried treasure or a time capsule. In it contains everything you could possibly know of the person, their past and maybe their upbringing. Without even meeting the person, you have an idea of who they are and their history. It is in those specific differences are what make us unique, our choices, like selecting a certain brand opposed to another. Although these differences may be minute in every way, discovering a similarity of that micro scale can conjure an even deeper connection between two individuals. And in a way, we carry these items to not only identify ourselves separately as individuals in this congested dense world, but almost in hopes of finding a similarity in the crowd of strangers.

There is more to the meaning of simply just owning and carrying these items. It communicates to others of a certain social status and/or highlight a particular culture or even subculture we may be involved in. We are walking advertisements of who we are, immediately addressed by our clothing style, and the way we hold ourselves. What conveys who we are personally isn’t whether the bag is Louis Vuitton or Dior, but what’s in the bag themselves. And it is there where we hold the treasure of who we are, and to expose them is like exposing who we are or uncovering secrets from others. Of course carrying these items aren’t carried for the sake of carrying. These items do have a weight to them. But we carry these items
not only for our own personal gratification of feeling protected, secured, or to relive a moment in that trinket you in that hidden pocket. We carry these items to potentially share it with others. An exchange between two individuals occurs when one borrows a pen. Despite how short the transaction is, it still is a transaction. A dialog occurs and when we open up our bags and expose who we are, it’s almost as if we’re opening our doors to our homes inviting that person in. This bag may not be your home, but in it contains a collection of what your home is made of. In it contains the memories, your history, your personality, which is a collection of who you are. And this collection is what many bring with them into the city bundled nicely into a neat little package with straps where they can simply unload into any space where they can temporarily call their own. It is a portal to our home away from home. But as we begin to carry even more stuff on us, due to the fact that our time in the city exceeds the time we spend in our homes, it begins to weigh us down, but by how much? And how much are many are willing to carry on their backs to extend their home out into the city?

4.3 How Much Does Your Bag Weigh?

Within the Flickr.com site, as if it’s a rite of passage for many new users on the site, people would empty out their day bags and snap a picture of what they carry and post it on the site. Again, as if it’s a right a passage, it could also be seen as an invitation to others of letting them all know who you are by what you carry, like opening the door to your home or even your bedroom. Here on the site, many would then compliment and share their many similar qualities. It is through these pictures where I began my analysis of exactly how much people are willing to carry on a day to day basis and how much they’re willing to bring with them on their ventures out into the city.

One of my first analyses was of a young University Communications Officer from Singapore, currently living in Melbourne Australia, Lydia Teh, username
Massrapsids\textsuperscript{48}. What attracted me to her was not only the fact that her hometown is Singapore, a country I have lived and interned in, but was her assortment of bags she would bring depending on the day or event. Please review the following pages:

Lydia Teh – Bag #1: Work Bag

Bag: Timbuk2 Classic Messenger 2.1 lb
Pencil Case: 0.5 lbs
Spare Bag: 0.5 lbs
Nikon FM2 Camera: 1.20 lbs
Spare Film: 0.05 lbs
Bible: 1.40 lbs
Journal: 0.45 lbs
Notebook: 0.80 lbs
Wallet: 0.40 lbs
Name Cards: 0.27 lbs
Coin Purse: 0.77 lbs
Keys: 0.13 lbs
Memory Key x 3: 0.10 lbs
Wrist Watch: 0.12 lbs
Cell Phone: 0.27 lbs
Lip Balm x 2: 0.07 lbs
Earrings/Hairclip: 0.03 lbs

Total: 9.16 lbs

Lydia The – Bag #2: Day Bag

Bag: Timbuk2 Click 1.2 lbs
Pens: 1.5 lbs
Spare Bag: 0.5 lbs
Books x 3: 1.92 lbs
Bible: 1.40 lbs
Journal: 0.45 lbs
Notebook: 0.80 lbs
Wallet: 0.40 lbs
Earl Grey Tea: 0.06 lbs
Coin Purse: 0.77 lbs
Keys: 0.13 lbs
Wrist Watch: 0.12 lbs
Cell Phone: 0.27 lbs
Lip Balm: 0.03 lbs
Earphones: 0.02 lbs
Total: 8.57 lbs

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Lydia The – Bag #3: Errand/Weekend Bag

Bag: Denim Pouch 1.75 lbs
Pencil Case: 0.5 lbs
Spare Bag: 0.5 lbs
DVDs x 3: 0.72 lbs
Book: 0.52 lbs
Notebook/Pen/Case: 0.12 lbs
Wallet: 0.65 lbs
Name Cards: 0.27 lbs
Keys: 0.13 lbs
Sunglass: 0.07 lbs
Wrist Watch: 0.12 lbs
iPhone: 0.35 lbs
Lip Balm x 2: 0.13 lbs
Earrings/Hairclip: 0.03 lbs

Total: 5.86 lbs

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Teh is one of the only users off the Flickr.com site that I actually contacted. Since living in Singapore was something we had in common, it wasn't difficult for her to open up to a random stranger she met online. Despite her busy life of being a Communications Officer at her University, she managed to answer many of my questions.

As illustrated in the previous pages, Teh would carry up to 10 pounds to work and up to 9 pounds on a typical day. When asked exactly what she did for a living that might have a factor on the amount of weight she carried, she simply replied, “Basically managing all media strategies to make my department look good! So my job includes writing newsletters, maintaining a website, managing events, PR, etc.”

Her work bag clearly depicts how these items she carries are essential to work. Working in public relations, documenting work with a camera is often needed, carrying pens for quick signage is a must, and having a collapsible tote is necessary just in case a spare bag was needed in collecting goods at an event. Her day bag, almost weighing as much as her work bag, contain a lot of reading materials, perhaps to pass the time. When I asked her if there were any essential items that she must carry with her at all times, she responded with “My wallet, keys, iPhone, my shades and its case, yes and a lip ointment.”

Teh's errand bag, which is almost half the weight of her work bag, consist of typical errand items, such as DVDs that may need to be returned. Traveling light, she takes with her only one book, instead of the three she had in her typical day bag. With one book at hand illustrates that her errand bag is for light quick trips. When asked what she normally wears, which may factor in the kinds of things she carries in her bags, she replied simply with, “Pockets are certainly important in my daily wear. I

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52 Teh, Lydia. Email Jeffrey Omo. 24 November 2009.

53 (L. Teh, Email)
love denims with deep pockets (and Levi’s are good that way). I tend to like khaki pants and mens shirts because they have so many pockets”.\textsuperscript{54}

The next three bags consist of a young photographer of the name of Scott W.H. Young living in New York, Hanae Uemura a Graphic Designer in Rhode Island, and an Engineering Student in Oakland Tennessee, Thomas Powers. These three bags, as well as the other bags illustrated in Jason Travis’ Persona photography series, contain something that’s found more typically in all bags within the 22-30 year old young professional’s demographic, a laptop.

Perhaps one of the heaviest items anyone can carry, the laptop has shown itself to be an essential tool in a young professional’s life that is especially on the go, to create any space a temporary office. If you look at Young’s array of items, he carries with him not only his laptop, but fruit, a camera and a toy camera, film, his mobile phone, and an iPod. Only weighing a barely 10 pounds, similar to Teh’s work bag, what’s missing in Young’s array of objects is the laptop’s power supply. Which could’ve easily been an extra 1.25 pounds, the items he carries with him illustrate that he is someone who not only travels light, but works on the go.

With no power supply powering his laptop, Young is no stationary worker. He relies primarily on the battery in his laptop that therefore enables him to work in all kinds of spaces such as outside where there is no power accessible. However, this also illustrates that he may in fact don’t need much to do work on his computer. With his blackberry and his palm pilot, he probably does most of his work on his mobile device. The laptop can just be a larger format of those devices. Imagine the time wasted texting an email on his blackberry, it would indeed take some time. With his laptop, he is able to quickly send a lengthy reply in a matter of seconds. And within those seconds, probably doesn’t deplete any life in his battery.

\textsuperscript{54} (L. Teh, Email)
Scott W. H. Young – woodwardhazard
Location: New York, NY
Home Town: Denver, Co

- Computer: 4.70 lbs
- Lomography Camera: 0.50 lbs
- Film & extra Lens: 0.50 lbs
- Digital Camera: 1.40 lbs
- External Hard Drive: 0.72 lbs
- Smart Phone: 0.35 lbs
- iPod: 0.11 lbs
- Wallet: 0.19 lbs
- Glasses w/case: 0.21 lbs
- Mittens: 0.24 lbs
- Pens x 2: 0.06 lbs
- Apple: 0.48 lbs
- Orange: 0.31 lbs

Total: 10.31 lbs

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Hanae Uemura -- glassarrow\textsuperscript{57}
Location: Newport Rhode Island
Occupation: Graphic Designer

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop</td>
<td>7.00</td>
</tr>
<tr>
<td>Laptop Bag</td>
<td>3.82</td>
</tr>
<tr>
<td>Handbag</td>
<td>1.70</td>
</tr>
<tr>
<td>Makeup Bag</td>
<td>0.77</td>
</tr>
<tr>
<td>Wallet</td>
<td>0.72</td>
</tr>
<tr>
<td>Coin Purse</td>
<td>0.80</td>
</tr>
<tr>
<td>Camera in Case</td>
<td>0.56</td>
</tr>
<tr>
<td>Memory Card Case</td>
<td>0.11</td>
</tr>
<tr>
<td>Wallet</td>
<td>0.37</td>
</tr>
<tr>
<td>Glasses w/case</td>
<td>0.21</td>
</tr>
<tr>
<td>Flashlight</td>
<td>0.27</td>
</tr>
<tr>
<td>Pens x 3</td>
<td>0.09</td>
</tr>
<tr>
<td>Keys</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Total: \textbf{16.55 lbs}


Hanae Uemura on the other hand, the graphic designer in Rhode Island illustrated in the previous page, carries with her a whopping 16.5 pounds of stuff. Not only does she have that laptop but she also has that extremely robust looking laptop bag along with her handbag and assortment of makeup. On her Flickr profile she has a link to her blog. In her blog she does a minor review on her laptop bag, the Wenger Impulse WA-7426-02 Computer Bag. What sounds almost like what could be part of a jet, this bag weighs almost 4 pounds. Now why exactly would she carry this robust of a bag? According to her blog, under the alias of Champagne Supernova, which is a reference to a mid 90’s Oasis song, she absolutely loves this bag.

“I love this bag for its look and durability – firm padding, heavy weight zippers, tear resistant strap. It’s perfect for my 15.4” laptop on business meetings as well as commuting.”

Despite her collection of lip gloss, chap sticks, and perfume, she has with her a binder of memory keys. Being a graphic designer, these memory jump drives probably contain all her current projects. What she does have which I find rather amazing is her wallet collection. Perhaps one containing her checkbook, another containing credit cards, and perhaps one with actual dollar bills, this demonstrates that because they are individually packaged in their own purse-like wallets, I believe when she leaves the office for lunch, this is probably what she only takes with her. Of course carrying her handbag would be a much more reasonable guess, but since her wallet is almost as big as her purse, I believe that’s all she takes with her.

With Uemura carrying almost 17 pounds worth of stuff in which she takes with her on her commute, one would think 17 pounds would perhaps be the max someone would carry with them. Thomas Powers, aka actionatadistance, have definitely proved me wrong. Review the following page.

59 (Supernova)
**Thomas Powers - actionatadistance**

Location: Oak Ridge, TN  
Home Town: Knoxville, TN  
Occupation: Mechanical Engineer Student

![Image of a bag contents](image)

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td>6.60 lbs</td>
</tr>
<tr>
<td>Power Cord/Brick</td>
<td>1.23 lbs</td>
</tr>
<tr>
<td>Masonite Board</td>
<td>1.20 lbs</td>
</tr>
<tr>
<td>Mouse</td>
<td>0.19 lbs</td>
</tr>
<tr>
<td>Ti-83 Calculator</td>
<td>0.65 lbs</td>
</tr>
<tr>
<td>Camera + Case</td>
<td>0.56 lbs</td>
</tr>
<tr>
<td>iPod</td>
<td>0.31 lbs</td>
</tr>
<tr>
<td>Snack Box</td>
<td>0.49 lbs</td>
</tr>
<tr>
<td>Bento Box</td>
<td>1.21 lbs</td>
</tr>
<tr>
<td>Water Bottle</td>
<td>1.00 lbs</td>
</tr>
<tr>
<td>Gorilla Pod</td>
<td>0.40 lbs</td>
</tr>
<tr>
<td>Moleskine</td>
<td>0.80 lbs</td>
</tr>
<tr>
<td>Notebook</td>
<td>1.98 lbs</td>
</tr>
<tr>
<td>Pencil Case</td>
<td>1.23 lbs</td>
</tr>
<tr>
<td>Watercolor kit</td>
<td>1.59 lbs</td>
</tr>
<tr>
<td>xx75 Arrows x 6</td>
<td>0.82 lbs</td>
</tr>
</tbody>
</table>

**Total:** 20.26 lbs

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Cell Phone: 0.22 lbs
Wallet: 0.22 lbs
Moleskine: 0.32 lbs
Flashlight: 0.27 lbs
Al Mar Eagle Knife: 0.25 lbs
Wave Multi-Tool: 0.53 lbs
Keys: 0.18 lbs
Pen: 0.02 lbs
Loose Change: 0.04 lbs

Total: 2.05 lbs

Of all the things Powers takes with him, he carries with him a total of 22.3 pounds worth of stuff, of course not everything stored in his bag. 2 pounds worth of stuff is stored in his pockets and his belt. Just keep in mind that the weight of the bag is not included, so he very may well be carrying about 30 pounds worth of stuff that he believes he will need throughout the day. Unlike Young who simply had a laptop, a snack, and some protective gear, Powers has this and then some. Not just

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snack, but lunch. Not just the laptop, but the power supply and peripherals. Not just protective gear, but arrows, a knife, a tool and a flashlight. Powers is in fact the total opposite of Young. Being an engineering student, he is a stationary kind of guy, who you could probably find at a local coffee shop or library. He not only creates a temporary office for which he works in, he brings the office with him.

Carrying a laptop or having a mobile phone is the most common accessory to many of those living in the city. It a common trait many of those in the 22-30 year old young professionals demographic share. It not only enables us to do our work, but it enables us to stay connected in a world where our family and friends are out of reach. Within our busy lives, these devices are our portals that take us to a world where we can all meet. It becomes a virtual world, of course not containing virtual people, but a virtual place where these activities exist. It opens a door to all sorts of communication, especially to a familiar place known as Facebook.

What makes my specific target demographic so unique is that those within that age group are experimental, willing to take on anything that will enhance and improve their everyday living. It is through them that innovation of design trend can evolve into future trends. An example of how that demographic has shaped the way we are living is their innovative use of technology. It is that innovative use of technology which influences market trends, making it even more ideal to the other demographic groups. Examples of those in this demographic who took technology in a way to branch to other demographics would be Mark Zuckerberg and his Facebook.com.

Initially, Facebook was originally a social site exclusive to only college students. In order for someone to sign up an account, an email address with the affiliated .edu is required, which became an online college yearbook. What was once designed originally for college students, Facebook has now become a worldwide phenomenon. Unlike MySpace.com, a competing social site created by Tom Anderson that was open to anyone, having that academic email address prevented
spammers from filling up the site. Since it was primarily for college students, users on Facebook created a standard of how communication was organized on the site. Each user was connected to a particular network, either a certain college, location, or workplace. By seeing these connection ties between users, fake profiles which are commonly found on MySpace rarely occurred, making the social connections on Facebook based on quality rather than quantity. Since it was originally targeted for college students, the dialog on the site was primarily academic. Once it was finally opened up to everyone, all the new users who weren’t in college followed suit. In a way, this tie with college students influenced how Facebook is so successful today making this particular demographic the generator of future trends.

Facebook is simply one place many can meet over the internet, having more than 400 million users from all over the world. Many would argue that Facebook is just one of many internet gimmicks that have no real relevance to the world of today. With over 400 million users, it illustrates how much of an impact globally this one site has primarily for social connection. It created a platform for many to connect all over the world, families, former coworkers or classmates and the sort. Those within the 22-30 year old young professionals demographic have embraced it as a part of their culture and everyday activities. It’s as common as checking email where most has it as their primary source of correspondence. But it is there in this virtual world where we can find our families and friends, like a photo album of our social network. It is there where we all can return to knowing that they will be there waiting.

This ability to connect to the internet has created the development of an array of devices from all sorts of sizes that can access the internet. From laptops to netbooks, from iPhones to iPads, these devices not only connect us to the internet but have spawned several different kinds of online communities for those on the go, such as Twitter.

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The success of the iPhone and its inflamed service fees from AT&T enabled a small Short Message Service, SMS, company known as Twitter, become a worldwide phenomenon. Due to the high rate fees of AT&T, many iPhone owners used Twitter as an alternative to SMSing, or what Americans would call, texting. Since it was required to have a Data Plan, the service in which you can connect to the internet, those with iPhones would constantly be on it. Due to our fast-paced lives, which city living perhaps contributed, reading blogs and staying current with new information out there became a timely chore. With Twitter’s 140 character cap, people were able to micro-blog, aka “tweet” their findings. This enabled users to follow different bloggers in a minimal amount of time by listing the stories they will read at the comforts of their choosing. Illustrated below is a diagram taken from the Chicago Tribune illustrating the rise of social sites:


Both Twitter and Facebook became a global phenomenon that their trademarked icons can now be found on advertisements seen in commercials, magazine ads, and

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billboards. This is a great example of how innovative trend has shaped the way we connect and collect information.

For all the things we contain in our bags, the category Connection plays a significant role of how much our bag will weigh. It is an integral part of how we live on a day to day basis where we at times may not experience physical social connection, but is still socially connected. As you noticed in the array of images of the bags in this chapter, a camera carries with it a vital role in not only identifying who we are or where we are at that moment, but it is another portal in which we use to connect. Most smart phones today have cameras in them such as the iPhone. With a quick tap of the finger and then a quick swipe, voila, the photo you just took of yourself outside your favorite store eating your favorite ice cream is now on Facebook for all to share. And it is through these devices which are electronically charged will usually determine where we go when we venture throughout the city. Because of that, we are human batteries. Since these devices are an extension of who we are, we must feed these devices the same way we feed ourselves but not with food, but with power. And this is one of the many reasons why you see a large percent of the demographics within the 22-30 year old young professionals drinking a latte’ at a local Starbucks. Because we have a device we use so often that requires a place to replenish its power supply, we often find ourselves at a local Starbucks, a library, or any other public place where we can charge our devices. Having these devices created several different nodes within the Urban Fabric where people would often congregate in order to charge their batteries. Exactly how important is this?

If everyone in the city carried with them an electrical device, whether a computer or a mobile phone, that required a certain charge maybe once or twice a day, where would these people go? Just think of these electrical devices as extra mouths to feed, but not with food, but with power. Imagine all of the restaurants that are littered throughout the city. Now imagine all of the areas in the city where you can feed your devices? There aren’t many. One can go to the Public Library to
charge their devices. Unfortunately the one thing the Library lacks is the lack of food. What I mean by that is while most people are feeding their devices with power, they’re simultaneously feeding themselves. Libraries are great working environments but a Starbucks contain all the essential needs for the 22-30 year old young professionals. I will dive even deeper to the importance Starbucks has made of itself within the Urban Fabric that those within the demographic I have identified, those I am designing for, turn to. If we have managed to carry our important belongings with us from home and into the city, exactly what do we leave behind, if anything, back at our physical homes?
Chapter 5 – Redefining the Urban Dwelling

As noted before with my living situation in my Practicum Internship of Fall 2008, where the lack of amenities of my apartment was then provided by the city, there are many others out there who share similar living situations. As we build taller buildings and make room for production and corporate offices, our Urban Dwellings within the city begin to almost cease to exist. As noted again with the population increase of New York and Japan from nighttime to daytime, it is obvious that those who work in the city might not always live in the city. As the residents of New York find refuge and their homes in the other boroughs of New York living comfortably, there are those just like myself who lived in the city who made comfort with what they got.

Consider my story a case study of how life is like living in a small apartment in a big city. Consider this next story case study #2, of how a couple manages to live in an even smaller apartment who then takes full advantage of what the city has to truly offer.

Between Broadway and Amsterdam on the 110th Street in Manhattan is where Zaarah and Christopher Prokop consider home in a 175 square foot micro studio on the 16th floor that overlooks Manhattan. Spanning the width of only 10 feet wide, the couple manages to not only make this home for themselves, but home for their two cats as well.

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Equipped with a working bathroom with a toilet, sink and stand in shower, they also have a kitchen, a refrigerator, and a hot stove. Taking up more than half the space in their studio apartment is their queen size bed. Despite their small space, it’s good to know they are at least sleeping comfortably.
The view of the entire apartment with a little reveal of where the bathroom is located in the photograph above illustrates how small the space really is. There is no office space to do any work of the sort, no living room, to basically meander about, and there is no dining room to have a sit down dinner. The only actual piece of furniture where one can sit on is the queen sized bed. This is almost a modern realistic version of the Nakagin Capsule apartment from Metabolist Architect, Kisho Kurokawa, referenced in an earlier chapter.

The view from inside the bathroom shows it’s purely functional. There is no zen-like motif floating around in there. There’s no idea of luxurious comfort wafting in the air. It is purely functional. There’s a toilet, a sink, and a walk-in shower. Unlike my bathroom, which was only a toilet and a shower that when you sit on the toilet, your feet is in the shower, their bathroom has a sink.

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68 (Montefinise)
So with all the stuff we manage to take with us, exactly what do we leave behind? Here in the Prokop micro studio, inside the cabinets are folded gym clothes, a cappuccino maker, and containers of espresso. There are no plates, pots, or pans to cook or eat anything on. They don’t cook at all and use the space in the cabinets to store their clothes since there are no closets to do so. This is probably when you’re already asking yourself, but what about the cats? This is where I believe the concept of the Metabolist Movement still lives on today, despite how kooky or sci-fi it may sound. When away at work, the couple has a Roomba that takes care of the cats. Now exactly what is a Roomba? It is a UFO looking vacuum cleaner with wheels and a motor that circulates the floor in a pattern vacuuming whatever needs vacuuming. It’s smart enough to not retrace its steps or fall drive off the stairs. It has some level of artificial intelligence to do what it does and to know where it’s going. Yes, it is a robot.

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69 (Montefinise)
Illustrated earlier in a previous chapter, the Metabolist Movement embraces technology as part of its philosophy. Unfortunately during the release of the Metabolist Manuscript in the early ‘60’s, the technology that existed fifty years ago does not compare to what it is now. The strong ideals of what the future may bring were illustrated clearly from the Metabolist Group half a century ago, who had envisioned of it would look like. The Prokops owning a Roomba, although how little it may sound, solidifies the ideals of the Metabolist Group. “The reason why we use the biological word metabolism is that we believe design and technology should denote human vitality.”70 The robot Roomba attends to the services of the cats by cleaning up after them leaving the Prokops free to do whatever they want to do.

Another example of the Prokops being a modern day version of the Metabolist Movement is their participation with the city encouraging basically its growth. “Of course, architecture everywhere changes and grows due to changes in the society or economy that support it, but we were seeking a kind of architecture that would regenerate itself by stimulating the people living in it to participate. This led us to pursue new technological possibilities.”71 The Prokops literally lives in the city in which their Urban Dwelling, the unit on 110th street is just their bedroom.

With their workout clothes packed away in the only storage they have in their unit, their kitchen cabinetry, the typical day for the Prokops starts off at a pretty healthy start. Strategically placed throughout the city in dry cleaners around Manhattan is their office wardrobe, their closets extended into the city. They start their day by jogging in their workout clothes, pick up their work clothes, go straight to work. “Just in case the cleaners are closed, both have emergency clothes at their offices.”72 They are actively living in the city, dining out, working out, basically living their life in the city. Exactly why do they choose to live this way of living? Just as Kisho Kurokawa illustrated that “architecture changes and grows due to the changes

70 (Kurokawa, Metabolism in Architecture 27)
71 (Kurokawa, From Metabolism to Symbiosis 11)
72 (Montefinise)
in society or economy that support it... we were seeking a kind of architecture that would regenerate itself by stimulating the people living in it to participate.”73

According to Zaarath who is originally from California, “I used to collect vintage clothing, for example, and the cost of storing it and moving it was just not economically viable. So when we decided to move to Manhattan, we realized we’re not home that much because of our jobs. We don’t need that much space. We could go smaller. When I saw the d in the paper, I knew I had to see it. And I knew it was right for us as soon as I saw it.”74 Due to the economy and the technology of today, the Prokops were able to live the way they want and at the same time be able to take care of their cats.

The Prokops is just one example of many who live in a small space in the city. They are also one example of people who actively uses the city as an extension of their home by creating closets all over Manhattan, who eats out, and who typically spends their days out in the city than in their own homes. As more and more people begin to live under these circumstances, the more crowded and congested the city becomes, and crowded and congested it is.

Chapter 6 – The Urban Fabric

The Urban Fabric in the city, primarily the pedestrian plane that consists of sidewalks and paths, are typically congested and crowded. A perfect example of the reality of how much of an impact city living has within the pedestrian plane of the city would have to be Shibuya Crossing in Tokyo Japan.

73 (Kurokawa, From Metabolism to Symbiosis 11)
74 (Montefinise)
Although the numbers of pedestrians that cross the Shibuya Crossing vary between 500 per minute to even 1000, there has been an estimate of 2.4 million passengers on an average weekday back in 2004. Just imagine the street life this place has for those living in the city and to pass that crossing every day.

### 6.1 Analyzing the Urban Fabric

The Urban Fabric of New York is on a rigid grid that according to Mary Soderstrom in her book, The Walkable City, “…a city is to composed principally of

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the habitations of men, and... straight-sided and right-angled houses are the most cheap to build and the most convenient to live in’...”\(^{77}\) Let’s take a look at an area of Manhattan that I’m familiar with Midtown Manhattan, from 26\(^{th}\) street to 42\(^{nd}\) street and from 9\(^{th}\) avenue to Madison Avenue.

This grid illustrates both traffic circulation and pedestrian circulation. There are no sidewalks separate from the street, they both share the same grid.

Beneath the Urban Fabric lies an even stronger current of circulation, the subway system, transferring and dispersing pedestrians throughout the city at much faster speeds.
For every subway line exist an outlet, a Subway Station that empties out pedestrians at specific locations throughout the Urban Fabric.
These Subway Stations become primary nodes of pedestrian activity where pedestrians are coming and going. Wave after wave these nodes are the inlet and outlet of pedestrian circulation.
Pedestrian Congestion

Regardless of what path these pedestrians might actually take on the Urban Fabric, these arrows simply indicate that each station is consistently pouring pedestrians out into the ground plane of the city that together, creates an even more congested Urban Fabric.
As if planned, these Starbucks locations on the Urban Fabric seem to be conveniently and almost strategically placed between Subway Stations.
Astonishingly enough, these Starbucks create a temporary relief to the congestion on the Urban Fabric. As if magnets, they seem to pull the pedestrians away from these concentrated Subway Station nodes. But what is it that we are attracted to that makes us return to these Starbucks?
6.2 The Significance of Starbucks

Other than providing the city goers their dose of caffeine for the day, Starbucks provides other things besides coffee. Many Starbucks differ on size, shape, to even its organizational layout, but what attributes to its success is its consistency in its atmosphere and taste. Regardless of where you are in the world, if you enter one Starbucks in one country then another in a different country, the taste of its coffee is consistent and remains the same. The success of its consistent quality has about the same effect and success of fastfood restaurants, like the taste of the McDonald’s french fry has to McDonald’s.

Its low lighting, warm neutral colors, and tranquil atmosphere become a familiar place we find ourselves returning to. There are different areas like open spaces for gathering and intimate private spaces for studying. These areas are often identified immediately by the furniture placement and the furniture themselves. Big comfy chairs surrounded by a single coffee table denote reading spaces while tables surrounded by chairs denote working environments and gathering places. The sense of public to even private spaces enable all customers to feel at some level at home.

Apart from its familiar interior atmosphere and consistent taste, the success of Starbucks is also attributed by its staff itself. As we become even more familiar with the space, the space becomes even more familiar with us. There are regulars often seen at every Starbucks location where the staff know by name. Friendly barristas would often anticipate and time their customers’ orders by how frequent they come in. This exchange builds a tighter relationship between customer and place, creating a sense of ownership and/or belonging to the place. It also builds customer loyalty where its not only the coffee that makes the customer return, but it is also a place for them to be recognized and identified.

Many often believe what attributed to Starbucks success is its product alone, coffee. Because of its addictive properties such as caffeine, many customers find themselves returning for more. This again also applies to the addictive properties
found in fast food and the success of fast food chains such as McDonald’s. Majority of Starbucks’ demographic consist primarily of students and young professionals, frequent visitors trying to find the energy and place to get things done – the demographic I identified for this project. Other than having addictive properties or a consistent familiar taste, Starbucks is open to customizing orders as well. Customers can have personalize their orders to their liking.

As mentioned earlier in a previous chapter of how all city goers are walking batteries with their electrical devices, Starbucks is one of a few places that a city goer can go to charge their batteries. It is also a place where they can study, meet with friends, drink, eat, rest, or is simply a place to access free WiFi. For the price of a cup of coffee which is usually under $2.00, you can pretty much use all amenities Starbucks have to offer. And if you need a refill, it’ll only cost $.50 a cup.

A cup of coffee doesn’t seem much that have led to the exceptional growth Starbucks have become what it is today. There is a quality within its atmosphere in its interior setting that we find ourselves returning to. We are attracted to it. The smell of roasted coffee beans wafting in the air, the comfy furniture which is comparable to the comfortableness of the furniture in show rooms, the people it attracts and whom we are surrounded with, it is that sense of “home” one of the major reasons why Starbucks so successful. The doors open to the sweet aroma of coffee that beckons us to come in to a place that is always inviting.

It’s almost as if it is inherent within our brains of the immense power the smell of coffee has on us. It’s an idea that every morning is greeted and begins with a cup of coffee as it whispers to you, “good morning”. The sweet smell conjures up a history of many mornings spent with loved ones growing up, such as candy corn has for Halloween or cotton candy for carnivals. However, not everyone has that ever pleasant memory. Many drink coffee just for the caffeine. And with the inviting comfortable setting of Starbucks, the place gives us a reason to stay. But what about those who was never into coffee to begin with or who was just plain allergic? Besides
the typical array of tall, venti, grande frappucinos and lattes, Starbucks also offer an array of teas and other drinks. They also serve food such as muffins, fruit salads, and even sandwiches. They have what you need to nibble on so you can focus your mind and time on important things, like getting things done. And here in Starbucks, they give you the furnishings and atmosphere to do so.

Besides the assortment of food and drink, many would argue that Starbucks is an effective place to work. It captures the essences of our living rooms and offices yet removes the unnecessary distractions, such as a television. The music echoing the space of Starbucks is often soothing, pleasant and non-distracting. This is one of the many reasons why people are often found at Starbucks working on their computers, studying, or simply relaxing by catching up on that one novel they took a break from. It is also the people, the customers, who contribute to the atmosphere. Although the library may be an even more effective place to work, it doesn’t quite offer the other amenities Starbucks has to offer, such as food and drink.

Now how are these amenities so important for those living primarily in the city? Other than coffee, Starbucks offers a certain level of Protection, Security, and Connection, three of the four categories we keep in our bags. The number one important category is Connection. Unlike Asia with their infinite supply of Internet Cafés, which is a popular hot spot for those in the demographic I’m designing for, Starbucks is our alternative. Not only does the city goer have access to free WiFi and power, he/she could potentially spend the entire day in Starbucks. And with some Starbucks that are now open 24 hours, it’s an ideal place for anyone who needs to power up and reconnect.

Many would argue that Starbucks isn’t exactly an ideal place to work since many believe its corporate entity is defacing the cultural identity of the cities and towns its appearing in. There’s a lot of negative baggage when the name Starbucks comes up. But if you remove the name and just look at the kind of amenities it has to offer, you have to understand that it’s creating something we are definitely missing
in the city. And being such a prosperous business to this day shows that Starbucks have been getting it right when it comes to creating a destination. It’s a place we can turn to as well as stay connected. And for those such as the Prokops who don’t have an office let alone food at their place, it is a convenient pitstop for them and many others who are on the go. But is Starbucks the real solution of relieving the congestion that is occurring on the Urban Fabric? Perhaps no, but it offers something that we must identify in order to create and generate destinations where the needs of these city goers are being addressed.

6.3 The Urban Solution

In one of my previous Practicum Internships before I embarked on my journey in New York, I interned and lived in a little city, a young city, called Singapore. Only being a few decades old where its first subway lines didn't exist until the late ‘80’s, Singapore is one of the most modern cities in the world. Of course they did have the advantage however, considering that they’ve used and are using newer technology for their infrastructure and structures. New York unfortunately was created by the technologies that were available at that time. But what were evident to me during my stay in Singapore weren’t the modern technological advancements it has today, but was a spatial solution along the pedestrian plane as the Void Deck.

A Void Deck in Singapore is an open podium of an apartment building. It was called a Void Deck because the podiums were open to the public as in, there were no walls. They were design specifically for the pedestrians on the ground level. Instead of going around the podium and around the corner, the Void Deck gave them the opportunity to pass through it. These Void Decks then in turn became gathering spaces and typical hang out spots for the residents. Convenient stores, small shops, and even internet cafés were found in these Void Decks. The reason why I was so captivated by these Void Decks was the fact that they were always filled with people. There were people on display for everyone to see who were just hanging out, on
their computers, on their mobile phones, eating, or simply doing what they do, having fun. The Void Deck gave these users a space for them to create a place, a destination, for everyone to share. It offered them several kinds of amenities, depending on which Void Deck they were at.

The concept of the Void Deck is something I believe should be implemented into the Urban Fabric of New York. I think it will not only create a destination for those city goers but it will also relieve any congestion occurring within the Urban Fabric. However, this implementation of this Void Deck will be designed specifically for New York which will be known as an Urban Deck.

Currently, the pedestrian level of the Urban Fabric looks like the following with a thick batch of pedestrian current flowing heavily on the ground plane.

Pedestrian flow emerges and submerges into and out of the subway stations.

The pedestrians coming from the Subway Stations are collected on the pedestrian level of the Urban Fabric. Here, congestion on the sidewalk occurs. Now if we implant the Urban Deck in the following diagram, you’ll see that there is some relief to the congested pedestrian level.
In the following illustration, you will clearly understand how the Urban Deck works.

The Pedestrian Ground Plane is broken up vertically by the introduction of the Urban Deck.

Pedestrian flow emerges and submerges into and out of the subway stations.

The congestion of the pedestrian plane is broken up and is moved vertically. Here, with the proper amenities such as those found in Starbucks, will become a proper destination for those living in the city.

When strategically placed throughout Manhattan, these Urban Decks will generate another level of pedestrian circulation by becoming an integral node in their way of urban living.
These Urban Decks will provide amenities many living in the city do not have in their homes. These could vary between dry cleaning, laundry mats, small shops, small dining, and open seating in creating temporary work stations. Also included would be free WiFi and power outlets to charge the city goers’ devices. Again, these amenities will vary upon location of the node. Please review the following illustrations schematically depicting how these nodes would work in plan, becoming an open space where pedestrians can walk through and creating a hot spot for those who need to charge up or simply to find a place to retreat in their busy hectic urban lifestyle.

Replacing Starbucks throughout Manhattan as important nodes within the Urban Fabric, the Urban Deck creates a destination where city-goers can extend their homes beyond its walls and into the city. Maintaining the dynamic relationship
between staff and clientele illustrated through Starbucks baristas and the returning regular customers, these Urban Decks are more service related who will greet each user as if it’s part of their family. Like an organism, these Urban Decks promote and encourage movement throughout the Urban Fabric by minimizing energy wasted on the items we carry by fulfilling the qualities these items emit.

As illustrated before the importance of our bags being the link between our Urban Dwelling to the Urban Fabric, let’s take a deeper look into what makes the bag so important.

**Exterior & Interior Bag**

As illustrated before, what we contain in our bags possess the many different things we believe we will need throughout the day, for Protection, Security,
Identification, Connection, and Collection. What makes the bag so important is its function and design. Of course every bag is different; there are duffel bags, messenger bags, totes, purses, weekenders, computer bags, the list goes on. These bags are designed specifically to house the items of its user. Typically found in the target demographic I identified is the bag illustrated above. It illustrates similar bare essentials found in most bags the demographic I chose would carry. Although they all could be interpreted in many different ways like instead of an interior sleeve for a laptop, the user could possibly have a separate sleeve for his computer. That idea of added protection remains true if the sleeve was either attached or unattached to the bag. Whether it’s a computer bag or even a hand bag, there are internal interior pockets designed for the very purpose of added protection and security, again, interpreted differently by its design.

By dissecting what makes the bag an important element in connecting our Urban Dwelling to the Urban Fabric, increasing the scale and implementing its significance in functionality to the Urban Deck creates an even stronger connection between the home to the city, the Urban Dwelling to the Urban Fabric.

Urban Dwelling --- Urban Deck --- Urban Fabric

The design of the bag illustrated in the graphic above is what’s typically found in all bags. The external and interior pockets of various sizes and functionality and purpose will become the very template used to spatially configure the Urban Deck. External pockets are typically used for quickly accessing something important like a pair of sunglasses or a cellular phone, something we can take out and immediately use on the go. Within the Urban Deck, there are specific areas that respond to the different functions we utilize in our bags, such as compartments where we keep our charging adapters or pockets where we keep protective sunscreens and ChapSticks. And similar to how bags are designed to a particular user, like a student opposed to an artist, these Urban Decks will respond and relate to the identity of its surrounding
environment designed specifically to the demographic of that area. An example would be an Urban Deck located in SoHo.

Formerly once a healthy art community, the now gentrified SoHo consists primarily of high-fashion brand name boutiques. This particular Urban Deck is designed to encourage and promote upcoming young artists by providing an open gallery to display their work. This particular design in this area will be an example of many Urban Decks within the SoHo district designed in this open-gallery fashion.

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Using an existing Starbucks as the important node in the Urban Fabric, this Urban Deck extends the pedestrian flow vertically into a now open gallery. This then creates a relationship between those from the inside and outside freeing up a congested corner into an inviting relaxing environment. To illustrate the transition from bag to Urban Deck, please review the following axonometric diagram of the SoHo Urban Deck.
The Urban Deck fulfills the following important components we possess in the things we carry:

- **Security** – Personal Storage
- **Connection** – WiFi Hotspot/destination with added lounge
- **Identification** – User Created Artwork, sense of ownership
- **Collection** – Ability to store/deliver collection of user goods
- **Protection** – Various interior spaces provide added protection

Although the Urban Decks are designed to respond to a variety of different users, this particular Urban Deck responds to the art community that exist in SoHo. Here on the second floor, they will be able to exhibit their work as well as store their belongings in these personalized storage compartments. They will gain a sense of ownership to this place extending their home even further into the city.
Another example of an Urban Deck would be one located in Union Square.

Surrounded by colleges and universities, Union Square is notably occupied by students who are often seen studying and hanging out. In addition to the other Starbucks nodes in the area, providing additional areas to study creates a healthier academic environment to the students’ education, creating a campus-esque atmosphere. Providing additional areas such as dining extends the Union Square Marketplace into the Urban Decks.
Urban Deck Superimposed Over Existing Starbucks

Union Square Axonometric Diagram
The superimposed illustration of the Urban Deck exhibits the importance of the WiFi Café Bar and Charging Station. It’s designed specifically for those on the go, a larger scale version of the functionality that exists in the external pocket of the bag. For immediate use and for the non-stationary type, this is a perfect area to quickly connect to the internet or to charge your devices. A much more intimate café is located in the back of the Urban Deck, illustrated in the axonometric diagram. The second floor is designed primarily for the students looking for a place to study. Here, they can have study groups with their friends or simply study by themselves. Its interior atmosphere is inspired by student lounges on college campuses. With storage lockers surrounding the second floor, the users will again feel a sense of ownership to the space. It satisfies similar qualities found in the Urban Deck located in SoHo such as Security, Connection, Collection, and Protection.

Being that these floor plans were designed schematically to fit within the podium of a building becoming an Urban Deck, the next set of illustrations show the potential on generating different alternatives. The Urban Decks reroute pedestrian congestion by creating destinations within the Urban Fabric.
Congested Intersection

Congestion Alleviated by Urban Deck
Although the Urban Decks can only alleviate the congested load of that in the city, the city has open areas that aren’t quite being utilized, such as parks and open plazas. As many pedestrian paths are interlacing over each other in the city, is there a way to encourage the pedestrian paths to circulate into the open areas of the Urban Fabric?

Chapter 7 – The Wearable Piece

Within the Urban Fabric there are spaces that are open to the natural elements with no shelter what so ever, parks and plazas. Since majority of the circulatory paths exist in the city, it is integral to include these open spaces. In order to create that distinct reconnection between the Urban Dwelling to the Urban Fabric, we must create a connection that encourages users to explore these open urban spaces.
The graphic above illustrates the many strands of movement that go around open spaces. Many reasons why this occurs could simply be due to environmental reasons like if it rains or snows. In order to encourage the pedestrian lines into these open spaces, we will need to create a connection to those open spaces.

With artists such as Lucy Orta and designers such as Michael Rackowitz paved the way to design architecture to your body with their targeted demographic, I have created a wearable piece I call Cocoon.

The concept of the Cocoon came around with this idea of transformation and the ability of taking flight. Once the larva is in the cocoon, it is given all the necessities for it to survive and transform. It offers it protection and nutrients. And once the transformation is complete, the moth emerges and takes flight. I believe that city goers experience the many stages the larva and moth go
through. Provided through the Urban Deck, the Cocoon is an entity that emits the same qualities the items we possess in our bags that connect our Urban Dwelling to the Urban Fabric. Much like the service experienced in Starbucks of the close relationships between staff and customer, the Urban Deck share those same qualities. As users continue to use these Urban Decks, they build a sense of ownership to the space, creating a stronger relationship between them and the staff.

Before I continue to create that distinction, let’s set up Urban Decks in areas that would encourage pedestrians to different parts of the city.

Located near Central Park, placing an Urban Deck along Columbus Circle would not only create a destination, but it would extend its use to the open spaces of the park.

[Site Map and Street view][80]

Using another existing Starbucks as a node, we can create a totally different Urban Deck designed to encourage physical training to my target demographic.

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[80](Google Maps Street View)
Unlike the other two Urban Decks located in SoHo and in Union Square, this Urban Deck consists of three stories. The two top floors would be a gym and the ground floor would be a juice bar and café, a Jamba Juice and a Starbucks. Within the Urban Deck is a Cocoon Exchange. Particularly designed to encourage movement throughout the city, this Urban Deck provides a hydration pack to users who would like to jog throughout Central Park.
This particular Cocoon acts like the mobile “exterior mesh” pocket for a water bottle on a bag. Because this certain device is as large as the bags we currently carry, they are provided by the Urban Decks which in turn alleviate the amount of load we need to carry as well as the amount of storage space it occupies. Since the Urban Decks are serviced-related, these Cocoons can be exchanged at all Urban Decks. This exchange of Cocoons encourages pedestrians to utilize what the city has to offer creating even more destinations throughout the Urban Fabric. Another Cocoon provided at this Urban Deck is a piece that creates private spaces.
This Cocoon is designed to encourage users to create their own spaces throughout the open spaces of the Urban Fabric. Like many activities involving the outdoors, I would like to emphasize that storing the items for these activities would require a lot of space, such as camping gear, hiking gear, to even fishing gear. Unfortunately when living in the city, many don’t have the luxury of space for storing such things, especially for something uncommon from our day to day activities. If we were to introduce a service where these activities can occur without exhausting any energy for planning these activities, or thinking of where to store the gear, to even carrying it for long periods of times, it would make things easier and simpler for the city goer to explore the city if these services were provided. People would literally pick up the gear whenever they need it considering that these specific Cocoon Urban Decks are placed within the vicinity of an open space.

What’s ingenious about this idea is that the city itself is somewhat of a jungle. We carry what we need to survive within the built environment, but when introduced to a little nature such as rain and snow, we’re unprepared. Being prepared is great, however there is a price. A similar Cocoon peripheral known as the Kelsyus Backpack chair, weigh’s 8 pounds.
Despite the fact that it’s using inexpensive materials that could possibly account for its weight and design, the chair is designed and priced for a consumer who’s on a budget. I purchased mine for $20.00 at a local Sports Authority. Other than being temporary seating, if designed for quality and priced for rentals only, the structure and materials would significantly change for durability.

The Cocoon when not in use is stowed away neatly within the bag. The bag, which contains all the possessions of city goers, is the part of the cocoon that gives

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the larva nutrients. Here, the bag contains the items that reflect user’s home, which when folds open, creates a space where this home can temporarily exist. The actual size of the space isn’t exactly what’s important, but just having the space is. It not only protects from the sun and creates a temporary shelter, but what it does is implies a boundary line of what’s inside and what’s outside.
Wearable Piece of Architecture – The Cocoon Male
Wearable Piece of Architecture – The Cocoon Female
The Cocoon has the ability to attach itself to other cocoons creating a more private setting or simply to enlarge the space with a friend.

*Front Facing Connection*

*Side by Side Connection*
These Urban Habitats, such as the Cocoon version, are simply preliminary concepts that could be realized in several different ways. They can even be seasonal, where some are made to generate heat while others are designed to cool. Some can have embedded within them projects that when shared, create an even larger screen. Whatever the iteration may be, the sole purpose of these Urban Habitats is to extend the essence of their home into the city into the open places that are often neglected, such as parks.

Below are renderings taken from the New York High Line, which is an urban park designed from old railroad tracks. Open to the external forces of the environment, the High Line is unusable during immense rain.

Rainy Day on the High Line

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Another location illustrating a different kind of Urban Deck would be one located in Chelsea, ideally connecting the New York High Line.
This particular Urban Deck, which is also an entrance to the New York City High Line, extends the Chelsea Market into the open spaces of the High Line. With various shops and restaurants in Chelsea Market and the length of the High Line, this Urban Deck is provided with three different Cocoons for different users attracted to this particular site. It would attract those who are into shopping, studying, dining, and those who enjoy the outdoors. A hydration pack Cocoon as well as the protective Cocoon will be provided where the protective Cocoon will have the ability to attach itself to the existing seating throughout the High Line.

The design of the Urban Mobile Habitat Cocoon can easily attach to the public benches of the High Line.

Protective Cocoon

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New York High Line

New York High Line Cocoon Rendering

84 (High Line)
85 (High Line)
The rendering simply illustrates how much an impact the Cocoon can have in an open space. Another open space illustrating the impact of the Cocoon is the redesigned Jacob Javits Plaza.

The Redesign of Jacob Javits Plaza

The Redesign of Jacob Javits Plaza Cocoon Rendering


87 (Hill)
The Redesign of the Jacob Javits Plaza illustrates that design is leaning towards more to public use. As more open spaces are designed for public use, the public should be able to use it regardless of weather constraints. These open spaces are a part of the Urban Fabric and the Cocoon plays a vital role in reconnecting our Urban Dwelling to the Urban Fabric with the Urban Deck as the key component connecting the two.

The other Cocoon, which is also applicable to the Urban Decks in SoHo is the Collection Cocoon.

What makes this particular Cocoon unique is the ability to collect your purchases and have them delivered to your Urban Dwelling. Exactly how significant is this? We’re currently living day to day carrying the things we believe we need. They possess not only the things we will do that day but they contain in it qualities we find sacred and memorable. They are items that exude our personality and characteristics. A more service-related Cocoon, this collection Cocoon enables the
users the ability to collect what they need and have what they need delivered to their home. This service related Cocoon reduces the load we will need to carry and encourages to continue to live in and explore the city.

The Urban Deck in conjunction with the Cocoon is the direct line of connecting our Urban Dwelling to the many different spaces of the Urban Fabric. If you look at the three components in a linear way, the Urban Dwelling, the Urban Deck, and the Urban Fabric, the Urban Dwelling has a direct line to the Urban Fabric through the Urban Deck.

*Urban Dwelling* ----> *Urban Deck* ----> *Urban Fabric*

*Urban Dwelling* ----> *Urban Deck* ----> *Cocoon* ----> *Open Spaces of the Urban Fabric*

And it is through the Urban Deck we are able to extend our Urban Dwelling to the open spaces of the Urban Fabric. The Urban Fabric isn’t only composed of the built environment. The open spaces such as parks and plazas are also a part of the Urban Fabric, which in turn, needs to be reconnected to our Urban Dwelling. By means of that connection is through the Cocoon. It is with each other, the Urban Dwelling, the Urban Deck, the Cocoon and the Urban Fabric is where we can create this distinct connection with our sense of “home”. With the Urban Deck strategically placed in the built environment and the Cocoon out in the open spaces, the once congested Urban Fabric can now find some relief as the circulatory paths that overlapped each other loosens up and expands throughout the rest of the city.
Chapter 8 – What’s In Your Bag Now?

As the Urban Deck continues to fulfill the many requirements you take with you on your day-to-day activities, the less you will need to carry. The less you will need to carry the further your journey will be. The further your journey is the deeper you are in the city. It is within the Urban Deck you will feel a sense of Protection, by providing a comfortable and safe place for you to study, work, and live. There you will gain a sense of Security, by providing storage to secure your excess belongings such as coats, sweaters, and umbrellas. There you will feel and be Connected, by providing WiFi services and power. Staying Connected, you preserve your Identity in a congested world full of strangers as you reconnect and share your experiences with love ones over the internet. And it is through the Urban Deck where you can look at the city and call it “home” as you begin your journey uncovering new areas of the city with the Cocoon.

88 (Travis)
With less stuff weighing you down such as battery chargers and heavy computer adapters, all that’s left in your pocket is the Collection of what makes you – you. And within this dense congested world, your once tiny apartment has now expanded to the boundaries of the city as you begin to Reconnect your Urban Dwelling to the Urban Fabric.
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