1219 COLORADO

by

CHRISTOPHER ALAN SPAW

B.S., Kansas State University, 1997

A THESIS

Submitted in partial fulfillment of the
requirements for the degree

MASTER OF ARCHITECTURE

Department of Architecture
College of Architecture Planning & Design

Kansas State University
Manhattan, Kansas

2005

Approved by:

Major Professor
Vladimir Krstic

ABSTRACT

1219 Colorado is the documentation of the nonlinear process of design as it applies to the reconfiguration of a residential dwelling. This process is illustrated through a collection of sketches, design drawings, construction documents and images produced from 1999 to 2005. 1219 Colorado investigates materiality the physical substance of architecture, as well as the nature of thoughtful connection physical and theoretical through the process of making. The need to build, to make, to design, and explore is what drives the process. While the space of architecture is most often designed and perceived as lines on paper, it is through the making of physical models that the creative act of discovery reveals its greatest potential.

The process explores the design of a model constructed at full-scale. No longer representational, the study is the product; the materials and methods are genuine. This process differs from the process of building in that the intention is no longer to construct only that which is designed. Rather the challenge is to explore beyond the design, reveal new possibilities, refine design decisions, and most importantly to take advantage of unforeseen opportunities that are revealed through the act of making.

The scope of the task expanded periodically as a function of increasing knowledge of construction, declining acceptance of the quality of the existing condition and in order to accommodate an evolving set of programmatic requirements. To date the construct has under gone no less than three different design schemes, and a fourth will follow as the process continues to be refined and reconsidered. The project continues to evolve, grow, and change directions. 1219 Colorado explores design is not a linear process. Architecture is not always pretty.

ACKNOWLEDGEMENTS

My deepest appreciation goes to my committee who have continued to help me throughout the years:
Vladimir Krstic, Robert Condia, and Torgeir Norheim

I would like to thank my friends who have given so much of themselves:
Matt Benfer, Mark Benfer, Matt Sturich, Justin Harclerode, Brad Kingsley, Adriana Molina, Nick Curtis, and Roman

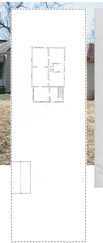
I am grateful for the love and support of all my family, especially my parents David and Sandy, and my brothers Gregory and Michael.

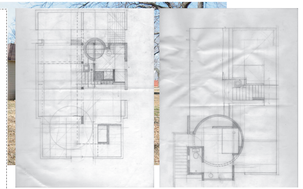
Last but not least, I would like to thank my wife Marci, who is my best friend and greatest supporter and our son Emmett who always makes us smile.

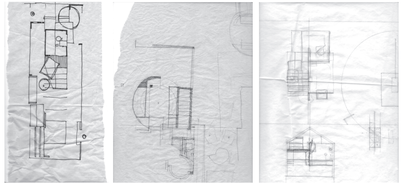
1219 COLORADO is the documentation of the narrative process of design as it applies to the reconfiguration of a residential dwelling. This process is illustrated through the use of photographs, hand drawings, construction documents and images produced from 1999 to 2005. 1219 Colorado investigates materially the physical relationship between the mind and the hand and the mental connection physical and theoretical through the process of making. The need to build, to make, to design, and explore is a human trait. Architecture is a form of expression that most often designed and perceived as three dimensional. It is through the making of physical models that the creative act of design is realized and perfected.

The process explores the design of a model constructed at full-scale. No longer representational, the model is a prototype for a permanent structure and dwelling. The process differs from the process of building in that the intention is no longer to construct only that which is designed. The process allows for the exploration of design intentions, new possibilities, refine design decisions, and most importantly to take advantage of unforeseen opportunities that are revealed during the process of making.

The scope of the task expanded periodically as a function of increasing knowledge of construction, declining importance of the quality of the existing condition and a desire to meet the ever changing and increasing requirements. To date the construct has under gone no less than three different design schemes and is fourth will follow as the process continues to be refined and reconsidered. The process of making is the design. The process of making 1219 Colorado explores design is not a linear process. Architecture is not always pretty.



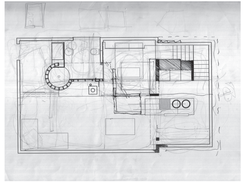


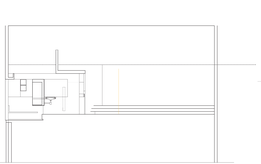


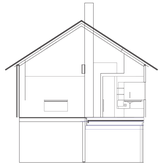
1999

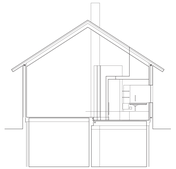
Photo courtesy of Carl Fischer and Associates, circa 1980

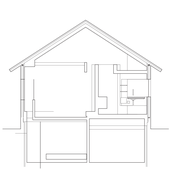
Photo courtesy of Carl Fischer

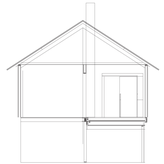


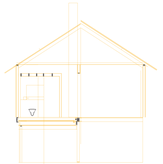


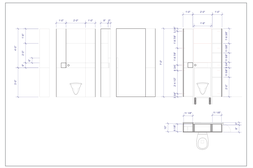


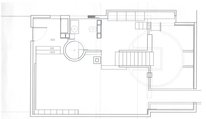








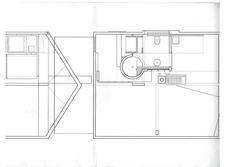


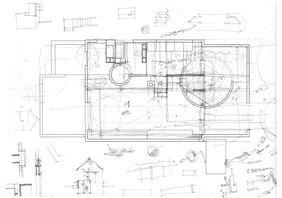


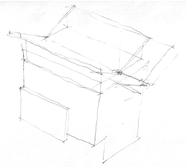
Tiny Days at the South Lake Washington Lake Union Houseboat Show

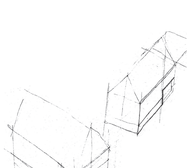
2000

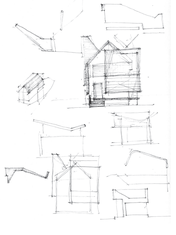
2001

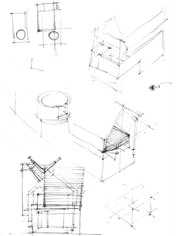


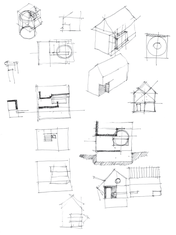


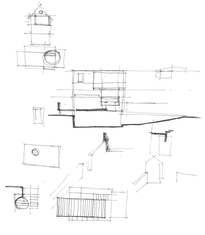




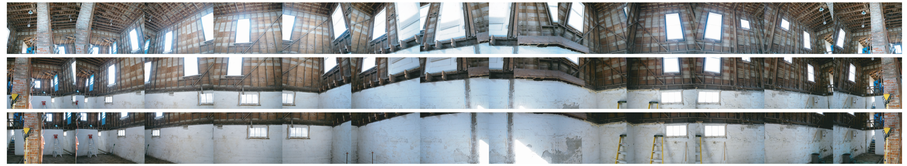


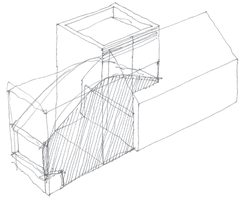






01

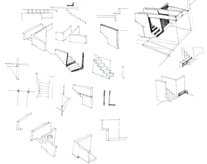


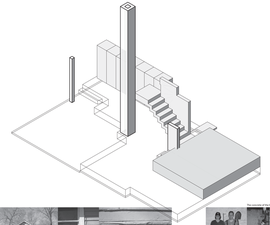


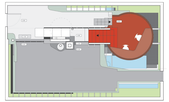
2002

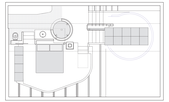
The interior surfaces of the house are intended (leaving the cladding as well as the exterior wall)

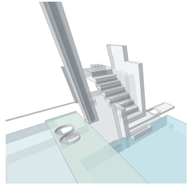
The roof leaning wall was used to cut and prepare the floor remnant (already in a piece of the first design) unless



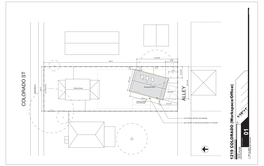


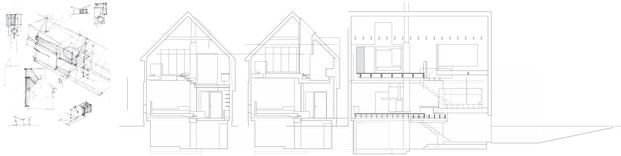


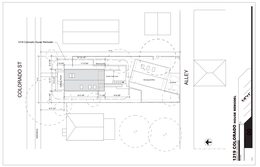




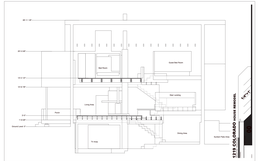
HUMANE
CONSTRUCTION
ILLUSTRATED

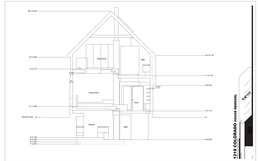

COLORADO ST
ALLEY
WORKSPACE PLAN
1/8"=1'-0"
1310-COLORADO (Workspace/Office)
ALLEY
OFFICE PLAN
1/8"=1'-0"
1310-COLORADO (Workspace/Office)
SECTION A
1/8"=1'-0"
1310-COLORADO (Workspace/Office)
SECTION B
1/8"=1'-0"
1310-COLORADO (Workspace/Office)



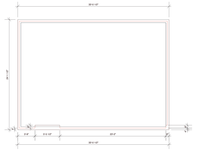

COLORADO ST
ALLEY
1215 COLORADO
BASEMENT PLAN
FIRST FLOOR PLAN
STAIR LANDING PLAN

SECOND FLOOR PLAN
1215 EDGEWARD AVENUE NORTH NORFOLK, VIRGINIA

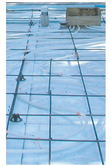

1215 EDGEWARD AVENUE NORTH NORFOLK, VIRGINIA


1215 EDGEWARD AVENUE NORTH NORFOLK, VIRGINIA

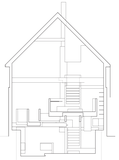
1215 EDGEWARD AVENUE NORTH NORFOLK, VIRGINIA

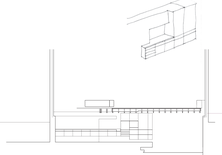


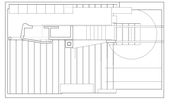
Evaluation
Study of Existing Conditions
Wetlands Conservation Plan
Prepared for:
Prepared by:
Table 1
Table 2
Table 3
Table 4
Table 5
Table 6
Table 7
Table 8
Table 9
Table 10
Table 11
Table 12
Table 13
Table 14
Table 15
Table 16
Table 17
Table 18
Table 19
Table 20
Table

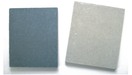


The studio utilizes radiant heating, as it's main source of heat. The floor is a concrete slab with tubes that run with in the concrete slab in order to evenly heat the space. The slab is insulated from the ground below, with a footing and form, to prevent heat loss and to prevent the building from a cold bridge. The open design of the studio allows for the heat to naturally rise and warm the entire space. The system utilizes hot water in the winter, cold water in the summer, hot water in summer, and cold water is run thru the floor on its way to the faucets in the summer as a way of providing a small amount of free cooling.



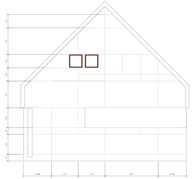




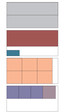


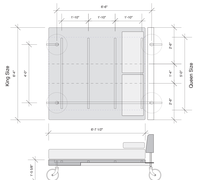
The skin of the building is designed as a rain screen system, separating the exterior skin from the structure of the building, and the exterior cladding serves to protect the membrane. The exterior cladding is made of panels of a dense, non-porous cement board panels, that are a consistent color throughout and which do not need painting. The panels are fastened to a layer of sheathers the skin and the membrane to let the membrane breath, while at the same time the panels are fastened to the skin of the building in the summer time. The rainwa ter the panel system is expressed by allowing a slight gap to remain between the panels. The gap in the panels is consistent with the amount of sheathers underneath and the panels are cut to form the pattern of the facade. The panels are fastened to cedar furring strips with countersunk stainless steel screws.

The pattern for the exterior siding was designed after the decision was made to use cement board panels. Although several different sizes of panels were used, the overall effect was a combination of 24" panels that are sloped or trimmed into simple dormers and aligned along the center of the facade in order to reduce the amount of cutting needed for the panels. The panels were installed on a coursing a pattern that worked to align the relationships of the various facade elements. The pattern was first developed on the north facade. It was carried thru to the south facade with modifications for the differing elements.



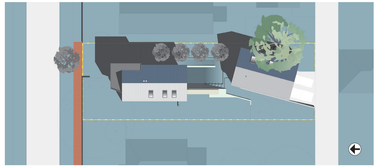
The different apertures of the studio were conceived as a response to the site and its context. A few of these apertures were located on paper as necessary parts of the conceptual design, most were added later as part of the process of onsite design decision making. The pair of windows on the south side of the studio, north and south facade are compositional elements that can thru the building. While the windows are located at the same distance from the ground, the floral height of the floor is altered allowing for both sets of windows to work appropriately for the spaces that they serve. On the north side, the windows maintain privacy in the bathroom and bedroom while allowing for a view of the alley. They are the eyes of the building. A series of three roof windows are located on the eastern roof slope, to provide a comfortable source of light, ventilate the upper levels of the studio and provide a means of emergency egress. On the west side of the studio the roof folds down to meuble and becomes a wall. The original design intent was expressed and the condition where ground meets the roof is expressed with a band of light that wraps around the corner. Rather than frame openings for this band, Polygal's Polycarbonate Corrugated Sheet, Clear Clip, is applied directly to the outside of the wall structure to produce a continuous flush surface free of fasteners. It is because of the flexibility of this particular glazing system that it can be applied to the curved surface of the west facade gained a band of light below the floor structure and the south facade was left with a continuous horizontal band. This was not until framing had begun that the decision was made on were to place the ribbon window that opens the kitchen to the courtyard space. In this location glass rather than polycarbonate was used to provide a better view of the sky. This time the frame of the window is pressed out past the exterior wall swearing the unaltered structure. An additional opening is placed to complete the north side of the studio, this time on the east wall. And finally a small square of glass is located at ground level next to the door, in order to observe animal traffic.

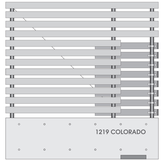




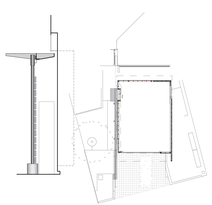
2003

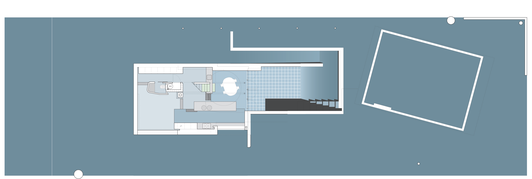
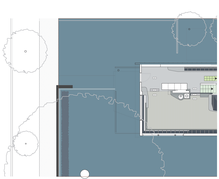
2004





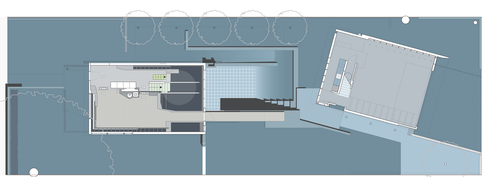
1219 COLORADO

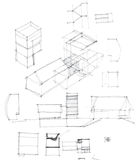


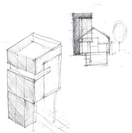



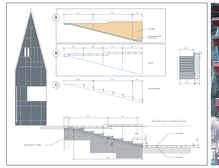
1219 COLORADO

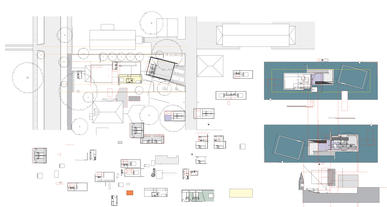
1219 COLORADO











2005

CONCLUSION

The process began as a journey of discovery, an opportunity to evaluate as well as question the existing, to propose and reconsider the possible. As the project returns to a point similar in some respects to where it began, an inhabitable dwelling exists once again on the site. A transformation has taken place that has driven the investigation far beyond what could have been originally envisioned. The condition that exists now is of two structures related to one another. One structure has come into existence through the subtractive process of de-construction and the other through the additive process of construction.

The front-house has revealed its hidden potential through dissection, and eventual partial deconstruction. As an empty shell the front-house exposes the connection between materiality and the process of making the space. The new structure, a studio, was conceived as a way of studying how to return the front-house back into a viable dwelling, while maintaining the qualities of its current expression. The studio, a dwelling that was designed throughout the process of construction is seen as a series of elements within a volume. The elements maintain an open connection to the volume of the space, while defining the programmatic functions of the studio. While the structure of the studio is rational and consistent throughout, the enclosure both interior and exterior is manipulated in order to accommodate functional requirements. The materials that are utilized inform the construction process, and become the design expression. The structural systems, as well as the methods of construction, are revealed as an integral part of the design.

While the site remains the same the context continues to change, gaining clarity along with complexity. 1219 Colorado is now one site with two distinct elements. One is the study for the other, yet both elements exist together. The

two structures desire to explain, and express their connection to one another, and become something more. For now 1219 Colorado remains an incomplete whole, it continues to provide a basis for questioning the nature of site, materiality, spatial creation, and the act of making.