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FILLING THE GAPS

Sam Walden

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Healing Atlanta's Fractured Urban Fabric Through A Parameter Based Redevelopement Of The City's Underutilized Historic Buildings And Pedestrain Connections.

BY: Sam Walden

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Expressing Atlanta's Fractured Urban Fabric Through A Parameter Based Redevelopement Of The City's Underutilized Historic Buildings And Pedestrain Connections.

Approval of Thesis Research
Project Book is Presented to:

ZAMILA KARIMI

and to the
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College of Architecture and Construction Management

by

Sam M. Walden

In partial fulfillment of the requirements for the Degree

Bachelor of Architecture

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THESIS STATEMENT:

The Fragmented Urban Condition Caused By The Interstate Highway System's Topdown Integration Into Atlanta's Urban Fabric Can Be Redeveloped Into A Hub Of Pedestrain Use And Connectivity. This Project Seeks To Address Fragmentation By Reprograming Existing Architectural Infrastructure Into A Symbiotic System Of Adaptive Reuse And New Developement Capable Of Growing Between Selected Nodes To Reclaim Void Spaces Created By The Interstate.

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CHAPTER I

THESIS PROPOSAL

THESIS QUESTION:

How can Atlanta's existing architectural and infrastructural capital be redeveloped into program dense anchor points capable of serving as the foundation for the systematic infilling of void space created by The Downtown Connector?

ABSTRACT:

Urban fragmentation caused by The Interstate Highway System's top-down integration into Atlanta's urban fabric can be redeveloped into a hub of pedestrian use and connectivity. This project seeks to address urban fragmentation by reprogramming existing architectural infrastructure into a symbiotic system of adaptive reuse and new development capable of growing between selected nodes to reclaim the many void spaces left in the wake of The Interstate's planning and construction.

To avoid past failures, we must ask, How can Atlanta's existing architectural, infrastructural, and cultural capital be redeveloped to convert the divisive urban condition of our city's roadways into a connective tissue into a new urban promise capable of facilitating meaningful pedestrian interactions?

Atlanta's fragmented pedestrian condition results directly from The Interstate Highway System's top-down integration through the city's urban context. Roadways meant to increase mobility & facilitate economic expansion now serve as a means of division & congestion. Discussions around resolving connectivity issues resulting from the interstate's institutional implementation have been ongoing for decades, with little to no tangible action resulting. The most recent bout of discourse has resulted in procuring a 1.16-million-dollar design budget. While allocating this money is an essential step towards solving the issue of urban segmentation, many of the officials and designers tasked with tackling this issue continue to trek the same tired trails of thought that have led to year after year of inaction. Plan after plan suggests that another mega-urban project is the final solution to Atlanta's roadway issue. Like introducing one invasive species to limit the population of another, these mega projects seek to undo the top-down errors of the past century with new "well-intentioned" top-down developments. The leading proposal is an urban stitch project centered around capping the interstate with public green space and redeveloping adjacent properties into private urban developments.

This thesis seeks to argue that challenges endemic to infrastructural fragmentation can be reconstituted to meet the needs of today's public. Through parameter-based reprogramming, existing architectural infrastructure can be synthesized into a symbiotic system of adaptive reuse & new development capable of growing between selected nodes to reclaim void spaces created by the interstate rather than simply covering up past mistakes with more of the same top-down policies. The parameters guiding this "multifunctional" system will focus on maximizing the ecological, cultural, and aesthetic benefits of its formal, spatial, and programmatic outputs.

James Corner's infrastructural adaptive reuse projects go beyond aesthetics to craft landscapes with ecological, social, and economic benefits, as is seen in the flagship NYC project Highline. Building on this framework, the result of this thesis will be a design system distilled from existing structures in proximity to the interstate. These existing structures will serve as physical and theoretical anchor points for in-filling the void left by the roadway with new inhabitable construction.

To test my hypothesis, I selected the stretch of Atlanta's downtown connector, where Peachtree Street crosses the interstate. Once a crucial transitional zone between Atlanta's midtown & downtown, this urban condition now serves as a hard-edge segregating two of the city's most vibrant programmatic sectors. In step with the methodology of this thesis, three pertinent structures have been selected to serve as anchor points for redevelopment. The chosen structures are the Atlanta Medical Arts Building, Civic Center MARTA Station, & Peachtree On Pine Homeless Shelter.

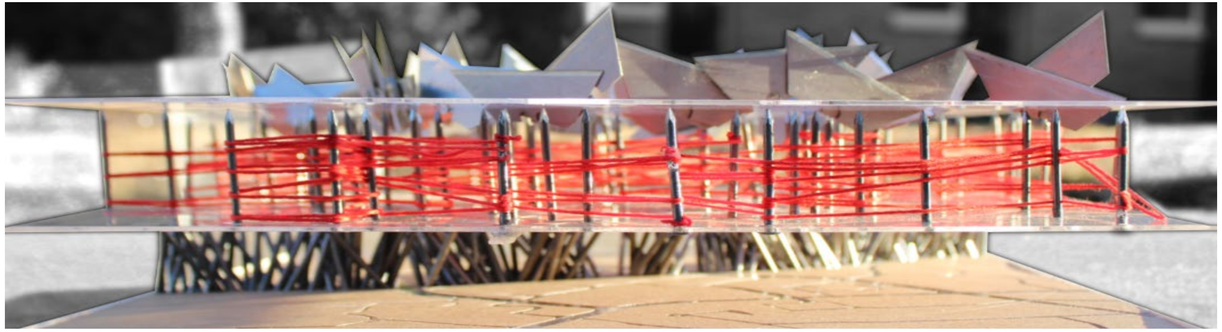
ISSUES:

The integration of interstate highways within urban areas has been a contentious issue since the construction of the first highway in the 1950s. In the case of Atlanta, the construction of the downtown connector (I-75/I-85) in the 1960s physically divided the city, severing neighborhoods and disrupting the urban fabric. The highway was designed primarily to facilitate vehicular traffic through the city, with little regard for the impact on the surrounding communities.

The downtown connector has several negative impacts on the city. First, it is a significant source of traffic congestion, particularly during rush hour, which causes frustration for drivers and contributes to air pollution. Second, it creates a physical barrier that separates neighborhoods and prevents pedestrians from easily moving between different parts of the city. This can lead to social and economic isolation for residents who are cut off from resources and opportunities in other areas. The issue of remedying the disconnect caused by the downtown connector has been the subject of ongoing discussion and debate. Some proposed solutions include redesigning the highway to incorporate green space or pedestrian walkways, adding more public transportation options, and rerouting traffic through alternative routes. However, implementing these solutions would require significant investment and coordination between different levels of government and community stakeholders.

SUB-ISSUES:

Addressing the issues caused by the downtown connector in Atlanta would require significant investment and coordination between different levels of government and community stakeholders. Implementing these solutions will require careful consideration of how to balance the primary function of the highway with these new features, significant investment in infrastructure, and coordination between different levels of government and transit agencies. Additionally, there may be resistance from commuters to any proposed changes. To ensure that any proposed solution is equitable and responsive to the needs of all residents, community engagement and input are crucial.



EIDIC MAPPING: PATHS FROM EDGES

These four urban artifacts convey a sense of danger and intimidation that is often felt by pedestrians navigating the busy and often chaotic roadways around downtown Atlanta. Each artifact uses a specific set of materiality to express this sentiment of danger and potential violence.

These artifacts are inspired by Kevin Lynch's concept of the "five points of the city" and their relationship to the urban landscape of Atlanta. Lynch's work emphasized the importance of clear and well-defined paths, edges, districts, nodes, and landmarks in shaping people's mental maps of the city. However, in the case of Atlanta's roadways, these elements can also create a sense of danger and intimidation for pedestrians, who must navigate a landscape dominated by automobiles and often lacking in clear pedestrian pathways. By using materials such as razor blades, nails, and cardboard, your artifacts express this sentiment in a visceral and tangible way, evoking the sense of danger and vulnerability that pedestrians often feel in this environment. They also highlight the need for better pedestrian infrastructure and a more thoughtful approach to urban planning that takes into account the needs and experiences of all users of the city's public spaces.

Nail mapping of Downtown Connector:

The first artifact depicts Atlanta's Downtown Connector , made of nails, this artifact represents the obstacles and hazards that pedestrians encounter as a result of the interstate system wreckless integration into the city. The nails are arranged in a jagged pattern that creates a sense of unease and danger, evoking the same feelings felt by pedestrians in proximity to high speed traffic.

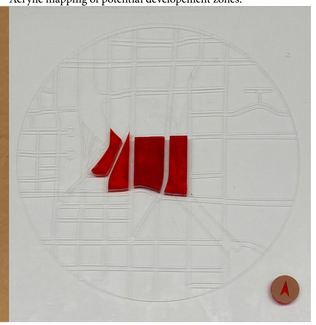
Razor blade mapping of arterial roadways

The second artifact depicts the major arterial streets that feed into and out of the interstate system. These streets are the point that pedestrians face the car head on. Vehicles freshly exiting hyperspeed are expected to safely cohabit with pedestrians. This cohabitation is one sided leaving pedestrians on Atlanta streets feeling vulnerable and unsafe. To represent this uneasiness the second artifact's pathways are made of razor blades. These razor blades represent the sharp and often deadly nature of the roads while creating a visual and tactile representation of the danger that pedestrians face as they navigate paths alongside the automobile.

String and nail mapping of pedestrian paths

The third artifact depicts the auxiliary roadways that feed into the previously described arterial roadways. These auxiliary roadways are more hospitable to pedestrians along the linear condition. The problematic condition of these auxiliary ways arises at the intersections of pathways. The artifact illustrates this danger by marking intersections with a single nail. More friendly pedestrian paths leading to these intersections are shown with red string.

Acrylic mapping of potential developement zones.



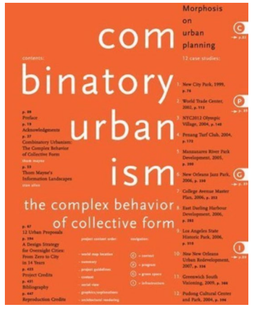
The fourth artifact utilizes colored and clear acrylic to depict the zones of potential development within this butcher shop of road conditions. By spanning over the interstate between auxiliary streets we can mediate harmful pedestrian conditions.

CHAPTER II

PRECEDENT ANALYSIS

METHODOLOGICAL & PROJECT PRECEDENT ANALYSIS

METHODOLOGICAL REFERENCES:

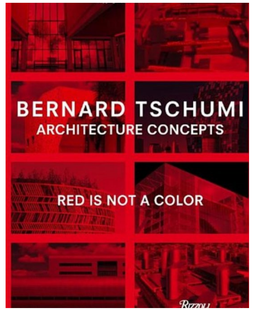


THOM MAYNE is an American architect known for his innovative and unconventional designs. One of the hallmarks of Mayne's approach to architecture is "artifact-driven design," a term he coined to describe his focus on creating buildings that are informed by their context and history.

For Mayne, the artifacts of a site -- its physical and cultural history -- are an essential starting point for any design. He believes that by analyzing the artifacts of a site, architects can gain a deep understanding of the needs and desires of the people who will use the building, as well as the unique challenges and opportunities presented by the site itself.

Mayne's artifact-driven design approach is grounded in his belief that architecture should be responsive to its surroundings and context. This means that a building should not just exist in isolation, but should be integrated with the landscape, the city, and the culture in which it is situated.

Mayne's approach to artifact-driven design is evident in many of his projects, including the Caltrans District 7 Headquarters in Los Angeles and the San Francisco Federal Building. In both of these buildings, Mayne and his team conducted extensive research on the site's artifacts -- including the history of the area, the climate, and the local ecology -- in order to create buildings that are not only functional but also deeply connected to their surroundings. Mayne's artifact-driven design approach reflects his belief that architecture is not just about creating beautiful buildings, but about designing spaces that are in harmony with their context and that meet the needs of their users.

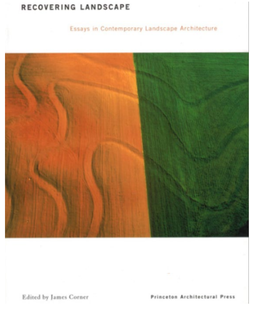


BERNARD TSCHUMI is a Swiss architect and educator, known for his theoretical work on architecture and the relationship between form and program. In his writings, Tschumi argues that architecture should not be limited to just its formal qualities, but should also take into account the program or the activities that the building is intended to accommodate.

Tschumi believes that architecture should be driven by programmatic considerations, rather than form, and that the form should emerge from the programmatic requirements of the building. He argues that program and form are intimately linked, and that the programmatic requirements of a building should determine its form, rather than the other way around.

Tschumi's approach to architecture can be seen in many of his built works, which often feature unconventional forms that are a direct response to the program. For example, his Parc de la Villette in Paris is a large public park that incorporates a variety of programmatic elements, including cultural institutions, recreational facilities, and green spaces. The park's design is based on a series of interconnected forms that are intended to reflect the diverse programmatic requirements of the site.

Tschumi's ideas on the relationship between form and program have had a significant impact on the field of architecture, and have influenced many architects and theorists. His work challenges conventional notions of form and encourages architects to think more critically about the programmatic requirements of their buildings.



JAMES CORNER is a landscape architect, urban designer, and theorist who is best known for his work on the High Line in New York City. His work focuses on the intersection of landscape, urbanism, and ecology, and he has developed a number of innovative strategies for connecting urban conditions through the use of landscapes.

Corner's approach to design is based on the idea that landscapes can be used to create connections between different urban conditions. He believes that landscapes can help to link different parts of a city together, and that they can provide a framework for understanding and navigating urban spaces.

One of the key concepts in Corner's work is the idea of "landscape urbanism." This approach to design emphasizes the importance of landscape in shaping urban environments, and it seeks to create a more integrated relationship between natural and built environments. Landscape urbanism focuses on designing landscapes that can serve as both ecological systems and as urban infrastructure, such as transportation corridors, public spaces, and parks.

Corner's work on the High Line is a prime example of his approach to using landscapes to connect urban conditions. The High Line is an elevated park built on an abandoned railway line in Manhattan. Corner and his team worked to preserve the railway's historic structure while also creating a new public space that connects different parts of the city. The park features a variety of landscapes, including gardens, seating areas, and walking paths, all of which are designed to create connections between different neighborhoods and to provide a new perspective on the city.

THOM MAYNE's ARTIFACT ARCHITECTURE (CRAWFORD HOME) :

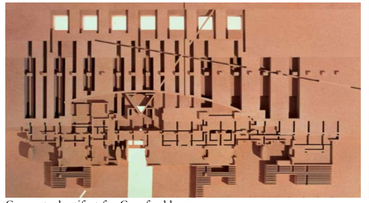
Thom Mayne's Crawford Residence, designed in 1988, is a significant example of his approach to artifact-driven design. The house, located in Montecito, California, is a striking example of the architect's commitment to creating architecture that is both innovative and functional.

Mayne's design process for the Crawford Residence began with a careful study of the site, which was a steep hillside overlooking the Pacific Ocean. The architect wanted to create a home that would take advantage of the incredible views while also providing a sense of privacy and seclusion. To achieve this, Mayne designed the house as a series of interconnected spaces that cascade down the hillside, each offering a different perspective on the landscape.

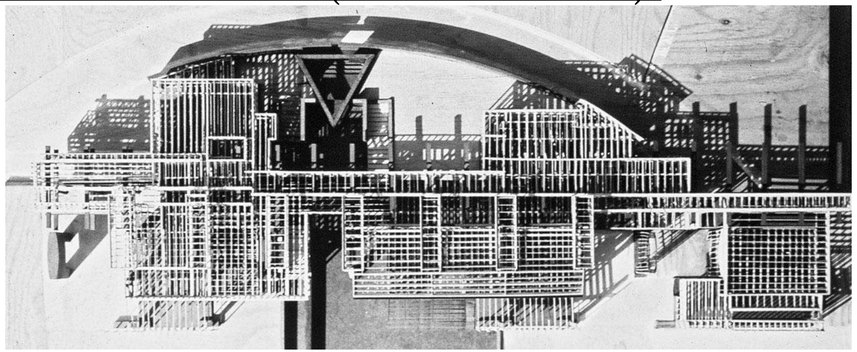
The home's design is driven by a number of key artifacts, including a large boulder that sits at the center of the house and serves as a focal point for the design. Mayne also incorporated a series of smaller rocks and stones into the design, which serve as stepping stones and create a sense of fluidity and movement throughout the house. The use of these artifacts was intended to create a sense of connection between the house and its natural surroundings.

The Crawford Residence is also notable for its use of industrial materials, another hallmark of Mayne's work. The house is constructed primarily of concrete, steel, and glass, materials that were chosen for their durability and ability to withstand the harsh coastal environment. The use of these materials also gives the house a modern and industrial aesthetic that is characteristic of Mayne's style.

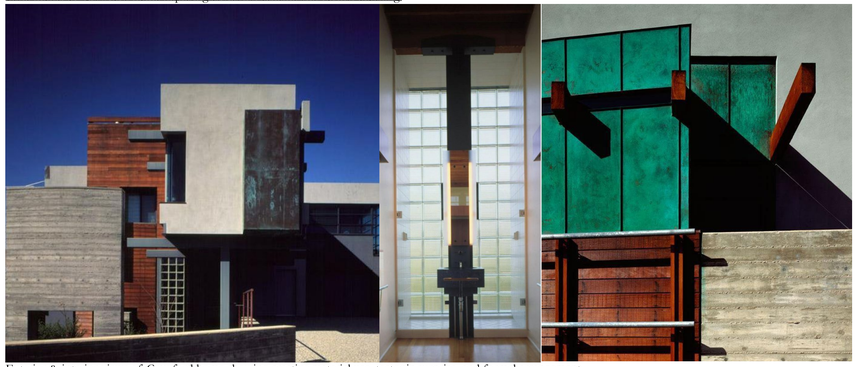
The Crawford Residence is an excellent example of Thom Mayne's approach to artifact-driven design. The house is a carefully considered response to its site and surroundings, with every aspect of the design driven by a specific artifact or element. The result is a house that is both functional and visually striking, with a strong connection to its natural environment.



Conceptual artifact for Crawford home.



Scale model of Crawford home depicting structural scheme and formal blocking.



Exterior & interior views of Crawford home showing creative material use, tectonic surprise, and formal arrangement.

BERNARD TSCHUMI PROGRAM VS FORM (PARC de la VILETTE):

Parc de la Villette is a large public park located in northeastern Paris, designed by Bernard Tschumi and opened in 1987. The park is located on the site of the city's former slaughterhouses, which were demolished in the 1970s, and covers an area of 55 hectares (136 acres).

Tschumi's design for Parc de la Villette is based on the idea of "superimposing" a series of programmatic elements onto the site, in order to create a new type of urban park that is more than just a green space. The park incorporates a wide range of cultural and recreational facilities, including a music conservatory, a science museum, a cinema, a library, a sports center, and a number of other venues.

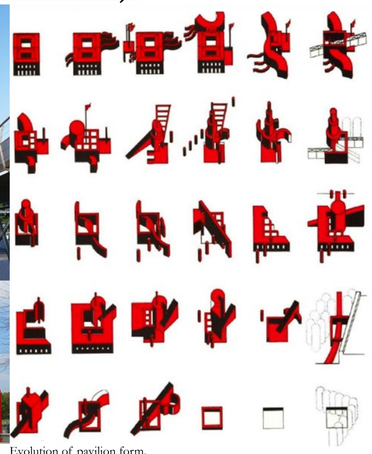
The design of the park is organized around a series of "follies," which are large, brightly colored structures that house various programmatic elements. The follies are intended to be both functional and expressive, and are designed to reflect the diverse programmatic requirements of the site. Each folly is painted a different color, and is designed to stand out from the surrounding landscape.

In addition to the follies, the park also features a number of other design elements that reflect Tschumi's approach to architecture. The park is crisscrossed by a series of pedestrian walkways and bike paths, which are intended to encourage exploration and movement through the site. The park also includes a number of water features, including a large reflecting pool and a series of fountains, which serve both aesthetic and functional purposes.

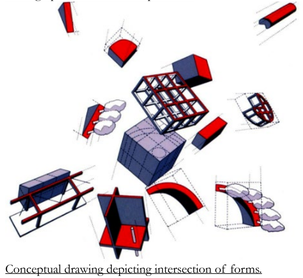
One of the most distinctive features of Parc de la Villette is its use of digital technology. The park was one of the first public spaces to incorporate digital media and interactive technology into its design, and features a number of interactive exhibits and installations throughout the site. These installations are intended to engage visitors and encourage them to interact with the park in new and innovative ways.

Parc de la Villette is a prime example of Tschumi's approach to architecture, which emphasizes the relationship between form and program. The park's design is driven by the diverse programmatic requirements of the site, and its form is a direct response to these requirements. The result is a park that is more than just a green space, but a dynamic and multifaceted urban environment.

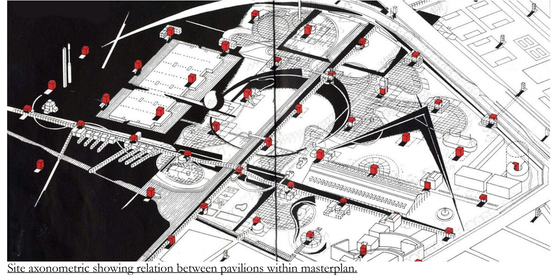
Photographs of constructed pavilions.



Evolution of pavilion form.



Conceptual drawing depicting intersection of forms.



Site axonometric showing relation between pavilions within masterplan.

JAMES CORNER'S PROGRAMMED LANDSCAPES (HIGHLINE):

The High Line is an elevated public park located on an abandoned railway line in Manhattan, New York City. The park was designed by James Corner and his firm, Field Operations, in collaboration with the architecture firm Diller Scofidio + Renfro. The park opened to the public in 2009 and has since become one of the most popular and acclaimed public spaces in the city.

One of the key features of the High Line is the way in which the landscape is programmed. Corner and his team worked to create a variety of different landscapes that are designed to provide a range of experiences for visitors. The park is divided into several distinct zones, each with its own unique character and programming.

The first section of the park, known as the Gansevoort Woodland, is a shaded area that features a variety of trees and other plants. This section of the park is intended to provide a quiet retreat from the bustling city streets below.

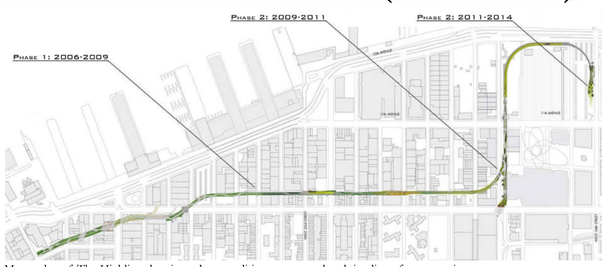
As visitors move further along the High Line, they encounter a series of gardens and seating areas. These spaces are designed to provide opportunities for relaxation and socializing. Some of the gardens feature native plant species, while others incorporate more exotic plants from around the world.

The High Line also features a number of art installations and performance spaces. These spaces are programmed to showcase a variety of artists and performers, and they help to make the park a vibrant cultural destination.

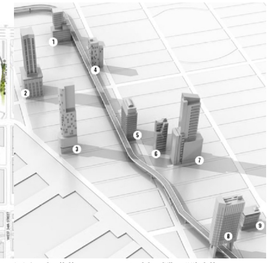
One of the most popular features of the High Line is the 10th Avenue Square, a large plaza located at the intersection of the High Line and 10th Avenue. This space is designed to serve as a gathering place for visitors, and it features a large seating area and a water feature.

Throughout the park, the landscape is designed to reflect the site's industrial heritage. The railway tracks have been preserved and incorporated into the design of the park, and the plantings are intended to evoke the wild, overgrown landscape that grew up around the abandoned tracks.

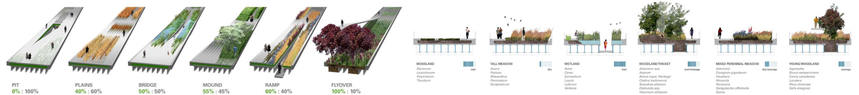
Tthe programming of the landscape at the High Line is a key element of the park's success. Corner and his team worked to create a variety of different landscapes and experiences that are designed to appeal to a wide range of visitors. The result is a park that is both a peaceful retreat and a vibrant cultural destination, and that has become an important part of the urban fabric of New York City.



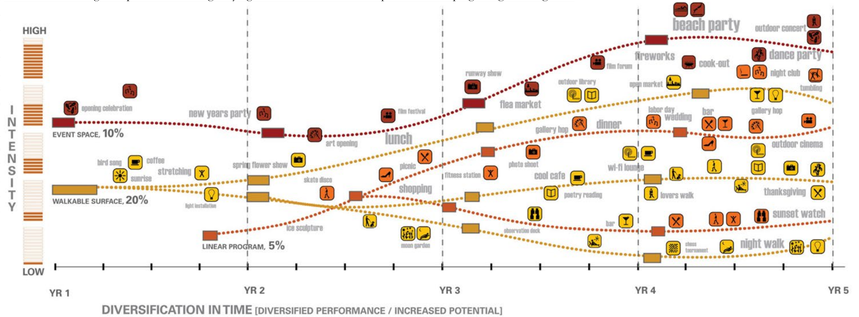
Masterplan of The Highline showing urban conditions connected and timeline of construction.



Major buildings connected by The Highline.



Section cuts of Highline platform showing varying relations between hardscape and landscaping along The Highline.



Graph showing staged progression of complexity within The Highline's programming.

PRECEDENT ANALYSIS 1: BOSTON GREENWAY

The Big Dig, as the project to bury Boston's downtown interstate is commonly known, was one of the largest and most complex infrastructure projects in US history. The project took over 15 years to complete, involved more than 12,000 workers, and cost over $14 billion.

The idea to bury the downtown interstate was first proposed in the 1970s as a way to improve the flow of traffic through the city and to revitalize Boston's waterfront. However, the project faced significant opposition from local residents and business owners, who were concerned about the disruption and environmental impacts of such a large-scale construction project.

Despite these challenges, the project eventually moved forward in the 1980s, with construction beginning in 1991. The main tunnel of the project, which runs through the heart of downtown Boston, is over three miles long and 14 lanes wide, and required the excavation of over 16 million cubic yards of dirt and rock.

One of the most innovative aspects of the project was the creation of the Rose Kennedy Greenway, a 1.5 mile long park that runs along the length of the tunnel. The Greenway includes a series of interconnected parks and public spaces, as well as bike paths and walking trails. The Greenway has become a popular destination for both tourists and locals, and has helped to stimulate economic development in the surrounding areas. According to a study by the Metropolitan Area Planning Council, the Greenway has generated over $28 million in new property tax revenue and has created over 300 new jobs since it opened in 2008. The study also found that the Greenway has helped to increase property values in the surrounding areas by an average of 9%.

The success of the Big Dig and the Rose Kennedy Greenway can be attributed to the city's long-standing commitment to historical preservation and urban planning. Boston has a rich history that is reflected in its architecture and urban design, and the city has always been careful to balance the need for modern infrastructure with the preservation of its cultural heritage.

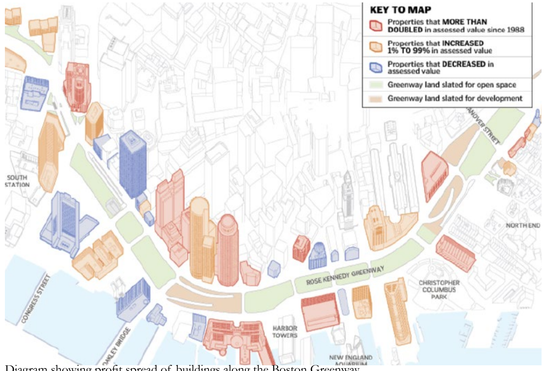


Diagram showing profit spread of buildings along the Boston Greenway

Mapping of Greenway extents and pertinent park districts


1. DEWEY SQUARE


2. RING FOUNTAIN


3. ARMENIAN HERITAGE PARK


4. NORTH END PARKS

ANALYSIS OF PARK SPACE PROVIDED:

1. Dewey Square: The presence of a rotating graffiti exhibit on the side of the greenways main vehicle exhaust facility activates the park space. The visual interest and novelty of this exhibit cements this park space's position as an icon within the city. This strictly infrastructural building serves the role of facilitating artistic expression.

2. Ring Fountain: The sole programmatic activator of this parkspace is a 70 ft. diameter interactive fountain for public use. This feature is rooted within its oceanside site context and appeals specifically to younger users and parents. The varying seasonal availability of this feature introduces an important touch of novelty to the parkspace as a whole.

3. Armenian Heritage Park: The maze-like form of the park's paving implies circulatory pathing rather than enforces. The formal attributes of the space are directly related to nearby Ring Fountain. This greenspace is an urban scale art piece that users can inhabit.

4. North End Parks: Like other parkspaces on the greenway this pair of parks is careful in maintaining a lack of full enclosure. The presence of a pergola along the site's edge intentionally provides minimal spatial enclosure and moderate shading. Light tree cover lines the periphery of the park further supporting the spaces intention to keep enclosure informal.

LESSONS LEARNED:

- Atlanta's roadways are already entrenched so roadways do not have to be lowered.
-Boston's programmatic density is much higher than that of Atlanta. Program must be woven into circulatory pathways for this to work in Atlanta.
-Boston is a city of rich historical context. This project was sensitive to that context by providing space largely outside of its historical context. Atlanta suffers from a lack of historical buildings and context. The new developments should celebrate vernacular structures in ways that avoid simple replication of forms.
-Boston's greenway is the perfect precedent for technical information on projects spanning
over roadways. (structural considerations, vehicle exhaust facilities, vehicular standards, etc.)

PRECEDENT ANALYSIS 2: BELTLINE CORRIDOR

The Atlanta Beltline has become a hallmark of urban renewal and sustainability, and its impact on the city of Atlanta cannot be understated. The 22-mile loop of former railroad tracks has transformed from an abandoned space into a bustling network of multi-use trails, parks, green spaces, and businesses. The Beltline has been the result of the innovative work of many people, but none more so than Ryan Gravel, who conceived of the idea as a graduate student at Georgia Tech in 1999.

Gravel's thesis, "BeltLine Atlanta: Design of Infrastructure as a Reflection of Public Policy," proposed transforming the abandoned railroad tracks into a multi-use trail system that could act as a catalyst for economic and social revitalization. While he was studying architecture, urban planning, and real estate development, Gravel saw the potential of the abandoned railroad tracks, which encircled downtown Atlanta. He envisioned them becoming an interconnected network of green space, parks, and pedestrian walkways that would serve as a public amenity and a driver of economic development.

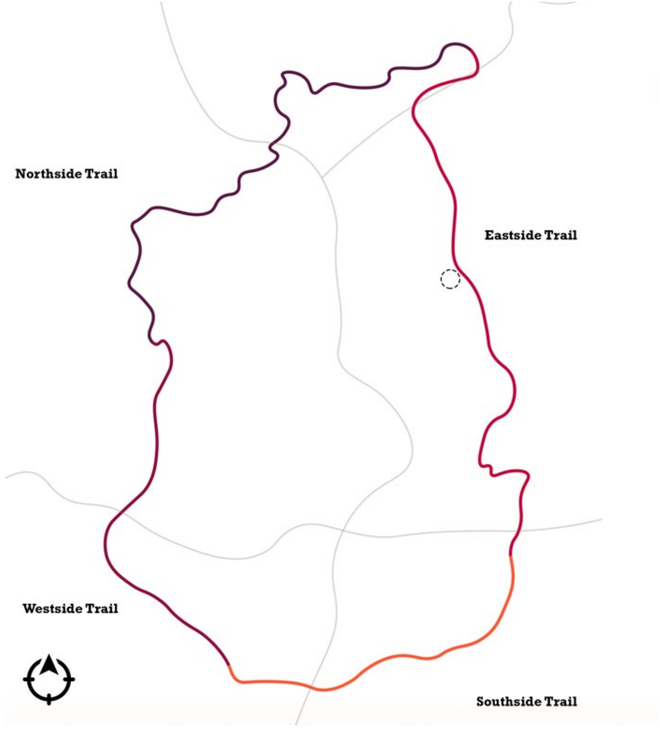
Gravel's thesis, while academically impressive, was not enough to make the Beltline a reality. He needed the support of local leaders and the community to turn his vision into a tangible project. He shared his idea with then-Atlanta City Council President Cathy Woolard, who became a key ally in advancing the Beltline. Together, they formed the Atlanta BeltLine Partnership, a non-profit organization that would work to advance Gravel's vision for the BeltLine.

Over the next several years, Gravel and the BeltLine Partnership worked to build support for the project, raising funds and gathering public input. In 2005, the Atlanta City Council passed a resolution endorsing the BeltLine concept, and the following year, voters approved a referendum to fund the project through a sales tax increase.

Since then, the Beltline has become one of the largest and most ambitious urban redevelopment projects in the country. The project is being developed in phases, with the first section of the trail opening in 2008. Today, the Beltline includes 22 miles of multi-use trails, 33 miles of dedicated bike paths, and over 1,300 acres of parks and green space.

The BeltLine has also spurred significant economic development along its route, with new businesses, restaurants, and housing developments sprouting up in previously neglected areas. According to a report by the BeltLine Partnership, the project has generated over $10 billion in private investment since its inception. However, Gravel's role in the Beltline's success goes beyond simply developing the initial idea. His thesis proposed a new form of urban infrastructure that could transform abandoned spaces into vibrant public amenities. Gravel developed the mechanisms responsible for the BeltLine's reproduction before he started the work of prescribing the project's final form. He understood that the programmatic aspects of the Beltline's final form would be determined by independent economic actors outside of his control. The programmatic activation resulting from this project has played out to the tune of 148 million dollars in increased revenue.

Despite the massive positive impact on Atlanta's economy, the BeltLine's success story is not the result of a top-down movement to plan every minute detail around the project's development. Under the scaffolding provided by Gravel, city officials procured the land for the public aspects of the pathway and set up a system of incentives to spark investment. Independent actors were then able to expand into the scaffolding provided because they saw the potential for profit. This market-based expansion allows for the BeltLine system to expand naturally rather than requiring a new phase to be planned when expansion is needed.



Aspects Analyzed

- Sculptures
- Art Murals
- Bridges
- History

LESSONS LEARNED:

-The provision of pedestrian connection must be accompanied by culturally pertinent program.

-Spaces within the proposed design system should facilitate spaces of varying scale. This keeps the experience traveling along a pathway from becoming bland.

-The proposed design system should allow for individual expression at every turn. People give projects life. Allowing users to express themselves creatively allows them to feel invested into a project's ideation and physical manifestation.

-Establishing the scaffolding by which the system functions and expands makes the details of a project's final outcome more streamlined and legible.

-The design systems functioning in Atlanta must reflect pertinent historical trends relating to the project site and function. That historical connection can come from any part of the site's narrative.

-The Beltline proves that system first ideation is feasible within the context of Atlanta.

Park Dr. Bridge:

Built in 1916, this bridge features red brick railings, pilasters, cast iron medallions and Native American tiles. This structure is a great example of The Beltline's ability to integrate historic structures.

Virginia Ave. Bridge:

The space beneath the bridge serves as the canvas for a rotating selection of graffiti murals. Live performers often choose to perform in the shade provided by the bridge. The acoustic effect amplifies music.

"Angier Springs":

Akin to a budding forest, the open field of slender iron pillars explores the demarcations of public space without explicit boundaries. Material choice harkens to The Beltlines past as a railway corridor.

Freedom Pkwy Bridge:

Not far from the king historic site this bridge is one of the largest underpasses along the beltline. The space beneath the bridge serves a wide array of uses: a canvas for graffiti, a stage for musicians, or a backdrop for photographers.

Edgewood Ave SE Bridge:

Rebuilt in 2013, this bridge is now for it's graffiti covered stairs. The street level above the bridge connects to The Beltline via the afore mentioned stairs. The space beneath the bridge also serves as a dining area for nearby restaurants.

"Railroad Workers":

This artifact sculpture depicts three human forms, each carrying tools and walking mid-stride in a single file line. Each worker is constructed of railroad debris from the beltline itself.

"BLM Murals":

Activists utilized plywood boards initially meant to screen sight lines to an in progress construction site to express their upheavel in the wake of the death of George Floyd in 2020.

Highland Ave Bridge:

Another bridge underpass home to a rotating selection of graffiti murals and live performers. People often climb up into the shelve part of the underpass to sit and relax.

Fulton Terrace SE Bridge:

Known for it's "All Is on U" mural. This underpass is one of the most compact found along the beltline. The intimacy of the enclosure is subtle.

Krog Street Tunnel Bridge:

Built in 1912 to facilitate the flow of traffic beneath industrial railines. The pedestrian lanes are covered in an intricate tapestry of graffiti. Krog Street Tunnel serves as the longest and most intimate of the Beltline's underpasses.

PRECEDENT ANALYSIS 3: PONCE CITY MARKET

In recent years, adaptive reuse has become an increasingly popular approach to urban development. This process involves repurposing existing structures to meet the needs of modern communities while preserving their historic significance. Ponce City Market in Atlanta, Georgia, is a prime example of successful adaptive reuse. The building was originally constructed in 1926 as a Sears, Roebuck and Co. distribution center and later served as City Hall East, a government office building. The building was eventually purchased by Jamestown Properties in 2011, with the intention of transforming it into a new retail, dining, and office space.

The Ponce City Market's redevelopment was done with the BeltLine project in mind. The BeltLine is a former railway corridor that has been transformed into a pedestrian pathway. It runs directly through the Ponce City Market property, providing a unique integration of the BeltLine's pedestrian and bike traffic into the development. The BeltLine also gave the developers the opportunity to contribute to the revitalization of the surrounding area. The BeltLine project aims to connect 45 neighborhoods in Atlanta through a 22-mile loop of parks, trails, and transit. The renovation of Ponce City Market was not without its challenges. The building had been abandoned for years and was in a state of disrepair. However, the developers recognized the potential of the space and worked to restore many of the building's original features, such as the exposed brick walls and large windows. The restoration process involved extensive collaboration between historic preservation experts and architects to ensure that the building's unique character was preserved.

One of the most significant challenges was the installation of the building's elevators. The building was too old to have modern elevator shafts, so the developers had to retrofit the building with new elevators. This was a costly and time-consuming process, but it was essential to making the building accessible to the public. The elevators were designed to blend in with the building's original architecture to minimize their impact on the historic space.

The adaptive reuse of Ponce City Market has been widely regarded as a success. The building has been transformed into a vibrant mixed-use development that includes retail, dining, and office space. The space is now home to over 30 shops and restaurants, as well as a rooftop amusement park. The market has become a destination for residents and visitors alike, attracting people from all over the city.

The revitalization of Ponce City Market has had a positive impact on the surrounding area as well. The development has become a hub for the community, drawing visitors and generating economic activity. It has also helped to spur additional development in the area, including new housing developments and businesses. The market's integration with the BeltLine project has further enhanced its impact on the community, making it a prime example of how adaptive reuse can contribute to the revitalization of an entire neighborhood.

The success of Ponce City Market's adaptive reuse has also been recognized on a national level. In 2015, the National Trust for Historic Preservation named the project as one of its 11 most endangered historic places. This designation highlighted the importance of preserving historic structures and using adaptive reuse to ensure their continued relevance.

Ponce City Market's adaptive reuse has been a model for other similar projects in Atlanta and across the country. It has shown that

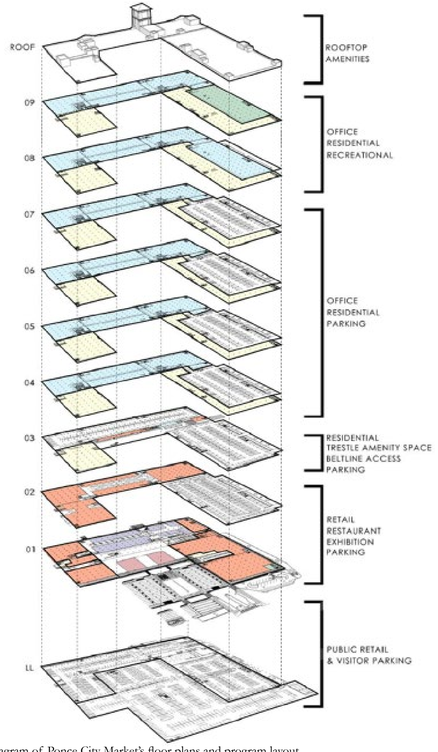
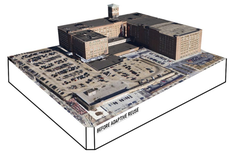


Diagram of Ponce City Market's floor plans and program layout



LESSONS LEARNED:

- Embracing the Relationship between Infrastructure and Structure

Ponce City Market's success can be attributed to the symbiotic relationship between the building and the BeltLine Corridor. The BeltLine's transformation from a railway into a pedestrian pathway provided the perfect opportunity for the adaptive reuse of the old distribution center. The building now benefits from the pedestrian and bike traffic that the BeltLine brings to the area, making it a popular destination for residents and visitors alike. The lesson learned is that when it comes to successful redevelopment, it is important to consider the relationship between infrastructure and structure.

-The toughest part of converting a structure into being mixed-use is managing the different circulation routes required by each program. In the case of Ponce City Market, the developers had to create new elevators to make the building accessible to the public. Additionally, effective wayfinding signage was necessary to guide visitors through the space. This lesson shows that when repurposing a building, it is crucial to consider the circulatory routes required by each program and ensure that they work together seamlessly.

-The provision of effective signage goes a long way towards establishing the iconography of a building within the minds of patrons. Ponce City Market's signage is effective in establishing its brand identity, making it recognizable and memorable. The lesson learned is that effective signage can help to create a unique identity for a building and contribute to its success.

-Ponce City Market's proximity to the BeltLine Corridor was a significant factor in its success. The building's integration with the pathway helped to draw visitors from all over the city, making it a hub for the community. This lesson shows that proximity to major circulatory paths, such as highways or pedestrian pathways, can contribute significantly to the success of a redevelopment project

-When considering the adaptive reuse of a building, it is essential to consider the compatibility of the existing structure with the desired program. Peachtree on Pine Shelter, a former homeless shelter in Atlanta, could be compatible with a Ponce City Market-style redevelopment. Although the structural schemes of the two buildings are different, they share similarities such as varied entry levels, large available square footage, similar materiality, and proximity to major circulatory paths.

After Adaptive Re-use

Main entry (vehicular)

Beltline entry (pedestrian)

Retail space

Restaurant space

Living space

Recreational space (rooftop)

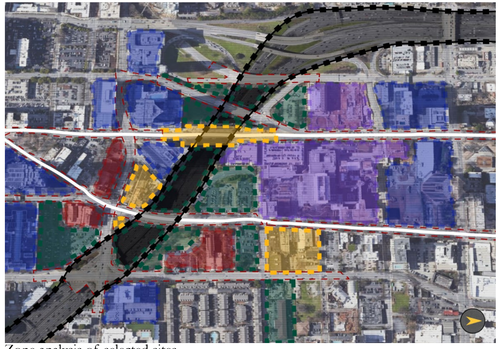
CHAPTER III

SITE SELECTION

PEACHTREE ON PINE SHELTER, CIVIC CENTER MARTA STATION & THE ATLANTA MEDICAL ARTS BUILDING

SITE SELECTION:

Triangulated over the void created by the interstate: three adaptive re-use anchors were selected to serve as potential sites for further architectural developement. These sites were analyzed and iterated upon to determine which site is most suited for an application of detailed design iteration. The site's selected are well suited for experimentation because of there location in the transitionary zone between Atlanta's downtown and midtown.



Zone analysis of selected sites.

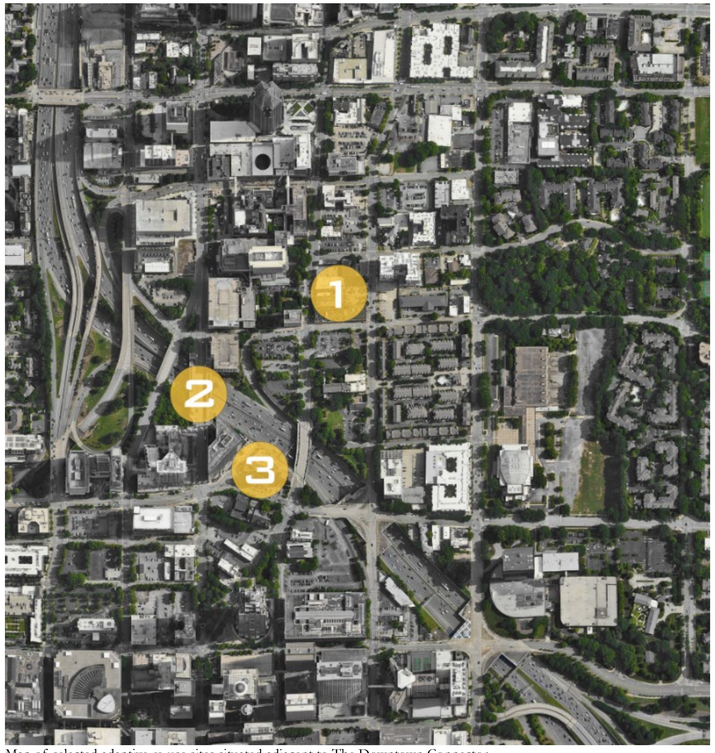
ADAPTIVE RE-USE ANCHORS:

EMORY MEDICAL CENTER:

HISTORICAL BUILDINGS:

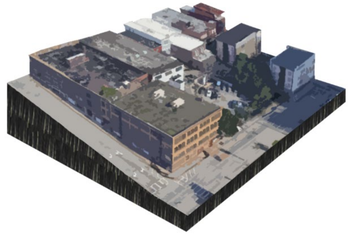
CORPORATE BUILDINGS:

VOID SPACE:



Map of selected adaptive re-use sites situated adjacent to The Downtown Connector.

1 PEACHTREE ON PINE SHELTER:



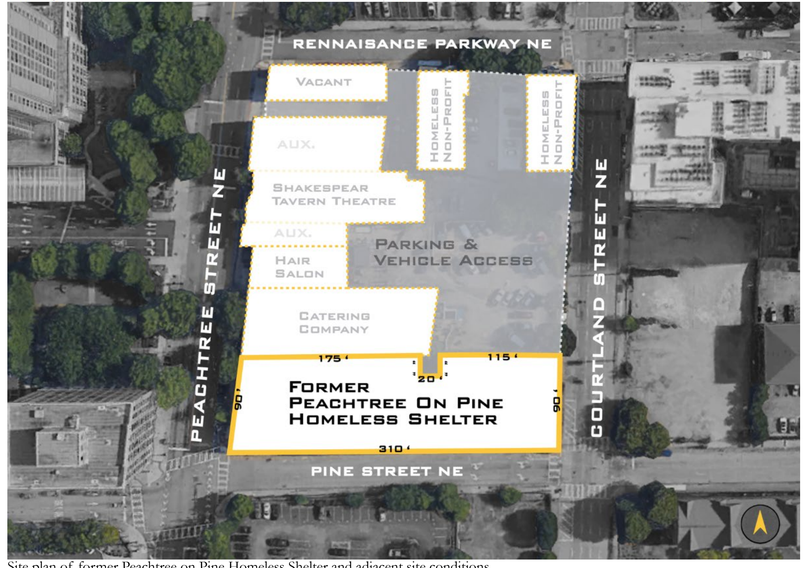
The Peachtree-Pine shelter in Atlanta, Georgia, is a landmark institution that provided refuge and support for the city's homeless population for over two decades. The shelter, which was located in the heart of the city's downtown district, was housed in a large, 100,000 square foot building that had once served as a department store.

The building that housed the shelter was originally constructed in 1923 as a home for the Davison-Paxon department store, a major retailer in Atlanta at the time. The building was constructed in the Beaux-Arts style, a popular architectural style in the early 20th century that emphasized grandeur and opulence. The building featured ornate detailing, marble floors, and a large central atrium that allowed natural light to flow into the space.

In the 1990s, the building was purchased by the Metro Atlanta Task Force for the Homeless, a non-profit organization that sought to provide shelter and support for Atlanta's homeless population. The organization converted the building into a shelter and resource center, providing meals, healthcare, and job training for those in need. However, the shelter's presence in the downtown district of Atlanta was not without controversy. The area around the shelter became a hub for drug activity and crime, and local business owners and residents began to complain about the shelter's impact on the neighborhood. The city of Atlanta eventually attempted to shut down the shelter, citing safety and health concerns, but the shelter's operators fought the closure in court.

In 2016, the shelter was finally forced to close its doors, following a prolonged legal battle with the city of Atlanta. The closure of the shelter left many of the city's homeless population without a place to go, and sparked a debate about the city's approach to homelessness and poverty.

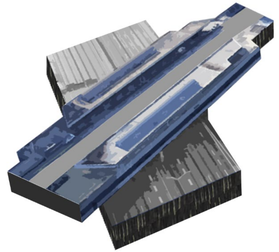
	Peachtree On Pine Shelter	Catering Company	Hair Salon	Shakespear Tavern	Vacant Building	Homeless Non-Profit
Total Levels	5	2	1	3	3	3
Total Sq. Ft.	125,000	22,000	3,500	42,900	7,500	22,800



Site plan of former Peachtree on Pine Homeless Shelter and adjacent site conditions.

The Peachtree-Pine shelter played an important role in the history of Atlanta's downtown district, and its closure marked the end of an era for the city's homeless population. While the shelter's presence may have had a controversial impact on the neighborhood, it provided critical support and resources to many of the city's most vulnerable residents. The building that housed the shelter remains an important piece of Atlanta's architectural history, and its grandeur and history serve as a reminder of the city's rich and complex past.

2 CIVIC CENTER MARTA STATION:



	Civic Center Marta Station (BUS)	Civic Center MARTA Station (TRAIN)
Total Levels	1	1
Total Sq. Ft.	25,500	57,000

Site plan of Civic Center MARTA Station and adjacent site conditions.

Civic Center MARTA station is a prominent transportation hub located in the heart of downtown Atlanta. The station serves as a gateway to the Civic Center area, which is home to a number of government buildings, cultural institutions, and entertainment venues.

The history of the Civic Center area dates back to the late 19th century when the area was developed as a residential neighborhood. Over time, the area evolved into a commercial and government center, with the construction of numerous government buildings and the relocation of the Georgia State Capitol to the nearby Capitol Square in the early 20th century.

The Civic Center MARTA station was opened in 1979 as part of the initial phase of the MARTA public transportation system. The station was designed by the architecture firm of Heery International, and features a distinctive Brutalist style with a large concrete canopy over the station entrance.

In the decades since its opening, the Civic Center MARTA station has undergone several renovations and upgrades to improve the passenger experience and accommodate the growing demand for public transportation in the area. In 2017, the station underwent a major renovation project that included the installation of new signage, lighting, and other amenities.

Today, the Civic Center MARTA station serves as a key transportation hub for the city of Atlanta, connecting passengers to destinations throughout the metro area. The station is also located near a number of important civic and cultural institutions, including the Georgia State Capitol, the Georgia World Congress Center, and the Martin Luther King Jr. National Historic Site.

Despite its prominent location and important role in the city's transportation infrastructure, the future of the Civic Center MARTA station is uncertain. In recent years, there has been discussion of potentially relocating the station as part of a broader redevelopment of the Civic Center area. However, any such plans would likely face significant challenges and opposition from community stakeholders and transportation advocates.

3 ATLANTA MEDICAL ARTS BUILDING:

	Atlanta Medical Arts Building	Parking Deck 1	Parking Deck 2
Total Levels	12	3	4
Total Sq. Ft.	102,300	24,900	42,500

Site plan of The Atlanta Medical Arts Building and adjacent site conditions.

The Atlanta Medical Arts Building, located in the heart of Atlanta's historic Midtown neighborhood, is a historic landmark that has played an important role in the city's healthcare history. Completed in 1927, the 11-story building was designed by the architectural firm of G. Lloyd Preacher & Company and is one of Atlanta's finest examples of Art Deco style.

The Atlanta Medical Arts Building was originally built to house medical offices and clinics, and it quickly became a hub for the city's medical community. Many of Atlanta's leading doctors and medical professionals had offices in the building, which also housed the Southern Dental Association, the Georgia State Board of Health, and the Atlanta College of Physicians and Surgeons.

The building's Art Deco design is characterized by its use of geometric shapes, bold colors, and stylized ornamentation. The façade features intricate terra cotta detailing, including stylized medical symbols such as caduceus and staffs of Asclepius. The lobby features marble walls and floors, bronze doors, and an original terrazzo floor with a caduceus motif. Over the years, the Atlanta Medical Arts Building has undergone several changes. In the 1950s, the building was expanded to include a modern 7-story addition. However, by the late 1990s, the building had fallen into disrepair, and it was vacated in 1999.

Despite its current state of disrepair, the Atlanta Medical Arts Building remains a significant architectural and cultural landmark in Atlanta's history. Its Art Deco style and historical significance have garnered attention from preservationists and advocates for its restoration and reuse.

In recent years, there have been efforts to include the Atlanta Medical Arts Building in Midtown's historic preservation district, which would provide additional protections and incentives for its restoration and reuse. The building's location in the heart of Midtown, a vibrant and growing neighborhood with a strong arts and culture scene, makes it a particularly attractive candidate for redevelopment. As the city of Atlanta continues to grow and evolve, the fate of the Atlanta Medical Arts Building remains uncertain.

CHAPTER IV

SITE ANALYSIS

HISTORY & MAPPING OF GEORGIA, ATLANTA, & PEACHTREE STREET

ATLANTA HISTORY:

Atlanta has a rich history that has been shaped by its transportation systems. The city's establishment can be traced back to its strategic placement at the intersection of five Native American trails. This location made Atlanta an important trading post for indigenous peoples long before the arrival of European settlers. In the 1830s, the city was founded as Terminus, the endpoint of the Western and Atlantic Railroad. The railroad was built to connect the port of Savannah to the Midwest and beyond, and it transformed Atlanta into a regional rail hub. The city's early growth was fueled by the railroad, and it quickly became a center for commerce and industry. As the automobile began to gain popularity in the early 20th century, Atlanta began to see the establishment of early highways. One of the most significant of these was the Dixie Highway, which was a network of roads that connected the Midwest to the Southeast. The Dixie Highway brought new economic opportunities to Atlanta, and it also helped to establish the city as a gateway to the South. As Atlanta continued to grow, it saw the integration of suburban trolley lines. These lines connected the city center to outlying areas and allowed for easy access to jobs, shopping, and entertainment. The trolley lines were a popular mode of transportation until the 1940s when the automobile began to dominate.

In the 1950s, the implementation of the interstate highway system brought major changes to Atlanta's transportation landscape. The development of the interstate system in Atlanta was marked by numerous changes in scope and methodology, with the goals of economic and logistical efficiency prioritized over all else. One of the major impacts of the interstate system on Atlanta was the division of the city into a series of programmatic islands connected by roadways and serviced by parking structures. Pedestrian connectivity was severely limited, with many pedestrian bridges shut down or completely demolished during subsequent expansion projects. In the 1960s, the addition of a perimeter interstate, I-285, further solidified Atlanta's position as a major transportation hub. The perimeter interstate allowed for easy access to the city's suburbs and facilitated the movement of goods and people throughout the region.

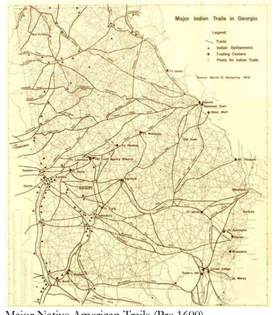
In addition to its road and rail networks, Atlanta also became a center for air travel in the early 20th century. The opening of Candler Field (now Hartsfield-Jackson Atlanta International Airport) in 1926 brought new economic opportunities to the city, and it quickly became a major transportation and logistics hub. Despite the many transportation options available in Atlanta, the city lacked a public mass transit system for many years. In the 1960s, the Metro Atlanta Rapid Transit Authority (MARTA) was established to provide the city with a public transit system. The implementation of MARTA was met with opposition from some suburban residents, and the system faced financial challenges in its early years. Despite these challenges, MARTA has become an integral part of Atlanta's transportation system and has helped to facilitate the city's continued growth and development. Overall, Atlanta's transportation systems have played a significant role in the city's history and have helped to shape its identity as a major center of commerce and industry in the South. While the city has faced many challenges related to its transportation infrastructure, it has also demonstrated a willingness to adapt and innovate in order to meet the needs of its residents and visitors.

The main issue surrounding the proposed project arose with the addition of The Interstate Highway System into Atlanta's urban fabric. Ideation for this mega project began under the Federal-Aid Highway Act of 1956. This cross country system was put into motion with the goal of connecting all of the nations major cities via cutting edge paved roadways and network of highway interchanges. The project was funded by federal tax dollars with cities of most vital logistical importance receiving budgetary priority. Atlanta's seat as a regional hub for transportation and business in the south east allowed it to rank highly on this list of prioritized cities. The masterplan for the state of Georgia and Atlanta specifically would see numerous changes in scope and methodology through the course of the project's development. The goals of economic and logistical efficiency were prioritized over all else. Many within the development team saw sacrifices of Atlanta's cultural DNA as unavoidable sacrifices to be left upon the altar of urban renewal.

This institutional roadway intrusion into Atlanta's urban fabric effectively shattered the city into a series of programmatic islands connected by roadways and serviced by a brigade of parking structures. Planners attempted to provide the city with a public mass transit system in the form of The Metro Atlanta Rapid Transit Agency (MARTA) but without unanimous fiscal support from the metro's northern counties the rail system was left without legs. The split in pedestrian connectivity was further widened when the Georgia Department of Transportation enacted the Freeing the Freeways Program in 1972. This roadway expansion project would extend the already 16 year long project by 17 Years. During this subsequent expansion many pedestrian bridges would be shut down or completely demolished. The two interruptions in pedestrian traffic that this thesis is most concerned with is the intermittent closing of both Peachtree Street bridges and the demolition of the Alexander Street bridge. Before this expansion these three pedestrian connections served as the most vital pedestrian connections between Atlanta's midtown and downtown. The roadway construction project's 17 year schedule extension served to strangle most of the programmatic use that once saturated this transitory zone. Businesses and consumers were unwilling or unable to continue actively using this zone.

The Atlanta Medical Arts Building is a prime example of the detrimental effects of the project's expansion in scope. The building had been continuously occupied from the time of it's construction in 1927 but, it was unable to resist the infrastructural assault levied by the newly expanded interstate. In 1980, at the dawn of the new phase of construction, tenants in the immediate area of the planned development areas relocated. With this final move the seeds for our current situation were finally done being planted. The Atlanta Medical Arts Building serves as the canary in the coal mine for this transitory zone as a whole. This section of the city (between Midtown and Downtown) sees some of the lowest numbers of pedestrian circulation with most locals opting to drive rather than walk. This phenomena is a direct result of the strangle hold the interstate has enacted upon both pedestrian pathways and programmatic activity in its general vicinity. The interstate's top down integration attacked the pedestrian on two fronts. It severed walkable connection while simultaneously strangling out the once vibrance tapestry of programs and uses this transitional zone held.

GEORGIA TRANSPORTATION HISTORY:

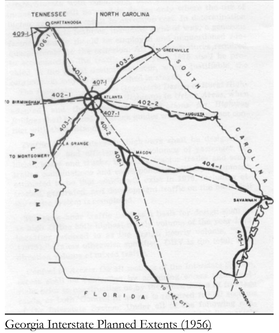


Major Native American Trails (Pre 1600)

Early Roads And Trails (1730-1850)

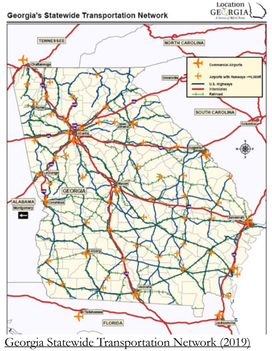
Southern Railways Connectivity (1921)

Georgia Highway Connectivity (1929)



Georgia Interstate Planned Extents (1956)

Atlanta Perimeter Interstate (1983)



Georgia Statewide Transportation Network (2019)

MARTA Connectivity (2022)

GEORGIA TRANSPORTATION TIMELINE:

1730-1850

Pre Colonization

1870

1880

1890

- The mass production of the bicycle in the early 1890s improved mobility and raised awareness of the need for better roads.

- Bicycle enthusiasts were the first champions of what became known as the Good Roads Movement.

1900

-The Office of Public Roads (OPR) is established under the Agriculture Appropriation Act of 1906, signed by President Theodore Roosevelt on March 3, 1905. The act provided that the director of the OPR "shall be a scientist and have charge of all scientific and technical work."

In 1907, the first inventory of all rural roads in the nation was received. Only about 7 percent of 2.1 million miles of rural roads had any kind of surfacing.

-1908 Henry Ford's Model T arrives on the market.

1910

- 1913 The Lincoln Highway is formally dedicated.

- 1916 Congress passes the first Federal Aid Road Act for "the construction of rural post roads."

- 1918 OPRRE (formerly OPR) becomes Bureau of Public Roads (BPR).

- 1919 The U.S. Army's first transcontinental motor convoy takes place.

1920

- 1921 Federal-Aid Highway Act of 1921 resolves decade-long debate over highway policy.

- 1922 The Pershing Map, the first road map showing priority roads in the event of war, is completed.

-1926 National Road (Cumberland Road) becomes part of U.S. 40.

- 1926 Cooperative agreement signed for road construction in national parks.

- 1929 The stock market crash marked the beginning of the Great Depression.

1930

- 1933 National Industrial Recovery Act (NIRA) signed by President Franklin D. Roosevelt implements New Deal policies. The Public Works Administration (PWA), part of the New Deal of 1933, was a large-scale public works construction agency in the United States. The PWA built thousands of miles of roads employing 1,714,797,910 person-hours from 1933-1939, the equivalent of an estimated 137,404 individuals employed continually for six years, paying $1.2 billion in wages in 1939 dollars.

-1938 Route 66 is completed under New Deal initiatives.

1940

- 1941 Attack on Pearl Harbor sparks U.S. involvement in World War II

- 1944 The Federal-Aid Highway Act of 1944 establishes the first program for urban projects and authorizes the National System of Interstate Highways.

- 1947 Interstate System announced following coordination with states and Department of Defense.

- 1949 PRA (Formerly BPR) becomes Bureau of Public Roads (BPR), moves to Department of Commerce.

1950

- 1952 Federal-Aid Highway Act of 1952 authorizes first funding specifically for Interstate System. , a token amount of $25 million, on a 50-50 matching basis.

- 1954 Federal—Aid Highway Act of 1954 authorizes $175 million a year for Interstate System.

- 1958 The Federal-Aid Highway Act of 1958 is signed, increasing funding for the Interstate System.

- 1959
The Federal-Aid Highway Act of 1959 is signed, increasing revenue to the Highway Trust Fund. Gas tax increased to 4 cent a gallon.

1960

- 1964 The Urban Mass Transportation Act is signed, providing funds for mass transportation systems. It provided $375 million for large-scale urban public or private rail projects.

- 1966 The Highway Safety Act (setting highway safety standards) and the National Traffic and Motor Vehicle Safety Act are signed.

- 1967 BPR becomes Federal Highway Administration (FHWA).

- 1968 FHWA announces publication of the Handbook of Highway Safety Design and Operating Practices.

1970

- 1970 National Highway Institute (NHI) is established.

- 1973 The Federal-Aid Highway Act of 1973 funds a highway safety improvement program and permits states to withdraw segments from the Interstate System to fund mass transit.

- 1973 AASHO broadens mission and is renamed the American Association of State Highway and Transportation Officials (AASHTO).

1980

- 1980 Haddon Matrix adopted for crash site analysis.

- 1983
Surface Transportation Assistance Act is signed, adding revenue to be used for repair of highways and bridges.

1990

- 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) is signed to improve highways and bridges and focus federal funds on highways that serve federal interests and increase state and local authority.

- 1998
Transportation Equity Act for the 21st Century (TEA-21) is signed, requiring an increase in the safety, accessibility, conservation, efficient system management and operation, and efficient preservation of existing transportation systems.

2000

- 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed, authorizing Federal-aid highway, transit, and safety programs through fiscal year 2009.

- 2009 American Recovery and Reinvestment Act (ARRA) is signed, as a stimulus package in response to the Great Recession.

2010

2012
Moving Ahead for Progress in the 21st Century (MAP-21) Act is signed, authorizing highway funding for 2 years.

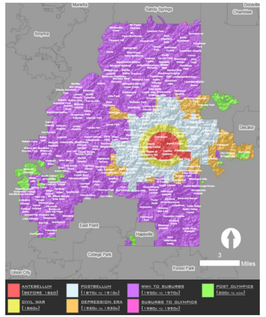
- 2015
Fixing America's Surface Transportation (FAST) Act is signed, authorizing $305 billion over a 5-year period.

2020

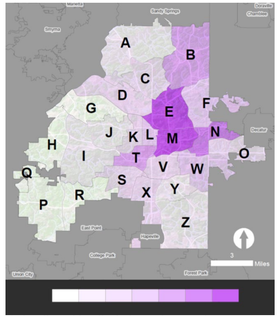
- 2021 Infrastructure Investment and Jobs Act gets signed into law providing 7.5 billion dollars towards american infrastructure (with a focus on sustainable technologies)

ATLANTA GROWTH MAPPING:

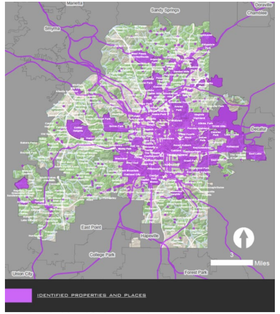
Addressing the issues caused by the downtown connector in Atlanta would require significant investment and coordination between different levels of government and community stakeholders. Implementing these solutions will require careful consideration of how to balance the primary function. Addressing the issues caused by the downtown connector in Atlanta would require significant investment and coordination between different levels of government and community stakeholders. Implementing these solutions will require careful consideration of how to balance the primary function. require careful consideration of how to balance the primary function.



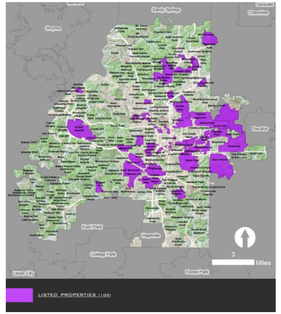
Annexation of Atlanta through time.



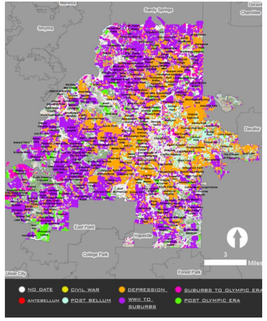
Nationally and locally designated properties.



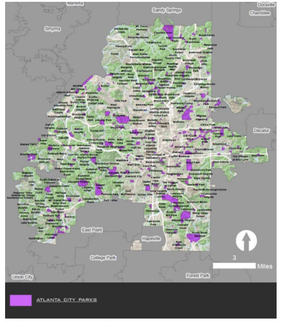
Previously identified properties and places.



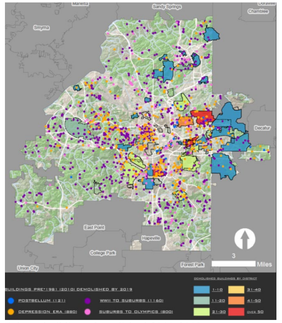
Properties on National Register of Historic Places.



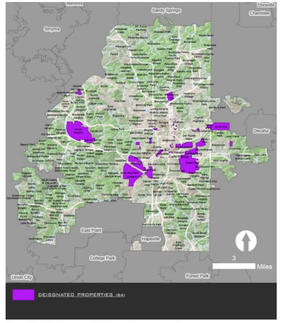
Atlanta buildings by era.



Park system surveyed resources.



Atlanta buildings demolished 2010-2019.



Locally designated historic properties.

WHAT IS LEFT?

Antebellum (pre-1860s): During the Antebellum period, Atlanta was a small town that experienced significant growth due to its location as a railway hub. Many of the buildings constructed during this time were simple wooden structures, such as commercial buildings, homes, and churches. The most notable buildings from this period were the Georgia State Capitol, completed in 1889, and the Oakland Cemetery Gatehouse, completed in 1853.

Civil War (1860s): During the Civil War, Atlanta was burned down by Union troops, destroying most of its buildings. Reconstruction efforts focused on rebuilding the city quickly, resulting in many hastily constructed buildings. The few surviving buildings from this period, such as the Kriegshaber House and the Peters House, are notable for their simple, functional designs.

Post-Bellum (1870s to 1910s): The Post-Bellum period saw a major transformation in Atlanta's architecture, with the construction of larger and more ornate buildings. Many of the city's most prominent buildings were constructed during this period, including the Carnegie Library, the Equitable Building, and the Terminal Station. These buildings featured grand neoclassical and beaux-arts designs, reflecting the city's growing prosperity.

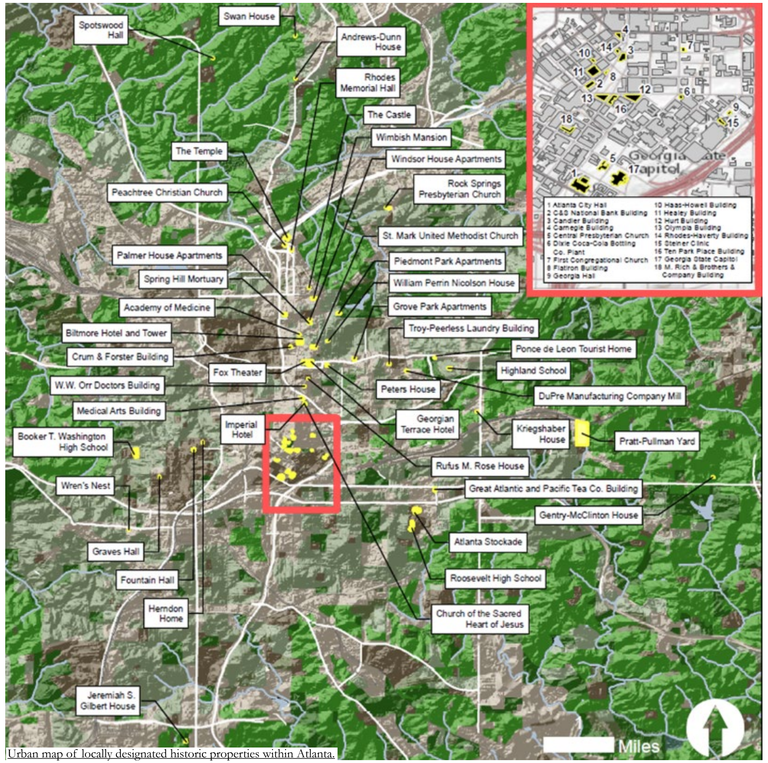
Great Depression (1920s to 1930s): During the Great Depression, Atlanta's growth slowed considerably, leading to a shift towards more modest architectural styles. Many buildings constructed during this period were smaller and more utilitarian in nature, such as the Candler Building and the Atlanta Medical Arts building. However, there were still a few notable exceptions, such as the Fox Theatre, which featured an ornate, opulent design.

WWII to Suburbs (1940s to 1970s): Following World War II, Atlanta experienced a major population boom as people moved to the city from rural areas. This led to a surge in suburban development, with many new residential neighborhoods being constructed. Many of these neighborhoods featured mid-century modern architecture, characterized by clean lines, open floor plans, and the use of new materials such as glass and steel.

Suburbs to Olympics (1980s to 1990s): In the 1980s and 1990s, Atlanta experienced a period of significant growth and development in preparation for the 1996 Olympic Games. This led to the construction of many new buildings, including the Georgia Dome and the Centennial Olympic Park. Many of these buildings featured contemporary designs, such as the postmodern facade of the Coca-Cola building.

Post-Olympics (2000s to 2020s): In the years following the Olympics, Atlanta has continued to experience significant growth and development. Many new buildings have been constructed, including the Georgia Aquarium, the Center for Civil and Human Rights, and the Mercedes-Benz Stadium. These buildings feature a variety of architectural styles, ranging from modernist designs to more traditional, neoclassical buildings.

Overall, the architecture of Atlanta has evolved significantly over the years, reflecting the city's changing economic and social landscape. From simple wooden structures in the Antebellum period to the grand neoclassical buildings of the Post-Bellum period, to the mid-century modern designs of the suburbs, Atlanta's architecture reflects the city's unique history and character.



Urban map of locally designated historic properties within Atlanta.

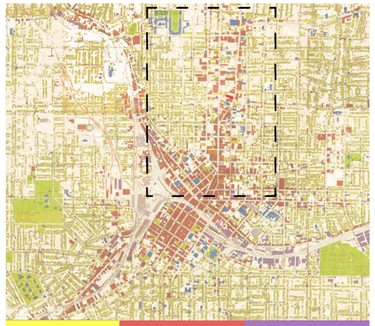
BEFORE THE INTERSTATE:

Atlanta's development up to the early 20th century was heavily influenced by its location as a transportation hub. The city's founders recognized the potential for growth and prosperity that came with being a railway center, and they invested in infrastructure such as the Georgia Railroad, which connected the city to the port of Savannah. As a result, Atlanta emerged as a major center of commerce and industry in the Southeastern United States.

In the late 19th century, the city experienced a period of rapid growth and expansion. Industrial and commercial development occurred along the rail lines and along major streets such as Peachtree Street. The city's industrial base included industries such as textiles, ironworks, and breweries, which employed thousands of workers and helped to establish Atlanta as a major center of manufacturing. Atlanta's residential development up until 1920 followed a pattern of infilling between the rail lines and along major streets. The city's population grew rapidly, with many residents drawn to Atlanta by the promise of economic opportunity and a vibrant social scene. As a result, the city saw significant expansion of its residential neighborhoods.

During the late 19th and early 20th centuries, the city experienced a boom in construction of large homes and mansions, particularly in the neighborhoods of Inman Park, Grant Park, and Ansley Park. These neighborhoods were designed to be attractive to affluent residents, with wide, tree-lined streets, large lots, and impressive architecture. In contrast, the neighborhoods of Cabbagetown, Reynoldstown, and Peoplestown were more working-class in nature, featuring smaller, more modest homes. These neighborhoods were located closer to the city's industrial and commercial areas, allowing workers to live within walking distance of their workplaces. The city's African American population also experienced residential development during this period, though they were largely restricted to specific neighborhoods due to segregationist policies. The neighborhoods of Sweet Auburn, Mechanicsville, and Summerhill became centers of African American life in Atlanta, featuring churches, businesses, and cultural institutions.

Overall, Atlanta's residential development up until 1920 was shaped by the city's economic growth and the social and racial dynamics of the time. The city's population continued to grow and diversify, leading to further expansion and development of its residential neighborhoods. In addition to its economic growth, Atlanta also developed a rich cultural and intellectual scene. Institutions such as Georgia Tech, Emory, Morehouse, and Mercer were founded during this period, providing the intellectual background for the city's further development. These schools attracted talented individuals to the city, and they helped to establish Atlanta as a center of innovation and knowledge.



Historical map of Atlanta building uses circa 1920.


Atlanta building uses circa 1920 overlaying current map of Atlanta (2023)

AFTER THE INTERSTATE:

In the mid-twentieth century, Atlanta underwent significant changes with the integration of the interstate highway system. The new highways had a profound impact on the city, with one of the most noticeable changes being the physical division of the city into multiple programmatic islands. The highways ran through the heart of the city, creating a barrier that separated neighborhoods and communities from each other. The new highways were intended to facilitate the movement of goods and people across the country, but it also had significant impacts on the physical and social fabric of the cities it passed through. As a result of the highways' implementation, the city's residential, commercial, industrial, and public spaces underwent significant changes. Prior to the highway's construction, the city's residential areas were characterized by a mix of housing types, ranging from single-family homes to multi-unit apartment buildings. However, the highway's arrival led to the destruction of many homes and the displacement of families. Many residents of the affected neighborhoods were forced to move, and the housing market in Atlanta shifted towards suburbanization.The commercial landscape of Atlanta also experienced significant changes. Many buildings and structures that once defined the city's character were destroyed or significantly altered in the name of progress and efficiency. Retail businesses that once thrived in the city's core were pushed out, with many businesses relocating to suburban areas where they could take advantage of the new highways' accessibility. The construction of shopping malls along the highways further contributed to the decline of retail businesses in the city center.

The industrial landscape of Atlanta was also impacted by the highway's construction. Prior to the arrival of the new highways, the city was home to numerous manufacturing facilities that produced a range of goods, from textiles to steel. However, the highways' arrival led to the closure of many of these facilities as transportation costs increased, and the ease of access provided by the highways made it more attractive for businesses to move their operations to suburban areas. The closure of these factories led to significant job losses in the city and contributed to the overall decline of the city's industrial sector.

Finally, public spaces in Atlanta were also impacted by the highway's construction. The construction of the highways created a barrier that separated many of the city's public spaces from each other. The once-vibrant tapestry of programs and uses in the transitional zone between Midtown and Downtown was strangled out, and pedestrian connectivity was severely limited, with many pedestrian bridges shut down or completely demolished during subsequent expansion projects. Public parks and green spaces also suffered as a result of the highways, with many parks being cut off from their surrounding communities.
The integration of the interstate highway system had a significant impact on the urban fabric of Atlanta. The highways' construction divided the city into a series of programmatic islands connected by roadways and serviced by parking structures, pushing many of the programs previously offered within Atlanta's core to the suburbs. The highways' arrival led to the displacement of residents, the decline of retail businesses, the closure of manufacturing facilities, and the deterioration of public spaces. These changes contributed to the overall suburbanization of Atlanta and the decline of the city's once-vibrant urban core.

PEACHTREE STREET'S GROWTH:

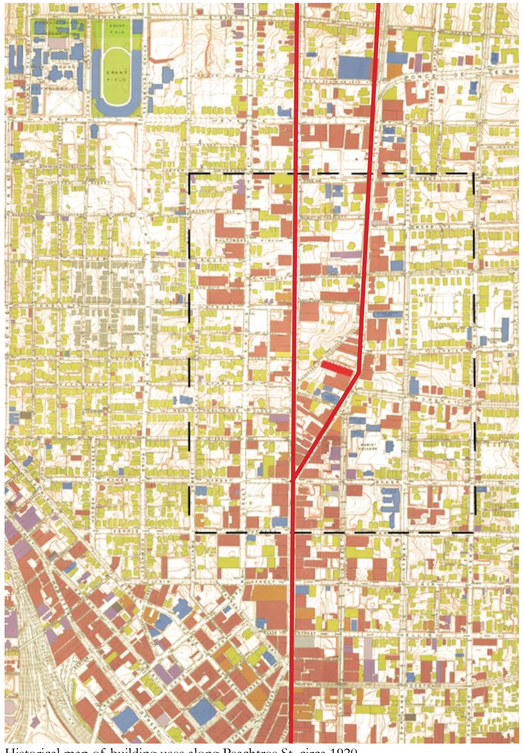
Atlanta's northward development along Peachtree Street in the late 19th and early 20th centuries was marked by significant growth in educational institutions, medical practice, resedential growth and an emergence of the automotive industry. In terms of educational institutions, the northern section of Peachtree Street became home to several schools and colleges. One of the most notable was the Georgia Institute of Technology, which had moved to its current location on Peachtree Street in 1888. The school had previously been located in the city's downtown area, but as the city grew, it needed more space. The move to the northward corridor allowed the school to expand and establish itself as a leading engineering institution in the South. Other schools in the area included the Atlanta College of Physicians and Surgeons, which was founded in 1898 and became part of Emory University in 1913. The Southern Dental College, which was founded in 1899 and later became part of Emory University's dental school, was also located in the area. Additionally, the Atlanta School of Medicine was established in 1905, and it eventually became part of Emory University's medical school.

In terms of medical practice, the northward development of Peachtree Street saw the growth of several hospitals and medical facilities. One of the most prominent was the Piedmont Sanatorium, which was founded in 1905 and focused on the treatment of tuberculosis. The facility was located on Peachtree Street between 10th and 11th streets and was considered one of the most advanced facilities of its kind in the country. Other medical facilities in the area included the Georgia Baptist Hospital, which was founded in 1901 and later became part of the Emory University Hospital system. The Grady Memorial Hospital, which was founded in 1892 and originally located in downtown Atlanta, moved to a new facility on Peachtree Street between 3rd and 4th streets in 1912. The new facility was larger and more modern than the previous location and allowed the hospital to expand its services.

Residential growth along Peachtree Street in the 1920s was primarily characterized by the emergence of high-rise apartment buildings and the expansion of exclusive residential neighborhoods. One of the most prominent residential areas was the Ansley Park neighborhood, which was developed by Edwin Ansley in 1904 and located just east of Peachtree Street between 15th and 17th streets. The neighborhood was designed as a park-like setting and included wide boulevards, curving streets, and spacious lots. Many of the homes in Ansley Park were designed by prominent architects and featured a range of architectural styles, including Colonial Revival, Georgian, and Tudor. Another exclusive residential area that emerged along Peachtree Street was the Druid Hills neighborhood. Druid Hills was developed by Joel Hurt in the early 1900s and was located just east of Emory University. The neighborhood was designed as a self-contained community and included a mix of residential, commercial, and institutional buildings. Many of the homes in Druid Hills were designed by noted architects and featured a range of architectural styles, including Tudor, Italianate, and Spanish Revival. In addition to these exclusive neighborhoods, high-rise apartment buildings began to emerge along Peachtree Street in the 1920s. One of the most notable was the Biltmore Apartments, which was built in 1924 and located on Peachtree Street between 5th and 6th streets. The Biltmore was one of the first high-rise apartment buildings in the city and was designed in the Beaux-Arts style. The building featured luxurious amenities, such as a rooftop garden, an indoor swimming pool, and a ballroom.

In terms of the automotive industry, the northward development of Peachtree Street saw the emergence of several automobile dealerships and service centers. One of the most prominent was the Royal Motor Car Company, which was founded in 1905 and located on Peachtree Street between 3rd and 4th streets. The company sold high-end automobiles and was known for its innovative marketing strategies, such as hosting racing events to promote its cars.
Other automobile dealerships and service centers in the area included the Atlanta Motor Car Company, which was founded in 1909 and located on Peachtree Street between 6th and 7th streets, and the Atlanta Automobile Company, which was founded in 1912 and located on Peachtree Street between 11th and 12th streets. These companies played a significant role in the growth of Atlanta's automotive industry and helped to establish the city as a hub for automobile sales and service in the South.

Overall, the northward development of Peachtree Street in the late 19th and early 20th centuries was characterized by significant growth in educational institutions, medical practice, and the emergence of the automotive industry. These developments helped to shape the city's urban fabric and establish it as a major economic and cultural center in the South.


Historical map of building uses along Peachtree St. circa 1920

PEACHTREE STREET TODAY:

Atlanta's architecture and urban context have played an important role in the city's development and growth. The city has undergone significant transformations in the past century, with its downtown and midtown areas evolving to accommodate new developments and changing demographics. In the 1950s, Atlanta was a city on the rise, with a growing population and a thriving economy. The construction of the interstate highway system in the city played a major role in this growth, as it facilitated the movement of people and goods in and out of the city. However, the construction of the highways had significant impacts on the city's urban context, particularly in the neighborhoods adjacent to the highways.

The construction of I-75 and I-85 through downtown Atlanta resulted in the displacement of thousands of residents, particularly African Americans. Many entire neighborhoods were demolished to make way for the highways, including Buttermilk Bottoms, a historically black neighborhood that was completely destroyed. The displacement of residents had a significant impact on the city's demographics and contributed to the growth of the suburbs. Despite the displacement of residents, the development of Atlanta's downtown and midtown areas continued throughout the latter half of the 20th century. In the 1960s and 1970s, the city experienced a period of urban renewal, which included the construction of the Peachtree Center complex. Peachtree Center was a large mixed-use development that included office buildings, hotels, and retail space. The development of Peachtree Center and other downtown developments helped to establish Atlanta as a major business and financial center.

The growth of Atlanta's suburbs in the latter half of the 20th century was facilitated by the construction of new highways and transportation infrastructure, such as the development of the MARTA public transportation system in the 1970s. The MARTA system connected the city to its suburbs and helped to alleviate traffic congestion on Atlanta's highways. Atlanta's architecture and urban context have continued to evolve into the 21st century. The city's downtown and midtown areas continue to be centers of business and commerce, with numerous office buildings, hotels, and retail developments. However, the city's growth has not been without challenges. Traffic congestion remains a significant issue in the city, with Atlanta having one of the highest rates of traffic congestion in the United States. Atlanta's interstate highway system has had a profound impact on the development of the city's downtown and midtown areas. While the construction of the highways facilitated the movement of people and goods in and out of the city, it also had significant negative consequences, particularly in the form of displacement and division.

The highways act as physical barriers, dividing neighborhoods and cutting off access to certain areas of the city. This was particularly evident in the case of the downtown and midtown districts, which were bisected by the I-75 and I-85 highways. The highways created a physical divide between these two areas, making it more difficult for residents and visitors to navigate the city and access its amenities. Despite these challenges, Atlanta's downtown and midtown areas have continued to thrive, with new developments and projects aimed at improving connectivity and accessibility. The city has invested in new transportation infrastructure, such as the BeltLine project, which aims to create a network of parks, trails, and transit along a 22-mile loop around the city.

As Atlanta continues to grow and evolve, it will be important to address the challenges posed by the interstate highway system and work towards creating a more connected and accessible city for all of its residents.

Map of building uses along Peachtree St. (1920) overlaying current map of Atlanta (2023)

DESIGN PRINCIPLES FROM RESEARCH:

What lessons from the conducted research can be applied to tell a compelling design narrative of Atlanta's past, present, & future? How do we apply these lessons in design development and execution? In the interest of answering these questions 5 guiding design principles have been identified.

1 ARTIFACT DRIVEN DESIGN AS A POWERFUL MEANS OF GENERATING FORM, FUNCTION, & NARRATIVE:

Architect Thom Mayne advocates for the use of artifacts as a powerful tool for generating form, function, and narrative in the design process. This approach is not limited to the use of existing artifacts, but also involves the creation of new artifacts based on site research. The newly created artifacts can then inform and shape the design decisions. Creating new artifacts can involve the use of various media, such as sketches, models, and digital renderings. These artifacts can be used to explore different design possibilities and to communicate design concepts to clients and stakeholders. The artifacts can also be used to facilitate collaboration among team members, as they can serve as a shared reference point for discussions and decision-making. By using artifacts to inform design decisions, architects can create buildings that are more responsive to their surroundings and more meaningful to their users. For example, by studying the historical context of a site, architects can identify patterns and relationships that can inform the design of new buildings. By creating artifacts that capture these patterns and relationships, architects can better understand how to design buildings that fit within the existing context and contribute to the narrative of the site.ir users.

2 THE RELATIONSHIP BETWEEN FORM AND FUNTION IS A SPECTRUM:

Architect Bernard Tschumi's perspective on the relationship between form and function is a crucial one to consider in the design process. The traditional belief that form follows function suggests that the design of a building should be determined by its intended purpose. While this is often true, it is important to recognize that the relationship between form and function is not always so simple. In some cases, the form of a building can actually influence its function. For example, a building with an unconventional shape may inspire creative uses that would not have been possible with a more conventional design. On the other hand, a building that is designed solely with function in mind may not be aesthetically pleasing or comfortable for its occupants. Tschumi's idea that the relationship between form and function exists on a spectrum highlights the importance of a balanced approach in the design process. Designers must consider the intended purpose of the building, while also exploring the potential of different forms to create unique experiences and enable unexpected uses. By recognizing the interplay between form and function, architects can create buildings that are not only efficient and functional, but also aesthetically pleasing and meaningful.In addition, Tschumi's perspective can help us to rethink the traditional dichotomy between form and function in architecture. Instead of viewing form and function as opposing forces, we can see them as complementary elements that work together to create a successful design. By embracing a more nuanced understanding of the relationship between form and function, architects can create buildings that are not only efficient and functional, but also visually striking and engaging.

3 MATERIALITY TELLS A STORY & FACILITATES EXPERIENCE:

Materiality in architecture is a powerful means of conveying a narrative and shaping the user's experience. A building's materials can express its history, values, and purpose. For example, the use of brick in an industrial building can communicate its past use as a factory, while the use of exposed timber can express a commitment to sustainability and natural materials. Furthermore, the choice of materials can influence how a building functions. For instance, the use of glass can bring in natural light and create a sense of openness, while the use of concrete can provide durability and resistance to the elements. The tactile qualities of materials can also impact the user experience, with smooth, polished surfaces conveying a sense of sophistication and refinement, while rough, unfinished surfaces can evoke a sense of authenticity and connection to the natural world.

4 PROGRESS REQUIRES REQUIRES UNDERSTANDING OF PROCESS:

Architectural progress should always be viewed in the context of the past and the present. Understanding the historical and cultural context of a site is critical to creating meaningful and responsive architecture. By gaining a deep understanding of the processes that have shaped a site over time, architects can create designs that reflect the unique qualities of that place and contribute to its ongoing evolution. This understanding of process is especially important in a rapidly changing urban environment like Atlanta, where buildings and neighborhoods are constantly in flux. To create truly innovative and responsive designs, architects must also understand the processes of construction and fabrication. In order to push the boundaries of what is possible, architects must be able to think beyond traditional building techniques and materials. By understanding the processes of construction and fabrication, architects can experiment with new technologies and materials, creating buildings that are truly innovative and groundbreaking.
However, progress should not come at the expense of historical richness. Architects must be mindful of the historical and cultural context of a site, and strive to preserve and celebrate its unique qualities. This requires a deep understanding of the historical significance of a site and a commitment to preserving its heritage. By balancing innovation and tradition, architects can create buildings that are both forward-thinking and respectful of the past. This approach to architectural progress can create buildings that contribute to the ongoing evolution of a site, while also honoring its history and cultural significance.

5 ADAPTIVE RE-USE AS A MEANS OF ACTIVATING NEGLETED SPACES:

Adaptive re-use is a design approach that involves repurposing existing structures and materials for new functions. This approach has become increasingly popular in recent years due to its benefits over new construction. It allows for the preservation of historical character, reduction of waste, and activation of neglected spaces. Additionally, adaptive re-use presents unique design challenges that require creative problem-solving and ingenuity. One of the primary benefits of adaptive re-use is its ability to activate neglected spaces, which is particularly relevant in urban areas. By repurposing existing structures, architects can revitalize areas that have fallen into disuse and disrepair. This approach also provides a sustainable and cost-effective means of creating new spaces, as it avoids the need for new construction. Furthermore, adaptive re-use allows architects to preserve the historical significance of a site while creating spaces that are relevant and useful to contemporary users. This process requires a deep understanding of the history and context of the site and an awareness of the contemporary needs of users. In conclusion, adaptive re-use is a powerful means of creating sustainable and meaningful design solutions that activate neglected spaces and preserve the historical character of a site. It presents unique design challenges that require creative problem-solving and ingenuity, making it a rewarding approach to design.

CHAPTER V

FORM FINDING

ARTIFACT BASED DESIGN

ARTIFACT PRECEDENT:

Yeesookyung is a South Korean artist who is best known for her Translated Vase series, which features sculptures made from discarded ceramic fragments. Yeesookyung's artistic process involves taking discarded fragments of traditional Korean ceramics and reconstructing them into new sculptures. The process involves piecing together the fragments in a three-dimensional jigsaw puzzle, and then covering the cracks with a layer of gold leaf. The gold serves as a visual representation of the imperfections and fractures that make up the sculpture, while also highlighting the beauty of the traditional Korean ceramics that are used in her works.

The Translated Vase series is meant to be a commentary on the nature of art and its relationship to history and tradition. By taking fragments of traditional Korean ceramics and using them to create new works of art, Yeesookyung is creating a new narrative that bridges the past and the present. The gold leaf used to cover the cracks also symbolizes the transformative power of art, and how even the most broken and imperfect objects can be made beautiful again.

Yeesookyung's style is marked by a keen attention to detail and a deep understanding of the materials she uses. Her sculptures are often large in scale and have an organic, almost organic-like quality to them. She also incorporates other materials into her works, such as metal wire and paper, to create a sense of texture and depth. In addition to the Translated Vase series, Yeesookyung has also created other works of art that explore similar themes of history, tradition, and transformation. She has exhibited her work at galleries and museums around the world, including the Museum of Fine Arts in Boston, the National Museum of Modern and Contemporary Art in Seoul, and the Venice Biennale. Overall, Yeesookyung's art process involves taking discarded fragments of traditional Korean ceramics and using them to create new works of art that bridge the past and the present. Her style is marked by a keen attention to detail and a deep understanding of the materials she uses, and her work has been exhibited around the world in galleries and museums.

Photography of three pieces from Yeesokyung's Translated vase exhibit.

ARTIFACT CREATION:

Inspired by the process of YEESOOKYUNG this artifact aims to reflect the shattered state of Atlanta's urban fabric. The pieces comprising this artifact were once intact vessels capable of functional use. These vessels are now no longer usable but can be used as a metaphor for the condition of Atlanta's urban form. The key attribute of this artifact is it's seeming lack of form. This lack of understandable form allows the artifact to be interpreted in multiple different views.

This variety of views allows for a variety of formal diagrams. From these diagrams formal arrangements can be composed and ideated. The artifacts main informational categories are form and color. These categories can be diagramed and attributed to architectural schemes to ideate functional buildings.

View 1

View 2

View 3

View 4

View 5

View 6

ARTIFACT BASED DESIGN SYNTHESIS:

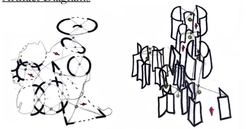
This phase of schematic design was conducted with the intention of exploring the rule based development of architectural forms. Following the lead of Thom Mayne's artifact based explorations of space, materiality, and form this exercise seeks to inform the researcher on potential methodologies for the production of parametric design systems.

The methodology this initial experimentation is as follows:

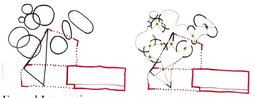
1. Formal analysis of the three architectural structures selected to serve as anchor points for project so that artifact creation remains within an applicable scalar range.
2. Creation of broken glass artifact under the design prompt of "Modeling Formlessness".
3. Photographic documentation of artifact in varying views to display the objects formlessness in relation to itself.
4. Printed artifact photography for trace paper documentation (6 views printed).
5. Conducted trace paper studies of the artifacts' formal condition. Multiple methods of analysis were tested in initial phases with 3 lenses of analysis being chosen for full development (outline of form, 10 euclidean geometrys, intersection points of extracted geometry)
6. Allocation of program based on artifact color and form.
7. Scanned trace analyses into digital format to be converted into dwg. file for 3-D modeling and cleaner final diagramming.
8. Selected 4 pairs of diagramming to further develop via sketch analysis in order to determine how 2-D information would be translated into 3-D forms capable of being organized into an architectural system. The researcher chose to make the conversion a simple extrusion.
9. Conducted trace paper studies in plan view of 3 selected sites.
10. Overlayed sketched artifact diagramming onto sketched site diagramming. (Artifact diagraming was rescaled to match human proportions and scale of site sketches)
11. Scanned overlayed artifact and site sketches into digital format for final modeling.
12. Constructed 3-D model of each site via measurements from google earth and scanned site sketches.
13. Extruded each set of artifact sketches in 3-D software to match floor heights for each of the 3 selected sites.
14. Experimented with different rule sets capable of merging modeled extrusion. In keeping with the previous use of simple transformations the researcher chose to stack modeled extrusions in a permutative fashion (1,2,3,4 / 4,3,2,1 / 2,3,4,1 / 3,1,4,2)
15. Completed 4 modeled iterations for each of the 3 selected sites.
16. Converted each of the 12 modeled design situations into isometric views along NE,SE,NW, and SW axis.

Original Artifact

Artifact Diagrams



Rule Application



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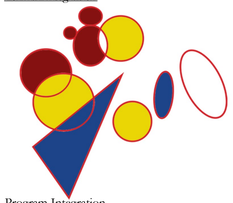


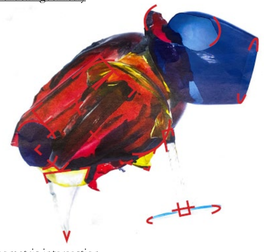
Program Integration

1

1

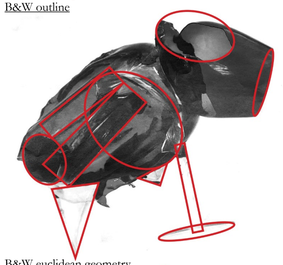
Colored outline

Colored euclidean geometry

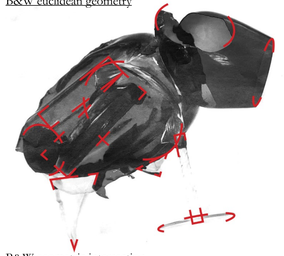


Colored geometric intersection

B&W outline

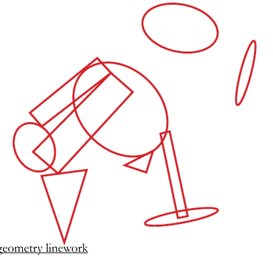


B&W euclidean geometry



B&W geometric intersection

Outline linework



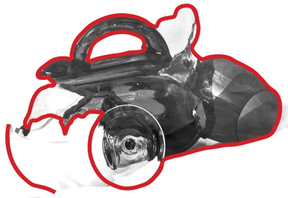
Euclidean geometry linework

Euclidean geometric intersection

2

2

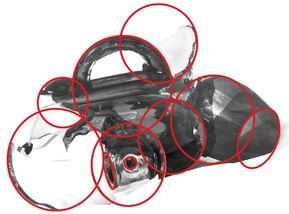
Colored outline



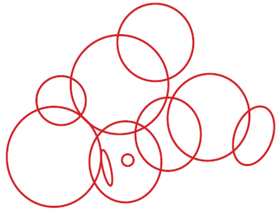
B&W outline

Outline linework

Colored euclidean geometry

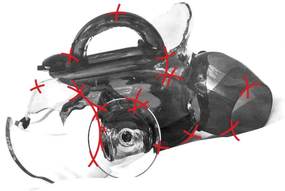


B&W euclidean geometry



Euclidean geometry linework

Colored geometric intersection



B&W geometric intersection

Euclidean geometric intersection

3

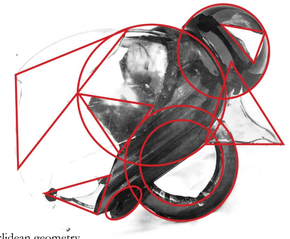
3

Colored outline

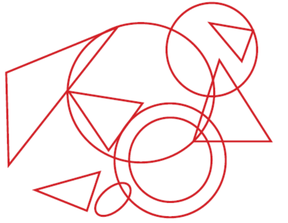
B&W outline

Outline linework

Colored euclidean geometry

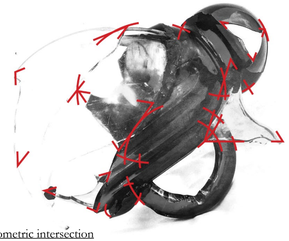


B&W euclidean geometry



Euclidean geometry linework

Colored geometric intersection



B&W geometric intersection

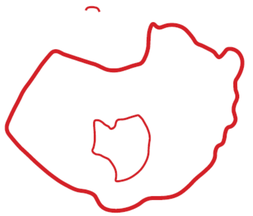
Euclidean geometric intersection

4

4

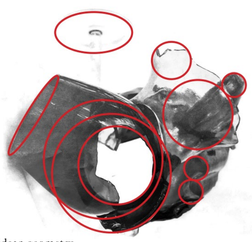
Colored outline

B&W outline

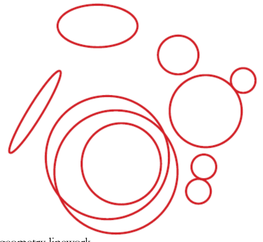


Outline linework

Colored euclidean geometry



B&W euclidean geometry



Euclidean geometry linework

Colored geometric intersection

B&W geometric intersection

Euclidean geometric intersection

5

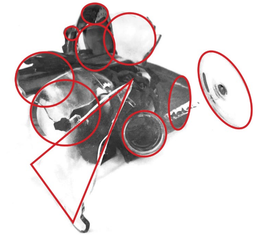
5

Colored outline

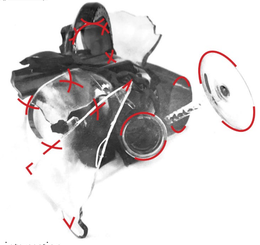
Colored euclidean geometry

Colored geometric intersection

B&W outline

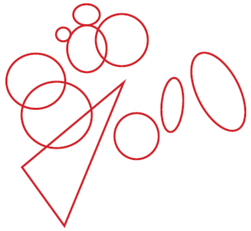


B&W euclidean geometry



B&W geometric intersection

Outline linework



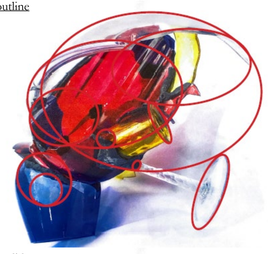
Euclidean geometry linework

Euclidean geometric intersection

6

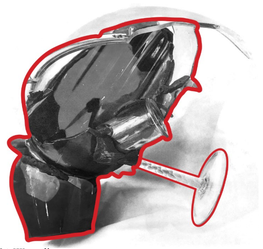
6

Colored outline

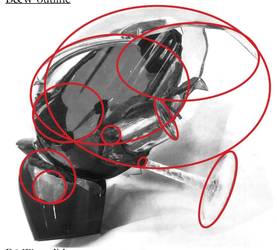


Colored euclidean geometry

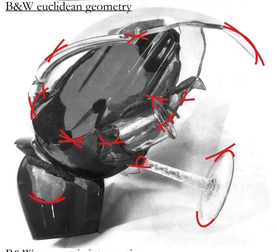
Colored geometric intersection



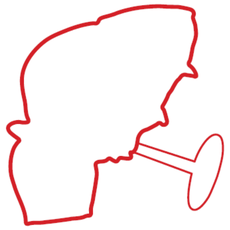
B&W outline



B&W euclidean geometry

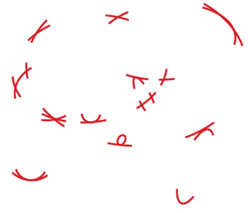


B&W geometric intersection



Outline linework

Euclidean geometry linework

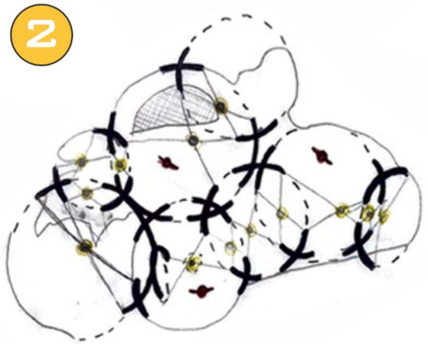


Euclidean geometric intersection

FROM 2D TO 3D:

The shift from 2 dimensional diagrams into 3 dimensional spatial enclosure requires the application of a design rule. The possibilities for what rule should be applied are infinite. In interest of this thesis being a baseline and proof of concept for further artifact based design a simple rule has been selected to serve as the means by which 2D becomes 3D.

The rule selected is a simple extrusion of diagrammed lines along the Z axis. The height of this extrusion is dependant upon the floor height of the structure selected for integration. The strength of this simple rule is it is widely applicable and adjustable for differing structures.



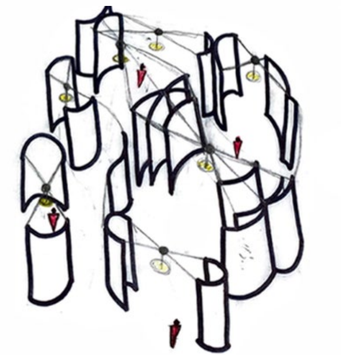
View 2 spatial diagamming

View 4 spatial diagamming

View 5 spatial diagamming

View 6 spatial diagamming

View 2 vertical extrusion



View 4 vertical extrusion

View 5 vertical extrusion

View 6 vertical extrusion

FORMAL INTEGRATION:

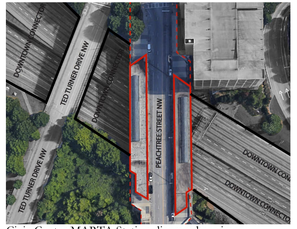
In order to make the jump from artifact to building formal diagrams must be scaled and placed upon selected site context. Scale inately depends upon intended use and the desired relationship to the human form. In the case of integrating new forms to existing structures placement depends upon the desired relationship between new and old. A gradient of encroachment exists between new and old in the case of formal integration.

In the case of this thesis dimensions of new forms were scaled to match scalar size of existing structures. This secondary scaling combined with the fact that the original artifact was constructed based on proportions derived from preliminary sketches of selected sites create cohesive spatial relations between added forms and existing site structures.

In the case of this thesis new formal arrangments were placed with the intention of covering as much site context as possible while still being linked to the existing structure. The placement of the formal growths must also be sensitive to the placement of other diagrammed forms as the system must read as one.

Atlanta Medical Arts Building diagram base image

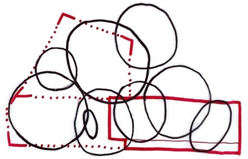
Former Peachtree on Pine Shelter diagram base image



Civic Center MARTA Station diagram base image

Spatial Enclosure:

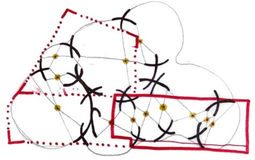
The abstraction of euclidean geometry completed in previous digramming serve to demarcate the different spaces that comprise the proposed formal growth. This euclidean geometry also serves to distinguish interior space from exterior space.


Atlanta Medical Arts Building enclosure diagram

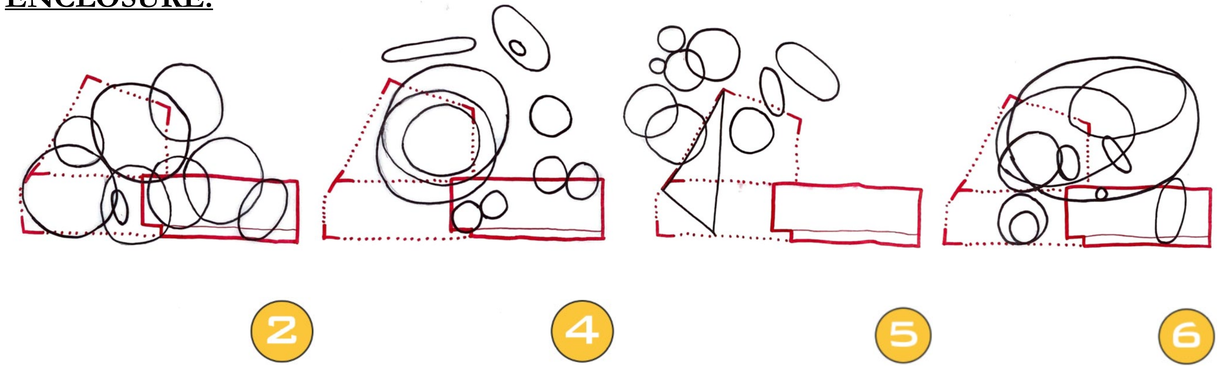
Structure & Circulation:

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members. The highest stress locations of horizontal structural members are marked with a yellow dot.

The circulatory pathing of potential spaces can be found by tracing the pathway between these yellow dots.


Atlanta Medical Arts Building structure diagram

ENCLOSURE:



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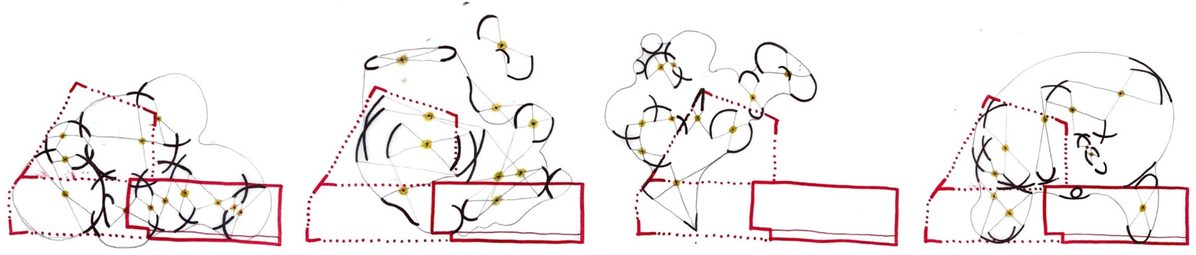

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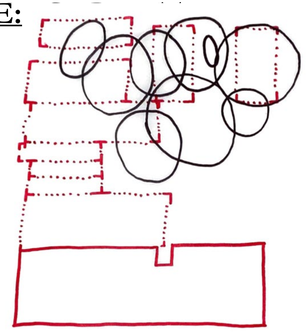

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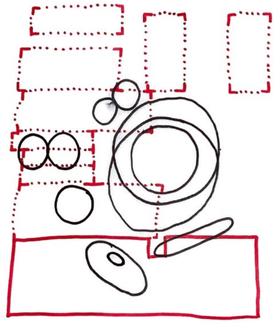

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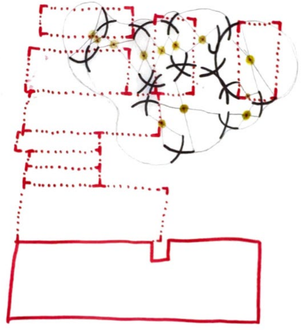
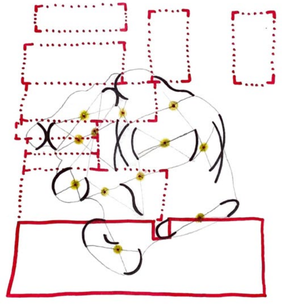
STRUCTURE:





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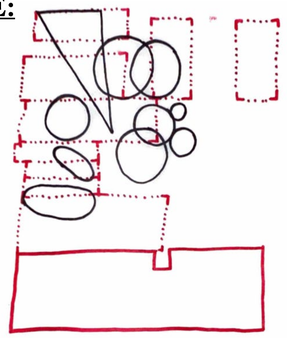

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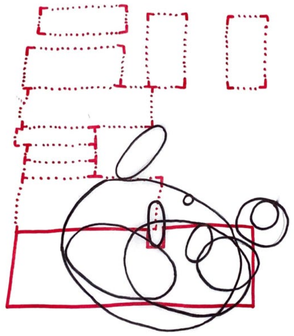

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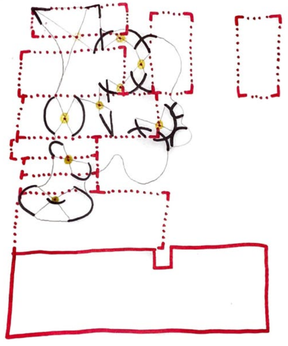
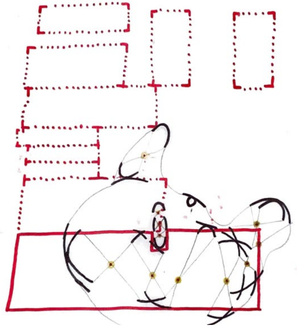
STRUCTURE:





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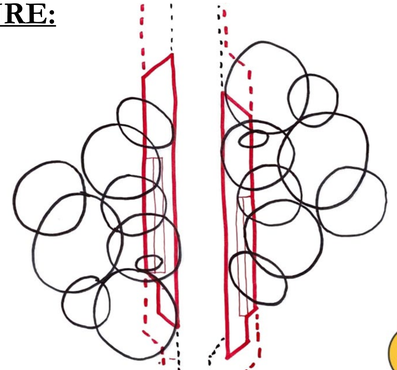

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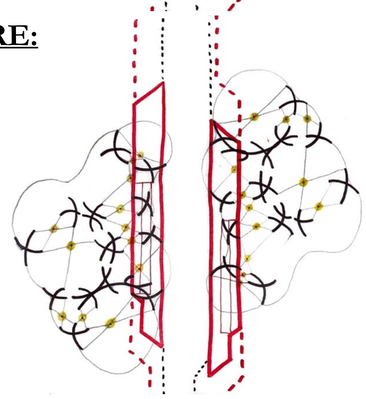
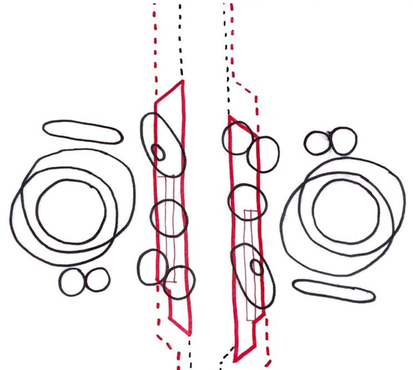
STRUCTURE:





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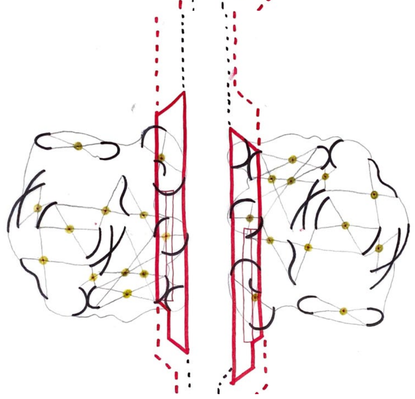

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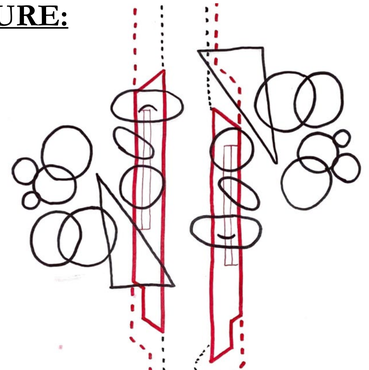

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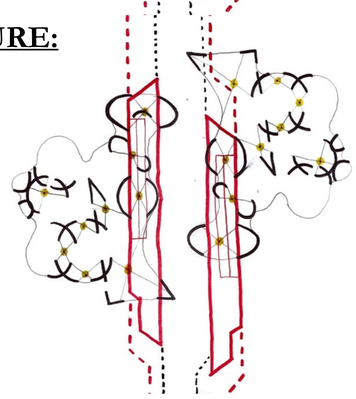

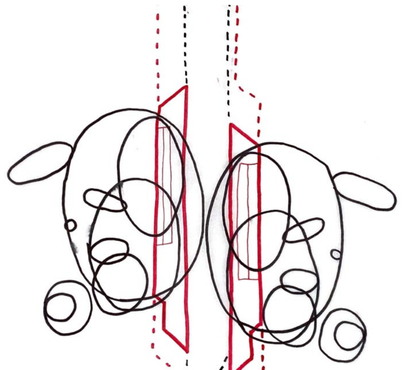

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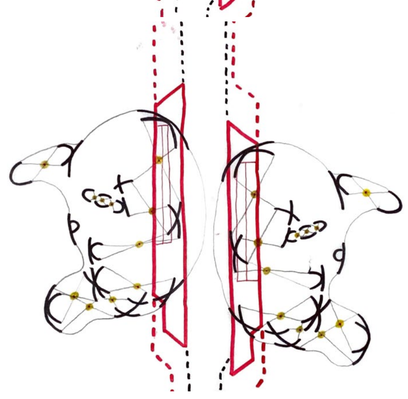


CHAPTER VI

PROGRAM FINDING

HISTORY & ARTIFACT CREATION AS A MEANS OF FINDING PROGRAM

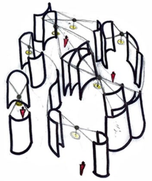
THE ATLANTA MEDICAL ARTS HOTEL & MUSEUM:
DISTILLING HISTORY INTO FORM & FUNCTION

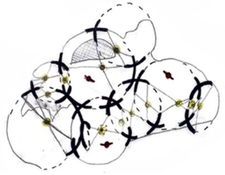
The Atlanta Medical Arts building has a rich historical significance within the context of Atlanta's hotel district. Many of the the first hotels wiithin Atlanta's now renowned hotel district were constructed in direct service to activities and development directly resulting from Atlanta's medical industry. As such, its adaptive reuse as a hotel structure attached to a newly constructed history museum is a logical way to honor its history and contribute to the neighborhood's fabric. The museum's role is to tell the historical narratives of the site, providing visitors with an in-depth understanding of the site's past and its current context.

To ensure the narratives are conveyed effectively, the museum will employ artifact-driven design, which involves creating an artifact to facilitate the translation of history into form and function. By linking each historical narrative identified through the analysis of historical mapping to a color and form found upon the artifact, a relationship between form and history can be created and executed. This relationship between form and history will give the visitors a unique experience and understanding of the site's past, creating an interactive environment.

The hotel's adaptive reuse provides a symbiotic relationship between the hotel and the museum, as it allows for the museum to have a steady flow of visitors who will be interested in experiencing the area's history. Moreover, it provides the guests of the hotel with a unique and authentic experience that is not found in traditional hotels.

The museum and hotel combination will make sense in the context of the Atlanta hotel district, as it is a logical way to reuse a historically significant building while contributing to the neighborhood's fabric. The museum's use of artifact-driven design creates a unique and immersive experience for visitors, and the hotel's adaptive reuse will provide guests with a unique and authentic experience. In conclusion, the Atlanta Medical Arts Hotel and Museum based on artifact-driven design makes sense as it provides a creative and symbiotic relationship between two important programs that will contribute to the neighborhood's fabric and provide visitors with a unique experience.



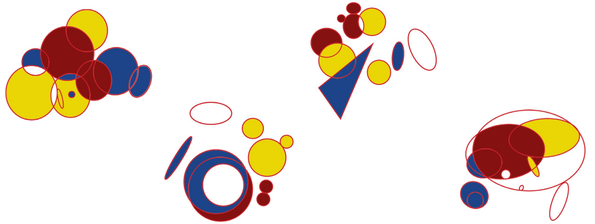


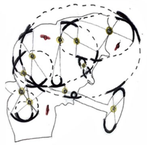
LINKING HISTORY, FORM, & USE:

This mapping exercise compares the built environment of 1920's Atlanta to modern-day Atlanta. The maps are centered around the point where the downtown connector cuts across the transitionary zone between Midtown and Downtown. The heavy presence of the roadway in this area makes it difficult to identify other historical trends and conditions that may be useful in architectural reprogramming. However, by executing this analysis, hidden histories can be uncovered and applied to the design of the Atlanta History Museum on Peachtree Street. The goal of the museum is to reactivate the disjointed urban condition by designing architecture that tells the narratives of the site's history. Artifact driven design is a powerful tool for generating form, facilitating function, and telling historical narratives. In this case, the design rule selected to be applied is centered around prescribing narratives to diagramable conditions within the created artifact.

To execute this process, color has been chosen to serve as the connecting rule between historical narratives and forms found on the artifact. Each identified historical narrative will be linked to a color and form, creating a relationship between form and history. This approach allows for the isolation and explanation of historical narratives within a museum setting, making them more accessible to visitors.

By applying artifact driven design to the Atlanta History Museum on Peachtree Street, the design can facilitate a deeper understanding and appreciation of the site's history. The museum can act as a platform for telling the stories of the past and provide insight into the urban context of Atlanta. Overall, artifact driven design can be a powerful means of generating form, facilitating function, and telling historical narratives within





INTEGRATED ATLANTA (1920):

The decision to introduce zoning in Atlanta in 1922 was driven by a variety of historical factors and policy objectives. One of the primary concerns was the rapid growth of the city, which had experienced a population boom in the late 19th and early 20th centuries as a result of the industrialization of the South. This growth was accompanied by a haphazard development pattern, which often resulted in the co-location of incompatible land uses, such as factories and residential neighborhoods. This situation led to a number of problems, including pollution, traffic congestion, and public health risks. In addition to these practical considerations, the adoption of zoning in Atlanta was also influenced by broader trends in urban planning and governance. The early 20th century saw the emergence of a new generation of planners and policymakers who believed that cities could be better managed through scientific, rational techniques. Zoning was seen as a key tool in this regard, as it allowed for the systematic regulation of land use and the creation of distinct zones for different purposes. The first zoning ordinance in Atlanta established a set of land-use districts, including residential, commercial, and industrial zones. These districts were designed to separate different land uses from each other and to create clear boundaries between them. The ordinance also included regulations regarding building height, setback requirements, and other design standards, which were intended to ensure that new development would be compatible with the surrounding neighborhood. The 1922 zoning ordinance in Atlanta established five primary land-use districts: residential, commercial, industrial, agricultural, and park and playground.

Residential zones were further divided into three subcategories: first residential, second residential, and apartment zones. First residential zones were intended for single-family homes and had minimum lot sizes and setback requirements. Second residential zones were for multi-family homes, such as duplexes and triplexes, and also had minimum lot sizes and setback requirements. Apartment zones were designated for large apartment buildings and had no minimum lot sizes, but had strict height and setback regulations.

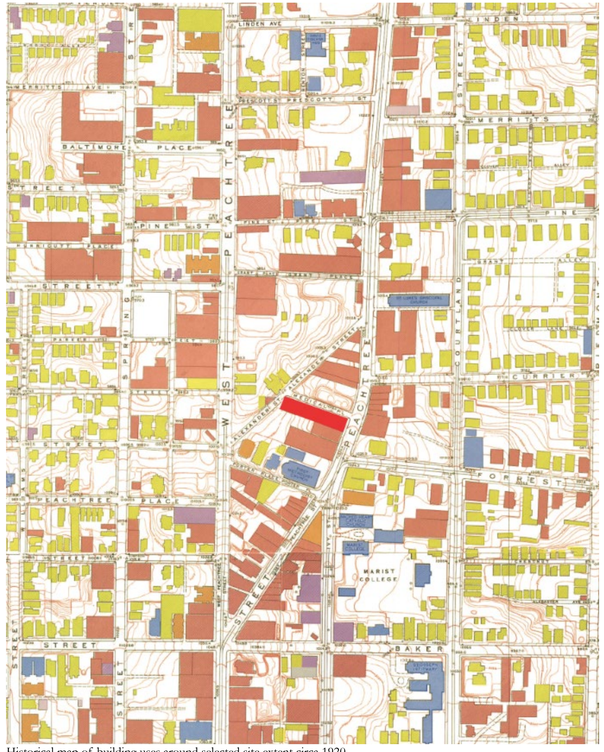
Commercial zones were divided into two subcategories: retail and office zones. Retail zones were intended for commercial activities that required large amounts of floor space, such as department stores and supermarkets. Office zones were designated for professional services, such as law offices and medical clinics.

Industrial zones were divided into four subcategories: heavy manufacturing, light manufacturing, warehouse, and industrial service zones. Heavy manufacturing zones were intended for large factories and other heavy industries that required significant amounts of land and produced high levels of noise and pollution. Light manufacturing zones were designated for smaller factories and industries that produced less noise and pollution. Warehouse zones were intended for storage and distribution facilities, while industrial service zones were designated for service-oriented industries, such as repair shops and printing presses.

The 1922 zoning ordinance also established regulations regarding building height, setback requirements, and other design standards, which were intended to ensure that new development would be compatible with the surrounding neighborhood. These regulations varied depending on the specific zone and subcategory. For example, residential zones had minimum setback requirements, while commercial and industrial zones had maximum height restrictions.

Overall, the 1922 zoning ordinance in Atlanta established a comprehensive set of land-use regulations that aimed to separate different land uses from each other and create clear boundaries between them. This approach to zoning has been influential in the development of urban planning and land-use regulation in the United States and other parts of the world.

Manufacturing/Industrial	Commercial/Office	Residential	Transportation/Utility
Public/Institutional	Warehouse	Residential Transient	Vacant/No Data



Historical map of building uses around selected site extent circa 1920

FRACTURED ATLANTA (CURRENT):

The impact of zoning on Atlanta has been significant. In the decades since its introduction, zoning has helped to shape the physical form and character of the city, as well as its social and economic dynamics. For example, zoning has been used to promote the development of commercial corridors and to protect residential neighborhoods from encroachment by industrial uses. It has also been used to facilitate the construction of public infrastructure, such as highways and airports, and to encourage the preservation of historic buildings and districts.

However, zoning has also been criticized for its role in perpetuating patterns of segregation and inequality in American cities. In Atlanta, as in many other cities, zoning has been used to maintain racial and economic segregation, particularly through the use of exclusionary zoning practices that limit the availability of affordable housing in certain areas. Over the years, the zoning regulations in Atlanta have been revised to address some of these concerns, but the legacy of zoning as a tool of exclusion and inequality remains a challenge for the city and its residents.

The zoning goals of 1922 Atlanta were primarily focused on separating incompatible land uses and creating distinct zones for different purposes. The goal was to promote public health and safety by preventing the co-location of factories and residential neighborhoods, as well as to regulate building height, setback requirements, and other design standards to ensure that new development would be compatible with the surrounding neighborhood. In downtown and midtown, the goal was to create a central business district that would be the economic and commercial hub of the city.

In contrast, the zoning goals of current-day Atlanta are focused on promoting sustainable and equitable growth, while also preserving the city's unique character and history. In downtown and midtown, the goal is to create a vibrant and walkable urban core that attracts residents, workers, and visitors, while also protecting historic buildings and districts. Current zoning regulations encourage mixed-use development, affordable housing, and green space, while also promoting transit-oriented development and reducing automobile dependence.

Another major difference between the zoning goals of 1922 Atlanta and current-day Atlanta is the emphasis on community engagement and participation. In the early 20th century, zoning was seen as a tool for scientific and rational management of the city, with little consideration for the opinions and needs of the community. Today, zoning regulations are developed with input from community members, stakeholders, and experts, and are designed to reflect the diverse and changing needs of the city's residents.

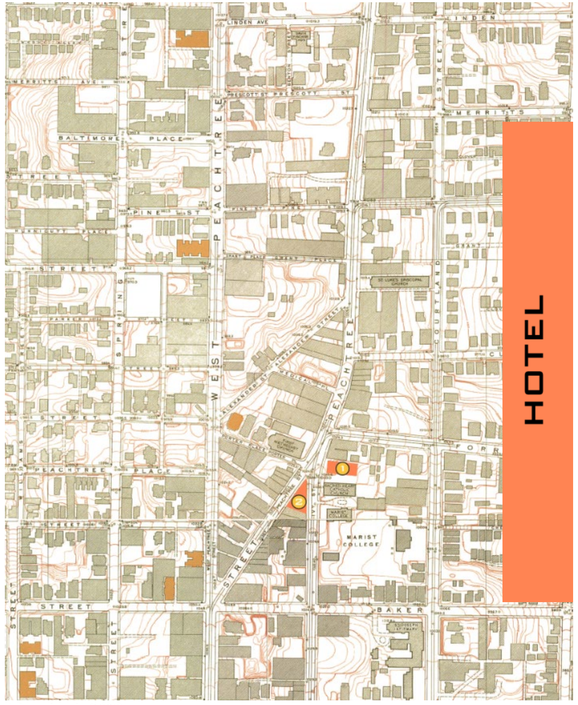
Overall, while the zoning goals of 1922 Atlanta and current-day Atlanta share some similarities, they differ significantly in their focus and approach. The goals of 1922 were primarily focused on promoting public health and safety and creating a centralized business district, while the goals of current-day Atlanta prioritize sustainable and equitable growth, community engagement, and preservation of the city's character and history.

By mapping and contrasting the physical form of building use throughout history we can determine the best method for telling the story of Atlanta's evolution throughout history. Most of the structures shown on the map to the left have been demolished and replaced by larger zoning intensive structures. By studying the structures that were destroyed and telling there stories we can tell narratives about Atlanta that may not be readily found at first glance.

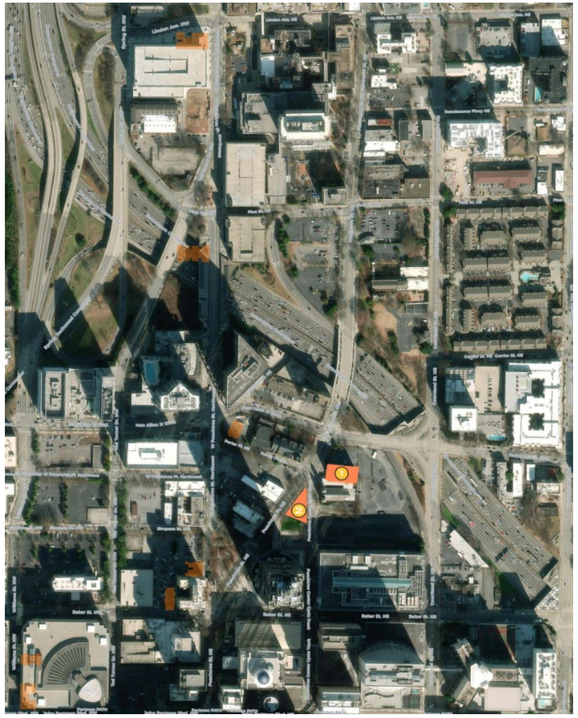
Manufacturing/Industrial	Commercial/Office	Residential	Transportation/Utility
Public/Institutional	Warehouse	Residential Transient	Vacant/No Data

Atlanta building uses around selected site circa 1920 overlaying current map of Atlanta (2023)

HISTORIC HOTEL MAPPING:



Atlanta hotels (1920)



Atlanta hotels circa 1920 overlaying current map of Atlanta (2023)

1 THE IMPERIAL HOTEL:

The Imperial Hotel's history dates back to the early 1900s, when Atlanta was experiencing rapid growth and prosperity. The city was emerging as an important transportation hub and business center, attracting visitors from around the country. In response to this demand, a group of local investors decided to build a luxury hotel that would rival the best in the country. Architect William Lee Stoddart was chosen to design the Imperial Hotel, and he drew on the Beaux-Arts style that was popular at the time. This style was characterized by grand, symmetrical facades, elaborate ornamentation, and classical motifs such as columns and pediments. The Imperial Hotel's exterior featured a white terra cotta facade with decorative elements such as arched windows and balconies, while the interior was adorned with marble, brass, and crystal chandeliers.

The Imperial Hotel quickly became a beloved landmark in Atlanta, hosting lavish parties and events for the city's elite. It was also a popular destination for celebrities and dignitaries, including Babe Ruth, who stayed at the hotel during his visits to Atlanta.However, by the 1960s, the hotel had fallen on hard times. The rise of suburbanization and the decline of downtown areas meant that many hotels in the city were struggling to stay afloat. The Imperial Hotel was eventually forced to close, and the building was repurposed for other uses over the next few decades. Today, the Imperial Hotel Apartments continue to offer a glimpse into Atlanta's past while providing modern amenities for its residents. The building's ornate lobby and marble staircase are still intact, and the apartments themselves feature high ceilings and large windows that offer stunning views of the city.

Historical rendering of the Imperial Hotel

2 THE FRANCIS HOTEL:

The Imperial Hotel's history dates back to the early 1900s, when Atlanta was experiencing rapid growth and prosperity. The city was emerging as an important transportation hub and business center, attracting visitors from around the country. In response to this demand, a group of local investors decided to build a luxury hotel that would rival the best in the country.

Architect William Lee Stoddart was chosen to design the Imperial Hotel, and he drew on the Beaux-Arts style that was popular at the time. This style was characterized by grand, symmetrical facades, elaborate ornamentation, and classical motifs such as columns and pediments. The Imperial Hotel's exterior featured a white terra cotta facade with decorative elements such as arched windows and balconies, while the interior was adorned with marble, brass, and crystal chandeliers.

Postcard of the Francis Hotel

ATLANTA'S CURRENT HOTELS (2023):

The history of Atlanta's hotel district between downtown and midtown dates back to the 1960s, when the area was primarily made up of small businesses and low-rise buildings. The opening of the Hyatt Regency Atlanta in 1967 marked the beginning of the area's transformation into a hotel district. The hotel's distinctive cylindrical design made it a landmark in the city, and it was the largest hotel in the Southeast at the time, with 1,200 guest rooms and 22 floors. The hotel's innovative design included a soaring atrium that rose 22 stories and glass elevators that offered views of the city. The Hyatt Regency Atlanta also had several restaurants, including the Polaris, a revolving rooftop restaurant that offered panoramic views of Atlanta.

Following the success of the Hyatt Regency, other hotels began to open in the area, including the Marriott Marquis, the Westin Peachtree Plaza, and the Ritz-Carlton. These hotels were designed to cater to business travelers and convention-goers, with large meeting spaces and amenities such as restaurants and bars.

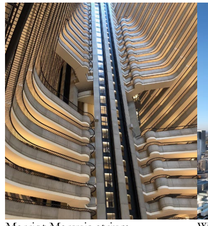
The Marriott Marquis, which opened in 1985, is the largest hotel in Georgia, with over 1,600 guest rooms. Its innovative design includes an atrium that rises 50 stories and glass elevators that offer views of the city. The hotel has several restaurants, including Sear, a steakhouse, and Pulse, a rotating rooftop lounge.

The Westin Peachtree Plaza, which opened in 1976, is the tallest hotel in the Western Hemisphere, with over 1,000 guest rooms. Its cylindrical shape is similar to the Hyatt Regency Atlanta, and the hotel has several restaurants, including the Sun Dial Restaurant, Bar & View, a rotating rooftop restaurant that offers views of the city.

The Ritz-Carlton Atlanta, which opened in 1984, is located in a historic building that was originally built in 1892 as a skyscraper. The building was renovated in the 1980s and transformed into a luxury hotel with 444 guest rooms. The hotel has several restaurants, including AG, a modern steakhouse, and Lumen Bar, a rooftop lounge. The development of the hotel district between downtown and midtown has contributed to the growth and evolution of Atlanta as a business and tourism destination. Today, the area is a hub for dining, shopping, and entertainment, with numerous restaurants, bars, and retail stores located along Peachtree Street. The hotel district continues to be a vibrant and dynamic part of the city.

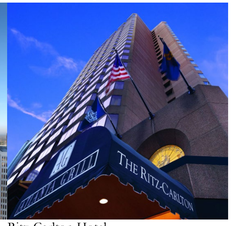
The development of the hotel district between downtown and midtown was also driven by Atlanta's growth as a business hub and its increasing prominence as a destination for conventions and tourism. The area's proximity to both downtown and midtown, as well as its accessibility to major highways and public transportation, made it an attractive location for hotel development.

Over the years, the hotel district between downtown and midtown continued to evolve and expand, with the addition of new hotels, restaurants, and retail stores. The area has become a hub for dining, shopping, and entertainment, with numerous restaurants, bars, and retail stores located along Peachtree Street. The development of the hotel district has also contributed to the growth and evolution of Atlanta as a business and tourism destination, and it continues to be a vibrant and dynamic part of the city today.



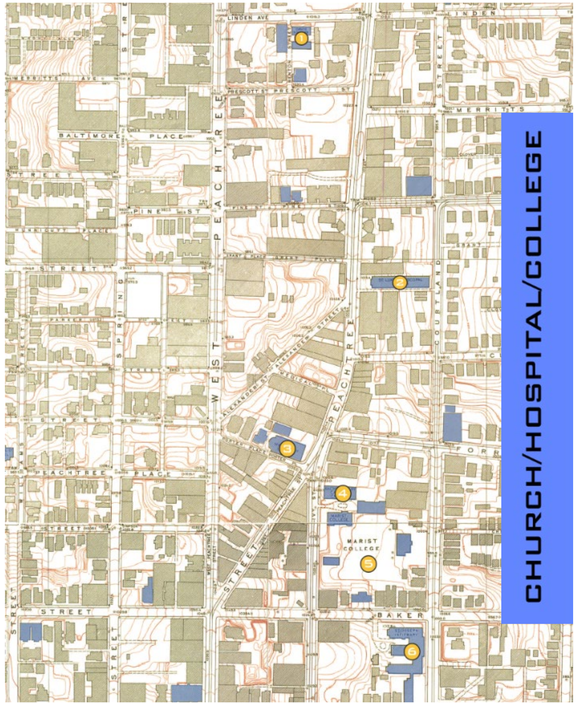
Marriot Marquis atrium

Westin Hotel

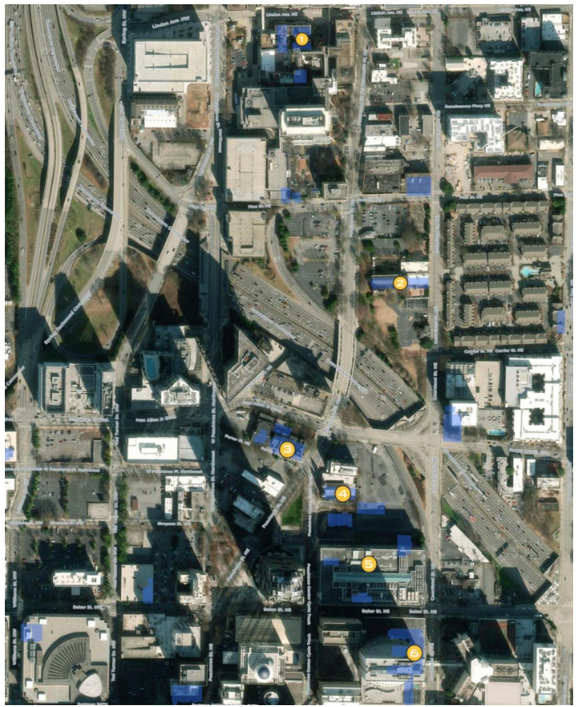


Ritz-Carlton Hotel

HISTORIC INSTITUTION MAPPING:



Atlanta public institutions (1920)



Atlanta public institutions circa 1920 overlaying current map of Atlanta (2023)

1 CRAWFORD W. LONG HOSPITAL:

Crawford W. Long Memorial Hospital was founded in 1951 and named after Dr. Crawford W. Long, a Georgia physician who first used ether as an anesthetic during surgery in 1842. The hospital was originally located in the Inman Park neighborhood of Atlanta and was later relocated to its current location in the Midtown area. The hospital has been expanded and renovated over the years to accommodate the growing needs of the community. Today, it is a 511-bed facility and is part of the Emory Healthcare system. The hospital's architectural form is modern, with a combination of brick and glass facades. The hospital has a sleek and efficient design, with multiple wings that are connected by walkways and covered bridges.

2 FIRST METHODIST CHURCH:

First Methodist Church is one of the oldest churches in Atlanta, dating back to 1845. The current church building was completed in 1903 and is located in the heart of downtown Atlanta. The church's architectural style is Gothic Revival, and it features a soaring bell tower and intricate stonework. The interior of the church is adorned with stained glass windows and a massive pipe organ. First Methodist Church has been a significant part of Atlanta's religious and cultural history, hosting important events such as Martin Luther King Jr.'s funeral in 1968.

3 SAINT LUKE'S EPISCOPAL CHURCH:

Saint Luke's Episcopal Church was founded in 1884 and is located in the Virginia-Highland neighborhood of Atlanta. The church's current building was completed in 1922 and is designed in the Gothic Revival architectural style. The church features a stunning bell tower and stained glass windows that depict scenes from the life of Jesus. The interior of the church is adorned with intricate woodwork and a large pipe organ. Saint Luke's Episcopal Church has been a significant part of Atlanta's religious and cultural history, hosting many important events, including the funeral of author Margaret Mitchell. The church continues to be an active parish today and is known for its commitment to social justice and community service.

4 SACRED HEART CATHOLIC CHURCH:

Sacred Heart Catholic Church was established in 1880 by a small group of German Catholics. The current church building was completed in 1910, and it is located in the Martin Luther King Jr. Historic District in downtown Atlanta. The church's architectural style is Romanesque Revival, and it features a bell tower with a cross and a rose window. The interior of the church is adorned with stained glass windows and intricate woodwork. Sacred Heart Catholic Church has been a significant part of Atlanta's Catholic community for over 140 years and continues to be an active parish today.

5 THE MARIST SCHOOL:

Marist School was founded in 1901 by the Marist Brothers, a Catholic religious order dedicated to education. The original campus was located on Ivy Street (now Peachtree Center Avenue) in downtown Atlanta. The school was originally called Marist Academy and began as a boys' school, but it later became coeducational. The Ivy Street campus consisted of a three-story building that included classrooms, a chapel, a library, and living quarters for the Marist Brothers. The campus was small, but it was considered modern for its time and had a reputation for academic excellence.

6 ST. JOSEPH'S INFIRMARY:

St. Joseph Infirmary was founded in 1880 by the Sisters of Mercy, a Catholic religious order dedicated to providing healthcare to the sick and poor. The infirmary was originally located in downtown Atlanta and was the first Catholic hospital in the city. In 1902, the hospital moved to its current location in the Midtown area. The hospital has undergone multiple expansions and renovations over the years to keep up with the growing demand for healthcare services in the community. Today, it is a 410-bed facility and is part of the Emory Healthcare system. The hospital's architectural form is a mix of styles, with a neoclassical facade on the main building and modern additions that blend in seamlessly with the original structure. The hospital also has a beautiful chapel that features stained glass windows and a marble altar.

EMORY HOSPITAL:

Emory Hospital, located in Atlanta, Georgia, is a private, non-profit hospital that is part of the Emory Healthcare system. The hospital is affiliated with Emory University, and it is known for its research and high-quality patient care. The hospital has a long and storied history, dating back to the early 20th century.

Emory Hospital was founded in 1904 as Wesley Memorial Hospital. The hospital was named after John Wesley, the founder of the Methodist Church. At the time, the hospital was located on the campus of Emory University, which was then known as Emory College. The hospital was a small facility with just a few beds, but it grew quickly over the years.

In the 1920s, the hospital was renamed Emory University Hospital. The hospital continued to grow and expand, and in the 1950s, it became a major teaching hospital for Emory University's School of Medicine. During this time, the hospital added new facilities and services, including a pediatric unit, a cardiac unit, and a cancer center.

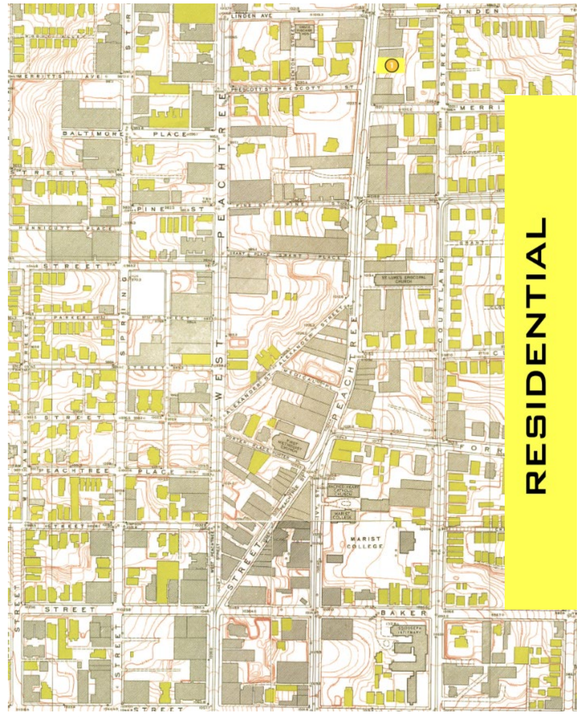
In the 1960s and 1970s, Emory Hospital continued to expand and modernize. The hospital added new wings and buildings, including a new emergency room, a new surgical unit, and a new patient tower. The hospital also began to focus more on research, and it established a number of research centers and institutes.

Today, Emory Hospital is a world-renowned medical facility with a reputation for excellence in patient care and research. The hospital is home to a number of centers and institutes, including the Emory Transplant Center, the Winship Cancer Institute, and the Emory Vaccine Center. The hospital is also known for its work in a variety of medical fields, including cardiology, neurology, and orthopedics.

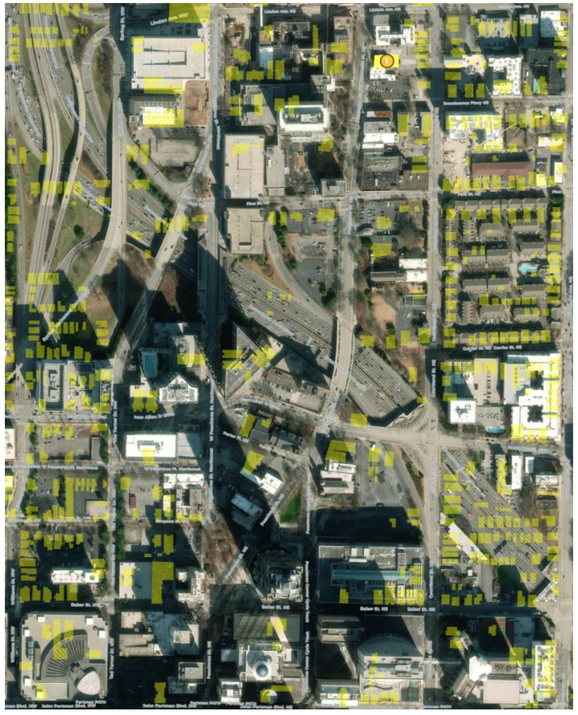
In recent years, Emory Hospital has continued to grow and expand. The hospital has added new facilities and services, including a new state-of-the-art patient tower, a new emergency room, and a new cancer center. The hospital has also continued to focus on research, and it has established a number of new research centers and institutes.

Emory Medical Center in midtown Atlanta

HISTORIC RESIDENTIAL MAPPING:



Atlanta residential development (1920)



Atlanta residential development circa 1920 overlaying current map of Atlanta (2023)

1 RUFUS ROSE HOUSE:

The Rufus Rose House is a two-story, red brick building with a symmetrical facade. The house features a rectangular plan with a central hall and four rooms on each floor. The exterior of the house is characterized by its use of decorative elements, such as the bracketed eaves, ornate ironwork, and decorative bargeboards. The windows are double-hung sashes with one-over-one lights and have segmental-arched heads. The interior of the house is also in the Italianate style, with high ceilings, plaster cornices, and a central staircase with a curved handrail. The first floor has a parlor, dining room, and library, while the second floor has four bedrooms. The Rufus Rose House is an excellent example of Italianate architecture, which was popular in the United States in the mid-19th century. This style was inspired by the architecture of Italy and featured decorative elements such as bracketed eaves, elaborate ironwork, and ornate bargeboards.

One of the distinguishing features of the Rufus Rose House is its use of segmental-arched windows, which are a hallmark of Italianate architecture. The windows are topped with curved arches that have a keystone in the center. The house also features a low-pitched hipped roof with bracketed eaves, which is typical of Italianate architecture. The roof has a cupola with a bell-shaped roof and a decorative finial.

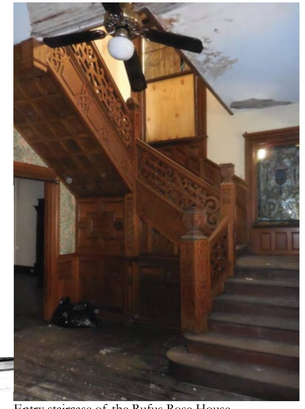
The Rufus Rose House was built in 1850 by Rufus Rose, a prominent Atlanta businessman. Rose was a partner in the city's first successful grocery store and later became a banker. The house was designed by architect John Norris, who also designed several other notable buildings in Atlanta.

During the Civil War, the Rufus Rose House served as a hospital for wounded soldiers. After the war, it was used as a residence by several prominent Atlanta families, including the Haralsons and the Thompsons.

In the 20th century, the house fell into disrepair and was threatened with demolition. In 1972, the house was purchased by the Atlanta Woman's Club, which restored it and opened it to the public as a museum.

First floor plan of the Rufus Rose House

Exterior facade of the Rufus Rose House



Entry staircase of the Rufus Rose House

RESIDENTIAL GROWTH (1920):

Peachtree Street, named after the Creek Indian village of Standing Peachtree, has been a vital part of Atlanta's growth and development since the city's founding in 1837. Over the years, the architecture of the residential areas along Peachtree Street has changed and evolved to reflect the trends and styles of the times.

In the early days of Atlanta, the residential architecture along Peachtree Street was predominantly made up of modest wooden structures. These homes were simple and utilitarian, often with two or three stories and a front porch. They were built close together and were frequently rented out to boarders or converted into apartments. As Atlanta grew and became more prosperous in the late 1800s and early 1900s, the architecture along Peachtree Street became more varied and ornate. Many of the city's wealthiest residents built mansions along Peachtree Street, and these homes were often designed in the Victorian style. This style was characterized by elaborate detailing, multiple gables and towers, and decorative elements such as stained glass windows and intricate woodwork. In the 1920s and 1930s, the architecture along Peachtree Street began to shift towards a more modern style. Art Deco and Bauhaus influences can be seen in many of the residential buildings from this era, with clean lines and geometric shapes. The Plaza Towers condominium complex, built in 1969, is a prime example of this style. The two 22-story towers feature balconies and large windows, giving residents stunning views of the city.

In the mid-20th century, many of the older homes along Peachtree Street were demolished to make way for high-rise apartment and office buildings. However, some historic homes were preserved and adapted for new uses. The Peters House, a Tudor Revival mansion built in 1928, is one such example. The home was converted into a law firm office in the 1970s, and it remains a beloved part of the Peachtree Street landscape.

Today, the residential architecture along Peachtree Street is a mix of modern high-rise apartments and historic homes that have been preserved and repurposed. While the styles may vary, the street remains an important and iconic part of Atlanta's urban landscape.

RESIDENTIAL LOSS (CURRENT):

The growth of the automobile and the introduction of the interstate highway system in the mid-20th century had a significant impact on Atlanta's residential neighborhoods. As people became more mobile, many began to move out of the city and into the suburbs, leaving behind empty homes and abandoned communities.

One example of a neighborhood that was impacted by these changes is Buttermilk Bottom, a historically Black community that was located just east of downtown Atlanta. The neighborhood was originally settled in the late 1800s and was home to a vibrant community of African American families, many of whom were working-class. As the city expanded and new highways were built, Buttermilk Bottom found itself on the wrong side of progress. In the 1950s and 1960s, the city began to clear large swaths of land to make way for new highways and urban renewal projects. Buttermilk Bottom was one of the neighborhoods that was targeted for demolition, and by the mid-1960s, the entire community had been bulldozed and its residents displaced.

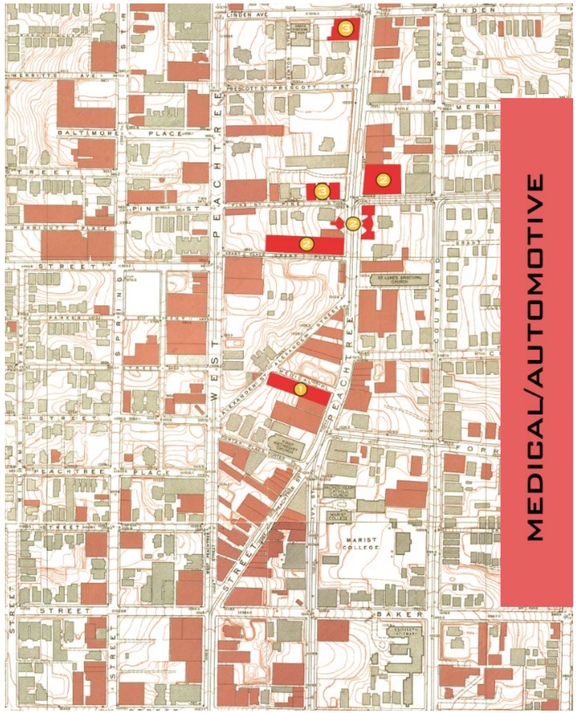
Another neighborhood that was impacted by Atlanta's suburbanization was the Tanyard Creek area, which was located just north of the city's central business district. The neighborhood was originally settled in the early 1900s and was home to a mix of working-class and middle-class families.

In the 1960s, plans were announced to build a new highway that would cut through the heart of Tanyard Creek. Many residents were forced to sell their homes to make way for the new road, and by the end of the decade, the neighborhood had been completely cleared and replaced with a highway interchange.

Other neighborhoods that were impacted by Atlanta's suburbanization include Vine City, Summerhill, and Mechanicsville. These communities were all located close to downtown and were home to working-class families and people of color. As new highways were built and people moved further away from the city, these neighborhoods were left behind and began to decline.

Today, many of these neighborhoods have been replaced by highways, office buildings, and parking lots. However, efforts are underway to revitalize some of these areas and restore some of the historic homes and buildings that were lost. These efforts are part of a broader movement to reclaim Atlanta's urban core and make it a more vibrant and livable city for all.

HISTORIC COMMERCIAL MAPPING:



Atlanta commercial development (1920)

Atlanta commercial development circa 1920 overlaying current map of Atlanta (2023)

1 ATLANTA MEDICAL ARTS BUILDING:

The Atlanta Medical Arts Building played a significant role in the growth and development of Atlanta's medical and automotive industries. In the early 20th century, Atlanta was rapidly expanding, and the city's medical community was in need of a centralized location where doctors and other medical professionals could share resources and collaborate.

In response to this need, a group of prominent Atlanta physicians came together to form the Atlanta Medical Association, which was tasked with constructing a new medical complex in the heart of downtown. The group chose the site on Peachtree Street, which was already home to several medical practices, and hired architect G. Lloyd Preacher to design the new building.

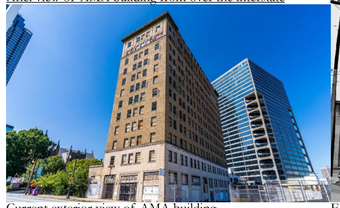
Preacher's design for the Atlanta Medical Arts Building was innovative for its time. The building was constructed of steel and concrete and featured a modernist design with sleek lines and a bold facade. Inside, the building was filled with state-of-the-art medical equipment, including X-ray machines and operating rooms.

The Atlanta Medical Arts Building quickly became a hub of activity for Atlanta's medical community, attracting some of the city's most prominent doctors and specialists. In addition to medical practices, the building also housed a pharmacy, a laboratory, and a cafeteria.

The building's location on Peachtree Street also made it a prime spot for automotive businesses. In the 1930s, the building's parking deck was used as a showroom for new cars, and the ground floor housed several automotive-related businesses, including a car rental company and a car repair shop.

Over the years, the Atlanta Medical Arts Building has remained an important part of Atlanta's medical and automotive landscape, and it has been featured in several films and television shows, including "Gone with the Wind" and "The Walking Dead." Despite its current state of disrepair, the building continues to serve as a reminder of Atlanta's rich history and the important role that Peachtree Street has played in the city's development.

Ariel view of AMA building from over the interstate



Current exterior view of AMA building

Exterior view of AMA building circa 1956

2 MEDICAL ROOTS:

The history of Atlanta's medical industry dates back to the late 1800s, when a small number of hospitals and medical schools were established in the city. Emory University, one of Atlanta's most prominent institutions, played a key role in the early development of the medical industry in the city.

In 1904, Emory University established the Emory School of Medicine, which was housed in a small building on the university's campus. Over the next few decades, the school grew rapidly, and in the 1940s and 1950s, it began to expand its research capabilities. In 1954, Emory University Hospital was opened, providing advanced medical care to the people of Atlanta and beyond.

During this time, Atlanta's medical industry was also influenced by national trends in healthcare. The post-World War II era saw a significant increase in federal funding for medical research and development, and Atlanta was one of many cities that benefited from this influx of resources. The creation of the Centers for Disease Control and Prevention (CDC) in Atlanta in 1946 also helped to establish the city as a center of excellence in the field of public health.

Throughout the second half of the 20th century, Emory University continued to play a central role in the growth of Atlanta's medical industry. The university's medical school expanded its research capabilities, and in 1979, the Emory Clinic was established to provide comprehensive outpatient care to patients. In the 1980s and 1990s, Emory University Hospital continued to expand its facilities and services, and in 1998, the Emory Healthcare system was created to oversee all of the university's medical facilities and services.

Today, Atlanta's medical industry is one of its largest and most important economic sectors. The city is home to numerous hospitals, medical centers, research institutions, and biotech companies, and it continues to attract some of the brightest minds in medicine and healthcare. Emory University remains one of the most influential institutions in Atlanta's medical industry, with its research and innovations contributing to advancements in healthcare and medical science on a global scale.

3 AUTOMOTIVE ROOTS:

Atlanta's automotive industry has a long and storied history that dates back to the early 1900s. In the early days, many of the city's auto dealerships were located along Peachtree Street, which was the city's main thoroughfare. This location made it easy for customers to access the dealerships, and it also helped to establish Peachtree Street as an automotive production and services corridor.

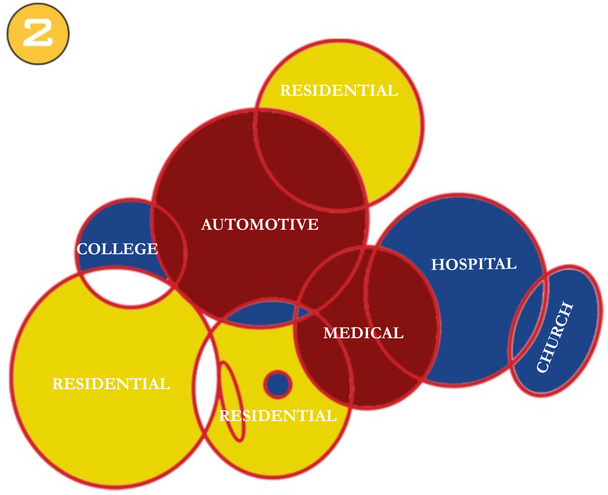
One of the earliest automobile manufacturers in Atlanta was the Georgia Automobile Company, which was founded in 1909. The company produced a number of different models, including a touring car and a roadster, and it was one of the largest employers in the city at the time. However, the company faced financial difficulties and was forced to close in 1911.Despite this setback, Atlanta's automotive industry continued to grow throughout the early 20th century. By the 1920s, there were dozens of auto dealerships and repair shops located along Peachtree Street, and the city had become a hub for automotive sales and services in the Southeast.During World War II, Atlanta's automotive industry played an important role in the war effort. Many of the city's auto factories were converted to produce military vehicles and other wartime equipment, and the industry helped to drive the city's economy during this difficult time.

After the war, Atlanta's automotive industry continued to grow and expand. New car dealerships and service centers opened up throughout the city, and several major auto manufacturers established operations in the area. One of the most notable of these was General Motors, which opened a massive assembly plant in Doraville in 1947. The plant produced a number of different models over the years, including the Chevrolet Impala and the Pontiac Firebird.

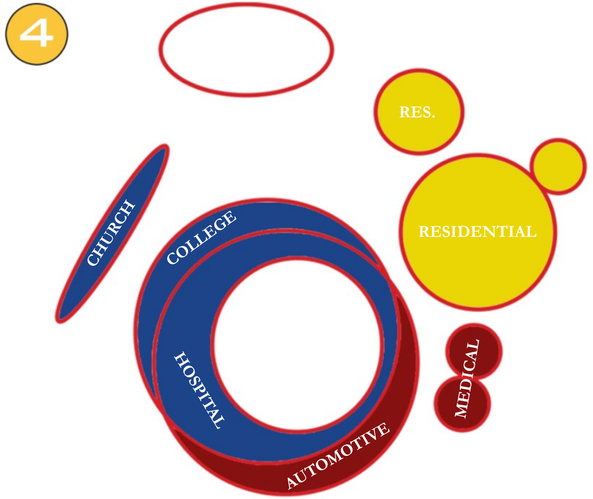
In the latter half of the 20th century, Atlanta's automotive industry faced a number of challenges. The city's rapid growth and suburbanization led to a decline in demand for public transportation, and the rise of ride-sharing services like Uber and Lyft have further disrupted the traditional automotive market. However, Atlanta's automotive industry remains an important part of the city's economy, and the city continues to be a hub for automotive production, sales, and services in the Southeast.

INTEGRATING PROGRAM INTO FORM:

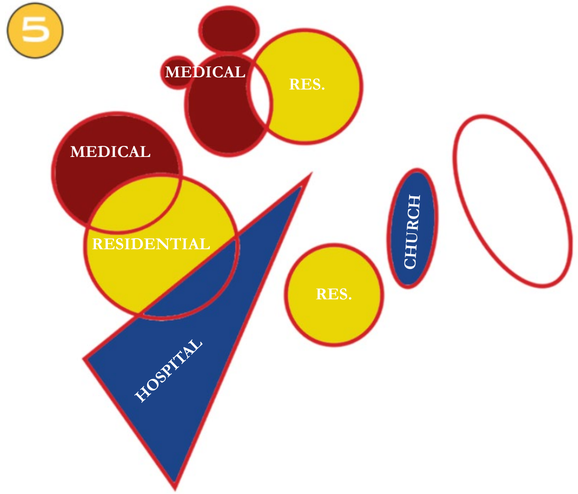
The artifact driven design approach utilized in this project utilizes a color-based system to establish a relationship between form and program. This system is based on the analysis of historical programs around the site extent, allowing for the intended use of a specific space to be easily identified. The Atlanta Medical Arts Hotel & Museum program includes two major components: hotel space and gallery space. While the former is contained within the existing building shell, the latter is designed to incorporate an artifact-based application. By mapping historical narratives of the Atlanta Medical Arts Building and Peachtree Street, a set of gallery adjacencies has been created. These gallery spaces serve as a means to tell the stories of the site's history, as identified through mapping analysis. Overall, this approach allows for a compelling synthesis of form and history, resulting in a dynamic and engaging design.



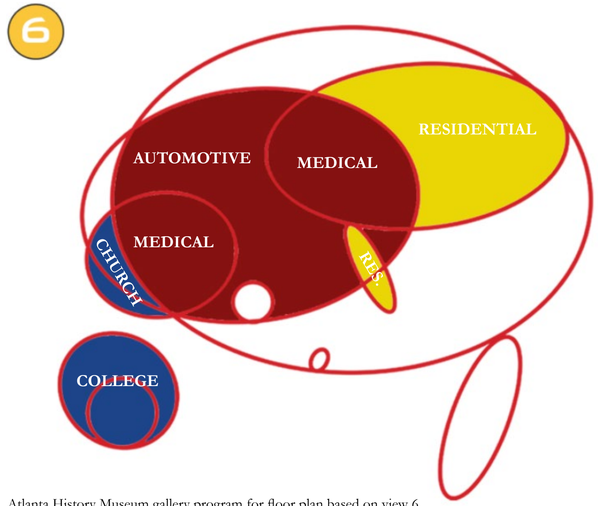
Atlanta History Museum gallery program for floor plan based on view 2



Atlanta History Museum gallery program for floor plan based on view 4



Atlanta History Museum gallery program for floor plan based on view 5



Atlanta History Museum gallery program for floor plan based on view 6

MEDICAL/AUTOMOTIVE

RESIDENTIAL

CHURCH/HOSPITAL/COLLEGE

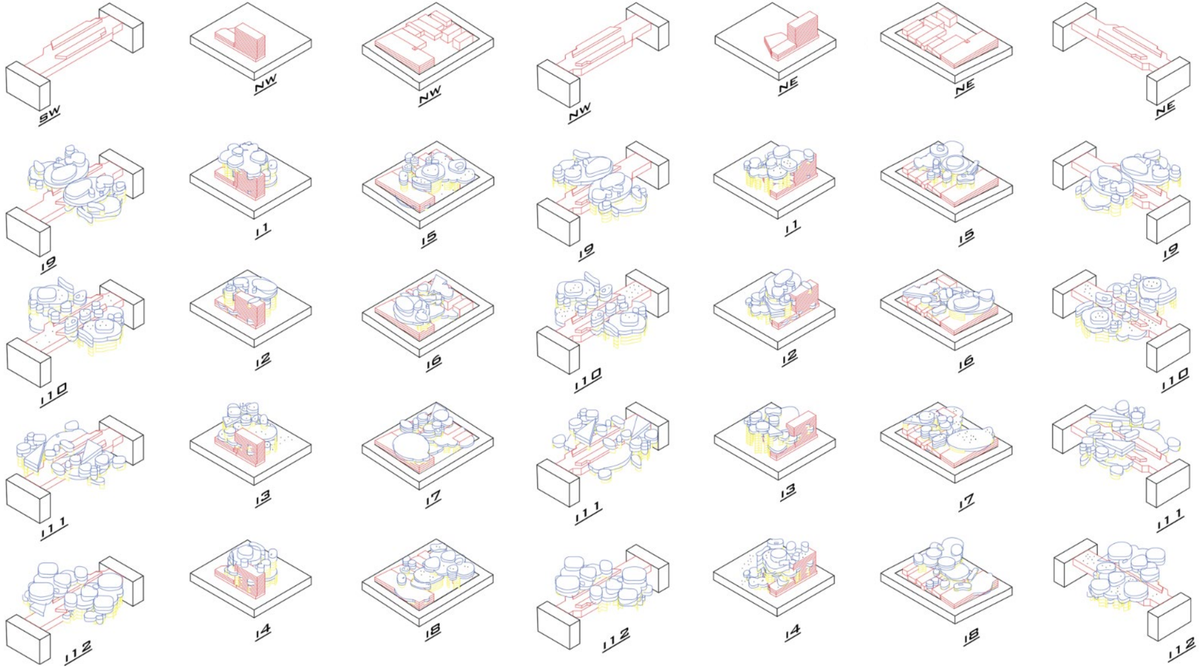
CHAPTER VII

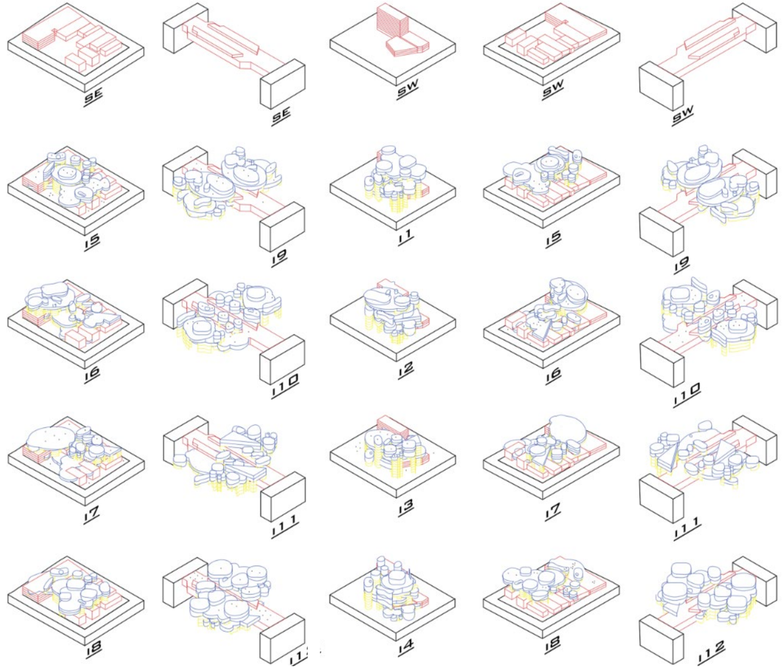
SCHEMATIC DESIGN

ITERATION CREATION & SELECTION

BUILDING ITERATIONS:

In order to rapidly iterate building forms, I developed a design process that involved constructing 3-D models of three selected sites using measurements from Google Earth and site sketches. Next, I extruded each set of artifact sketches in 3-D software to match the floor heights of each site. To merge the modeled extrusions, I experimented with different rule sets and ultimately decided on a permutative fashion, where the extrusions were stacked in different orders (1,2,3,4 / 4,3,2,1 / 2,3,4,1 / 3,1,4,2). I then completed four modeled iterations for each of the three selected sites, resulting in a total of 12 models. Finally, I converted each of these models into isometric views along the NE, SE, NW, and SW axis. This design process allowed me to explore a wide range of building forms and quickly generate multiple options for consideration.





ITERATION SELECTION:

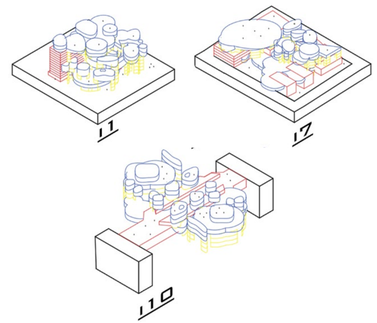
In the selection process of the 3D modeled iterations, the researcher considered various factors that contributed to the overall quality and viability of the design. One of the primary factors considered was the formal arrangement of the different extruded floor plan forms. This was essential in creating a coherent and aesthetically pleasing design that would not only enhance the visual appeal but also attract users.

Additionally, the spatial adjacencies between the different spaces were also considered. This included the proximity of the different spaces to each other, the flow of movement within the building, and the ease of access to different areas. The relationship to the adaptive reuse structure was also evaluated, which involved assessing the compatibility and integration of the new design with the existing structure.

Furthermore, the structural viability of the design was considered. This involved analyzing the ability of the selected iterations to support the required load while maintaining their structural integrity. Finally, the ability of sunlight to penetrate the building was also considered, as natural light is a crucial factor in the design of functional spaces.

Overall, the selection of the design iterations was based on a holistic evaluation of the different factors that contributed to the quality and viability of the design, with the aim of creating a cohesive and

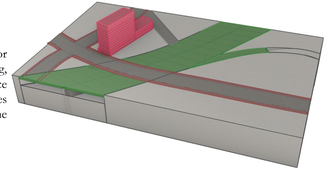
SELECTED ITERATIONS:



ITERATION DEVELOPMENT:

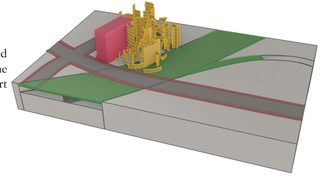
CURRENT SITE:

The site conditions in focused consideration for schematic design are The Atlanta Medical Arts Building, integrated parking deck circa 1952, and the voidspace spanning over the interstate. The design of this project goes under the assumption that existing city proposals to cap the interstate with park space will be executed.



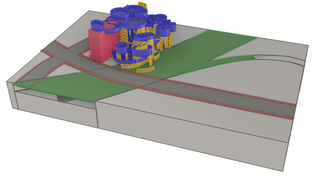
STRUCTURAL SUPPORT:

The structural support system of the proposed building takes the form of concrete shear walls matching the intersectional diagrams. These shear walls can then support floor plates by cross stitching concrete beams.



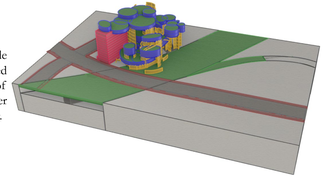
SPATIAL ENCLOSURE:

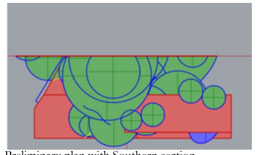
The formal enclosure of the proposed building take the form of extruded linear forms derived from enclosure diagrams. From these enclosing geometrys the structural system for the building is derived. The materiality of the enclosure is a combination of glass and concrete.



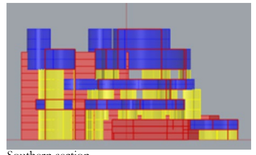
GREEN ROOF ADDITION:

To facilitate 360 deg. views of the city and provide exterior activity space the roof system of the proposed building takes the form of green roofs. This green roof design language then extend to the landscaping that cover the rest of the concrete elements the make up the building.

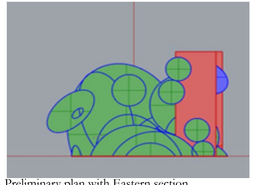




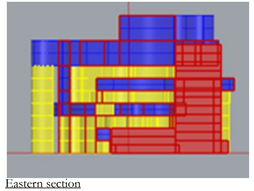
Preliminary plan with Southern section



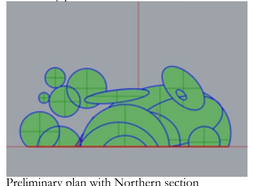
Southern section



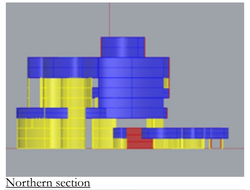
Preliminary plan with Eastern section



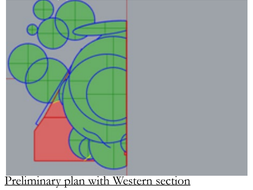
Eastern section



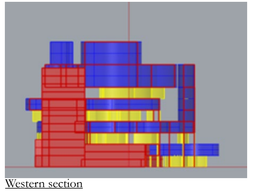
Preliminary plan with Northern section



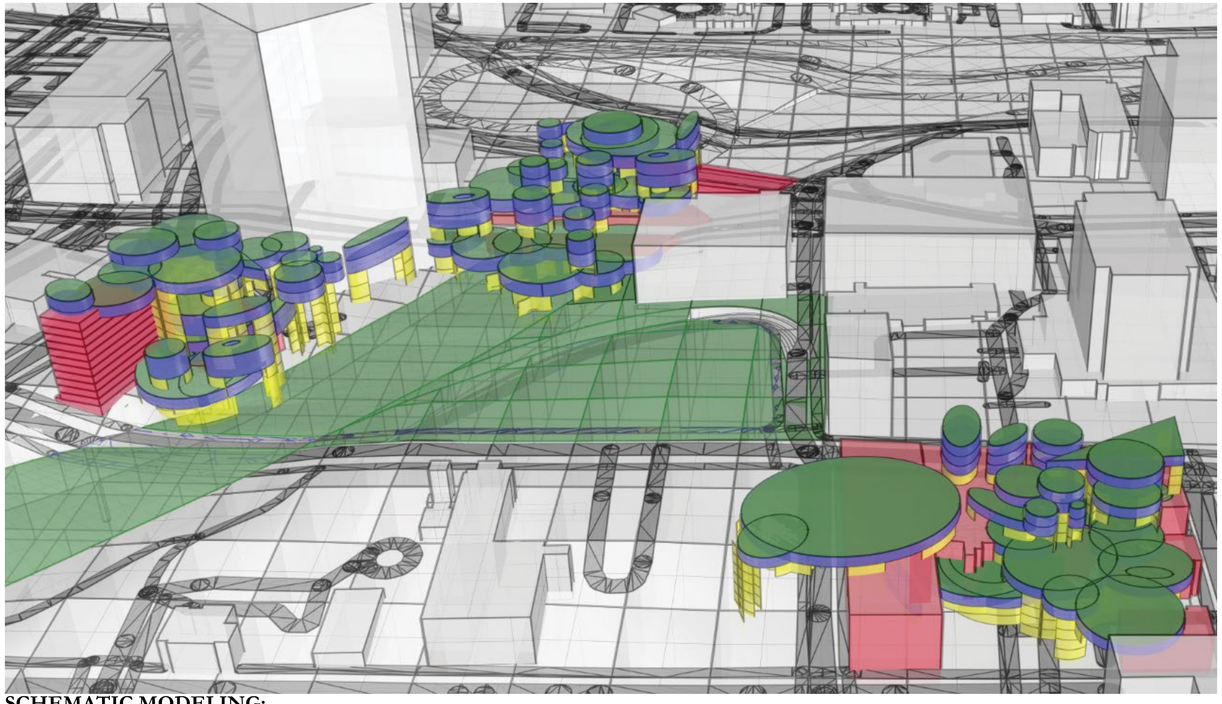
Northern section



Preliminary plan with Western section



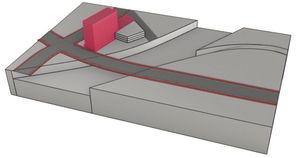
Western section



SCHEMATIC MODELING:

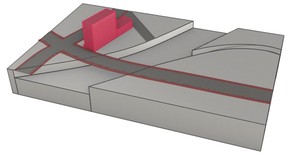
In order to select an adaptive re-use anchor for further architectural developement the three selected iterations were modeled and placed onto a digital site map. Each of these iterations underwent a process of preliminary plan/section/ and elevation cuts to determine feasibility. Based on those results and programatic logic from earlier research The Atlanta Medical Arts Building was selected to serve as the adaptive re-use anchor for further architectural development.

DESIGN PROCESS: ATLANTA MEDICAL ARTS HOTEL & HISTORY MUSEUM



STEP 1: CURRENT SITE

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.

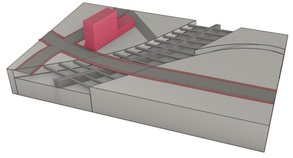


STEP 2: DEMOLISH DECK 2

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.

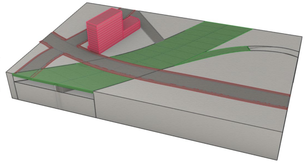
STEP 3: STITCH STRUCTURE

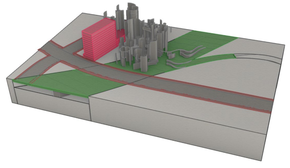
Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.



STEP 4: STITCH COVERING

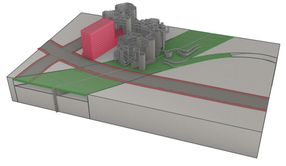
Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.





STEP 5: SHEAR WALLS

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.

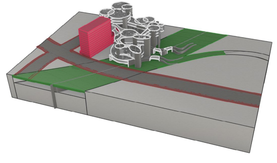


STEP 6: STITCHED BEAMS

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.

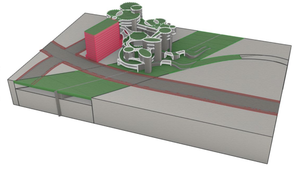
STEP 7: FLOOR PLATES

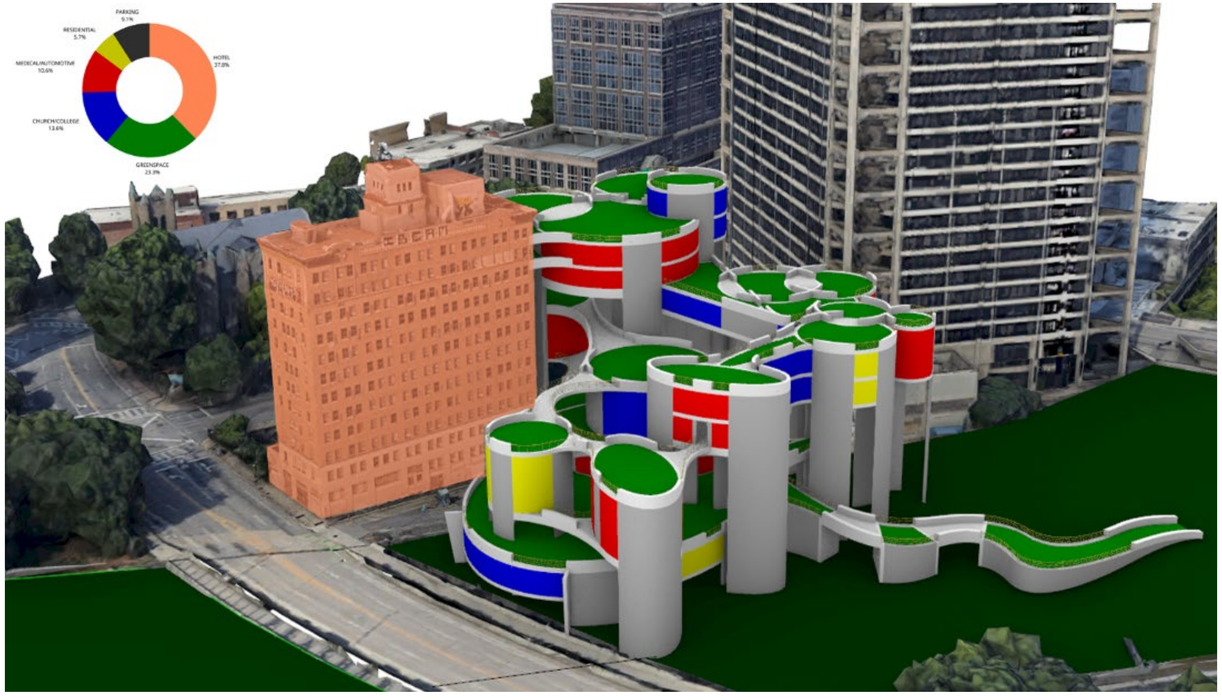
Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.



STEP 8: GREEN ROOFS

Derived from the intersectional diagrams the resulting intregrated digrams represent structural schemes by outling the most efficient spanning pattern between complimentary load bearing members.





PROGRAM BREAKDOWN:

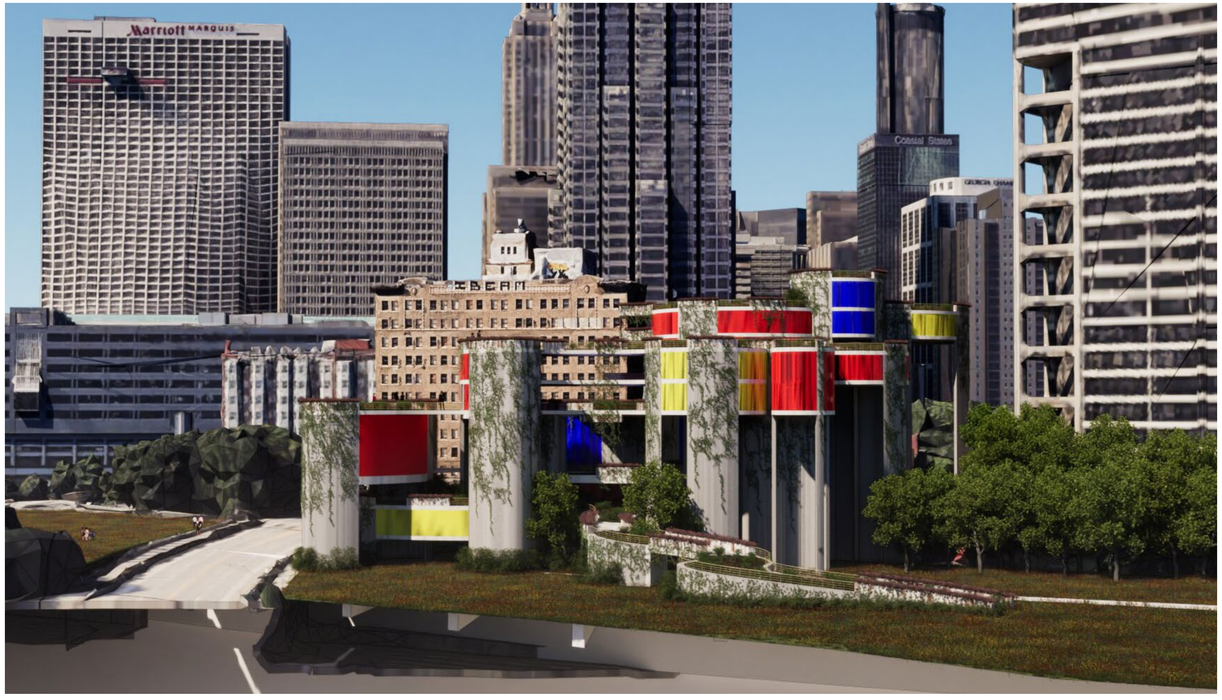
CHAPTER VIII

FINAL DESIGN

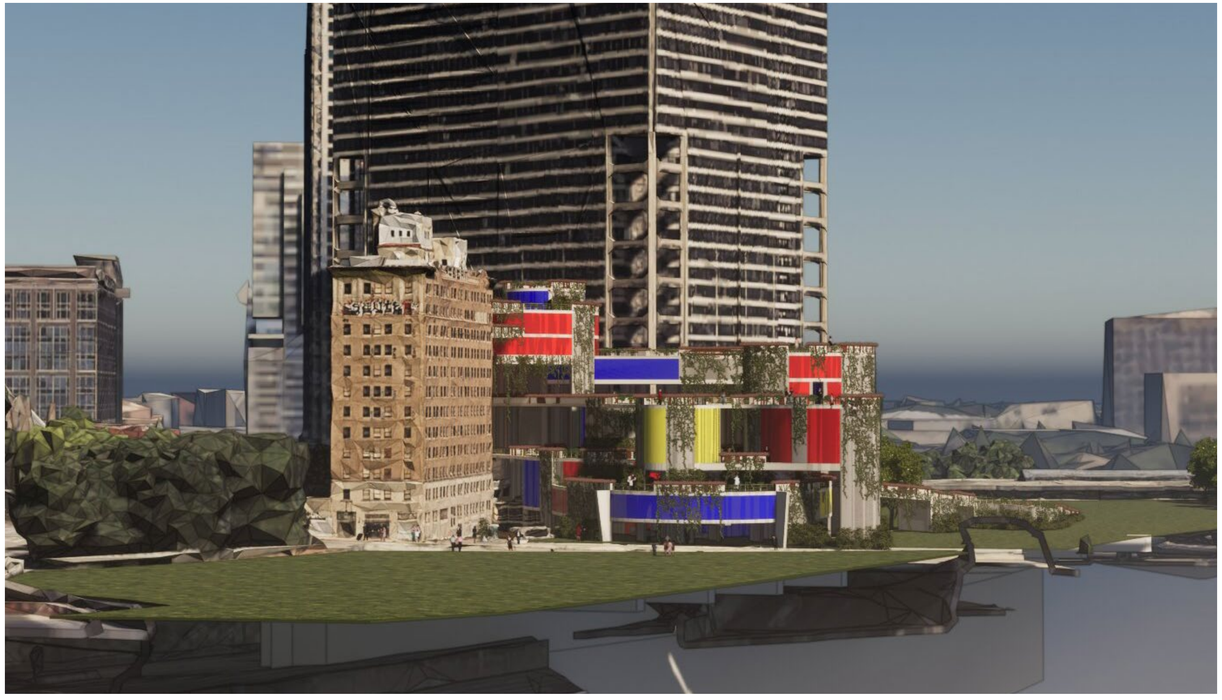
ATLANTA MEDICAL ARTS HOTEL & HISTORY MUSEUM

MACRO SITE PLAN:

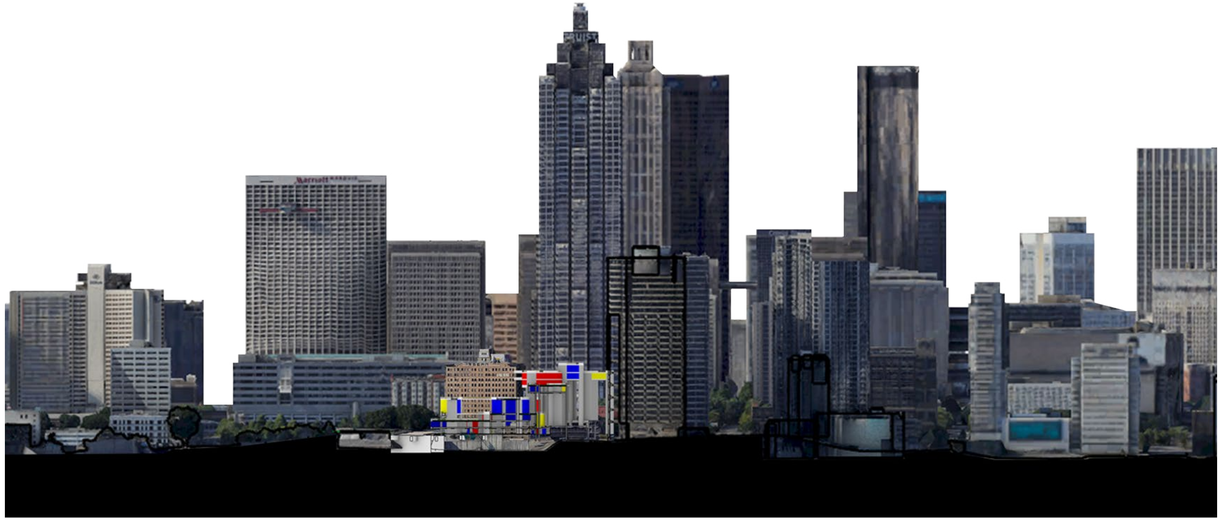
MICRO SITE PLAN:



SOUTHERN ELEVATION:



WESTERN ELEVATION:



SOUTHERN SECTION:

WESTERN SECTION:

NORTHERN SECTION:

EASTERN SECTION:

ENTRY RENDER:

WALKWAY RENDER:

GREENROOF RENDER I:

GREENROOF RENDER II:

GATEWAY RENDERS:

CITY VIEW RENDER:

REFLECTIVE ESSAY:

Urban fragmentation is a significant issue that many cities face today. Rapid urbanization and modernization have resulted in the separation of neighborhoods and communities, making it challenging to create a cohesive and interconnected urban environment. However, there are several approaches to address this problem, and one of them is through architecture and design. The use of design strategies that connect historical narratives and tell stories of the site's past can bridge the fragmented urban condition and create a sense of place and identity.

The output of this thesis is a design process through which crafted artifacts can be translated into form and function to tell historical narratives. Artifact driven design is a powerful tool for generating form, facilitating function, and telling historical narratives. In this case, the design rule selected to be applied is centered around prescribing narratives to diagrammable conditions within the created artifact.

The goal of the museum is to reactivate the disjointed urban condition by designing architecture that tells the narratives of the site's history. By using the artifact-driven design approach, a color-based system is utilized to establish a relationship between form and program. Each identified historical narrative is linked to a color and form, creating a relationship between form and history. This approach allows for the isolation and explanation of historical narratives within a museum setting, making them more accessible to visitors.

Applying artifact-driven design to the Atlanta History Museum on Peachtree Street is an example of how design can facilitate a deeper understanding and appreciation of the site's history. The museum can act as a platform for telling the stories of the past and provide insight into the urban context of Atlanta. Overall, artifact-driven design can be a powerful means of generating form, facilitating function, and telling historical narratives within architectural design.

The use of design as a tool to connect fragmented urban areas has been a topic of interest for architects and urban planners. Several design strategies can be used to create a sense of place and identity within a fragmented urban environment. One of these approaches is placemaking, which aims to create a sense of place by incorporating local identity, culture, and history into the design of public spaces.

Placemaking is a people-centered approach that emphasizes community involvement and engagement. By involving the local community in the design process, designers can create a sense of ownership and pride in the public spaces they help create. This approach has been successfully implemented in various cities worldwide, such as New York's Times Square and Toronto's Distillery District.

Another approach to connect fragmented urban areas is through the use of green spaces. The incorporation of green spaces within urban environments has been shown to have several benefits, such as improving air quality, reducing heat island effects, and enhancing the overall quality of life of residents. Green spaces can also serve as a gathering place for the local community, providing a space for social interaction and community events.

The use of technology is another strategy that can be used to connect fragmented urban areas. The implementation of smart city technology can help create a more efficient and interconnected urban environment. Smart city technology includes the use of sensors, data analytics, and artificial intelligence to improve the management of urban infrastructure and services. For example, the use of smart traffic management systems can help reduce congestion and improve transportation within cities.

In conclusion, urban fragmentation is a significant issue that many cities face today. However, there are several approaches that can be used to address this problem, including the use of design strategies such as artifact-driven design and placemaking. The incorporation of green spaces and the implementation of smart city technology can also help create a more cohesive and interconnected urban environment. By utilizing these approaches, architects and urban planners can create a sense of place and identity within fragmented urban areas, ultimately improving the quality of life of residents and enhancing the overall urban experience.

WHAT IS NEXT?

The process of applying artifact-based design synthesis to revive adaptive reuse structures is a powerful way to breathe new life into abandoned or underutilized buildings while also preserving their historical significance. Through this research, I have established the importance of connecting fragmented urban areas through thoughtful and creative design solutions.

To continue this research, I can delve deeper into the specific ways in which artifact-based design synthesis can be applied to different types of adaptive reuse structures. For example, I can explore how this process can be used in the redesign of industrial spaces, such as old factories or warehouses. These types of buildings often have unique architectural features and historical significance that can be celebrated through thoughtful design. By utilizing the artifact-based design synthesis process, I can identify key historical narratives and design elements that can be incorporated into the new design. Another area this research could focus on how this process can be applied to public spaces, such as parks or plazas. In these cases, the focus may be less on the building itself and more on the surrounding area and its history. Through careful analysis of the site's history and cultural significance, we can identify key narratives and design elements that can be incorporated into the new space.

Additionally, I can continue to explore how color can be used as a connecting rule between historical narratives and forms created by the artifact. While this approach has been effective in the current research, there may be other ways to establish a relationship between form and history. For example, we could explore the use of materials, textures, or lighting to create a similar effect.

Another area this research could focus on the practical applications of this process. While the theoretical framework has been established, there may be challenges in implementing this approach in real-world design scenarios. I can explore case studies of successful adaptive reuse projects that have utilized artifact-based design synthesis and identify common themes and best practices.

Furthermore, I can continue to explore the social and cultural impact of this approach. By telling the stories of a building's history and celebrating its unique architectural features, we can foster a sense of community and connection to the surrounding area. Additionally, by preserving historical buildings and repurposing them for modern use, we can promote sustainability and reduce the need for new construction.

In conclusion, the process of applying artifact-based design synthesis to revive adaptive reuse structures is a valuable tool for connecting fragmented urban areas and preserving historical significance. Through continued research and exploration, we can further refine this process and identify new ways to apply it in real-world design scenarios. By celebrating the unique history and cultural significance of a site, we can create dynamic and engaging spaces that serve as a platform for community connection and storytelling.

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