

Archana Kumaran / Enrique Mendoza

Architectural Internship

Summer 2023

AKC

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Preface

Provocations

The internship period of architectural candidates has a significant role in developing future professionals. This critical point in their educational career is intended to build on the concepts learned in university classrooms and in the studio. As well as provide insight into the day-to-day operations that happen in a traditional architecture practice.

Often during internships, candidates are tasked with mundane or meaningless repetitive tasks. With no clear direction or purpose, failing to take advantage of the unique opportunity for both the practice and intern candidate.

It is for this reason this iteration of the GKG Summer Internship Program focused around two core concepts. The first concept establishes drawing is the primary means of communication. The second concept emphasizes the importance of research in professional practice.

With this in mind, we developed a series of weekly drawing assignments. Each assignment intended to explore various aspects of a built project through a unique drawing type. Together we compiled these drawings and organized them as a part of this publication. To contrast this, the Intern Candidate was also asked to co-author and edit a series of research papers intended for publication.



This year's candidate, Archana Kumaran is a second year Interior Architecture student at George Washington University in D.C. Although she is still at the beginning of her academic journey, she hopes to produce work that is sustainable and uniquely contextual.

Internship Candidate

Archana Kumaran

Internship Coordinator

Enrique Mendoza

Studio Principle

George George

Studio Participants

Max Marin

Nicole Rivera

Karolayn Chavez

Abhishek Anand

Sneha Samuel

Neethu Susan

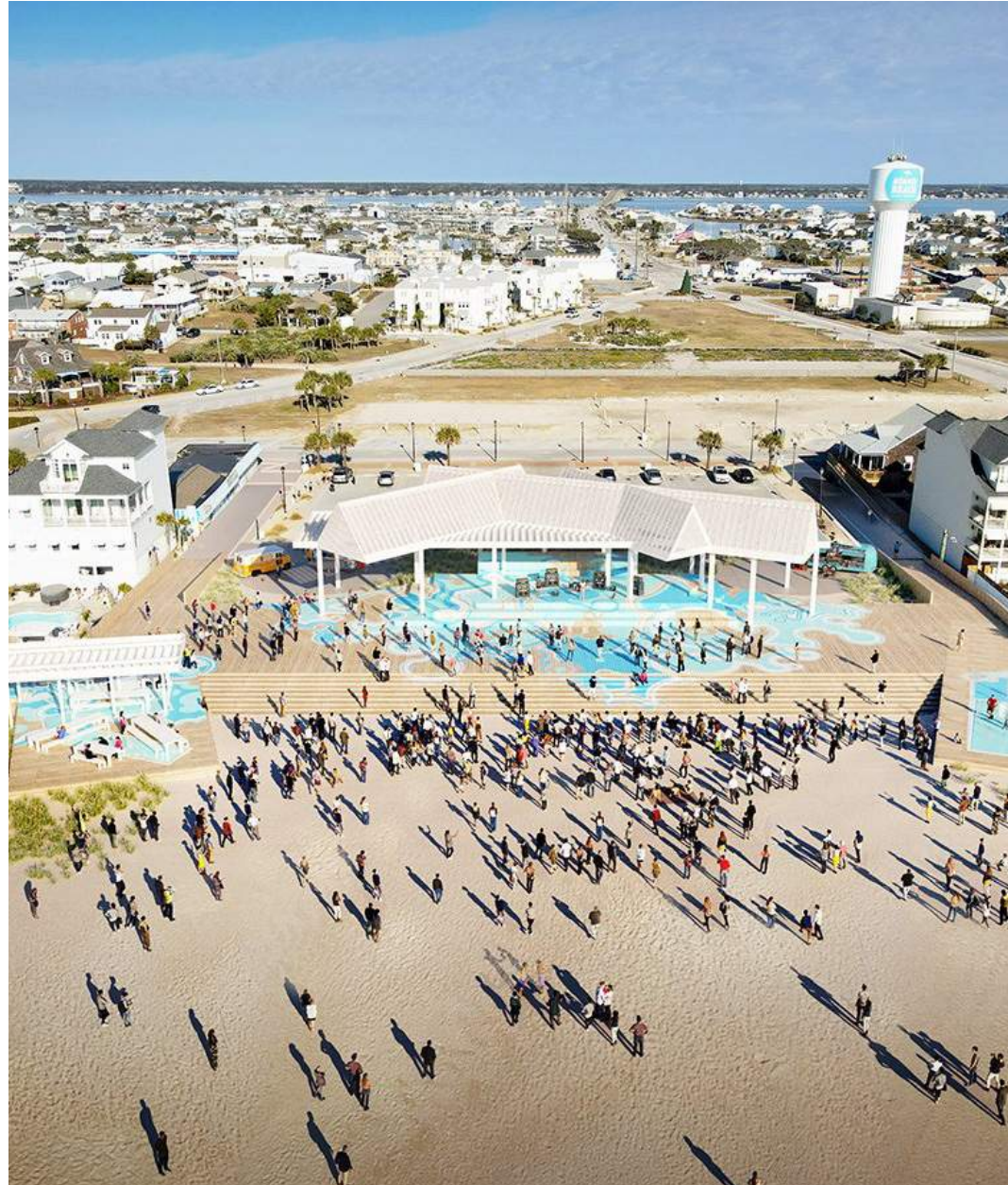
Benito Larrain

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Visual Case Study

Site Plan



Atlantic Beach Boardwalk Central Pavilion

Image Credit: FORMA

Project: Atlantic Beach Boardwalk

Location: Atlantic Beach, North Carolina

Firm: FORMA

Type: New Multipurpose Public Space

Project Description

The Town of Atlantic Beach, NC, used an international design competition to select the architects to lead the design of a major upgrade to its oceanside boardwalk and surrounding areas.

FORMA's proposal 'shakes up' the linear boardwalk approach from mere circulation into a series of destinations each with its own character. The project features an innovative combination of large-scale street art with a rich mix of programmed decks and resilient shading structures.

The central aim of the proposal is to create a diverse set of unique spaces for play, gathering, and relaxation within the heart of Atlantic Beach. This is accomplished by several deck 'clusters' which provide focal points and intersect the linear boardwalk on the ocean side, loosely subdivided into three programmatic zones. The east part is calmer, with places for relaxation, rest and observation of nature. The west part is more active, focused on games and play, with public restrooms housing open air showers, and is the primary access point from the adjacent parking lot. The central multi-functional zone around the open-air Pavilion can accommodate large gatherings during city-planned events.

Investigation

In this first visual case study we examined the visual characteristics along a singular portion of the boardwalk proposal. Taking note of the different visual characteristics present and how they contributed to the overall experience of the boardwalk.

The left most portion features two covered portions along with a few open areas for seating, games, and recreational activities.

It is for this reason, the proposal was very well received. It's sprawling layout and geometry fosters a seemingly endless number of unique architectural type conditions. Which make any stretch of the boardwalk feel like a completely different place.

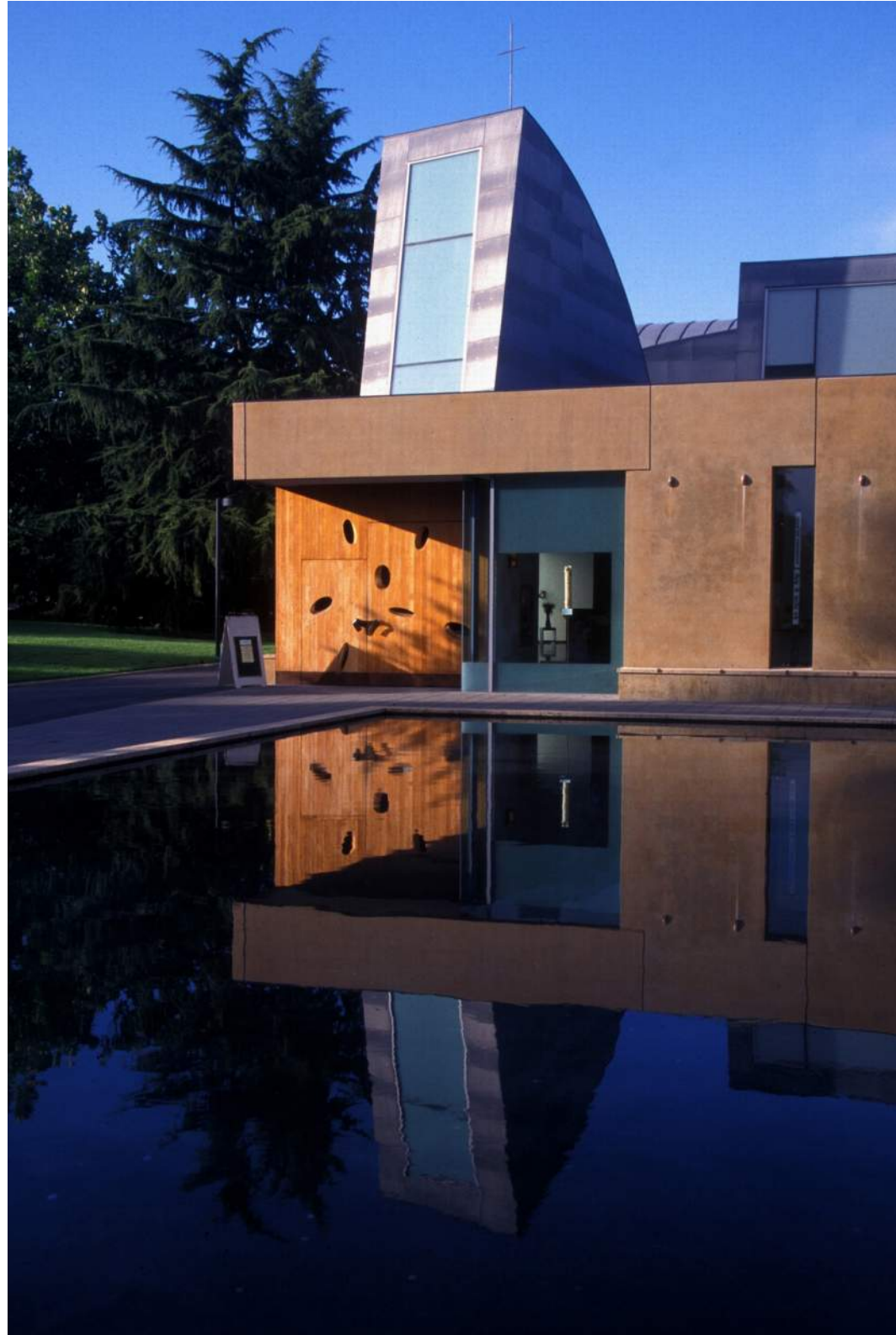
Visual Case Study



Site Plan Drawing
Scale: 1/256 = 1'-0"

Visual Case Study

Plan



Chapel of Saint Ignatius Entry

Image Credit: Travis Miller

Project: Chapel of Saint Ignatius
Location: Seattle, Washington
Firm: Steven Holl Architects
Type: Worship Space

Project Description

Seven bottles of light in a stone box; the metaphor of light is shaped in different volumes emerging from the roof whose irregularities aim at different qualities of light: East facing, South facing, West and North facing, all gathered together for one united ceremony. Each of the light volumes corresponds to a part of the program of Jesuit Catholic worship.

The south-facing light corresponds to the procession, a fundamental part of the mass. The city-facing north light corresponds to the Chapel of the Blessed Sacrament and to the mission of outreach to the community. The main worship space has a volume of east and west light. At night, which is the particular time of gatherings for mass in this university chapel, the light volumes are like beacons shining in all directions out across the campus.

Investigation

In this drawing we examined the intimate nature of worship space. Our study uncovered two very distinct characteristics. The first being a logical organization of spaces for common rooms and secondly a clear and concise linear procession within the floor plan.

Common rooms such as the confessional, restrooms, and storage space are accessible but not in the way of the the grand hall.

The linear procession throughout the chapel is highly intentional as the church uses this procession to tell the story of christ throughout his life. Highlighting key moments with diffused light.

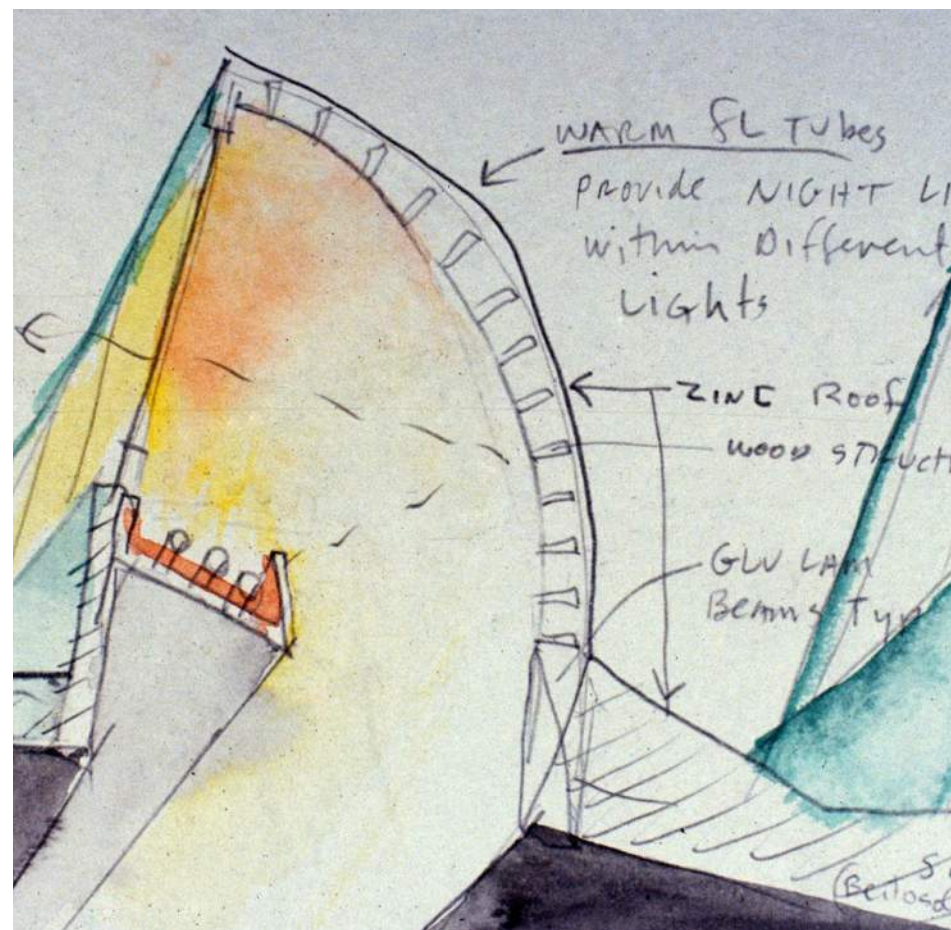
While modest in scale, this building offers much to the community. Providing a safe place to gather and serve the community for many years to come.

Visual Case Study



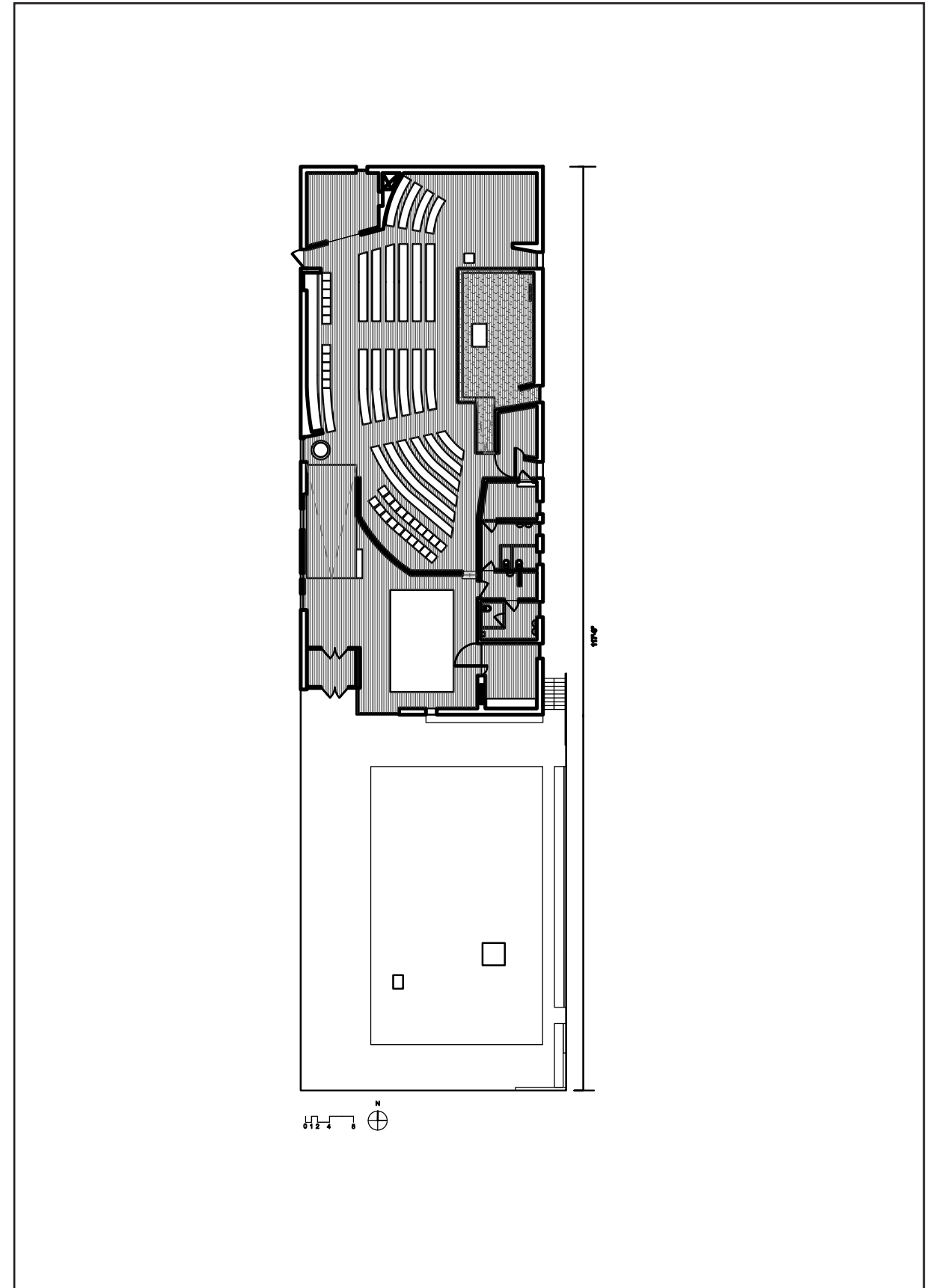
Chapel of Saint Ignatius
Roof Study

Image Credit: Steven Holl Architects



Chapel of Saint Ignatius
Light Study

Image Credit: Steven Holl



Plan Drawing
Scale: 1/128" = 1'-0"

Visual Case Study

Section

Project: The Kilbourne
Location: Glenshaw, Pennsylvania
Firm: Sears Roebuck and Co
Type: Residential

Project Description

The Kilbourne is an iconic 20th century single family home which was sold primarily through mail order catalog by Sears Roebuck and Co. from 1908 to about 1942.

Sears offered more than 370 unique designs in a wide range of architectural styles, and sizes over the line's 34-year history. These homes often provided a comfortable yet cost effective path to homeownership for growing post-war families. Sears homes often retailed for around \$2,500.00 United States Dollars.

While there is no comprehensive documentation as to where these homes were built. Remnants of these original sears homes can be seen accross the country.

Investigation

In this brief investigation we looked at the historic significance of the prototypical mail order catalog home. As well as built an understanding if the fundamenal elements that are used to compose a sectional drawing.

Section drawings are by far one of the most useful drawings for communicating design intent. Typical drawing sets are littered with small, medium and often times large sections as they can communicate how systems in relation come together and harmonize.

Sections also intoduce the idea of threshold, and can provide inside on the interior definitions of space.

By further examining the Kilbourne House, we were able to further examing its characteristics that make it iconic.

FIVE OR EIGHT ROOMS AND BATH

Honor Bill
The Kilbourne
 No. 17013 "Already Cut" and Fitted
\$2,499.00

A CUSTOMER who built The Kilbourne bungalow recently wrote us as follows: "Our house has been the object of much admiration, not only from our friends, but strangers, who in passing by will stop to look at the artistic front. Many have remarked about the 'homey' porch. We have no hesitancy whatever in recommending Sears-Roebuck lumber, which came in plenty of time, and in splendid condition. Also must thank you for the courteous treatment and helpful suggestions you have given us. We know we saved nothing less than \$1,500.00."

The Kilbourne bungalow satisfies every family that has built it. Judge for yourself! The photograph and floor plan reproduced on this page shows the reason why The Kilbourne is such an outstanding value. See its sloping roof, the dormer, the overhanging eaves, the fireplace chimney, the large porch and the massive porch pillars!

The Living Room. Size, 21 feet by 13 feet 2 inches. Interest is centered on the fireplace and mantel, at each side of which is a window. There are three additional windows overlooking the front lawn. The large size of this room allows for a pleasing arrangement of furnishings.

The Dining Room. French doors connect the living room and dining room. Floor size of the dining room, 12 feet 10 inches by 13 feet 8 inches, just the right size for the modern home. A double side window and two high sash windows provide light and air.

The Kitchen. From the dining room a swinging door opens into the kitchen. Size of kitchen, 12 feet 3 inches by 10 feet 4 inches. It has a built-in cabinet, No. 9260 and 9261 shown on pages 86 and 87, space for sink, range, table and chairs. A double window affords light and ventilation.

In one corner of the kitchen there are five shelves, and on the opposite side a door opens to stairway leading down to the basement. At another end a door opens to stairway leading to the second floor. A door leads to the rear entry, which has space for a refrigerator, and door to grade stairs.

The Bedrooms. A hall connects the living room, the kitchen, two bedrooms, the bathroom and the built-in closet. The front bedroom, 14 feet 8 inches by 14 feet 8 inches, has a built-in combination wardrobe, No. 9258, as illustrated on pages 86 and 87. Two front windows and one side window provide light and cross current of air. The rear bedroom, 12 feet by 9 feet 8 inches, has a clothes closet, and a window on each outer wall.

The bathroom has a built-in medicine case.

The Basement. Room for furnace, laundry and storage.

Height of Ceilings, First floor, 9 feet from floor to ceiling. Basement, 7 feet from floor to side.

What Our Price Includes
 At the price quoted we will furnish all the material to build this five-room bungalow, consisting of:
 Siding; Lath;
 Roofing, Clear Red Cedar Wood Shingles;
 Soffit, Cypress, Bevel. Wood Shingles on Porch Gable;
 Framing Lumber, No. 1 Quality Yellow Pine;
 Flooring, Clear Oak and Maple;
 Porch Flooring, Clear Edge Grain Fir;
 Porch Ceiling, Clear Yellow Pine;
 Finishing Lumber;
 High Grade Millwork (see pages 86 and 87);
 Interior Doors, Two-Panel Design, White Pine with Fir Panels;
 Two Beautiful Grain Yellow Pine;
 Windows of California Clear White Pine;
 Medicine Case Wardrobe;
 Kitchen Cabinet;
 Bath Cabinet;
 Eave Trough and Down Spouts;
 16-Lb. Building Paper, Sash Weights;
 Chicago Design Hardware (see page 107);
 Paint for Three Coats Outside Trim and Siding;

Options
 Stain for Shingles on Front Gable Wall for Two Branch Coats;
 Varnish and Wood Filler for Interior Doors and Trim;
 Varnish Shingles and Wood Filler for Oak and Maple Floors;
 Complete Plans and Specifications.
 See Description of "Honor Bill" Houses on Pages 12 and 13.

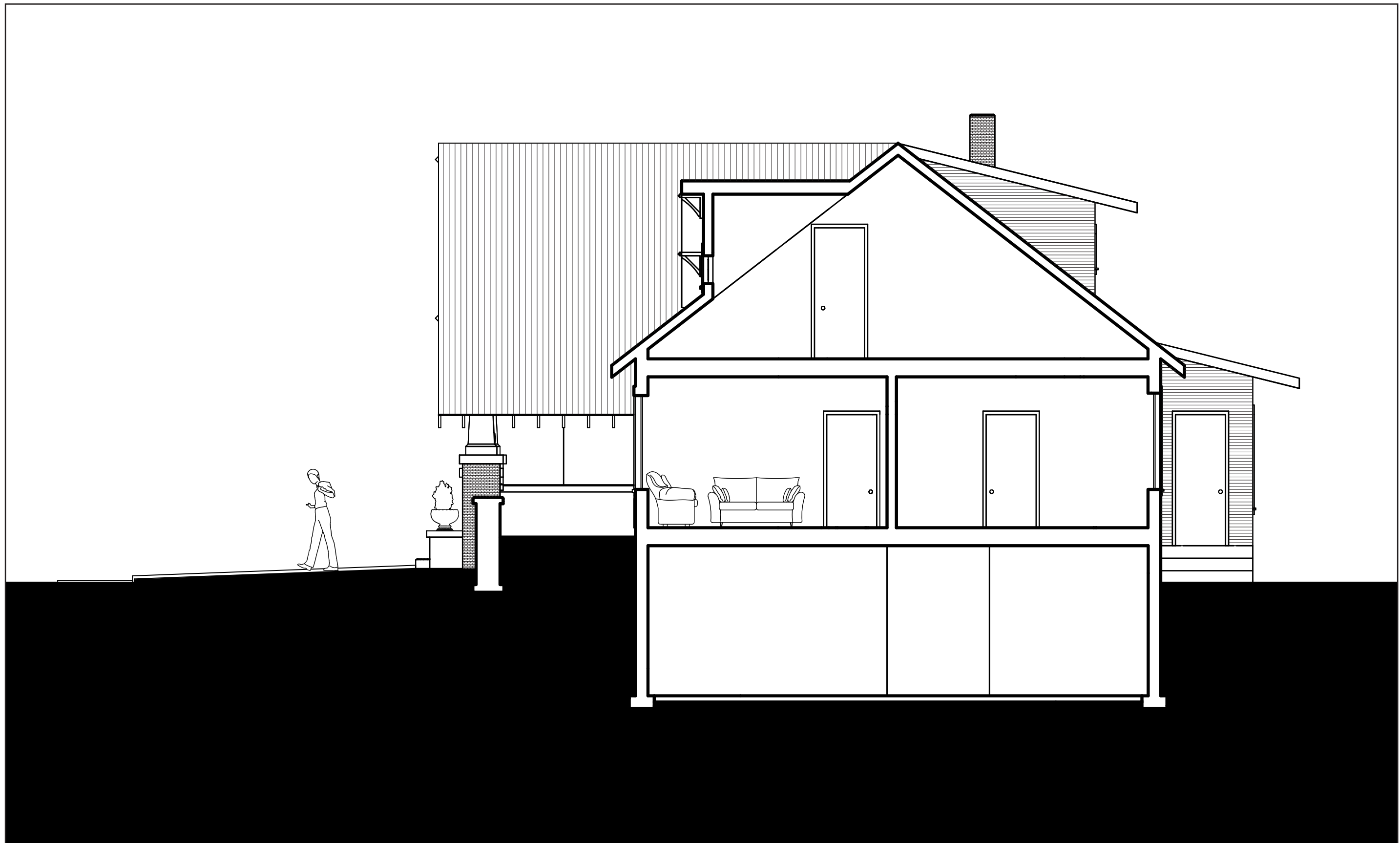
Options
 Furnished with three rooms in attic, with single floor, \$280.00 extra. See attic plan.
 Sheet Plaster and Plaster Finish to take the place of wood lath, first floor, \$153.00 extra; for first floor and attic, \$246.00 extra. See page 80.
 Oriental Japanese Shades, guaranteed 17 years, instead of wood shingles, \$42.00 extra.
 Oak Doors and Trim for living room and dining room, \$50.00 extra.
 Storm Doors and Windows, \$69.00 extra.
 Screen Doors and Windows, galvanized wire, \$43.00 extra.

For prices of Plumbing, Heating, Wiring, Electric Fixtures and Shades see page 106.

SEARS, ROEBUCK AND CO.

Sears "Kilbourne" in the 1923 Sears Modern Homes Catalog

Visual Case Study



Section Drawing
Scale: 1/64" = 1'-0"

Visual Case Study

Elevation

Project: 461 Powerhouse Arts
Location: Brooklyn, NY
Firm: Hertzog & Demeuron
Type: Commercial

Project Description

Located along the historic Gowanus Canal between Red Hook, Carrol Gardens, and Park Slope. The original Brooklyn Rapid Transit Power Station was built in 1904, with the intention of supporting Brooklyn's expanding transit system. However in the late 1950's, half of the original structure (Boiler House) was demolished. Leaving the Turbine Hall to stand by itself. As time went on, the building would become synonymous throughout the community, becoming a destination for local graffiti artists, earning the nickname of the batcave. Later in 2010, the site was designated a Superfund site by the United States Environmental Protection Agency, identifying it as a candidate for future remediation.

Aside from proposing a building that meets the needs of the non-profit, the building needed to preserve, restore, and reconstruct essential elements of the original power station in order to appropriately strengthen the building's industrial character, and its relationship to the immediate urban context.

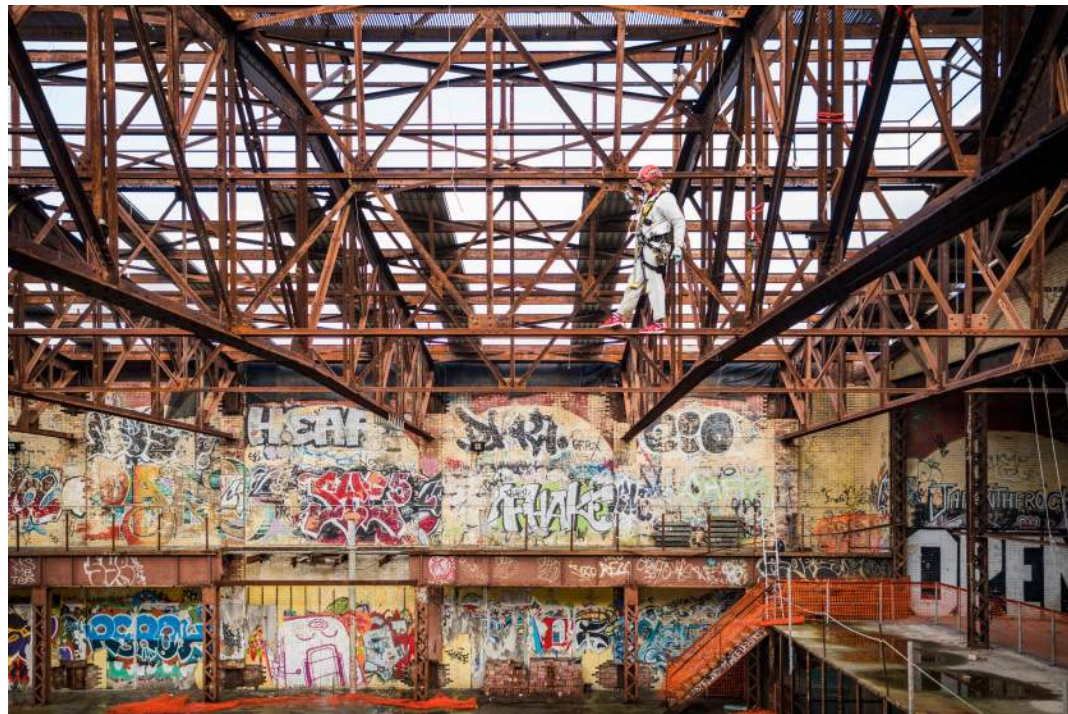
Investigation

The goal of this investigation was to understand the complicated and tumultuous nature that is a building's frontal facade.

Understanding that each individual element has a set of interior responses as well as a relationship to a much larger composition.

The Powerhouse Arts Building by Hertzog and Demeuron is a great example of how one can blend the characteristics of two buildings while representing their history within the neighborhood.

The new addition pays homage to the building that once stood in its place with its use of relatively flat faces, and arched windows. Most notably the bright red color used throughout the facade.



Graffiti lined walls of the the largely abandoned *Batcave*.

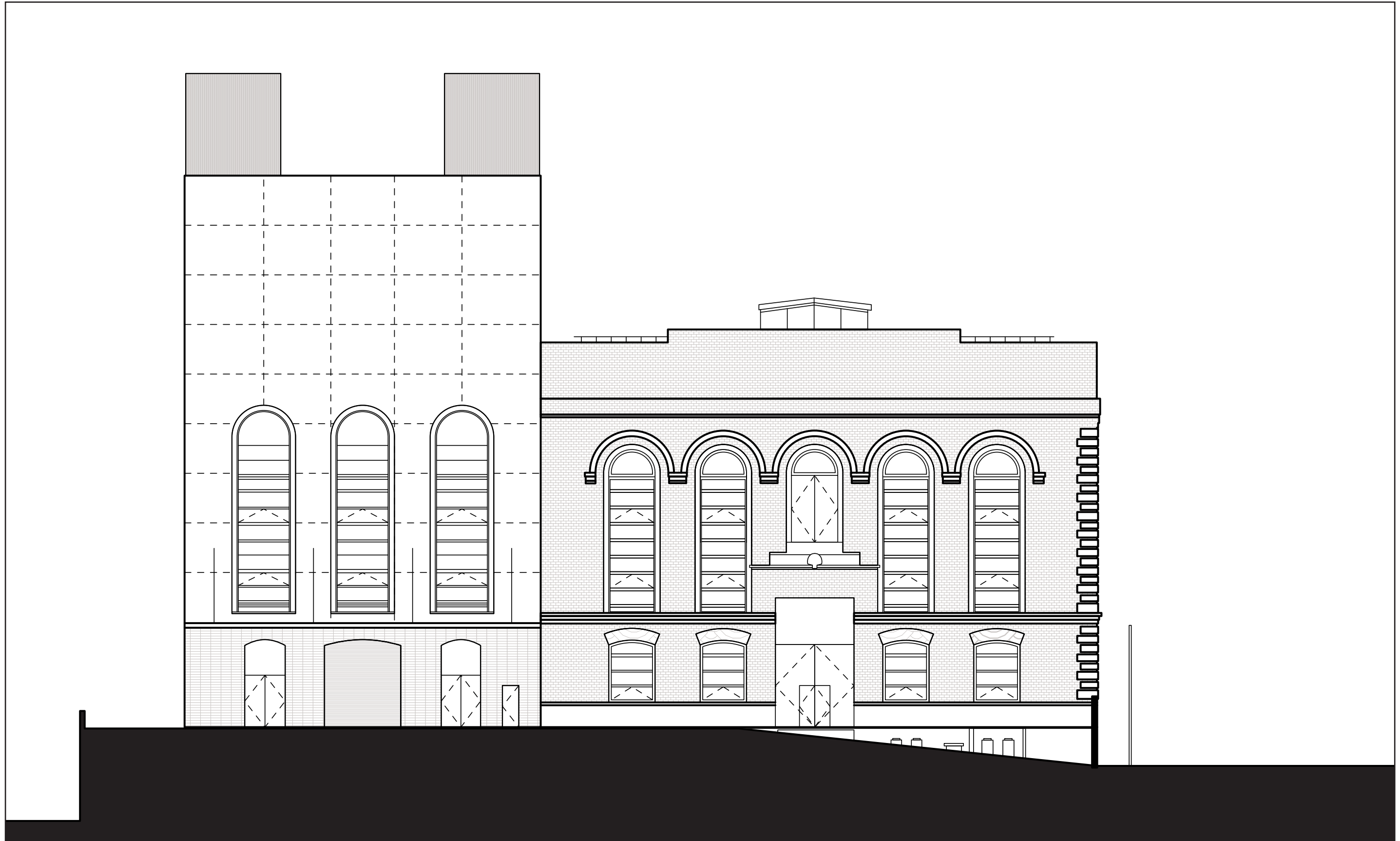
Image Credit: Image Credit: Hertzog & Demeuron



Aerial image of completed *Powerhouse Arts Building*.

Image Credit: Hertzog & Demeuron

Visual Case Study



Elevation Drawing
Scale: 1/128" = 1'-0"

Detail

Project: Doric Column

Location: The Metropolitan Museum of Art

Firm: Calvert Vaux and Jacob Wrey Mould

Type: Detail

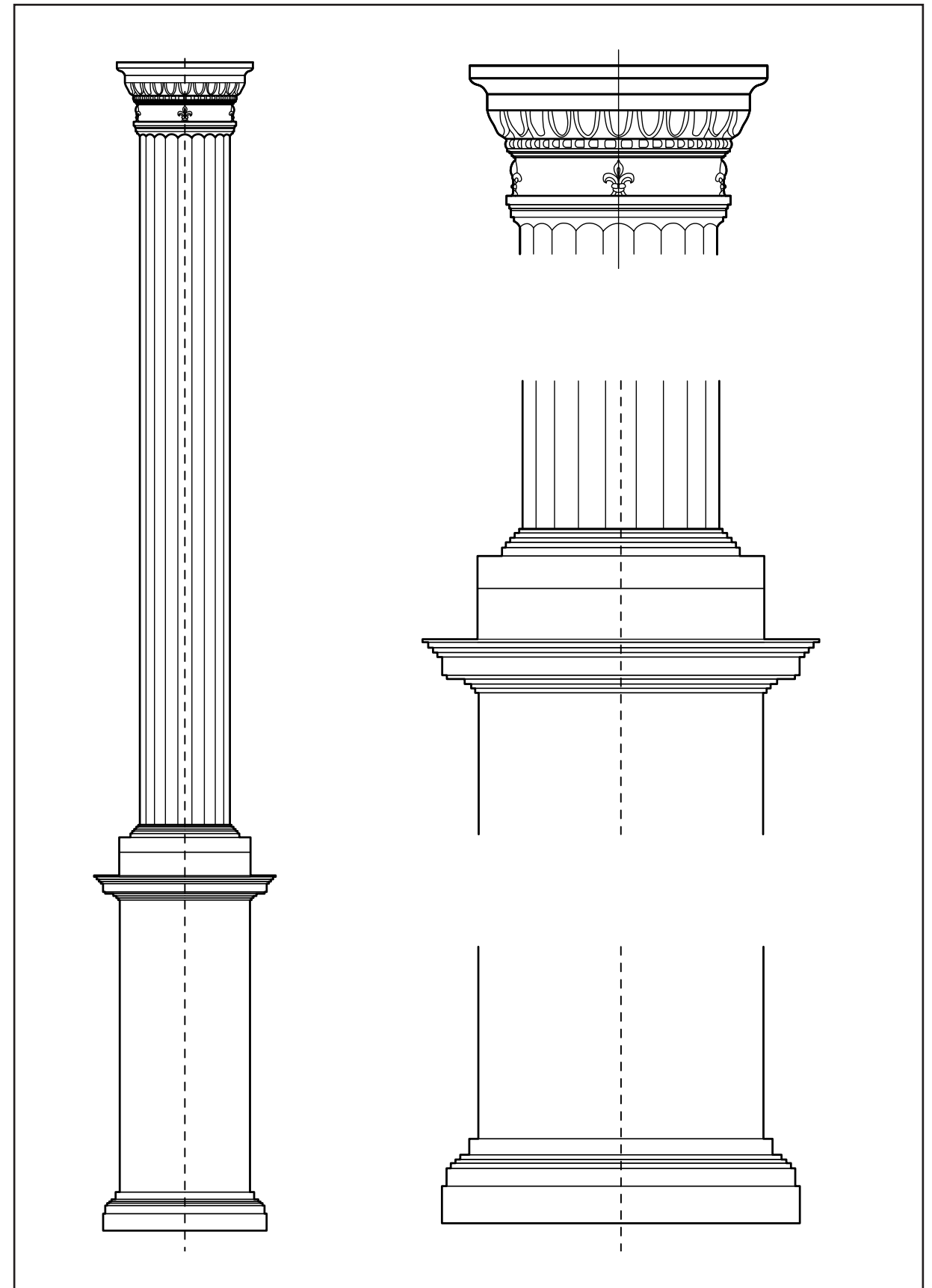
Project Description

A Doric column is a timeless example of the elegance and might of the past. Its commanding presence attracts attention and inspires respect and awe. The column projects an impression of permanence and stability as it rises from its base. The shaft is substantial and plain, with smooth, parallel flutes that run vertically from top to bottom and convey a feeling of well-ordered discipline.

The capital, the pinnacle of creative ability, is positioned at the summit of the column. The entablature above the plain, square abacus, which is a distinctive feature of the Doric capital, is supported by it. The rounded echinus and characteristic, gently curved annulets are located directly beneath the abacus and add a subtle touch of refinement to the otherwise utilitarian design.

Investigation

The goal of this investigation was to expand our drawing techniques, and understand the underlying geometry found within a column.



Detail Drawing
Scale: 1/16" = 1'-0"

Wallpaper Article

Written by: Archana Kumaran
Edited: Enrique Mendoza

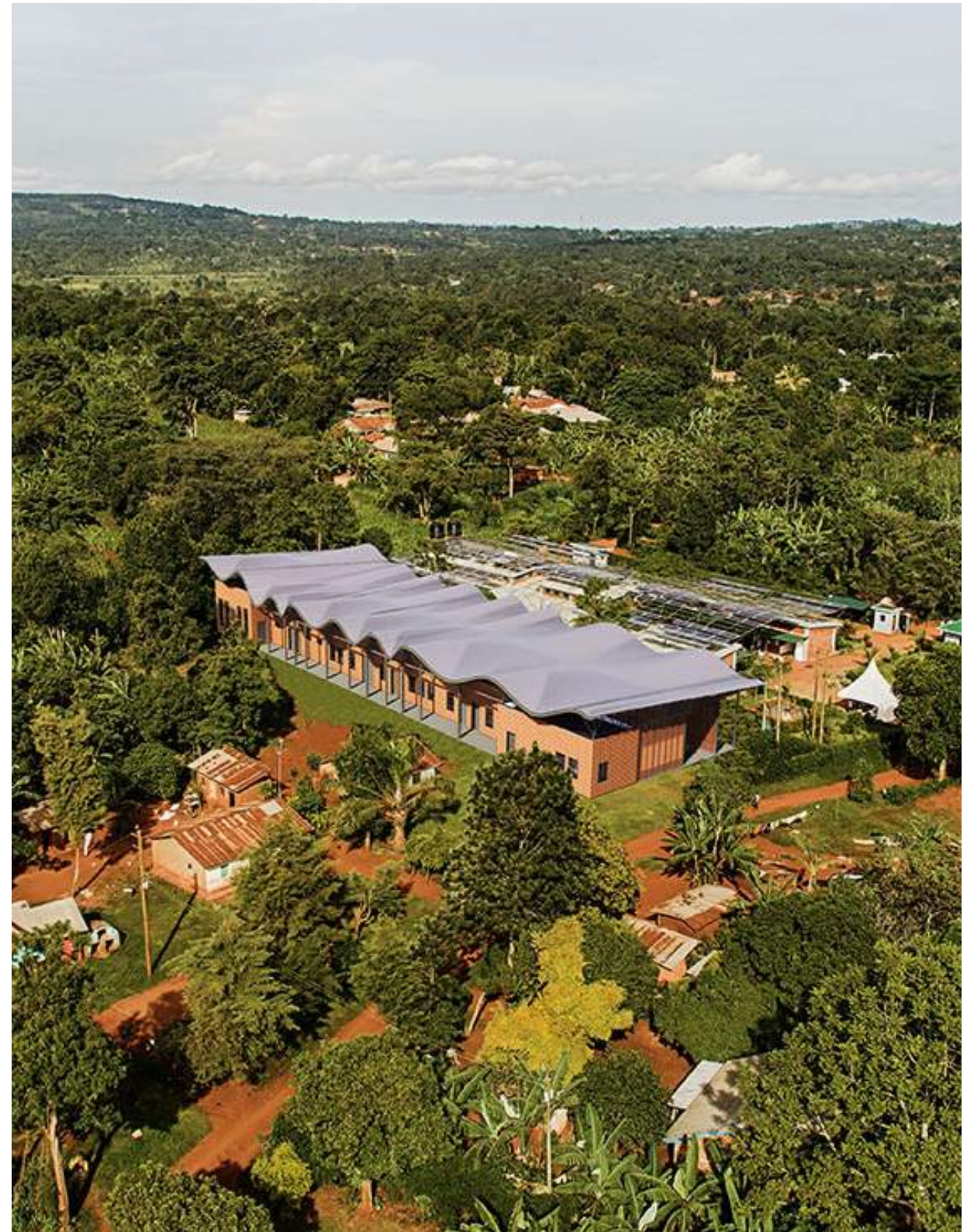
Kyabirwa Surgical Center

While surgical services remain scarce for much of the world, this annex to the existing Kyabirwa Surgical Center in Kyabirwa, Uganda, dispels the myth that such services are logistically impossible to provide in rural areas. Situated near the country's famous White Nile River rapids and five miles north of Jinja, the nearest city, this project enhances the center's accessible and affordable care for more than 570,000 Ugandans. This award winning surgical center allows for the local population to access more complex procedures that otherwise would not have been possible. The innovative surgical ward is fully self-sustaining, being exclusively powered by solar panels, and water reclamation systems for reuse.

Built as an annex to the existing Kyabirwa Surgical Facility; the new facility provides overnight stay ward, state of the art medical laboratory and staff support facilities. A secondary protective roof of the building is designed to collect rainwater, facilitates ventilation air movement and resembles the famous rapids of nearby Nile river. New building relies on the existing Surgical Center solar array for primary and backup electrical power.

The design itself considers many factors, for instance the roofing panels were designed to mimic the natural curvature of a banana leaf, commonly used in Uganda. Not only this, but the unique curvature of the design allows mass amounts of rainwater to be collected, – over 1 million gallons of water in 2022. Additionally, the center features on-site sewage and disposal systems, which allows this design to be replicated and utilized in areas that may have similar outcomes. The design is also influenced by the local climate with consideration to events like flooding, which can have disastrous consequences on the local population who prior to this, would not have had the accessibility for more complex procedures. Moreover, construction materials were locally and sustainably sourced, with materials like clay, terrazzo, and stone being utilized. The building is clad with locally made clay tiles, steel was fabricated by local ironworkers and local skilled and unskilled labor was used for the construction. This not only reduced the necessity for material transport, but it allowed jobs to be sourced locally.

This spacious and elegant structure not only serves a life-saving purpose, but is designed in a way that maximizes the potential of the surrounding space, and emphasizes the beauty of local materials. Not only is it an aesthetically pleasing site, but it is also highly effective, producing enough energy to power it multiple times over. This innovative building by GKG allows the rural population to access life-changing healthcare, in a unique and technologically advanced facility.



Kyabirwa Surgical Center *Concept Rendering*

Reflection

Written & Edited by: Archana Kumaran

GKG Summer Internship 2023

As I reflect on my time interning for GKG, I am filled with a mixture of immense gratitude and growth. Embracing the virtual realm has been both exciting and challenging, offering unique opportunities to learn, observe, and develop as an aspiring architect.

Throughout my internship, I've learned the art of adaptability. Working remotely demands a level of flexibility that I had not experienced before. I quickly realized the importance of effective communication and how it transcends geographical boundaries. Watching team members collaborate with each other, across various different time zones and countries, it has taught me about the importance of effective communication and general time management.

One of the most rewarding aspects of the virtual internship was the chance to observe the fusion of technology and architecture. The use of various programs for meetings and collaboration, design simulations, and digital modeling opened new avenues for creativity and innovation. Throughout this process, I was given tasks each week, which were exciting and highlighted different architectural styles. I learned a lot about programs such as Rhino 7 with the help of my internship coordinator, Enrique, who took a lot of time and effort putting



Google Meet

everything together. Furthermore, I saw how these smaller projects that I was doing could translate into a larger scale, with amazing sketches and concepts being made into reality. Witnessing the firm's ability to leverage these tools to craft stunning architectural concepts was truly inspiring and ignited my passion for incorporating technology into my own future projects.

During this internship, I have absorbed a lot of valuable information that will greatly help throughout the future school years. I loved observing the day-to-day meetings and seeing how much of a trial and error process that designing is. As well as that, I noted how much thought and discussion goes into a project, and how everyone's minds are so brilliant and creative. As well as that, I noted how everyone prepared for presentations and meetings with clients, and how thorough their knowledge was about their respective projects. This was truly an amazing internship and I'm incredibly grateful to have experienced it.

However, it was not without its challenges. As much as I appreciated the convenience of working from home, I found that maintaining the pace of the schedule and motivation in certain times was difficult. The boundaries between work and personal time blurred, leading to occasional burnout. As well as that, there were some conflicts with time-management that could probably be addressed with some in-person communication. My strengths in the online workspace lie in my self-discipline and desire to learn and experience the day-to-day workflow. I quickly adapted to remote project management, ensuring I met deadlines and remained accountable for my contributions. One thing that kept me on track was the daily check-ins I had with Enrique, which kept me motivated and focused on the task at hand. As well as that, it was a nice space and time for me to ask all of the questions that I probably wouldn't have been able to solve within that time frame. Additionally, the digital world allowed me to showcase my proficiency in various architectural software, enhancing my value as a virtual team member.

On the other hand, I recognized some weaknesses in the remote setting. I found it challenging to assert myself in virtual meetings and express my ideas confidently. In-person, I tend to be more assertive, but the digital platform sometimes made me feel hesitant to speak up, fearing I might interrupt or not be heard.

In conclusion, my internship with GKG has been a transformative experience. I've learned to navigate the intricacies of the virtual world, gaining valuable insights into the future of architecture and the power of technology in shaping our designs. While challenges of maintaining work-life balance and forging meaningful connections remain, I've emerged with newfound adaptability and an understanding of my strengths and weaknesses in the online workspace. Armed with this knowledge, I'm eager to continue embracing the digital realm while pursuing my passion for architectural excellence. I am incredibly grateful to all of GKG and Enrique who not only put in a lot of passion and time to teach me, but also for all of the valuable information I gained and the kindness they showed me.

Conclusion

Written & Edited by: Enrique Mendoza

Enrique Mendoza is a Project Designer at GKG Architects and the coordinator for this year's GKG Summer Internship Program.

Closing Thoughts

Before my closing thoughts, I wanted to take a moment and express how genuinely grateful I am to have had the opportunity to work with this year's GKG Summer Intern. It has been a really refreshing experience to work with someone who is relatively early into their architectural career.

Being someone who has been out of school for a couple years now and worked in a professional environment for that duration, you realize how quickly you can become stagnant or out of touch with academia. This experience has allowed me to re-evaluate the state where architecture students are today. Hopefully contributing to their educational experience, through developing this roughly 8-week long program.

As I mentioned in the preface, "The internship period of architectural candidates has a significant role in developing future professionals. This critical point in their educational career is intended to build on the concepts learned in university classrooms and in the studio. As well as provide insight into the day-to-day operations that happen in a traditional architecture practice". Internships



Enrique Mendoza

generally speaking are the first instance where their learning evolves outside of the classroom. In doing so they become more apt and aware through their observation period.

In my experience, most of the internships that take place between university semesters, are either poorly managed or poorly executed. As I mentioned in the preface "candidates are tasked with mundane or meaningless repetitive tasks. With no clear direction or purpose, failing to take advantage of the unique opportunity for both the practice and intern candidate". With these things in mind, I set out to develop a relatively comprehensive program that was targeted at keeping the intern interested and engaged.

For this iteration of the GKG Summer Internship Program, we focused on two fundamentals, drawing and research. "The first concept establishes drawing as the

primary means of communication. The second concept emphasizes the importance of research in professional practice". "We developed a series of weekly drawing assignments. Each assignment intended to explore various aspects of a built project through a unique drawing type. Together we compiled these drawings and organized them as a part of this publication. To contrast this, the Intern Candidate was also asked to co-author and edit a series of research papers intended for publication." Every week, my goal was to present a new exciting assignment. Whether it be a research assignment, or a drawing assignment. In addition to handing out the weekly assignment, I would also give a brief tutorial on how to use a piece of software or explain a type of workflow that we use to achieve a desired outcome.

Overall I am happy with the work we were able to accomplish given where we picked up. I do however feel as though there is some room for improvement in a few areas. For instance, I had a general idea of the duration of the internship but I should have provided a syllabus or detailed weekly schedule to communicate the urgency of completing drawings or papers on time.

This syllabus would also help the intern plan and prepare for the week ahead. Without this we quickly lost the pace we showed the first

several weeks of the internship. Another thing that could be improved, or simply watched a little closer during the next iteration would be when we would check in. I think meeting once a day is really helpful for correcting courses, but doing this in the afternoon doesn't leave much time to complete tasks.

Moving this check in time to the morning should definitely help alleviate this issue. Lastly, and this is something that can be felt as a result of how we work. Burnout, as the coordinator I should be more mindful of how things are sequenced to alleviate any kind of burnout indicators.

Again, It's been incredible seeing all the progress we have been able to make in these short several weeks and I look forward to seeing more growth and development from Archana as she continues her journey.

Colophon

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Benito Larrain

Image Credits

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We wish to express special and heartfelt thanks to Archana Kumaran, this years GKG Architectural Summer Intern.

We are also deeply grateful to George George for helping establishing this program in the summer of 2021 and continuing this internship program since. Even during times of uncertainty like the COVID-19 pandemic.

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New York, New York

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