CONTEXTUAL TYPOLOGIES: SYNTHESIZING TIMELESS ARCHITECTURE TYPOLOGICAL DETAILS IN THE CLASSICAL URBAN FABRIC OF CHARLESTON, SOUTH CAROLINA

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DEDICATION

I dedicate this thesis to:

My parents: Karen and George Sells
The best designers, parents and mentors, who always know how to support me, push me, and challenge me to do better than I think I can.
I love you guys!

Jordan Boyd:
My constant friend, who is always there for me, and consistently adds color, vibrancy, and interest to my life.

Jay Forrest:
Who taught me more about life, confidence and dedication to work, through the setting of a high school choir, than any other teacher or professor in any discipline before or since.

Tyler Silvers:
Who can always see a problem/solution from another perspective, can help me work through it, and always challenges me to do my best!

Nicole Drelich:
My constant companion and best friend, who has been there to support me, through thick and thin, who challenges me, and pushes me to be my best, give my best, and work my hardest to achieve my goals and ambitions.
I love you!

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Thank you all for your help, not just on this project, but also on how to ***be*** an architect, and what that means holistically, in every facet of its definition.

ABSTRACT

The purpose of this thesis project is to explore the creation of a methodology as a tool and means of making an objective analysis out of a subjective design issue. This thesis deals with public perceptions of architecture and design, specifically Clemson University School of Architecture's new Spaulding Paolozzi Center in Charleston, South Carolina, designed by Brad Cloepfil of Allied Works Architecture, and what ultimately led to its rejection from the Board of Architectural Reviewers in Charleston. In order to do so, case studies of other classical cities are examined and compared to the historic urban fabric of Charleston, as well as an analysis of building typologies and how these definitions impact and effect their designs in the context of Charleston. These ideas are broken down into their component parts, analyzed and then synthesized into a re-design of the Spaulding Paolozzi Center. Along the way, considerations for the site's original location is explored, and the importance of placing public institutional "palaces" in specifically important locations within the city's urban fabric will be discussed. The end goal of this thesis project is to understand methodology of working through an architecture problem, and while an end design will be explored, it is not meant to be understood as ***the*** solution, but rather ***a*** solution to the problem of objectively solving a subjective problem.

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CHAPTER ONE
CHARLESTON, SOUTH CAROLINA

Clemson University – Spaulding Paolozzi Center

The genesis for this thesis began with a public issue. The dispute in question dealt with design issues and concerns over Clemson University College of Architecture's new off-campus building in Charleston, South Carolina – The Spaulding Paolozzi Center. The issue involved the Board of Architecture Review (BAR) Clemson University, and several prominent and powerful individuals in the Charleston community. The problem that was so hotly debated was the overall design aesthetic of the new building, designed by Brad Cloepfil of Allied Works Architecture in Portland, Oregon, and whether it fit into its contextual surroundings in Charleston, SC (Cloepfil, 2015). See Figure 1.1 on page 2 for a bird's eye view of Cloepfil's design rendered into the city of Charleston. The discourse that came out of this debate ran in the media, from local Charleston papers covering the story (Behre, 2014), to architectural magazines and blogs (Walter, 2014), and even making national news (Fausset, 2015). This discussion proves one thing: the public still care about architects and what they do. They are also keenly aware of how buildings are perceived, and what architects need to do to deal with this very sensitive topic, especially in such a historically concentrated location such as Charleston, SC.

The Spaulding Paolozzi Center was to provide Clemson a consolidated location for their off-campus Charleston program, as they are currently spread among several buildings across the city. According to Clemson University College of Architecture's website, the desire for this center started to surface when the program began to outgrown their current building, the Old Marine Hospital, which is a designated National Landmark, and as such was not going to be a viable option to renovate further.

Despite the need for this new facility, the public outcry and discourse from the new building's design was enormous and far reaching. Charleston's local paper, The Post and Courier, covered this story the most, with headlines such as "Charleston Groups Sue Over Approval of Clemson Architecture Center's Design," and "Clemson Scraps Its Modern Building Plan" (Behre, 2014). Archinet posted about this story, and even the Wall Street Journal had their take on the issue (Walter, 2014; Fausset, 2015). At the end of the day, no matter who was covering this story, the message was clear: Charleston is having an identity crisis. It appeared as if Charleston was stuck in a time loop where the only thing that to get passed was architecture that looked identical to the classical architecture already there. As well, the public outcry from this design brought up the thought that there was no hope or future for contemporary architecture in that historic setting.

Figure 1.1. – Spaulding Paolozzi Center Aerial Rendering (Cloepfil, 2015)

This argument was especially evident when the issues of the design got all the way to producing a lawsuit. The technicalities of the lawsuit involved the Board of Architectural Reviewers (BAR), two neighborhood associations: Ansonborough and Charles Towne, two preservation groups: The Preservation Society and The Historic Charleston Foundation, and the process that a building design must go through in order to be approved by the BAR. The lawsuit argues that in this specific case, there were some steps skipped by the BAR in the approval of this design, with the underlying tones that without these skipped steps, the design would never have gotten sent so far down the approval process. This brings to the surface the inherent issue of public perception and acceptance of the design, and this is the main overarching issue with this project.

The objective of this thesis is to take this subjective opposition to the Spaulding Paolozzi Center, and to seek to understand the issue objectively. Issues of materiality, scale, hierarchy, amount of glazing, and many others will be explored in order to compare what was proposed, with the context of the historic Charleston urban fabric. The main purpose is to answer the question: was this a reasonable resistance to a design? And if so, what could be done to a future design to meet the context, while still pushing the contemporary architecture ideas that perpetuate a city?

Charleston, SC – A Brief City Overview

Charleston Then

The website for the City of Charleston states in their history section that the city was established in 1670 by the English, at which point it was known as Charles Towne: named after King Charles of England (2016). The port's main commerce at that time was based on large amounts of cash crops, which were arriving from all over the south, but focusing around the future state of South Carolina (City of Charleston 2016). These cash crops included indigo, which was used for dye; rice, colloquially known as "Carolina Gold"; the ubiquitous cotton and tobacco; and the African American slave trade, which was needed in order to provide workers for all of these cash crops (City of Charleston 2016).

When the city became the ignition point for the Civil War in April of 1861, the city's identity changed (City of Charleston 2016). After the war, the city took a while to recover, which served as the basis for "the City's greatest asset – its vast inventory of historically significant architecture" (City of Charleston 2016). Due to the large cost of the war, Charleston could only renovate and restore their old buildings, rather than constructing new ones (City of Charleston 2016).

Charleston Today

Charleston took some time to recover. The city slowly adapted and found stronger sources of wealth by diversifying its economy, which eventually translated into commerce, trade and tourism, just to name a few (City of Charleston 2016). While the city continues with industries such as BMW, Volvo and Boeing utilizing the robustness of Charleston's international seaport, other aspects of Charleston life are evident just by walking around and spending time there. The city has a feel and a vibrancy unlike any other, and it can attribute this to its rich and diverse history, and the people that made the city what it is today.

One of the biggest things when walking around Charleston is the focus on the arts. The city loves its artistic heritage: from the assimilated African influences in song, dance and language; to the emphasis on craft that only the monetarily richest places can afford; Charleston has no shortage of monetary wealth. All the trade, commerce, shipping and economic strength, before and after the civil war, has left Charleston no deficit of impressive showings of wealth. When one walks down the cobblestone and brick sidewalks and streets of Charleston, you can not help but notice, especially in the residential areas, the attention to detail that exists in the houses you pass. Whether it is the handmade wrought iron fencing that Charleston is so well known for which separates the side residential gardens from the street, or the intricate wood work on the facades of the buildings, the city draws you in to whatever level of detail you choose to explore. See Figure 1.2 further down page four to see an example of one of the wrought iron-work gates famously made in Charleston. This level of detail to craft one of the aspects that makes Charleston so appealing for tourists and locals alike, and with that comes the understanding that the city is complex, detailed, and has an indescribable soul.

Figure 1.2. – Wrought Iron Gate (Means, 2013)

Charleston – The Arts

Spoleto Arts Festival

In 1977, Gian Carlo Menotti, Christopher Keene, and others decided to create a festival in the United States to mirror the famous Festival of Two Worlds, in Spoleto, Italy (Spoleto 2015). Their criteria of a city with historic appeal, an abundance of churches and performance venues, led them to Charleston, South Carolina (Spoleto 2015). Since that day, Charleston has been host to this amazing festival which celebrates the arts, in what is "internationally recognized as America's premier performing arts festival" (Spoleto 2015). This festival combines many aspects of the performing and visual arts, including "opera; theater; dance; and chamber; symphonic; choral and jazz music" (Spoleto 2015).

The festival runs for 17 days in the spring of each year, and is dedicated to showcasing young and upcoming talent in the performing arts (Spoleto 2015). To this end, the festival includes many young and upcoming talents from the university level, especially those from the College of Charleston, who use the festival as invaluable performance time to hone their craft.

Piccolo Spoleto Festival

Started in 1979, as a response to the overwhelming success of the Spoleto Arts Festival, the Piccolo Spoleto Festival was created to encourage and provide a platform for local and regional art and artists to stand next to the international spotlight of the larger Spoleto Festival, according to the festivals website (2016). Held in tandem with the larger festival, this "Piccolo" *(Italian for Small)* Festival, this smaller, more intimate feeling festival's focus on local and regional provides even more "visual art exhibits, classical music, jazz, dance, theatre, poetry readings, children's activities, choral music, ethnic cultural presentations, crafts and film" (Piccolo Spoleto 2016). Combined, there are over 500 activities with these two events (Piccolo Spoleto 2016).

Clemson in Charleston

Clemson University's Charleston off-campus program began in 1988, and combined with their two other main off-campus locations, provide the students of the Clemson University College of Architecture an opportunity to study in a much different setting than the rural, piedmont setting of Clemson, South Carolina (Lawrence 2013; Clemson "Charleston" 2016).

The first off-campus program, now part of their termed "Fluid Campus," was the Charles E. Daniel center in Genoa, Italy, established in 1972 (Clemson "Fluid Campus" 2016). This program is located in a three story Italian villa, overlooking

the harbor of Genoa (Clemson “Genoa” 2016). Not only did Genoa provide an urban alternative to Clemson, but it also provided an opportunity to experience a different culture, language and architectural typologies (Clemson “Genoa” 2016). At the time, this served as a benchmark for study abroad possibilities for an architecture program (Clemson “Genoa” 2016). While the villa provides a good safety net environment for being in a foreign country, it is slightly removed from the main activates that exists in the city center of Genoa, which Clemson was able to adjust for their next off-campus opportunity that they created.

In 1988, Clemson decided to expand their off-campus availabilities to Charleston (Lawrence 2013). This provided a very different experience than both Genoa, and Clemson, and additionally served as an option for those who could not afford to travel abroad, but still wanted to experience an off-campus program, especially in such an architecturally rich city such as Charleston (Clemson “Charleston” 2016). The program was originally housed in a residential building on the campus of the College of Charleston in the heart of the Charleston peninsula (Lawrence 2013). Then, in 2000, the Clemson Architecture Center – Charleston (CAC.C) moved to their current location of the Old Marine Hospital, still within the heart of downtown Charleston (Lawrence 2013).

This location allowed the program to expand, as the Old Marine Hospital provided an abundance of space compared to their previous location, and therefore allowed them to fill out their space as they needed. They had recently started accepting graduate students to the Charleston program, and with that desired more space from their original residential location (Lawrence 2013). Additionally, any student that has studied at the CAC.C can attest that the center’s diversity of projects were beginning to necessitate more fabrication and studio spaces, as well as more room for an increasing number of staff and faculty. The program eventually got to the point that their fabrication space at the Old Marine Hospital, which they were leasing from the Old City Jail directly next door and with whom they shared a rear courtyard, had gotten too small for the scale of projects that they were working on. Therefore, they increased the size of their work areas, and expanded to a new fabrication lab on the north side of the Charleston peninsula, in a somewhat run down industrial and residential area just north of downtown. While this was not ideal, this was meant only as a temporary fix for their ever growing size, as plans for a new and permanent home for the CAC.C began to take shape, and knowledge of the inner-workings of the program began to circulate to all corners of the School of Architecture.

Clemson’s third main off-campus program was created in 1999 in Barcelona, Spain (Lawrence 2013). Another seaport city, and an additional urban juxtaposition, but with every new location came its own unique and distinct urban conditions: such as the fabric of the city, the materiality used, the scale, and other conditions that change from place to place. These changes give each new location its own identity, and its experiences radically different than the others.

The desire to have these off-campus locations for the university stems from the long standing tradition of architectural training to gain as much exposure to

different locations, cultures and styles as achievable, in order to be as well-rounded, and thorough of an architect as possible. In this manner, an architect can make more informed design decisions, will be more open-minded about new ideas, and can therefore be a greater asset to their clients, the environment, and the profession of architecture. This is felt so strongly by Clemson that off-campus study is built into the curriculum and a requirement of an undergraduate degree. This devotion to architecture as a holistic craft makes the CAC.C a perfect fit for the rich and complex artistic and architectural environment that is Charleston, South Carolina. See Figure 1.3 further down page seven for an image of the Old Marine Hospital, the site of the current CAC.C.

Figure 1.3. – Old Marine Hospital (English, 2012)

CHAPTER TWO
VIEWING A CITY

The Classically Designed City

In order to understand where Charleston is today architecturally, one also has to go back to where the city started from. While the history of Charleston effected the physical manifestations of the buildings, delving deeper into maps and diagrams of the city provides a richer understanding.

Case Studies – London and Venice

When looking at historic maps of a city, certain patterns begin to emerge. One of the most prominent ideas is that of the public building, or as some might call them "palaces," and their distinct and very deliberate locations within the grain of the city's urban fabric. Inversely, what is also found are the "houses" or less prominent and important buildings within a city. This distinction between "houses" and "palaces" can serve as a quick, and very obvious clue as to how a city was laid out, planned and organized, and can therefore be used to perpetuate the urban fabric that has already been established, and can better integrate with the context of the city.

Two case study cities that were examined: London and Venice. See Figures 2.1 and 2.2 on page eight for referenced maps. These cities were compared to a classic map of Charleston when it was still a walled city around its port. What was discovered when examining London were the connections between the main public typological "palaces", and the private residential "houses." While these are not the only two types of buildings, for the sake of the argument when looking at urban fabric and the importance of location for a building, then these two terms can act as generalizations in order to polarize the buildings into one of two categories. When analyzing London and Venice, one can see the different urban conditions that start to form. For instance, the width of the street changes depending on how many public "palaces" exist on that street. As well, intersections and public squares begin to emerge off the map, and give an indication of the main public circulation through the city, and the connections across the city that begin to be made. The urban fabric begins to deepen even further as certain, very prominent roads/pathways become grand alleys that lead the urban condition from one important location to another. This makes one of the grandest locations of all in the urban fabric: the end of the alley and the focal point of the grand road/pathway. This location is reserved for only the most important of buildings.

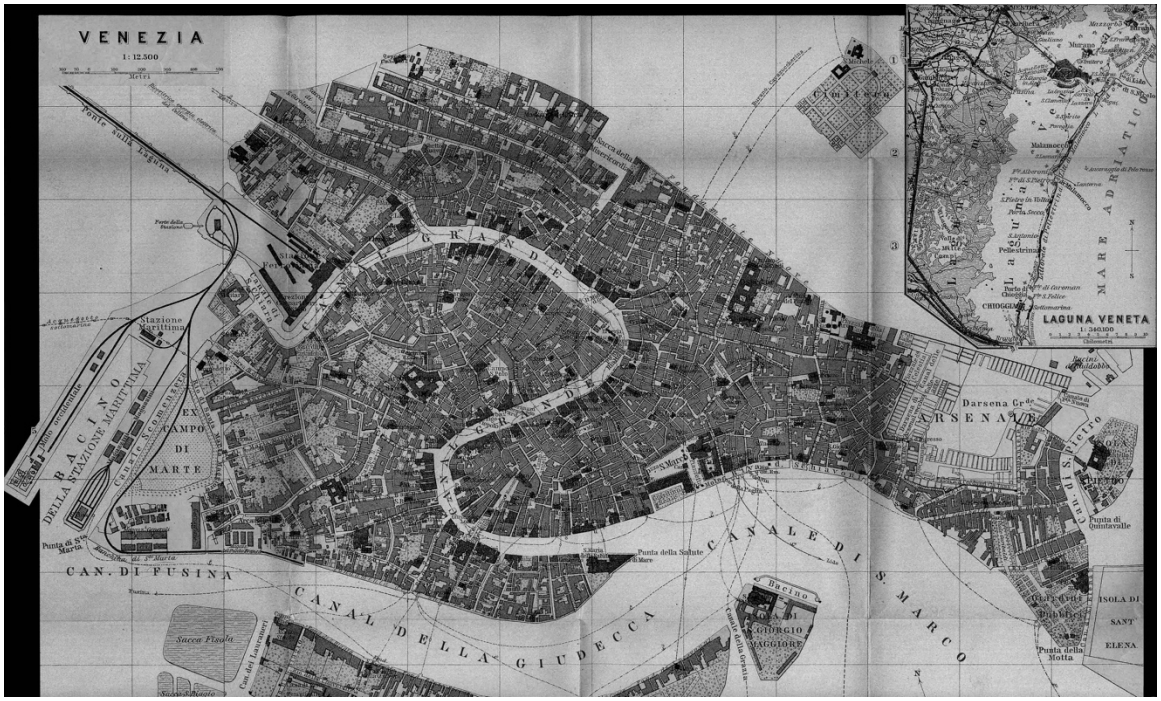


Figure 2.1. – Venice Classical Map (Venice 2016)

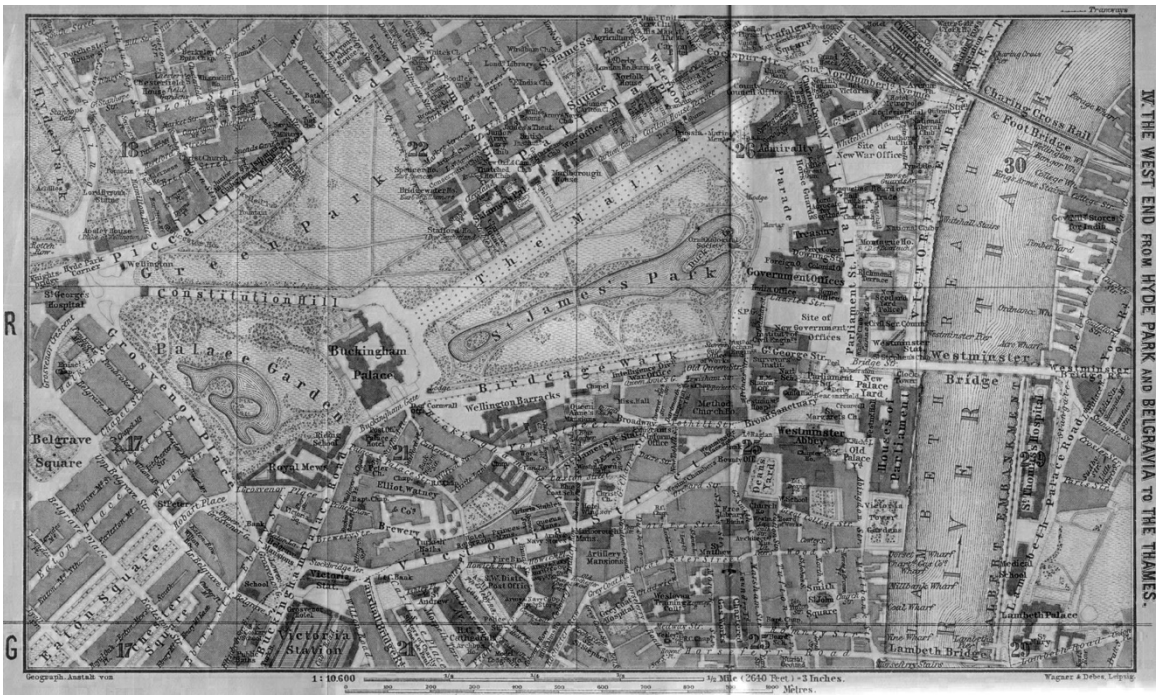


Figure 2.2. – London Classical Map (London 2016)

Another aspect of these alleys is the significance of trees, shade, and the making of dynamic spaces. Trees offer the most dynamic component of a space, due to their use as shading devices, and the accompanying shadows that continuously change throughout the day as the sun rises and falls. Another important aspect of the alley is the significance it plays in guiding the urban inhabitant through a city, by creating a "space", albeit usually a very large space, but nonetheless a dynamic area of difference and juxtaposition to the surrounding conditions of the greater city. This significance can not be overstated, as this is one of the cornerstones of a classically designed city.

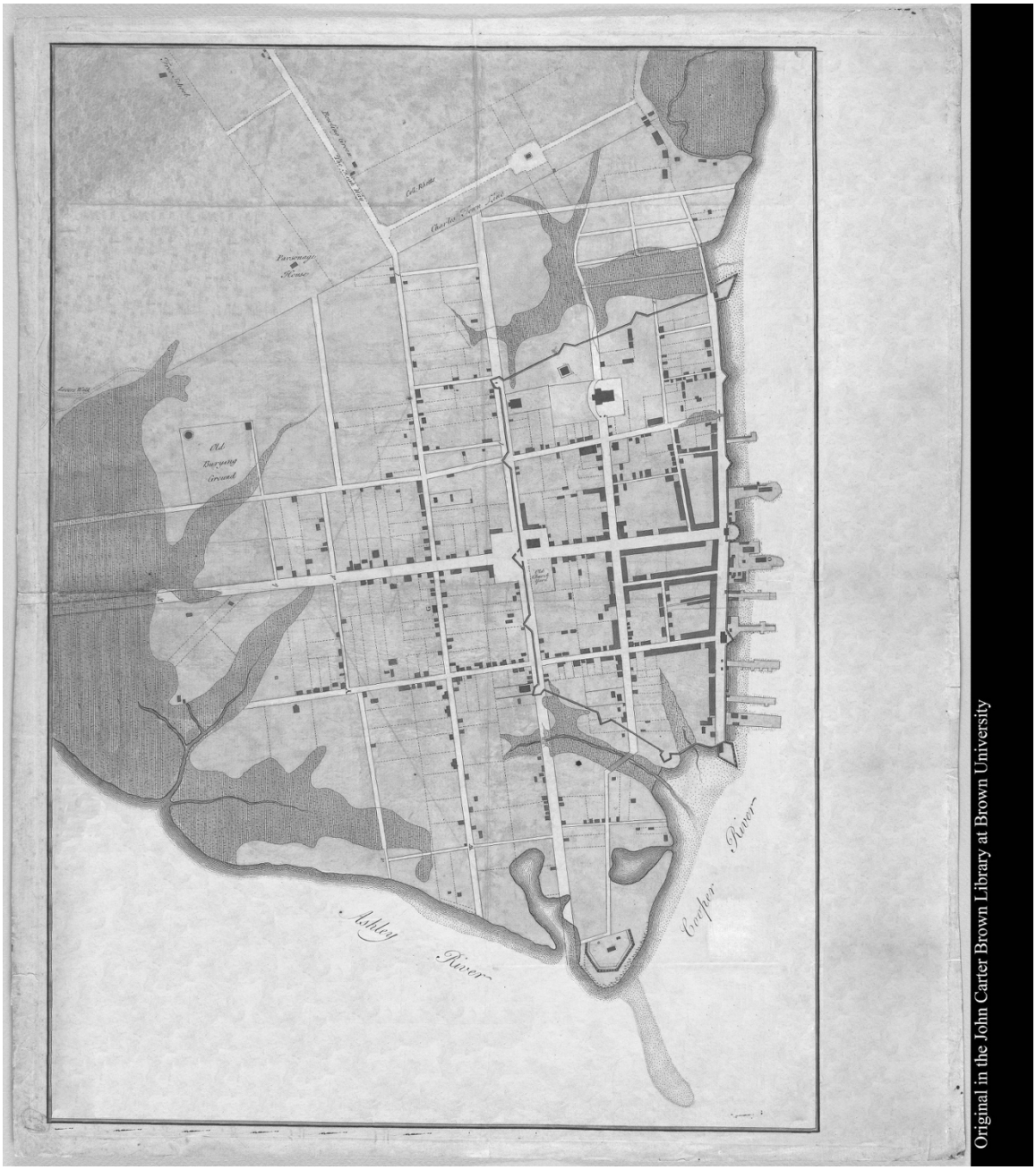
Additionally, urban squares and gathering spaces begin to emerge as another requisite of a classical city plan. Before the modern era, these squares acted as the gathering places for public functions. From meeting neighbors, to buying goods, even to get out of a hot, small dwelling, public squares serve as the heart of any classic city design, and often go hand-in-hand with the terminus of alleys and important roads/paths.

A third and equally important aspect of the classic urban city are the dynamic spaces that all these different pieces create. While there might not always be symmetry, there is always a balance that can be found. Whether this exists in public and private spaces in a square, or examining the manner in which roads and pathways travel through the city, everything stabilizes into dynamic spaces. However, not everything was always planned this way, for nature, including the human existence in it, constantly reverts back to a balance of everything.

This natural balance is not always tangible at the time, nor is it always understood as to why something looks wrong or right, it is an inherent understanding within our core beings for this equilibrium to occur. This is sometimes understood as symmetry, but can also be understood in the dynamic spaces that come out of asymmetry. Referring back to the maps of London and Venice, this asymmetry is what places Buckingham Palace off-center of Paul Mall, and creates the dynamic spaces of Greene Park and the Palace Gardens. In Venice, the campanile of Saint Mark's sits off center in Piazza San Marco, and opposite the great Doge's Palace. The entire square is asymmetrical, yet the balance of all the pieces, both in 2-D map view, and the 3-D experience of being there, feels balanced and complete, and in no need of anything additional. Taking these ideas of dynamic spaces, prominent alleys, and urban squares, historic Charleston was then examined to determine similarities and differences.

Mapping of Charleston

Having gathered these three main ideas from the maps of two great classic cities: London and Venice, the analysis then turned to how these understandings apply to classic Charleston. See Figure 2.3 on page ten for a map of classic Charleston. What was discovered, especially when looking at the historic map of



Original in the John Carter Brown Library at Brown University

Figure 2.3. – Historic Walled City of Charles Towne (Roberts, 1739)

Charleston, was how similarly all of these ideas and concepts applied. When examining the classic map of the walled city era of Charleston, a main street (now Broad Street) acted as the grand avenue of the city, and connected the principle dock of the port with the main square and entrance into the walled city. This was intersected by another grand street, but only by another equally as significance road which was the path to the church (St. Phillip's Cathedral). Both of these roads connected the most public spaces of the city, at that time, and served as a balance to the city, despite the asymmetry of their arrangement. This created dynamic space, squares and alleys which still have significance today as major roads within the urban fabric of Charleston.

This mapping exercise can therefore also be applied to the modern city of Charleston. See Figure 2.4 on page 12 for a current map of Charleston. Despite drastic changes to the city, such as the removal of the wall, expansion of the docks, and dramatic population increase, the city still retains the same bones that it started with in 1670. Therefore, the map can still be analyzed in the same manner, and the same type of patterns can still be gained from the analysis. For instance, looking at the current map, four main arteries can be discerned as main circulation in and through the peninsula. These arteries are two in the north and south direction: King Street and Meeting Street, which run parallel to one another from the top of the peninsula down to the heart of the downtown area. The other two main arteries run east and west, and are Calhoun Street and Broad Street. These two roads split the peninsula into thirds, and provide key crossing points for the cities public spaces. While not an artery, a third east/west road of importance is Market Street, which is split down its middle with the Charleston Public City Market.

Reading the Map

Public spaces are the livelihood of a city, especially a neo-classical city such as Charleston. When reading the map, certain roads popped out as important arteries for the city, and when the analysis goes one step deeper, it becomes apparent that the public spaces used the most, are at the intersections of many of these arteries. For instance, the block where the east/west Calhoun Street intersects north/south King Street and one block east: Meeting Street, is the site of one of the most publicly used spaces in Charleston: Marion Square. Originally the cadet marching grounds for the original site of the Military College of South Carolina, known now as The Citadel, the square currently exists as a public park. The adjacent building to the square, now a hotel, was once the College's barracks, classrooms, and armory. The square has thrived thanks to its location on this intersection, and hosts many public activities from sunbathers, to farmer's markets, art and fashion shows, the Spoleto and Piccolo Spoleto Festivals, and many other activities throughout the year. Its importance to the city cannot be overstated, and the essence is its location.

Figure 2.4. – Current Map of Charleston, SC (City of Charleston, 2016)

Another great public space is the Charleston Public City Market. This location sits at the intersection of Market Street and Meeting Street. Once a major connection into the city from the previous location of the main city port, Market Street now serves as the main circulation artery from the heart of the city out to the current cruise ship terminals, which serve cruises from Charleston down to ports of call in the Caribbean. Market Street intersects the important artery of Meeting Street, with King Street being one additional block west. While cars are still allowed to drive on Market Street, the public realm of sidewalks on either edge of the road, as well as the public market splitting the road eastbound on one side and westbound on the other, the feel of this road during a busy time of year is certainly more pedestrian than vehicular.

At the west end of Market Street, is the grand entrance to the Charleston Public City Market: Market Hall. This public institutional "palace" once played host to the clerical functions of the market, as well as other public financial aspects of the market, and now serves as a public museum. At the other end of this commercial zone of Market Street, is another institutional public "palace" of commerce and government: The Customs and Border Protection building. Both of these public buildings serve to anchor both ends of this, arguably the most public, and certainly most historically and commercially dense zones in the city. This area is one of the most influential pieces of the city's history, as well as its current vibrancy. It also serves as a jumping off point for many touristic activities that permeate the city. It is in this area where tourists begin their experiences that have come to define a vacation for a visitor to Charleston: such as a horse-drawn carriage ride, walking tours of the city, a late night ghost tour, and of course numerous local goods available at the market.

These two public zones bring about the lessons learned and analyzed in the first part of this chapter: that specific institutional buildings, and public parks and areas, are influenced by a deeper meaning that exists in the fabric of the city. The city's fabric has developed around these urban conditions, and it is in this condition that lessons can be learned from the city, and will assist in creating new conditions and buildings that fit into this established and storied urban fabric that is specific to Charleston. The best way to perpetuate a city, in a manner that is respectful to the existing conditions, is to understand and learn from what is there already.

Several other zones in the city act as very deliberate urban fabric ties from one end of the city to another. For instance, the main government buildings in Charleston exist on the connections or intersections of these arteries. For instance, on Broad Street, the main government functions, such as the mayor's office, public records, and several other public government functions exist at the streets intersection with another prominent artery: King Street. These functions have come to occupy four zones around what was once a public square, now making an intersection, that once served as the public square just inside the old walled city of Charles Towne. Now, these most publicly essential functions of government take up the most publicly essential places of commerce in the old city

plan. Additionally, at the eastern terminus of Broad Street, exists the Old Customs and Exchanges Building, which occupies what was once a public square around this colonially essential "palace" and gateway into the city from the port area, so much so that tours can now be taken to see where enslaved Africans were brought up from the old port, and into this building, kept in cells until they were to be sold. The history of Charleston, what its building functions were, and in some cases have changed into now, and how all those elements mix together and connect serves as one of the biggest touristic and historical aspects of the city.

Synthesizing the Map

So prevalent are these connections, that once this mindset is adopted, a map is analyzed in this manner, and a synthesis of the information is achieved, the connections from one area to another become rich and vibrant that certain locations jump out as ripe for the taking of future public "palace" locations, and other locations seem to be tainted. This is where the original proposed location for the Spaulding Paolozzi Center falls. It's location, on Meeting Street (a strong connective artery) and its intersection with George Street (a secondary street) can be questioned. While this strategy is not traditionally used in the re-imagining of a design, for the purposes of this thesis project, the possibility of taking everything analyzed in the urban fabric, and synthesizing it to the design proposal, allows this thesis to step back and contemplate the project as a whole. This includes its location, and a determination on its placement based on all criteria of the project. The original proposed location presents an interesting exploration of the urban fabric, and the connections to surrounding neighborhoods and zones that it creates.

While its location on Meeting Street is a positive aspect, its siting on the artery connector, George Street, is questionable. Based on the analysis done previously about prominent "palace" locations and their relation to multiple means of connection, placing this building on Meeting Street, without any additional connections, could have also served as a negative component to why it was so fiercely apposed. Meeting Street serves as the main connector artery between Calhoun Street and Market Street. While this provides a large number of cars traveling between these two zones, a larger amount of pedestrian traffic is instead on the parallel King Street, therefore rendering this location more vehicle heavy than pedestrian centered: not a good component of the public "palace" that the new Spaulding Paolozzi center was trying to become.

Additionally, the neighborhood that this location abuts to, the Ansonborough neighborhood, is one of the groups that sued the BAR in the first place. It is one of the most historic residential neighborhoods in the city and had issues with this location since the beginning. In their eyes, they saw this as another large university building infringing on their residential neighborhood. They feel that it would disturb the conditions and quality of living that exist in their neighborhood, and thus wanted nothing to do with having this building in their neighborhood.

Another key aspect of this location is the College of Charleston Basketball's TD Arena, directly across Meeting Street: another large university building in this area. While this offers public exposure, many of the visitors travel from King Street one block over just for the purpose of going to a basketball game at the arena, and therefore have no reason to cross into the residential neighborhood across the street. These are also not going to be the same demographic of people, per say, that would be interested in visiting a school of architecture. This limited pedestrian realm can be easily visualized by standing on this intersection and observing the number of pedestrians that have no desire to cross the street to the east side of Meeting Street, where the proposed center was located. As well, when compared to the quantity of people that traverse Meeting Street from Marion Square down to the market area, the number of pedestrians that choose King Street over Meeting Street is vast. While a diminished pedestrian zone might not seem that bad as a general statement, when applied to the context of what an architecture school with a public art and architectural gallery space needs to thrive, the availability of pedestrian traffic becomes a very important programmatic concern and one that requires careful manipulation and articulation within its location. If the correct number of pedestrians is not achieved to accommodate this, then the project as a whole suffers.

While the people of Charleston who were opposed to this building may not have consciously known this connection, it is something subconsciously that still exists in the realm of public perception. Architects and urban planners can be trained to understand these associations, and be able to articulate them, but only after this level of analysis. Public perception may or may not include this knowledge, but understanding this possibility can provide insight into another angle as to why this project had such an outpouring of displeasure. The location of this project connects to a deeper issue explored in the next chapter dealing with the typology of this center, and connecting it back to why that type needs the public connections and pedestrian circulation that it does, and why its proposed location might have been inherently wrong to begin with. See Figure 2.5 on page 16 for a zoomed in map of the Ansonborough Neighborhood, proposed Spaulding Paolozzi Center location, and other referenced areas.

Figure 2.5. – Map of Ansonborough Neighborhood (City of Charleston, 2016)

CHAPTER THREE
TYPOLOGY AND METHODOLOGY

Contextual Typologies

Typologies exist in everything an architect designs. Whether it is the program typology of an institutional building, a residential building or many others, the characteristics that inherently go into designing that building type make up its typology. Within Charleston, and for the purposes of this thesis, I will be focusing on the two typologies of public institutional "palaces" and residential homes. Within these typologies are sub-categories that can be analyzed for their differences and similarities, and can then be synthesized for their design components to create an inherently contextual design, both for aesthetic reasons, and on a deeper, more subconscious architectural history and theory level.

When analyzing the location for the original Spaulding Paolozzi Center on Meeting Street at the corner of George Street, the public connection issue came up as a possible reason, albeit potentially not the most obvious, as to why the public did not like the location or design of the center. Everything comes back to typology, and what the building type needs for that particular application. An architecture school is predominantly a public building, made for the institutionalized learning of architectural history, theory and technology, frequently within a greater university system. In this specific case, Clemson University is a public state-funded university, within which the College of Architecture, Arts and Humanities exists, and under which exists the School of Architecture. Therefore, a building built specifically for the purpose of advancing the Scholarship of Architecture, is the definition a public building. Since it is a public building in the historic city of Charleston, and in order to fit into the urban fabric that has been established and perpetuated over the years, it must follow certain guidelines. This is where the heart of the typology begins to surface. As an addition to the public "palaces" of Charleston, the School of Architecture is obliged as responsible architects and architectural educators to occupy a building that perpetuates the urban fabric conditions and context that exists in Charleston.

In order to understand the components that go into this typology, a matrix was created to survey a number of variables. See Figure 3.1 on page 18 for this diagram. In order to make this as objective as possible, and to make sure that context was respected, the predominance of the buildings analyzed in the matrix were buildings that exist in Charleston. The only exception to this rule are the architectural school building typologies, as no precedent for a purpose built structure of this type exists in Charleston. The two categories of typology that were analyzed were residential, and institutional. The main example of residential typology that exists in Charleston is the "Charleston Single House." This building

Figure 3.1. – Matrix Diagram of Typology Analysis (Matrix, 2016)

type is specific to Charleston, was created in the city, and is the main type of residential building in the historic area of downtown Charleston, where this thesis takes place.

The second typology of public institutional buildings has five categories that were analyzed for this project. Within the context of Charleston: civic, commerce, education, government, and military. Still within public institutional, but outside of Charleston, as no precedent exists within the city, were architecture school building types: atelier, compound, courtyard, and workshop. For each of these, one precedent was chosen to represent that building typology and to be analyzed. For Charleston civic, the newly renovated Gaillard Center was selected due to the building's transformation from public dislike, to public celebration of its multi-million dollar rebuild. For Charleston commerce, the oldest piece of public commerce in the city: Market Hall was selected as a comparison to classic Charleston context. For Charleston education, Randolph Hall on the campus of The College of Charleston was selected due to its iconic imagery as a face of Charleston, its history, and its enduring architecture. For Charleston government, the Customs and Border Patrol Building was examined, as its significance to the most public zone of Charleston has already been established. Lastly, for Charleston military, the old building for the Military College of South Carolina was selected due to its prominence and relation, still today, to the city's urban fabric.

These were then compared to the institutional typological category of architecture schools, which according to Nasar, Presier, and Fisher, are divided into four main categories (2007). Atelier is the first, where professors and students exist in one large room, was the first category analyzed, and Crown Hall at the Illinois Institute of Technology was selected. The second category is compound, a type that emphasizes many zones, areas and sometimes buildings as different spaces that combine to be one cohesive collection, and this was exemplified by the new addition to Clemson Architecture School's building Lee Hall. Third is the courtyard, and the most familiar to the University of Tennessee as our atrium building falls in this category. This type is exemplified by the program existing in a circular pattern around a central open meeting space, whether as an indoor atrium or an outdoor courtyard. However, to demonstrate the reach of architectural styles, and to eliminate as much bias as possible, the very classical American Academy in Rome was selected instead of UT. Finally, the fourth type is the workshop, in which circulation through the building sees many different facets of the design profession being collaboratively worked on at once, and the main focus is on learning from other disciplines, not just one's own. While the original Bauhaus in Dessau is the epitome, the domestic example of Yale's Rudolph Hall was selected instead due to its significance to the architectural education system in this country. Once all these buildings and categories of public institutional "palaces" and residential homes were established, the analysis of each of these ten categories and typologies could be compared side by side in eight different ways in order to understand the dynamics that begin to emerge from each building type.

The categories that were chosen dealt both with aesthetic understandings, as well as urban fabric and contextual relationships. These categories broke down into eight different variables: scale; glazing; massing; levels; materiality; program; public/private; and connections.

Synthesis

The methodology that was established with the matrix diagram was an attempt at an objective analysis, but inherent with any lessons learned from analysis is an underlying tone of bias. However, there is also no possible way for architecture to be unbiased and objective. It can only attempt to be as objective as possible, for which the matrix was made, referenced and synthesized as an attempt at this objectivity. What was synthesized from the matrix were a series of consistencies and inconsistencies between the various categories. These formed the basis for what made one category different than the other.

For each category and typology, there were numerous pieces of information that were learned and synthesized, but there were six main lessons that applied fairly evenly across the matrix. The first is that there is a distinct difference between the amount of glazing from the public to private areas. For the residential this manifests itself by having smaller windows on the public side, and much larger windows and openings on the private side. In the case of the public buildings, the percentage of glazing for the wall adjusted vertically in the elevation of the building, as most of the faces of the buildings are public, which is inherent in its definition.

The second lesson learned was that in every example within Charleston, the public zone and private zones existed on two different elevation planes. In every case that was analyzed, an ascent to the main level existed, including both residential and public institutional buildings.

The third lesson was about proportions and massing. In every case, the importance of the building level was evident on how much proportional mass it had, in relation to the rest of the building. While this is slightly evident in the residential typology, it is very apparent and obligatory in the public institutional buildings, and classically is referred to as the *piano nobile* or principle (noble) level. The importance of this level cannot be overstated in public institutional buildings, especially ones that reference such classical styles in Charleston.

The fourth lesson deals with materials and scale. For the residential typology, the scale of the building materials is human scaled, meaning that they reference a manageable size for human comparison, such as the size of a brick, or a plank of wood: two of the most common materials in a Charleston Single House. For the public institutional buildings, larger and heavier materials, such as stone, provide a less humanistic scale, as well as take away the sense of domestic warmth associated with materials such as brick and wood. Instead, the public institutional buildings prefer materials that seem to be sturdy, could never fall or be broken, and use these associations and connotations to their benefit.

The fifth lesson that was learned regarding connections. While the residential homes are very insulated and inward focused, with the occupiable space inside their perimeter, the public institutional buildings are outwardly focused. Instead, they prefer to have their public spaces around the building, with the main function of the building, the only function in the building itself. The only exception to this would be the Old Military College of South Carolina building, as it straddles the line between residential barracks and public government typologies. However, this also effects the connections that exist between the building and its surroundings. Since the residential buildings are very insulated, their connections are quite limited, and serve only as a façade to the street. The institutional buildings extend their influence to touch other urban elements in the city, and therefore serve a greater connection with the city. This leads to the sixth and most important lesson from the analysis of all these categories and typologies: hierarchy.

Hierarchy

There is no greater synthesis of this information than establishing that everything in a classically designed city, from the layout of the streets and their connections from one end of the city to the other, to the balance of elements of the buildings façade, plan and layout, than hierarchy. In the typology of public institutional buildings, it is hierarchy that places the *piano nobile* on a plinth or at the top of an ascent, and it is hierarchy as well which changes the sizing of windows depending on the floor of the building. All of these building decisions are based on hierarchy in a classically designed city, such as Charleston. It is this hierarchy that subconsciously exists within the mind of anyone who visits the city, soaks up its atmosphere and architecture, and really begins to understand what Charleston means. In this hierarchy, we can find the genesis of the dislike for the Spaulding Paolozzi Center. We can also find admiration for “boring” buildings that get approved and why certain locations for buildings do not work. See Figures 3.2 and 3.3 on page 22 for a rendering of the Spaulding Paolozzi Center and analysis.

With this mindset, the original location of the Spaulding Paolozzi Center can be examined again. The reason there is not the same amount of people that traverse Meeting Street as King Street, is hierarchy. While Meeting Street is a major artery, its hierarchy tilts towards vehicular traffic, and not as much for pedestrians. Additionally, its location feels strange on the map because there is nothing similar around. The inherent hierarchy in the urban fabric makes its location feel out of balance, beyond asymmetry. When added to the disapproval from the Ansonborough neighborhood, the reasons for changing the location of this project start to become legitimate. Additionally, when added to the realization, through the matrix analysis, that architecture buildings by typological definition are not residential, then placing a public institutional “palace” in the heart of a historic residential neighborhood that doesn’t want the building placed their anyway,

Figure 3.2. – Spaulding Paolozzi Center Nighttime Rendering (Cloepfil, 2015)

Figure 3.3. – Spaulding Paolozzi Center Analysis Drawings (Cloepfil, 2015)

solidifies the reasoning behind the change of the site of the Spaulding Paolozzi Center. As well, when the lessons learned from the matrix analysis are synthesized onto the Allied Works design for the center, a further understanding of why its original location and design were so disliked can be found.

In reference to the first lesson about the amount of glazing, in context to its mostly residential surroundings and its typology, it had entirely too much glazing to the hierarchy of the building. Referencing the second lesson about an ascent to the main level, the Allied Works design did not match this contextual standard for the rest of the city within this typology. For the third lesson: there is no differentiation between the three levels in any type of hierarchy, as they all were relatively the same height. The fourth lesson, regarding materials and scale, stuck out due to its seeming disregard for the contextual material of brick and stucco. The large concrete and steel structure was distinct within its context. While heavy materials such as these work within the typology of public institutional "palaces," because it was in a residential area, and not in a hierarchically significant location, its dichotomy of materials seemed out of place, rather than an intentional juxtaposition. In reference to the fifth lesson about connections, there seemed to be more in common with a residential insulated plan and flow than that of a public institutional building. In fact, the original design of the Allied Works Spaulding Paolozzi Center was based on the Charleston Single House: the wrong typology for the building.

A New Location

Not only was the location of the Spaulding Paolozzi Center wrong based on the city's hierarchy of streets, but also its urban fabric components and streets. Its location was also wrong based on its typology of being a public institutional "palace" and the site of Meeting Street and George Street being adjacent to one of the most vocally historic residential neighborhoods in the city. Capping all of these was its apparent disregard for the contextual "rules" and precedents that had been established by other buildings within its typological category. Capping it all off, the programmatic space within the building did not leave enough space for expansion of the program. Due to building height restrictions, and lot size, if there was ever any need to expand again, the school would be in the same spot as they are currently, needing more space, and having to occupy two or more locations to augment this need. Therefore, a change was needed, and a change of location was the best solution to begin with.

During the analysis of the map, several other ripe locations for public institutional buildings surfaced. These locations offered great connective alternatives for public interaction, but didn't accommodate the correct amount of program space. Most of the locations were entirely too small, but one site, a surface parking lot on Market Street, provided ample space for the building and program to grow as needed. The surface parking site that was selected currently

accommodates vehicular parking for the Charleston Public City Market and the additional touristic activates that start from that area. Its main attraction for parking are the horse-drawn carriage rides, which is currently a hotly debated topic in Charleston and will most likely be eliminated within the next few years.

This Market Street site was selected because of its connections to the city and its hierarchical location within those connections. It sits on the north side of Market Street, at the corner of a prominent side street with a strong and historical connection. Church Street is one of the original roads of Charleston, going back to the walled city era. Today, it is still an important road, but Meeting Street has taken away a large percentage of its use. However, what makes Church Street vital within the urban fabric of Charleston is the road's configuration. Church Street is one of a very small number of roads in the city that curves around a building. Even when re-examining the classic map of Charleston, St. Phillip's Church can be seen with the road curving around the front of the church. This urban fabric detail is special, and allows for an important connection of St. Phillip's church through to other areas of the city, just by breaking the line of sight. Therefore, when the opportunity came to utilize the importance of Church Street in conjunction with the prominence of Market Street, this site became the perfect location. Additionally, in an ever densifying urban landscape such as Charleston, surface parking is much better served as building program, especially in such a rich and perfect location for a grand "palace" of public architectural education.

CHAPTER FOUR
RE-DESIGN

New Location, New Program

When re-designing the Spaulding Paolozzi Center, a new location was determined to be the best first step of the re-design. Once that was established, the program space allotments from the original Allied Works design were determined to be too small for the architecture school to grow any further than what was original programmed. After all that was established, the re-design could start focusing on what design decisions needed to happen, in what manner they needed to occur, and how to go about creating a solution to the problem. The focus was not, however, to find *the* solution to the problem, but rather determine *a* solution to the problem, in order to find a design that could match the criteria of context, aesthetic, urban fabric connections and hierarchical design moves. With the methodology created in the main body of this thesis project, the design flowed through all the lessons learned from the typological context that exists in Charleston already, and concluded with an exercise in classic hierarchical programmatic design.

Design Decisions

The design decisions that were made were done so as a synthesis of all the previous parts of this thesis project, and inform every choice that was made. The biggest design tool that was used was the golden ratio (golden mean/golden spiral/Fibonacci spiral). This was referenced due to its inherent connection to classical design and hierarchy. Every design decision that the previous architects of classical Charleston made through the years, has been based on this method of proportioning, ratios, imbedded hierarchy, and mathematics.

As architects and designers, we seek to place the program pieces in the correct and appropriate places. However, this can sometimes cause a round-about and myriad options. This is where the design methodologies and the heart of this thesis project fall into place. Establishing the method of attacking this problem allows for objective solutions that don't just "feel right" but are actually based on tangible reasoning and guidelines. The largest part of this synthesis is the placement and sizing of the program. Once the original Allied Works program was determined to be too small, the site began to develop as a much larger canvas to paint on, in order to best serve the University's needs, as well as the future needs that they might have.

Designing the Market Site

The new Market Street site presented a series of positives and negatives relative to the original design and program of the Spaulding Paolozzi Center. These design decisions will be broken down into their respected parts, based on the lessons learned from the previous sections of this thesis document. The design that came out of this synthesis will henceforth be referred to as Sigma (∑) due to its dual meaning as the overarching shape of the design, as well as its mathematical definition as the summation of numerous variables to create a solution. See Figures 4.1 and 4.2 on page 28 for final design drawings.

Site Analysis

The first condition that was analyzed at the new Market Street site were building height requirements. As this is one of the most commercially busy corridors in the city, the height requirements were very rigid at being no higher than 35 feet, in order to match the surrounding building height context that currently exists on either side of Market Street. This provides a human scale to the buildings, and prevents large hotels from exceeding the rules. The 35-foot height maximum extends approximately one-third of the total site, and separates the bottom third into the 35-foot zone, and the northern two-thirds into a 55-foot building height zone. This generated the basis for proportioning the various pieces of program in the overall composition of the site layout.

When the golden ratio was applied to this 55-foot height maximum, the proportions and scale lined up perfectly to proportion out a 34-foot lower dimension for the southern third of the site, and a 21-foot upper dimension for the northern two-thirds of the site. The ratio was then scaled down and applied at the 34-foot dimension in order to find the elevation heights of various other aspects of the project. With this in place, the design of the vertical dimension of the site took shape, and it was all based on hierarchical architectural mathematics.

Connections

Based on lessons learned from previous sections of this thesis document, the first important consideration for this new design of the Clemson Architecture Center – Charleston, was connections. The success or failure of this project depended, much like the Allied Works design, on connections. This necessity was heightened by the new and very prominent “palace” location, adjacent to the market, and on the axis of a significant road and pathway through Charleston’s history. In order to facilitate this connection, an arcaded pathway was established to run the entire perimeter of the site. Given the dimensions provided earlier with the establishment of the golden ratio, not only was the vertical dimension of 34 feet

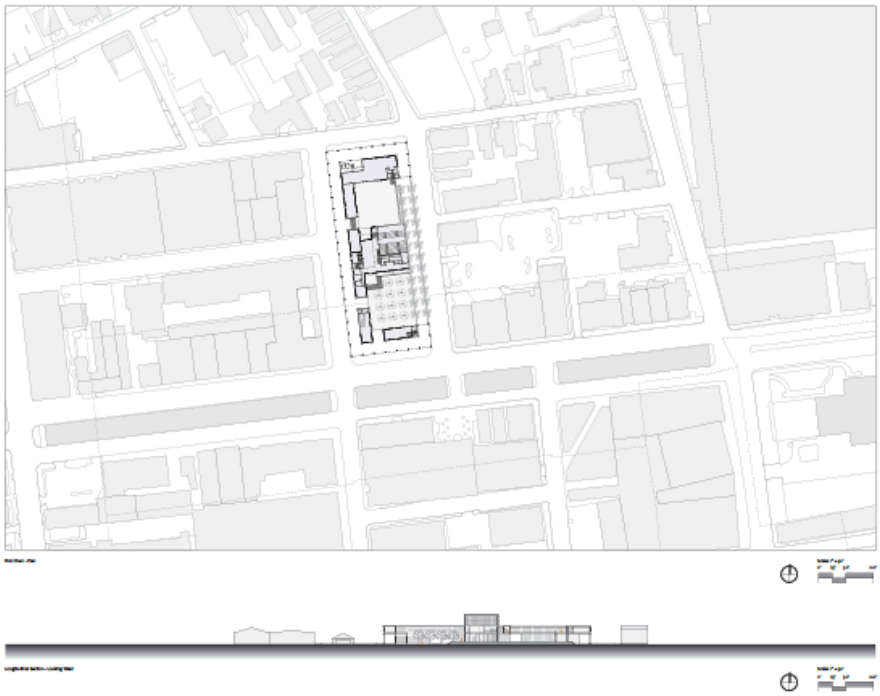


Figure 4.1. – Ground Floor Plan and North/South Section of Sigma

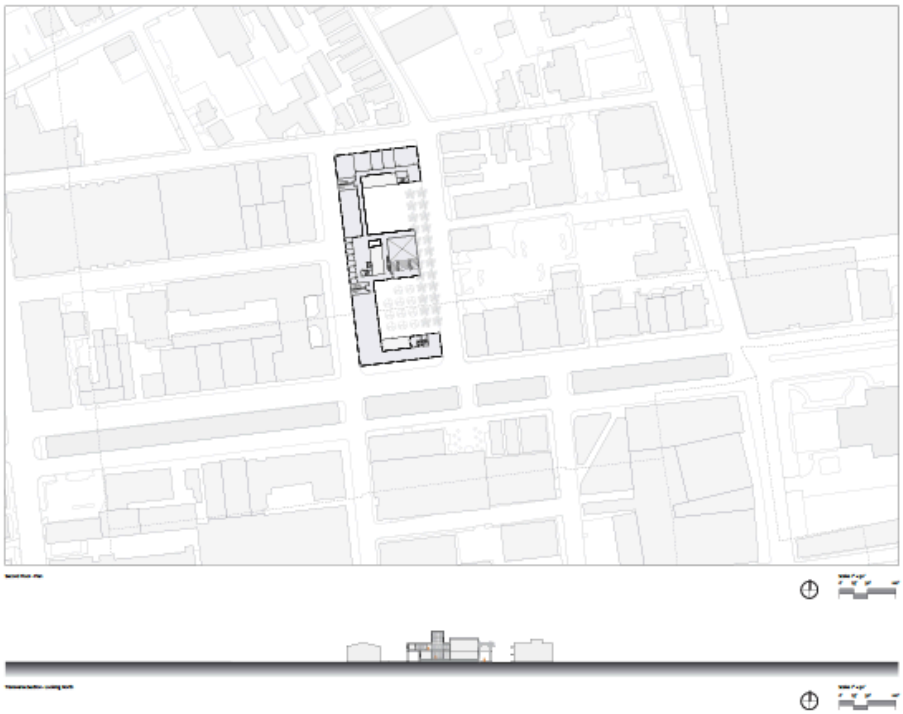


Figure 4.2. – First Floor Plan and East/West Section of Sigma

given, but its breakdown of a 21-foot lower arcaded dimension and a 13-foot upper-floor enclosed dimension also came out of this mathematical ratio. This 21-foot arcade height became the offset of the columns as well, both in the *x* and *y* direction. The repetition of this arcade provides a regulated rhythm of public and private interactions. The connections between the holistically public realm of the public city market, and the semi-public space of a public institutional building, were accentuated in the pattern of covered public occupiable space in the arcade. This architectural conversation between the public/private, inside/outside began to make evident which typology of architecture building this location would logically utilize.

The courtyard plan, analyzed with the American Academy of Rome and with the addition of the University of Tennessee – Art and Architecture Building, allows for this type of interaction, where the programmatic functions allow for a dialogue with the public realm, but also provide a stronger connection with the interior courtyard within its perimeter. With the arcaded border, the associations between the outer public space and the inner public/private courtyard was a logical step, and provided the right balance between these two opposing forces. The courtyard then acts as a second entry space into the program of the building, achieved only by first traveling through the arcade. This creates a compression and release condition from the open air market, to the covered but open arcade, down through a compressed opening in the programmatic wall, and out to the first inner courtyard. Here, the visitors encounter a planted courtyard full of Chaste Trees (*vitex agnus-castus*), which offer a medium to dense shade canopy and bright effervescent violet and lilac-colored blooms, reminiscent of the indigo plant that was once so important to the development of the city as a cash crop.

A coffee shop was added to the program, and sits on the ground floor corner of Market Street and Church Street, and serves not only the architecture school, but also as a generator of public interaction, contemplation and stimulation. Patrons can buy a coffee, and take it to the shaded courtyard where they can sit on a bench, relax and get away from the hot afternoon sun and heat for which Charleston is known. As well, they can experience a public garden different than any other in the city. This courtyard will also serve as an interaction space between the students, professors, visitors, tourists and locals to share ideas, thoughts and each others company as members of the Charleston experience. See Figure 4.3 on page 29 for a rendering of the courtyard of Sigma.

Ascension

Another of the lessons learned from the matrix of contextual buildings, is the importance in a public building of the ascent. This ascent separates the entirely public spaces from the semi-public spaces. For this design, a plinth of five feet is placed under the main program space of the architecture school's ground floor. This five feet, numerically gained from the golden ratio's mathematics, is to force a disconnect between the courtyard's completely public zone, and the semi-public

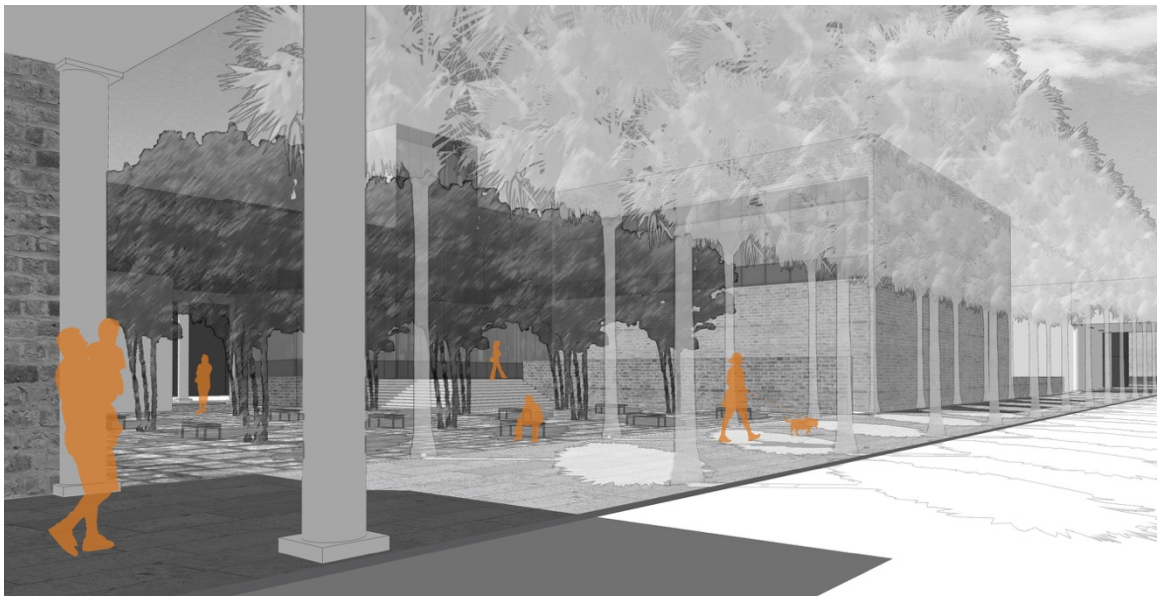


Figure 4.3. – Rendering of Courtyard and Palm Tree Arcade of Sigma

main entrance into the architecture school. This separation helps deter those who have no real desire to be in the architecture building, from those they know that is where they want or need to go. Once a visitor has ascended, they encounter a large and powerful 55-foot glass atrium, which serves both as the main circulation space, but also as a gesture of movement and sight, through the building, and into the rear courtyard. The hierarchical importance of this main circulation space warranted this to be the tallest portion of the building. When in the main atrium, the visitors have the option of circulating into the large two story auditorium space, or to open pin-up review spaces or staff offices also located on the ground floor. Visitors also have the option to circulate up, to the upper level where they will encounter more review space, the architectural library, professor offices and studio spaces. If the visitor's destination is the workshop space, they simply ascend the stairs from the first courtyard up to the main entrance, pass through the main atrium, and out into the rear courtyard.

Locating a second courtyard at the rear of the site, allows for ample-mock up space for the students involved in design builds of various projects, as well as the opportunity to provide a secondary and more private courtyard space, as this second, and the north courtyard is still located on the five-foot plinth. Stairs and ramps provide access from the arcade on either side of the courtyard, and above the large garage door spaces of the workshop is an outdoor patio, to establish a larger separation from the public. As can be seen in the rendering above, the permeability of the arcade, especially within the palm tree arcade allows visitors and occupants to flow from one area to another not just through the building, but also along its edges, allowing for an additional level of discovery for spaces such as the rear courtyard.

Materiality and Scale

When determining the materiality and scale of Sigma, the context provided a strong and ever present reminder of what should be considered. While the surrounding buildings on Market Street utilize brick, wood and other materials more consistent with residential buildings than public institutional, the proximity of the other typologies allowed for an expansion of the material palette established by the surrounding buildings. However, this is not to say that these materials were disregarded. Indeed not, the lesson learned about materiality was in reference to scale and weight of these materials. When applied to a large surface, brick offers a very heavy feel, much like the heaviness of stone and concrete as more traditional materials of institutional buildings. For Sigma, materials such as brick, stone, concrete and glazing are all used, in order to provide a cohesive and referential material palette for its context and typology. The scale of these materials also adjusts to the public/private hierarchical zone in which they exist.

Massing and Program

Massing for Sigma, as previously stated, took its shape from the courtyard typology and distributing the program pieces accordingly. The arcade acts as a band to hold all the other pieces of program within, and as a regulated pattern, the arcade establishes a perforated edge condition for the perimeter. The glass atrium, which sits at the north/south center of the site, is slightly off east/west center to allow space for the large auditorium, and the two courtyards sit as mirrors of each other, on either side of the centerline of the atrium. The main function of the building: the education of students in architecture is elevated to the second floor, which is only accessed, other than by use of elevators, after two different ascents from the public at grade entry level. At these upper levels, students and teachers have the availability of private outdoor terraces, which represent additional levels of separation and split of the various levels of public interaction within the building. The higher the elevation, the more private the space. Even in a public institutional building, there still needs to exist some private spaces for the inhabitants. This is particularly true in the case of an architecture school, where students may stay all night working. This increased separation becomes an additional safety barrier between them and the public.

Sigma's name comes from its shape, but if the shape were wholly determined by the previous descriptions, its design would be more of a figure "8" than a "∑" or "E". This is due to the "missing" row of arcade on the eastern edge of the site. This is where the previously established issue of expandable program space is resolved. By omitting this arcade of program, the site has the availability to expand, should they ever need to do so. Until then, or if they decide they do not need the extra program space, a colonnade of palm trees is planted on the centerlines of the column grid established by the arcade. These palm trees,

specifically palmetto palm trees, are the state tree of South Carolina and grow to approximately the same height as the height requirement of thirty-five feet, and roughly the same elevation as the arcade. In this manner, the palmetto palm trees imitate and reference the arcade, while providing additional shade. If that space is ever needed for the use of additional program, the palm trees can easily be replanted in other areas of the city where they may be needed.

Glazing

The amount of glazing used in Sigma is another reason the original Spaulding Paolozzi received backlash. By virtue of the lessons of the context matrix, the amount of glazing for a public institutional building changes in accordance with the importance of the floor. Therefore, the at-grade level of Sigma, the most public, received the lowest density of windows, while the ground floor, on top of the plinth, received a greater density of glazing relative to the overall dimensions of the walls. Once on the plinth, the amount of glazing increased dramatically, and in the case of the atrium, took up almost all of the walls. In this manner, the glazing became yet another means of understanding the hierarchy of the level of building. When on the upper floor, facing the public realm, the density of glazing got even smaller, as this is the least public zone within the building. The interior side of the upper floor received an increased amount of glazing, especially out to the secondary, more private courtyard, due to the hierarchy of these program functions to the public realm. The glazing then became a measurement of the degree of public access one had in each zone, rather than the original Allied Works design, which put less of an emphasis on the ratio of glazing to wall mass.

CHAPTER FIVE
CONCLUSION

Charleston, South Carolina is a complex place, full of unique context, vibrant city life, and a rich and storied public appreciation for the craft and vocation of architecture. To add a building to this urban fabric is a privilege reserved for the very best, and that opportunity is earned, not given. Great architecture permeates the city and as such, the visitors and locals alike know what fits Charleston's feel, and what does not. When something comes along that does not seem to adhere to the standard, or attempts to change the status quo too drastically, there is opposition. This was the demise of the Spaulding Paolozzi Center by Allied Works Architecture. The design attempted to be too much of a statement, but missed the mark. A large portion of this thesis was spent understanding what went wrong with this project, in as objective of a manner as possible, in order to suggest a possible solution by means of architectural exploration, methodology, analysis and synthesis.

Through this exploration, the project explored the history of Charleston, and what made and continues to influence the city today. Then, Clemson was analyzed for their role in Charleston, and from where their desires for off-campus experiences stem. After that, case studies of London and Venice were examined in order to understand what is involved in analyzing and synthesizing lessons from classical cities, their designs, and how these ideas are still applicable today. Then, these lessons were applied to classic and historic maps of Charleston, as well as to today's urban fabric. The analysis of this mapping led to reinforcement that classical and historic cities are inherently designed in a manner that sets public institutional "palaces" in strategic locations which coincide with major connections throughout the city. When these urban connections are ignored or not closely adhered to, the resultant project is lacking its sense of association with the greater city. This is one of the main issues with the Spaulding Paolozzi Center, and the largest reason for proposing to move its location for the re-designed building.

A matrix was established that took the contextual precedents of Charleston's residential and public institutional typologies and compared them to each other, in order to provide lessons learned that assisted in an objective look at the inherent exemplified definitions of each typology within Charleston. Combined with the search for a new site, a new location was identified on Market Street, and the lessons were then applied to the new design: Sigma. These included connections from the site to its greater context within the city through an banded arcade around the perimeter, as well as materiality, scale, hierarchy, glazing, massing and others, in order to combine into one cohesive and fundamentally referential contextual design. Additional considerations were given to augment deficiencies identified in the original design, which could be offset with the new location, such as the program space allotments and potential for expansion.

This project identified that public perception is based on more than just aesthetics, but it has to do with location, materiality, typology, context and the hierarchy of a building. The initial questions of this thesis project was "is Charleston's architecture stuck in a time loop? Or is the resistance to this project's design necessitated?" Through all of the research, analysis, and synthesis, it seems that Charleston is indeed not stuck in a time loop, but instead very keenly aware of what fits into their city's urban fabric and what does not. Their resistance to this design seems warranted after the analysis and understanding of how the Allied Works design fit into the urban fabric. The purpose of this thesis was always to create a dialogue about this topic. A design was produced for the purposes of exemplifying how all this analysis could be engaged in a design, but there existed a bigger question, a larger topic, and a greater motive to this thesis project.

The deeper question had to do with context, research and surroundings. As architects, it is the professional duty of the profession, to make a positive difference in communities, while making sure that the established status quo is being adequately pushed. Sometimes, however, this line is stretched too far, and the public perception backfires on the design, as in the case of the Spaulding Paolozzi Center. Sometimes architects can really change the game, and this push is exactly what is needed for a city, such as Frank Gehry's Guggenheim Museum in Bilbao, or the Opera House in Sydney. Conversely, all of these judgments depend on the context, and in a city such as Charleston, which is so devoted to its classical and historical architecture, the pushing of the status quo needs to be done more sensitively than in other locations.

Charleston is a place that will always be special, unique, humid and haunted, and it is the job of the architect to make sure the city's identity stays true while it grows. The culture and lifestyle that exist there is like nothing else, and that is the reason visitors and locals alike cannot get enough of Charleston. Its history has been rough, its reputation scarred, but it has held on and emerged as a survivor of its heritage, and a jewel amongst the sand. There is just something about the city that captures people, and never lets them go.

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VITA

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Denver Sells held several professional architectural internships through his studies, both in undergraduate and graduate school. These include two summers at Overcash Demmitt Architects in Charlotte, NC, one summer at Darien Lake Theme Park and Resort in Buffalo, NY, contract work for Water Technology Inc. in Beaver Dam, WI, and a one-year internship/graduate assistantship with the University of Tennessee – Knoxville Facilities Services Office of Design Services.

Denver Sells' architectural interests include architectural integration in various alternate disciplines, the mainstream standardization of sustainability, and the interaction of architecture with interior design.