



2011

Place Removed: A Study of Authenticity in Remote Locations

Emily Shea Beck

Virginia Commonwealth University

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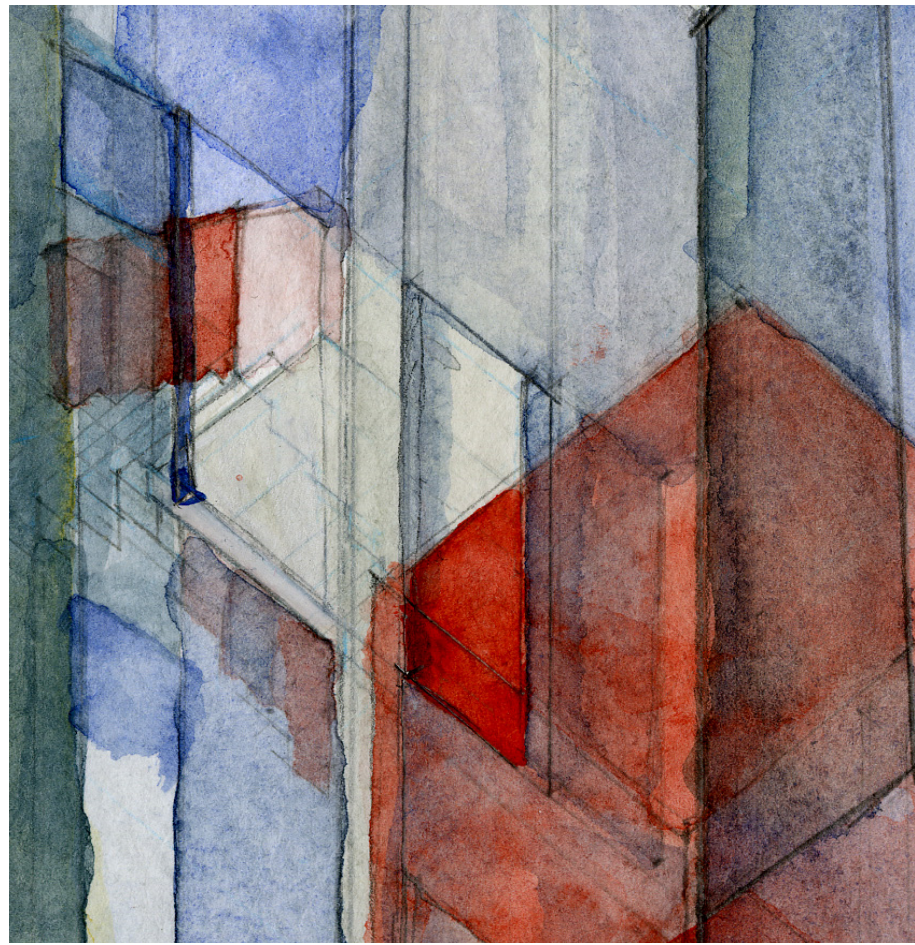
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place removed

a study of authenticity in remote locations

to Those who made me
and Those who made me better

i humbly thank you.

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Abstract

(We) risk reinforcing a touristic gaze of what I understand to be “African American exceptionalism” that posits and arrests “Africa” solely as site of slavery, thereby denying the specificity and contemporaneity of West African nation-states

Salamishah Tillet

Richmond, Virginia has, through recent design proposals and projects, sought reconciliation with the countries in West Africa that were once the source for slave trade in which the city was such an active participant. These admirable works address the nations’ shared history, perhaps at the expense of understanding modern cultures. This thesis seeks to create this understanding through the development of an educational facility that would interact with Richmond’s current landscape. In pursuit of respectful relationship, I address the ways in which design can authentically teach about place. The study begins with the creation of a personal understanding of site through diagrammatic analysis. The research continues with case studies that relate to either the context, program or process of this project. The concepts this research generated led to a proposed design solution for the Southern Railway Freight building in Richmond’s Shockhoe Slip. Both design processes and the proposed solution are documented herein.

Manifesto

I believe in whimsy.

Whimsy asks. Everything. What if there was here and here was also here and there?

Whimsy favors mess over neatness. Often mischevious, whimsy mixes play into work, blurring the lines of different disciplines- after all, why shouldn't science be fanciful and art scientific? Perhaps most of all, whimsy despises "is" and "ought to," preferring to pursue "can't" and "never, not even remotely possible."

Living (and designing) whimsically means following curiosity to its end, imagining without fear of limits and deadlines.

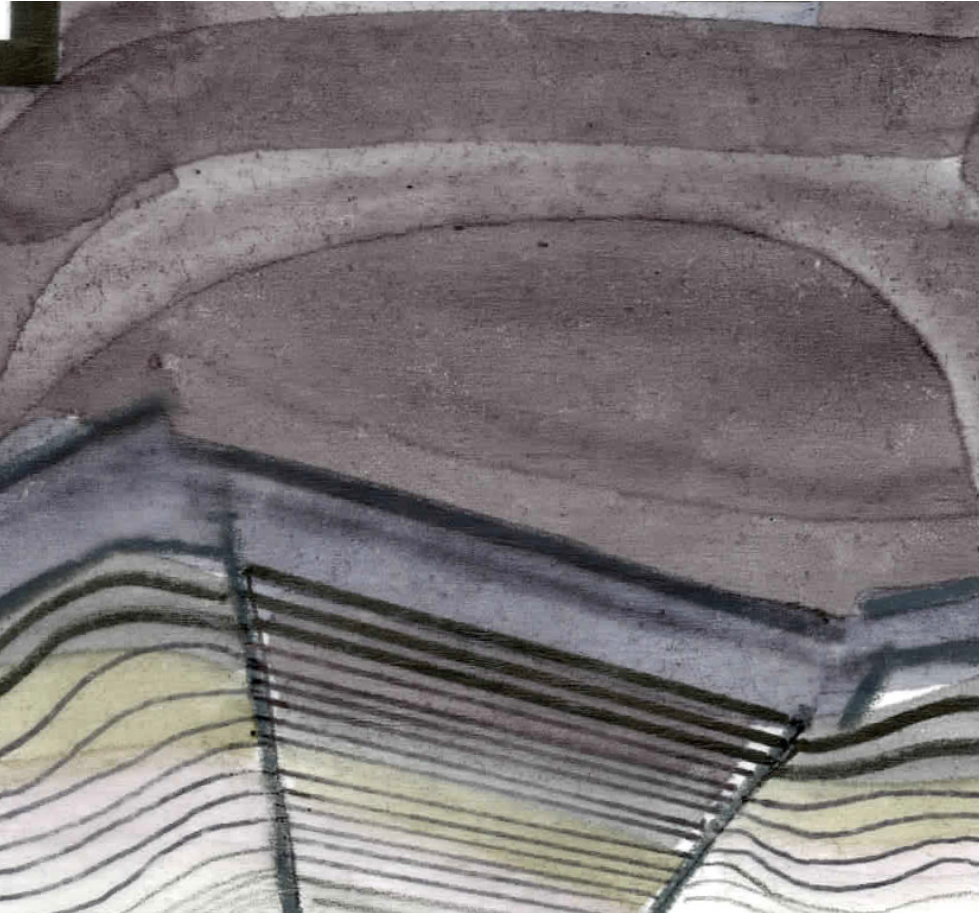
But.

I believe that whimsy knows constraints. It is the knowledge of when and how to wield these constraints- to give whimsy structure and form that distinguishes the designer from the sculptor.

Thesis Statement

Does learning about another culture have to be as literal and linear as traditional education often dictates, or can culture be abstracted to a degree that the design itself contributes to the edification of the visitor? Through design, is it possible to create an authentic experience of “place” other than a building’s immediate context?

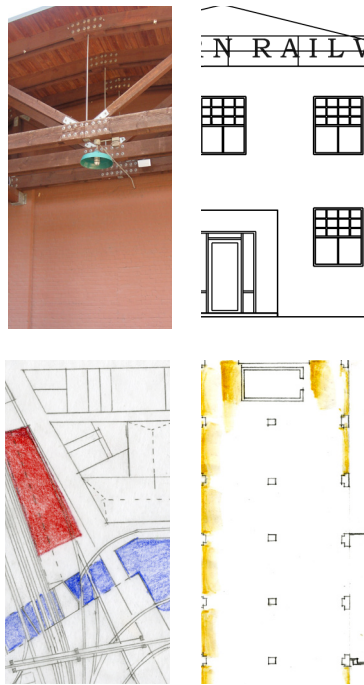
By designing an international education center devoted to the countries in Africa that were the source for the slave trade, I endeavor to create a space that answers these questions while encouraging an understanding of and engagement with the modern African cultures with which we share a common history.

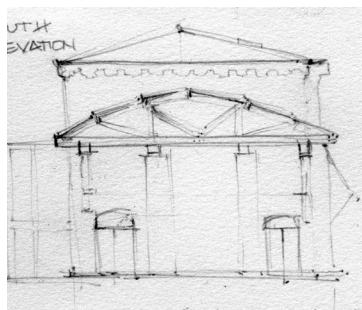


documentation

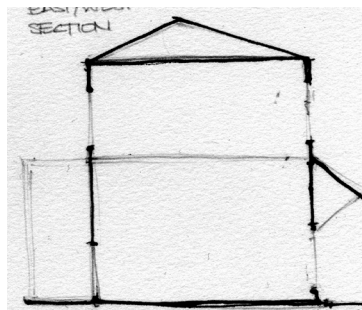
111 virginia . 13213 east canal . 100 south 14th.

Answering to any of the above addresses, the Southern Railway Freight sits on the corner of 14th + Canal Streets in Richmond's Shockhoe slip. Over the course of its life, the building has related both literally and figuratively to many transportation pathways, from the railroads and canals of its history to the interstates and walkways (most notably the Richmond Slave Trail) of its present.

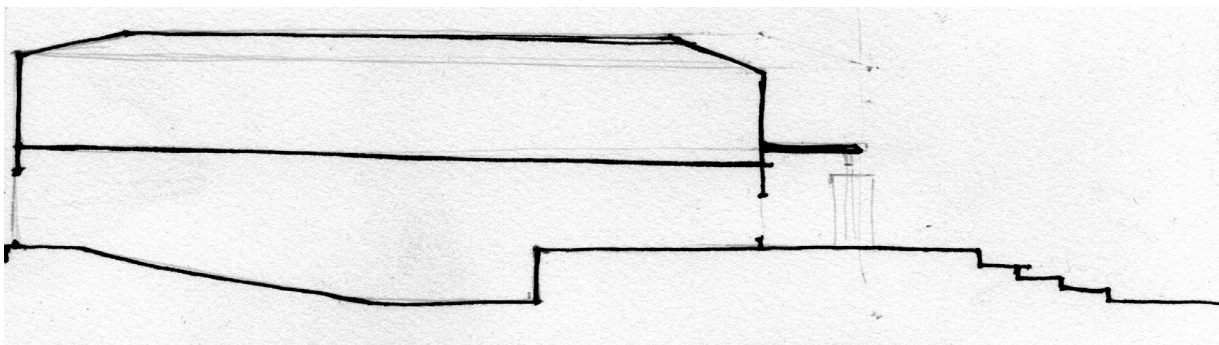




south elevation sketch

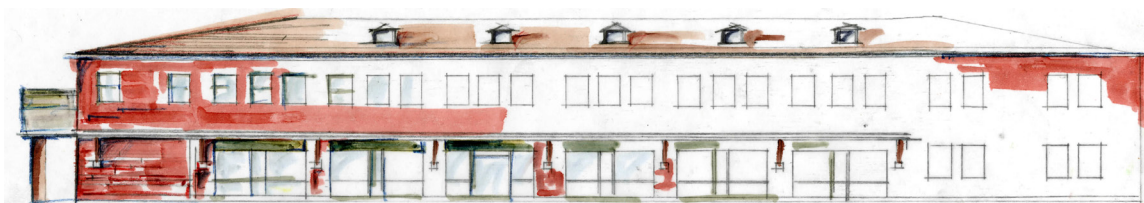


section sketch



section sketch

My thesis project grew out of a rich dialogue between my interests and my building. I have a passion for travel and international education. Knowing that I wanted this to in some way influence my thesis, but without knowing how, exactly, I chose the Southern Railway Freight station on the corner of 14th and Canal streets. Loosely, I chose the building because as a symbol of landlocked, isolationist travel, it would serve as a nice foil for what I hoped would become an internationally focused project.



east elevation sketch

The Railroads.

Starting with the 1836 Richmond and Petersburg Bridge, railroad companies began to professionally engineer wood and iron bridges on granite piers tall enough and strong enough to withstand the height and force of a James River flood. In the 20th century, railroad companies and the City of Richmond built reinforced concrete bridges, resulting in the final Mayo's bridge (1911), the first Lee Bridge (1934) and the Atlantic Coast Line Railroad Bridge. (Potterfield)

Kanawha Canal Turning Basin.

Above 17th Street was a continuation called "the upper dock," which was of granite and was 800 feet long and 200 feet wide. The dock was connected with the basin by means of five locks, having an aggregate lift of 96 feet (Dunaway).



south portico

As the canal and railroads developed in tandem, a relationship between the two evolved.

The railroads competed for local freights with the canal along almost its entire length; and, through their connection with each other they competed for through freights between Richmond and Lynchburg

Dunaway

Though efforts were made to forge agreements for the railroads to purchase The James River and Kanawha Company, ultimately, the deal collapsed. The Canal Company closed on March 5, 1880.



southeast corner



south patio



east portico from ramp



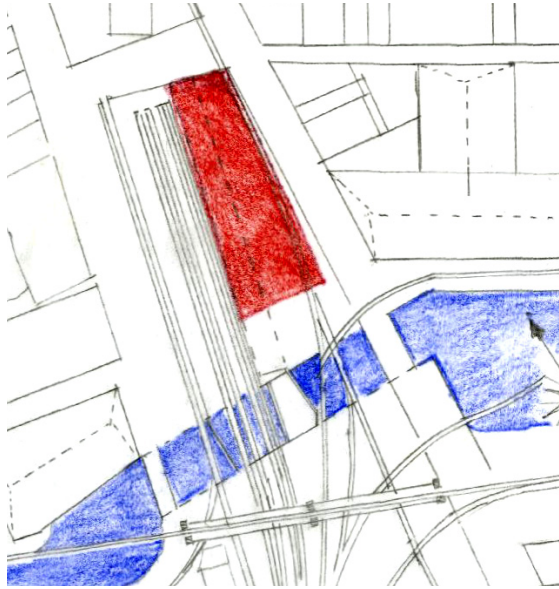
connection to Turning Basin



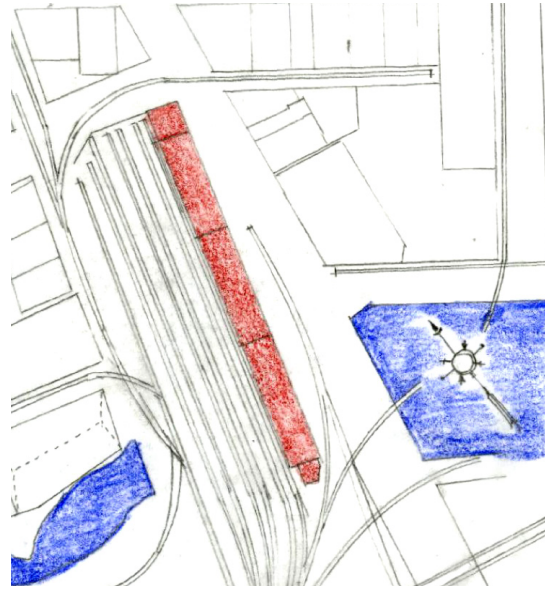
east portico from street level



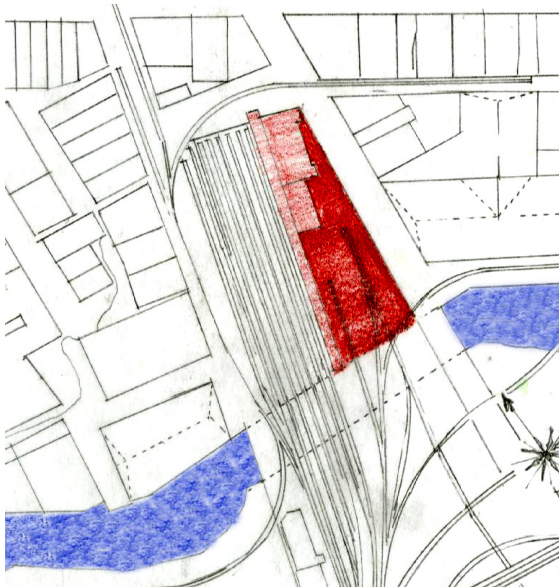
southwest corner



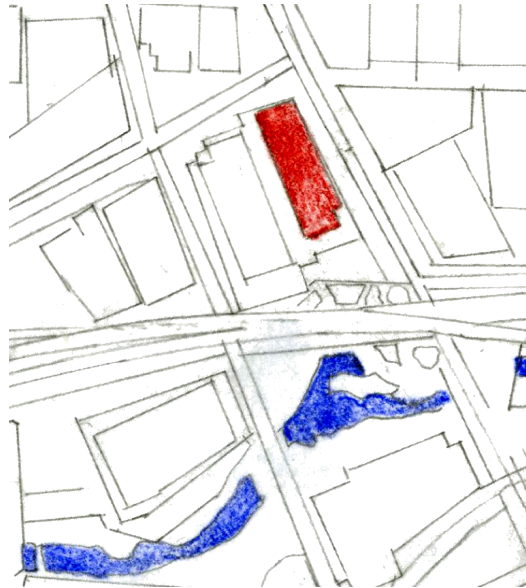
sanborn map. 1886



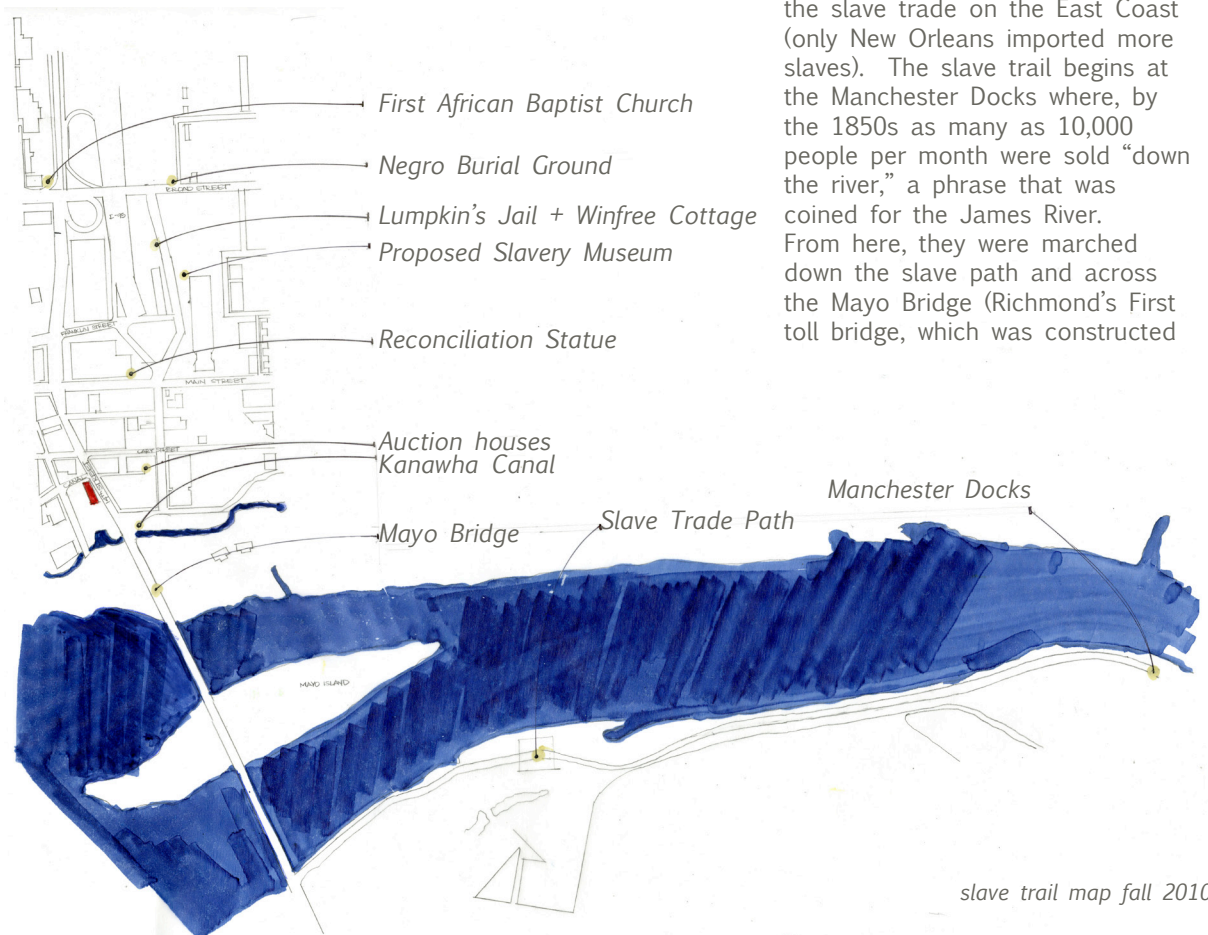
sanborn map. 1925-50



sanborn map. 1905

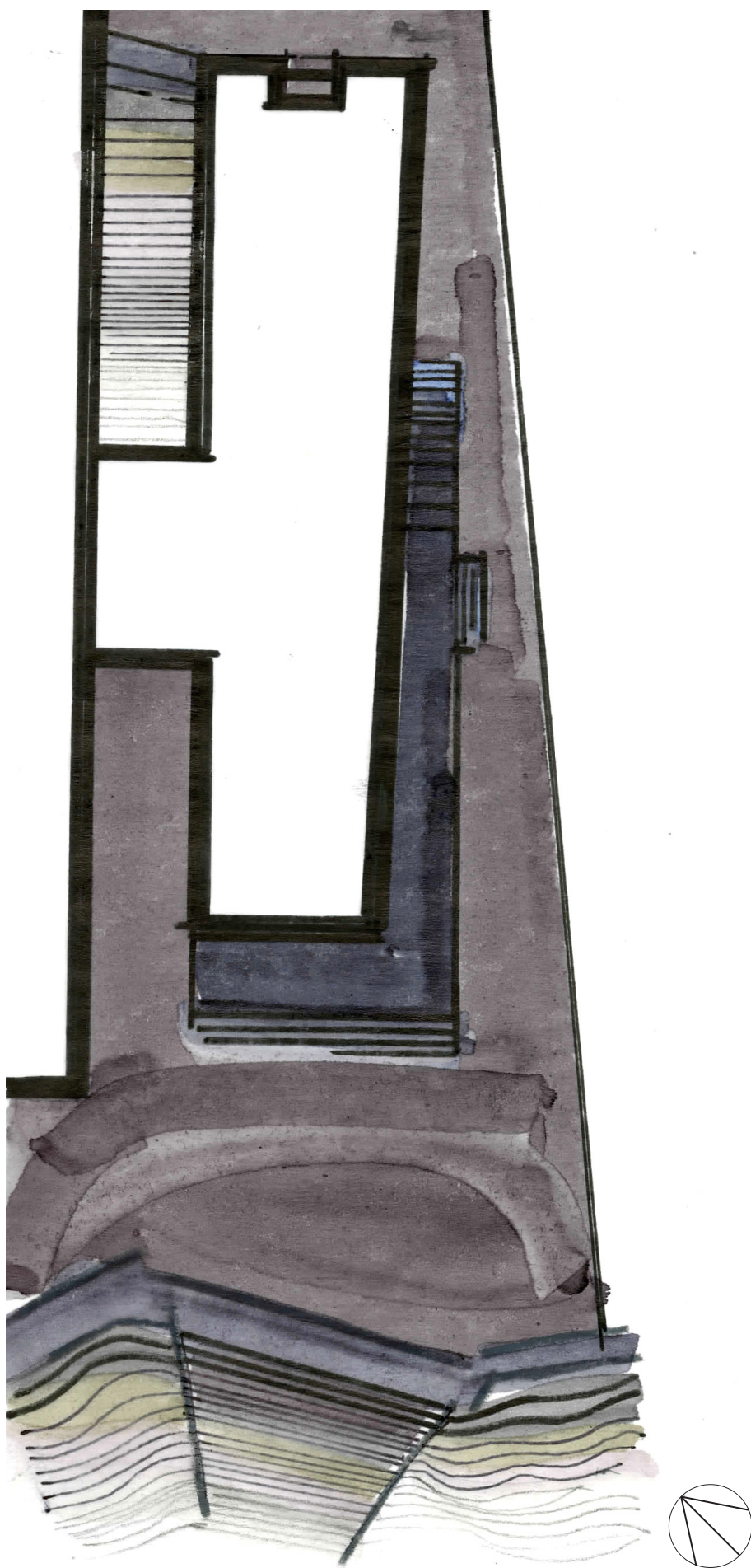


google earth. 2010

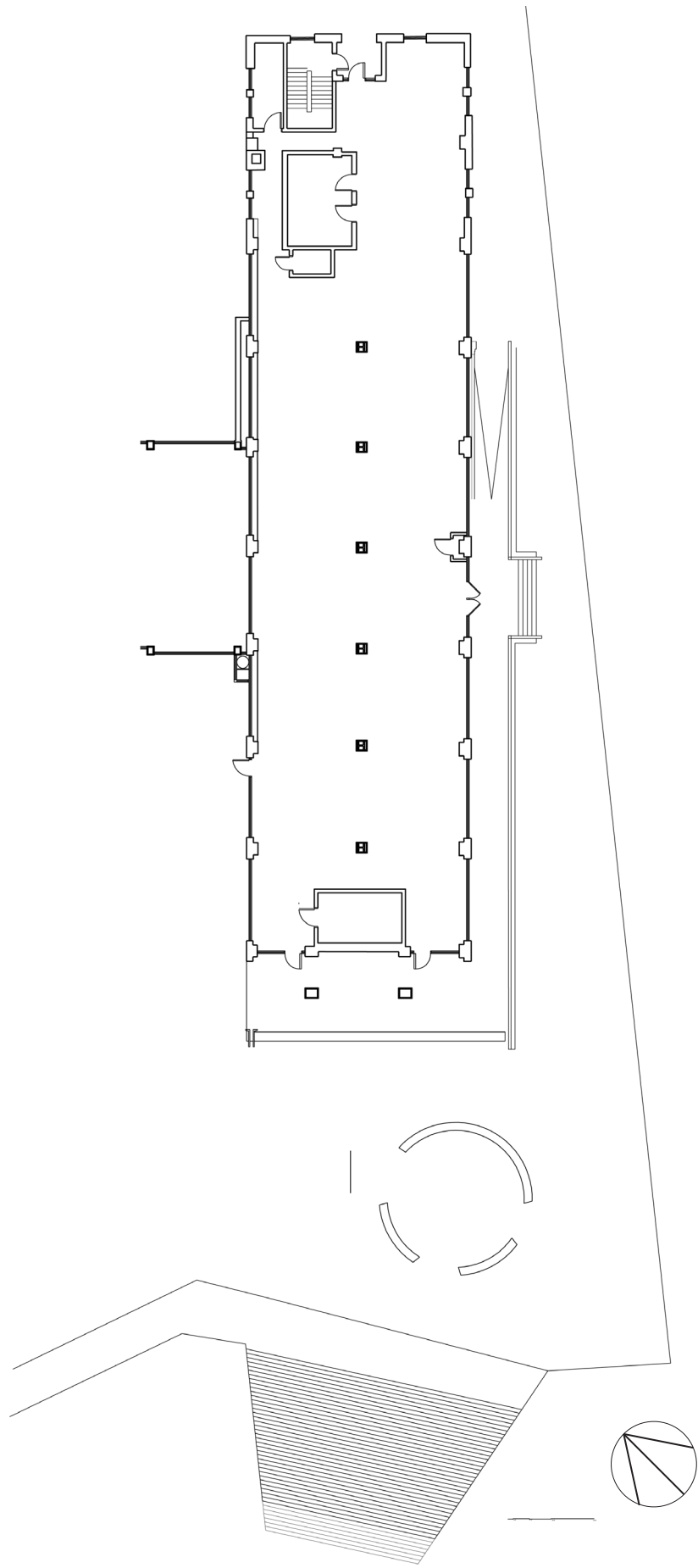


In the years before Emancipation, Richmond was the largest port for the slave trade on the East Coast (only New Orleans imported more slaves). The slave trail begins at the Manchester Docks where, by the 1850s as many as 10,000 people per month were sold “down the river,” a phrase that was coined for the James River. From here, they were marched down the slave path and across the Mayo Bridge (Richmond’s First toll bridge, which was constructed

in 1788). The Kanawha Canal was built by slaves and was used for human trafficking, but it was also a source for freedom for at least one slave, Henry Box Brown, who shipped himself to Philadelphia and freedom via the canal. The next stop is the site of the former auction houses at 15th and Cary. Only portions of the Davenport + Co building survived destruction. The Reconciliation Statue is a monument to racial reconciliation. The same statue stands in Benin in West Africa and Liverpool, the berthing point for slave ships. Lumpkin’s Jail or the Devil’s half acre and the recently uncovered Negro burial ground could soon share their site with a Slavery Museum. The final stop on the slave trail is the First African Baptist Church, important in the lives of many slaves.



grade changes



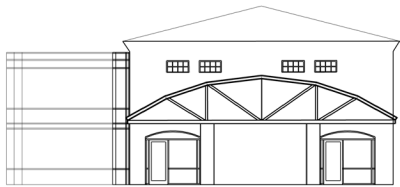
plan of existing structure



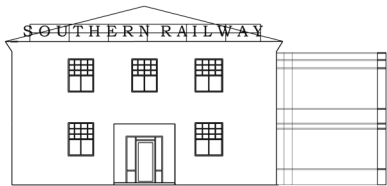
exterior elevation . east



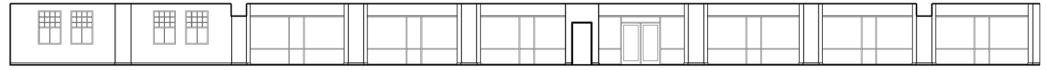
exterior elevation . west



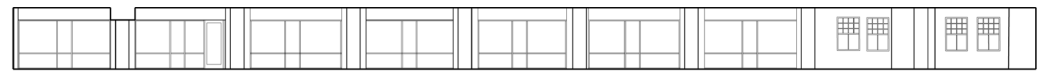
exterior elevation . south



exterior elevation . north



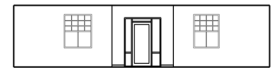
interior elevation . east



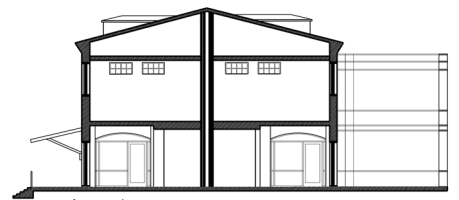
interior elevation . west



interior elevation . south



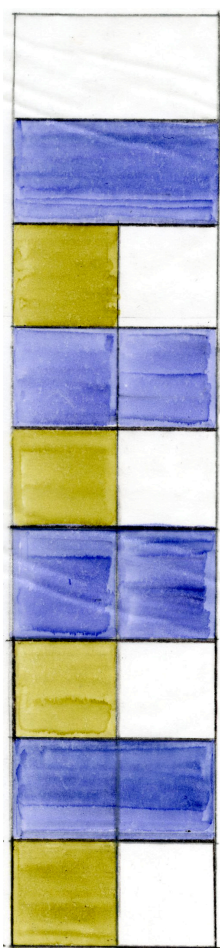
interior elevation . north



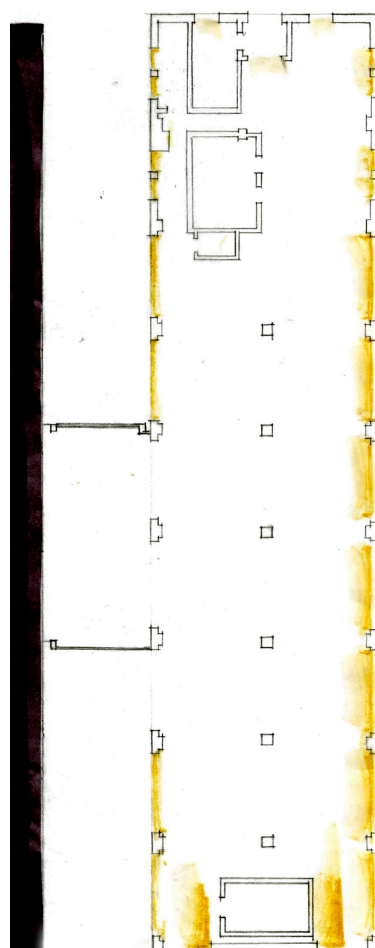
cross section



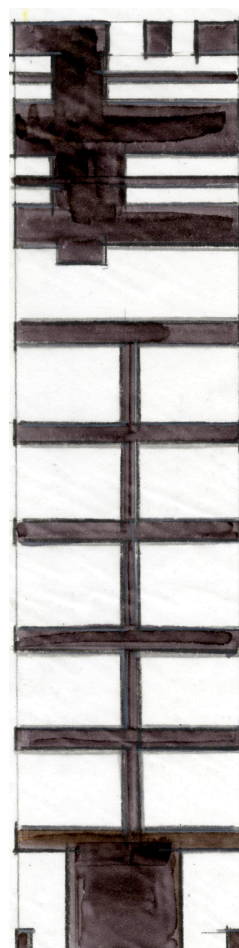
long section



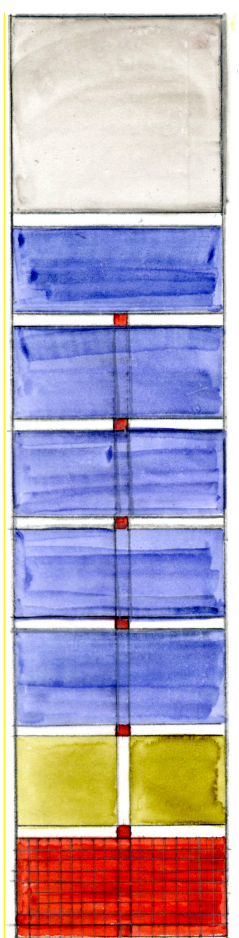
proportion [1]



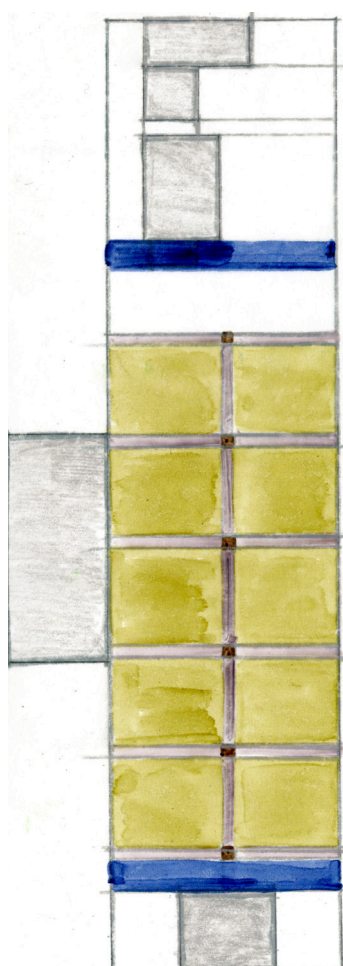
natural light



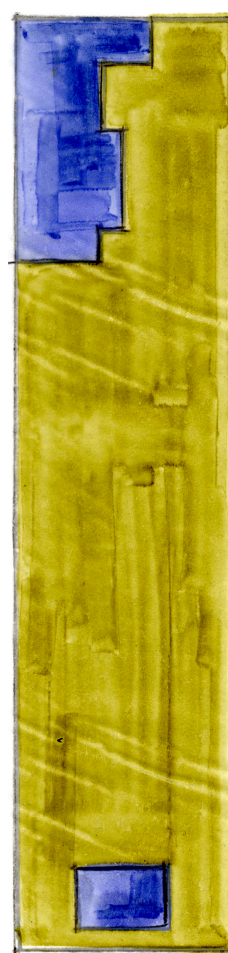
volume + void



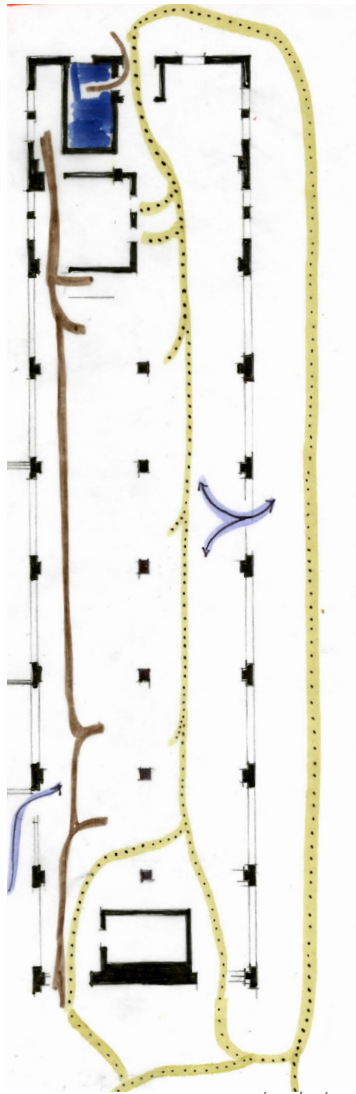
proportion [2]



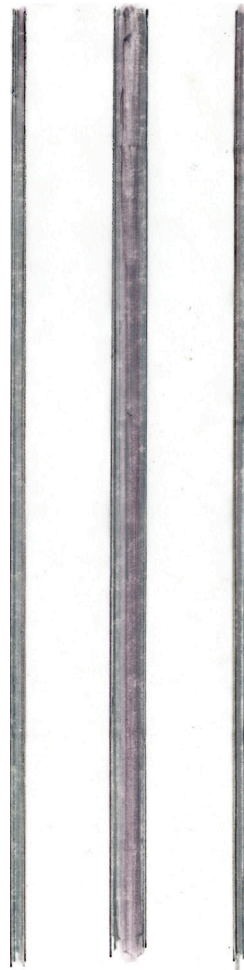
geometry



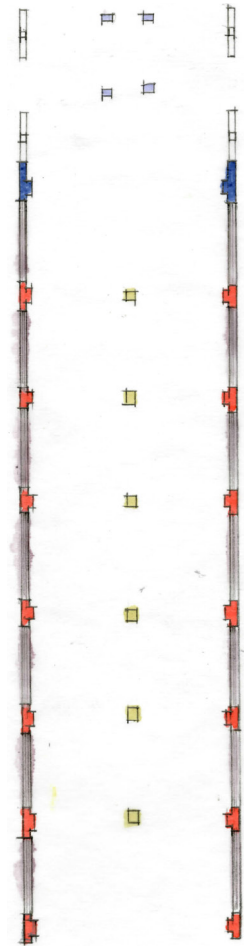
large to small spaces



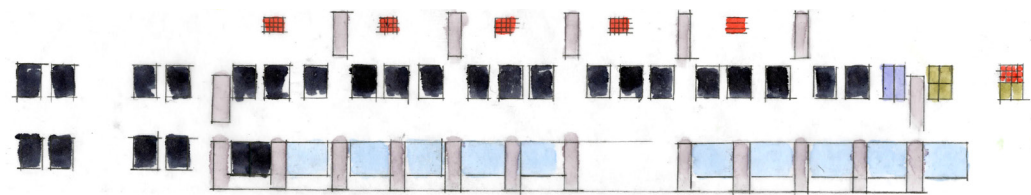
circulation



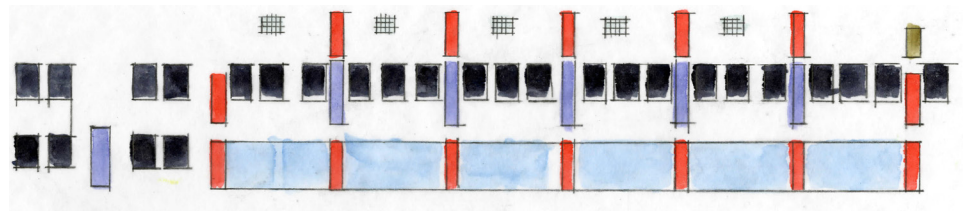
parti



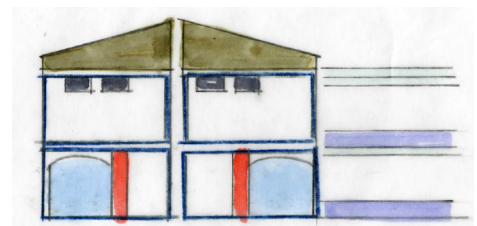
repetitive to unique



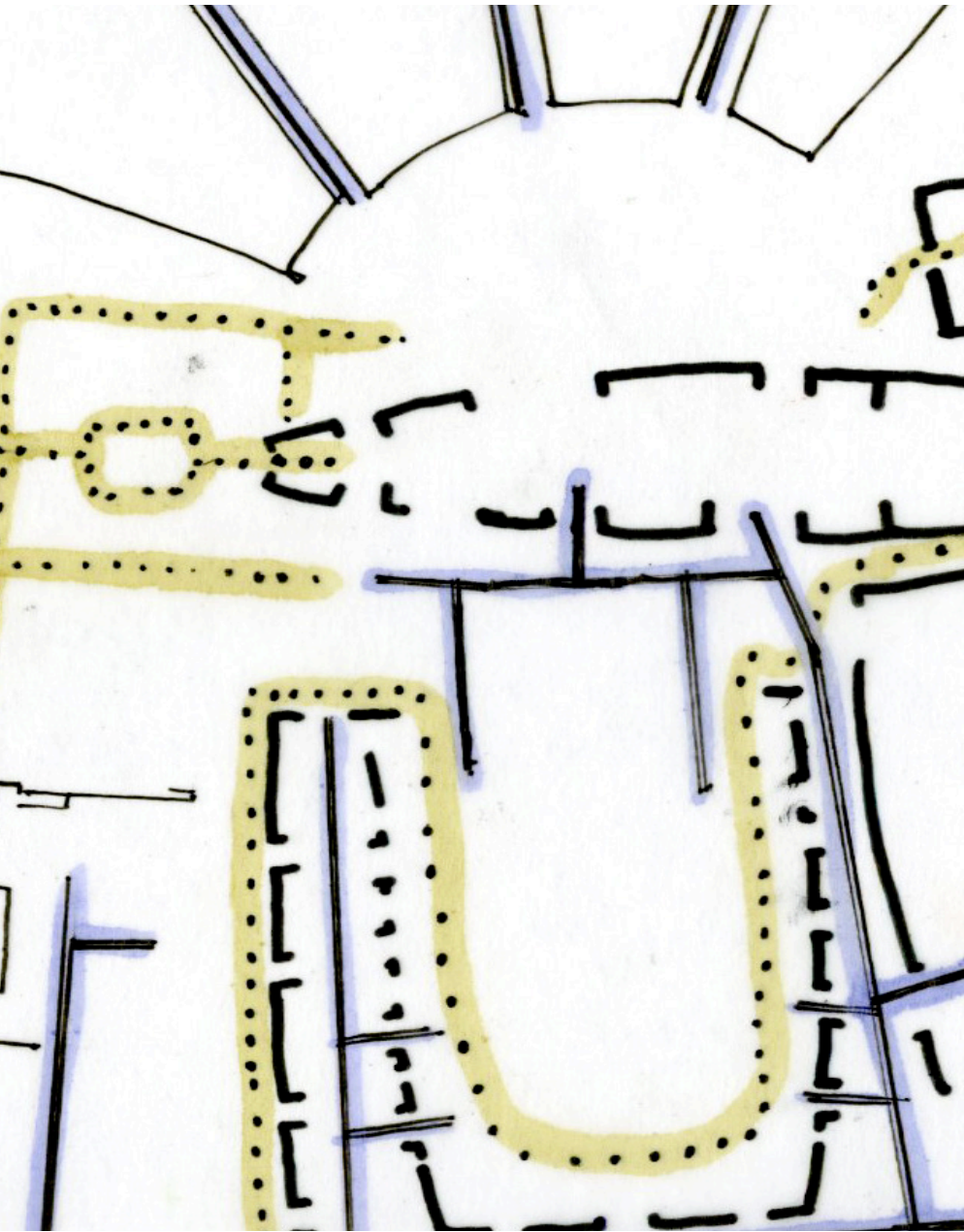
volumes . section



repetitive to unique

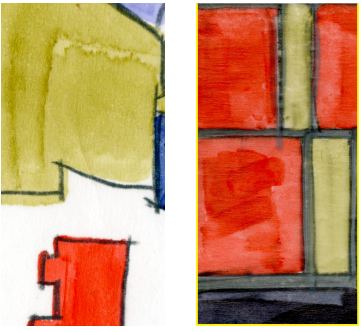
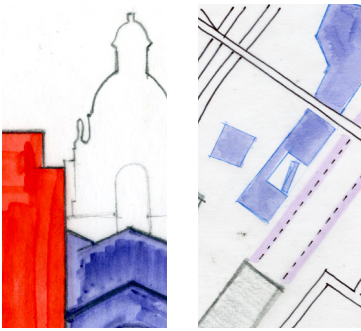
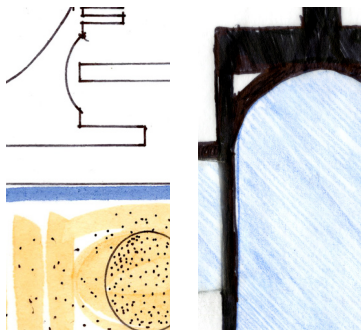


repetitive to unique



exploration

Understanding my site allowed me to focus my project, creating a desire to develop relationship with countries in West Africa. The research in the following section process involves evaluation of various buildings and architects that have potential relevance to my thesis project, either through site, concept or method of work. These case studies were chosen on the basis of their applicability to my project in the areas of process/project development, context or program.



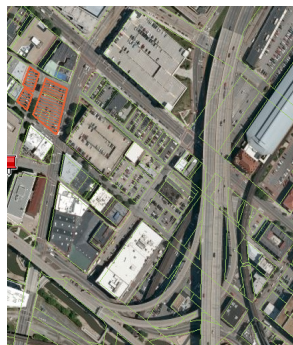
Abstracted culture is a distillation of the important elements of a society to a degree that, though the culture may not be obvious, a fundamental sense of place remains. A design that contributes to the visitors' understanding a place outside of that design's immediate context is, for the purposes of this thesis, a successful example of abstracted culture.

Some of the clearest examples of extracted culture exist in international exhibitions where hundreds of countries create pavilions or displays to represent their nation. Events such as the World Exposition or the Venice Architecture Biennale contribute to the greater understanding of a variety of cultures. Each country has a limited platform from which to project the essence of its entire culture, which means that in order to clearly communicate with visitors, the exhibitors must define a simple concept of place and adhere strictly to this definition. Countries that do not follow this logic tend to create exhibitions that seem sporadic and disjointed.

In order to examine how each country chose to abstract its culture, I created a simple comparison matrix for exhibitions from the 2010 Venice Architecture Biennale and the most recent World Exposition in Shanghai. The matrix contains a short description of each exhibit along with my understanding of that particular country's strategy for conceptualizing "place."



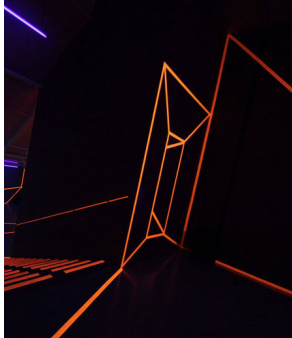
24.1 Japan



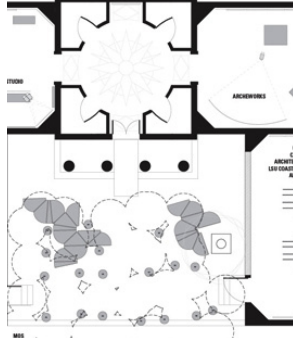
24.2 Chile



24.3 France



24.4 Australia



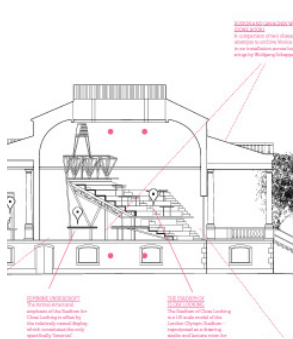
24.5 US



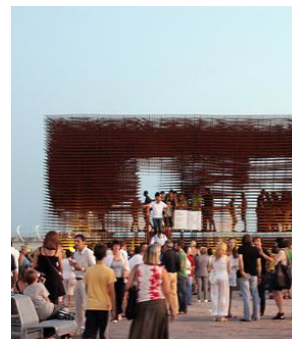
24.6 African Union



24.7 Estonia



24.8 UK



24.9 Croatia



24.10 Romania



24.11 Denmark

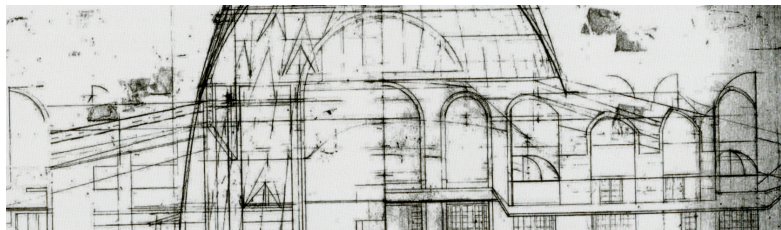
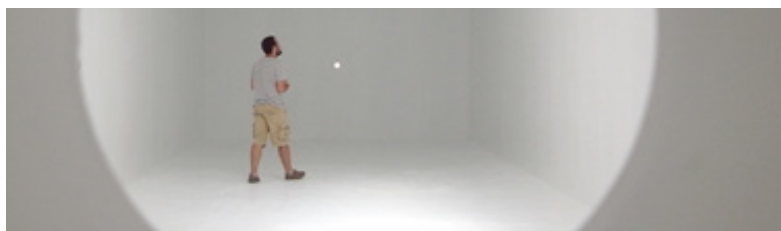
COUNTRY	EXHIBITION	NOTES
Japan	Tokyo Metabolizing . studies architectural history to show evolution of cities Use of video and models to showcase the Japanese concept of Architectural Metabolism	Place of Japan is represented in two ways: 1. literal video examination 2. scale models to see manifestations
Australia	Now and When . video exhibition with two projection rooms that show the state of Australian urbanism and possibilities for the future.	Place is represented by a vision for the future as well as an examination of present condition
Estonia	100 Houses . “explores local architectural practices, introducing estonian architectural life through the narrow sphere of private residential dwellings.”	Place is represented through how people live in the country/ imparted through display of photographs and plans.
Romania	1:1 . a skewed white room within the pavilion, which creates 2 different environments. The interior box is 94,44 sq meters, which represents the population density of Bucharest.	Place is represented conceptually and spatially more than some other pavilions
Chile	Detached. Identical Concrete box placed in front of two different Chilean landscapes. rural vs. urban	Place is CONTEXT
US	Workshopping . an American model of Architectural Practice “presents projects that involve the architect as the initiator of a trans-disciplinary cooperative team.”	Place is defined by the work produced, how the work affects/influences the population. collaboration
UK	Villa Frankenstein . “an inquiry into what we don’t know and how much it matters”	Place is tradition, historical and literary reference.
Denmark	Q&A: The Urban Question_ Copenhagen Answers “how Copenhagen answers: what makes a livable city?”	Place is represented through models and maps, images. communication of HOW people live, not just where
France	Metropolis? Volume and void [city is not a “city”, but a collection of open spaces]	Place is a literal visual representation of cities, but examines malleability of place.
African Union	The Great Benefits of Clean Energy on Africa’s Urban Development <i>In the central round area for forums, visitors can watch films about urban development in Africa</i>	Place is defined by direction of growth, connectivity between past and present
Croatia	A Floating Pavilion for Croatia. A floating permanent exhibition space that travels biannually to Venice	Place is portable/flexible

Process

These case studies consist of architects and designers with a conceptual or design process that I admire and aim to emulate in my thesis work.

Based on my desire to authentically represent place, I researched one of the successful examples of abstracted culture from the 2010 Venice Architecture Biennale, the Romanian Pavilion. This exhibit, entitled 1:1 is a conceptualization of the population density of Romania's capital, Bucharest. According to the team's concept statement, the premise of the project is to create architecture as translation of a unique idea, ultimately determining and defining the space we inhabit. The concept is to "exhibit space" and, by doing so, to explore its various instances. A specific and quantifiable fact is related to the idea of "space": 94m²/person is the population density level in Bucharest, and its representative for the urban condition in Romania. It illustrates, at the same time, both an individual and a collective state of existence.

My second process case study focuses on Nigerian artist and designer Demas Nwoko. As an artist, process work was instrumental in the development of Nwoko's work. Many of his architectural sketches are developed as sculpture sketches, with multiple sets of lines on top of one another. This case study focused on two of Nwoko's unfinished projects, discussed herein is The Church of the Daughters of the Divine Love in Enugu, Nigeria. By studying the process work that developed these ideas, I attempted to discover the practical applications of Nwoko's unique approach to his work.





28.1

box exterior

28.2

skylight

1:1 Romanian Pavilion

Architects:

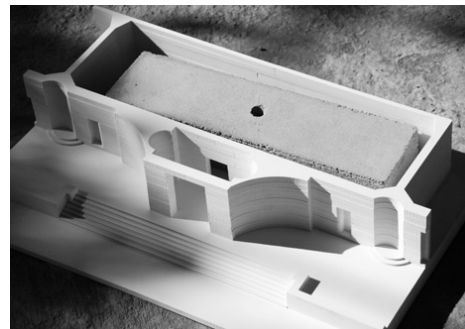
Romina Grillo
Ciprian Rasoiu
Liviu Vasiu
Matei Vlasceanu
Tudor Vlasceanu

Structure:

Dragos Marcu

Construction:

Art - DECO / Atelier RD



28.3

model

Based on the cursory examinations I made in my conceptual “place” matrix, one of the successful examples of abstracted culture from the 2010 Venice Architecture Biennale is the Romanian Pavilion. This exhibit, entitled 1:1 is a conceptualization of the population density of Romania’s capital, Bucharest.

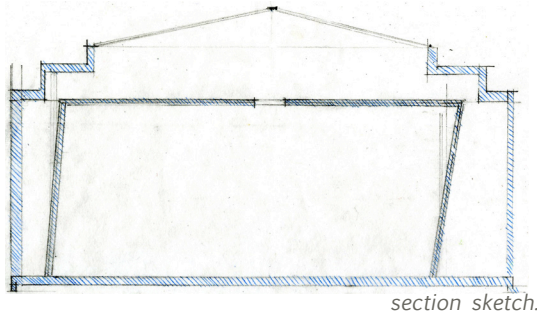
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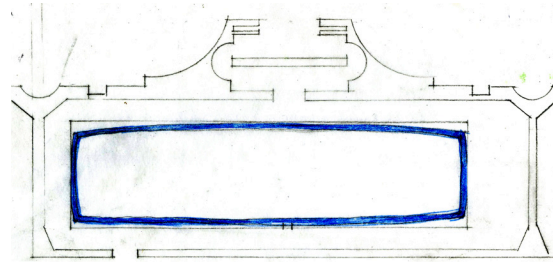
28.4

exterior path28.5 *interior from exterior*

The object is slightly skewed, which enhances the notion of crowding and discomfort for those visitors on the exterior of the object. The central object is comprised of individual boards on the exterior and a smooth plaster interior. This serves to impress upon the visitor the differences between individual and collective experiences of space. From the exterior, visitors can see in through holes on either end of the object. The interior is lit by natural light that streams in through a skylight above, entering the object through an oculus in the ceiling.

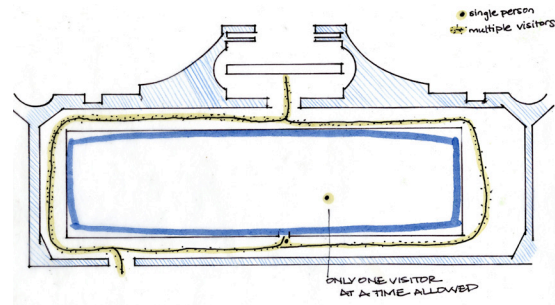


section sketch.



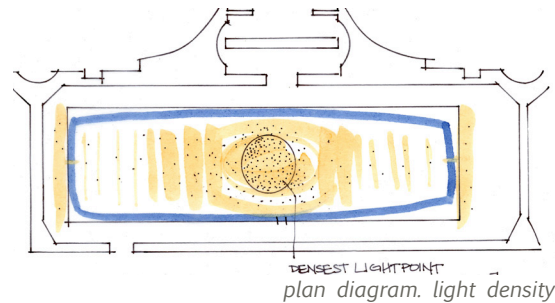
plan sketch

In this diagram showing the circulation patterns into and within the space, we see the manifestation of the architects' concept most clearly. The smaller outer spaces are chaotic with visitors, while the relatively vast interior of the object allows the occupant to truly feel his personal 94 m².



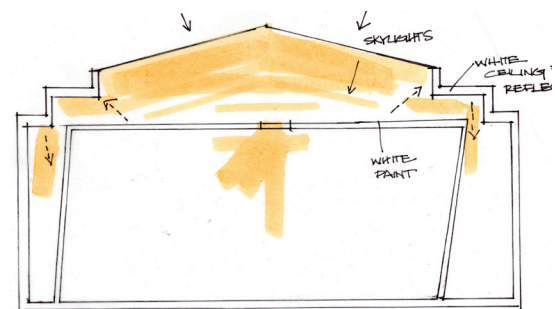
plan diagram. individual + collective circulation

This diagram, which shows the natural light dispersal throughout the pavilion, provides an interesting counterpoint to the circulation diagram seen above, i.e. at the point when the circulation is the least dense, the natural light [entering through the skylight] is most dense.



plan diagram. light density

The materiality of the white box within the white room begins to effect the natural light dispersal within the space, as indirect sunlight is reflected off of these surfaces. Here, too, I began to examine the effects of the skylight on natural light within the object .

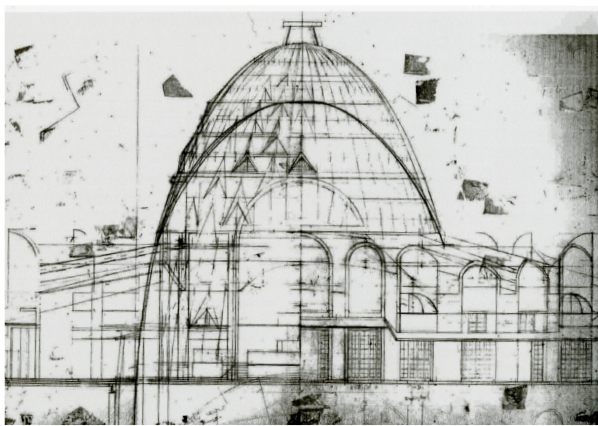


section diagram. light dispersal

For such an incredibly simple exhibition, the 2010 Romanian Pavilion provides ample material for analysis. Ultimately, this case study has served as a great inspiration and conceptual driver, in that the project so succinctly presents the idea of a "place." Though, clearly, I will not be emulating this exact approach, studying this process has served as an excellent example of successful conceptualization.

Demas Nwoko

Nwoko is a Nigerian artist and designer interested in the application of African traditions to conventional European methodologies, stating “technology is universal, but the aesthetics of art is unique to different cultures. So, I set out to translate the African idioms and aesthetics to our contemporary scene” (Godwin).



30.1

sculptor's sketch

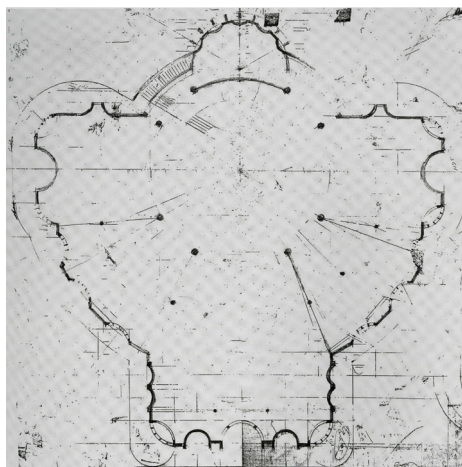


30.2

Musgum earth architecture

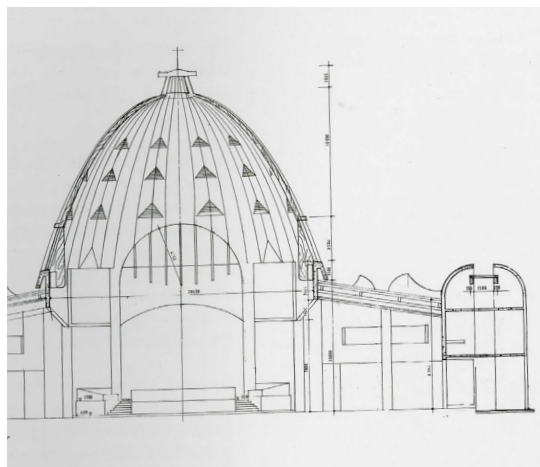
Church of the Daughters of the Divine Love includes references to traditional European cathedral floor plans, while simultaneously referencing the Nigerian vernacular of the Musgum Earth Architecture in its detailing.

In this case study, I constructed diagrams to break down the geometry of the space (both implied and existing) into simple linear forms in order to better understand Nwoko's intentionality and the relationship between his process work and his final product.



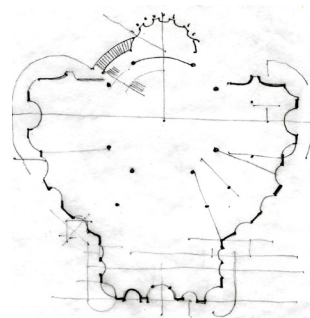
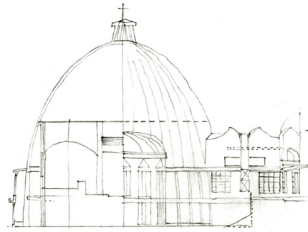
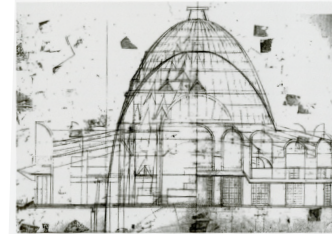
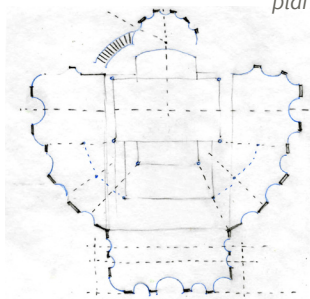
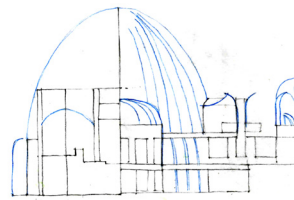
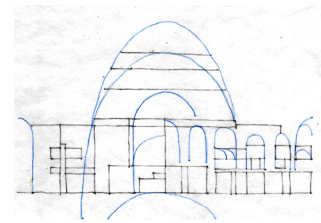
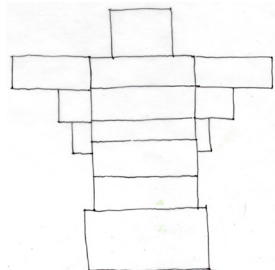
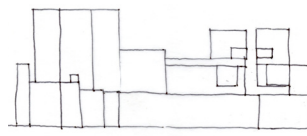
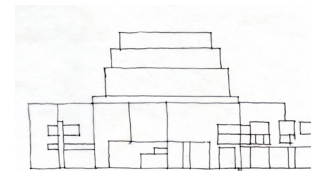
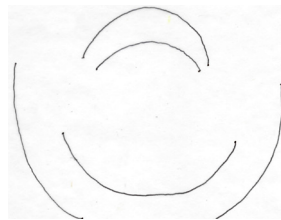
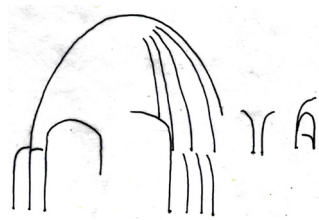
30.3

plan



30.4

section

*plan**section**sketch**segmented plan**segmented section**segmented sketch**plan rectilinear forms**section rectilinear forms**sketch rectilinear forms**plan curves**section curves**sketch curves*

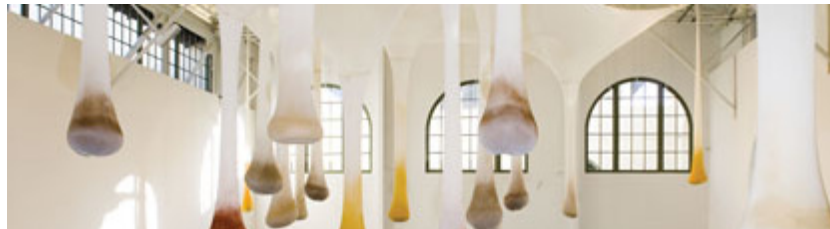
These diagrams are my attempt to follow the system of Nwoko's process in reverse in order to better understand his methodology. Beginning with his finished drawings, I extruded the basic lines. Because Nwoko's background is rooted in fine art rather than architecture, he utilizes a sculptor's sketching method to develop 3-d forms (Godwin). He draws each iteration of the building directly on top of the previous sketch. In this way, he is able to see how lines from each sketch could interact to create the final form.

The other main takeaway from this case study is Nwoko's conceptualization of place, as it relates to my thesis statement. Nwoko chose to utilize vernacular materials and paid particular interest to the physical environment when designing with respect to his site. His designs strive "to inculcate an African sensibility in a twentieth century building (Okoye). In doing so, he also pays homage to places outside of his homeland, as evidenced by the classical European influences seen in this case study.

Context

These case studies consist of projects with either physical proximity and relevance to the Southern Railway Freight Depot and/or a similar site condition to this building. For the purposes of this first contextual case study, context is defined as the building type. The baggage terminal of the Santa Fe Depot in San Diego, California was renovated to house a portion of the Museum of Contemporary Art San Diego (MCASD). Though the current building was built across the country about 40 years after the Southern Railway Freight Station, the two buildings share a commonality of original purpose and structural composition.

For my second contextual case study, I chose a proposed building with a similar site and programmatic context to my project. As a part of a larger effort to acknowledge Richmond, Virginia's role in the slave trade, Stockton Clay Architects, a joint venture between local firms BAM Architects and SMBW has proposed a design for a museum that would be built along the current Slave Trail. For the purposes of this case study, I chose to examine a project with a complimentary program to my thesis project that is situated in a similar location. The bulk of my diagramming exercises focus on the relationships between the built environment and the site. In doing so, I hope to see how Stockton Clay chose to address their location, particularly in reference to the Slave Trail but also with an understanding of the overarching urban context.





34.1 *arcade*

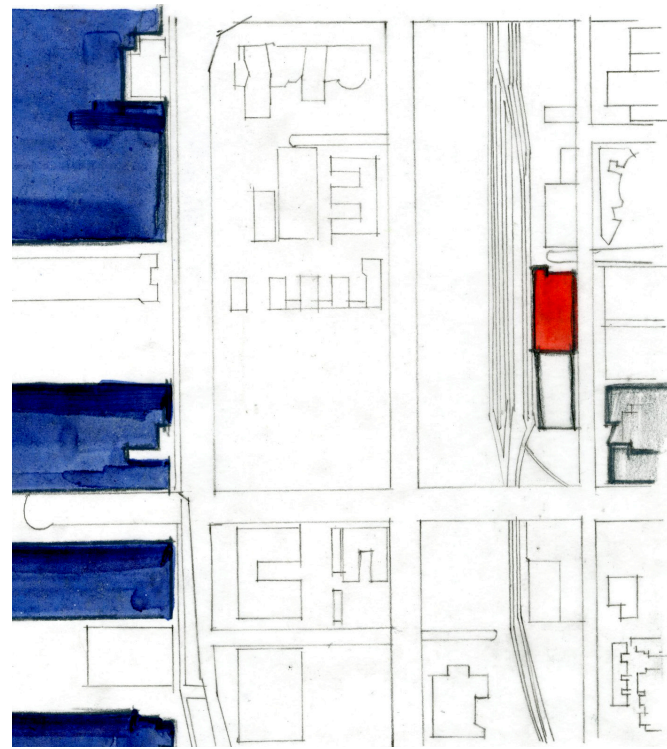
Museum of Contemporary Art San Diego

The 30,000 square feet of exhibition space at MCASD opened in January of 2007. It includes the restoration of the Santa Fe Depot (exhibition + public spaces) as well as a 3 storey addition (education + curatorial spaces) constructed from corrugated steel, channel glass + aluminium storefront windows.

Like the Southern Railway Freight building, MCASD is situated in the heart of downtown and addresses a body of water. Unlike my thesis building, however, the rear of the building still functions as an Amtrak station.



34.2 *exterior*



site map

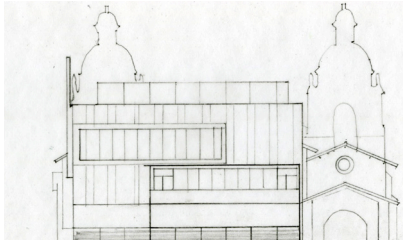


34.3 *interior mid-renovation*

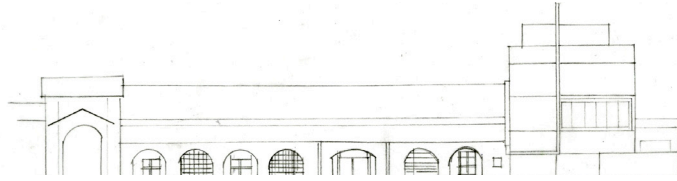


34.4 *historic photograph of courtyard*

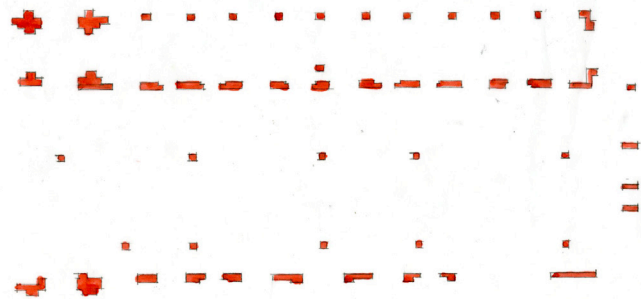
This case study examines the relationship between the old and new aspects of the building and its renovation. For the purposes of my project, it was helpful to see how the space could be utilized as exhibition space as well as understanding the relationship between the interior and exterior of the building.



north elevation



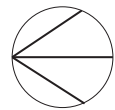
east elevation



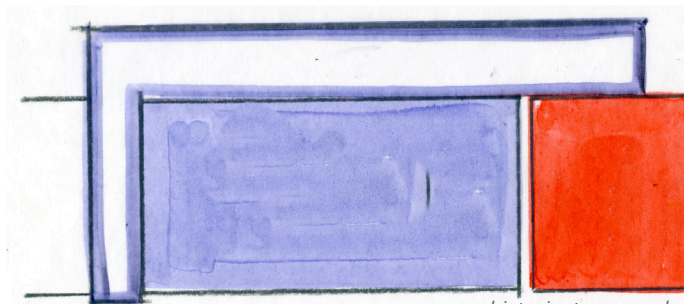
plan

From a Heritage Architecture press release concerning the historic preservation portion of the project:

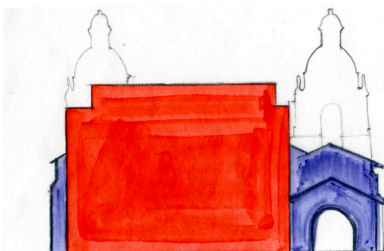
Rehabilitation of the San Diego Santa Fe Depot Baggage Building involved restoring the exterior to the historic 1914 period, including window and door repair, cleaning and re-setting brick pavers, replication of missing doors and hardware, replication of copper gutters and downspouts, roof cleaning and repair, and new paint in the historical colors. Long missing cast-bronze light sconces and pendant globes were custom fabricated to match historic photos.



■ new
■ historic



historic to new plan



historic to new elevation



historic to new elevation

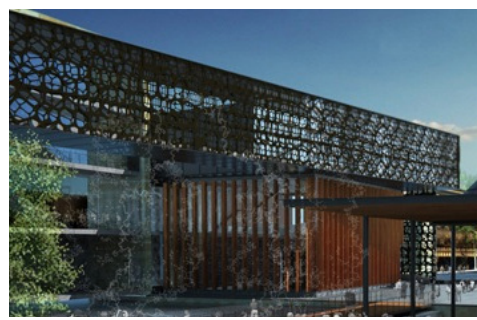
Proposed Slavery Museum

As a part of a larger effort to acknowledge Richmond, Virginia's role in the slave trade, Stockton Clay Architects, a joint venture between local firms BAM Architects and SMBW has proposed design for a museum that would be built along the current Slave Trail. The site would be located behind the Main Street Train Station on 15th and Main Streets in Shockhoe Bottom. The buildings program would potentially be between 50,000 and 75,000 square feet and would include exhibition space as well as a DNA testing and geneological research site (Cooksey).



35.1

night rendering



35.2

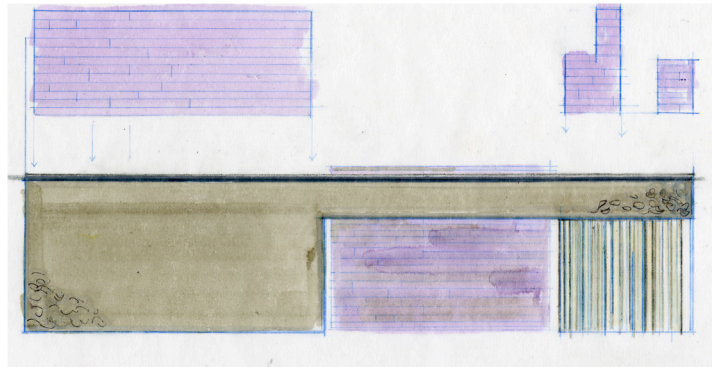
rendering



site map with freight station



site map

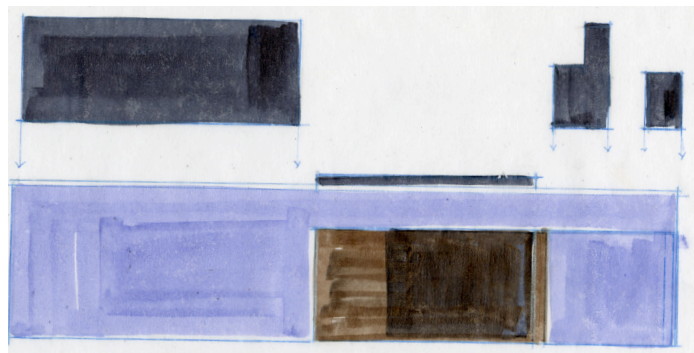


materiality sketch

These diagrams show the relationship between materials in the conceptual drawings for the Slavery Museum. Stone walls that mimic the large, central solid piece are visible behind the Folk-Art inspired screens. Opaque walls are surrounded by glazing and semi-transparent screens, which give the museum a strong literal and metaphorical link to the exterior. In this way, the design for the museum dovetails nicely with the Slave Trail experience as visitors to one landmark would automatically be drawn to the other.

Place is highly evident in this design from two distinct standpoints. Firstly, the program and the transparent nature of the exterior evoke strong ties to the "place" of Richmond- the museum's physical context. On the other hand, by abstracting African design for the exterior materiality, the architects imply the existence of another "place" within this particular site. While this is more literally represented in the program and through exhibitions, the materiality is a subtler reference.

- open air
- screened
- opaque
- glazing



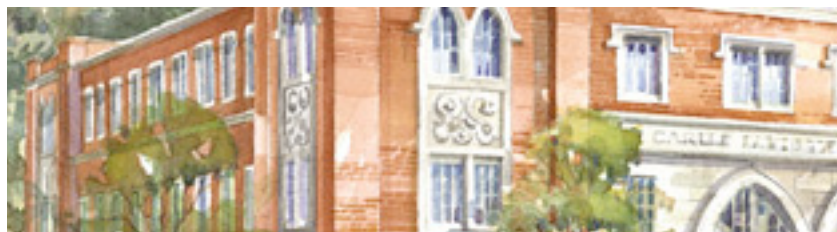
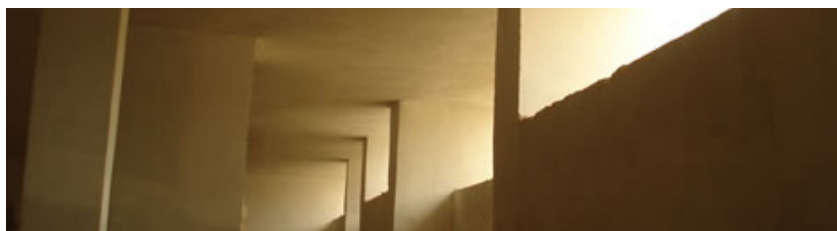
transparency sketch

Program

These case studies consist of projects with programs that are in-line or closely related to the program of my building (i.e. an international education center with a West African focus). First, I chose a research and culture center in Timbuktu, Mali to study a program similar to mine as it exists in the African context. The Ahmed Baba Center is a research facility that houses original documents and also has space for visiting researchers and lecturers. The focus of this case study lies in the relationships of the spaces to one another from four programmatic points of view, as well as how openings and closures create light in these different areas. From my perspective, the program is divided according to 4 separate programmatic blocks

research + learning
functional + residential
performance + lecture
exhibition + experiential

Secondly, I chose a local project: The Carole Weinstein International Center was completed in the fall of 2010 on the University of Richmond campus. The program includes an international resource center, global communications studio, study abroad office, cafe, commons areas, and, of course, classrooms and faculty offices. The Center also contains a 900 square foot outdoor classroom. Because this is the only strictly educational facility that I chose to study, the diagrams and themes of my case study largely relate only to program and programmatic requirements without emphasis on the architectural features.



Between the 12th and 16th centuries, Timbuktu was the cultural epicenter of Muslim Africa. At the intersection of trade routes, the city grew up sporadically and organically. Scholars flocked to Timbuktu, the most famous of whom was Ahmed Baba [Lee]. For centuries, priceless manuscripts have been scattered throughout Mali, until the Centre for research was established as a World Heritage Site by UNESCO in 1970, although it did not become operable until 1977, thanks to financial support from Kuwait [CEDRAB]. Finally, in 2001, South Africa provided the funds to build a true and architecturally significant center.



40.1

bim model exterior40.2 *bim model overview*

40.4

wall construction

40.5

local workers

40.3

bim model detail

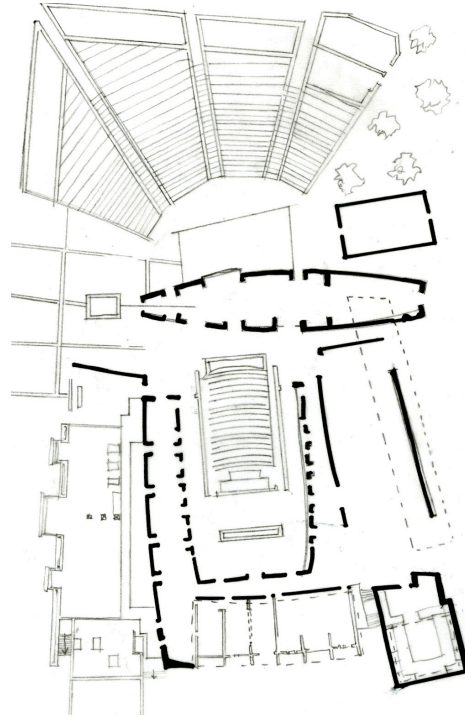
40.7

roof construction40.6 *interior/exterior interaction*

40.8

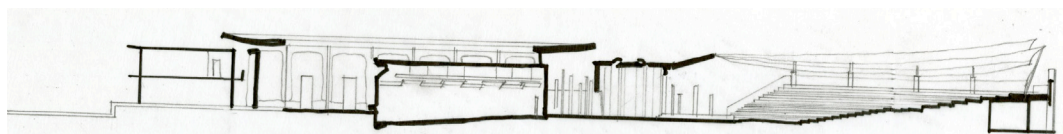
exterior walls

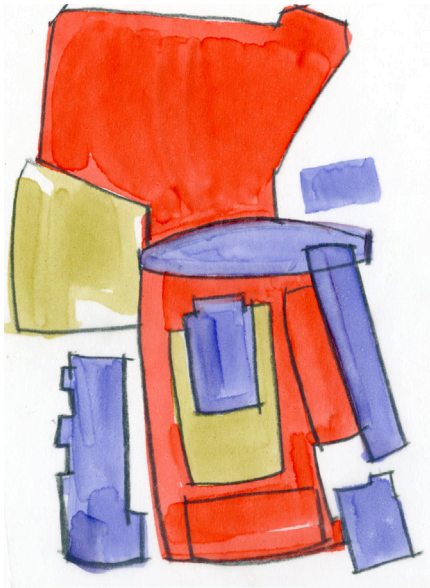
DHK and Two Think Architects utilized the site as a starting point for materiality. The site lies at the intersection of the ancient part of the city and the roads to the newer, modern facilities. Thus, the construction methods mimic this intersection, as it is composed partially in the old Malian methods of mud construction and partially from off-shutter concrete. (DHK). The two materials are separated by glass.

*plan*

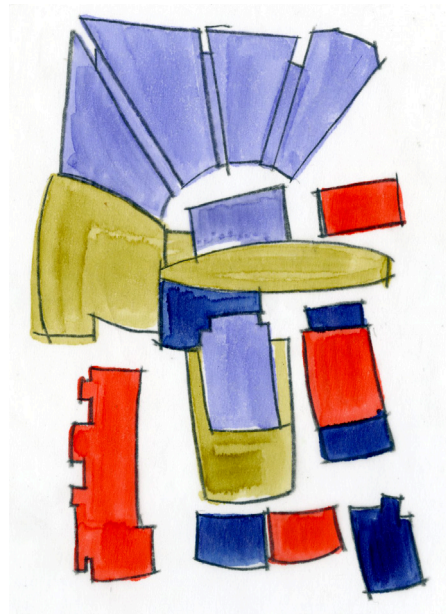
In a like manner to the materiality, the concept for the design and the layout of the center sprang from the city of Timbuktu's sporadic growth.

The central courtyard comes from the way in which most traditional houses are built in the city. According to DHK, they wanted the building to feel like a "microcosm of Timbuktu." Thus, they essentially built a model of the city as their methodology for conceptualizing the essence of a place.

*cross section**long section*



exterior exposure diagram



programming diagram

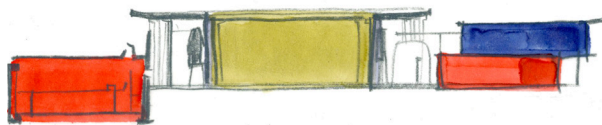
exposure key

- fully exposed
- partially exposed
- fully covered

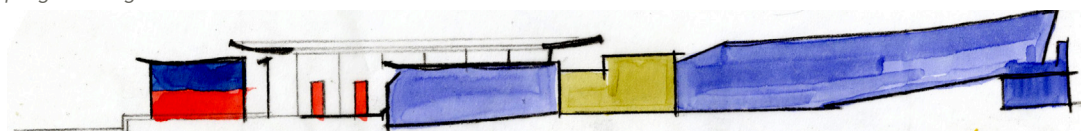
programming key

- exhibition + experiential
- research + learning
- performance + lecture
- functional + residential

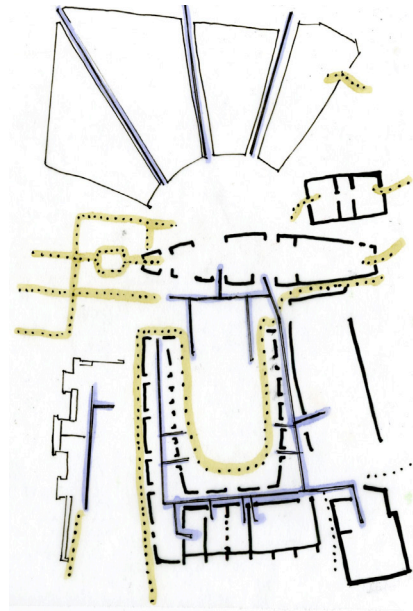
The three different roof treatments within the Ahmed Baba Centre (closed, fully exposed, partially exposed) allow for natural light to seep into the spaces as shown in the diagrams.



programming . cross section



programming . long section

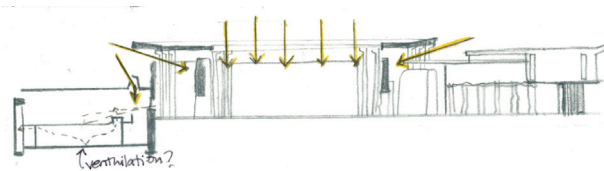


circulation diagram

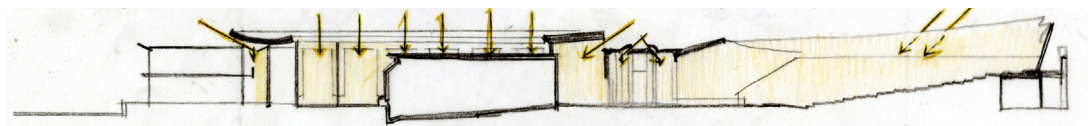
circulation key

- exterior
- interior

As the circulation diagram shows, these varying roof conditions also allow for changes in the exposure of the pathways to elements, so that visitors are constantly meandering between inside and outside.



natural light diagram



natural light diagram

The immediate relevance of this case study was to determine the necessary square footage of interior and exterior spaces. According to the project's principal architect, Lynden Garland, the building's outdoor seating area need to be able to accommodate 20-30 students comfortably, and so the square footage is 900. The courtyard square footage is 1428, which means that relevant exterior spaces total 2328. Relevant interior spaces total 5056 sf. I also studied the adjacencies and relationships between relevant programmatic spaces, as well as circulation paths among them.



44.1

exterior of building



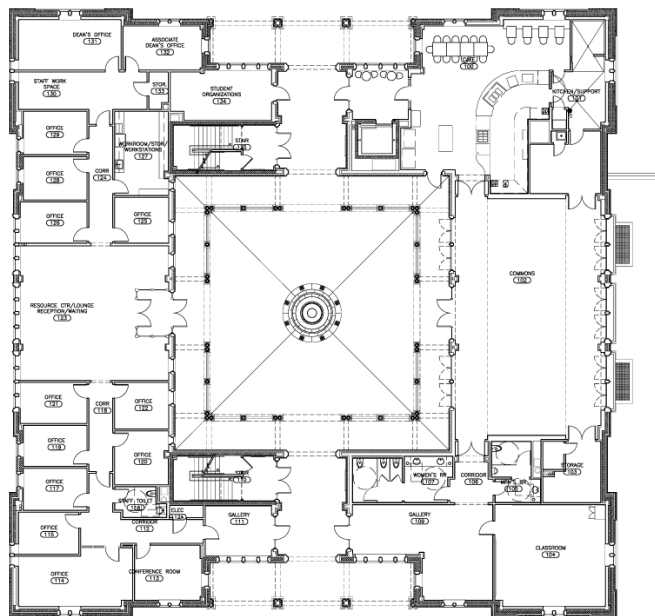
44.2

global studio



44.3





international cafe




44.4

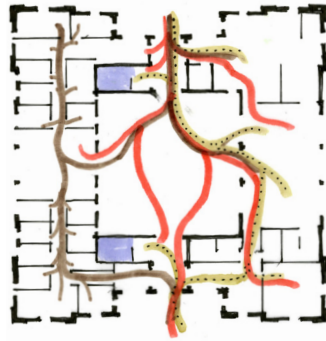
plan

programming key

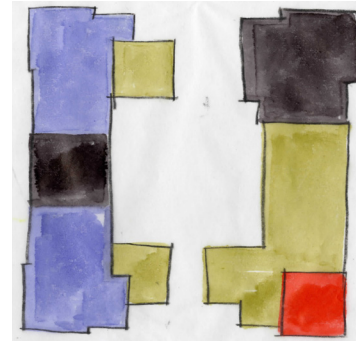
-  public
-  educational
-  faculty only
-  international program

circulation key

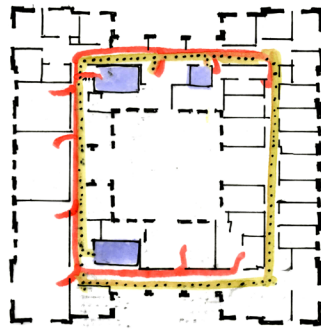
-  vertical
-  faculty
-  staff
-  student



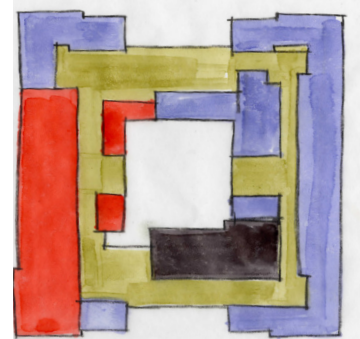
first floor circulation



first floor programming



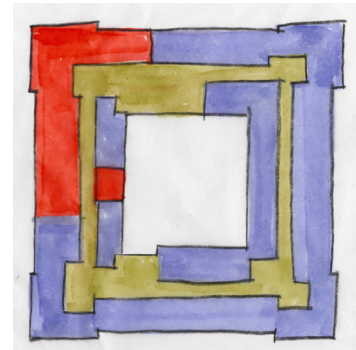
second floor circulation



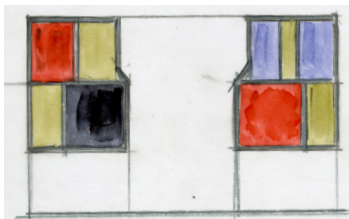
second floor programming



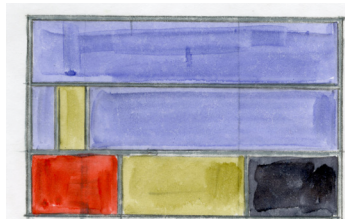
third floor circulation



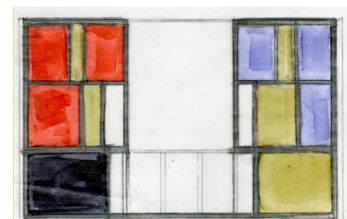
third floor programming



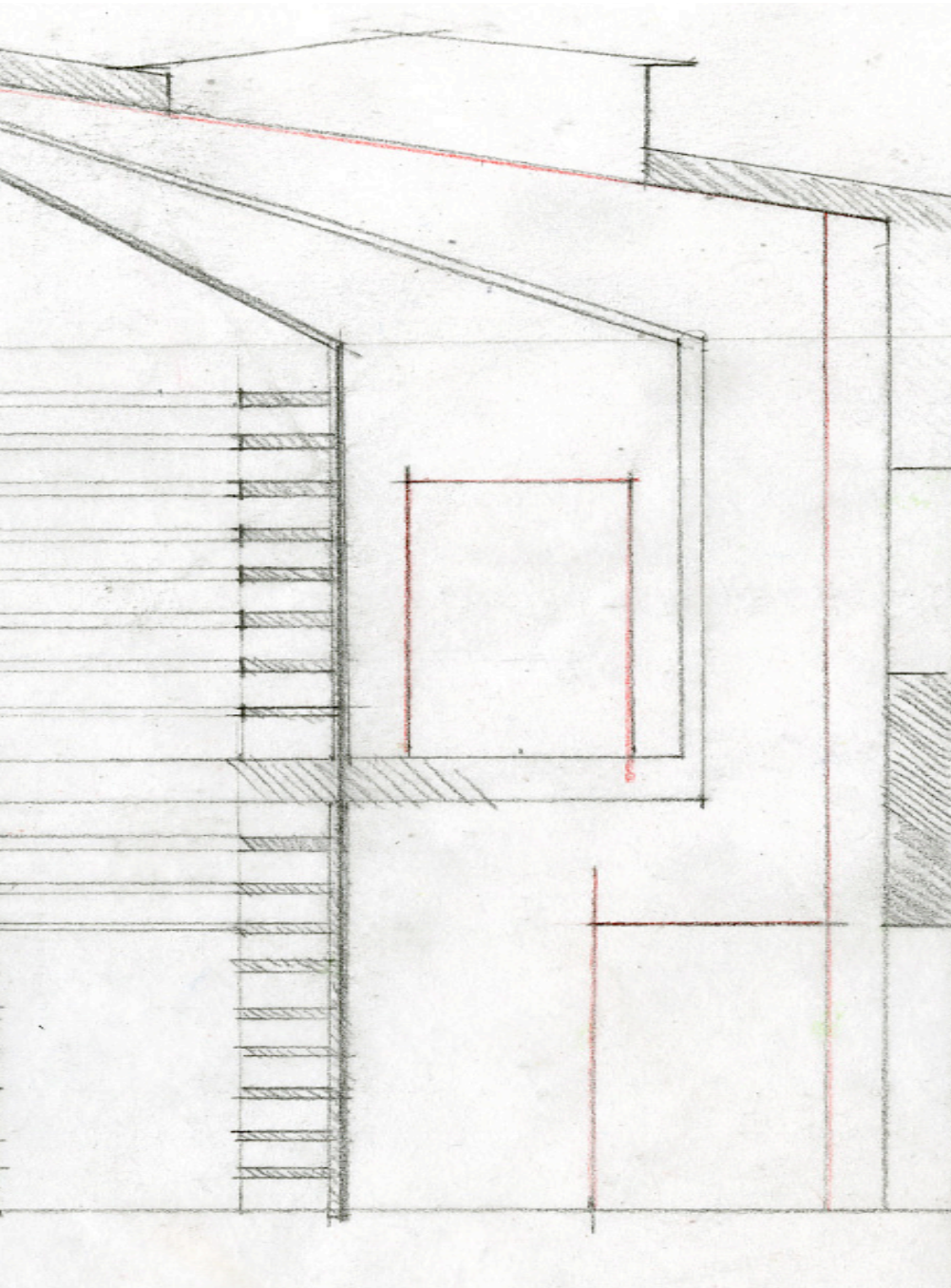
section diagram
central courtyard area



section diagram
east and west wings

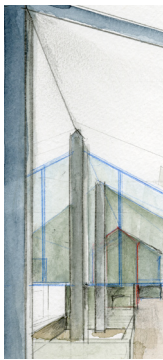
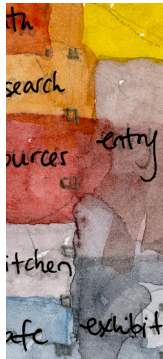
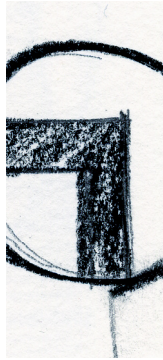


section diagram
south and north wings



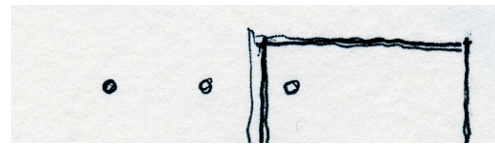
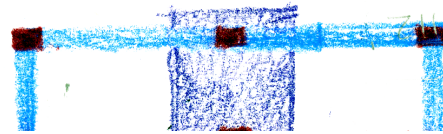
production

Authentic representation of West African states constitutes both a conceptual and programmatic tie to the place of origin. Thus, project development involves simultaneous investigations (and evolutions) of the appropriate spaces to create within the building and how best to design and construct these spaces.



Concept Development

At the heart of this project lives a desire to develop a design language that represents the idea of place and creates understanding between places without rote replication of a vernacular style. This desire led to research of less palpable modes of experiencing culture that could be abstracted to create a new design that evokes both the remoteness of Africa from Richmond and the relationship that the building program seeks to develop. From this, I chose to focus on the differences in cultural pace of life.



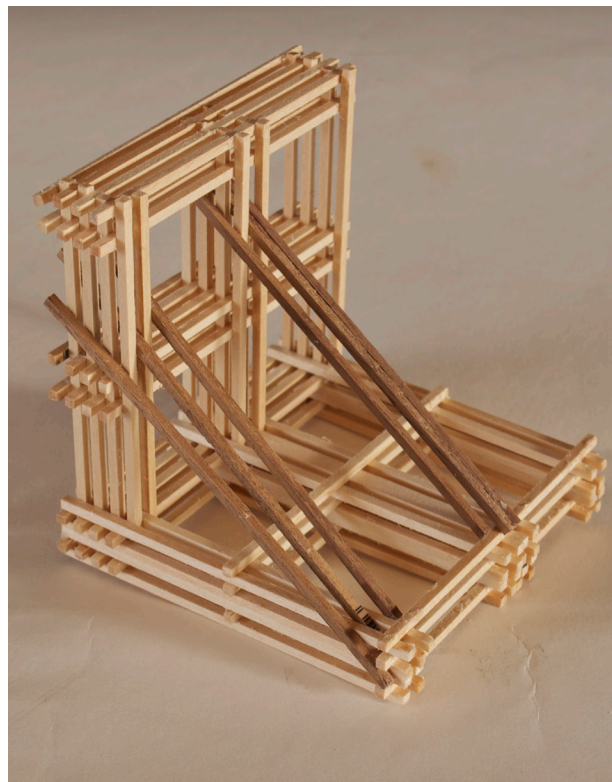


pace + material insertion

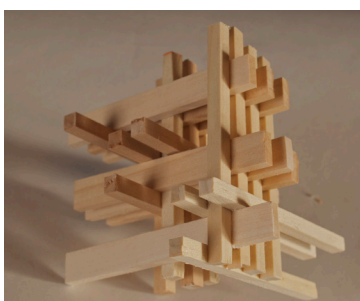
According to Robert Levine, author of *The Geography of Time*, in the most general terms, developed countries operate at 4 times the pace of the developing world. These statistics, based on walking speeds, transaction times and clock accuracy, loosely divide cultures into those that operate on “clock time” and those that operate on “event time.”

The struggle to create a visual manifestation of this dichotomy spurred much of my early concept development, and the idea of pace became my driving strategy for authentically representing place.

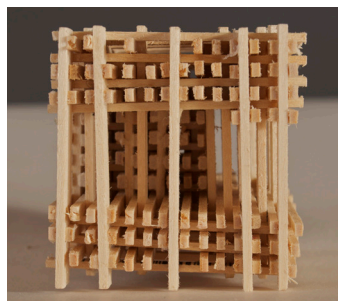
I began creating concept models that examine how materials inserted at different paces form structure and space. These images show different iterations of this process.



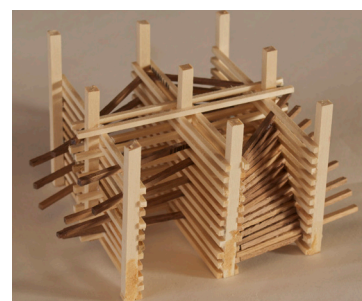
pace as connector



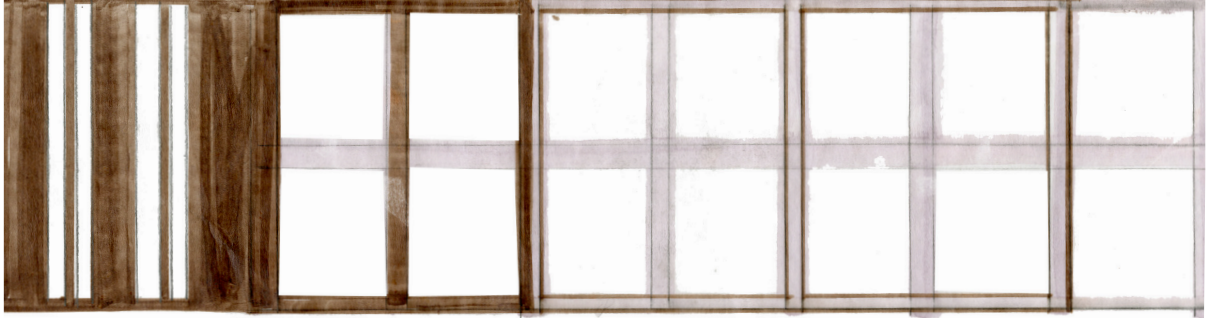
material insertion



density + rhythm

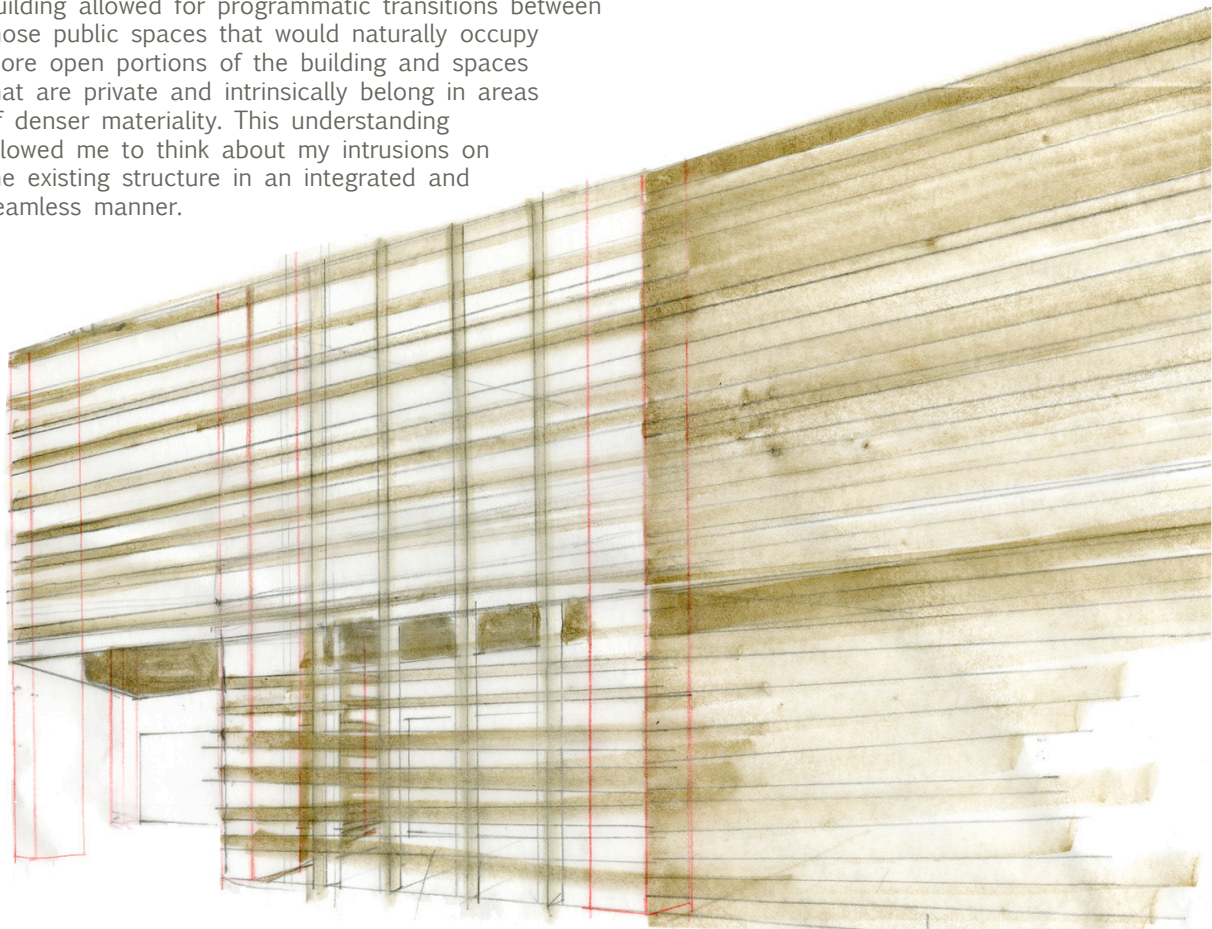


building rhythm + pace

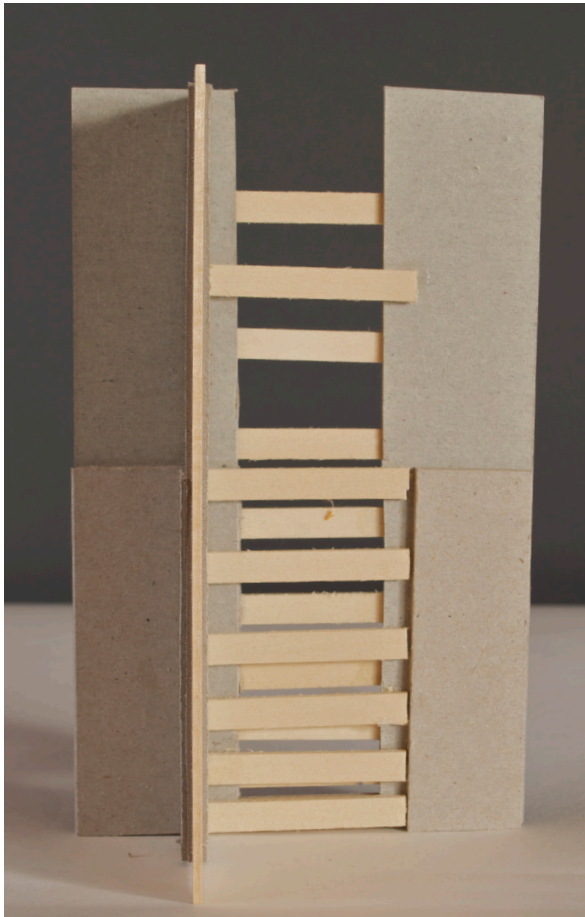


application of pace to plan

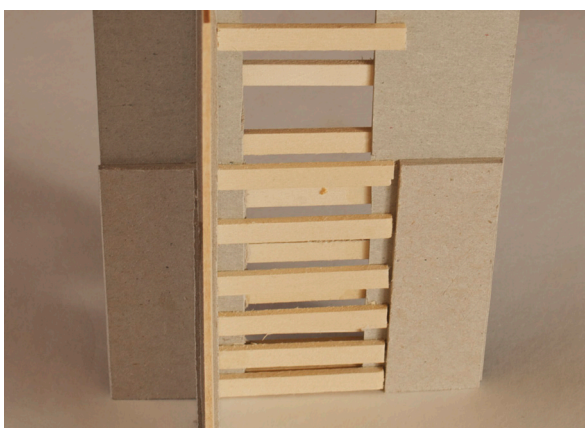
I began to integrate the ideas my concept generated with the building by diagrammatically applying the idea of pace to the plan. By highlighting the existing openings and closures of the building and how they relate to the column structure, I began to see the rhythms inherent in the existing structure. Uncovering this pace of the building allowed for programmatic transitions between those public spaces that would naturally occupy more open portions of the building and spaces that are private and intrinsically belong in areas of denser materiality. This understanding allowed me to think about my intrusions on the existing structure in an integrated and seamless manner.



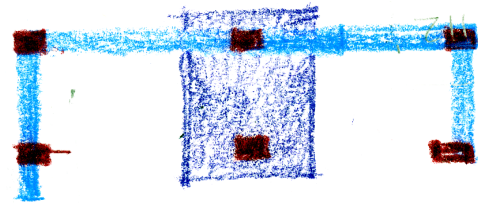
sketch perspective



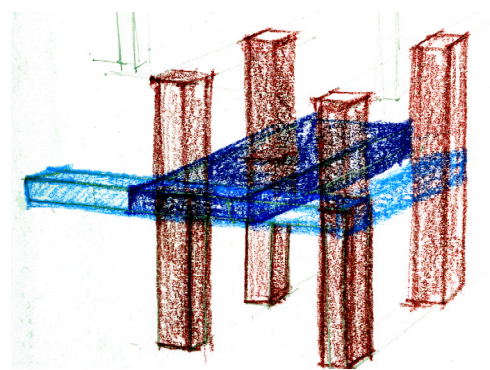
material transition concept model



material transition concept model detail

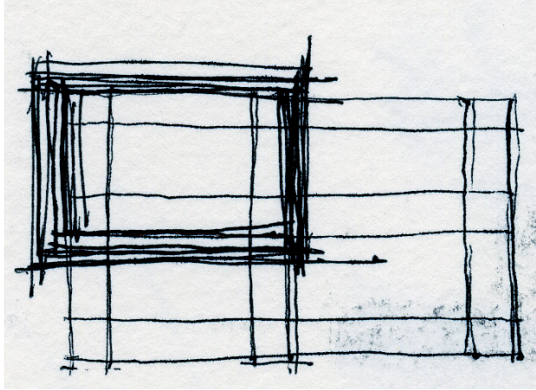


plan diagram

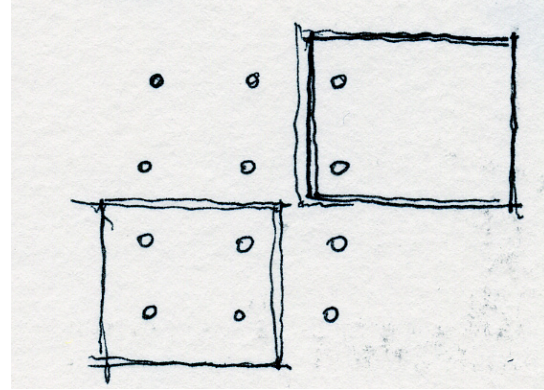


spatial diagram

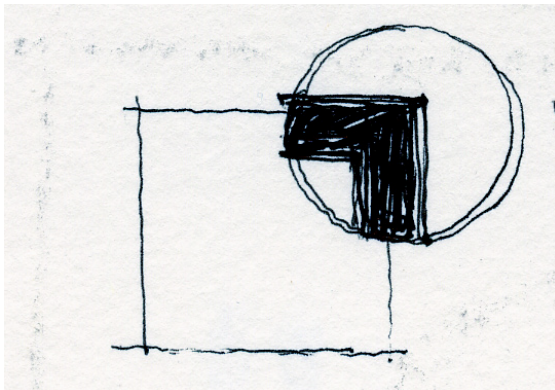
Transitions in materiality as a representation of transitions in cultural pace led to the issue of when, where, and how to shift the materiality of my new design. In the model at left, I began to create a 3 dimensional diagram of transitions in material density in three directions. These transitions occur in three directions that could be applied to the transitions in the building. This model illustrates the rules that I set out for how transparency increases in my design: vertically, toward the center of the building, and out towards the canal.



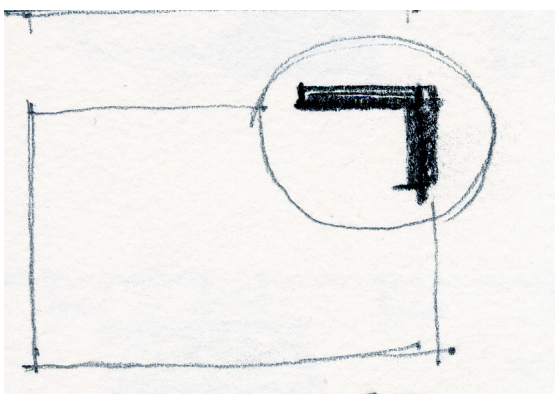
new intersects with old



new connects old



new highlights old



new highlights portion of old

How do new and old interact?

Concurrently, but separately from my investigations of pace, I began to diagram the desired relationship between old and new in my building. In an effort to ground my conceptual development in the reality of my project site's physical constraints, I began to think about how my concept would speak to the interaction between the existing condition and my introductions. Through these diagrams, I explored ways in which through producing something new, I could simultaneously highlight a portion of old. In this way, the design restores the integrity of the original building, while creating another, distinctly authentic experience based on transitions in cultural pace.

Ultimately, while there is limited physical interaction between my design and the existing building, I was able to achieve this particular goal. Specifically, through pulling my impositions to the central spine of the building, I was able to expose elements of the existing structure as well as sources of natural light that were previously obscured. My introductions pull attention from the structure, but with a respect that allows interaction between new and old to transcend the two independent elements, creating one visual experience.

Program

With a view to developing relationships with the modern people of nations in West Africa, I set out to create an international education center that allows space for multiple ways of learning from those that are standard to clock time cultures to those more relevant to the meandering pace of event time cultures. Thus, my program encompasses components of learning that include the following: traditional education (speakers/lectures, research), gastronomy, the arts, travel opportunities and virtual communication.

square footage requirements

Cafe + Kitchen	2200
Research Library	1500
Resource Center	1000
Global Conferencing	1000
Exhibition [Interior]	800
Exhibition [Exterior]	500
Lecture/Classroom	900
Office	350
Storage	200
Bathroom	450

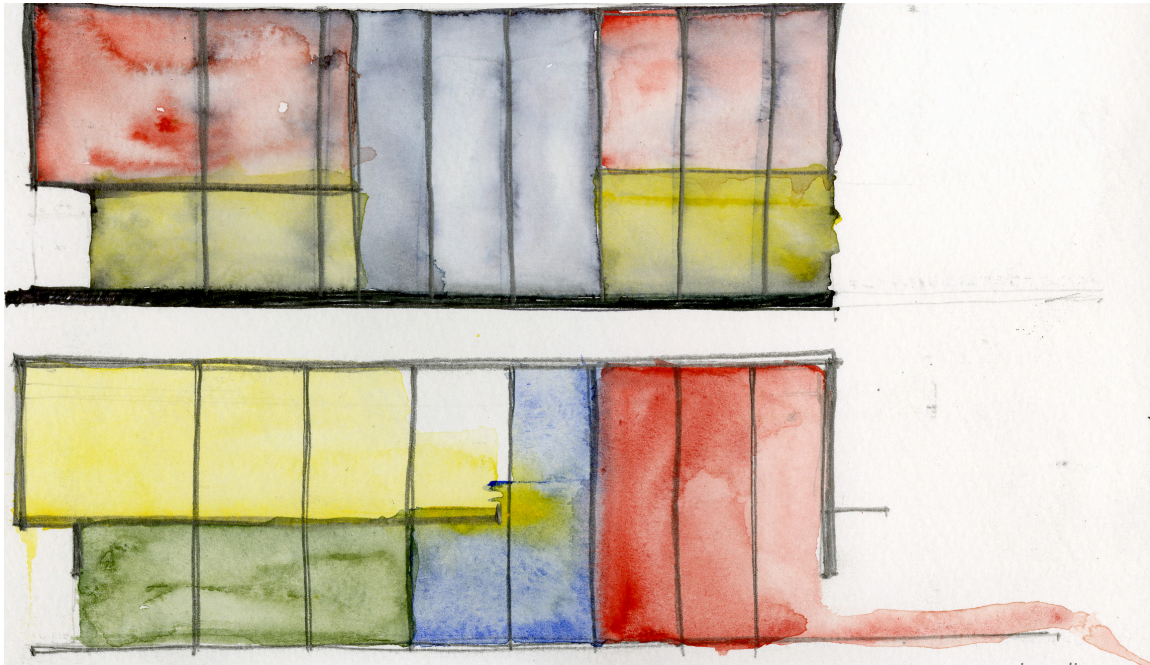
Interior Total 8400
Exterior Total 500

SF available/floor 6500

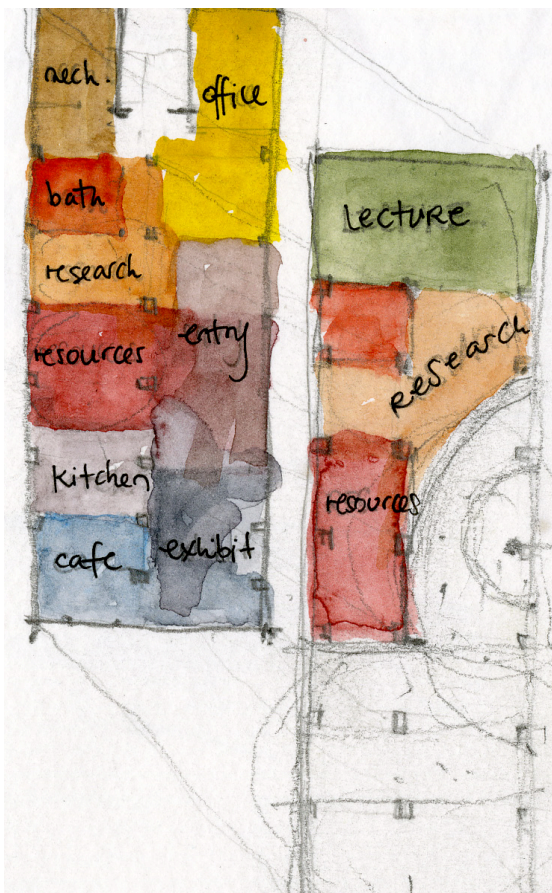
adjacency matrix

	1	2	3	4	5	6	7	8	9	10	11	12
	Research	Resouce	Global	Computer	Lecture	Office	Storage	Bathroom	Exhibition	Café	Kitchen	Exterior
1 Research Library		I	C	C	C	A	A	A	N	N	N	N
2 Resource Center	I		C	C	A	C	A	A	N	N	N	N
3 Global Conference	C	C		I	C	A	A	A	N	A	N	N
4 Computer Lab	C	C	I		C	A	A	A	N	A	N	N
5 Lecture/Classroom	C	A	C	C		A	N	A	N	A	N	N
6 Office	A	C	A	A	C		I	A	N	A	N	N
7 Storage	A	A	A	A	N	A		N	C	N	N	N
8 Bathroom	A	A	A	A	A	A	N		C	C	A	N
9 Exhibition	N	N	N	N	N	N	C	C		C	N	C
10 Café	N	N	A	A	A	A	N	C	C		I	C
11 Kitchen	N	N	N	N	N	N	N	N	N	I		N
12 Exterior Exhibit	N	N	N	N	N	N	N	N	C	C	N	

I	immediate
C	close
A	accessible



section diagrams



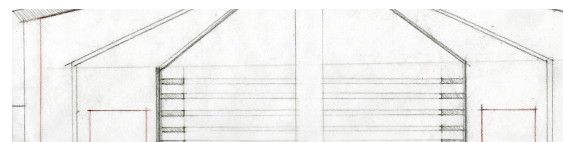
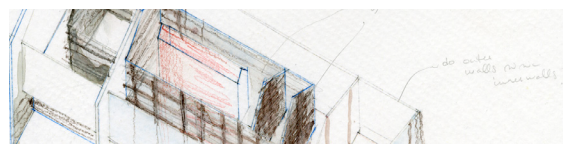
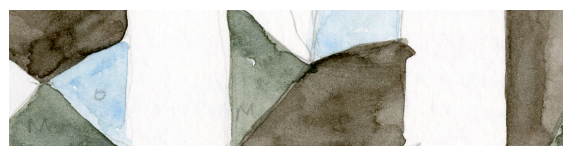
first and second floor plan diagrams

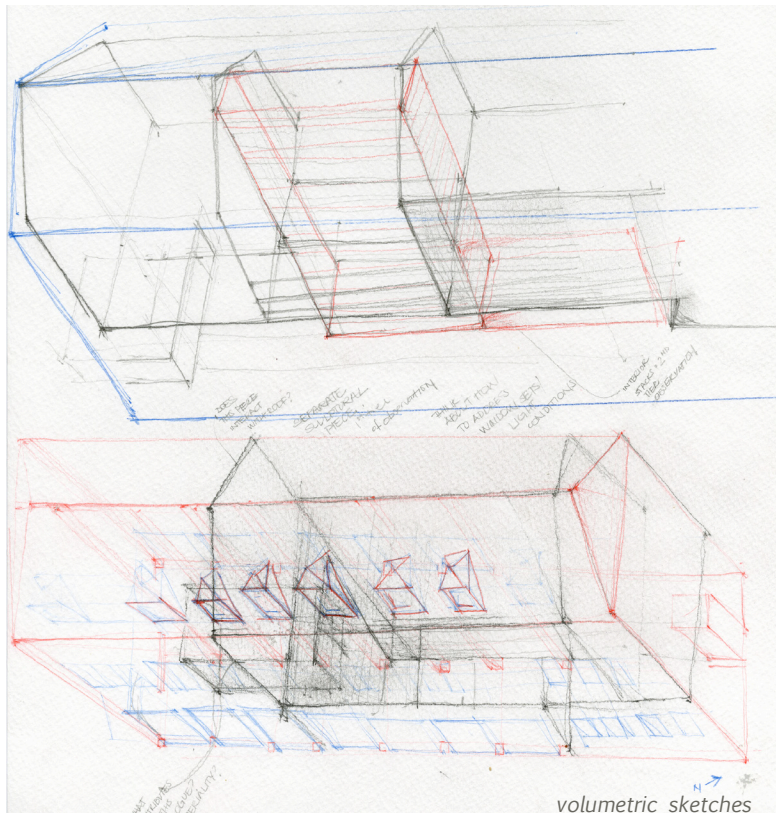
These preliminary block plans apply the concepts of the adjacency matrix to the floorplan of my building. I began to think about the block plan in both section and volumetric sketching as a way to develop an understanding of the way that the volumes of the space could house my different programmatic functions.

From my conceptual work, I knew that I wanted there to be a marked progression between the paces of different functions. Combined with the requirements of the adjacency matrix, this led to the placement of certain spaces within the block plan.

Design Development

My design evolved out of the interplay between my concept and program. In general, the concept of creating a place within a place became an organizer for my outlined program. Specifically, my main strategy for realizing my concept, the understanding of cultural pace, became the driver for transitions in materiality. Referring back to my conceptual work allowed me to create a dialogue between my illustrated materiality rules, the rhythm of the building and the demands of my stated program.

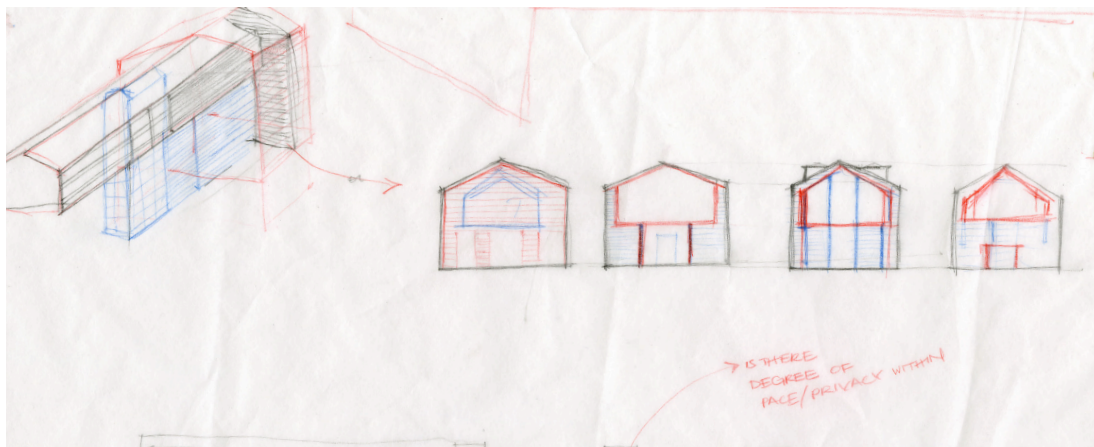




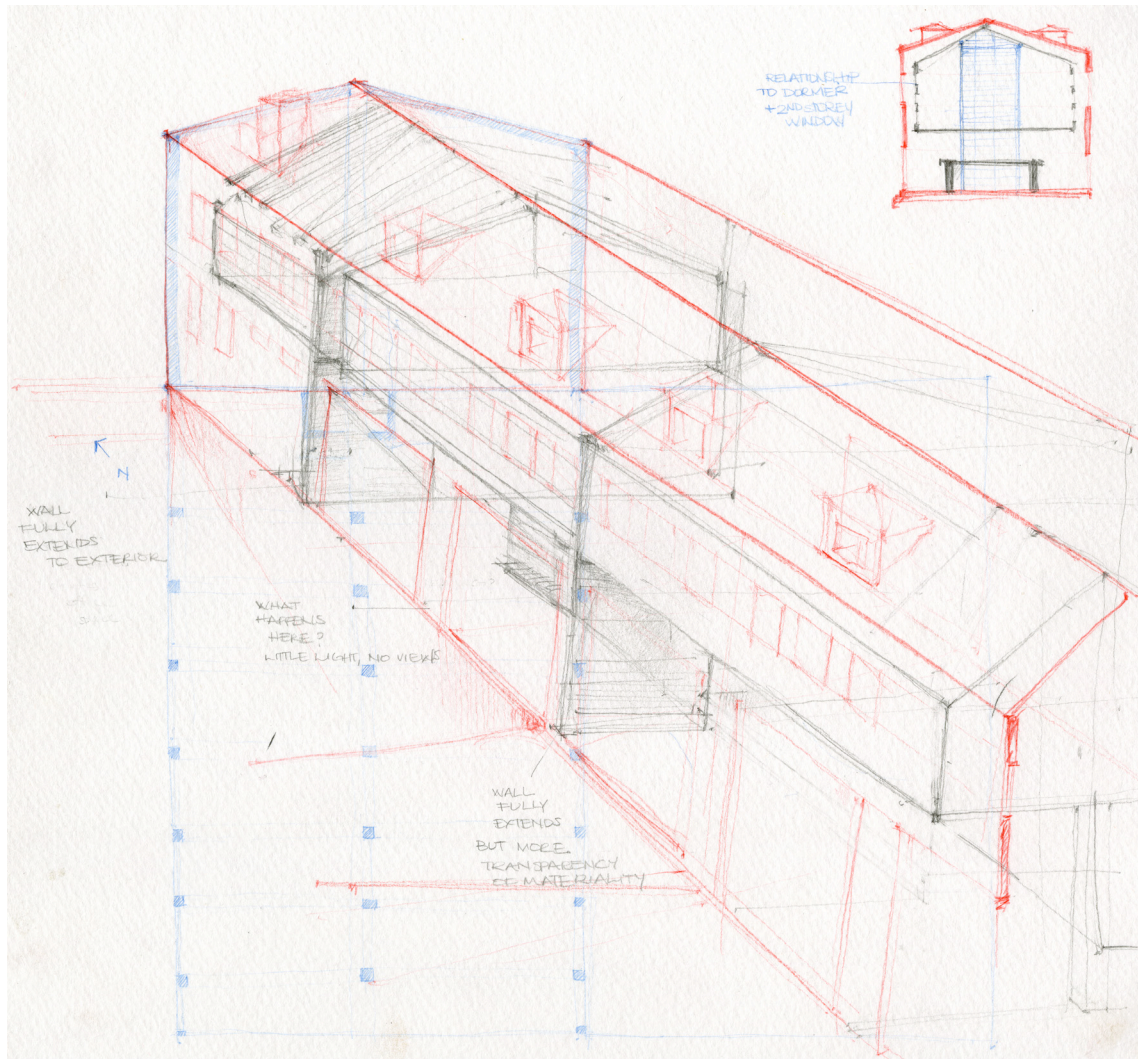
Place within a place

I needed to place my impositions in a way that would allow visual access to the building structure and natural light from the 2nd floor and dormer window. However, I also needed more square footage than the 6500 on the first level. In order to accommodate both of these needs,

I chose to pull the main functions of my building away from the exterior walls and create a place within a place. I began to struggle with how this new structure would interact with the existing space. Would they touch and where? How would the ceiling and roof connect? What distance from the exterior walls allows for functions like stairwells and cleaning without destroying the mystery of the structure?



section sketches

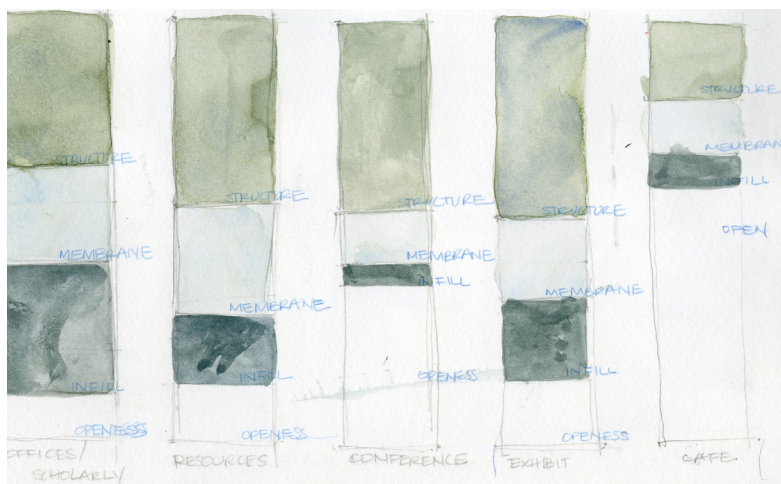
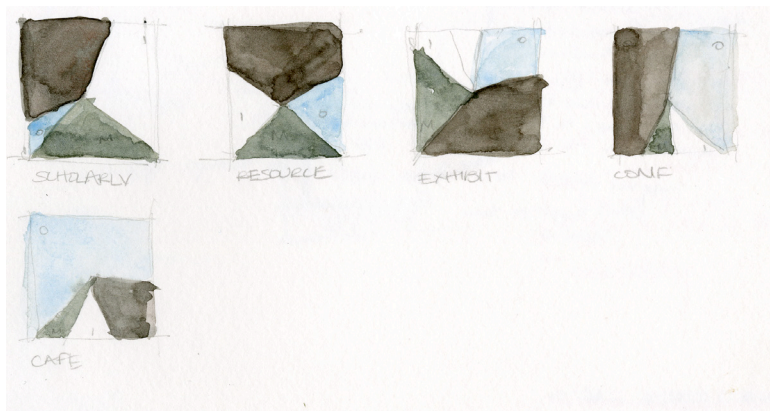
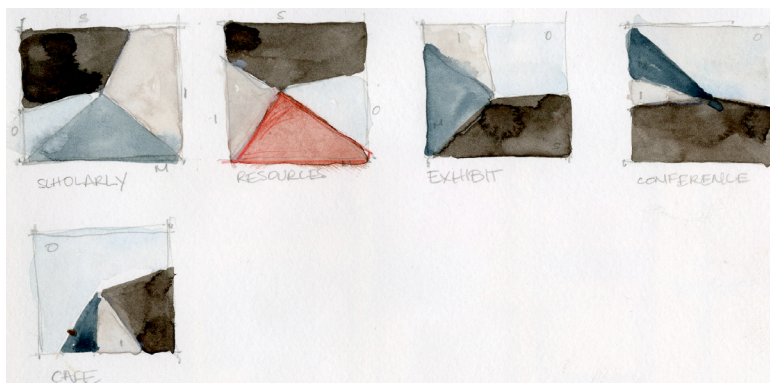


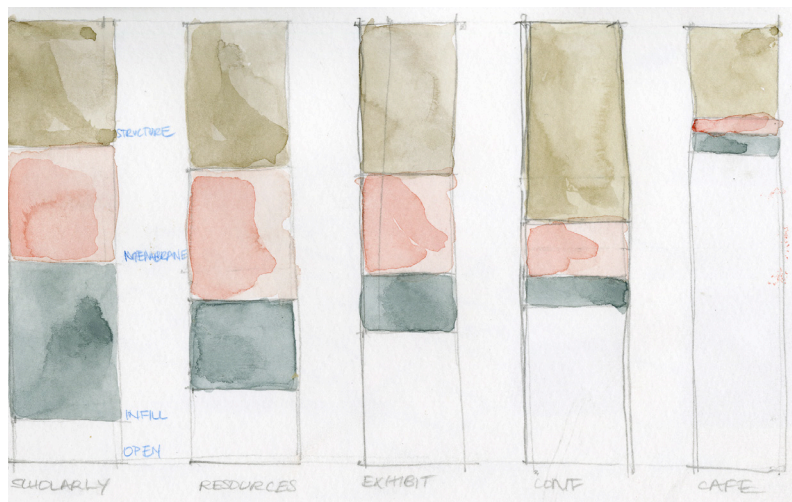
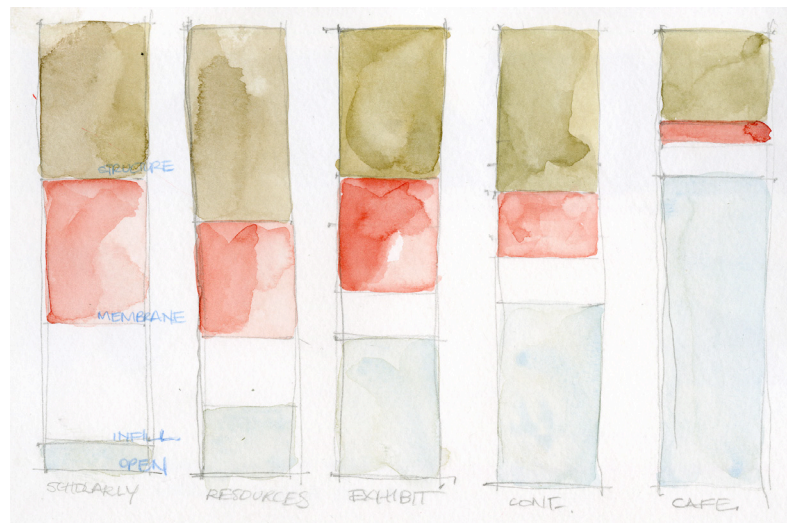
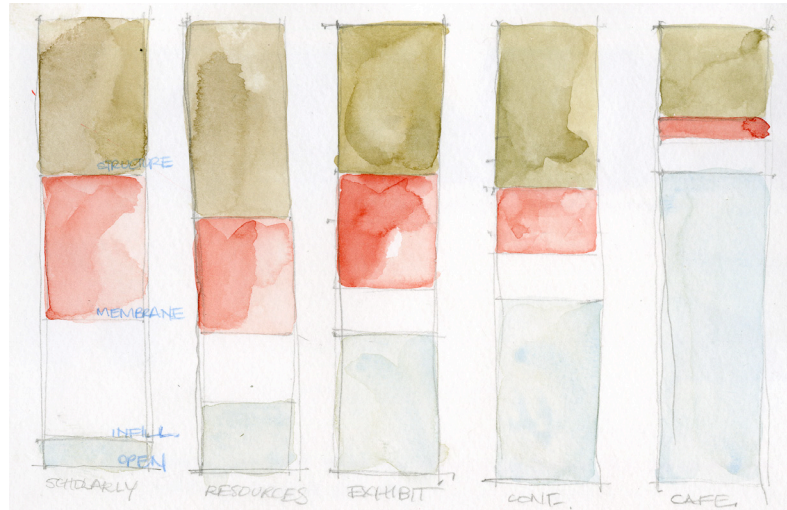
sculptor's sketch

In the midst of this struggle, I returned to my process case study of Demas Nwoko, reexamining his sculptural method of sketching. He writes “I execute the first lines, and continue to adjust the forms superimposing new lines on the original. I finally select the correct lines for drawing on the drawing board. It is a typical sculptor’s drawing where the wrong lines are retained to guide the subsequent correct lines.” (Godwin 33). By returning to the same sketch as I developed my design, I did not lose the lessons learned between one drawing and the next.

Studies in Materiality

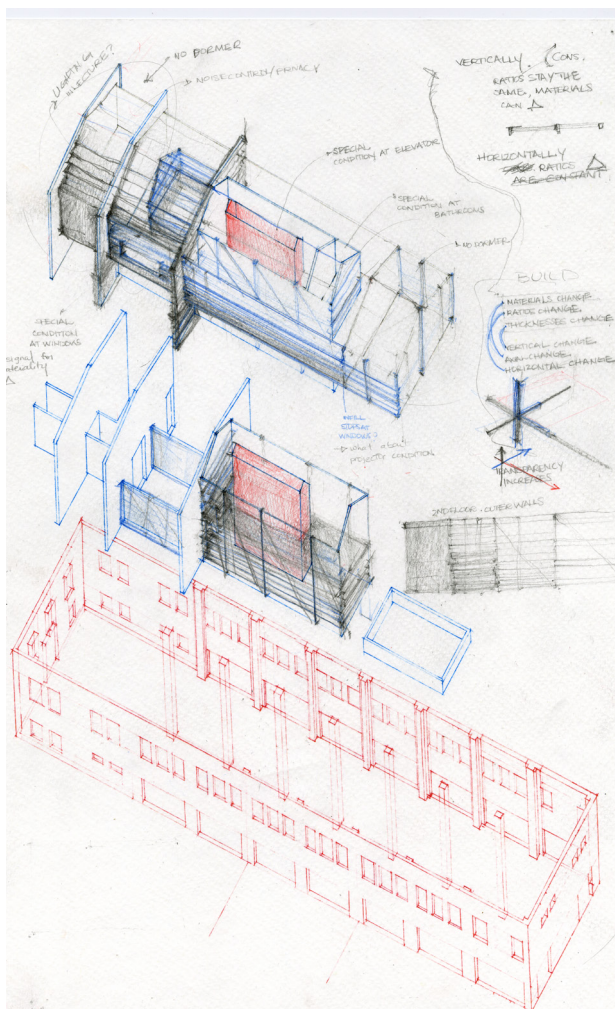
Pace manifests in the design solution in the form of materiality transitions; therefore, I needed to understand the proportion of different materials: infill, membrane and structure as they relate to each programmatic region. I developed this diagramming system as a way of experimenting and comparing different materiality considerations as a way of thinking about both the functions of the spaces and physical material choices.



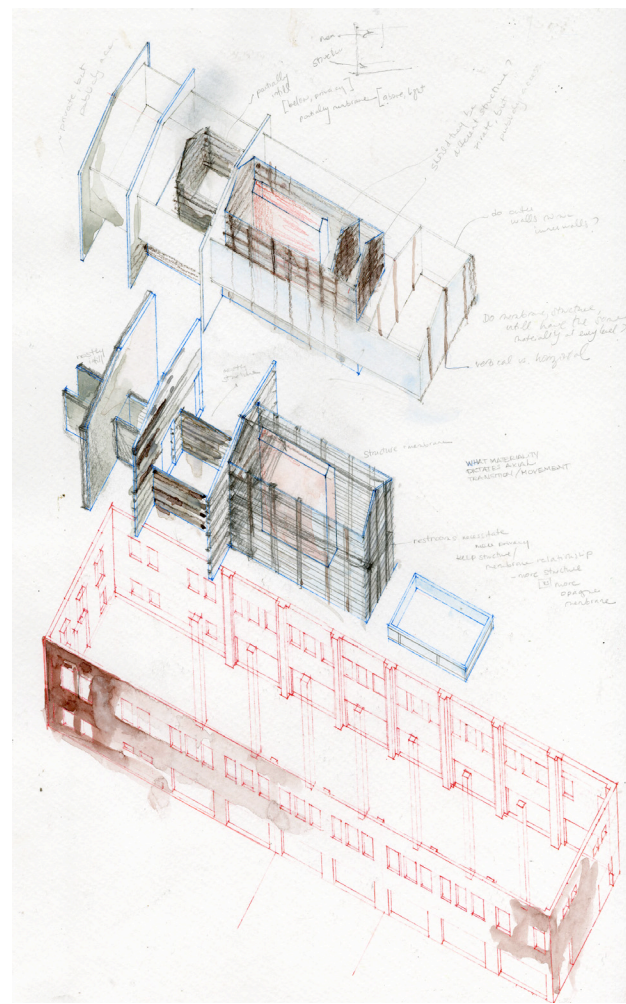


Materiality in 3d

In order to visualize my materiality transitions in a way that would be more relevant to the specifics of my design, I returned to 3 dimensional, sculptural drawing with careful attention to my scheme. My purpose for these drawings was two-fold: first, I garnered an awareness of how my spaces would relate to one another and the original structure; secondly, I now had a canvas for generating diagrams and sketches showing how materiality would transition across the sculptural landscape of my design.



original axon showing axial materiality transitions



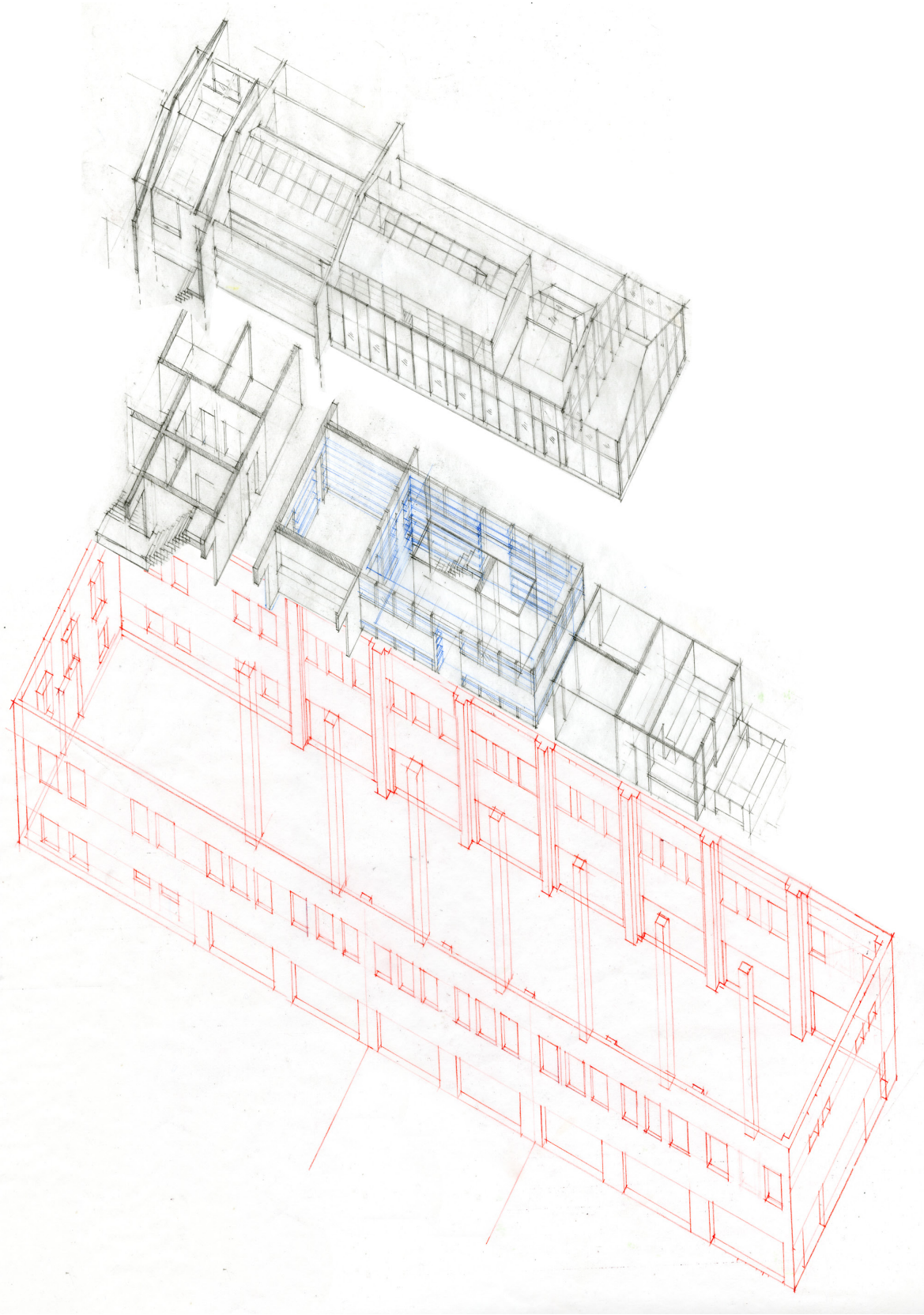
original axon showing material composition

While I had previously outlined my rules for how materiality would transition, I now needed to determine when and why these changes would occur. For guidance, I turned to Herman Hertzberger's Lessons for Students in Architecture.

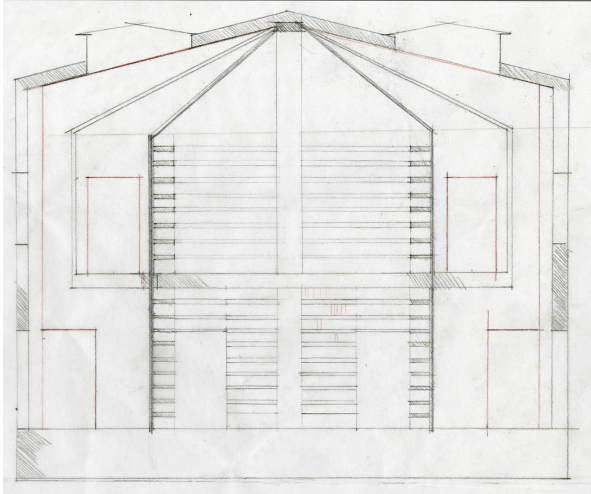
When, in designing each space and segment, you are aware of the relevant degree of territorial claim and the concomitant forms of "accessibility" with respect to the adjoining spaces, then you can express these differences in the articulation of form, material, light and colour, and thereby introduce a certain ordering in the design as a whole."

(Hertzberger 18).

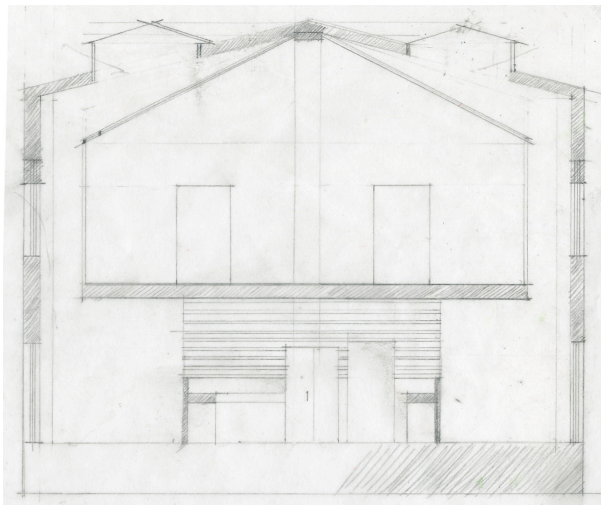
Thus, I began to consider the transition from public to private spaces, and made the thresholds between my programmatic spaces, both those that are distinctly expressed and those implied by openings in volumes the natural points for changes in material composition.



axon edits from March 2011



sketch section showing stacks



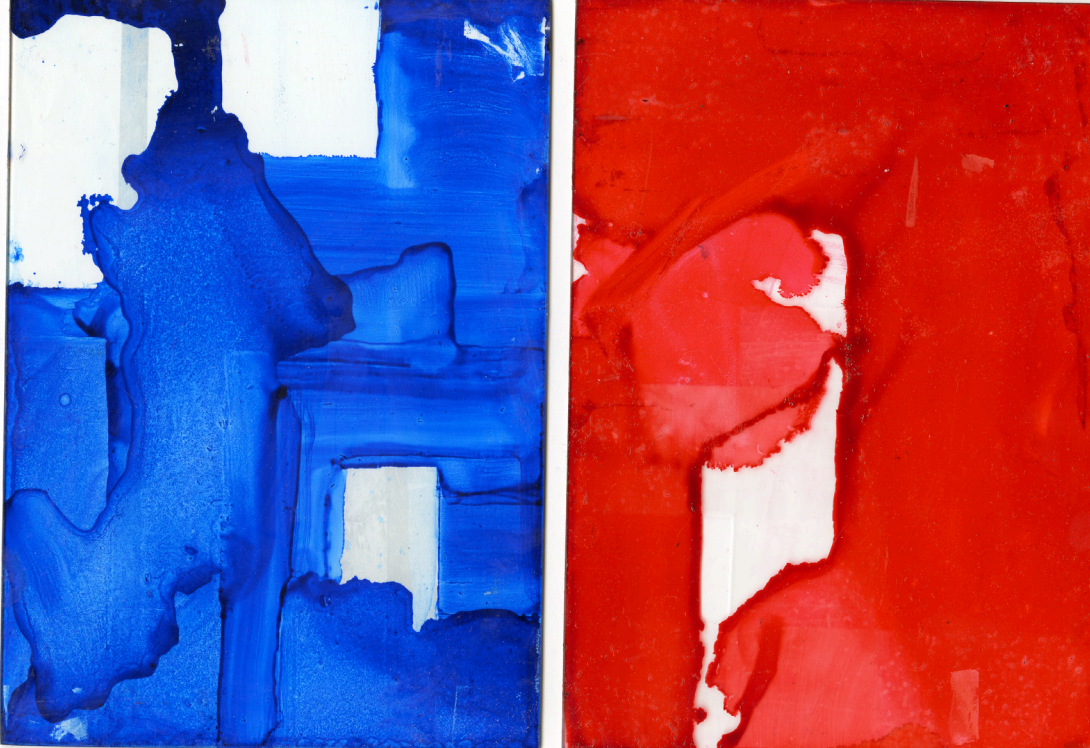
sketch section kitchen and conference room

The shifts that occur at each threshold are best illustrated through a series of sections showing how wall thicknesses change from one programmatic area to the next. These drawings serve multiple purposes, as they show transitions as well as how spaces relate to one another and to the building exterior

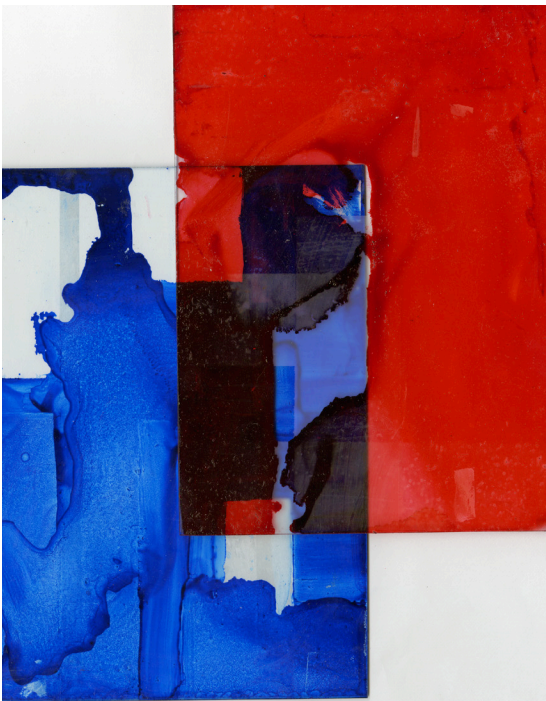


sketch of cafe area

207.



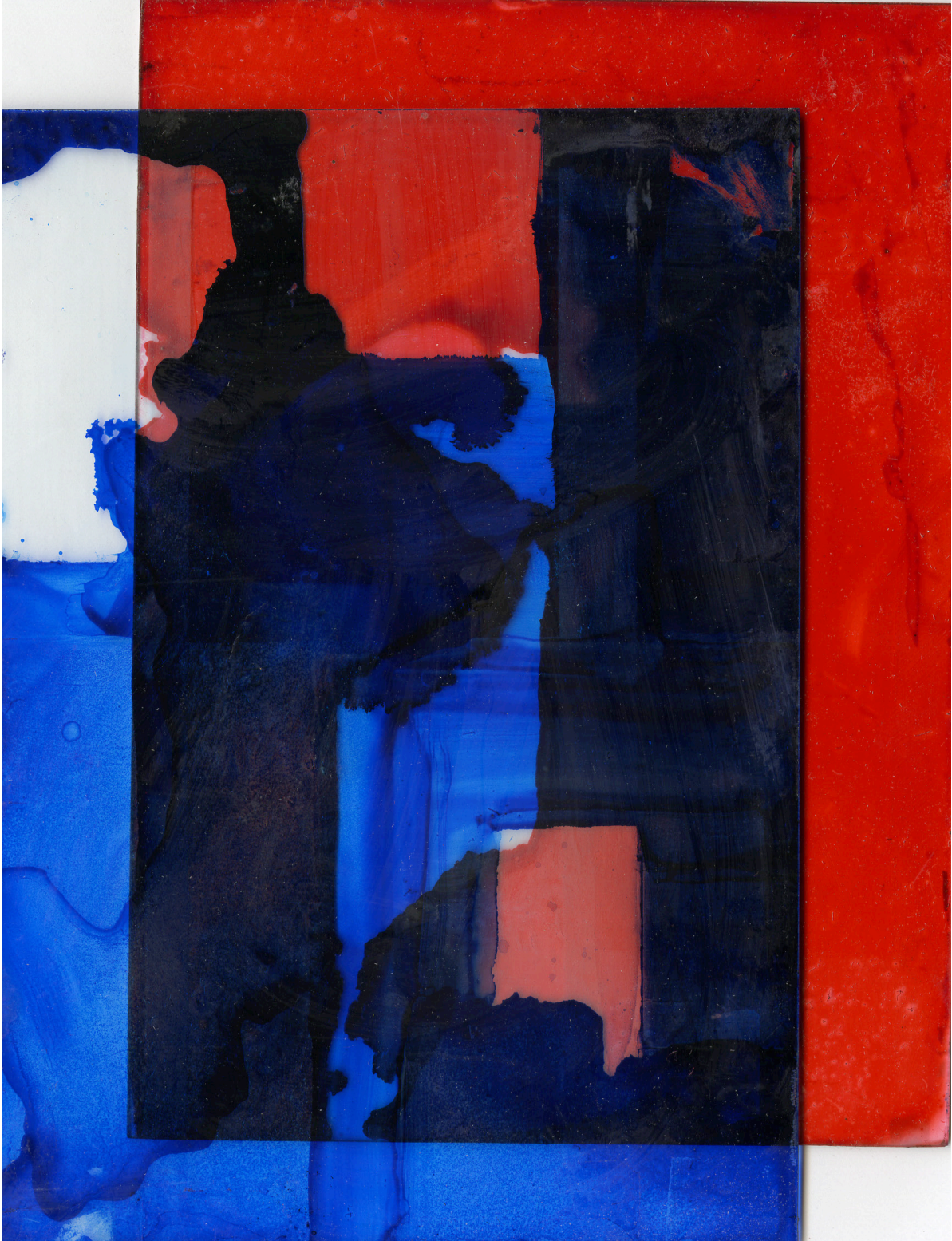
individual glass scans



slight overlap glass scans

Abstraction creates authenticity

A second strategy for the realization of place came to be the abstraction of African ideas or methods to create something unique and authentic to the program and site. To create a unique glass core to the building, I examined an African process of design, wax batik printing. Not wishing to simply replicate the designs, I abstracted the process, which involves the application of wax to fabric to control dye absorption. I experimented with this process on glass by etching, applying painters' tape and rubber cement to the glass to control the dye.



overlap glass scans



massing model



top view of massing model

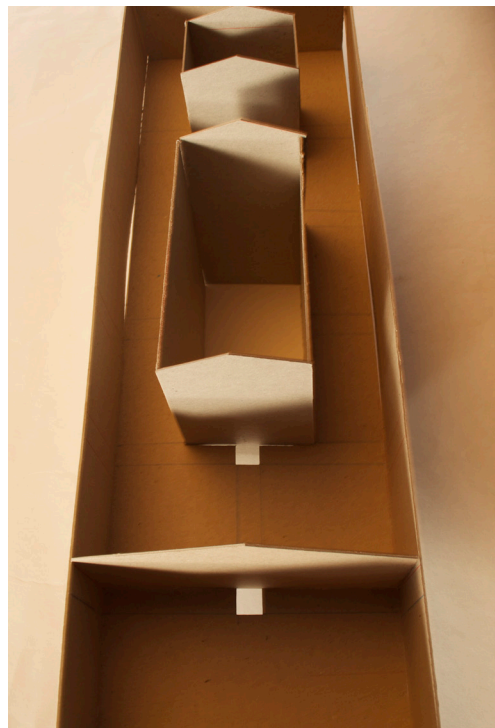
Over the course of the project, understanding the sculptural quality to my additions was of constant importance. This massing model helped to illustrate the vital spatial relationships.



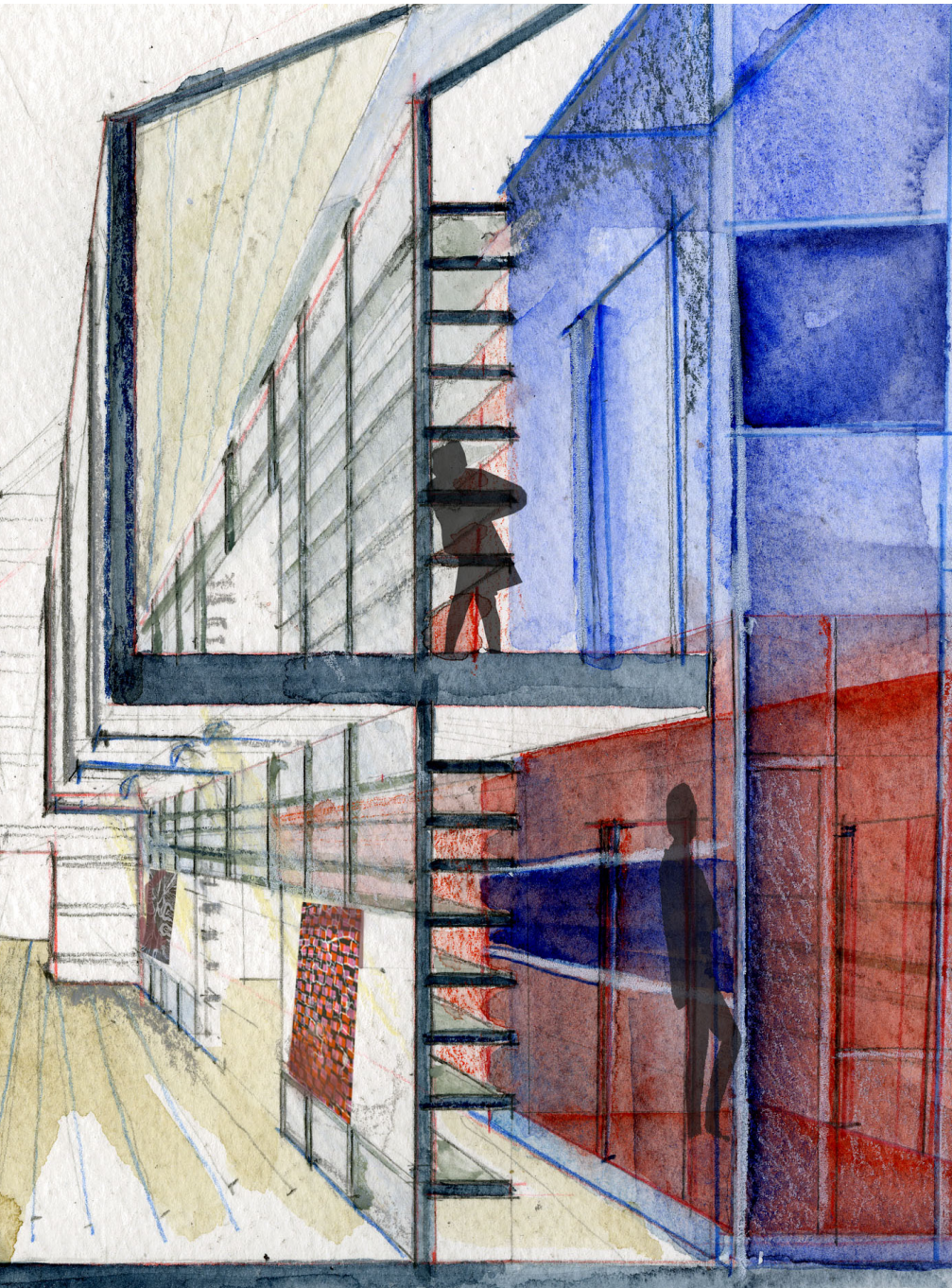
detail massing model



massing model

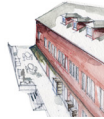
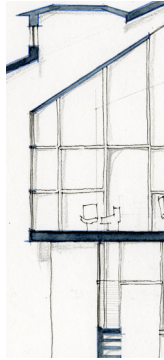


detail of massing model



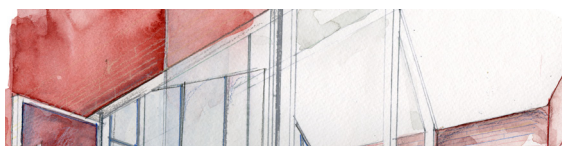
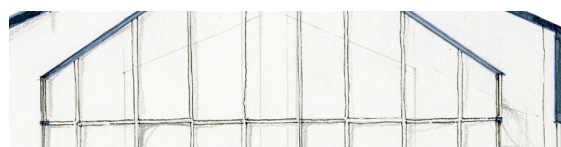
presentation

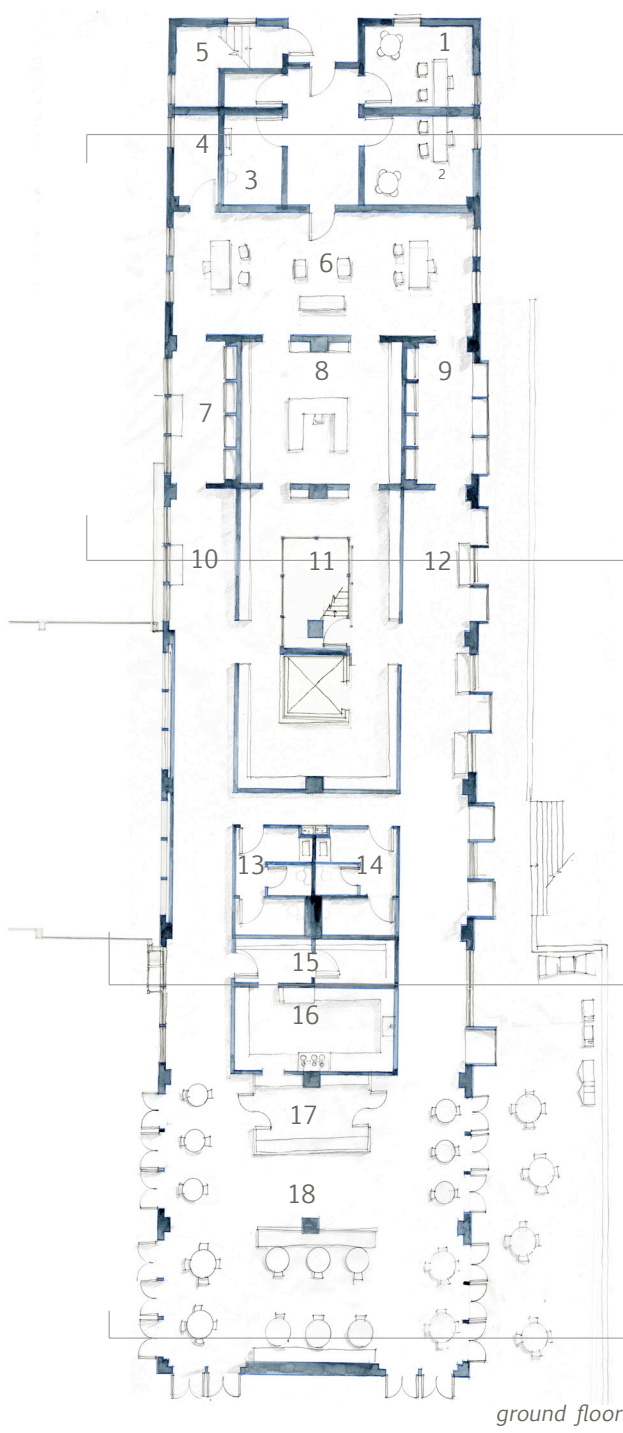
The following images are presentation drawings and my exhibition boards from the MFA Student Exhibitions in the Anderson Gallery on the Virginia Commonwealth University campus. The show was installed from April 22 through May 1, 2011. I chose to display both exhibition boards as well as process drawings and models spanning the course of the semester.



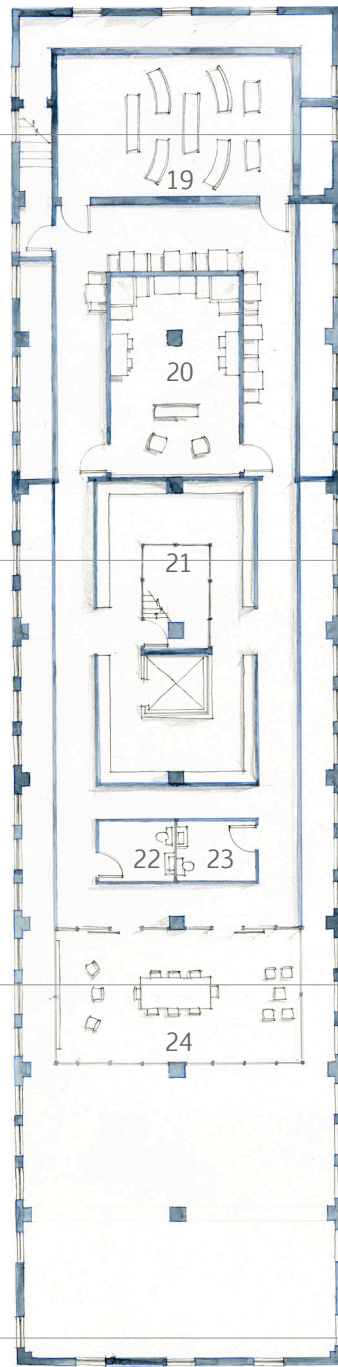
Drawings

As I began my presentation drawings, I took into consideration my own pace of production. Slowing myself down and enjoying the process, I drafted the drawings by hand and rendered in watercolor and colored pencil, with some computer editing. I chose each drawing specifically to meet a need, whether that was illustrating an interior/exterior relationship or demonstrating an idea about pace.





ground floor



second floor



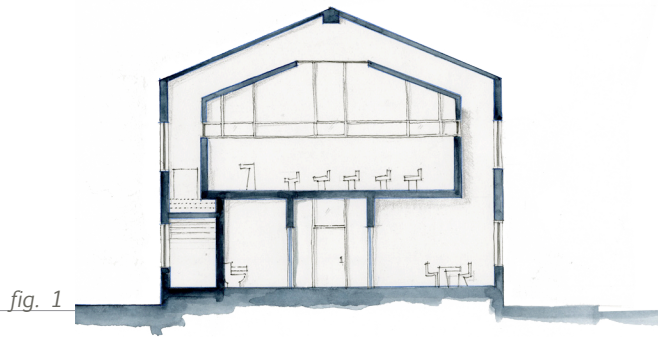


fig. 1

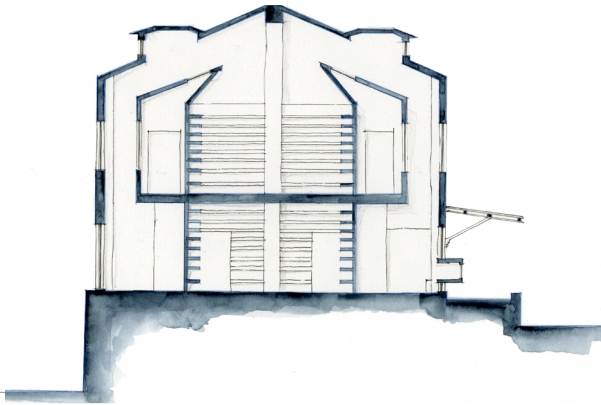


fig. 2

legend

ground floor

- 1 manger's office
- 2 curator's office
- 3 employee restroom
- 4 mechanical closet
- 5 emergency egress stairwell
- 6 open plan resource center
- 7 sculptural gallery
- 8 circulation desk
- 9 decorative arts gallery
- 10 gallery [hanging] space
- 11 library stacks + stair
- 12 gallery [hanging] space
- 13 women's restroom
- 14 men's restroom
- 15 kitchen storage
- 16 kitchen
- 17 service station
- 18 cafe

legend

second floor

- 19 informal lecture + classroom space
- 20 interactive computer lab
- 21 library stacks + stair
- 22 women's restroom
- 23 men's restroom
- 24 global conference space

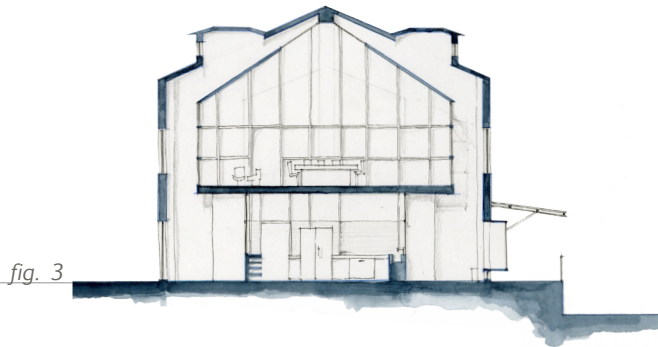


fig. 3

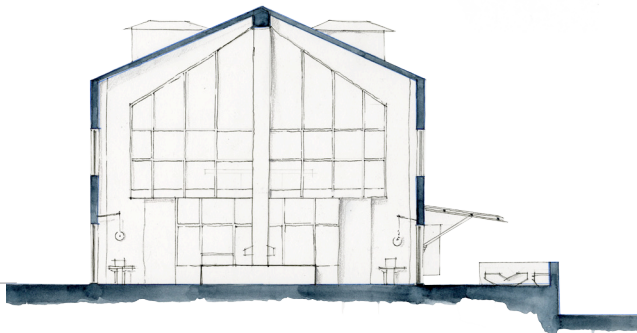


fig. 4

- fig. 1 classroom + office
- fig. 2 gallery + library stacks
- fig. 3 conference space + kitchen
- fig. 4 cafe
- fig. 5 long section

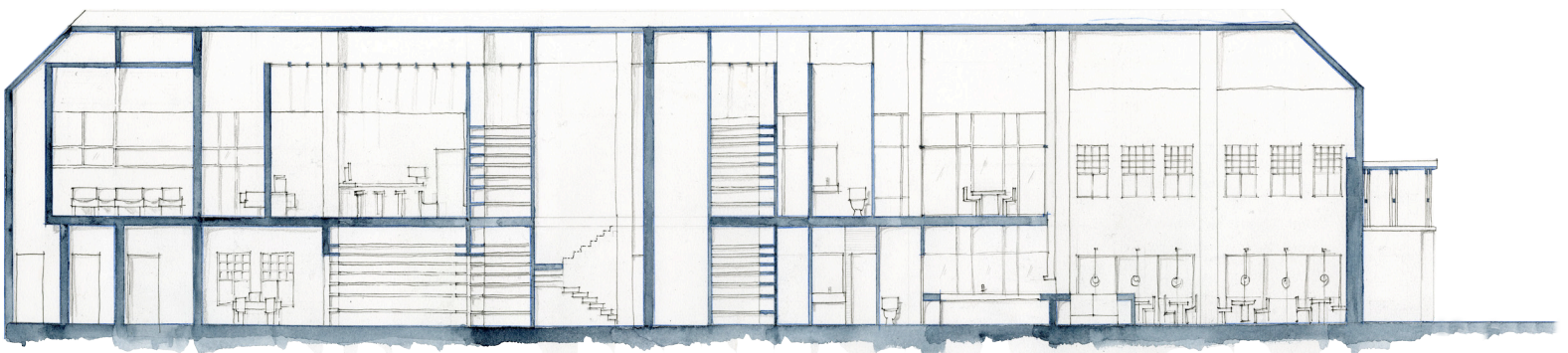
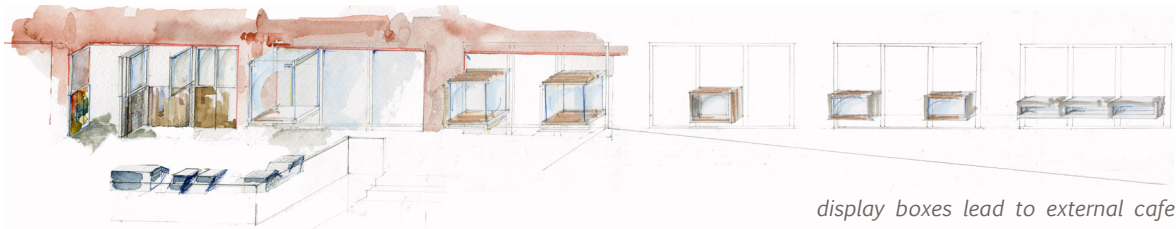
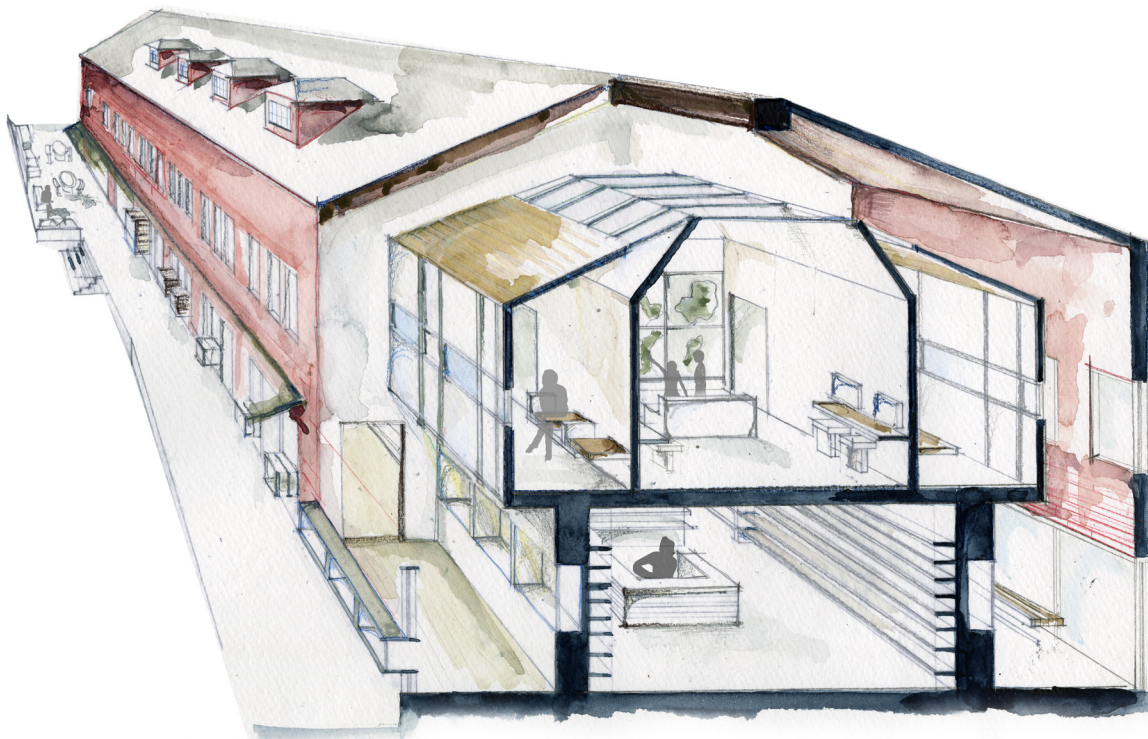


fig. 5



display boxes lead to external cafe

For those entering the site from the slave trail or canal, outdoor seating draws one in to the building. Additionally, when open, the cafe doors display colored and patterned glass inspired by the process of wax batik fabrication. The potential visitor approaching from the 14th and canal sides of the site are drawn towards the public entrance via display cases that hint at both the exhibitions and the materiality of the new structure found within the casing of the freight station.



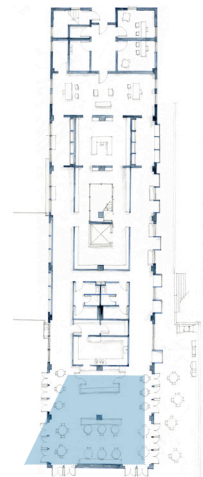
computer lab (showing interactive map) and circulation desk

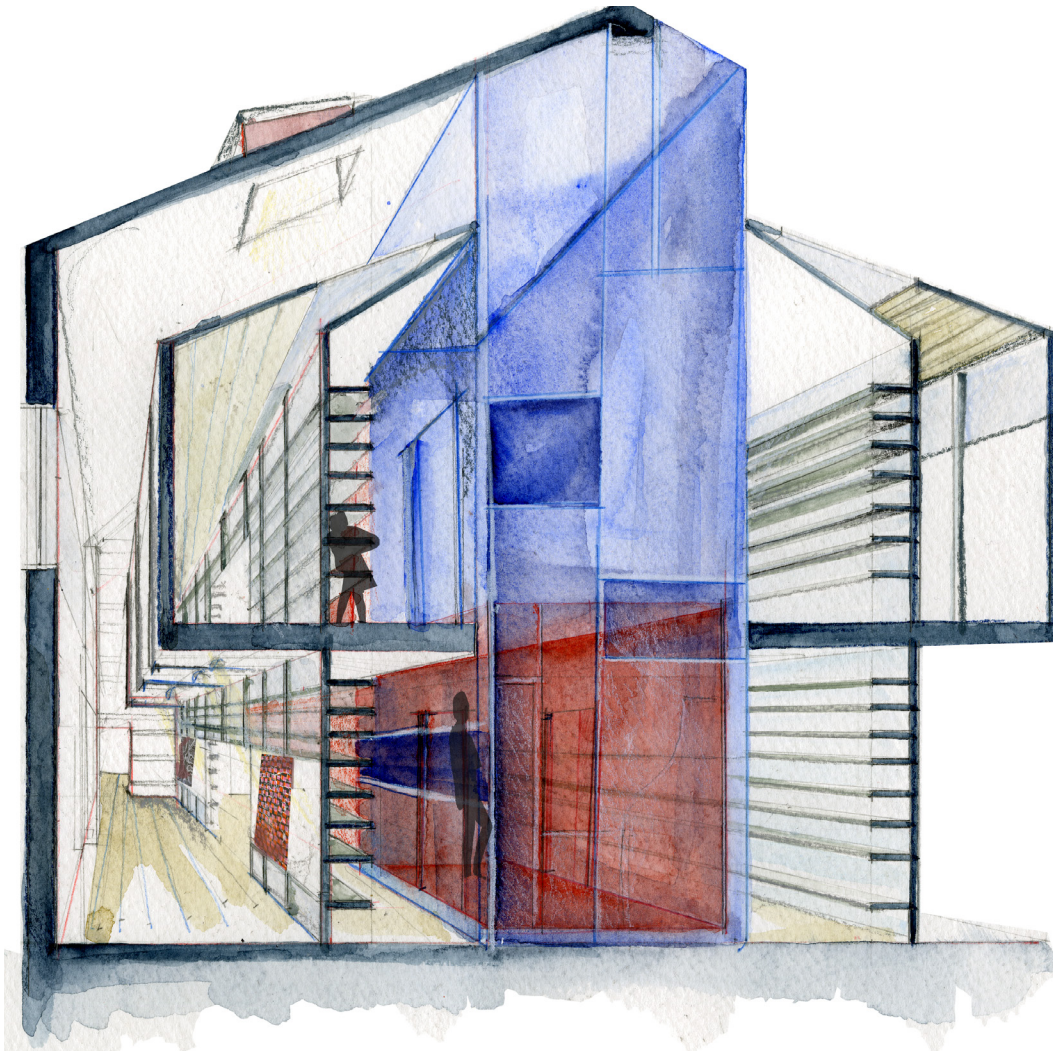


cafe from exterior

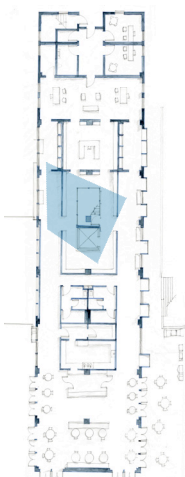
The visitor's choreographed experience begins at the cafe and is driven by the occupant's pace. From the casual lunch patron to the regular researcher, visitors and employees will experience the space at a different pace. Each threshold one crosses reveals progressively more detail, which creates the potential for a variety of experiences according to the speed with which one occupies the building.

The passerby or cafe diner experiences the African design element of interplay between interior and exterior. In order to create a sense of never knowing quite if one was inside or outside, I designed the cafe to have an open air porch quality, while remaining an interior space.





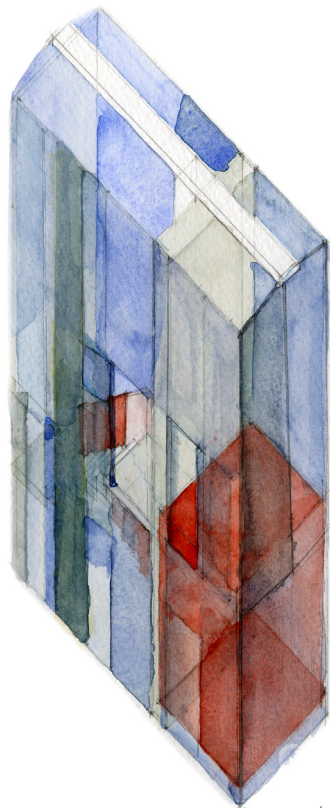
gallery and library stacks



The next stage of occupancy is that of the gallery visitor, which also houses a threshold leading to the pace of the researcher. Just as each transition reveals more about the building, I chose to express this graphically by including a higher level of detail as I illustrated the experience of the visitor. Thus, this drawing contains more details about the structure of the building and the variety of elements that are visible as the visitor moves through the space.

Special conditions

While the visitor progresses, each instance of vertical movement in the space allows for a special condition of materiality, as through these points the building highlights the transition between occupancy paces. For the elevator and stairwell at the center of the building, the glass enclosure inspired by wax batik processes creates a striking core, slightly visible through the translucent membrane and structure of the library stacks. In this way, the stairs and elevator seduce the visitor, encouraging a deeper engagement with the building and, thus with the available resources.

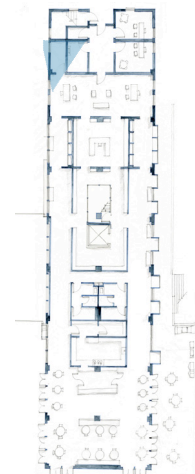


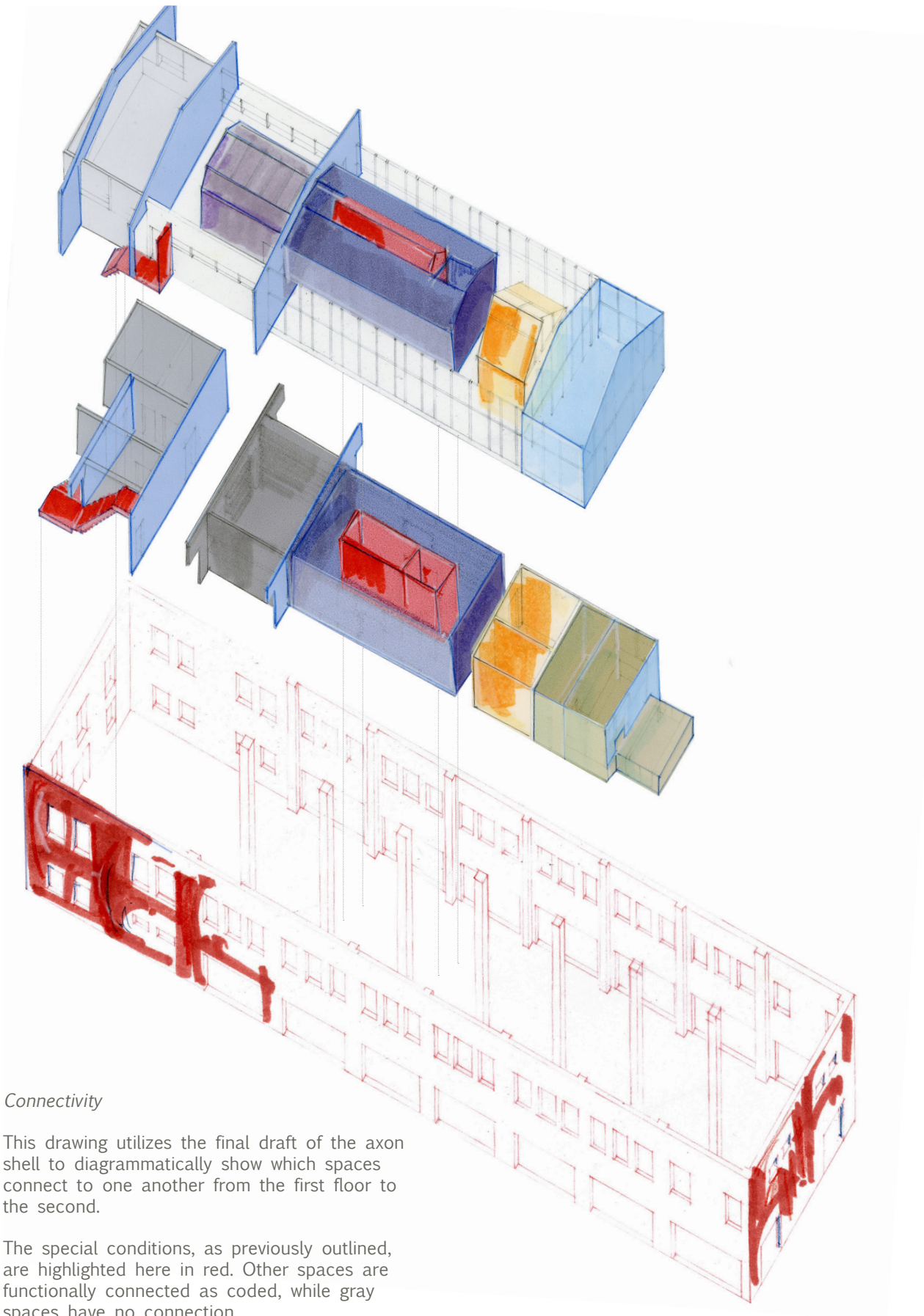
elevator/stair detail

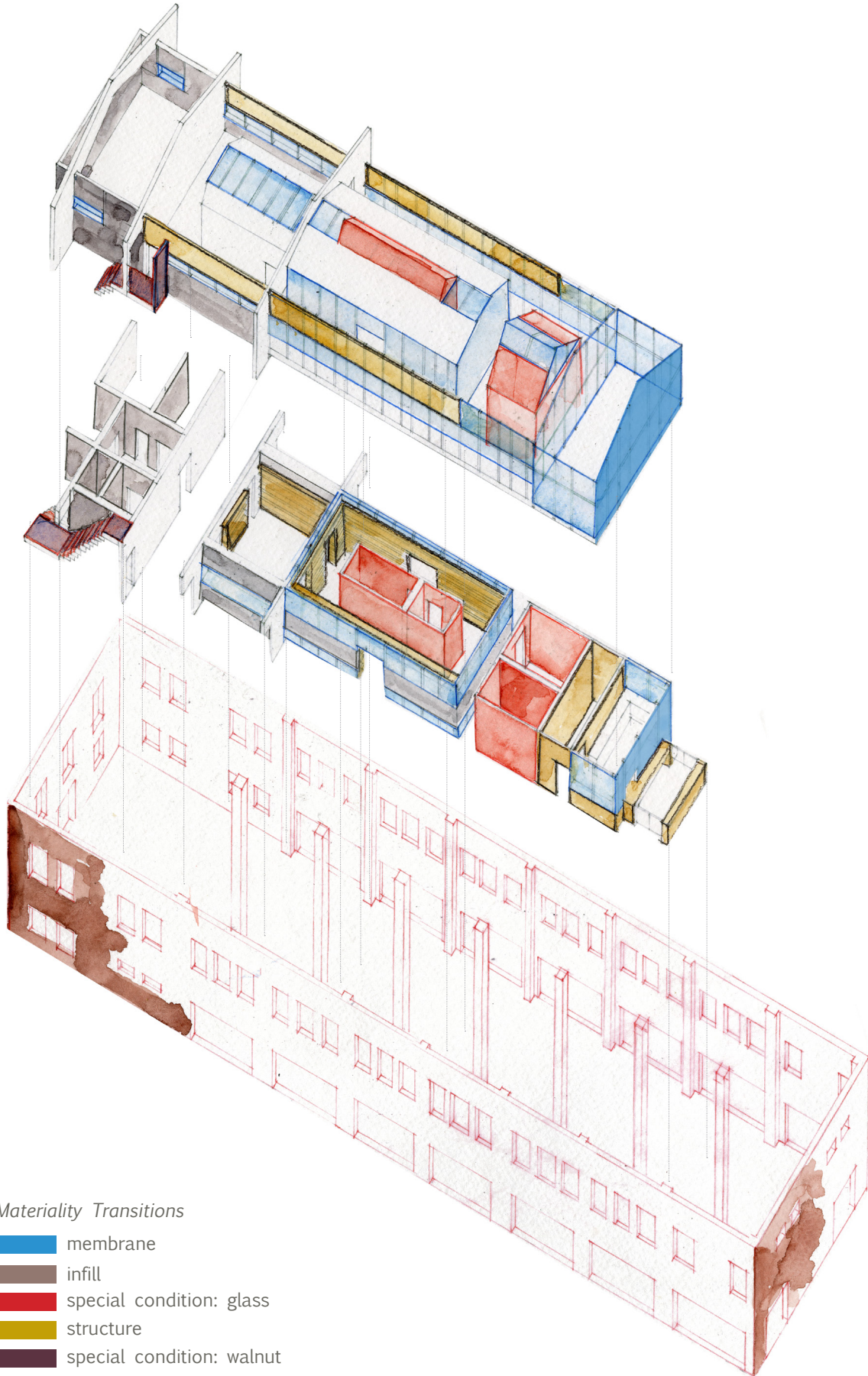


resource center detail

The second special condition occurs when an enclosed concrete stair abuts the exterior wall in the resource center. Because this is both a space of vertical transition and the only point at which my impositions touch the exterior walls, this condition needed to be unique to this space. The exterior of the stair is clad in walnut planks, creating a 4 foot sliver of materiality that does not appear anywhere else in the space. In addition to calling out this unique, rule-breaking situation, this material speaks to one of the last paces of occupancy, that of the serious, regular visitor or the employee.



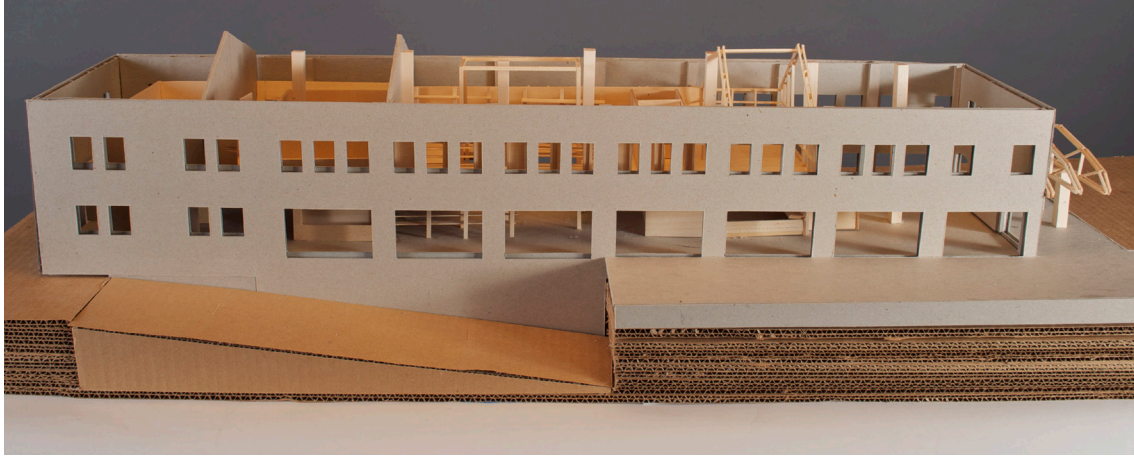




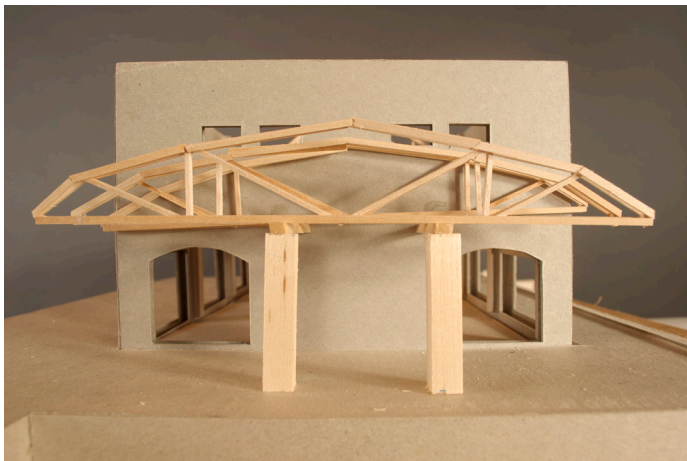
Models

For the MFA Exhibition, I created two models that achieve a higher level of detail than my massing model. The first is a model of the entire building, showing spatial relationships between my introductions and the exterior. The second is a wall section model that displays the transitions in thickness of material in walls on the second floor of the building.





building model. 3/16" = 1'-0" scale



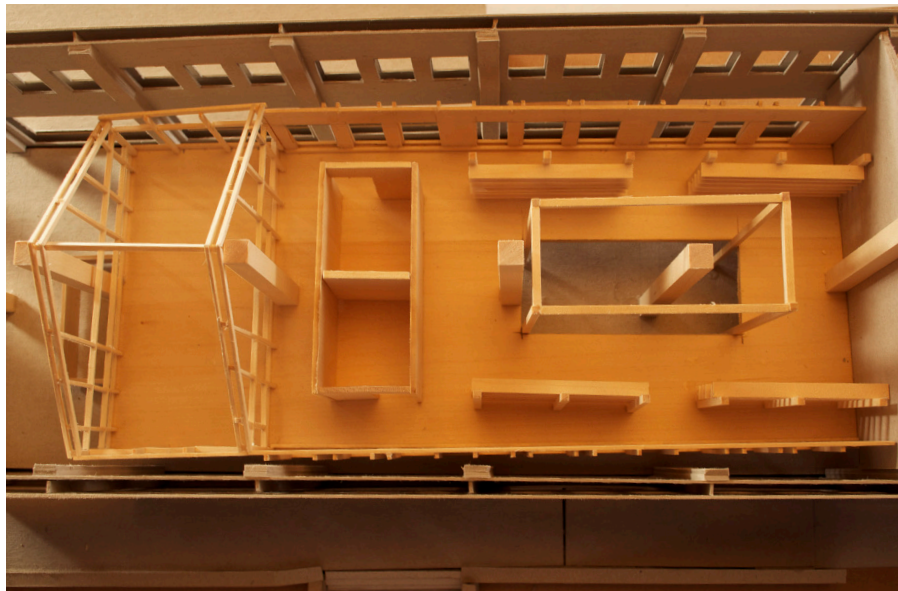
south entrance



street level view



top view of cafe



top view of model



detail model

This detail model of a wall section shows the relationship of between structure and infill as well as the openesses of the library stacks. This model also serves to illustrate materiality transitions in a more literal way than the concept models. It is built at a 1"= 1'-0" scale.



view of stacks



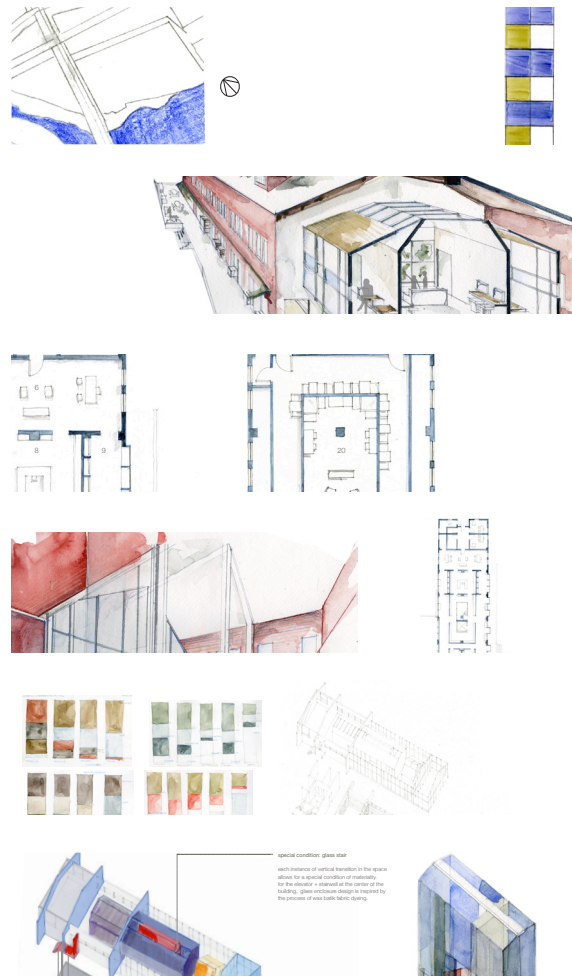
view into hallway



view through window

Exhibition Boards

Displayed along my models and process work were my exhibition boards, designed to express my concept and the natural progression through the space. Ultimately, though I struggled with the layout and with a variety of organizers, I found that the rhythm of the boards successfully fulfilled my needs for the exhibition.



place removed

a study of authenticity in remote locations

thesis statement

does learning about another culture have to be as literal and linear as traditional education often dictates, or can culture be abstracted to a degree that the design itself contributes to the edification of the visitor? through design, is it possible to create an authentic experience of "place" other than a building's immediate context?

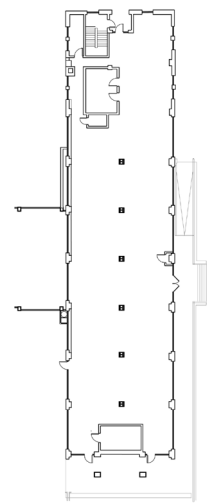
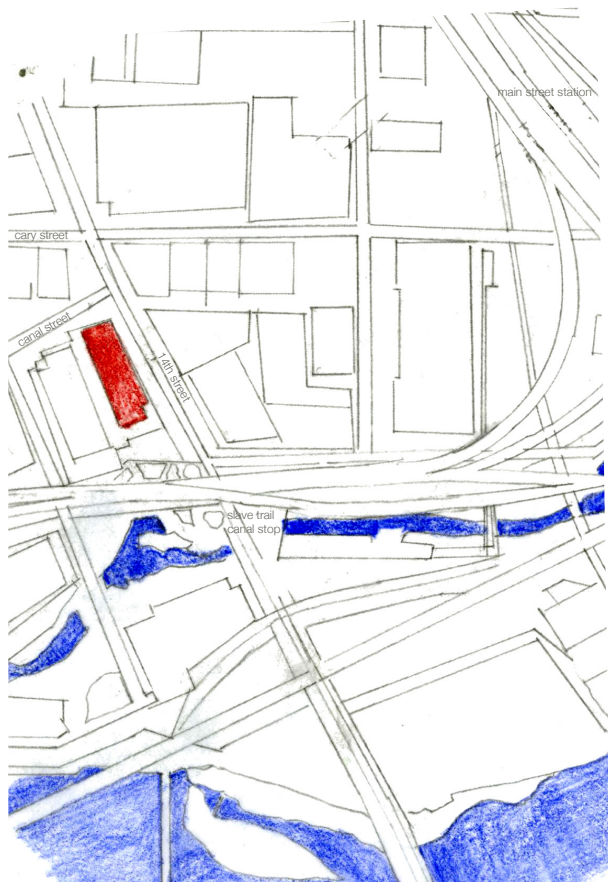
by designing an international education center devoted to the countries in Africa that were the source for the slave trade, I endeavor to create a space that answers these questions while encouraging an understanding of and engagement with the modern African cultures with which we share a common history.

the program encompasses several of the different ways in which one can experience another culture. These include: traditional education (speakers/lectures, research), gastronomy, the arts, travel opportunities and virtual communication.

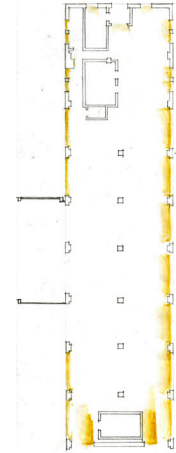
site

located at the intersection of 14th and canal streets in downtown richmond, the modest southern railway freight building address both the city and the kanawah canal. the former freight station has a strong natural backbone of heavy timber and masonry, which divides the current space into halves according to function and creates two main corridors of passage. natural light enters through the south and west facing windows as well as dormer windows along the east and west roof pitches. research sketches at right demonstrate some of the functions and inherent rhythms of the building as it stands.

while the building's structure contributed to drove many of the design decisions, the site that directed the project's conceptualization. once a large contributor to richmond's involvement in the slave trade, the canal is now a stop along the newly revamped richmond slave trail.



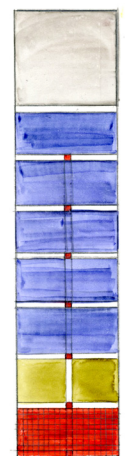
existing condition



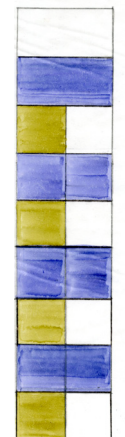
natural light



building openings



proportions



proportions [large]

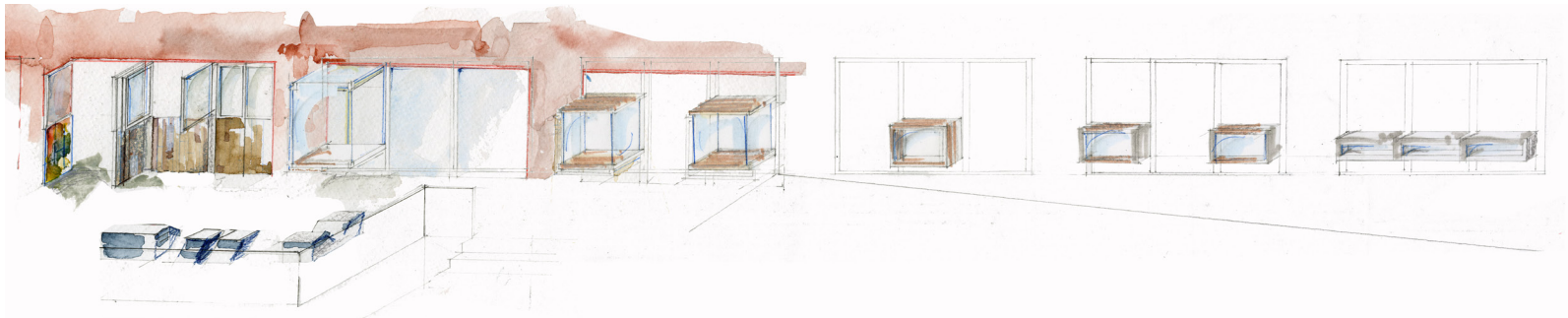
site engagement



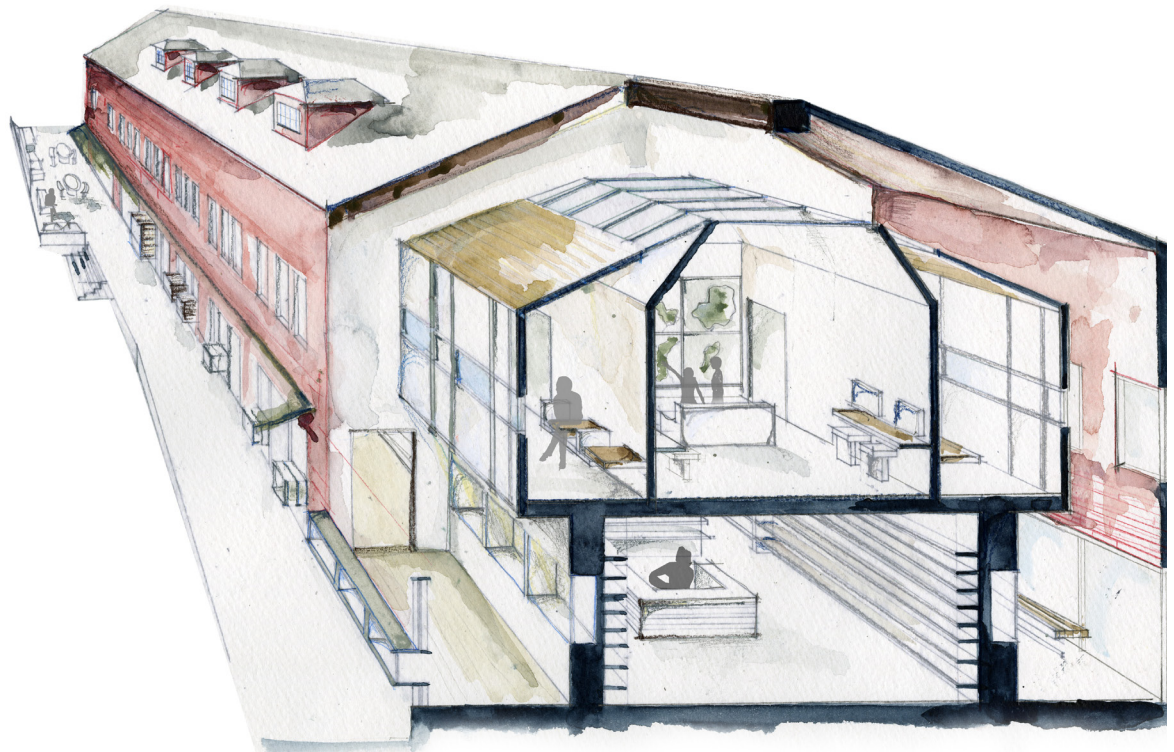
cultural pace

in order to develop a non-literal language with which to abstract place, i embarked on a study of cultural pace, particularly focusing on the differences between american cities and the nations in west africa. pace took on several connotations throughout the course of the project, the most directly influential of which is the difference between the pace of life in event time and clock time cultures. i endeavored to create a space that allowed the visitor to experience transitions in pace through several design strategies:

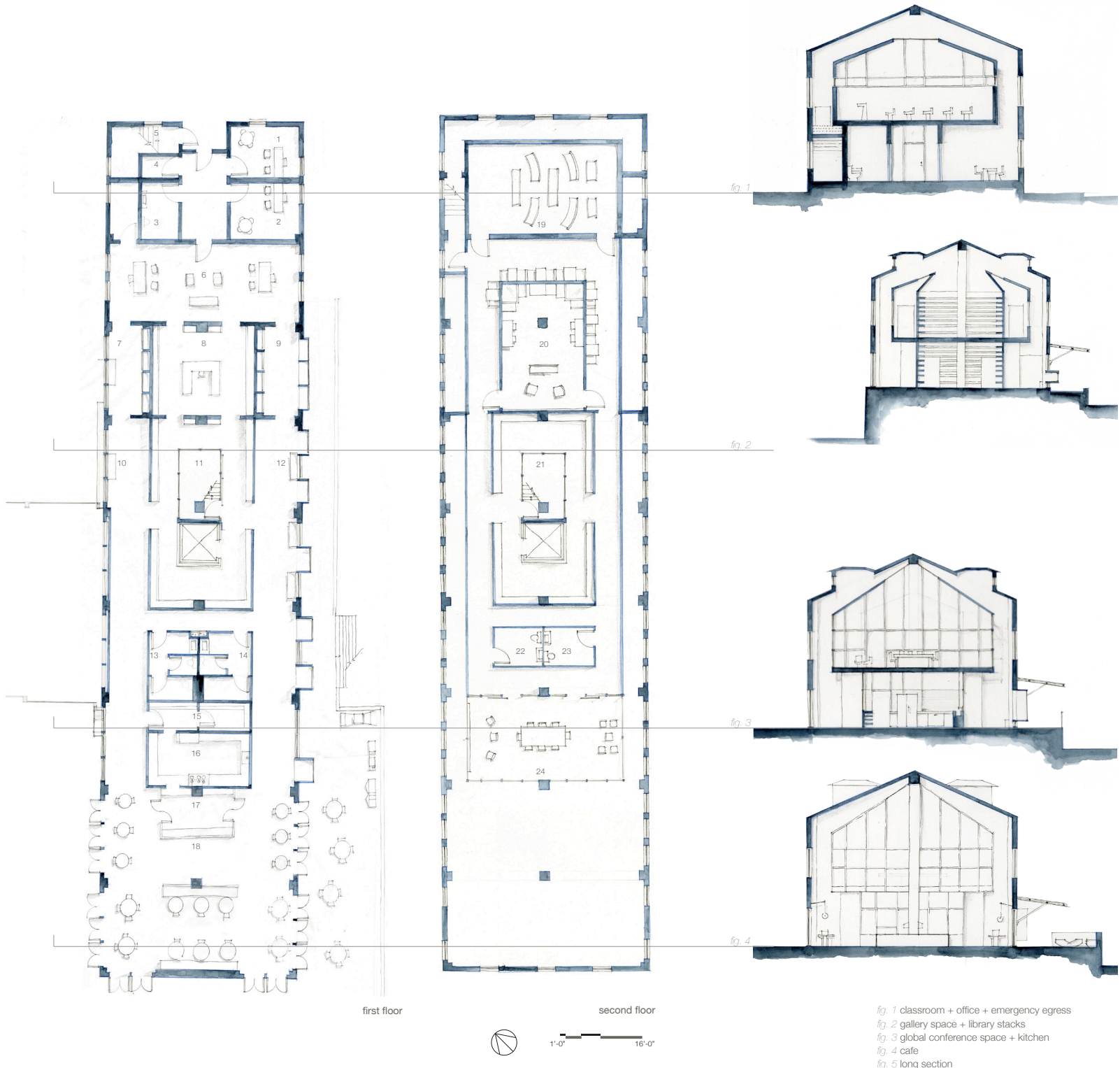
- changes in pace of materiality
- changes in programmatic activity
- calling out of transition and threshold moments in the space as special conditions



exterior display cases

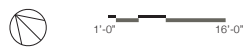


computer lab [showing interactive map station] + circulation desk



first floor

second floor



- fig. 1 classroom + office + emergency egress
- fig. 2 gallery space + library stacks
- fig. 3 global conference space + kitchen
- fig. 4 cafe
- fig. 5 long section

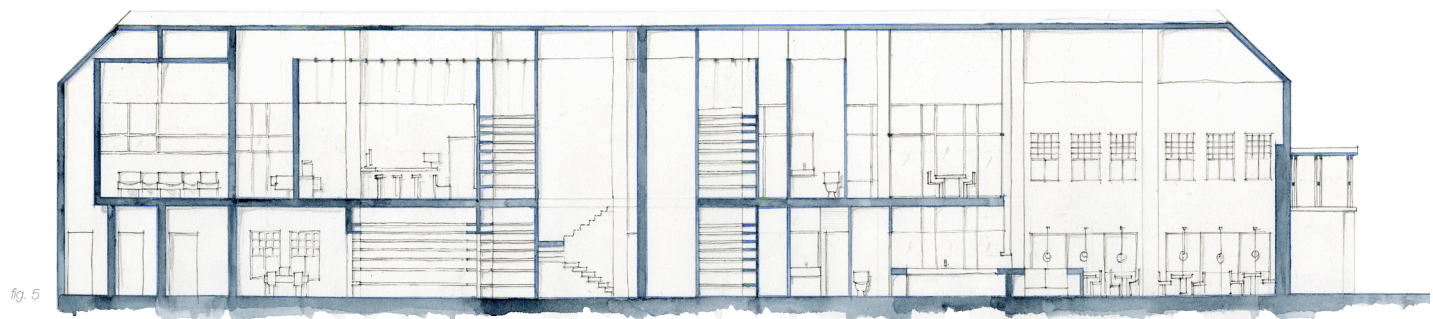


fig. 5

legend

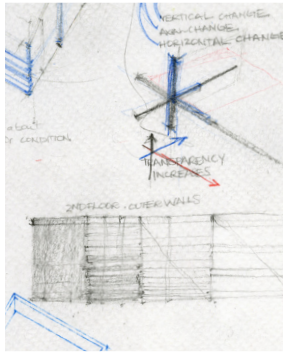
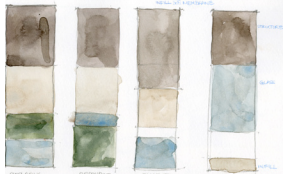
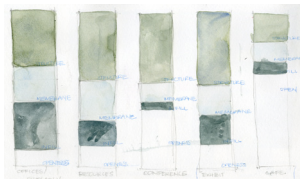
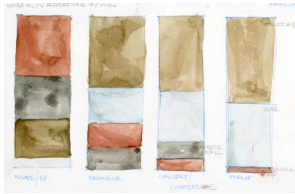
ground floor

- 1 manger's office
- 2 curator's office
- 3 employee restroom
- 4 mechanical closet
- 5 emergency egress stairwell
- 6 open plan resource center
- 7 sculptural gallery
- 8 circulation desk
- 9 decorative arts gallery
- 10 gallery [hanging] space
- 11 library stacks + elevator + stair
- 12 gallery [hanging] space
- 13 women's restroom
- 14 men's restroom
- 15 kitchen storage
- 16 kitchen
- 17 service station
- 18 cafe

legend

second floor

- 19 informal lecture + classroom space
- 20 interactive computer lab
- 21 library stacks + elevator + stair
- 22 women's restroom
- 23 men's restroom
- 24 global conference space

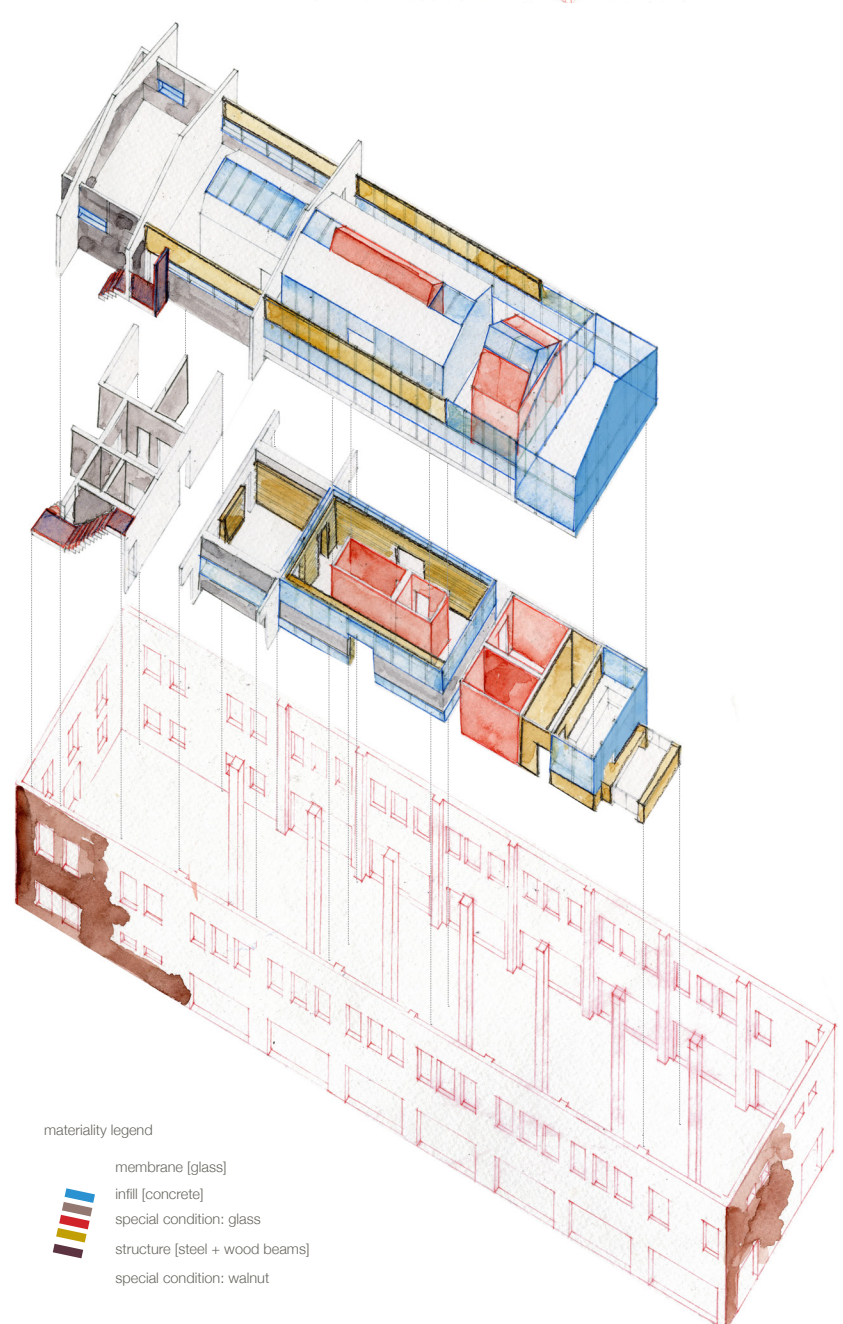
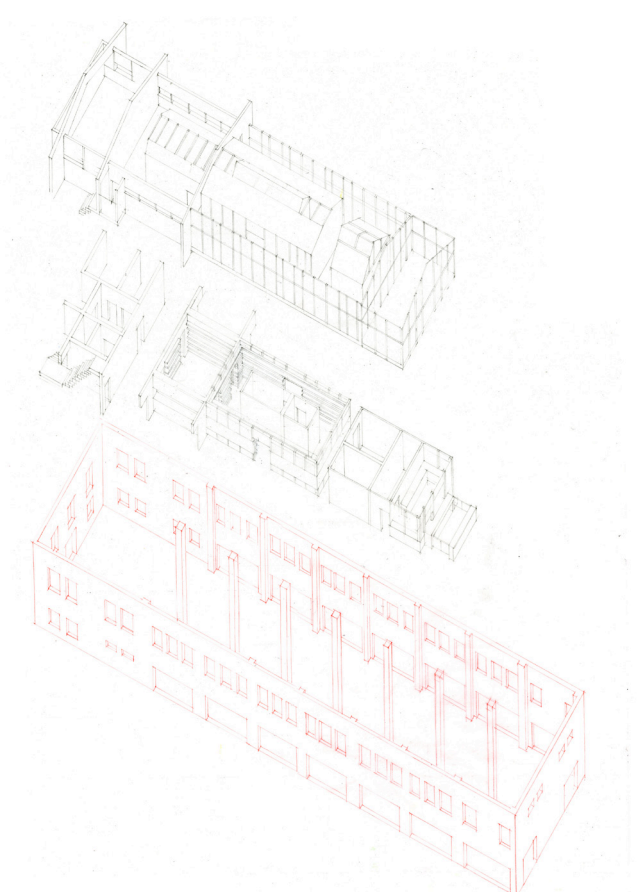


structural rhythms of the existing building were respected in the new design, particularly with insertion of doors, walls and windows.






while respecting these rhythms, i utilized diagrams to develop a new pace of material transitions between programmatic spaces

through transitions between structure, membrane and infill, transparency increases in three directions

- vertically
- towards the central core of the building
- south toward the canal.

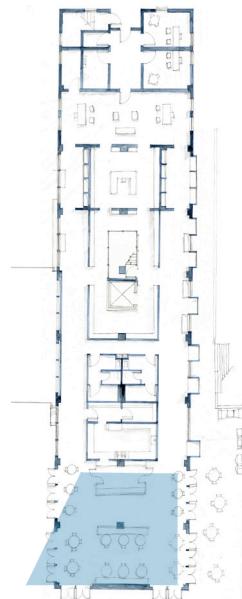


materiality legend

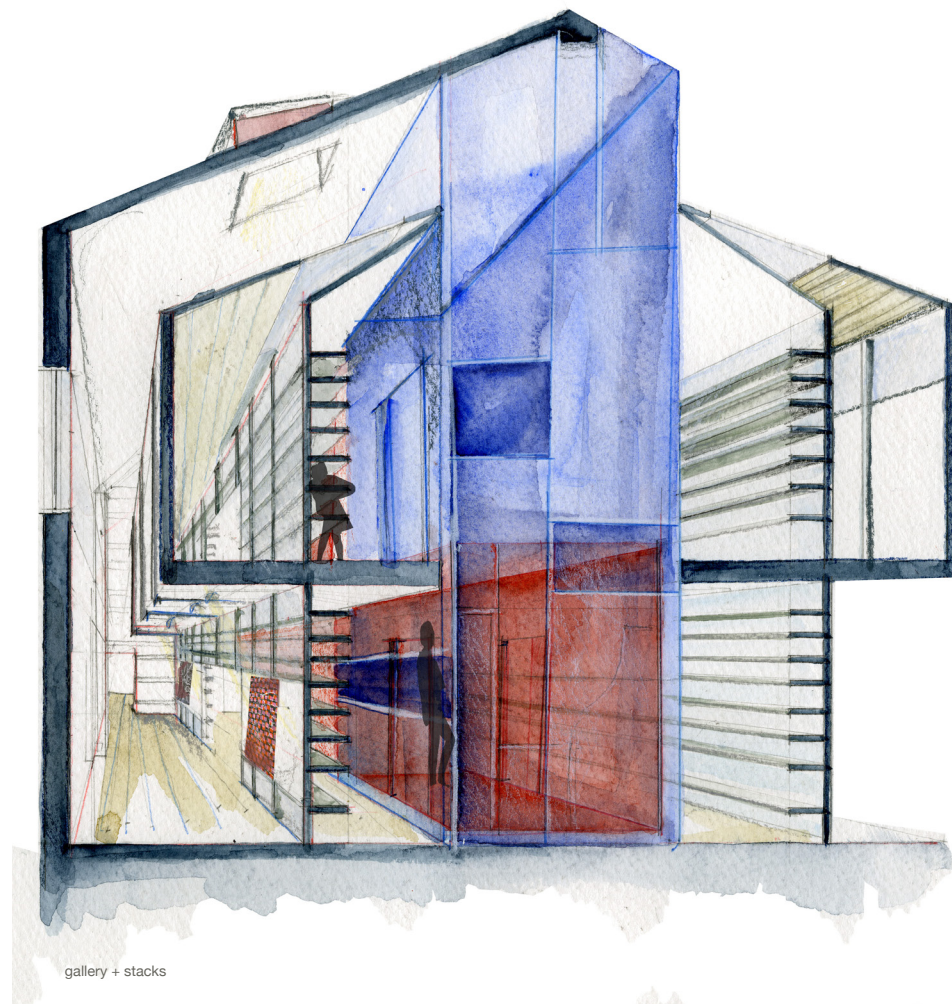
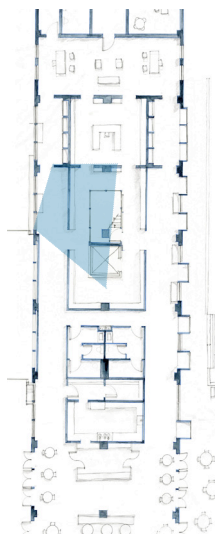
-  membrane [glass]
-  infill [concrete]
-  special condition: glass
-  structure [steel + wood beams]
-  special condition: walnut



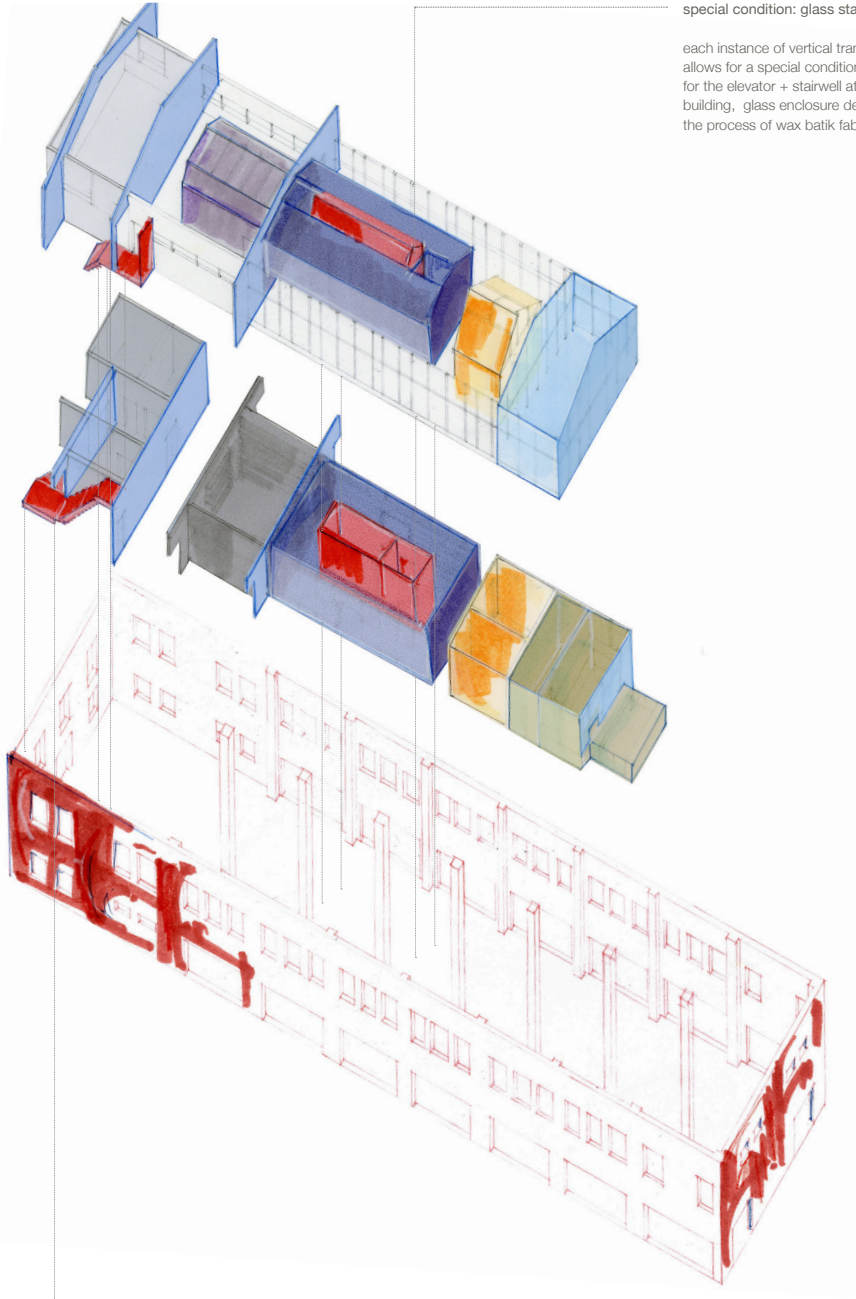
cafe from exterior



from the casual lunch patron to the regular researcher, visitors and employees will experience the space at a different pace. each threshold one crosses reveals progressively more detail, which creates the potential for a variety of experiences according to the speed with which one occupies the building.

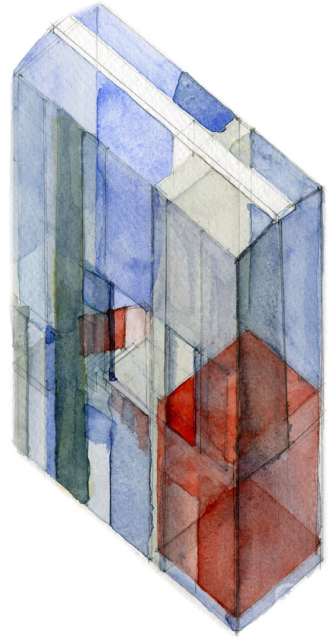


gallery + stacks



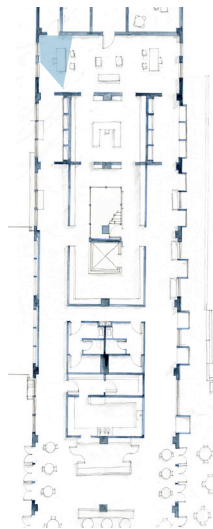
special condition: glass stair

each instance of vertical transition in the space allows for a special condition of materiality. for the elevator + stairwell at the center of the building, glass enclosure design is inspired by the process of wax batik fabric dyeing.



special condition: wood clad stair

an enclosed concrete stair that abuts the exterior wall and winds around the sculptural second floor. from the resource center below, the occupant views a 4 foot wide slice of walnut cladding unique to this structure.





citation

Photography Credits
Works Cited

Photography Credits

Page 24 . Venice Architecture Biennale

24.1 Japanese Pavilion, 2010

<http://www.designboom.com/weblog/cat/9/view/11514/japanese-pavilion-at-venice-biennale-2010.html>

24.2 Chilean Pavilion, 2010

<http://www.designboom.com/weblog/cat/9/view/11356/smiljan-radic-and-marcela-correa-at-venice-architecture-biennale-2010.html>

24.3 French Pavilion, 2010

<http://www.french-pavilion-venice.com/scenographie.php>

24.4 Australian Pavilion

<http://www.designboom.com/weblog/cat/9/view/11491/now-when-australian-pavilion-at-venice-architecture-biennale-2010.html>

24.5 US Pavilion, 2010

<http://www.workshopping.us/>

24.6 African Union Exposition, World Expo, Shanghai 2010

http://en.expo2010.cn/c/en_gj_tpl_132.html

24.7 Estonian Pavillion, 2010

<http://www.designboom.com/weblog/cat/9/view/11234/venice-architecture-biennale-2010-preview-estonia-pavilion.html>

24.8 United Kingdom Pavilion, 2010

<http://venicebiennale.britishcouncil.org/timeline/2010>

24.9 Croatian Pavilion, 2010

<http://www.pavilion.hr/>

24.10 Romanian Pavilion, 2010

<http://www.designboom.com/weblog/cat/9/view/11501/romanian-pavilion-at-venice-architecture-biennale-2010.html>

24.11 Danish Pavilion, 2010

<http://english.dac.dk/visEmneside.uk.asp?artikelID=6439>

Page 28 Romanian Pavilion

28.1 Box exterior

<http://www.unulaunu.ro/index.php?/project/>

28.2 Skylight from interior

<http://www.dezeen.com/2010/09/03/11-at-the-romanian-pavilion/>

28.3 Model

<http://www.dezeen.com/2010/09/03/11-at-the-romanian-pavilion/>

28.4 Exterior path

<http://www.archdaily.com/78092/romanian-pavilion-at-venice-biennale/>

28.5 Interior from Exterior

<http://www.designboom.com/weblog/cat/9/view/11501/romanian-pavilion-at-venice-architecture-biennale-2010.html>

Page 30 Demas Nwoko

30.1 Sculptor's sketch

Godwin, John + Gillian Hopwood. *The Architecture of Demas Nwoko*. Farafina, Lagos. 2007.

30.2 Musgum earth buildings

<http://www.designboom.com/weblog/cat/9/view/9207/musgum-earth-architecture.html>

30.3 Plan: Church of the Daughters of the Divine Love

Godwin, John + Gillian Hopwood. *The Architecture of Demas Nwoko*. Farafina, Lagos. 2007.

30.4 *Section: Church of the Daughters of the Divine Love*
Godwin, John + Gillian Hopwood. *The Architecture of Demas Nwoko*. Farafina, Lagos. 2007.

Page 34 Museum of Contemporary Art San Diego

34.1 *Arcade*
courtesy Heritage Architects, San Diego, California

34.2 *Exterior street view*
http://www.arcspace.com/architects/gluckman_mayner/jc/jc.html

34.3 *Interior mid-renovation*, courtesy Heritage Architects, San Diego, California

34.4 *Historic photograph of courtyard*
courtesy Heritage Architects, San Diego, California

Page 37 Slavery Museum Proposal

37.1 *Night Rendering*
<http://www.richmondmagazine.com/?articleID=2d0670146718c182b088d87624325d4d>

37.2 *Rendering*
<http://www.richmondmagazine.com/?articleID=2d0670146718c182b088d87624325d4d>

Page 40 Ahmed Baba Center

40.1 *BIM exterior*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.2 *BIM overview*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.3 *BIM detail*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.4 *Wall construction*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.5 *Local workers*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.6 *Interior/exterior interaction*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.7 *Roof construction*
http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

40.8 *Exterior walls* http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html#

Page 44 Carole Weinstein International Center

44.1 *Exterior of building*
<http://international.richmond.edu/campus/center/index.html>

44.2 *Global Studio*
<http://international.richmond.edu/campus/center/index.html>

44.3 *International Cafe*
<http://international.richmond.edu/campus/center/index.html>

4.4 *Plan*,
courtesy Glave & Holmes Architecture, Richmond, Virginia

Works Cited

- 1:1. Romanian Pavilion. <http://www.unulaunu.ro/index.php?/concept/2/> accessed 17 October 2010.
- ARCspace. http://www.arcspace.com/architects/gluckman_mayner/jc/jc.html. accessed 1 November 2010.
- CEDRAB. Centre de Documentation et de Recherches Ahmed Baba. <http://www.sum.uio.no/research/mali/timbuktu/cedrab/index.html>. accessed 25 October 2010.
- Conrad, Ulrich. *Programs and Manifestoes on 20th Century Architecture*. MIT Press, Cambridge, 1970.
- Cooksey, Jack. "Bridging the Gaps." *Richmond Magazine*. November 2009. <http://www.richmondmagazine.com/?articleID=2d0670146718c182b088d87624325d4d>
- Design Boom. <http://www.designboom.com/weblog/cat/9/view/11501/romanian-pavilion-at-venice-architecture-biennale-2010.html> accessed 29 September 2010.
- DHK Architects. http://www.dhk.co.za/dhk02/dhk_Prj04_02_mali01.html# accessed 25 October 2010.
- Dunaway, Wayland Fuller. *History of the James River and Kanawha Company*. Columbia University Press, New York. 1922.
- Garland, Lynden. Glave and Holmes Architecture. Richmond, VA. personal conversations.
- Gluckman Maynor Architects, New York, NY. personal conversations.
- Godwin, John + Gillian Hopwood. *The Architecture of Demas Nwoko*. Farafina, Lagos. 2007.
- Hertzberger, Herman. *Lessons for Students in Architecture*. 010 Publishers, Rotterdam. 1991.
- Marshall, David. Heritage Architects, San Diego, CA. personal conversations.
- Nwoko, Demas. "The Imperatives of Critical Design in National Development" Lecture at Abuja 06 December 2001.
- Okoye, Ikem Stanley. *Architecture, History, and the Debate on Identity in Ethiopia, Ghana, Nigeria, and South Africa*. *Journal of the Society of Architectural Historians*, Vol. 61, No. 3 (Sep., 2002), pp. 381-396. University of California Press on behalf of the Society of Architectural Historians.
- Potterfield, T. Tyler. *Nonesuch Place*. The History Press, Charleston. 2009.
- Lee, Stupak. "Ahmed Baba Centre." *Architectural Review*; Apr2010, Vol. 227 Issue 1358, p050-055, 6p

