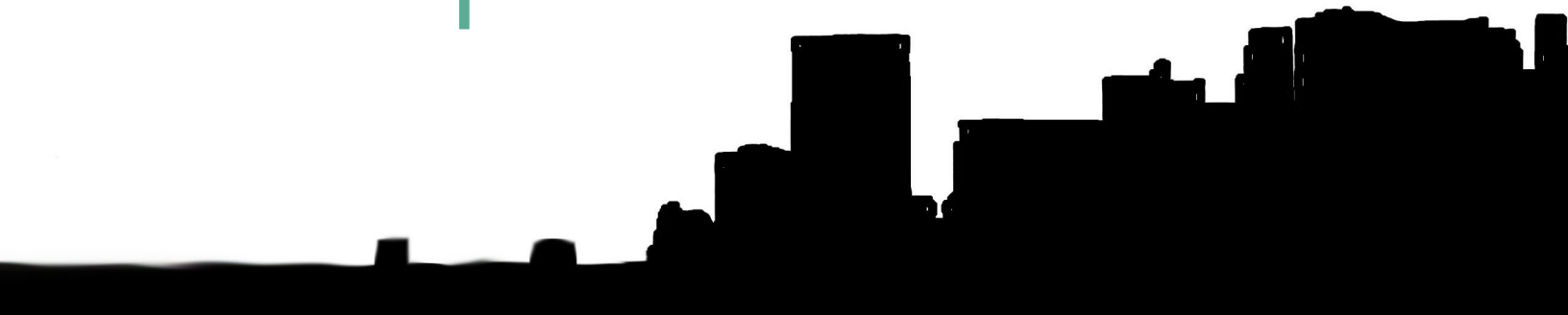




Urban Revitalization: Saving American Cities Phoenix redevelopment



Christopher + Legatt



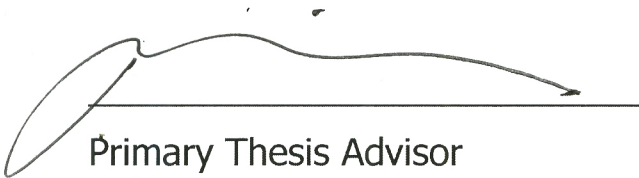
URBAN REVITALIZATION: SAVING AMERICAN CITIES

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
Of North Dakota State University

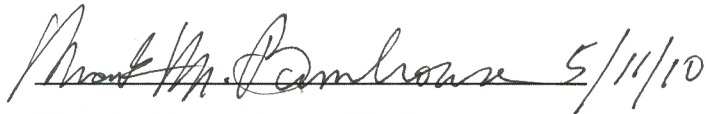
By

Christopher Legatt

In Partial Fulfillment of the Requirements
for the Degree of
Masters of Architecture



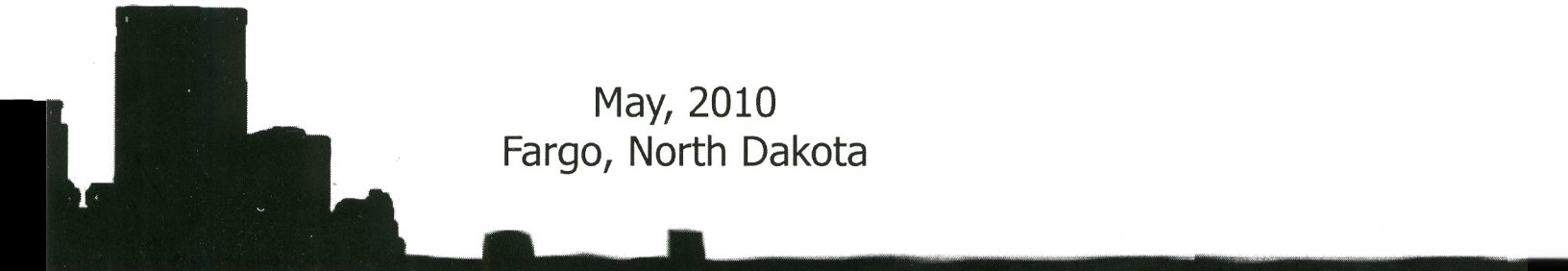
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May, 2010
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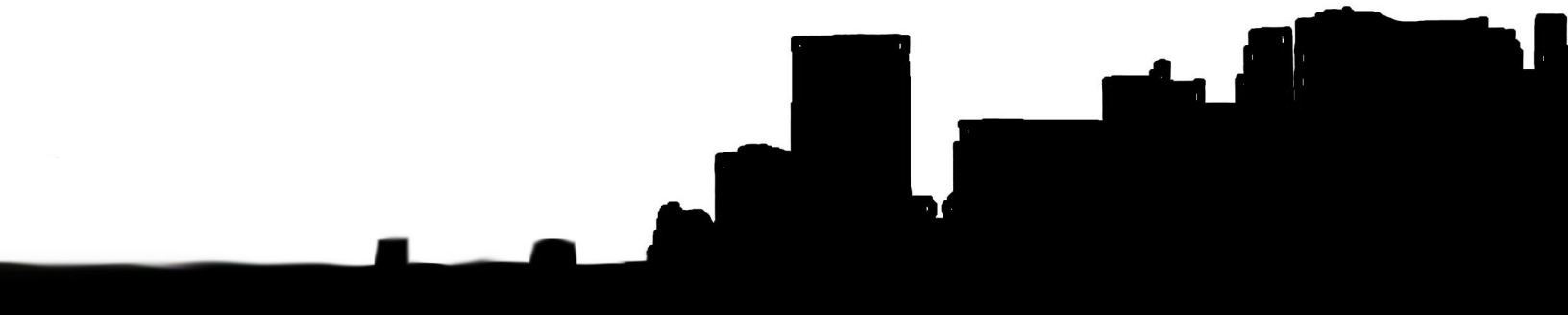
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The Statement of Intent





ABSTRACT

Do you want to spend more time traveling on busy roadways, spend more money on gas, and spend less time with more important things like your family and friends? More suburban sprawl means more time driving on the roadways, with more gasoline usage. When school, the grocery store, the local coffee shop, and work are miles away from each other, what do you think the sensible solution would be; increasing urban density.

Growth and sprawl are expensive and drain capital budgets and tax dollars. Growth and sprawl are inherently harmful to the environment. Growth needs to be confined to developed areas already served by public facilities and mass transit. Growth and sprawl consume land and spoil natural landscapes.

The design intention is to target households, and recent college students that would enjoy the opportunity to embrace the downtown environment. Space that has been restricted only for automobiles have now been transformed into spaces that can be occupied with one another. As residences fill up more pods (siblings) will be created throughout the city to create a family throughout the city.

PROBLEM STATEMENT: How has historical residential urban development of the European model differed from that of the typical American sprawl?

Claim: The sprawl of suburban areas created by developers have been taking over the American landscape, creating burdens on everyone due to unregulated development.

Typology: Urban development, sustainable design renovating spaces to be occupied and maintained by developers.

Actor: Development

Action: Sprawl

Object: The American Landscape

Premise:

The Actor: Developers often think that having a bigger house will give the clients better social status with their friends, colleagues, and family. Clients will often go above and beyond the basic amenities to live. They feel that living luxuriously will give owners or clients a social standing that will make everyone feel envious of them.

The Action: The urban densities of the current American cities today are considerably smaller than those across the world. Not one single United States city ranks in the top 50 for the most dense cities in the world.

Object: The residential suburbs need to be regulated for urban sprawl. The unregulated expansion is having devastating effects on the American Landscape when it is not being overlooked and controlled by government. Many rely on these natural resources that are currently becoming extinct and being destroyed.

Conclusion: The loss of valuable land to suburban development over time has been devastating to the American environment. Localizing or increasing urban density could improve the outlook while decreasing the economic cost of suburban sprawl.

Justification: The trend of suburban sprawl should be diverted into urban redevelopment to distinguish the luxuries in life that we take for granted. Urban density redevelopment will benefit your life, economy, social life, and work in many ways.



The Proposal

Narrative

The suburbs of Phoenix have grown to epic proportions. These distant communities have been starving the city of Phoenix from supporting vital Infrastructure and Institutions. Tomorrow is a new day to take a stand against suburban sprawl. Over the past four decades, many American cities have lost and continue to lose population, employment opportunities, private investment, and tax base. Residents who do remain in these areas that have been affected by the results of citizens moving into new developments have been faced with higher costs for public services, fewer well paying jobs, deteriorating neighborhoods, low-quality schools, higher crime rates, and an impaired quality of life. Studies have shown that the lack of viable city centers place the cities at a disadvantage in attracting and retaining the young, highly recruited workers needed to encourage growth in economics for the city and sustain that growth for the future. The development of vibrant cities positions these cities for national and international tourism destinations.

Guiding Principles:

- The importance of reducing concentrations of poverty in inner cities and making good schools, safe neighborhoods, health care facilities, recreation, and other quality of life amenities (e.g., retail services, employment, and cultural institutions).
- The availability and benefits of walkable and rollable, compact, mixed-use, mixed-income, livable urban spaces and neighborhoods.
- The value of promoting and encouraging retail businesses and service providers to stay or relocate within the urban communities where their customers live.
- The need to redevelop vacant, abandoned, and/or under utilized property.

Advantages of urban living:

- Majority of high paying jobs and bigger selection of jobs are found in city centers.
- More transportation options, less time commuting to work.
- Better shopping opportunities, grocery stores and clothing stores create a better economics climate for city centers.
- Close proximity to major and varied services in the intercity development.
- Better interaction with current art, fashions, politics, and high culture.
- People are exposed to urban diversity that strengthen and propels interaction in cities.

User/Client Description

The objective of this project is to research existing urban developments and to study, redesign, and redevelop existing city spaces to accommodate urban redevelopment in aging cities. The specific focus of the work will be in redeveloping Phoenix, Arizona, and the surrounding suburban areas to promote and persuade people to inhabit the inner city developments.

Incorporated in 1881, Phoenix covers more than 517 square miles and has a population of over 1.5 million, ranking it the fifth largest city in the country. Phoenix is a premier destination with more than 300 sun-filled days a year and an average temperature of 74.2 degrees. The greater Phoenix regions have been consistently outpacing the U.S. population growth over the past 18 years.

Major Project Elements

The key aspect of this thesis project is to show how to redevelop and revitalize the aging downtown of Phoenix and to show how to redevelop decaying structures for residential and commercial uses.

A second focus will show how to persuade people to use public transportation. Moving to the inner city will re-energize the downtown spaces. If this is successful, this will create an infrastructure that will transform the life of the city into a vibrant, viable solution for urban revitalization.

Residential

Revitalizing residences in the downtown area of Phoenix would significantly redevelop the areas to promote healthy infrastructure without relying on cars as a mode of transportation.

Commercial

Creating retail stores in the inner city would bring people into the area to stimulate the economic plague facing the majority of companies today, by making it more efficient and effective for citizens to go shopping closer to home.

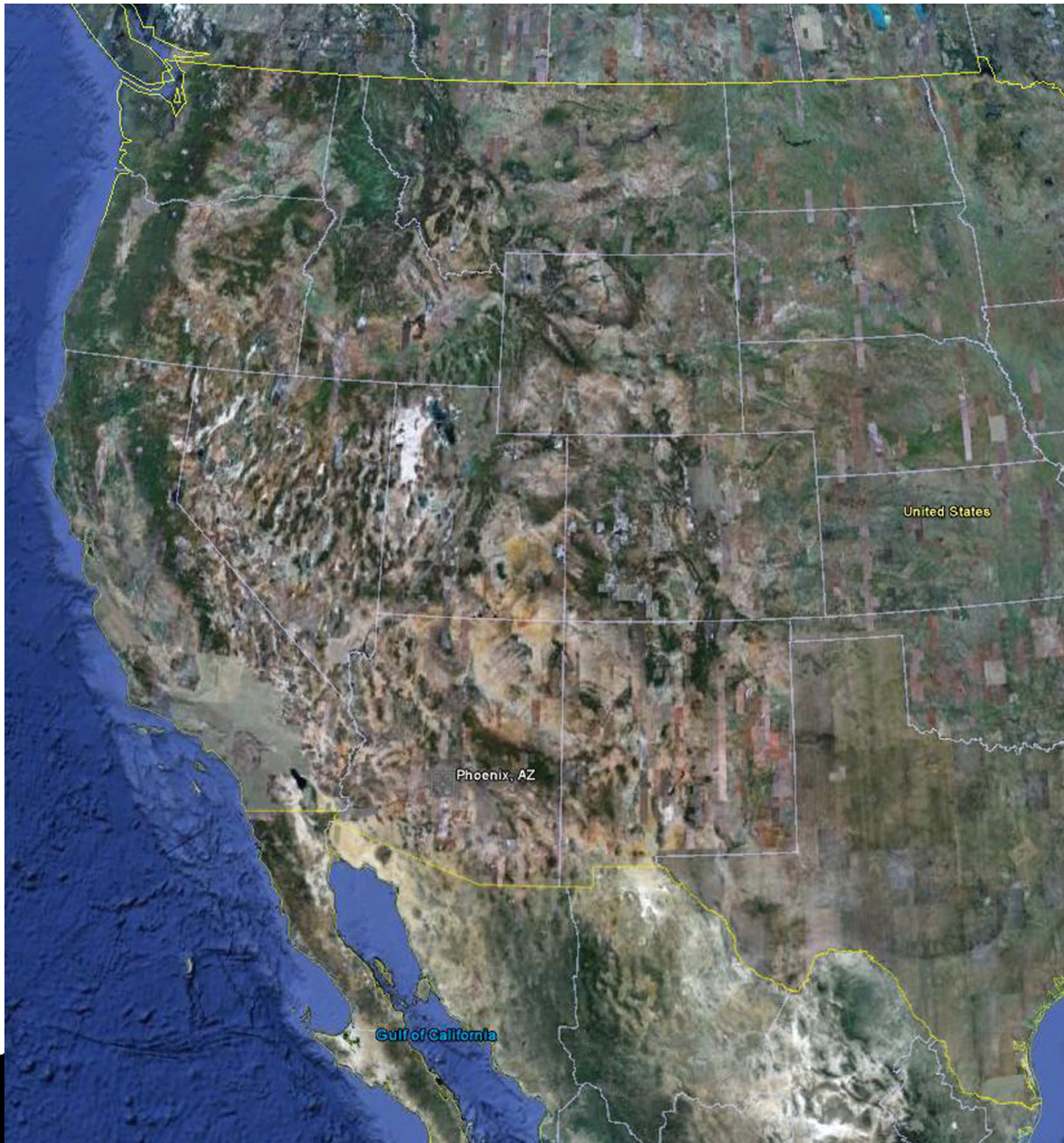
Public Space/Green space

This is the goal of creating a space that would promote and foster healthy interaction for the diversity of citizens in the phoenix area. An inviting space would deter crime from a city but would also act as an extension of living rooms so people could participate in activities outdoors.

Macro Location

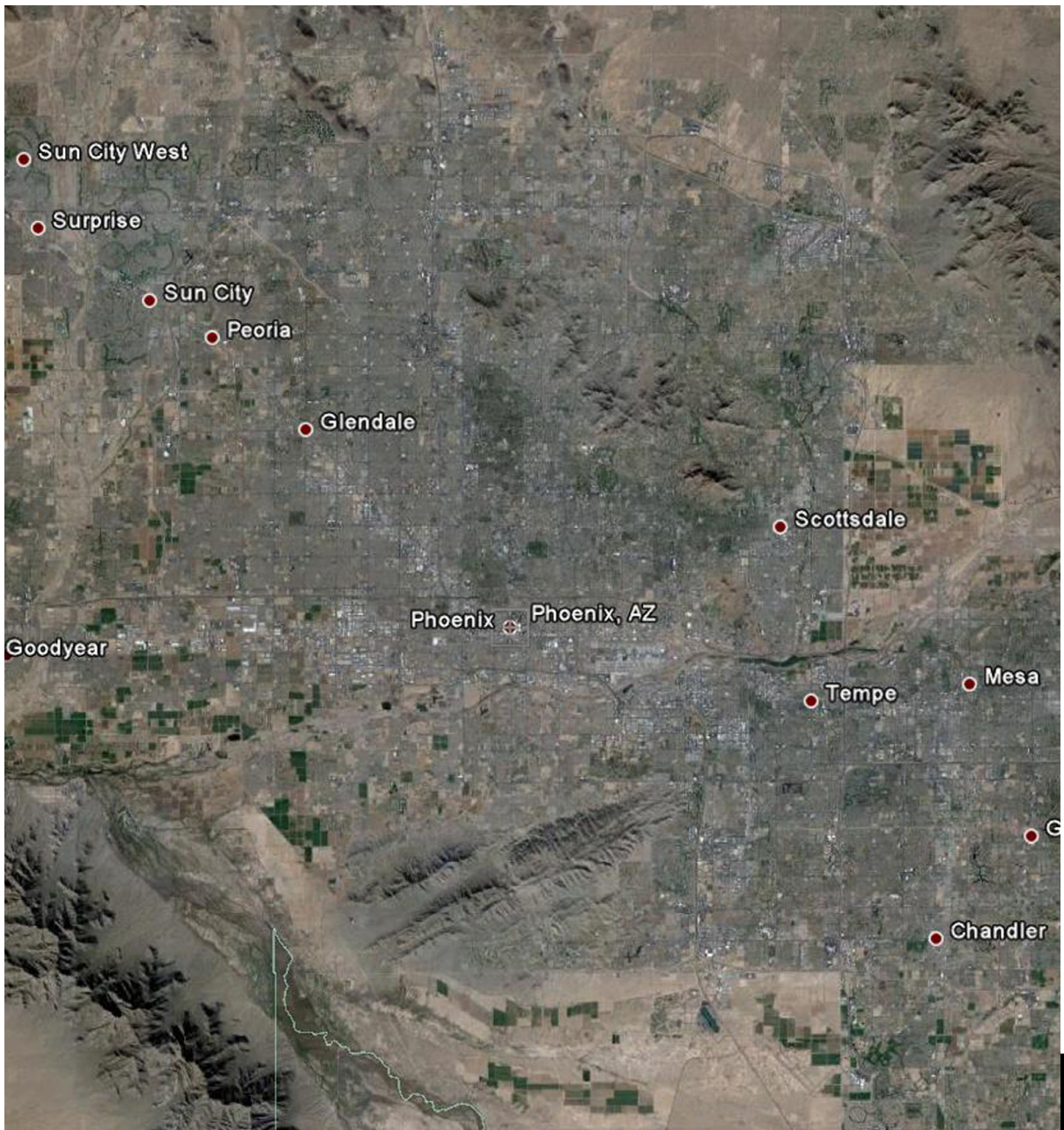
Region

The Southwestern region of the United States includes Arizona, California, Colorado, Nevada, New Mexico, and Utah. Arizona is noted for its desert-like climate, exceptionally hot summers, and mild winters, but the high country in the north features pine forests and mountain ranges with cooler weather than the lower deserts.



City

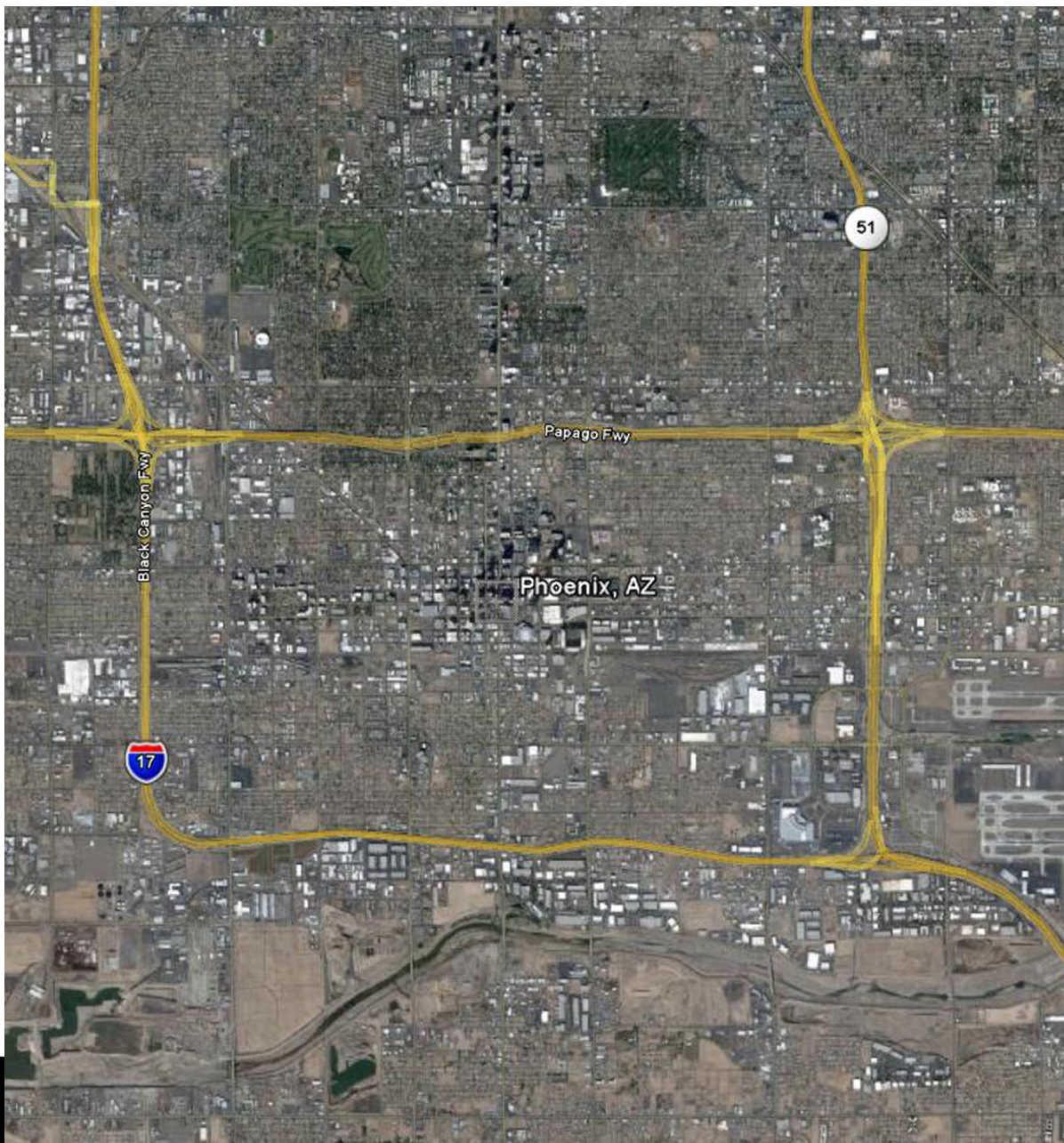
Phoenix is the largest city in Arizona, as well as the fifth most populous city in the United States. It was incorporated as a city in 1881. The city eventually became a major transportation hub in North America and a main transportation, financial, industrial, cultural, and economic center of the Southwestern United States. Located in the northeastern reaches of the Sonoran Desert, Phoenix has the warmest climate of any major city in the United States.



Micro Location

Site

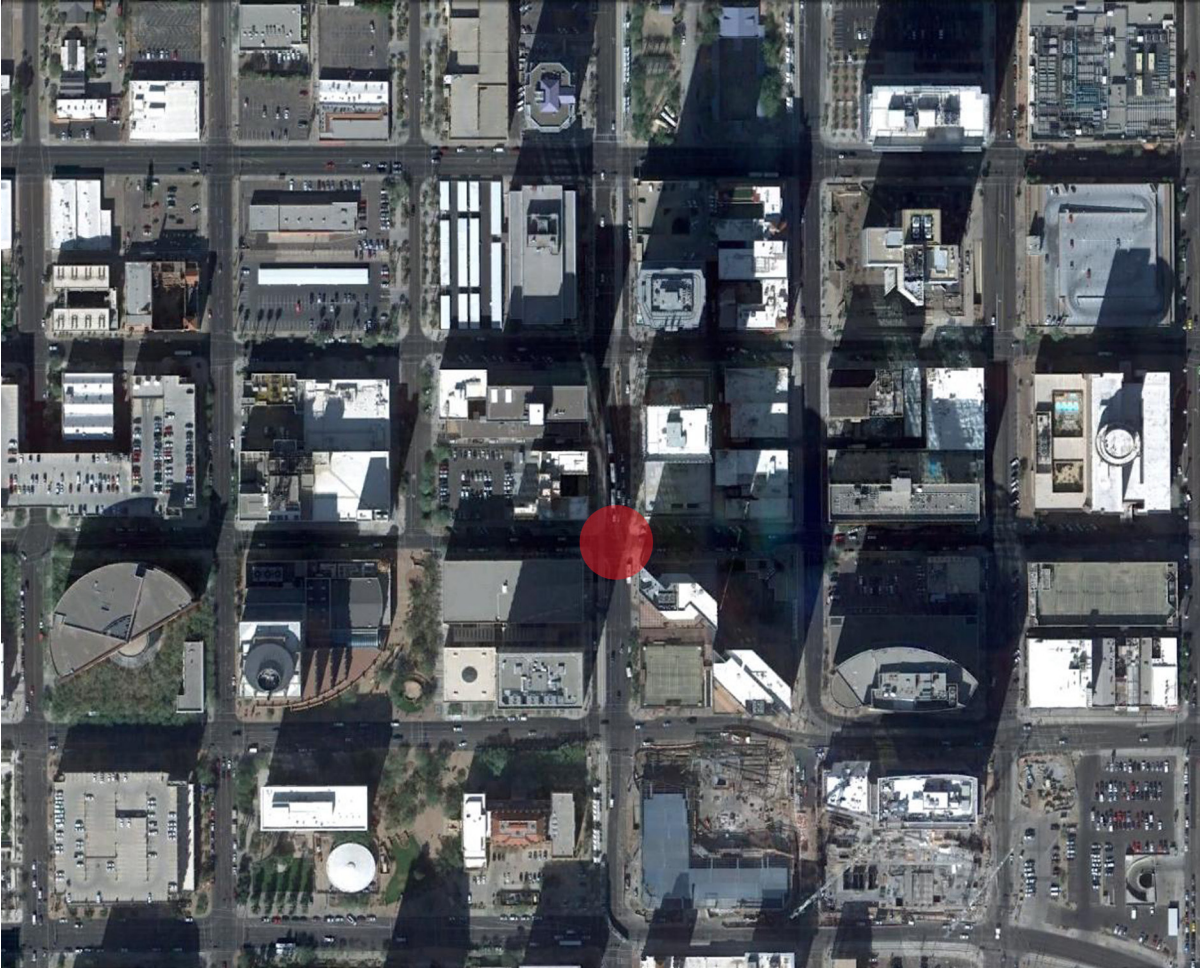
Located near the geographic center of the Phoenix metropolitan area, downtown Phoenix is a center of major league sports activities, live concert events, and an equally prominent center of banking and finance. When "downtown" is mentioned, the geographic boundaries are considered to be 90 square blocks (1.5 square miles) centered on the intersection of Washington Street and Central Avenue.



Site Location

Streets and Boundaries

Transportation Links, Area, Major Landmarks, Views



Project Emphasis

The key aspect of this thesis project is to develop and revitalize the ageing downtown area in order to bring new residences and commercial spaces to inhabit decaying structures and to recondition existing ones to promote the vibrant downtown spaces. Creating a way to persuade citizens to get away from the daily reliance of vehicles and begin thinking about alternative ways of transportation. Providing spaces downtown for residences giving citizens this opportunity to support the downtown economy while giving people an opportunity to not use inefficient vehicles.

Plan for Proceeding

Definition of a Research Direction

Throughout the research and development of a holistic thesis, a wide variety of topics will be discussed and covered. Such areas of research will be site analysis, historical context, and case studies of the project typology. As the project progresses, the unifying idea will be examined and programing requirements will be established.

Design Methodology

A variety of methods will be used for the examination and collaboration of analyses, case studies, and a wide variety of graphic analyses. Case studies of similar typologies will be studied to gain knowledge about existing solutions. Strict analysis of these case studies will also be conducted on site. Contacts will be produced to further my understanding and analysis of these typologies.

A site visit will be conducted to gain knowledge and to adequately analyze the current site in terms of uses, views, climate, sounds, circulation patterns, and resources available. The site visit will also help establish how the typology must function holistically and perform in its specific site environment.

Several methods ranging from graphic depictions, to sketches, to computer simulations will all contribute to the understanding and development of the thesis project throughout the process.

Plan for Proceeding

Plan for Documentation

I will be paying special attention to the importance of saving, organizing, and filing all sketches, notes, and other graphic depictions from this thesis in order to thoroughly document the entire design process. I have organized a binder with all of the quantitative and qualitative data as well as the a system for electronic files collected during this design process. A biweekly documentation of design process will be gathered and organized in an efficient manner until the completion of this design thesis.

Previous Studio Experience

2nd Year

Fall 2006 - Darryl Booker

- Tea House
- Mississippi River Rowing Club
- Dwelling; Ecologist and Forrest Ranger

Spring 2007 - Joan Vorderbruggen

- Waldorf School
- Dance Studio

3rd Year

Fall 2007 - Cindy Urness

- Center of Excellence
- Cranbrook

Spring 2008 - Steve Martens

- Children's Science and Technology Museum
- Multi-use Space; Lawn Bowling, Curling, Music Studio

4th Year

Fall 2008 - Bakr Aly Ahmed

- High Rise; San Francisco, CA
- Undergraduate Capstone Project

Spring 2009 - Stephen Wischer

- High speed rail station and hotel

5th Year

Fall 2009 - Regin Schwaen

- Hotel; Fargo, ND

Spring 2010 - Regin Schwaen

- Thesis Studio; Urban Revitalization

Program Document



Theoretical Premise

As stated in the unifying idea, this thesis will be exploring, researching, and understanding the possibility that the urban environment can be transformed into a habitable space that will counteract the urge for residents to leave the city for the suburbs.

We are a culture of production and consumption. We produce and consume so much because we borrow so much. We borrow from the past when we burn fossil fuels and clear-cut ancient forests. We borrow from the present when we overfertilize the land and overfish the oceans. We borrow from the future when we bequeath government deficits and chemical toxins to our children. Put less gently, we are robbers: by plundering the planet's savings account and squandering its income, we rob future generations of a good and decent life. The United States is the first nation to distribute its metropolitan populations at extremely low densities across the countryside, to achieve that unlikely mix of both sprawl and congestion. The American metropolis is far less dense than its counterparts in Europe, Asia, and other parts of the world. It is about a third as dense as metropolitan Paris and a thirtieth as dense as metropolitan Hong Kong, and it is getting less dense every year. (Kelbaugh, 2002, p.22)

Why is America the first nation to provide people the opportunity to reside in the suburbs of cities? The major underlying reason for spreading out is the historical propensity of Americans to depend on and utilize expansion and growth. With abundant natural resources suppling

Theoretical Premise

the inexpensive building market , Americans opted for newness, perpetually starting over again rather than sticking it out in the rooted place and reworking it until they got it right. Where there was plenty of room and resources there was; and no reason to crowd together in small dwellings in tightly packed communities. Another way of American life is physical mobility. The typical household now moves more frequently than it votes for president or watches the summer Olympics. This fact may be a little biased, but this transience has deterred the American economy of more permanent construction, which is less expensive in the long run than shorter-lived buildings. (Kelbaugh, 2002 p. 22)

As sprawling and industries grow, so too does the dependency on the private automobile as the only feasible method of moving people and goods through undeveloped areas. Simultaneously, the use of public transportation of any type has become a dying trend in cities. The more people are forced to use automobiles and trucks, the greater the need becomes to tear the urban tissue apart with streets, expressways, highways, freeways, parking lots, and garages. This means that certain urban uses like shopping and assembly functions have to be separated from residential functions. The more unbearable the effects of automotive traffic (congestion, danger, noise, pollution) become, the greater the desire becomes to escape these situations and conditions. (Gruen, 1973, p. 86)

Theoretical Premise

Fig. 001 explains the exact correlation between sprawl, increased use of automobiles, decreased use of public transportation, separations of urban functions, increased road surfaces and then ultimately cycles back to sprawl. This viscous cycle will continue until people implement rules to stop the continuation of this cycle.

The easy access to ownership of automobiles and the ever expansive and developing highway system amplifies this mobility. Both have made it more convenient and attractive to move to and commute to allegedly greener pastures. Automobiles are now deeply rooted in American culture. There is now one motor vehicle for every licensed driver, nearly twice as many per capita as a generation ago. (Kelbaugh, 2002 p. 23) Automobiles have now become the norm in the transportation network that has been overlooked and over loaded. The daily gridlock is no longer just a rush hour phenomenon. It occurs much of the time in a lot of the urban metropolises here and even abroad. As shown in the 1950's, two cities, Tokyo and Seoul, were both faced with this problem of gridlock. Tokyo opted for mass transportation, a system which today is highly respected all over the world. Seoul just decided to go for more roads and immediately created a twenty-eight land highway and insurmountable traffic lanes.

Cars have made a huge impact on the environment and urbanism. By the shift of easily accessible and economically efficient

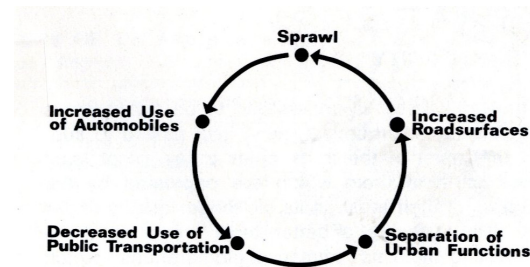


Fig. 001

Theoretical Premise

resources the design for vehicles have heavily outweighed the design for pedestrians and many more important aspects of our lives. Fig. 002 shows the public streets in Ahmedabad, an Indian city founded in the Fifteenth Century. In Fig. 003 you can see the streets of Irvine, California, established in mid-twentieth century. The top figure represents the pre-automobile age, showing how the city is actually designed around the pedestrian and not an inanimate object that is disconnected from our basic existence. The bottom figure is planned for the automobile, and remarkably, both of these figures are drawn at the same scale. New environments are all too often characterized by spread-out mediocre buildings, lots of left over space, and rather uncomfortable arrangements for pedestrians. These environments appear to be designed for the benefits of moving vehicles. These trends have been devastating towns and cities all over the country. In comparison, traditional urban environments emphasize the spaces between buildings and usually produce an attractive, organic whole with a variety of useful pedestrian areas on a comfortable human scale.

“Unrestrained sprawl around our cities is generating profound environmental stress, intractable traffic congestion, and dearth of affordable housing, loss of irreplaceable open space, disinvestment in our inner cities, and life-styles which burden working families and isolate elderly and singles. We are using land planning strategies that



Fig. 002

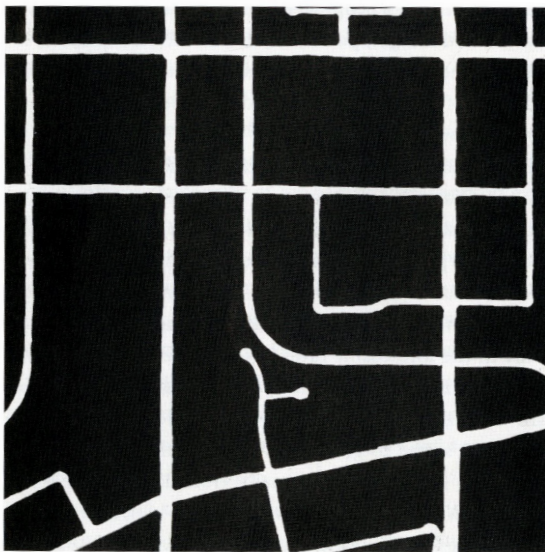


Fig. 003

Theoretical Premise

are 40 years old and no longer relevant or affordable to today's culture. We are still building World War II suburbs as if families were large and had only one breadwinner, as if jobs were all downtown, as if land and energy were endless and as if another lane on the freeway would end traffic congestion." (Kelbaugh, 2002 p. 26) The outdated strategies of the typical American sprawl movement have not shown any updates in technology for a significant amount of time. The current techniques and trades of urban cities could be totally exterminated in the near future. We seem to be losing the ability to stand back and look at what we are producing as a whole. We need to stop worrying so much about individual buildings and other individual artifacts and think instead about the places in their entirety. We need to forget the spaced-out building of the past few decades separated from each other by highways and left-over tracts of land. These unthinking, tired solutions to development have not served us well. We must concentrate on attractive, intricate places related to the scale of people walking, not driving. The exploration of individuality, and uniqueness must be incorporated today. An attractive public realm is very important to a feeling of well-being or comfort. (Tibbalds, 2001, p. 9) In reality, architects and planners, landscape architects, and civil engineers need to design according to the physical qualities they see and experience around them. With this disconnection and misalignment of physical experiences, of space and circulation, the pedestrians have

Theoretical Premise

been known to uninhabit these spaces.

Urban areas exist for human beings. They do not exist for cars or trucks. This aspect would not be apparent when wandering around the majority of our towns and cities. We need to find ways to give our urban areas this human quality or scale. A comfortable human scale environment is one which is related to the scale and pace of pedestrians, not fast moving vehicles. This is not to be thought of in terms of micro-scale space planning. It needs to be properly designed. Town planners and urban designers are quite familiar with addressing the town or city in plan. They all now need to design the same way, but in section or elevation. It is always evident when spaces are vertically and volumetrically out of context. Often times the experience and sensations of a space can be obtained through a variety of people. Even groups of people can be attracted or deterred from an entry, corridor, or atrium space by simple tectonic characteristics. Buildings are perceived at different distances. Perceiving a building close to eye level, close to where people are walking, is particularly important. It is largely at this level that we achieve, or fail to achieve, human scale in a place. As opportunities arise, through redevelopment, the raw and ragged edges resulting from insensitive development and highway construction. Spaces must be intentional, not the left-over bits that were too difficult to deal with. They must be contained and well defined. Public and private areas, and fronts and backs

Theoretical Premise

of buildings, must be easily recognizable. This is a familiar pattern which people like and with which they feel comfortable. By comparison, the formless development of the 1960's has left a legacy of anonymous spaces which people find uncomfortable, ambiguous, and disorienting. (Tibbalds, 2001, p. 41)

At the beginning of the twenty-first century, the American city is characterized by rapid horizontal growth, having a dispersed and sparsely populated surface of activities. One of the earliest examples of this characterization would be from a series of articles in 1957, *The Exploding Metropolis*, where the author documented the urban growth as chaotic, disorderly, unnatural, and problematic. The resultant landscape is difficult to describe in words. Everyone who dwelled in or traveled through and around urbanized areas in America, however, is familiar with this landscape. It may be vacant strips alongside roadways, seas of parking lots, unused land, surfaces awaiting development, dumping grounds, warehouse districts, a seemingly endless stretch of setbacks and perimeters framing housing communities. All of these seen at the local scale, (e.g. walking or driving through neighborhoods) may cause the landscape of the horizontal city to appear diminished and wasteful. It appears poorly planned, poorly designed, unmaintained, and appear as irregular and indiscreet leftovers from more dominant forms of development, like buildings or highways. Viewed at

Theoretical Premise

the metropolitan, or regional, scale,(e.g. from the top of a tall building or airplane) the landscape of the horizontal city often appears as extensive and plentiful. (Berger, 2006, p.26)

In many growing, urbanized communities in the United States, the debate over whether to build compactly-up, rather than out is over. The current debate now is over where to increase density and how best to encourage, facilitate, plan, and design new compact developments. The benefits are plentiful: reduction in traffic congestion and harmful carbon emissions, preservation of open space, better use of public infrastructure, more effective use of public investments and services (including mass transit), integration of pedestrian and bicycle access to new developments, and increase in property tax revenues. Although the arguments for compact mixed-use developments are convincing, the reality is that many people oppose almost all new development and that opposition often increases with the density of the proposal and its proximity to their property. Without educating the public about the pros and cons of population growth and the consequences, challenges, and trade-offs inherent in land use decisions, support for regulations encouraging compact development and the negative consequences of low-density development may not be readily apparent to the public. Often, the public mistakenly blames higher-density development for the consequences of a low-density development

Theoretical Premise

pattern. The U.S. Census Bureau projects that America will add almost 55 million new residents between 2010 and 2030, or roughly 2.7 million new residents per year. Because of this growth trend the population distribution will ultimately be uneven throughout the country and the accepting communities will be significantly affected. High-growth communities that fail to accept this reality too often also fail to plan for it. Their failure to plan, in the end, gives them more of the same type of development that they consistently complain about: low-density sprawl that clogs roadways, pollutes air and water, and gobbles up agricultural lands and open space. Demographic shifts, high infrastructure and construction costs, population growth, the long-term outlook for energy, and anticipated climate change make more-compact development inevitable, despite lingering public opposition to higher density. (Haughey, 2008)

Transit is up and driving is down according to the latest trends. The latest national travel data show that transit ridership--which spiked earlier last year, in part, because the run-up in gas prices--continued to grow despite the collapse of prices at the pump. Transit ridership reached 2.8 billion trips in the third quarter, a 6.5 percent jump from the same period last year. The decline of driving in the United States started its second year with a loss of 12.9 billion Vehicle Miles Traveled (VMT). Steven Polzin, director of the National Center for Transit Research at the University of South Florida,

Theoretical Premise

has projected that an additional 30 percent increase in population by 2025 will result in a lower increase than the past--perhaps a 51 to 60 percent growth in VMT. The factors include both demographics and travel: Stabilizing female labor force after years of decline, stabilizing female driver licensing after reaching parity with males, transition of the baby boomer bubble through their peak travel years, saturation of vehicle ownership, stabilizing zero-vehicle households, and stabilizing public transit, walk and bike and auto occupancies after years of decline. Economists have long noted the close correlation between VMT and the underlying economy, so is it possible that attempts to reduce VMT could take a toll on the gross domestic product (GDP)? Certainly, much of the recent decline in VMT seems a consequence of the worst economic deterioration in memory. Residents of some metropolitan areas drive substantially less (thus spending less) and seem to enjoy the same job, retail, and entertainment opportunities as those who drive a lot more. (Dunphy, 2009)

Theoretical Premise/Summary

Urban areas seem to be diminishing in certain areas of the United States. With redevelopment and planning, these environments can be transformed into habitable spaces that will, in theory, counteract the urge for residents to leave the city for the sprawling suburbs.

The United States is a nation that produces and consumes. We borrow from the past when we burn fuels. We borrow from the present when we overfertilize the land or over fish the oceans. We borrow from the future when we push deficits on to our children. Put simply, we are robbers. The United States is the first nation to distribute the population at extremely low densities across the countryside. The U.S. is far less dense than its counterparts in Europe, Asia, and other parts of the world. One of the reasons so many Americans spread out over the landscape is that, historically, we have always been expected to grow and expand. With the inexpensive building markets, Americans opted to build new instead of replace old. As people grew more and more, they grew a dependency on private automobiles and trucks. The increase in sprawl and dependency on automobiles then led to the decreased use of public transportation, separation of urban functions, and then the increase in road surfaces. This vicious cycle will continue until changes were made. The easy ownership of automobiles make the transportation system and network overloaded. American cities were designed for automobiles instead of humans. Designers need to start thinking about the landscape and how it interacts with people. They need

Theoretical Premise/Summary

to stop worrying about individual buildings. We should stop designing sprawl, and start designing for the quality of life in each city. We should concentrate on the attractive, intricate places that are related to the scale of people and the public realm. By giving urban areas a human scale, we are creating an environment that is relevant to people. Often than not, designers observe towns in plan by evaluating in section or elevation human scale become evident immediately. The current debate now is where to increase density and how best to encourage, facilitate, plan, and design new compact development. The benefits are plentiful: reduction in traffic congestion and harmful carbon emissions, preservation of open space, better use of public infrastructure, more effective use of public investments and services (including mass transit), integration of pedestrian and bicycle access to new developments, and increase in property tax revenues.

Now is the best time to overhaul the American dream by returning to the values and patterns of our traditional towns, through diversity, community, and human scale. We must move away from cul-de-sac subdivisions to elm street neighborhoods, from drive through commercial strips to main street communities, quite simply, from segregated sprawl to places more like traditional European towns.

Case Study: Standard New York



Fig. 004

Type: **Hotel/Mixed-use**

Location: **New York City, NY**

Characteristics: **The first new building to rise over the old rail line, straddling its elevated tracks.**

Case Study: Standard New York

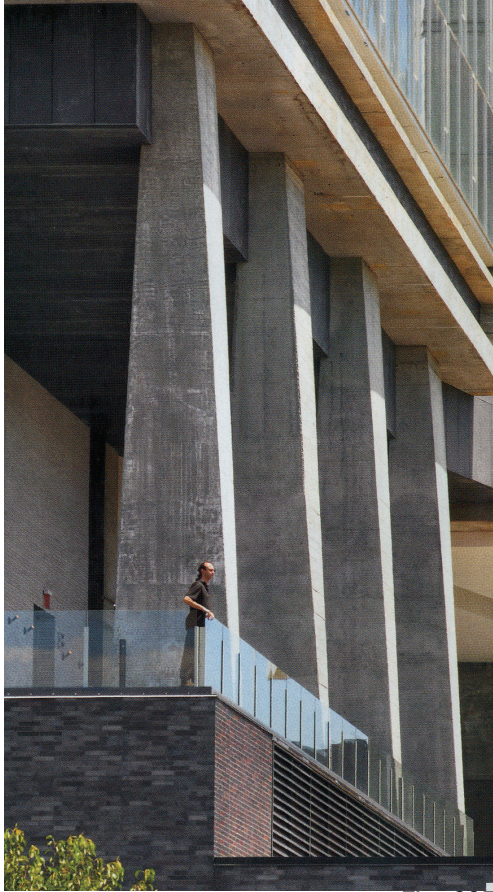


Fig. 005

Made of rough board-formed concrete and vast expanses of transparent glass, the Standard is sleek and gritty at the same time. It echoes its Meatpacking District neighborhood where high-end fashion showrooms and pricey art galleries have supplanted bloody butcher shops and no-frills warehouses. But, the building draws inspiration from a surprising mix of influences beyond its immediate context, borrowing heavily from the architectural purism of the International Style and from the flamboyant hotel design of Morris Lapidus. (Minutillo, 2009) They intended to design the hotel from the inside out. The idea was to have all of the glass rooms feel as expansive as possible, but they had trouble searching for the right vocabulary. The zoning envelop only required that new construction over the raised railway essentially be a box with a hole in the middle to allow the tracks to pass through to give the pedestrian zone precedent over the structure. The architects took advantage of the rooftop as more than just an area for mechanical equipment. The rooftop was made using minimal railings made from ultra-clear, low-iron glass. The design intent of the facades were to create a breathtaking view, like that of a ships view, with unobstructed 360-degree views over the skyline and the Hudson River. The rooftop is a popular location. The expansive views along with the sparse, but smart interior design add unmeasurable area to the moderately priced and moderately scaled rooms, averaging 250 square feet.

Case Study: Standard New York

Hotel guests and the public can sit and relax on the outdoor plaza near the hotel entrance, or they can look up at the steel underbelly of the high line from the open-air beer garden behind the restaurant. It may seem counter-intuitive leaving so much of the three quarters of an acre buildable site unbuilt, but business at the Standard is good. The Standard is at nearly 90 percent occupancy rates since opening earlier this year.

The Standard building presents characteristics of Balance and Configuration. The exterior symmetry is shifted to balance the location of the high rail pedestrian circulation. By designing the structure this way the architects successfully create space between the subtracted spaces. The architects thoughts were also successful concerning balance by positive and negative space. In the third floor plan the positive and negative space are almost identically the same spatial area as each other. This tends

- 1. Outdoor plaza
- 2. Hotel lobby
- 3. Elevator lobby
- 4. Staff offices
- 5. The Living Room (lounge)
- 6. The Standard Grill (restaurant and bar)
- 7. Kitchen
- 8. Beer garden
- 9. The Garden Room
- 10. The High Line
- 11. The High Line Room (meeting and banquet space)
- 12. The High Line Terrace
- 13. Guest rooms
- 14. Club
- 15. Mechanical
- 16. Roof deck
- 17. Existing High Line structure foundations

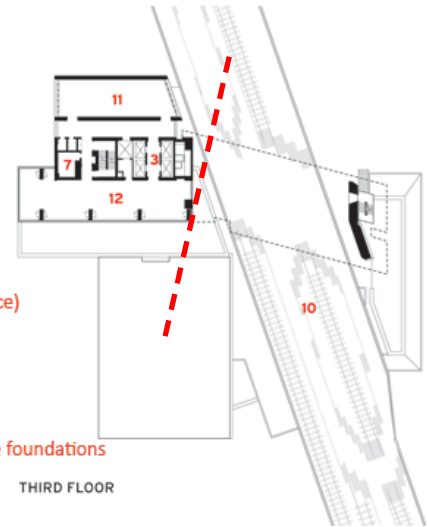


Fig. 006

- 3. Elevator lobby
- 13. Guest rooms

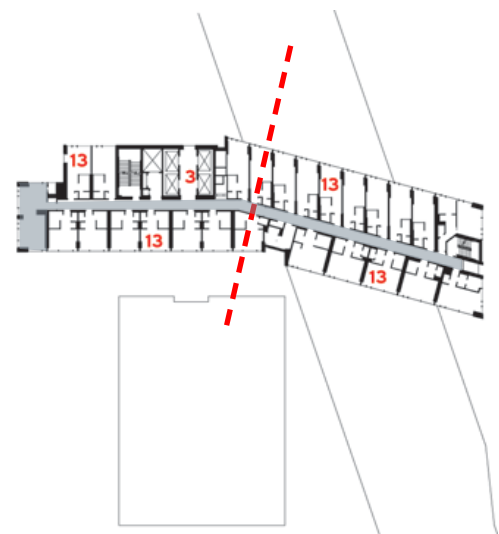


Fig. 007



Fig. 008

Case Study: Standard New York

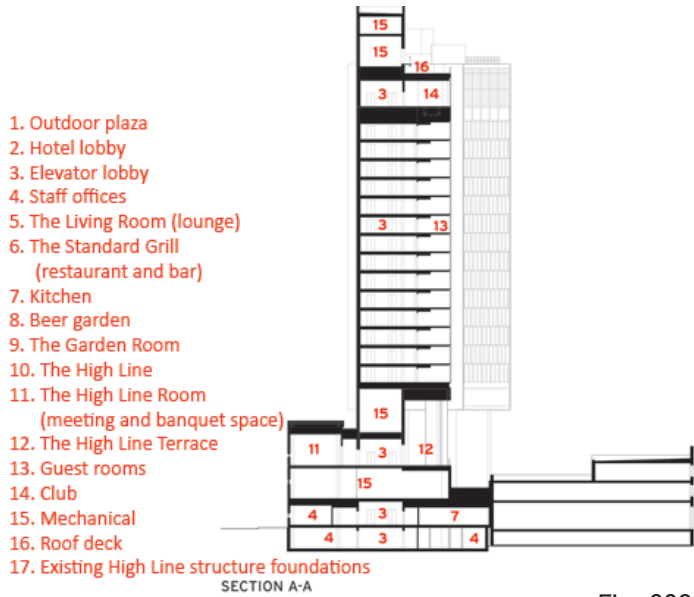


Fig. 009

to create very symmetrical forms and voids with this project. Another very prevalent form would include the rotated, shifted and overlapping of space. By slightly rotating the rooms over the pedestrian walk way, the forms speak louder than words, making it very interesting for people to experience. As you can see in Fig. 008, the abundance of natural light and views out to the Hudson river and New York City give this project a uniquely modern observation of the city. The integration of a hotel into a highly developed urban area than has been consistently going through redevelopment has resulted in a building that connects the landscape, people, and wellbeing.

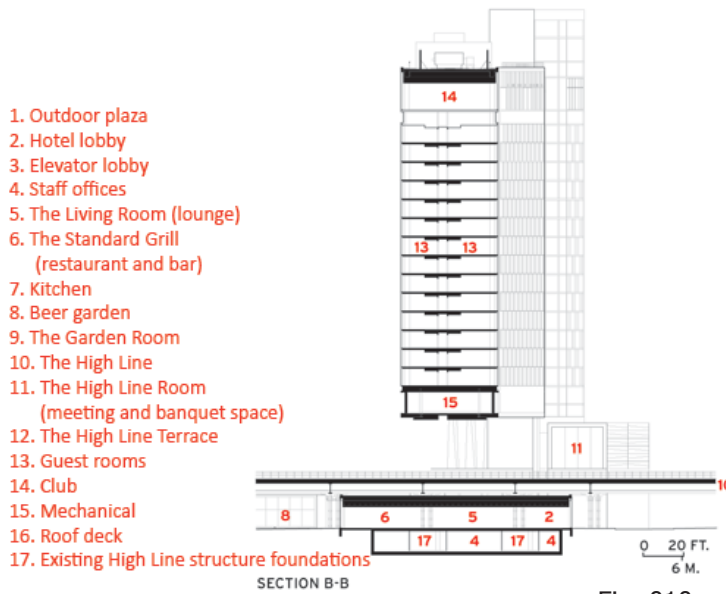


Fig. 010



Fig. 011

Case Study: Museum Residences



Fig. 012

Type: **Multi-family residences**

Location: **Denver, Colorado**

Size: **126,000 square feet**

Characteristics: **These residences give people the opportunity to almost literally bring the museum right into their homes.**

Case Study: Museum Residences

Soon after Daniel Libeskind was hired for the job, the project was supplied with more requirements for a parking facility to restore the spaces lost to the expansion. With budget constraints preventing the major excavation, the architects envisioned a five-story above grade parking garage, but people wanted more than just parking. For example, the city's director of community planning and development, Jennifer Moulton, had long championed a vision for promoting street life with a mixed-use project that would connect Denver's cultural and political activities downtown to the "Golden Triangle" residential neighborhood to the south of the site. Libeskind and his team immediately demonstrated the same vision Moulton had. Instead of a single, freestanding parking garage, the architects proposed wrapping two sides of the 1,000-car concrete parking structure with a seven-story residential building anchored by retail spaces on the ground level.



Fig. 013

The strategy was to provide a tidy solution to the problem of concealing the necessary but prosaic structure, while also bringing new residents and activities to the district. "For me, the project was about how to create an urban space activated by the neighborhood" said Libeskind. "The idea was not to create a stand-alone building, but to create life." (Broome, 2007)

Case Study: Museum Residences

The two rectilinear volumes house 55 apartments that abut on both the museum facing Acoma Avenue side of the garages and the 12th Avenue side, which looks out toward the Rocky Mountains. A curtain wall glazed with transparent and opaque white panels shrouds the concrete-framed building, while a zinc-clad, shard volume thrusts like a javelin through the two facades where they meet at the garage's corner. The curtain wall lends a transparency and lightness to the residences, a respectful gesture to the museum. In yet another move to soften the potentially overbearing impact that a seven-story building might have on its culturally significant neighbor, eight steel-framed, zinc-clad penthouses, also offering views onto the garage's green roof, are stepped back, creating ample terrace space. (Broome, 2007)

The pure geometric organization of the space is quite interesting. The parking garage concedes the majority of the structure, overpowering the antlike qualities of the museum residences. By the cluster-like organization, Libeskind designed no two rooms exactly alike. These cluster patterns are grouped without any discernible pattern. The Acoma Avenue side of the residents create a meditation/reflection space that gives people the opportunity to compare the similarities between the two architecturally unique buildings.

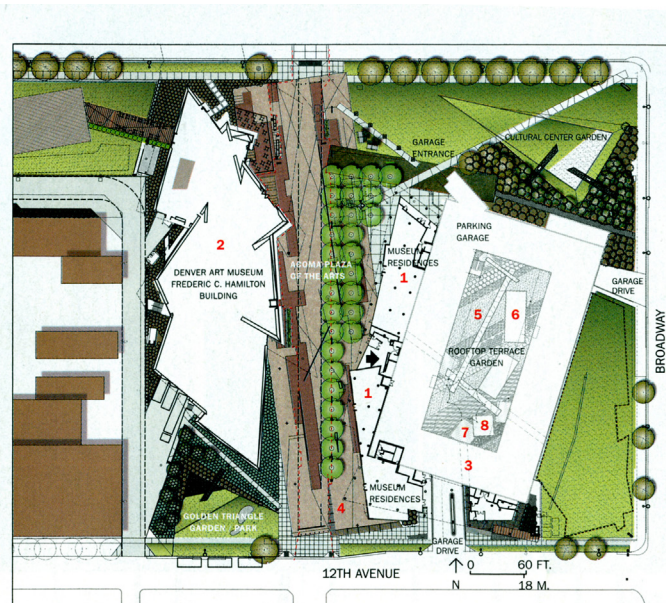


Fig. 014

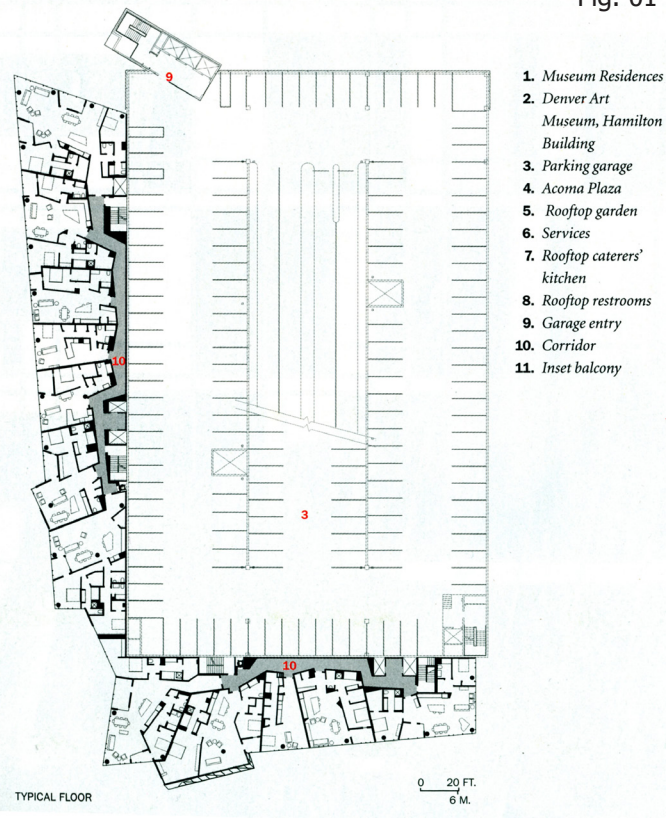


Fig. 015

Case Study: Museum Residences

It is very interesting how the whole structure is slightly off axis from any of the significant forms, structures, or landmarks. The interaction between the parking garage and museum creates a space that can be receptive to a variety of public activities. The circulation space can easily be detected running parallel to the garage walls. They are kept separate from the garage for privacy reasons and to create a noise buffer to deter residents from moving out due to obnoxious traffic.



Fig. 016

This project represents a great interaction between the necessary and the optional in the urban environment. By giving these two functions similar spaces it promotes vitality and life into what would originally be thought of as a prosaic environment. Designers want multiple uses combining together with other spaces so people are more likely to be interested in such activities that are promoted, likely giving urban life more vitality.



Case Study: CAIXAFORUM



Fig. 018

Type: **Cultural Center/Adaptive Reuse**

Location: **Madrid, Spain**

Size: **100,000+ square feet**

Characteristics: **Illusion that the building floats in midair, hovering over a covered entry plaza.**

Case Study: CAIXAFORUM



In what they described as surgical operation, Swiss architects Jacques Herzog and Pierre de Meuron demolished the original roof and interiors. With the addition of two upper stories clad in rusted cast iron and two underground levels, they doubled the building's height and increased the buildings size five times, creating more than 100,000 square feet. It seems as if the architects have skinned and gutted the structure.

Fig. 019 The basic strategy of the

design is similar to the Barcelona Forum. In both cases, the architects lift the building off the ground to create a shaded public plaza, a point of entry, with essentially windowless program spaces above the entry. The spatial compression is accentuated by the irregular site condition with the narrow back streets sloping upward on one side and careful



positioning of the cores subtly guides visitors diagonally towards the entry stair.

As in Barcelona, the architects skillfully handle the reflective surface of the plaza ceiling, the lighting, and the sound of water from a pool to create a cool space of shadows and reflections. (Cohn, 2008)

As you can see in Fig. 020, the architects have punched a couple openings in the exterior structure, filled in

Fig. 020

Case Study: CAIXAFORUM

existing openings with recycled brick, and restored and rebuilt it as necessary. These operations, along with the act of suspending the building in midair, transform the original facade's remaining traces of ornament and its signs of wear and tear into hieroglyphics. The feat of suspending the building was accomplished by pouring a concrete liner against the inside of the brick walls, structurally connecting them with the cores containing stairs and lifts. The spectacular spiral entry, made from folded stainless-steel sheets, reflects the lobby's tangle of crisscrossing exposed fluorescent lamps.

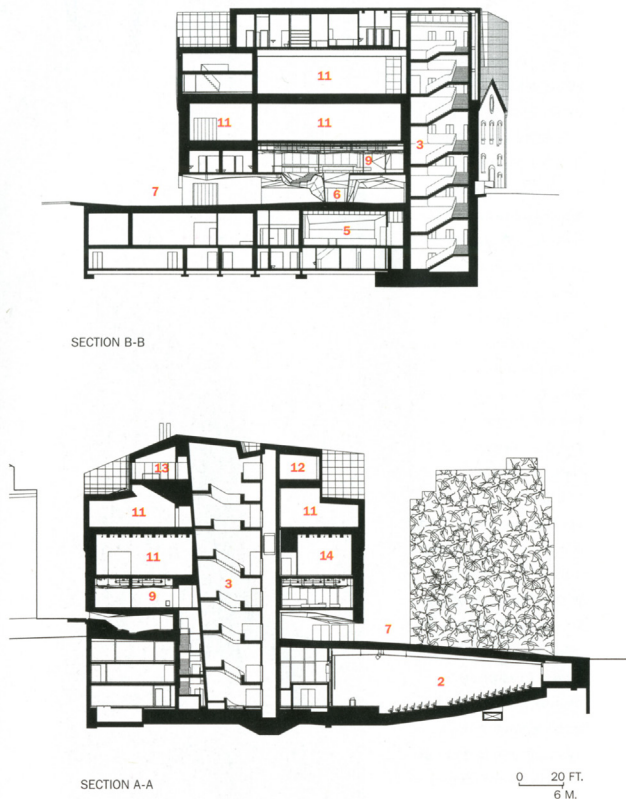


Fig. 021

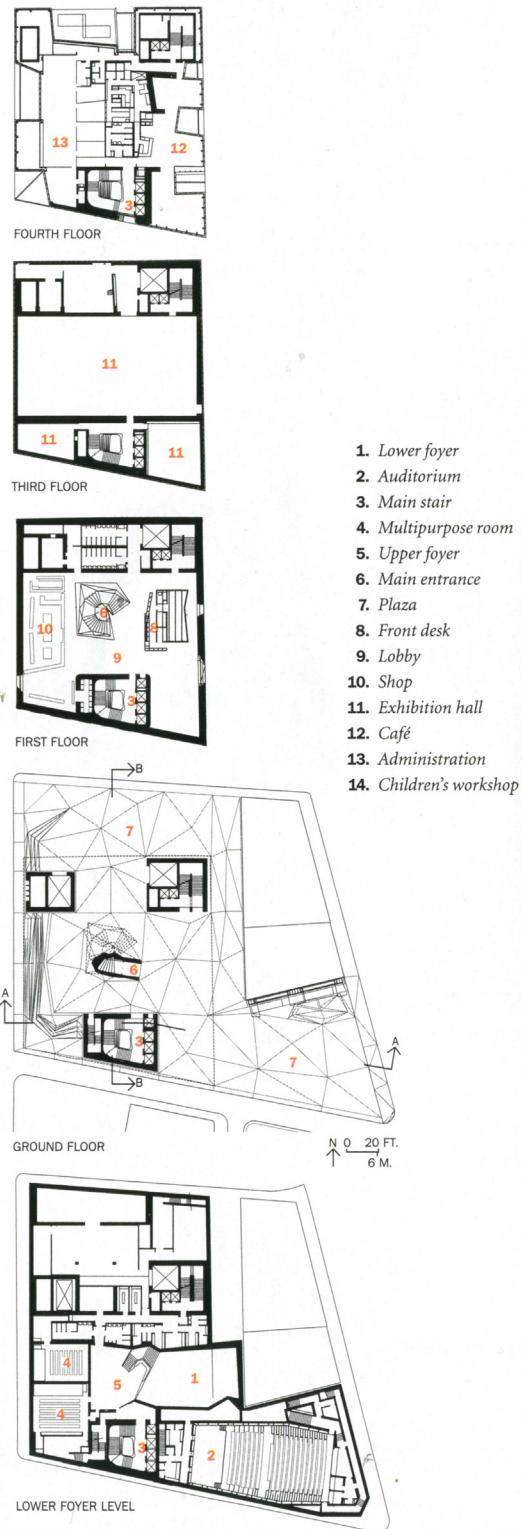


Fig. 022

Case Study: CAIXAFORUM



Fig. 023

An interesting aspect of this project is the transformation of a power plant into a cultural center. Originally it was Madrid's Central Electrica de Mediodia Built in 1900, The CaixaForum cultural center creates a brilliant design of the past into the future. Owned and operated by the Social Works Foundation of La Caixa, Spain's largest saving bank, this project is dedicated to programs in art, music, theater, and literature. This project was a retrofit of the urban landscape. This was successful for the Designers. The CaixaForum's balance by configuration is evident simply by the fact that there is an equilibrium between components that are different in form and shape. These form balance between each other by floating together with each other. The configuration of space is another characteristic that the architects were successful at designing. The central use of circulation, by bringing people underneath the massive belly of masonry walls, then getting swallowed up by the circular stairs, and eventually being ejected into the gallery spaces, the architects designed a pleasant solution to an urban redevelopment. Not only is this building truly a redevelopment in the European world, but is also a great representation of how America could implement this practice into today's society.

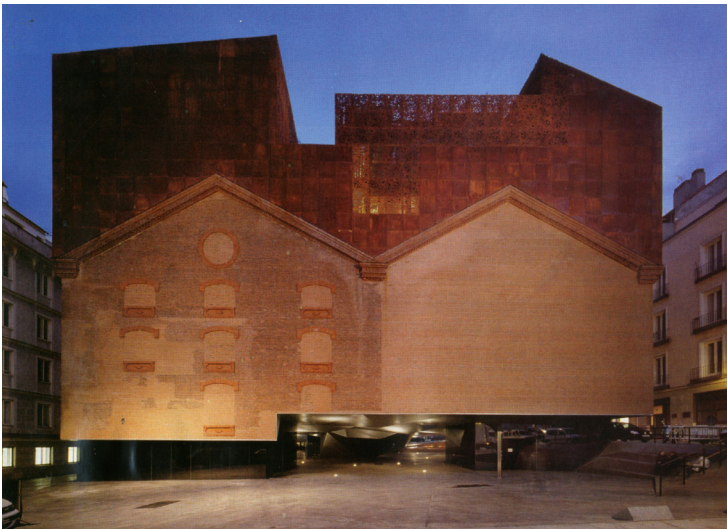


Fig. 024

Case Study and Typological Summary

Urban redevelopment continues to be transformed in all kinds of types, sizes, forms, functions, characteristics, and descriptions. Focusing on Standard, Museum Residences, and CaixaForum offers a better understanding of such diversity in the built environment. Ranging from moderately priced hotels to Cultural Centers, these cases ultimately give people a better quality of life.

The original design intention of the Standard Hotel in New York, the hotel was designed from the inside out. The idea was to have all of the glass rooms feel as expansive as possible. Integration of the elevated pedestrian walkway and the hotel where huge design feats. The architect came to a creative conclusion by geometrically connecting the two visually. Another characteristic of this project is how architects took advantage of the rooftop as more than just an area for mechanical equipment. Incorporating minimal railings made from ultra clear, low-iron glass the facades create a breathtaking deck, like that of a ship, with unobstructed views over the skyline and Hudson River, this location is a popular one. By creating these spaces, architects also create interest in the project and spaces within a project.

Soon after Daniel Libeskind's studio was hired for the Museum Residences in Denver, Colorado, it was apparent that more requirements were going to be necessary for Daniel and his team. With budget constraints preventing them from doing any major

Case Study and Typological Study

excavation to the site ,the team decided to design a five-story parking garage. This design was not good enough for many people including Jennifer Moulton, Director of community planning and development. She had long been championing for a vision to promote street life with a mixed-use project that would connect Denver’s cultural and political activities to the downtown area. Libeskind quickly designed a simple but elegant solution to this problem. Unlike the typical architectural solutions, this would include 55 apartment units that would wrap around two sides of a 1,000 car parking garage. Tectonically people would not think these two typologies could coexist but meshing them together, enable designers to create functions that benefit neighborhoods. The CaixaForum building was originally a power plant, built in 1900, now transformed into a cultural center. Architects Jacques Herzog and Pierre de Meuron performed “surgical operation” while punching a couple of openings in the exterior and recycling brick to restore and rebuild the existing facade, filling in the remaining ornamentation. The design decision to creatively reuse and add to the structure to develop a space that would be much more powerful. The results define how architecture could be presented in the future after buildings run out of their built life.

The urban environment poses a lot of questions, with even more answers. These examples only give a small introduction to why the built world develops.

Historical Context of the Thesis

Arizona is one of the most urban states in the nation. Despite the state's farms, ranches, and isolated mines, by the 1980's nearly 80 percent of its population lived in its two major metropolitan areas, Phoenix and Tucson. The booming Phoenix metropolitan area, with nearly 60 percent of Arizona's population, represented the reality of the twentieth-century Great American West.

Similar to other urban frontiers, the founders of Phoenix were developers and boosters. The desert did not deter them as they went about irrigating their land and building their town. The name of the town, Phoenix, represents life rising anew from the remains of the past. Hohokamm Indians may have disappeared from central Arizona by 1400, but the new pioneers of the 1860's were determined to create a future in the area. They expanded the Hohokam irrigation system and contributed to the blooming desert and the rise of Phoenix. Nearly two hundred miles of canals opened up thousand of acres of arable land to cultivate. This evolution developed the area to the extreme. An adequate water supply, a long growing season, and plenty of sunshine and hard work increase production. This in turn, created the need for new markets and the desire for a railroad connection to the outside. (Luckingham, 1989)

From the territorial period that lasted from 1870-1910, the valley's population grew from 350 to 35,000. Phoenix, Tempe, Mesa, Glendale and Scottsdale were founded.

Historical Context of the Thesis

Also the Territorial Norman School, later to be ASU. During this time, agriculture and mining were the economic bases. Water was brought to Valley fields and orchards from the flowing Salt River by new canals, where many had been dug more than six centuries earlier. 1910-1950 were the early statehood and war years. The Roosevelt Dam was dedicated by the former president in 1911 and also provided a stable water supply to Phoenix. Arizona became the 48th state in 1912. Agriculture expanded, more dams were built, tourism increased, roads were paved, transcontinental highways and the Sky Harbor Airport served transportation needs. Summer comfort in the desert was provided by mass-produced evaporative coolers. Urbanization, from 1950-Present, here we have seen the biggest jumping population and growth to 1,510,000 people (1980). This was largely due to the rapid growth following the World War II; accommodations were made by developer-built homes that spread outward over farm lands and the desert. Suburban shopping centers followed residential development. Bringing about the elimination of major retailing in central cities, "clean" industry increased, these areas flourished due to the increase in resort destinations, interstate freeways were built and streets were improved, private automobiles dominated transportation, public transportation gradually lost ridership and was then subsidized. Also environmental, energy and economic problems appeared across the Valley. Phoenix became the 9th largest

Historical Context of the Thesis

city across the United States. The urban planning area in 1990 will extend over 2,000 square miles (not all of which will be wholly urbanized) and it will be home to about 2,000,000 people. (Elmore, 1983)

Phoenix emerged as the leading city in the Southwest. Surpassing El Paso in the 1950s, the Arizona capital was well established at the top of the regional urban hierarchy by 1960. The optimistic attitude of promoters during the period and the atmosphere it encouraged helped the Phoenix Standard Metropolitan Statistical Area (Maricopa County) to more than triple its population between 1940 and 1960. It easily extended its lead over rival areas. Despite problems of growth shared by other vital urban center in the nation, Phoenix expanded in scope and prominence as economic and populations trends followed. A report put out by the City Council stated that, "The rapid growth of Phoenix and its surrounding area has brought your city to a crossroads in its development. Phoenix faces the choice of being a large city capable of planning for sound growth throughout the area and providing the type of services and facilities a large city requires or of being a relatively small city surrounded by a number of satellite 'bedroom' towns benefiting from a number of city facilities and services but making no financial contributions toward their costs." (Luckingham, 1989)

Despite Phoenix's phenomenal growth, there was never enough money to run it adequately. Property and sales taxes, along

Historical Context of the Thesis

with other local sources of revenue, were minimal; thus, federal aid helped. Services always seemed to lag behind the population explosion, so complaints multiplied. As more job opportunities opened up, people flocked to the city. Although salaries were often lower in Arizona capital than in the bustling urban center of the East and California, so was the cost of living. Compared to other cities, people in Phoenix usually received more for their money. Moreover, many observers considered the quality of life in Phoenix and Arizona superior to that in Los Angeles and California. Reasonable land and labor costs, along with an abundance of mortgage money, encouraged the construction industry to supply affordable housing for the hordes of newcomers. Rapid urbanization continued to encroach on agricultural land, but agriculture, especially cotton production, remained a major factor in the economy. It progressively moved out of the urban area in to the "wide open spaces." As land became worth more than crops, many urban-area farmers sold their acreage to developers. In some instances, land worth \$250 an acre in 1940 was selling for \$25,000 an acre in 1980. The most persistent problem facing the metropolitan farmers were the urban pressure. By 1877, ten thousand acres a year were being withdrawn from agricultural use. Yet Maricopa County, one of the top five agricultural counties in the nation in 1980, remained the agricultural capital of the South west. Agriculture was declining in importance. In 1980, agriculture was using 89 percent of the water consumed in

Historical Context of the Thesis

Arizona, while the cities were using 7 percent and industry 4 percent. As time passed, the number of people and cars greatly increased, and a progressive conversion about the transfer of land to residential and commercial use gave way to more sprawl. Developers were encouraged by the availability of large parcels of land. Supported by the federal government's housing policies as well as the public's search for the good life, developer transformed farmlands and deserts into new subdivisions featuring single-family homes and shopping centers. Sprawling, low-density, auto-oriented suburban Phoenix proved inviting. Not everyone admired it, but the majority accepted and appreciated it. Almost all urban growth management procedures were ignored. Phenomenal growth led to record-breaking numbers of new homes, churches, and schools. More than ever, promoters tried to offer cultural and social amenities as well as economic and employment opportunities. Efforts to upgrade cultural life in the Phoenix area were short lived and often fell short. Some progress was made but it proved difficult to overcome the impression that Phoenix lacked culture. (Luckingham, 1989)

History should be respectfully studied for design principles rather than used as a cut and paste option. Time-tested architectural types are more valuable than specific historical styles. An architectural type that has stood the test of time, like the Basilica in Rome, must be doing something right in terms of responding to climate, social and cultural

Historical Context of the Thesis

needs, tradition, and economy. The best buildings from the past--whether vernacular or Architecture with a capital A--continue to set the high standard of excellence for today's designer. Historical precedents are a good point of departure when designing buildings. Their design vocabulary and syntax can be creatively transformed to express and to accommodate new technical and programmatic forces. (Kelaugh, 2002)

As shown in Fig. 025, these developments used to be cotton fields, now Sun city has been very popular offering amenities such as hospitals and golf courses. This population of about 50,000 residents comprises of one of the most well know planning developments. It is said that the development pattern can be discerned from space.



Fig. 025

Sprawls like the one shown has no significant value, culturally, or politically. The unregulated developments outside of Phoenix have created distinct districts that have been know across the country. The ironic thing about Phoenix is that it is a community that was created from a desert. With the diminishing water supply and overuse of land, these resources are going to have to be a higher priority if families want to continues to use the expansive land given to them in Phoenix. By creating density, multiple users could live off of resources that can be dispersed over a lot of people in a more efficient manner. City's need to come together and to be thought of a holistic community and not individuals.

Project Goals

Academic Goals:

The main goal of architects are to design and construct spaces that reflect and react to environmental considerations by the use of materials, technologies, textures, light, and shadow to produce functional and aesthetically pleasing environments. The range of architecture can be anything from designing a spoon to a sports stadium. Architecture is a designing, problem solving profession. By challenging individual minds today in school, students will transform into a different person tomorrow. Efficiently conveying these ideas, technologies, and solutions through my thesis project to others will be the biggest satisfaction to me. It is a goal in this thesis to present a solution to one of the biggest problems facing cities today, Sprawl.

Professional Goals:

After completing my academic career, I am beginning my transition into my professional career. It is important to eventually transfer from a conceptual academic design trend into a more realistic functional design. Continuing the educational process into the professional career will keep me up to date on current trends in the industry and technology. Incorporating this technology and trends into my thesis will ultimately give me a head start and understanding on the problems faced in my thesis design. By showing professionals of my abilities shown in my design and thesis, this will show them

Project Goals

how much more of an asset I could be to their firm in the future.

Personal Goals:

With hard work comes rewards. By working on this thesis project, I hope that far more results will be produced than any other project I have previously worked on. Pushing every single aspect of thesis will, in turn, produce more out of it. The harder the work put into thesis the greater reward that comes out. My goal is to take any unfamiliar design situations, research, develop, and then implement then. Hopefully by not stumbling on unfamiliar design situations this will push me and my knowledge into the future and make me a better designer. This is a culmination of my academic career, personally this is an opportunity to make my project book and thesis design something that I will be proud of in the years ahead of me.

Site Analysis:

Qualitative Aspects:

After spending over a day in the car, my friends and I finally made it Phoenix, Arizona. It had been a long, boring trip, but my friends and I had tickets to the Phoenix Suns game against the powerhouse Los Angeles team. We decided to find a parking spot and walk around before tipoff. Being a game night, we were forced to park on the top of the event parking ramp, exposing our car to the crisp fall air. My friends and I pulled our tired bodies from the car and were overtaken by the warm, serene feeling of Phoenix dusk. It was as if the calming eastern wind overtook our worn-out bodies and gave us energy for the night to come. We were all very excited, so we hurried into the elevator and down to the exit. The first street we ran into was Jefferson Street. Jefferson had a fairly heavy flow of traffic because of the game and had large, cream colored rectangles as crossings. As we were on the crosswalk, I could not help notice a very tall wooden cowboy sculpture facing my direction. It had to have been at least ten feet tall and the paint was chipped and worn out, giving it a vintage look. Right next to the cowboy was a baby blue wooden park bench big enough for two grown men. We kept walking and found ourselves peering into store windows full of jewelry and sculptures made by local Native Americans. The trinkets were covered with natural colored beads and jewels, giving off a strong cultural effect. My friends and I continued our journey on the uneven sidewalk. On a number of occasions, one of

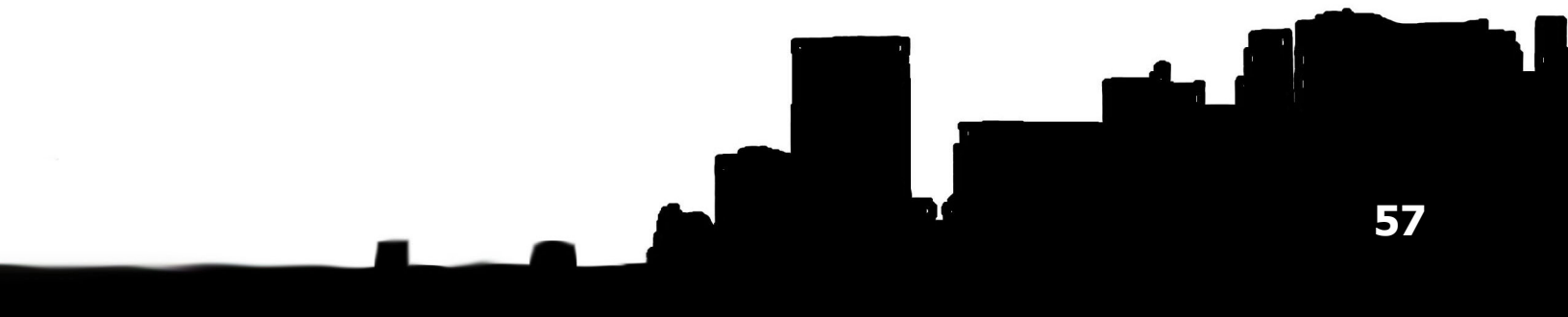
Site Analysis:

my friends stumbled on the fault like path on the sidewalk. It was very rough and difficult to walk on. As we made it closer to our destination, I noticed the distinct smell of desert air. It was a very natural, musty smell. By this time of day the sun was just beginning to set. I looked up and was immediately taken back by the sight of the most amazing sunset I had ever seen. It looked as if someone had spilled cans of red and orange paint from the clouds. After being overtaken by the powerful sunset, we walked into the US Airways Stadium and found our seats. We spent the whole game watching the action from the nosebleeds. The players looked like ants on the court, running back and forth. After Steve Nash led the team to an impressive victory, we headed out of the noisy building. Walking out of the arena with thousands of rowdy fans was very stressful, but after reaching the tranquil Phoenix night we were once again reminded that we were on vacation. It was as if Phoenix had a way of knowing I was stressed and tired and showed me the landscape of its well lit downtown area to calm me down. Looking down the streets full of shadows, we headed back to the parking ramp. I looked over at a multiple leveled bar with blinking red Christmas lights. On the second level deck there was a large group of people dancing to club music and having a good time. We kept walking and found a similar bar a block away. However, this bar housed a jazz band and had a mellower crowd. The lights were a dim mustard color and most of the people were seated in their wooden chairs. I found it very interesting that a downtown area could draw such diverse crowds. My friends and I were hungry, so we decided to further investigate

Site Analysis:

the downtown scene and wandered into a modern looking restaurant. We walked into the prosaic room and I immediately noticed the copper mobile hanging from the vaulted ceiling. It had an elegant texture with various openings representing assorted polygons. There were only a couple other people in the room, which lead to a very peaceful ambience. We found a table next to an aluminum cacti sculpture and ordered some food. While waiting for our food, my eyes were busy checking out the unique metal sculptures strategically placed on the stone walls. After enjoying my wonderfully prepared steak, my friends and I decided to call it a night. We walked back out into the rejuvenating downtown environment and headed to our lonely car. Once again we found ourselves walking on uneven pavement, and passing by the aged cowboy. We made our way up to the level with the best scenery, and found our well rested car. After I got in the backseat, I closed my eyes and rested my tired head against the support behind me. I opened them up to the sight of twinkling light clusters scattered across the midnight sky. From that moment on, I knew the city of Phoenix would be unforgettable.

Site Analysis:



Site Analysis:

Quantitative Aspects:

Soil:

Maricopa County, Arizona, Central Part

Gt—Glenbar clay loam

Mean annual precipitation: 6 to 8 inches

Mean annual air temperature: 68 to 71 degrees F

Frost-free period: 250 to 300 days

Glenbar and similar soils: 100 percent on site

Parent material: Mixed alluvium

Slope: 0 to 1 percent

Drainage class: Well drained; medium to slow runoff; moderately slow permeability.

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Calcium carbonate, maximum content: 15 percent

0 to 15 inches: Clay loam

15 to 60 inches: Clay loam

Topography:

Downtown Phoenix sits on a very flat site with less than 1% slope. The majority of the city is paved lending it susceptible to the heat island effect.

Site Analysis:

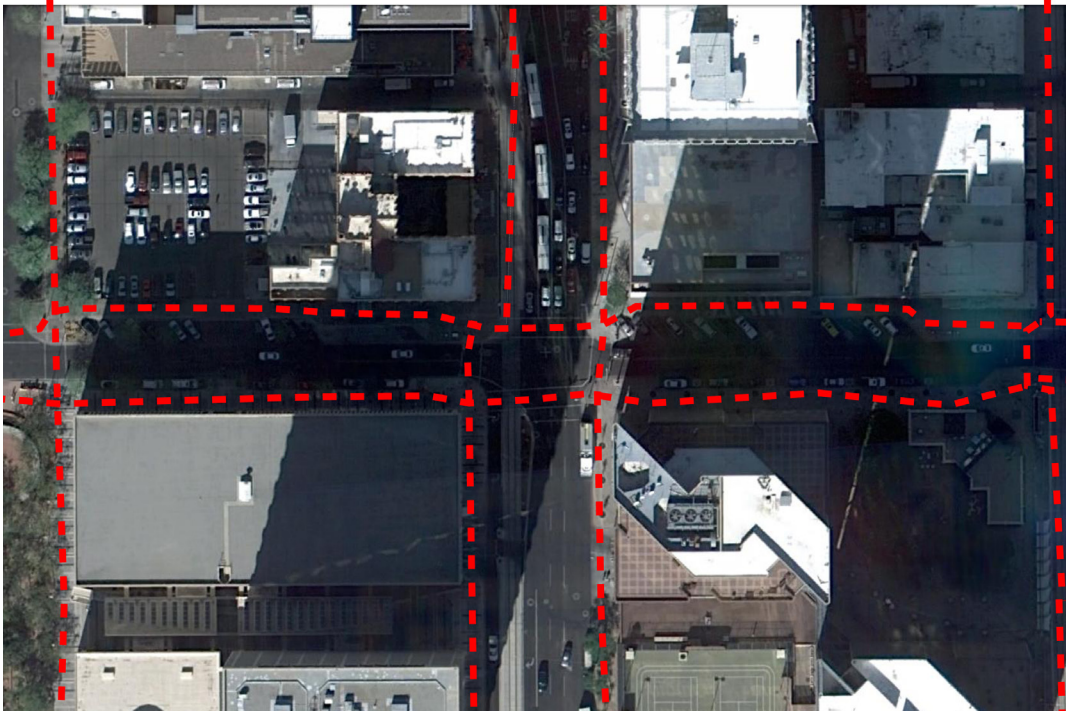


Google Earth

Vehicular traffic:

The highest flow of traffic happens during local sporting events and during rush hour traffic. Traffic during any other time of the day is consistent day after day.

Site Analysis:



Pedestrian traffic:

Google Earth

In Phoenix the pedestrian traffic is considerably more compared to other regions of the United States. The highest amount of activity would occur over the lunch hour. Business workers often walk around the downtown area to local restaurants for lunch. With the proximity of an outdoor public space, pedestrian activity to the park, would be consistent over the day. Lending my site to consistent activity throughout the day.

Site Analysis:



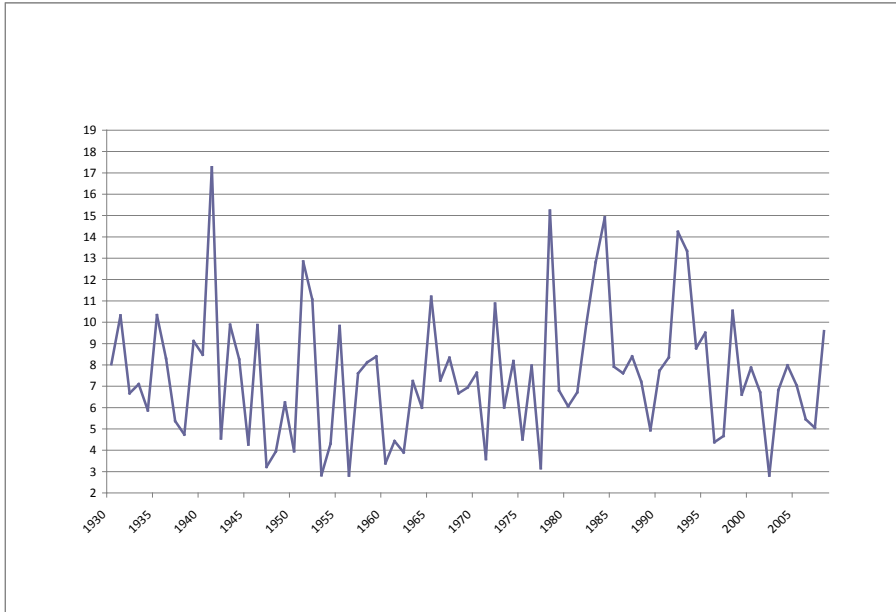
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Utilities:

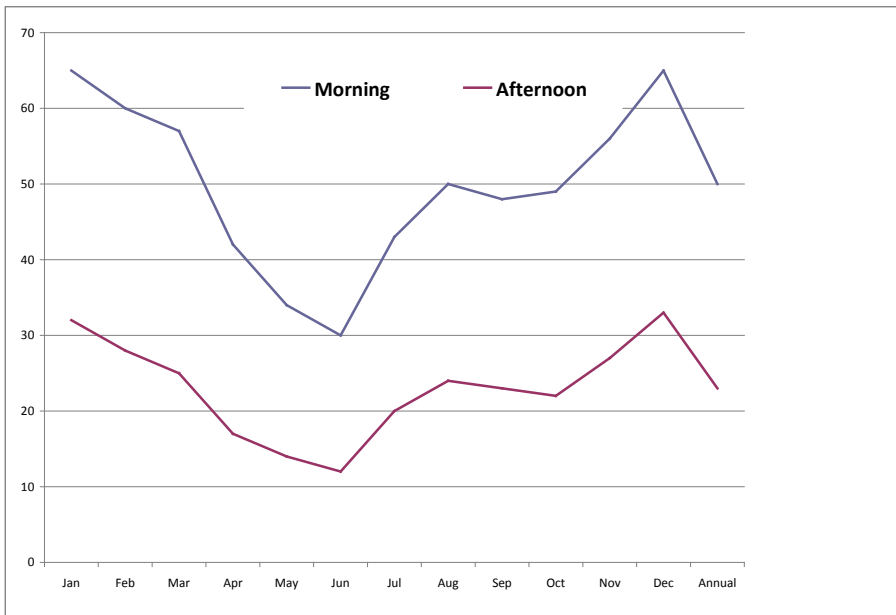
This block in downtown Phoenix consists of no major electrical lines. Green symbolizes street lights and street lamps. Blue represents bus stops and Tram stops, giving this area great importance toward public transportation.

Site Analysis:

Annual Precipitation

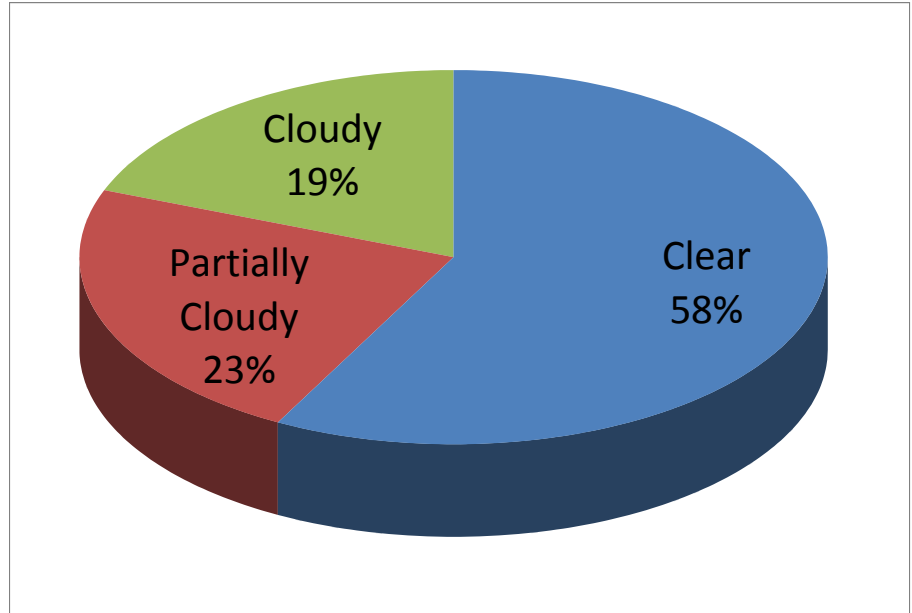


Average Relative Humidity (%)



Site Analysis:

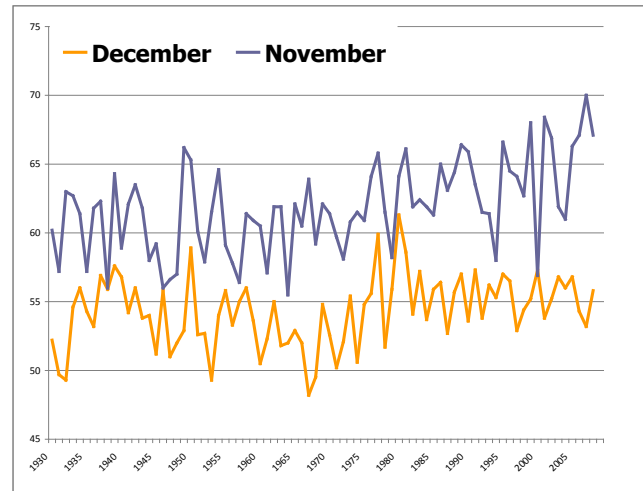
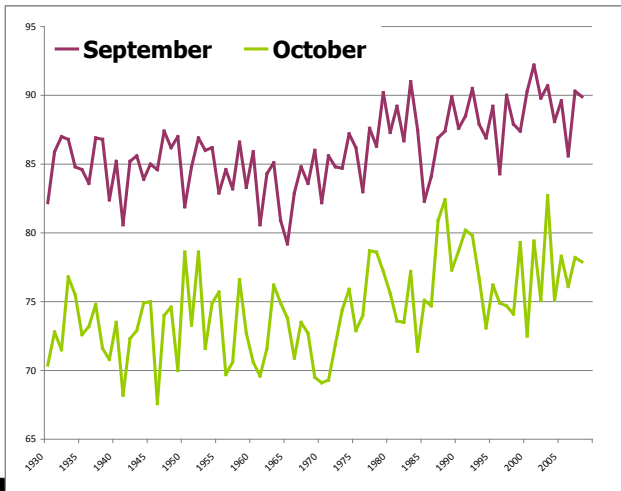
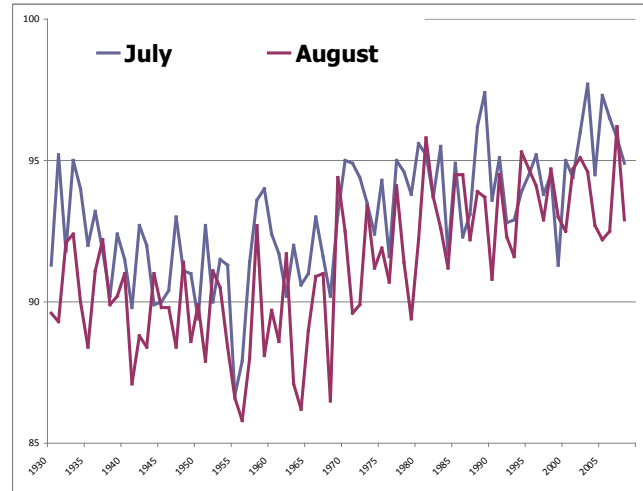
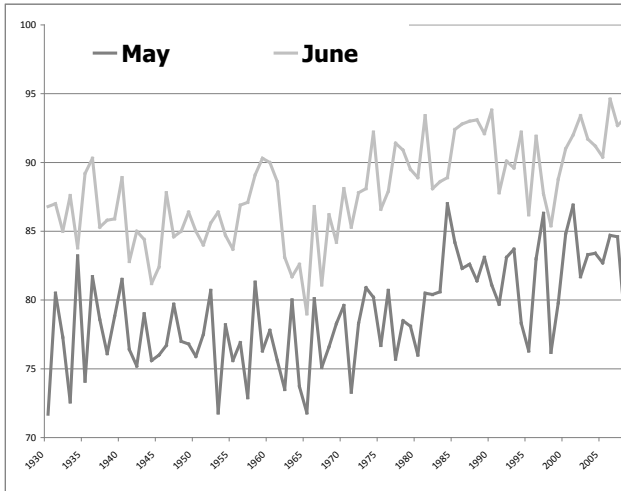
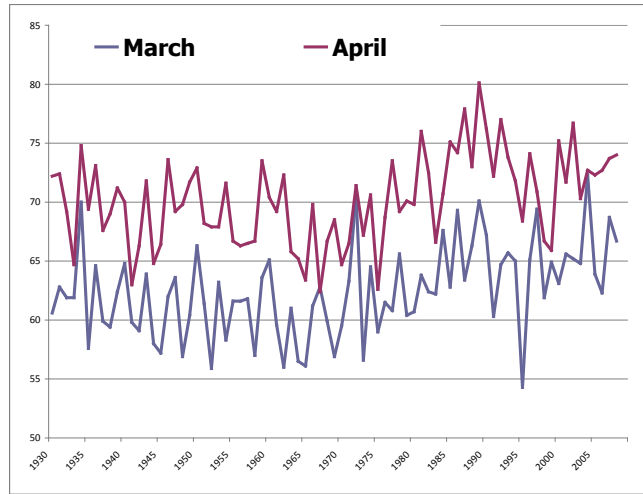
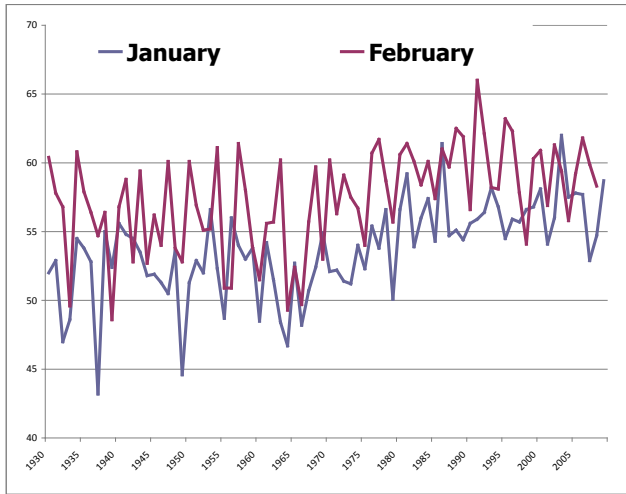
Average Annual Days of Cloudiness



Average Annual Days of Cloudiness



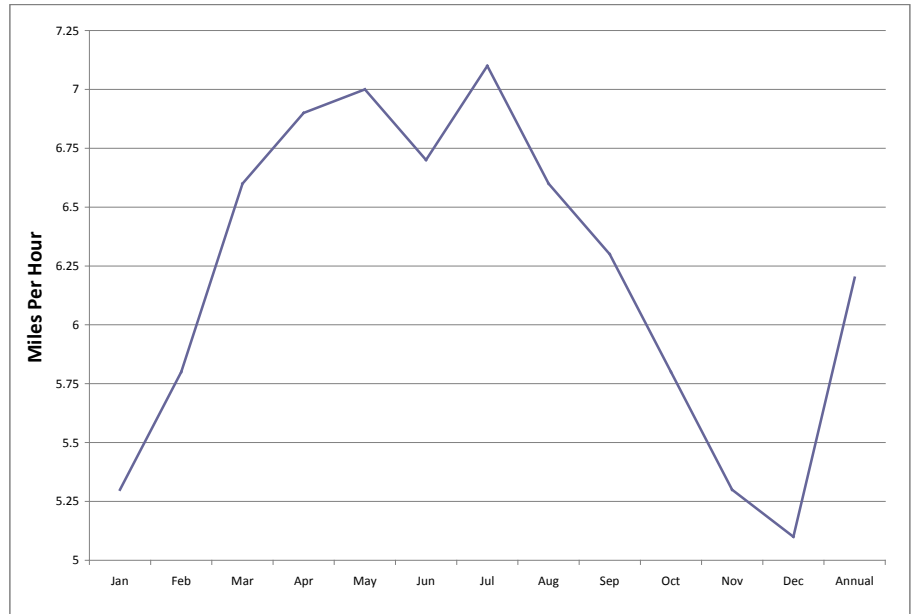
Site Analysis:



Monthly Average Temperature

Site Analysis:

Average Wind Speed



Noise



Google Earth

Thesis program:

Living Spaces

Apartments:	<u>50%</u>
1 Bedroom:	10%
2 Bedroom:	10%
3 Bedroom:	25%
4 Bedroom:	5%

Condominiums: 16%

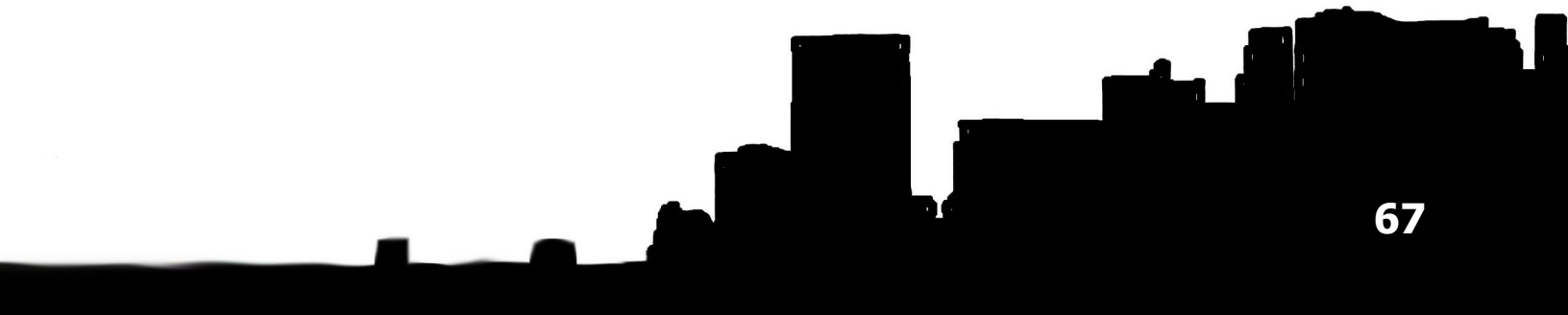
Commercial

Retail:	<u>4%</u>
Service Storage:	<u>2%</u>

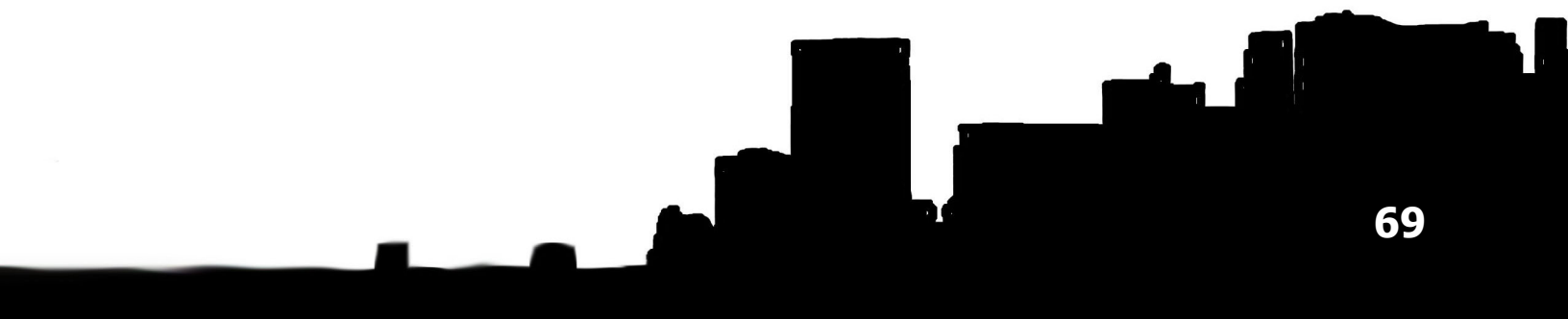
Public Space/Recreation: 7%

Circulation:	<u>14%</u>
Mechanical:	<u>4%</u>
Support Space:	<u>2%</u>

Total Area 93,965 sq. ft



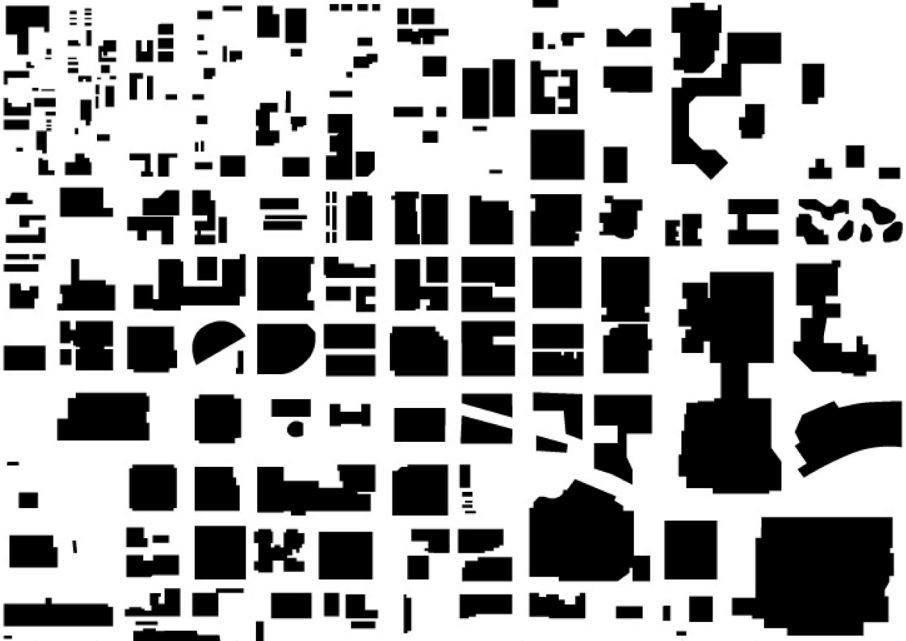
Inhabit: Densifying Phoenix



Process:

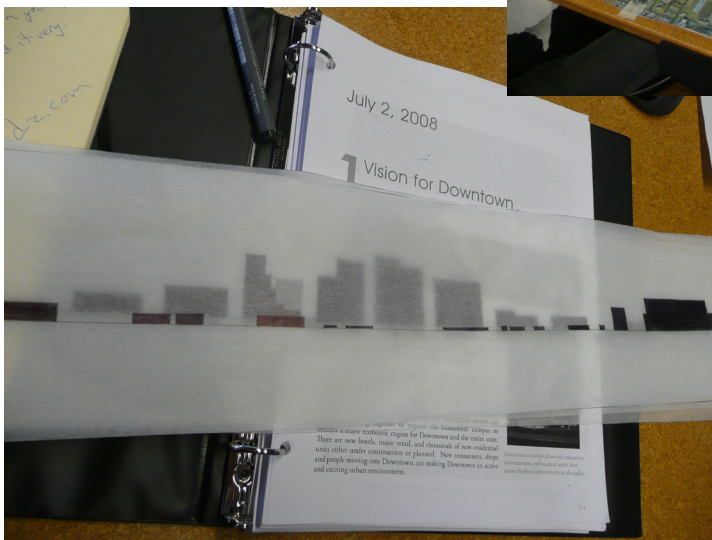
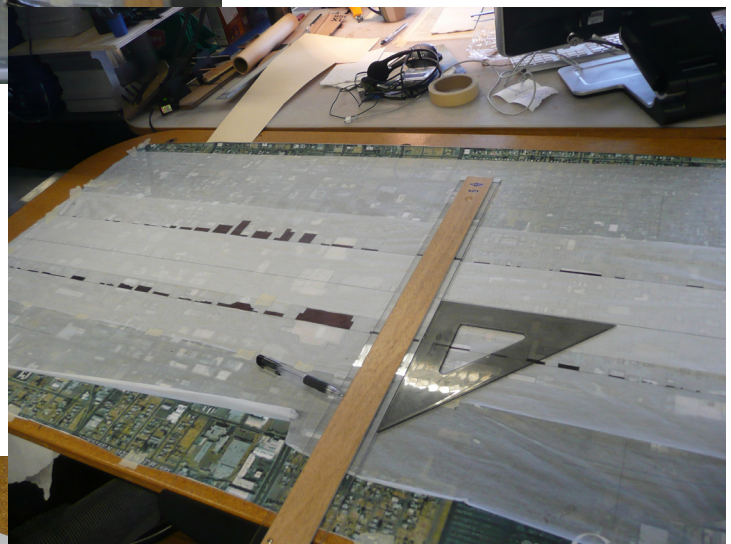


Barcelona; Population - 1,673,075 Density - 42,734.2/sq. mi



Phoenix; Population - 1,567,924 Density - 2,937.4/sq. mi

Process:

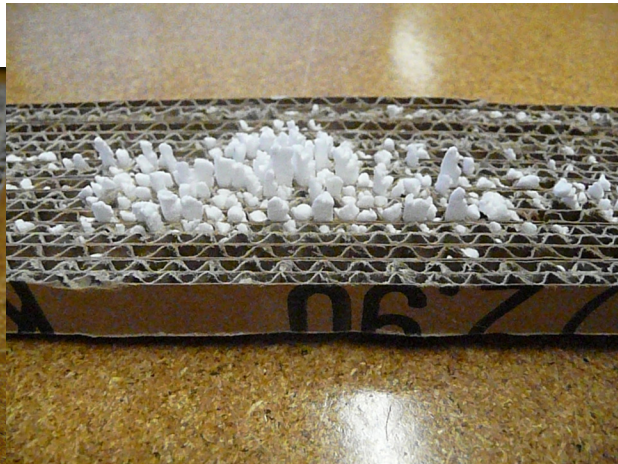
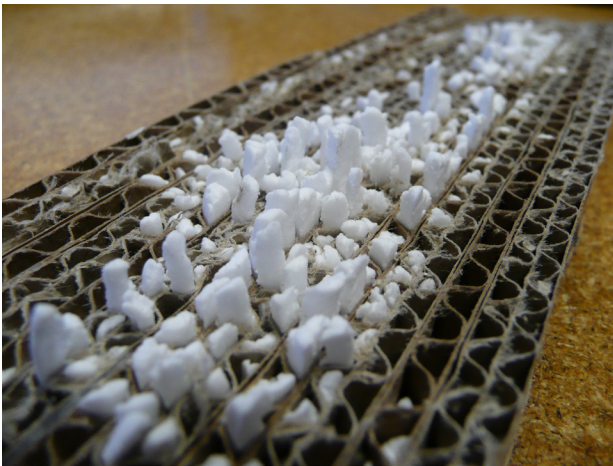


Process investigations of Phoenix. Intent was to understand the city not only in plan but also in section by creating cut layers through the city.

Process:

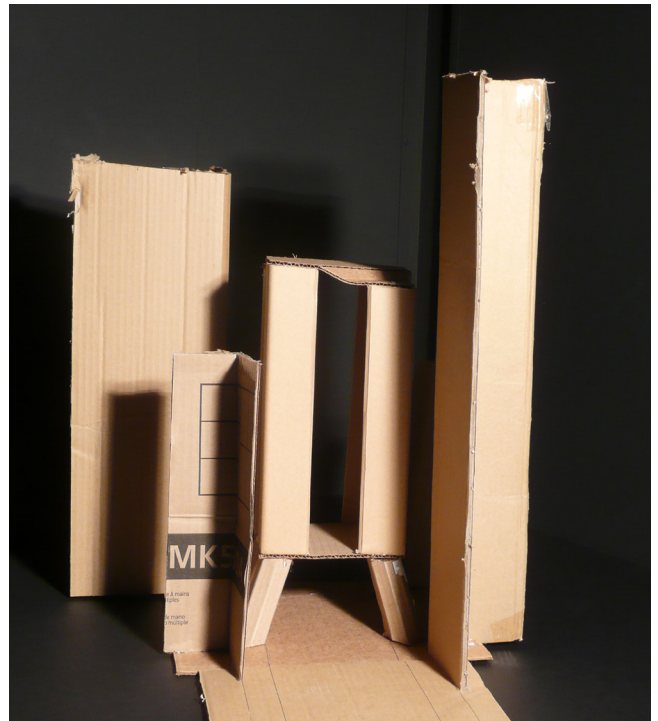


-Eight cuts through the city

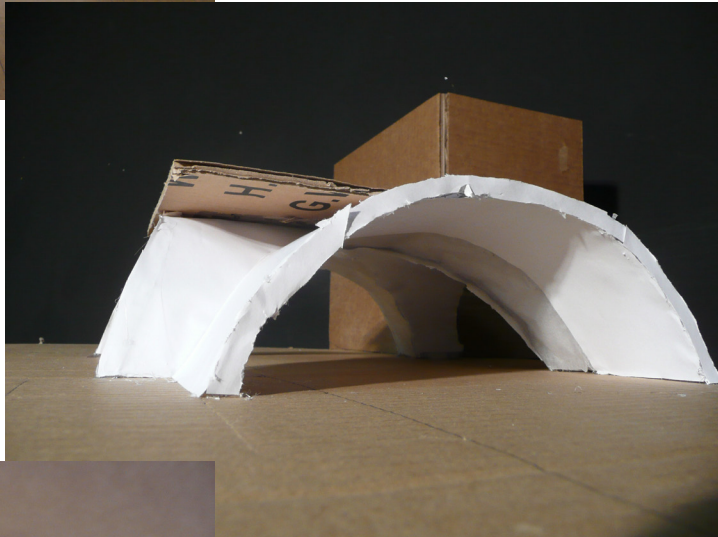
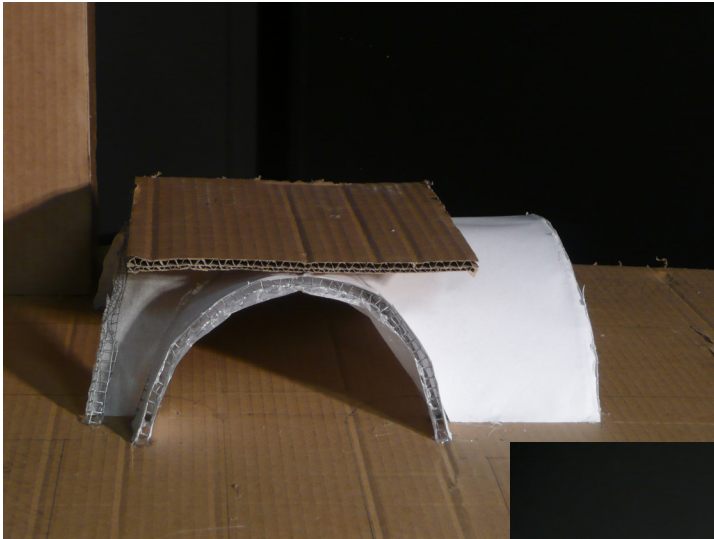


-Model exploring 3-dimensional qualities of city

Process:

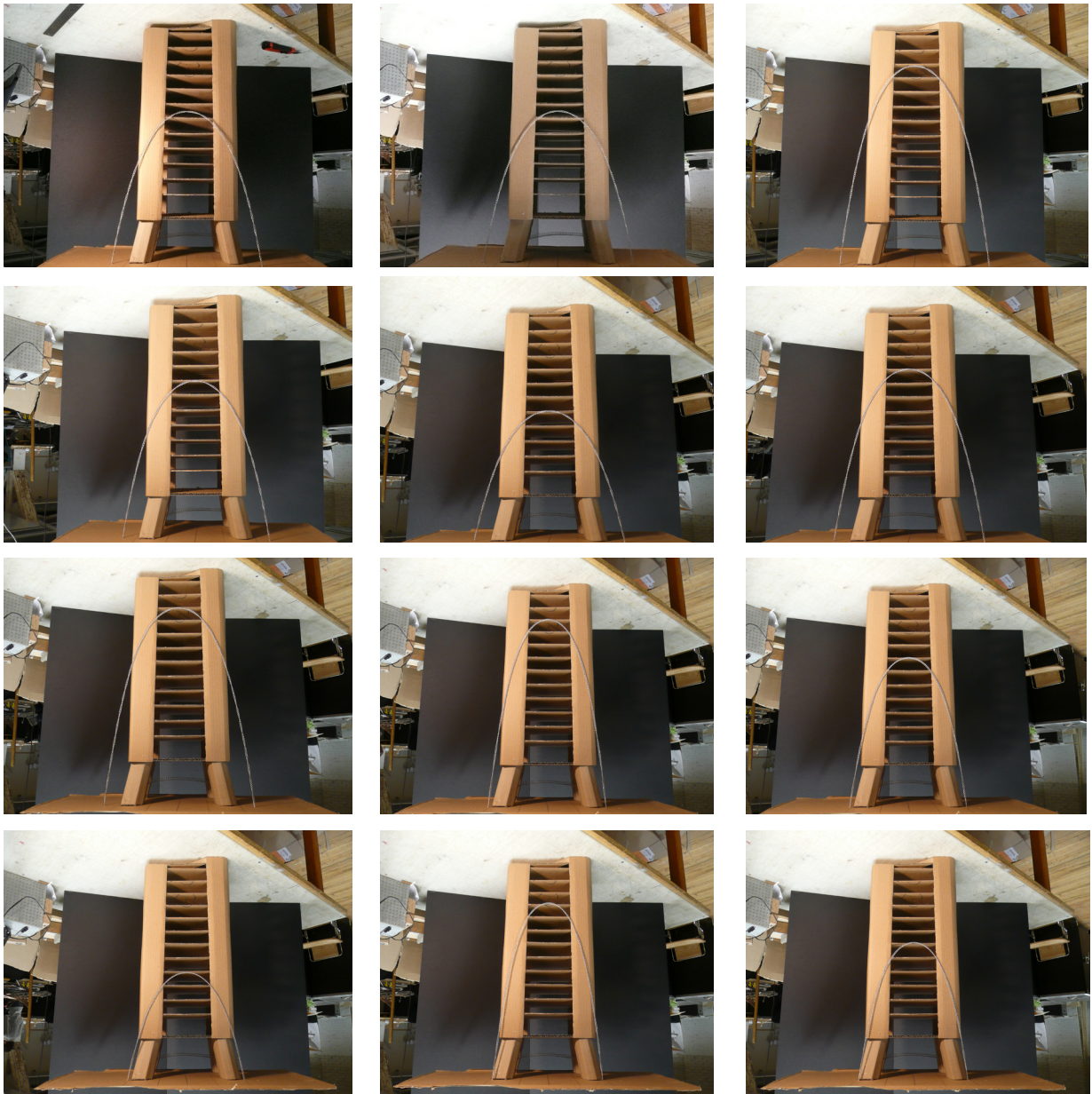


Process:



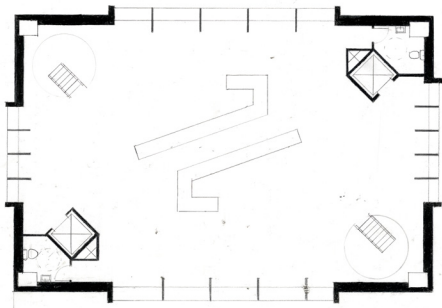
-Model investigating the possibilities designing barrel vaults to push and pull people through structure. Similar to the European approach of design, symmetrical forms.

Process:

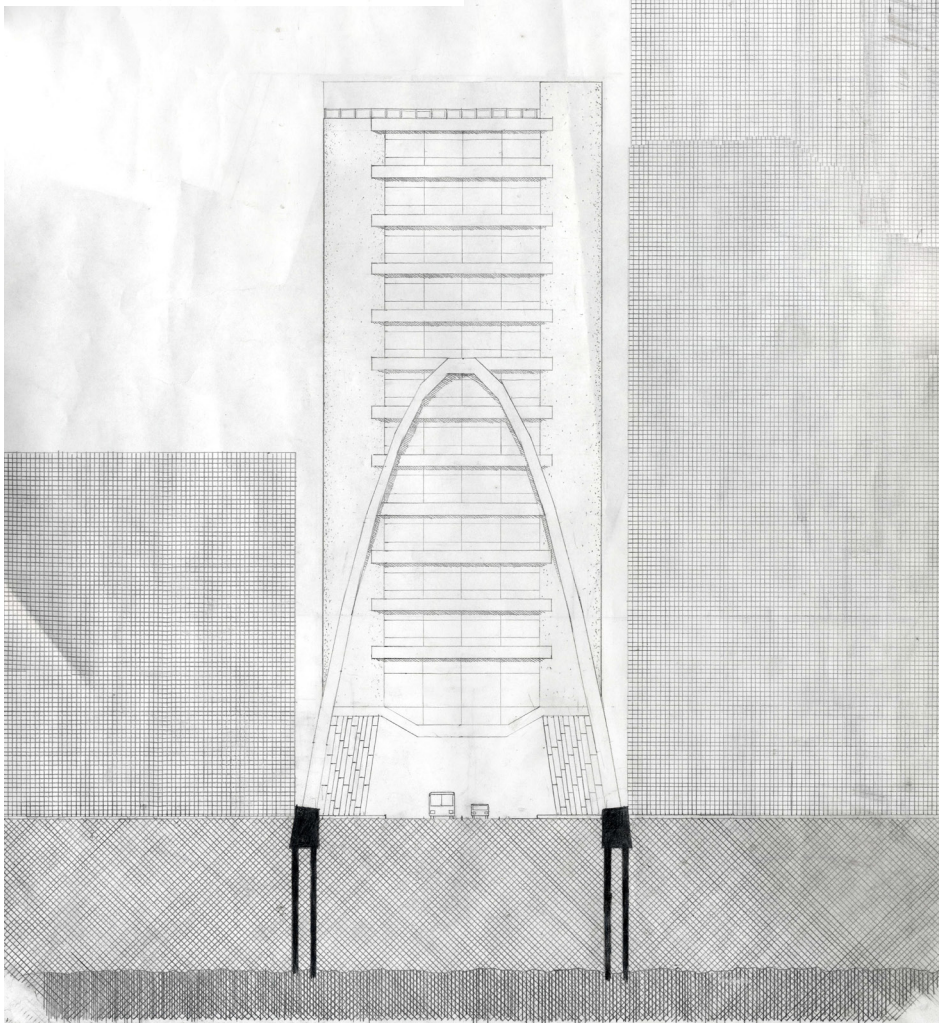


-Models transformed into more of a structured approach. Focusing specifically on the functional concerns related to the site, public circulation, and vehicle circulation. The parabolic arch would be the primary structure of building while giving a minimal impact on the site.

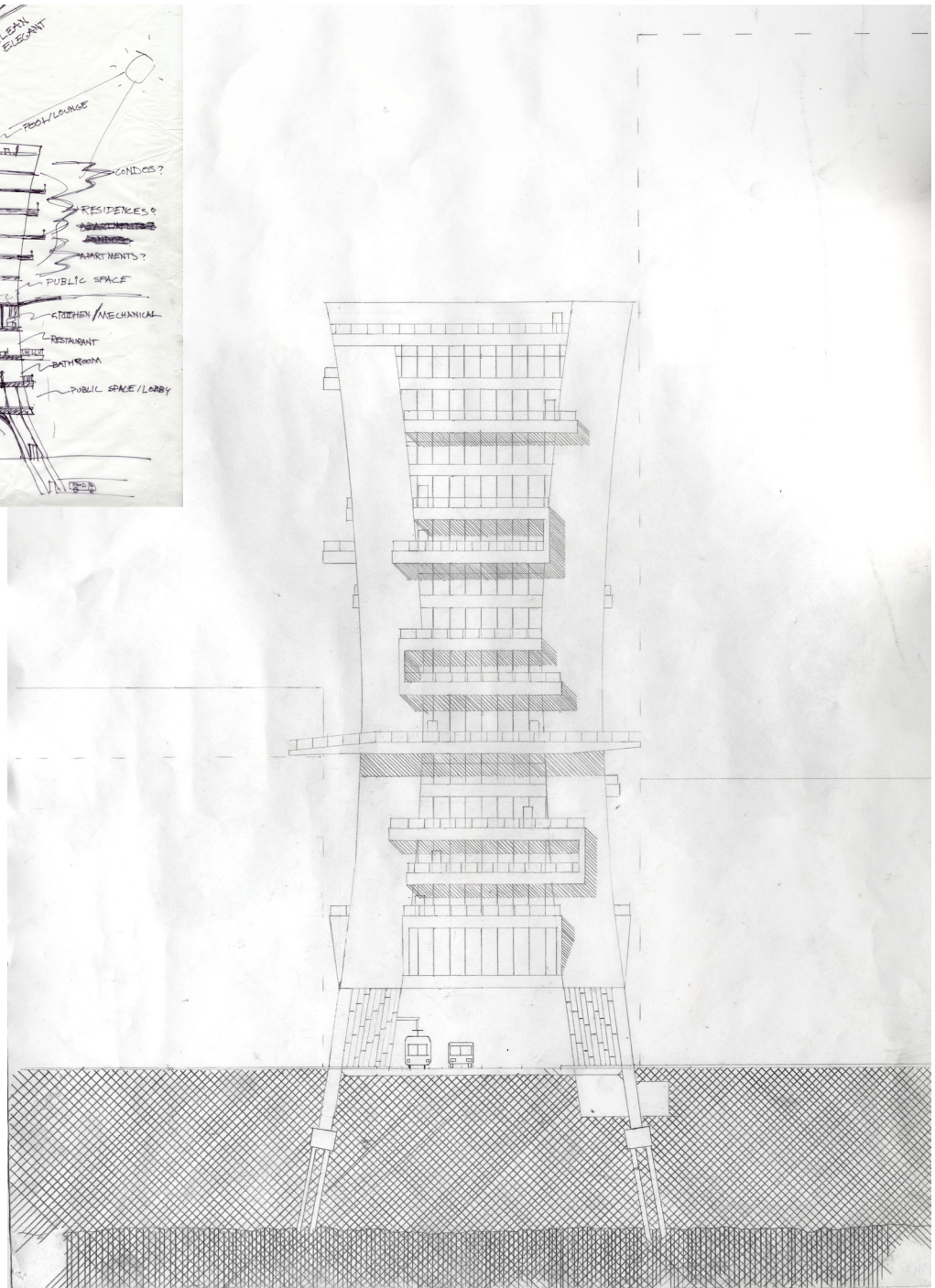
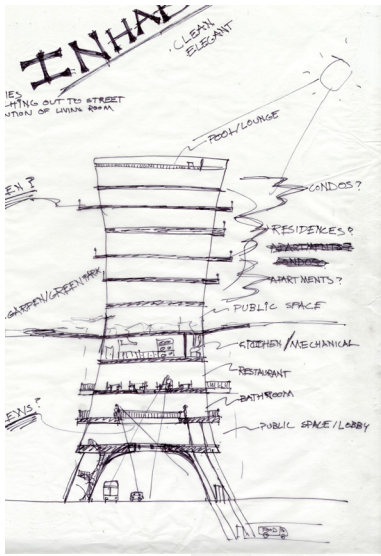
Process:



LOBBY SPACE



Process:

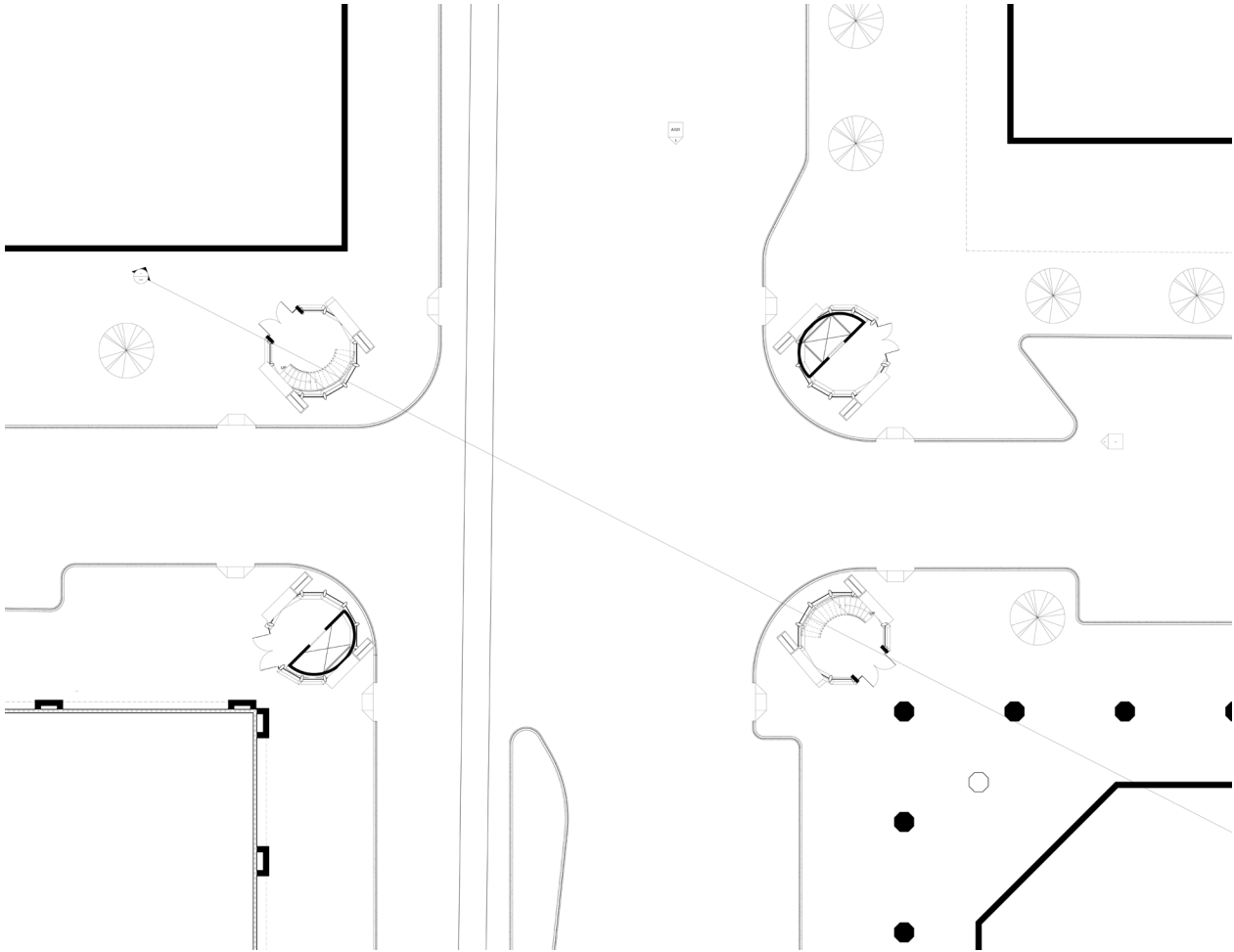


Final Design:



-Street level entry

Final Design:



-Site plan

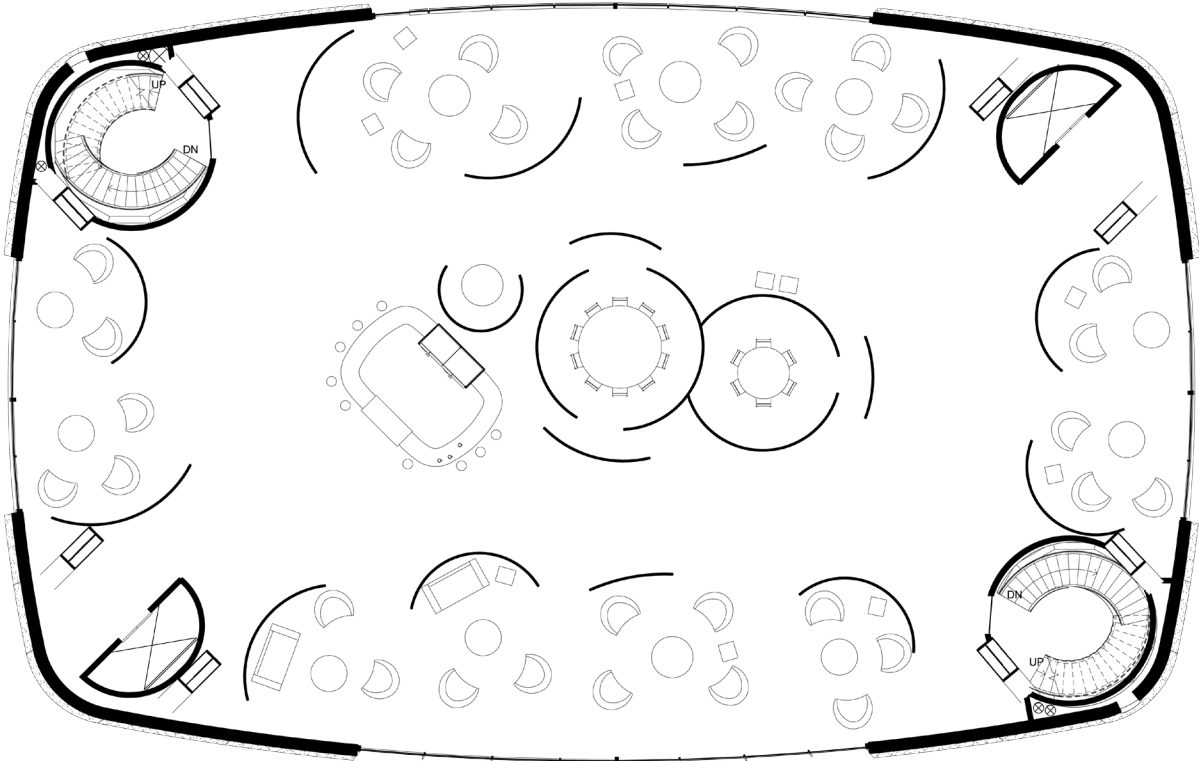


Final Design:



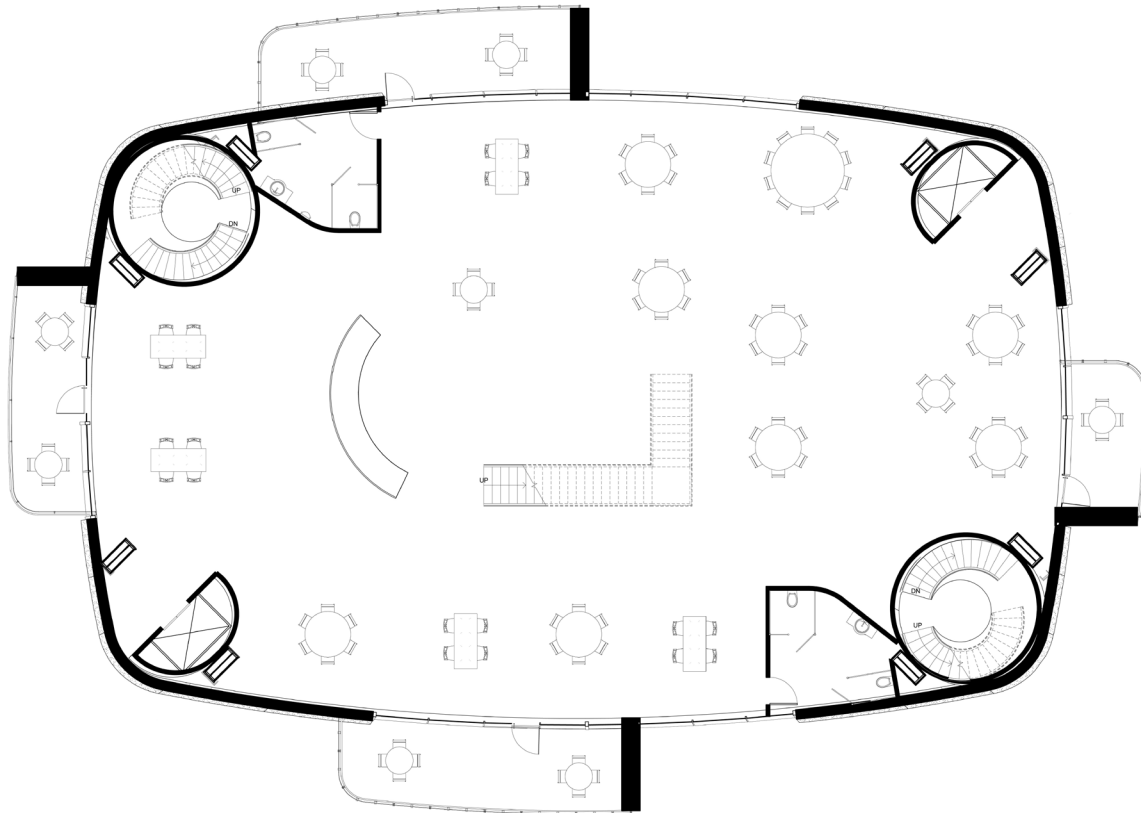
-Interior Perspective of level 2 - Cafe

Final Design:



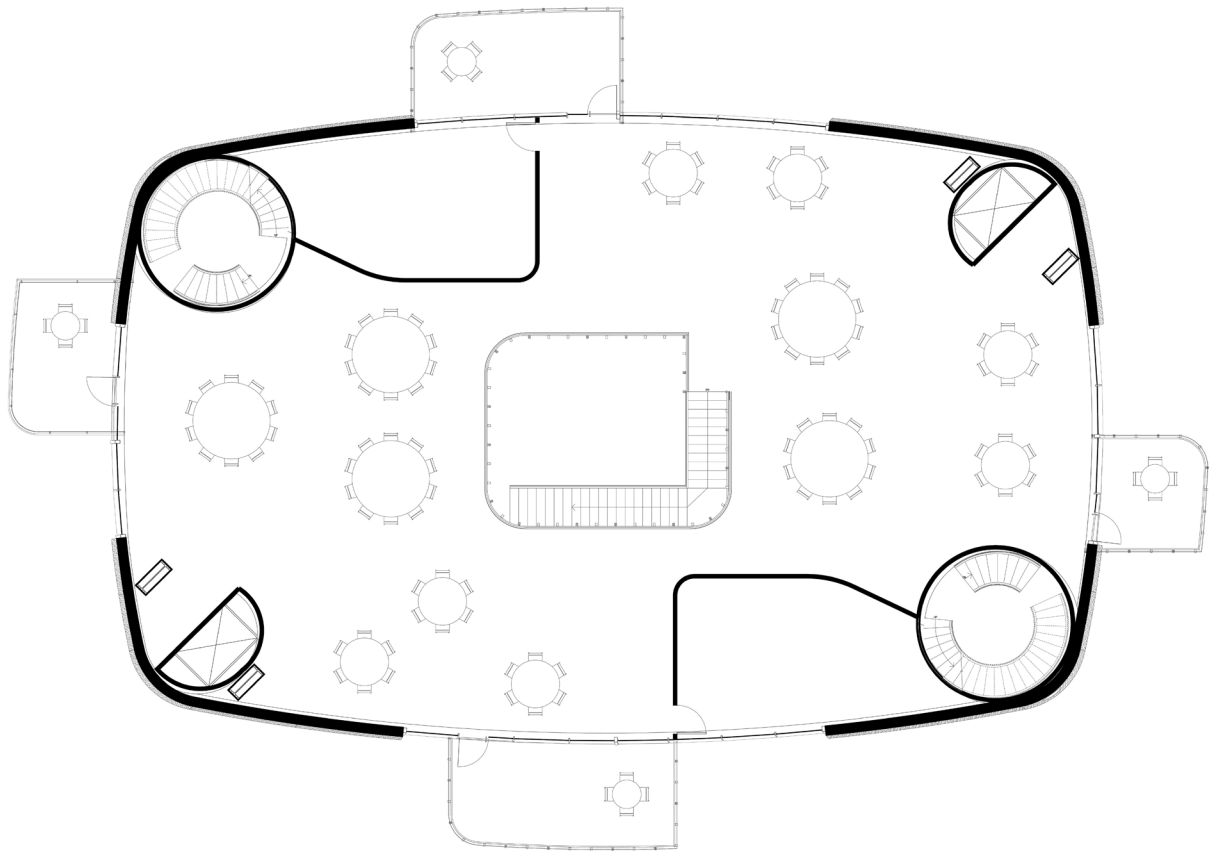
-Level 2 - Cafe/Lobby

Final Design:



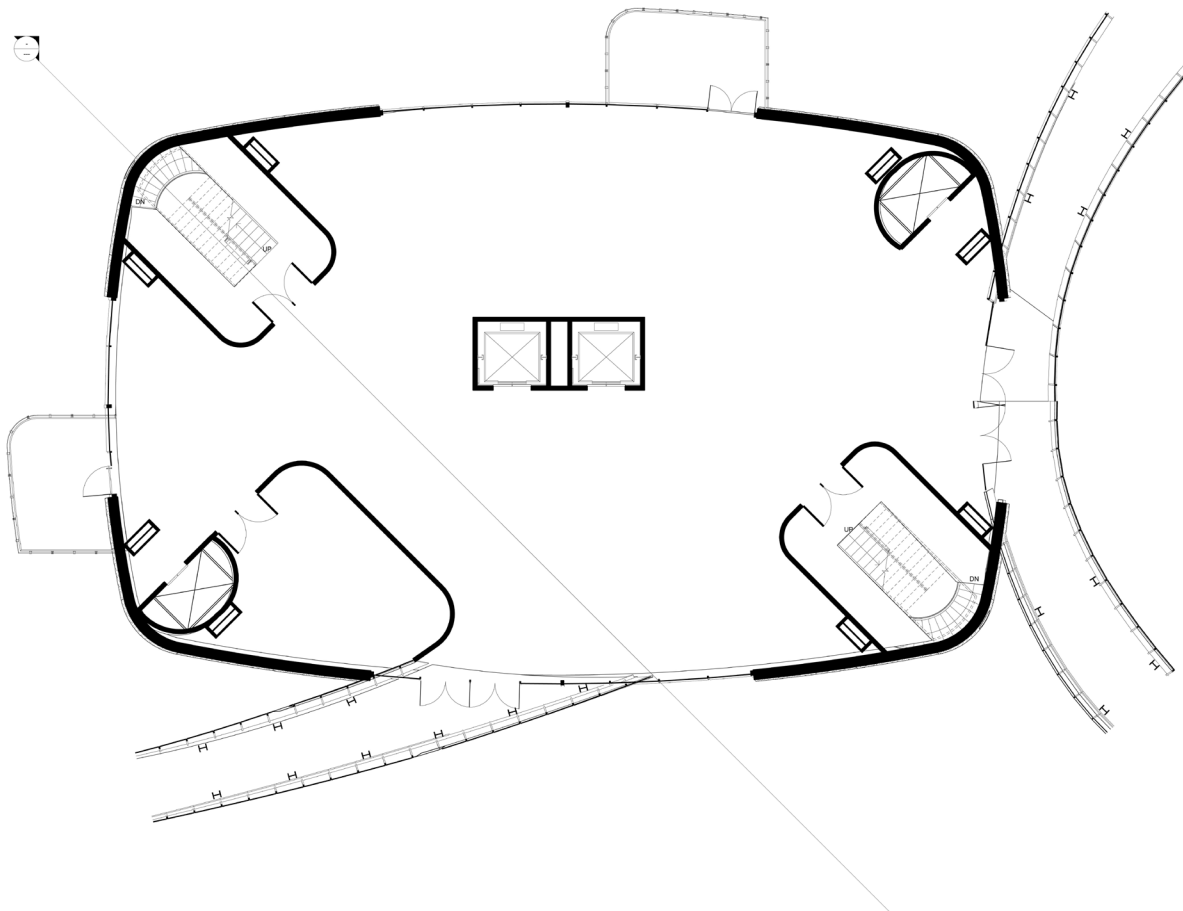
-Level 3 - Restaurant space

Final Design:



-Level 3 - Restaurant/Kitchen Space

Final Design:



-Level 6 - Lobby/Skyway

Final Design:



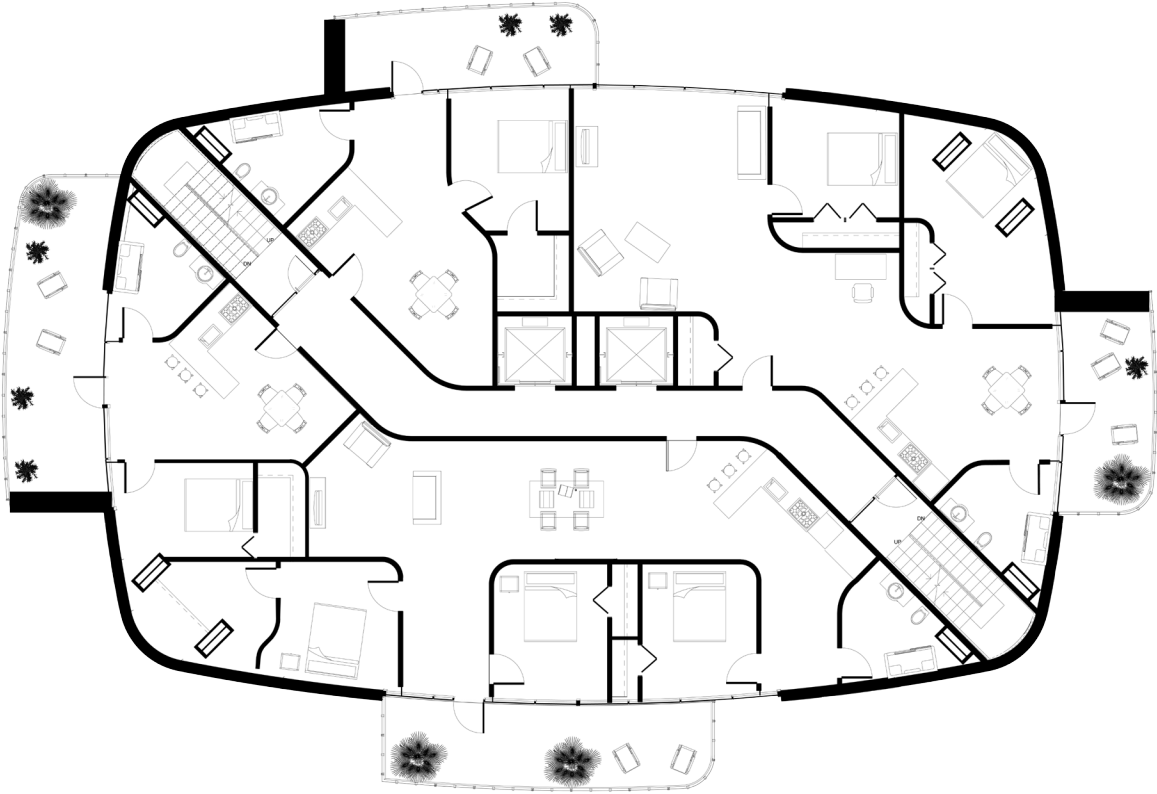
- Exterior of balconies

Final Design:



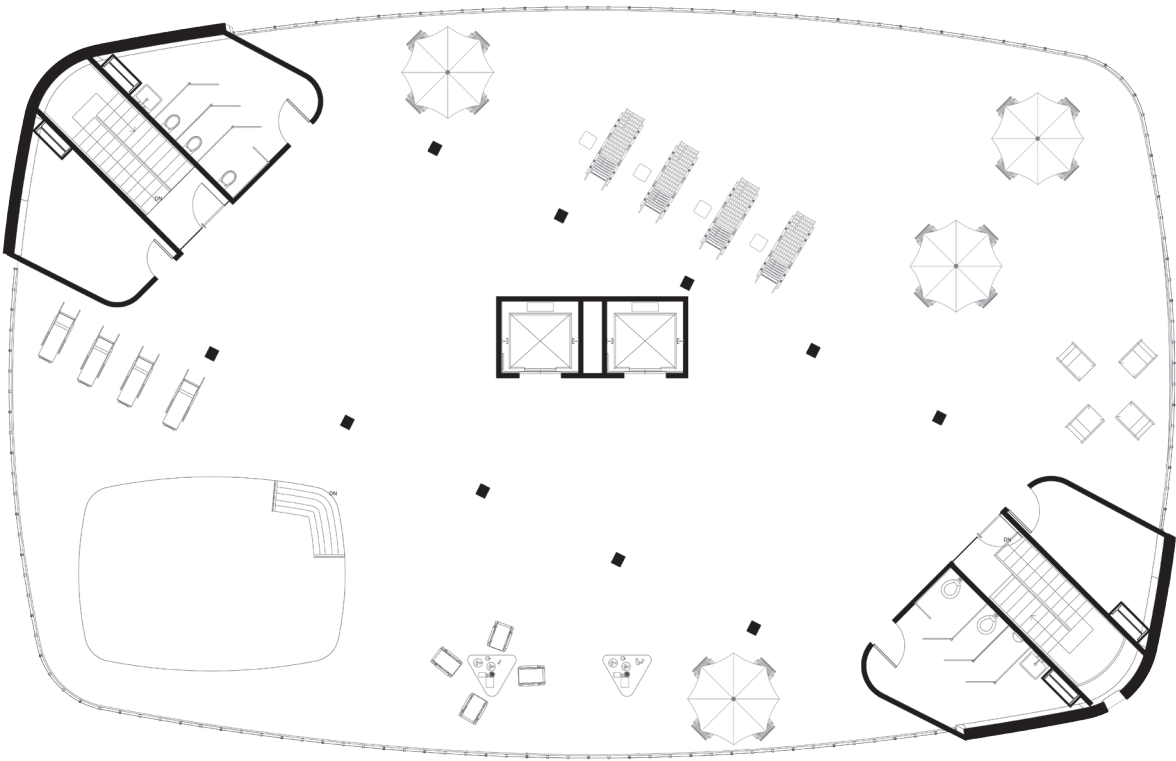
- Interior of Residence

Final Design:



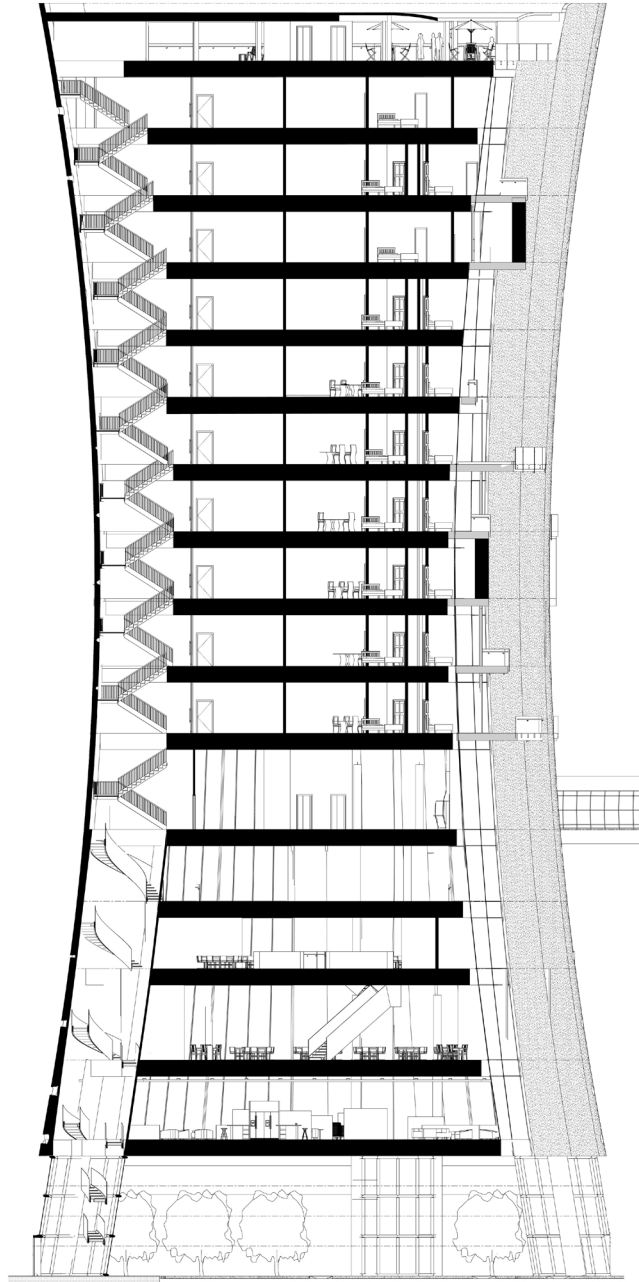
- Plan of Residence

Final Design:



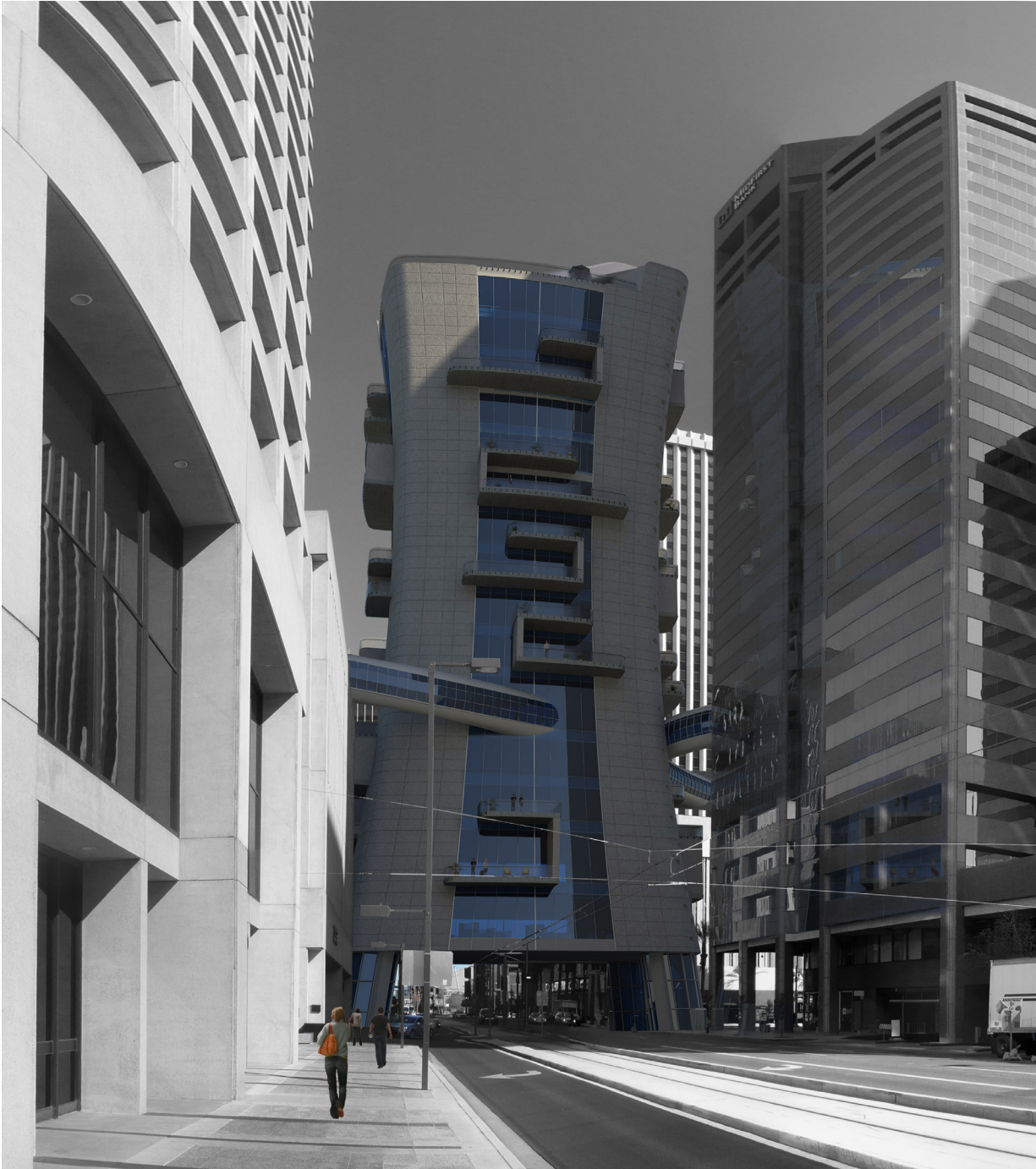
- Roof top pool

Final Design:



- Section

Final Design:



- Exterior view from sidewalk looking north

Final Design:



- Exterior view from sidewalk looking west

Final Design Presentation Board 1:

INHABIT: Densifying Phoenix

* Primary site in red, secondary sites in the future would create multiply pods throughout the city to create a better community.

FLOOR 17 - ROOF TOP POOL

FLOOR 7-16 - RESIDENCE

**FLOOR 6 - UPPER LOBBY
SKY WAY TO GREEN ROOF GARDEN**

FLOOR 4 - RESTAURANT/KITCHEN

FLOOR 3 - RESTAURANT

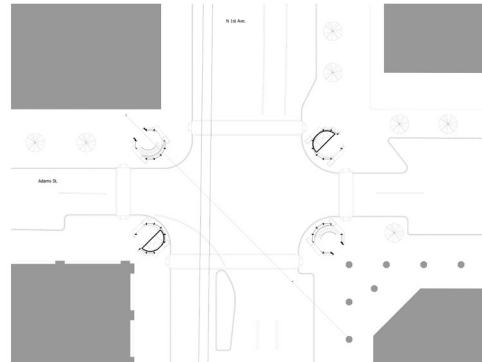
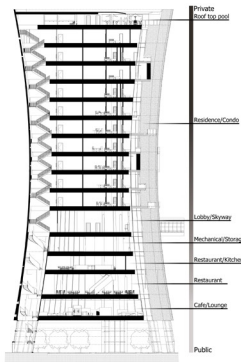
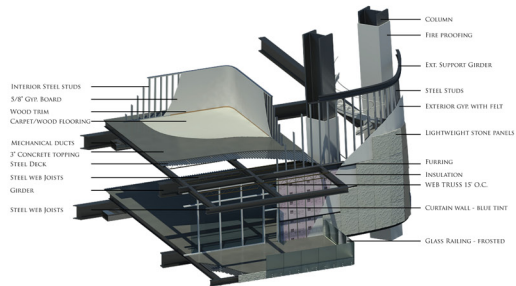
FLOOR 2 - LOBBY/CAFE

**Christopher Leggett
Reviewer: Rogan Schwann**
Architectural Review Board, City of Phoenix 2010, Department of Architecture and Landscape Architecture, North Dakota State University
Project Name: 1000 North Central Avenue, Phoenix, AZ 85004
Project No: 1000-1000-0001

Final Design Presentation Board 2:



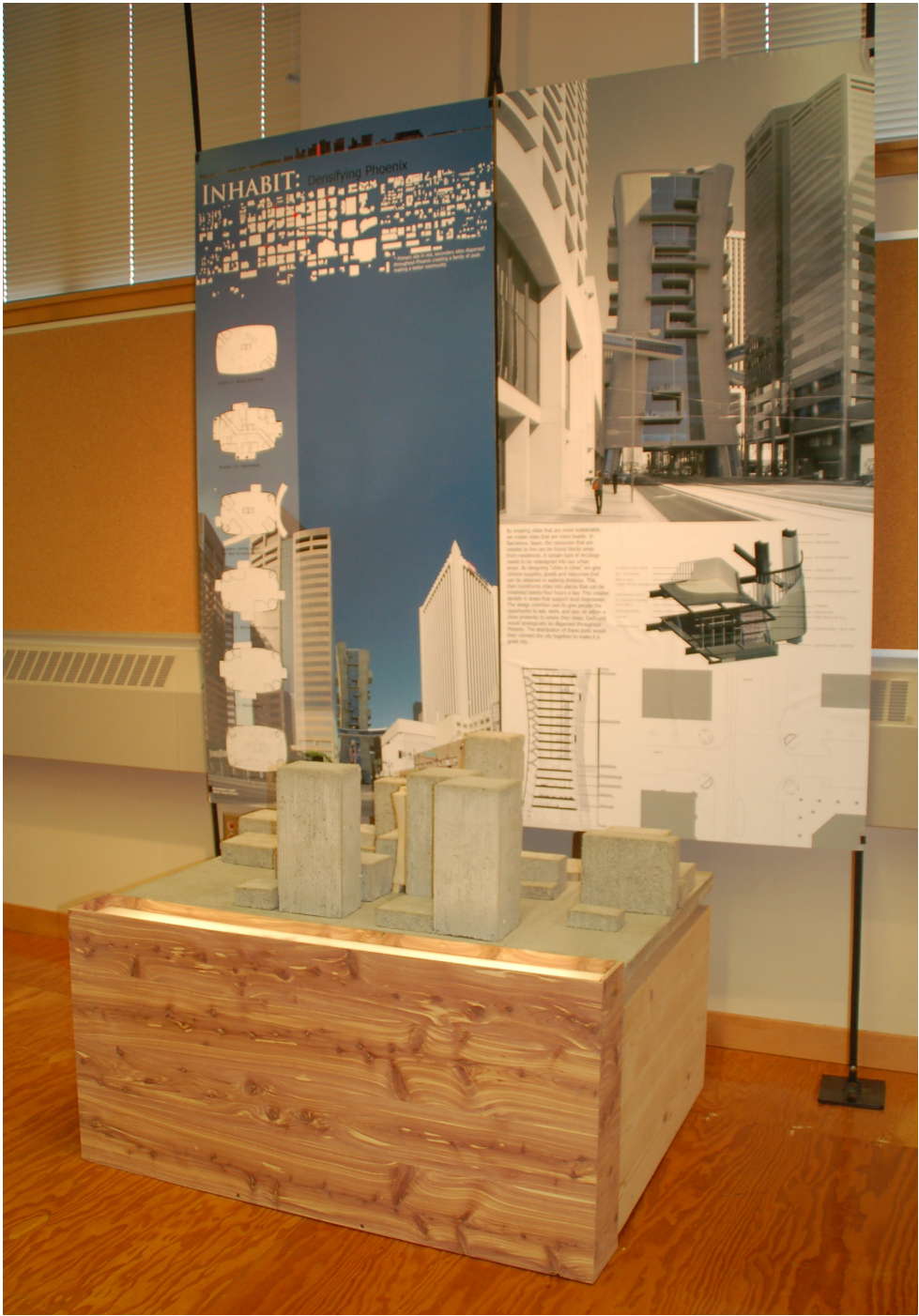
By creating cities that are more sustainable, we create cities that are more livable. In Barcelona, Spain, the resources that are needed to live can be found blocks away from residences. A certain type of Arcology needs to be redesigned into our urban areas. By designing "cities in cities" we give citizens supplies, goods and resources that can be obtained in walking distance. This then transforms cities into places that can be inhabited twenty-four hours a day. This creates density in areas that support local businesses. The design intention was to give people the opportunity to eat, work, and play all within a close proximity to where they sleep. Each unit would strategically be dispersed throughout Phoenix. The distribution of these pods would then connect the city together to make it a great city.



Final Design:



Final Design:



Reference List:

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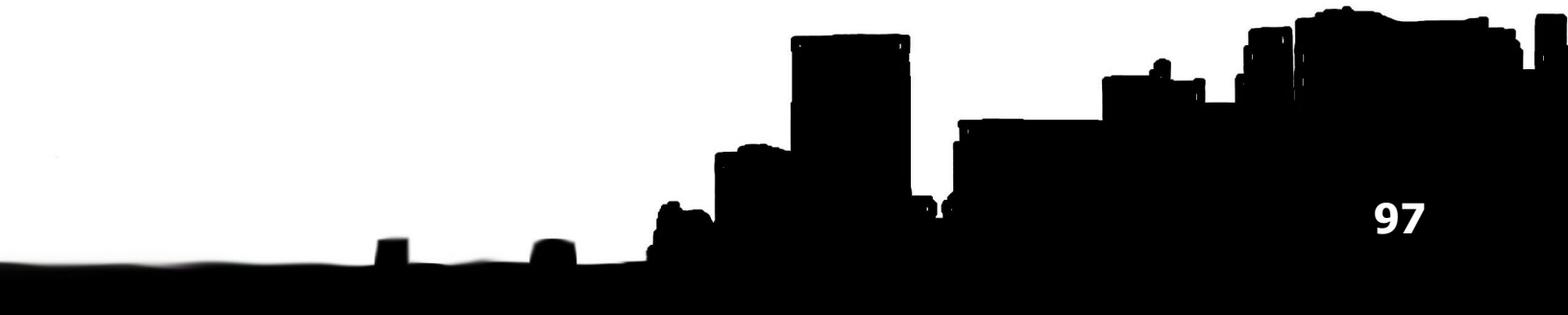


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- Figure 006: Minutillo, J. (2009, October). Polshek Partnership raises the bar with a new benchmark in hotel design at the Standard New York. . Retrieved December 8, 2009, from <http://archrecord.construction.com/projects/portfolio/archives/0910standard-1.asp>
- Figure 007: Minutillo, J. (2009, October). Polshek Partnership raises the bar with a new benchmark in hotel design at the Standard New York. . Retrieved December 8, 2009, from <http://archrecord.construction.com/projects/portfolio/archives/0910standard-1.asp>
- Figure 008: Minutillo, J. (2009, October). Polshek Partnership rises the bar with a new benchmark in hotel design at the Standard New York. *Architectural Record*, 90-95.
- Figure 009: Minutillo, J. (2009, October). Polshek Partnership raises the bar with a new benchmark in hotel design at the Standard New York. . Retrieved December 8, 2009, from <http://archrecord.construction.com/projects/portfolio/archives/0910standard-1.asp>
- Figure 010: Minutillo, J. (2009, October). Polshek Partnership raises the bar with a new benchmark in hotel design at the Standard New York. . Retrieved December 8, 2009, from <http://archrecord.construction.com/projects/portfolio/archives/0910standard-1.asp>
- Figure 011: Minutillo, J. (2009, October). Polshek Partnership rises the bar with a new benchmark in hotel design at the Standard New York. *Architectural Record*, 90-95.
- Figure 012: Broome, B. (2007, May). *Museum Residences*. *Architectural Record*, 222-225.
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- Figure 017: Broome, B. (2007, May). Museum Residences. Architectural Record, 222-225.
- Figure 018: Photo taken by Christopher Legatt
- Figure 019: Photo taken by Christopher Legatt
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“The difference between the impossible and the possible lies in a person’s determination” unknown

