Design For All: The Neutral Ground Market in Freret, New Orleans

Cecilia Chase Camuzzi

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Architecture
In
Architecture

Committee Chair: H. Scott Gartner
William R. Green
William U. Galloway III

May the 4th, 2015
Blacksburg, VA

Keywords: Architecture, Farmer’s Market, Materiality, Standardized Pieces, Color
Design For All: The Neutral Ground Market in Freret, New Orleans

Cecilia Chase Camuzzi

ABSTRACT

This project is a celebration. Inspired by time spent in Baltimore, this thesis examines how standardized elements can be utilized to create Architecture and make astute, functional, contextually sensitive, and pleasurable design accessible for all.

With the heavy, stuccoed buildings of New Orleans as precedent, the Neutral Grounds Market utilizes CMUs for both practical and aesthetic purposes. Drawing from a rich lineage of structural polychromy and through knitting CMUs together into a subtle pattern, the building speaks to its colorful context, despite the lack of CMU structures in the area.

Weaving ethics and aesthetics, the site sits within a Food Desert and this thesis begins at the seam of three neighborhoods - Freret, Milan, and Uptown. Block by block varies tremendously within these neighborhoods, and the static images of both the opulence and desolation of New Orleans becomes clear here. Aiming to bring not only fresh food into the neighborhood, but to work realistically within the diverse backgrounds of the residents’ lives, the program integrates a Farmer’s Market with a Grocery Store so fresh food will constantly be available and can meet the needs of all the citizens.

In addressing context as a matter of both the material, built environment and the personal, human milieu this thesis addresses the economic and the emotional as a pair, realizing the importance of each. This integrated program creates a new civic space which will bolster the vibrant growth already begun on Freret St. and throughout the neighborhoods. This project is a celebration.
ACKNOWLEDGMENTS

To my mother, Gina Jones, you are an endless source of inspiration for me to grow, to strive to do better, and to continually and constantly remain fiercely passionate about all that I do.

To my family, there are far too many of you to list here but your kind words and support have buoyed me as I have navigated the past years, your wisdom and encouragement has guided me to a place I could not have found without you.

To my friends, in particular David Speedlin, Jennifer Rasmussen, and Jason Hiser, your advocacy and advice has been invaluable, and your friendship has been a rock to me.

I cannot thank all of you enough for all the love, support, and guidance you have given me on my way to and throughout this process.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and Context</td>
<td>1</td>
</tr>
<tr>
<td>Maps</td>
<td>15</td>
</tr>
<tr>
<td>The Neutral Ground Market</td>
<td>18</td>
</tr>
<tr>
<td>Floor Pattern Design Process and Composition</td>
<td>30</td>
</tr>
<tr>
<td>Grocery Store Shelving</td>
<td>37</td>
</tr>
<tr>
<td>Studies and Process Drawings</td>
<td>41</td>
</tr>
<tr>
<td>1</td>
<td>West Facade Elevation; CAD Drawing with color</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Entry Facade for October to French Market, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>3</td>
<td>Roof overhang detail, French Quarter, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>4</td>
<td>Column detail at the French Market, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>5</td>
<td>Arch at Cafe du Monde, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>6</td>
<td>Column meeting beam detail at French Market, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>7</td>
<td>Example of Structural Polychromy in New Orleans, LA; Photo</td>
</tr>
<tr>
<td>8</td>
<td>Close up of masonry work in Image 9, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>9</td>
<td>Building showing rich wall patterning in New Orleans, LA; Photo</td>
</tr>
<tr>
<td>10</td>
<td>Tile detail found at street corners around New Orleans, LA; Photo</td>
</tr>
<tr>
<td>11</td>
<td>Green house around the Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>12</td>
<td>Light blue house around the Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>13</td>
<td>Light yellow house around the Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>14</td>
<td>Pink and white house around Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>15</td>
<td>Pink house around the Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>16</td>
<td>Light pink house with green shutters around Freret, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>17</td>
<td>Blue door and window trim, French Quarter, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>18</td>
<td>Detail of blue building around Freret neighborhood, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>19</td>
<td>Detail of wall thickness and roof overhang, French Quarter; Photo</td>
</tr>
<tr>
<td>20</td>
<td>Blue shutters, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>21</td>
<td>Blue shutters and window, French Quarter, New Orleans, LA; Photo</td>
</tr>
<tr>
<td>22</td>
<td>Map showing surrounding context within .5mi of site; CAD Drawing with color</td>
</tr>
<tr>
<td>23</td>
<td>Map - Neighborhoods surrounding site; CAD Drawing with color</td>
</tr>
<tr>
<td>24</td>
<td>Map - Households with Income below Poverty Level; CAD Drawing with color</td>
</tr>
<tr>
<td>25</td>
<td>Map - Median Household Income; CAD Drawing with color</td>
</tr>
<tr>
<td>26</td>
<td>Map - Median Family Income; CAD Drawing with color</td>
</tr>
<tr>
<td>27</td>
<td>Transverse Section Perspective; Pencil with color overlay</td>
</tr>
<tr>
<td>28</td>
<td>Immediate Site Plan; Pencil with text overlay</td>
</tr>
<tr>
<td>29</td>
<td>Immediate Site Plan with general building footprint; Pencil</td>
</tr>
<tr>
<td>30</td>
<td>Immediate Site Plan with first floor plan; Pencil with text overlay</td>
</tr>
<tr>
<td>31</td>
<td>West Facade Elevation; CAD Drawing with color</td>
</tr>
<tr>
<td>32</td>
<td>East Facade Elevation; CAD Drawing with color</td>
</tr>
<tr>
<td>33</td>
<td>West Facade Elevation with alternative colonnade; Pencil</td>
</tr>
<tr>
<td>34</td>
<td>Grocery Store without Shelving Layout - Second Floor Plan; Pencil</td>
</tr>
<tr>
<td>35</td>
<td>Market Layout - First Floor Plan; Pencil</td>
</tr>
<tr>
<td>36</td>
<td>Transverse Section through Building and Site; Pencil</td>
</tr>
<tr>
<td>37</td>
<td>Section through building without elevation behind; Pencil</td>
</tr>
<tr>
<td>38</td>
<td>Elevation of Four Bays - West Facade; CAD Drawing with color overlay</td>
</tr>
<tr>
<td>39</td>
<td>Elevation of Four Bays - East Facade; CAD Drawing with color overlay</td>
</tr>
<tr>
<td>40</td>
<td>Elevation of Four Bays without Colonnade - West Facade; Pencil</td>
</tr>
<tr>
<td>41</td>
<td>Interior Section Elevation looking East - Pencil</td>
</tr>
<tr>
<td>42</td>
<td>Wall Section Study - Pencil</td>
</tr>
<tr>
<td>43</td>
<td>Final Wall Section - Pencil</td>
</tr>
<tr>
<td>44</td>
<td>Three Floor Details; Pencil</td>
</tr>
<tr>
<td>45</td>
<td>Gear Detail for Bermuda Shutters - Open; CAD Drawing</td>
</tr>
</tbody>
</table>
46 Gear Detail for Bermuda Shutters - Closed; CAD Drawing
47 Assembly Diagram for Exterior Colonnade; CAD Drawing
48 Transverse Section Perspective; Pencil with color overlay
49 Fold Out Drawing with Floor Pattern Plan and West Facade; Pencil
50 Anni Albers, Black White Gray Wall Hanging, 1927-64; cotton and silk; Museum of Modern Art, New York City
51 Floor Pattern Plan - Line 1; Pencil with color overlay
52 Floor Pattern Plan - Line 2; Pencil with color overlay
53 Floor Pattern Plan - Line 3; Pencil with color overlay
54 Floor Pattern Plan - Line 4; Pencil with color overlay
55 Floor Pattern Plan of One Bay; Pencil with color overlay
56 Floor Pattern Plan of Four Bays; Pencil with color overlay
57 Elevation of Four Bays - West Facade; CAD Drawing with color overlay
58 Tall Shelving Post Planing Measurements, Elevations, Axon; CAD Drawing
59 Basket Shelving Post Planing Measurements, Elevations, Axon; CAD Drawing
60 Low Shelving Measurements, Elevations, Axon; CAD Drawing
61 Wine Shelving Measurements, Elevations, Axon; CAD Drawing
62 Beer Shelving Measurements, Elevations, Axon; CAD Drawing
63 Lintel sketch showing how lintel meets wall and second story floor; Pencil
64 Axonometric sketch of lintel and wall thickness; Pencil
65 Wall Section Study; Pencil
66 Wall Section Study; Pencil with color overlay
67 Sketches looking at assembly of exterior colonnade roof; Pencil
68 Section and Elevation Sketch of Exterior Colonnade ideas; Pencil
69 Section and Elevation Sketch of Exterior Colonnade ideas; Pencil
70 Section Sketch of how Exterior Colonnades meet; Pencil
71 Elevation Sketch of Exterior Colonnades relationship; Pencil
72 Perspective showing Central Colonnade with Pre-cast Concrete Tees; Pencil
73 Elevation of Exterior Colonnade with wood sunshade; Pencil
74 Assembly Drawing of Exterior Colonnade with wood sunshade; CAD Drawing
The Neutral Ground Market
Freret, New Orleans
Situated between three diverse neighborhoods in New Orleans, the Neutral Ground Market functions both as a farmer’s market and a grocery store. Drawing on the rich history of markets throughout New Orleans, and in particular the French Market situated in the French Quarter, the Neutral Ground Market’s programmatic purpose is threefold:

To address the Food Desert in the area by creating a place which not only brings farmers and fresh food into the city, but is convenient for all the citizens

To create a place which reflects the diverse and varied backgrounds of those who live in Freret, Milan, and Uptown and acts as a seam between the neighborhoods

To establish a permanent home for the Freret Market which currently only operates once a month ten times a year and to continue the vibrant growth and expansion of Freret St.

I intentionally choose to focus on the Freret St. area because of the recent explosive growth of the street as a dynamic civic and commercial corridor. However, I also choose Freret and the surrounding neighborhoods because of the extremes in socioeconomic status which vary drastically from block to block. While New Orleans is well-known for the city’s culinary scene, the majority of these neighborhoods are in a Food Desert.

Drawing upon the vivacious character of the city as a whole, as well as each particular neighborhood, the Neutral Ground Market seeks to create a seam where all of the residents may gather together and to provide place for citizens to celebrate and strengthen their neighborhood.
Surrounding the site exists a diverse collection of schools, businesses, churches, and more.

Within .5mi of the Site lies:

- Ochsner Baptist Medical Center
- Commercial Corridor on Freret St., which includes two yoga studios, a bike store, a family-run hardware store, an auto-repair shop, and over a dozen restaurants, bars, and coffee shops
- Ten places of worship
- Two cemeteries
- Three schools
- Three parks
- Junior League of New Orleans Thrift Store
- Neighborhood Housing Services of New Orleans, which provides educational programs about home ownership and an eclectic mix of housing styles more often than not in vivid colors

Within 1mi of the Site lies:

- Tulane University and Loyola University
- The St. Charles Trolley Line
- Audubon Park
- as well as many parade routes for Mardi Gras
Map of the neighborhoods surrounding the Site.
Households with Income Below Poverty Level

- 0-10%
- 10-20%
- 20-30%
- 30-40%
- 40-50%
- 60-70%
- 70+%

Street Names:
- NAPOLEON AVE.
- JENA ST.
- CADIZ ST.
- VALENCE ST.
- BORDEAUX ST.
- UPPERLINE ST.
- ROBERT ST.
- SONIAT ST.
- MILAN ST.
- MARENGO ST.
- GENERAL TAYLOR PENISTON ST.
- AMELIA ST.
- FRERET ST.
- LA SALLE ST.
- LIBERTY ST.
- LOYOLA AVE.
- SARATOGA ST.
- ROBERTSON ST.
- MAGNOLIA ST.
- CLARA ST.
The Neutral Ground Market & Grocery

Transverse Section Perspective, looking South
Site Plan:
From Freret St. to LaSalle St. the site is 316' x 50'
From LaSalle St. to Liberty St. the site is 320' x 50'
Napoleon St. runs 5 degrees West of North
Site with first floor plan
THE NEUTRAL GROUND MARKET
Section through Building without elevation behind, looking South
Elevation of Four Bays - West Facade
Floor Details - 1. Section through end of First Floor Lintel
2. Section through middle of First Floor Lintel
3. Section through CMU wall
Gear Detail for opening Bermuda Shutters on Grocery Level
Gear Detail for closing Bermuda Shutters on Grocery Level
Assembly Diagram of Exterior Colonnade with Fabric Awning
The Neutral Ground Market & Grocery

Transverse Section Perspective, looking South
Fold Out showing relationship of West Facade to Floor Pattern Plan
Anni Albers, *Black White Gray Wall Hanging*, 1927-64; cotton and silk; Museum of Modern Art, New York City
<table>
<thead>
<tr>
<th>NEN</th>
<th>NNN</th>
<th>ENE</th>
<th>NNE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENN</td>
<td>ENE</td>
<td>NNN</td>
<td>ENN</td>
</tr>
<tr>
<td>NNE</td>
<td>NEN</td>
<td>NEN</td>
<td>ENE</td>
</tr>
<tr>
<td>NEN</td>
<td>NNN</td>
<td>ENE</td>
<td>NNE</td>
</tr>
<tr>
<td>ENN</td>
<td>ENE</td>
<td>NNN</td>
<td>ENN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE</th>
<th>ENN</th>
<th>EEN</th>
<th>ENE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NNN</td>
<td>NEE</td>
<td>NNE</td>
<td>NEN</td>
</tr>
</tbody>
</table>

Are all combinations possible for the Anni Albers composition but of those eight combinations, she chooses only five these five combinations are then arranged into three sequences there are never two extremes beside one another the order of sequences is decided by chance and each line switches between light gray with black and dark gray with white
Following the logic of Anni Albers' piece, these combinations are possible with a sequence of four units. Of those sixteen combinations, I choose only ten with no more than three extremes or neutrals in a four unit combination and in each horizontal sequence no more than three extremes or neutrals together as well. There are 42 tiles in each line.

There are four units where possible with a sequence of tiles. 26 tiles are interior, the next 16 under the exterior colonnade.
Floor pattern plan of One Bay
In planning the spaces of the grocery store I felt better understanding grocery store shelving would help. As part of an independent study I decided to design and build a set of shelves which I imagined for the Neutral Ground Grocery Store.

Following the ethos which guided the building’s design decisions, I decided to make these shelves out of standardized parts and pieces, so the shelves could be assembled inexpensively, but also to design the shelves to function well and ultimately be beautiful.

The second requirement in designing these shelves was to make them able to be easily assembled and taken apart. In researching and discovering Post-Katrina New Orleans I heard many accounts of store and shop owners losing everything inside their stores, from the shelves to the products, due to the flood. So if the need ever arose, this shelving could be easily deconstructed and packed away safely and flatly.

I began with designing the most ubiquitous type of shelving in the grocery store - the tall shelving. These design decisions influenced the form of the next two styles of shelving, the low shelving, which is becoming more common and makes stores feel less overwhelming and crowded, and the basket shelving meant to hold produce.

Taking the cue from mass produced grocery store shelving units, this shelving integrates both the Gondola Run and Gondola Endcaps into one piece. Each side functions as a space to display products and allows the units to stand apart from one another. Instead of creating long aisles, this shelving allows for a variety of groupings within the grocery space and two distinct types of faces - short and long - to display a variety of products.
Shelving designed to hold stacked produce on top of the unit.

Shelving below for display of additional, related products, as well as a smaller shelf to hold bags, twist ties, and other related objects.

Basket Shelving utilizes 2x12s for the legs and plywood boards to create the shelves.

This unit occupies a footprint of 2’x2’, making reaching the center easy, while also allowing for efficient use of each plywood board.

The unit stands at a little under 36” which makes the shelving the same height as many grocery store shopping carts.

Basket Shelving Post Planing
Shelving designed to hold packaged products as well as gravity bins and scoop bins for bulk items, such as flours, grains, and nuts.

The short side of the shelving unit functions as a typical grocery store gondola endcap and provides display space for special items, as well as a place to store pens, bags, and twist ties for the bulk items.

Shelving unit utilizes 2x12s for the legs and plywood boards for the shelves.

This unit occupies a footprint of 2’x4’, making efficient use of each plywood board, similarly to the tall shelving.

The unit stands at 48”, with the top shelf at 2’-10”, this allows for sight lines above the shelving making the space feel more open, but an efficient use of space with the three shelves.

Low Shelving
STUDIES AND PROCESS DRAWINGS

Sketch studying shape of first floor lintel, how it will meet the wall and make a space to gather the floor for the second level.
Axonometric sketch looking at the first floor lintel and the thickness of the wall
In the original scheme the market and grocery store were separated from one another, with the grocery store taking up both levels of the building, although in a much smaller footprint, and the market was housed in the exterior colonnade space.

The raised lower level floor reflected a desire to keep the grocery store at least 5' above street level to exceed the height of previously known floods in the area.

Keeping with the ethos of utilizing standardized pieces to control costs, and with the Market originally being outdoors, the first few schemes for the colonnade roof were with pre-cast concrete so as to shade vendors and buyers from the sun, as well as the rain.

Before becoming Bermuda shutters, the upper level shutters had been imagined as ones which could fully open and close, shading the building from the sun during the day, but able to close and protect the windows during any storms.

There was always an idea about a gear which would control the shutters though, and this idea made its way into the final scheme with the Bermuda shutters.
Sketches looking at how the double column system would meet a beam and begin to form the colonnade roof made out of wood pieces with metal clips.
Section and Elevation sketch of exterior colonnade ideas
Section and Elevation sketch of exterior colonnade ideas
Section and Elevation sketch of exterior colonnade ideas when market was still housed under exterior colonnade before being integrated into the building with the grocery store.

In these sketches, the columns are all site cast concrete poured through a tube form.

The smaller colonnade was to serve as a space for the vendors, while the larger colonnade acted as an entryway to the building and created open space for people to gather even when one was not shopping.

With the proximity of schools nearby, I felt this could be a good place for children to spend time as part of the community after school instead of wandering around the streets.

The open spaces underneath the central colonnade would have table and chairs, as well as a raised space for musicians to play, or when the market and grocery store were active, for various cooking demonstrations.

The round roof was a thought about taking concrete tube forms - which were already being used for the columns - sawing them in half, and then making pre-cast concrete forms for the roof instead of using flat panels.
Perspective showing the central colonnade space, but with pre-cast concrete tees as the roof, an idea which would work its way into the final building scheme, although the tees would end up running parallel to the building rather than perpendicular.
Once the Market moved inside the building with the grocery store, the colonnade was free of some restrictions.

With the bottom floor of the building open for the Market, people would have a space protected from rain, thus the exterior colonnade began to act more as a sunshade.

This iteration utilized 2x12s with spacers between them to form a beam, with more 2x12s notching at an angle into the beam to form a sunshade, this assembly would slip into clips in the cast in place concrete columns.

This idea was deemed structurally too heavy for how little it supported and questions were raised about how often the piece would have to be replaced due to weather.
Assembly drawing showing how the 2x12 sunshade would go together