The Texture of Place

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Master in Architecture

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Abstract
Can texture embody the idea of a place? Or does a place provide meaning to the textures used to construct it? This thesis seeks to explore the contribution of texture to our understanding of, and relationship with, the built environment. To test this, a mixed use program will be explored in the neighborhood of Mount Vernon Square in Washington, DC.

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I would like to thank my thesis committee for their guidance and encouragement and for their understanding of what it means to be a new mom and a full-time student.

Thank you to my friends for their constant and unfailing support.

Love to Mom, Dad, Kim, Shawn, and Jordan.

I could never have done this without your belief in me.
The Question

When we think of the word texture images may spring to mind - the rhythmic ribbing of a yarn on a favorite sweater or blanket, the smoothness and visual pattern of the wood in a piece of furniture, the layers of plant forms in a garden, the pattern and surface variations of a brick sidewalk. The interaction and contrast of the tactile and visual textures around us create experiences and spaces that provide joy, excitement, and interest, or, the opposite.

We can think of texture generically as elements that interconnect and mingle with some level of contrast. The contrast, whether slight or steep, is what registers with our brain to create the sensation of variation, whether tactile or visual. There is also symbolism and meaning connected to texture, although this often may be cultural. For example, when we say the words “homespun” or “modern,” the associations often attached to them from the Western consciousness are of warmth and comfort, and sparseness and serenity, respectively.

The question for my thesis became “How can texture embody the idea of a place?”
The First Definition

I started with the etymology of the word texture which is from the Latin *textura*, from *textus*, past participle of *texere*, to weave. I began my research and my search for a site that was not only transitional but transitional site. A site that existed between differing urban uses would give me an opportunity to explore the concept of weaving from an urban planning standpoint. This is what I considered the micro scale of texture, the relationship between my building and the existing urban environment around it.

The site is surrounded on all sides by high-density mixed use buildings. The site is located between the Convention Center/ MCI Center area to the north and the Chinatown area to the east and south. This is the northern border of the development that has been ongoing in the Chinatown/MCI Center area.

The businesses on site showed a mix of trades aimed at both the local and transient market. A few residences still exist on site, remnants of the history of the neighborhood. A few residents still exist on site, remnants of the history of the neighborhood.

The Convention Center and Carnegie Mellon Library with its public park lay to the west of the site. The park is used quite regularly by local residents and workers.

To the north of the site is the bottom of the historic Shaw district - an area of low rise residential that has height restrictions for re-development.

Transportation

The site is surrounded on all sides by high-volume traffic and transit routes. The site is between two metro stops.

Transition

The site is surrounded on all sides by high-volume traffic and transit routes. The site is between two metro stops.
In order to understand the complexity of the site and how it might relate in exploration of my question I decided to study the origins of the site. I wanted to understand the historical and architectural structure of the area. Also, the perception of a neighborhood external atmosphere serves as the types of buildings and how they are used. The perception of the location can strongly influence the future and influence the types of buildings that are considered acceptable or valuable in the area. The influence on physical sense of the area due to perception, which bridge between the density currently in the development plan.

Site History

Figure 2

"After this neighborhood’s original Northern Liberty Market on Mount Vernon Square was razed in 1872, a new Northern Liberty Market was built on the former site. Initially called 1846 Northern Liberty Market, the new market was designed to be a gathering place for customers and a showplace for local goods. The market opened on July 4, 1846, with the city’s first convention center, seating 6,000. (Cultural Tourism, DC; p.41)"

Figure 3

"Before the Civil War, the area was still mostly rural. But running through it was Seventh Street, one of the city’s most important avenues. It has been a central location for transportation and commerce for over a century, with trolley, then bus and metro. It has continued to be an avenue for transportation and commerce. (Cultural Tourism, DC; p.5)"

Figure 4

"The completion of the Northern Liberty Market on Mount Vernon Square in 1846 led merchants and tradesmen to build houses on the area. The market was surrounded by three-story buildings, doing business on the street level and living above. (Cultural Tourism, DC; p.5)"

Figure 5

"The construction of the New Liberty Market on Seventh Street in 1892 disrupted the existing market, as it moved to a new location. The new market was called 1892 Northern Liberty Market and opened in 1893. It was one of the city’s first convention centers, seating 6,000. (Cultural Tourism, DC; p.5)"
Texture Studies

I wanted to map the textures of the site so I chose model materials that had similar visual and tactile characteristics to the full scale materials. I experimented with the textures of the materials to create visual models to both small and large scales that helped me understand how they might work in the context of the overall urban setting. This, in turn, began to influence the placement of the programmatic elements. I carried these model textures through to the final design.

“In fact there is an art of relationship just as there is an art of architecture. Its purpose is to take all the elements that go to create the environment—buildings, trees, water, traffic, advertisements and so on—and to weave them together in such a way that drama is released.” (Cullen, p.7)
“Bricks are key to the history of the city of Washing-
ton, DC.” “Like the Incas and many other civilizations before them, Washingtonians built the most important city of their own sweat and labor, using the earth beneath them and the rivers around them. As a result of their labor, brick uni-
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ces the architecture of Washington;...” (Garofalo, p.1)

Studies of changing from a brick texture to a flat or scored con-
crete surface to delineate a path. It also is a study of the transition of a historically handmade material to a material made with various methods. Use of texture on the horizon-
tal plane was a way to connect the surrounding textures to and

In Dan Willis’ essay The Valor of Iron he makes the
argument that there is value implied in materials made with courage, risk, difficulty, respect, or sacri-
cifice versus materials made with ease, certainty, or

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"Walls are key to the history of the city of Washing-
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effort, using the earth beneath them and the rivers
around them. As a result of their labor, brick uni-
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Studies of the perception of space via the addition/removal of texture in an image.

Precious materials

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The use of texture within the context of urban planning, where materials and scale determine the urban layout, is discussed by Camillo Sitte in his book, *City Planning according to Artistic Principles*. Sitte tried to analyze successful and unsuccessful public spaces from older European towns to discover underlying artistic guidelines that could then be applied to contemporary development. Sitte was not concerned with promoting or dismissing a particular style of architecture; the guidelines were intended to transcend style. He was interested in how public spaces were arranged and interwoven with buildings. In Chapter XII, “Example of an Urban Arrangement According to Artistic Principles,” he discusses the existing plaza around the Votive Church in Vienna and proposes improvements. In his opinion the Votive Church was surrounded by a plaza so enormous as to detract from the scale of the church. The Gothic building could be viewed from a long distance and the scale of it in comparison to the buildings in the area generalized scale in space and set of space; so the impression that one may form of a church. These buildings were contrasted with a west and south arcades of the church that were visible at eye level, giving a sense of scale and relationship to the church. Sitte suggests that the addition of buildings and specific elements in order to improve the views of the church and use of the plaza. In essence the contrast of mass and void in both plan and elevation is used to restructure all approaches to the church to obtain the best scale for views of the building and to obscure competing views. His suggestion of materials and styles to apply to the new portion shows how he thought it was necessary to use surface texture to weave some of the Gothic elements into the new plaza so that there wasn’t an abrupt transition from the plaza arcade to the church façade. However, he also realized that it would be detrimental to make everything Gothic. This use of contrasting styles, i.e. textures, enables hierarchies and relationships to become visually evident and achieves his intent of providing a harmonious and well-balanced procession to various viewing angles of the church. These same principles could very easily be applied to present day urban planning.

Scale Studies

The use of scale within the context of urban planning, where materials and scale determine the urban layout, is discussed by Camillo Sitte in *City Planning according to Artistic Principles*. In his book, Sitte tried to analyze successful and unsuccessful public spaces from older European towns to discover underlying artistic guidelines that could then be applied to contemporary development. Sitte was not concerned with promoting or dismissing a particular style of architecture; the guidelines were intended to transcend style. He was interested in how public spaces were arranged and interwoven with buildings. In Chapter XII, “Example of an Urban Arrangement According to Artistic Principles,” he discusses the existing plaza around the Votive Church in Vienna and proposes improvements. In his opinion the Votive Church was surrounded by a plaza so enormous as to detract from the scale of the church. The Gothic building could be viewed from a long distance and the scale of it in comparison to the buildings in the area generalized scale in space and set of space; so the impression that one may form of a church. These buildings were contrasted with a west and south arcades of the church that were visible at eye level, giving a sense of scale and relationship to the church. Sitte suggests that the addition of buildings and specific elements in order to improve the views of the church and use of the plaza. In essence the contrast of mass and void in both plan and elevation is used to restructure all approaches to the church to obtain the best scale for views of the building and to obscure competing views. His suggestion of materials and styles to apply to the new portion shows how he thought it was necessary to use surface texture to weave some of the Gothic elements into the new plaza so that there wasn’t an abrupt transition from the plaza arcade to the church façade. However, he also realized that it would be detrimental to make everything Gothic. This use of contrasting styles, i.e. textures, enables hierarchies and relationships to become visually evident and achieves his intent of providing a harmonious and well-balanced procession to various viewing angles of the church. These same principles could very easily be applied to present day urban planning.
Further exploration of weaving the civic, residential, transportation, and commercial programmatic elements through the site on both horizontal and vertical planes.

The car dispenser in the models garnered the idea of using the forms found in a marketplace and solidified the final design development phase of my thesis.

Exploration of the use of a vertical texture to indicate entry.

Use of texture to delineate a programmatic area.
The Second Definition

I used another definition of texture in the final design development of my thesis: “2 a : essential part : SUBSTANCE b : identifying quality : CHARACTER.”

Since a large part of my program was the marketplace I decided to use this as the defining quality or character of my project. In researching historical markets such as the Forum of Trajan, the Cotton Market, Quincy Market, Covent Garden, etc., a marketplace was where one could exchange goods, services, ideas, etc. This seemed to fit the mixed-use program of my site, the historic use of the neighborhood and the current surrounding context.
Variety and the need to dwell

Another influence on my project that meshed well with the introduction of variety was an essay by Dan Willis, "Vernacular Architecture and the Economics of"

"In the late 1980's film Planes, Trains, and Automobiles, the traveling salesman Del Griffith always places a picture of his wife on the nightstand of whatever sleazy motel he temporarily occupies. It is only by this act, which he might have learned from the Gypsies, that Griffith is able to dwell."

(Willis; p.131)

I hoped to provide a variety of spaces and textures within those spaces to allow an individual to create a personal sense of attachment - much like one would have for a favorite view from a particular bench in a park. ... space and the integration of it into memories would allow each person to dream that their place was individual to them.
I was also influenced by pictures of the physical characteristics of current market places. In "The Drive-In, the Supermarket, and the Transformation of Commercial Real Estate," Robert Venturi talks about the importance of the "vandalized" exterior, which causes the instigation of space of the contemporary market place. This use of form was a literal incision past a public facade was a common element. Another was again the offering of a variety of services within one complex.

The forecourt could be connected to the existing park and structure of the historic Carnegie Mellon Library across the street by the use of stone hardscaping and landscaping planting. This extends the public park at the library onto the site.

Study of juxtaposition of brick and steel facades to create a formal entry. Texture and scale on the vertical plane relate to the use of those textures on either side of the site.

The midblock entry crosses the site allowing a direct visual connection by following the brick pathway. It allows for a more intimately defined open space for neighborhood congregation which carries back to the historical use of a marketplace.
Development of texture within a framework. The framework provides comparison and contrast between textures and space. Personal preferences of the individual allow the creation of a relationship to the site that is unique to that individual.
Final Design

MARKET FLOOR PLAN

- texture
- weave
- composition
- earth
- frame
- marketplace
- concrete
- relationship
- glass
- precious materials
- steel
- repetition framework
- abundance
- formal
- informal
- variety
Final Design

REVIT AND PHYSICAL MODELS

WEST FACADE

WEST ENTRANCE
Conclusion

When we examine the word texture and its relationship to architecture, we realize that this is the medium or palette that architects seek to manipulate. At the human scale, architects use the texture of materials and construction details to evoke emotional responses. The connection and play—woven, of volume, void, and surface create architectural spaces that convey meaning or ideas. The concept that the texture of materials and construction techniques is a key element in the creation of meaning, as well as a means to support new meanings in response to new conditions, will continue to provide a rich and meaningful source of ideas for architects.
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