Unlocking the Urban Box:
A Multi-Use Building for Asheville, NC

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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.

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Dedication

To my Grandfather, for his wisdom, encouragement, and love throughout my life.

To my Mother, for her desire to see me into a successful life and the sacrifice and love she gave to achieve that desire.
Acknowledgements

I owe a debt of gratitude to the following people, without whom this thesis would not have taken the form that it has: Donna Dunay, for her continuing enthusiasm; Bill Galloway, for quiet words of significance; Bill Brown, for investment into detail; and the greatest thanks must go to God, for blessing me with the abilities and the knowledge that He can accomplish great things through me if I allow Him to.
Abstract

The city block may be seen as the fabric of the urban environment. It is often a compacted form, divided only by changing facades and party walls. Boxes all in rows. There is an inescapable sense of enclosure. Architecture has the potential to unlock the box, allowing interaction between inside and out.

The opening, be it a window, skylight, or void, becomes the way that the interior and exterior inform one another. The opening not only must relate to the street and city, but also to the sky and sun. It is an intangible element, created by the form and material that reside in proximity to it. Experiencing the intangible allows a connection to be made with the nature of the site. The opening, generated by form, mass, and material, in turn generates, through visual interaction and the play of light, space that informs and transcends.
Asheville is located in western North Carolina. Nestled on a plateau between the Blue Ridge and Great Smoky Mountains, it was originally an Indian crossroads and trading post. The geography is further defined by the small mountain ranges which run perpendicular to the Great Smokies and the Blue Ridge. The Pisgah and Black ranges surround and contain the Asheville metropolitan area.

Incorporated in 1797, Asheville was a small town until the 1880’s, when the railroad finally reached the mountains. This, combined with its growing reputation as a health resort fueled an explosion of growth in the 1880’s and 1890’s. In the 1920’s, another boom fueled the construction of many elaborate art deco buildings in the downtown center. When the Great Depression hit, the city went into great debt and did not fully recover until the 1970’s.

The Asheville skyline unfolds as vertical punctuations in a three and four story fabric. As a result, Asheville’s downtown today has a distinct historic character. The debt incurred from the depression prevented new construction for decades, so most of the older art deco, Spanish revival, and gothic revival architecture still stands. With much investment in the restoration, renovation, and adaptive reuse of many of these structures, the downtown area has returned to the vibrance it once maintained.

Today, with a metro population of over 210,000, the city faces new problems within the urban core. The most significant is that of regulating growth and construction in a historic urban center. Most of the existing buildings have now been renovated and are in use again, leading to the issue of new construction in a city with little development property left in its core. It has become evident that the small gaps in the urban core will be filled again, but how?
The site, located on Biltmore Avenue, is just south of the main square, Pack Plaza. Biltmore Avenue is the main north-south artery through downtown and much of the city. It narrows within the urban core, but widens into four traffic-congested lanes to the north and south. Many of the buildings surrounding the site have been refurbished within the past ten years and this section of downtown has come to have an eclectic mix of restaurants, music halls, and coffee shops. It is a pedestrian-scaled street, as are most in the downtown. The site is one of several lots that are currently vacant due to demolition of past structures.
The site is located on the southern edge of the downtown. The prominent site gives 35 Biltmore a high visibility and the additional responsibility of strengthening the urban fabric. This is crucial since it is here where the strong urban fabric begins to break down. Large parking lots and widely spaced buildings characterize the area to the immediate south. The fabric of the street is expressed through the rhythm of the surrounding building facades, both in width and height. A particular scale is suggested that accommodates the street.
The site is bounded, both on the north and south, by adjacent party walls. These walls define the site as a vertical space, forcing the eye upward. They also confine the building space and suggest a volume. However, it is debatable whether the volume suggested must be a closed container or not.
Second Level Plan

Key

1. Open Office Space
2. Conference/Office
3. Restroom
4. Entry
5. Terrace
6. Skylight Below
7. Elevated Walk
8. Elevator
9. Main Stair
10. Apartment Entry
11. Entrance Hall
12. Kitchen
13. Living/Dining Area
14. Sleeping Area
15. Closet
16. Bathroom
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16. Bathroom
17. Light Well

Third Level Plan
Interior Courtyard Elevation
A sequence of models studies the form of the initial idea. Internal open space may be expressed in many forms: enclosing, welcoming, introverted, extroverted. The developed concept is fourth in the series. A protective move is made at the street. The court, carved from old and new structure, opens out to the sky by way of the curving forms.
As the curving forms recede, the eye is drawn upward, involving the sky in the composition of the court. While descending into the space, man becomes aware of the intangible quality of the sky above, brought into focus by the receding curves of the walls and the height of the tower.

Shadow on fins accentuates the dynamics of the curve.
The character of the space is altered depending on the time of year. The shadows from the structure leave some areas exposed in the summer, in shadow in the winter. The courtyard acts as a timepiece, giving visual reference to the season.

Both the floor of the court and the existing wall of the studio apartment building act as canvases for the sun. One experiences direct sunlight and shadow or reflected and textured light, as it strikes the wall of the court.
The floor becomes a link between nature and the man-made. Grass and trees recall what the site must have once been like and bring a new quality of softness into the courtyard space. The two by two foot pavers are set in a three foot grid with grass growing between them. The grass and the concrete pavers weave the courtyard floor together, implying both man and nature and providing a relief from the busy street just outside. The grid of pavers mediates between nature and man. Zones are delineated, creating a separation between the path and the court itself, centered on the trees growing within.
The benches within the courtyard divide the space into court and circulation zones. This division is also recognized by the floor of the space. Concrete in the circulation corridor, the floor reverts to the grass and concrete paver pattern within the main court space. At night, lights within the benches illuminate the floor, accenting the difference in color and texture and further delineating the zones.
Street front continues the rhythm of the street while creating a sense of connection to the courtyard inside.

The form allows a visual reading of the interior by stepping backing incrementally. More light is allowed to reach the sidewalk. A joint is formed between the new building and the existing wall. The joint gives a gift back to the city in the form of a fountain, recognizing the separation between old and new. The circulation tower contrasts with the solid form of 35 Biltmore. The setback and the transparency of the tower help to disintegrate the street wall, forming the entry condition.

“In streets we have lost most of the third dimension—we are in flatland with pasteboard silhouettes standing out against the sky...we are dealing in facades rather than in buildings.”

-Gordon Logie
It is important for the street front to reveal the nature of the building beyond. Otherwise, the relationship between the two becomes lost. By becoming merely a facade for the street, the building’s public face loses its significance. The struggle is how to interpret the stepping curves to the street, allowing the visual sequence to prepare the person to enter within.
The street entrance is a place of decision. A person can enter the restaurant, go upstairs, or down into the court. The elevated walkway crossing overhead compresses the space and then releases, or opens out, into the courtyard, much as Frank Lloyd Wright often did in his residential and public designs.

Upper walkways narrow the space, creating a release upon entry into the courtyard.
Light is patterned on the fins themselves.

Curving walls and fins open the court to the sun, while protecting the interior from glare.

The curved walls incorporate vertical fins that block the sun's direct light, while directing the visual field, looking outward, down into the public court, creating a visual connection between outside and inside. The diffused light penetrating the interior reduces the glare that is unsuitable in office environments. Direct sunlight is able to penetrate the courtyard readily, bringing an increased awareness of the sky.
Light conditions as a result of the fin placement.

Although the openings are a uniform three feet wide, the changing depth of the vertical fins alters the form of the curve on the interior. The differing modes of window penetration suggest the nature of the spaces beyond.

Section study through curves.
Penetrating the space in multiple ways, light creates conditions that inform about the nature of the space. An understanding of the concrete wall and the curving fin wall is achieved through the way that light is filtered in through them.
The party walls pulled away, the narrow, vertical space reveals the nature of the adjacent building.
The wall responds to the condition of the existing party wall adjacent to the site. By pulling away from the existing wall, the new concrete wall establishes an interstitial zone between the two buildings. This space, enclosed in glass below and open above the first story, becomes an inside/outside space within the structure. While enclosed within the tall walls, the diner within sees the open sky above, creating a link with the natural or outside world.

The arches in the restaurant mark the transition between a public dining space and an intimate, more private space, exposed to the sky, but screened by the wall. Above, the small openings allow a visual awareness of the tectonic condition from the office spaces.
The "wall-space" allows light to penetrate the building in a way that informs the interior of the physical condition. At any time of the day, the openness above allows light of some degree to hit the floor in this area at all times, further defining the sense of space. Late in the day throughout the year, a bright band of light penetrates the "wall-space," creating the most extreme condition and defining a separation between the existing structure and the new building.

The windows in the upper floors glow at the peak of daylight as the sunlight reflects on the deep concrete shelf surrounding the window. This effect is in counterpoint to the expanse of glass that occurs on the curving, courtyard wall.
The circulation tower is the link between the commercial and residential elements of the building. It also mediates between the courtyard below and the street outside. The tower seeks to achieve both solidity and stability, articulated through its structure. The tower is rendered to a degree transparent by the large openings set between the steel tubing and the open stair. These allow a visual connection to be established between the courtyard and the street. The mass given by the concrete corner walls creates a space-occupying mass that continues the rhythm of the street.
The tower’s structure allows the dual transparency and solidity that respond to the site. Steel tubes are surrounded by four concrete corner walls. The tubes act as lateral stabilizers for the walls and support the elevator machinery above. The walls carry the structural load to the ground, narrowing above, as the load diminishes. The walls cut back to form reveals, allowing the structural system to identify itself to the public. The steel tube rests, fastened solidly, on a groove within the concrete wall.
The sky light in the existing shell was first explored in sketch form. The sun is allowed to penetrate through the roof and the upper floor, illuminating the entrance corridors. The sun begins to form a relationship with the space. The opening that does not give visual contact with the surroundings gives a connection back to nature. Sunlight, an element of nature, floods in, either directly or indirectly, lighting the space. Due to the arrangement of the existing windows, the light they admit cannot penetrate deeply.
The linear nature of the existing building is emphasized in the refitting of the upper two floors as studio apartments. A service core is placed in the center of the building, extending from the light well entrance. The bedroom is located to one side and the entry hall, with skylight overhead, runs the length of the south wall. The space opens up into the main living space, containing the existing windows, allowing a visual connection to the surroundings.

The skylight running the length of the building marks the entry path into the space and allows light into an otherwise dark place. The lack of windows strengthens interaction with the light.
Interaction with the light occurs as the light and shadows change throughout the day. Sunlight from above crosses the floor and inner wall as the sun moves through the sky. Street-fronting apartments are flooded with light in the mornings and rear-facing apartments directly receive the last sunlight of the day. In this way, the sun interacts with the space, making the occupant aware of its nature as a dynamic force. As the light passes through the glass block floor, it is filtered, creating a different relationship in the apartment below.
The lightwell entry brings light into the darkest spaces within the apartment.

The light well serves two major functions: to provide light for the spaces deeper within the shell and to provide entrance into the studio apartments. It is the single new opening that penetrates the existing party wall. Light falls into the space and is received by the glass block in the kitchen wall and by the translucent glass in the bedroom window. The openings, allowing only light to penetrate, strengthen the sense of privacy within the units, denying the public clear access.
It is at the level of the detail where physical contact takes place. The inherent forms of the project are reinterpreted within the scope of the handheld, in this case, the railings. The curve and angle resurface, interpreted in wood and steel. At the stairs, a steel arc is introduced to allow greater ease of handling.

The connections are about simple joints, using standard forms. The rails, long continuous pieces, connect to steel tubes that support them.
Conclusion

Throughout my architectural education, I have been fascinated with the possibilities of the building deriving itself from the site. The process I adopted took cues from the site and applied them to materials and forms, creating a formal interpretation of the site. The thesis has revealed to me the naivete of this direction forced within its formalist box.

The site is more than the lay of the land and the surrounding buildings. It is more than mass, form, and color. The site is also about the intangibles of visual interaction and light, as forces of nature, penetrating and informing the built object. The thesis creates the possibility to explore the building’s interactions with the intangible elements, or, perhaps more accurately, its creation by them.

It is through the combination and interaction of the tangible - form, material, scale - that the intangible is created. The sum of the intangible is the creative force behind space. This is how the unlocking of the urban box is achieved. The intangible elements of light and sight become markers, throughout the project, of the tectonic conditions that governed the building’s growth, allowing these to be recognized. The true nature of the site is revealed.
Selected Bibliography


Photography Credits

Fig. 1: Swiss National Tourist Office. *The Urban Scene*. Faber & Faber, London; 1954.

Fig. 2: Rick Alexander Associates. *Progressive Architecture, 2 '89*. Penton Publishing, Cleveland.

Fig. 3: Klaus Frahm. *Carlo Scarpa*. Taschen, Cologne; 1994.

Fig. 4: Klaus Frahm. *Carlo Scarpa*. Taschen, Cologne; 1994.
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