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

Master of Architecture

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The idea of the three story residence began with the horizontal lines of the rock formations located throughout the site. Our built environment is frequently in opposition with nature, therefore, how man reacts with his surroundings can also shape them. The four primary walls are vertical elements set in opposition to the horizontal lines of the site.

The project manifests itself using five elements of Feng Shui to inform decisions concerning orientation, allowing one to experience a sense of change yet maintaining a balance between the inside and out. This space of the "in-between" becomes thresholds demarcating the transition between in and out.
DEDICATION

For you Oliviah...

And, in loving memory of my best friend Cheryl who taught me “the time is going to pass, it’s up to you to make the difference”... I miss you.
ACKNOWLEDGEMENTS

To my beautiful daughter Olivia, Thank you for always reminding me of what truly is important in life, for always making me smile, and for giving me the strength to push harder. I love you.

Thank you to my friends and family, to Mom, Dad, and Sister for all your kind words, love and support and most importantly, helping me to keep things in perspective.

David, Thanks for minding your own business in the parking lot at the football game...these are my best days.

Thank you Toole, you are the best of the best!!!

and to my committee:

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Hans, for teaching me it’s O.K. to leave rental cars in GA.

and Bill for simplifying the mess.
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The Doctrine of the Mean

By Confucius

Written ca. 500 B.C.E.

*What Heaven has conferred is called The Nature: an accordance with this nature is called The Path of duty: the regulation of this path is called Instruction.*

The path may not be left for an instant. If it could be left, it would not be the path. On this account, the superior man does not wait till he sees things, to be cautious, nor till he hears things, to be apprehensive.

There is nothing more visible than what is secret, and nothing more manifest than what is minute. Therefore the superior man is watchful over himself when he is alone.

While there are no stirrings of pleasure, anger, sorrow, or joy, the mind may be said to be in the state of Equilibrium. When those feelings have been stirred, and they act in their due degree, there ensues what may be called the state of Harmony. This Equilibrium is the great root from which grow all the human actions in the world, and this Harmony is the universal path which they all should pursue.

Let the states of equilibrium and harmony exist in perfection, and a happy order will prevail throughout heaven and earth, and all things will be nourished and flourish."
Upon one’s birth, the Earth becomes the threshold of the perilous unknown, in which we as humans dwell, a transitional space between birth and death, heaven and hell, a point of no return from the past, present, or future. The threshold creates a neutral balance, an “in-between” position, creating a boundary of meeting of the natural and supernatural simultaneously defining the realm of space; a place of built forms, objects, and things.
The site is located in Abingdon, Virginia. The Northern area of the site is mainly pasture as opposed to the Southern section which is comprised of numerous conifer and deciduous trees and shrubs, which, in the Spring and Summer, shade and conceal the residence, allowing for privacy, and in winter, providing a sense of security from the cold winds that prevail from the North.
"In the life of man, the house thrusts aside contingencies, its councils of
continuity are unceasing. Without it, man would be a dispersed being.
It maintains him through the storms of the heavens and through those
of life. It is body and soul. It is the human beings first world. Before he
is 'cast into the world', as claimed by metaphysics, man is laid in the
cradle of the house... life begins enclosed, protected, and all warm, in
the bosom of the house. It represents the past, present, and future"
(7, Stigoe).
A dirt and grass road draws one to the house as it winds through 60 acres of fenced pasture. As the "foot" of the residence becomes closer, a cool breeze is felt while crossing over the proposed rock bridge which stretches over a revitalized pond which was once a natural spring.
Layers were found repeatedly in the study of the site. The "natural" horizontal layers of the earth’s geology were set in opposition to the vertical walls emphasizing man’s "built" environment.

The boundaries of built space may be defined as floor, wall, and ceiling. Venturi defines architecture as "the wall between the inside and out". In general, the boundary set by the wall makes the structure visible while the porous properties of windows and doors become openings.

"The door within a wall provides the surfaces that separate the zones of the same from the zones of the other. "Through meaning it encloses, while through poetic expression, it opens up... the door is an entire cosmos of the half-open" (222, Stilgoe).

Any enclosure is defined by these boundaries, thus creating thresholds psychologically, or physically, of either natural or unnatural, consciously or unconsciously.
The Western facade greets one upon arrival. The play of sun and light with the sliding louver wall panels constantly change the exterior elevation. The louvers can be adjusted to either maximize or minimize the prevailing winds of the site to naturally ventilate the residence.
The family will typically enter the house through the garage. In addition to the stainless steel spiral stair (area 6), the interior kitchen appliances place emphasis on the architectural “element” in which it is contained.

The water of the pool diffuses light through a window of the grotto, simultaneously providing a thermal barrier to help the refrigerated cell to maintain its annual temperature of 56 degrees.

Guests will enter by the concrete steps (area #9) with gracious landings which encourage a pause for thought. If the guest are expected, the front door, also referred to as the pivot door, will mechanically open to direct the desired flow and view from the inside out.

The main interior stair (3), has two light wells at this level to avoid a dark cavemess feel.
The interior side of each louver is constructed of a very thin and highly reflective stainless steel sheet. This sheet provides a manipulation allowing the sunrise of the East to reflect and penetrate from the West and vice versa, the sunset of the west to penetrate the east.
V. THE FRONT DOOR
At the door of the house who will come knocking?
An open door we enter
A closed door, a den
The world pulse beats beyond my door.
“How concrete everything becomes in the world of the spirit when an object, a mere door, can give images of heatstain, temptation, desire, security, welcome and respect. If one were to give an account of all the doors one has closed and opened, of all the doors one would like to re-open, one could tell the story of one’s entire life. Do they open for the world of men or for the world of solitude? Why not sense that, incarnated in the door, there is a little threshold god? And there is no need to return to a distant past, a past that is no longer our own, to find sacred properties attributed to the threshold” (224, Stilgoe).
The threshold provides a location, thus allowing man to orient himself. It creates a place and space, a concrete thing that exists. The threshold, as a symbol of division or border, marks the place architecturally within the door, belonging to the wall, along the ceiling and across the floor. The threshold can only be fully understood if it is seen in connection between the two elements in which it is located. Without these elements, the threshold has no meaning. One cannot exist without the other. Each concept is clearly distinct from the other, the threshold simultaneously constituting a unity of the elements in opposition (1-19, Lang).

By day, the "slits of light" demarcate the presence of the threshold at each "elemental wall", illuminating the surfaces from the outside in. By night, the slits glow from the inside out.

"SLITS OF LIGHT"
The main "path" of the house extends from East to West and North to South. It's the Feng Shui element of the Earth, which has no direction and no season. It is the root of all elements and contains them. "Earth supports and is central. It is solid and receptive, fertile, full, deep, broad and balanced. It embodies the golden mean and the state of equanimity by which the golden mean is realized. When we practice equanimity our world becomes balanced and full of life" (26, Simons).

Horizontally, this built "path", like the undetermined path of life, becomes interrupted at each threshold of the elemental wall, representing change and transition as a constant while restoring hope in the upcoming change of season.

Vertically, the glass floor panels, stairs, and roofs reveal a transparency to the Heaven's above.

Viewing the house from the North, the path of the interstitial spaces fades into the background of its natural surroundings as a result of being constructed of an earth tone, cast in place concrete, differing from the four white primary, anchoring walls of the structure.
Three pieces of laminated glass make up the floor panels which are supported by a stainless steel ledger with neoprene pads. A frosted glass panel covers the fluorescent light tubes beneath the panels.

By day, the transparent path naturally illuminates the corridors, and by night, the central path glows from within, serving as the vertical beacon of light from altitudes above.
"Fire shines. It is hot, dry, and cheerful. It is alive and spirited...the direction in space for Fire is South...the basic shape of Fire is triangular. Its land formations are jagged, and pointed" (24-25, Simons).

SECOND FLOOR PLAN:
1. BREAKFAST
2. KITCHEN
3. BEDROOM / OFFICE
4. BATH
5. CLOSET
6. UTILITY
7. READING NOOK
8. STORAGE
“Fire shines. It is hot, dry, and cheerful. It is alive and spirited...the direction in space for Fire is South...the basic shape of Fire is triangular. Its land formations are jagged, and pointed” (24-25, Simons).

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The horizontal fire wall mantels are made of layers of glass and slate. The characteristics of the slate mimic the jagged features of the flames found in fire. The slate is spaced horizontally to achieve a light dappling effect between each piece. The stacked slate is supported by five layers of laminated glass, which is in turn, secured to the cast in place concrete walls with steel anchors and plates.

From the exterior, the windows allow daylight to penetrate the layers, illuminating the mantel with sunlight. When a fire is burning, a dancing glow of light radiates from the lowered pit.
Threshold @ The Intersection of "Earth"

Images illustrating the cool effect of afternoon light on the mantel.
There are a total of four fireplaces in the home. Two hearths are located on the first floor, while the other two are located on the third floor. The hearth found at the main entry of the North side of the home is open on three sides. The South side fire box can be utilized from both the inside and outside. From the third floor deck above the entry, the fireplace allows for a quaint seating area for guests.

The slate and glass mantel spans the entire length of the fire wall on both floors, creating a threshold at the intersection of the main path of the home, also known as the architectural element “Earth”.

“Water flows. It moves along the line of least resistance to find its way to the ocean, where it comes and goes in tides and waves. It is a carrier…we travel over it and through it” (20, Simons).

The water wall has a central cavity to collect the water from the flat roof surfaces found on the home. It drains toward the revitalized pond on the North side of the property, which is also water’s direction in space.
In the third century, Porphryus wrote "a threshold is a sacred thing." By definition, the word "threshold" is a noun, which, according to the Merriam-Webster's Collegiate Dictionary, has several meanings. The first, which could be considered instrumental, is being a plank, stone, or piece of timber that lies under a door. Secondly, it is the place or point of entering or beginning. And lastly, the point at which a physiological or psychological effect begins. Norberg-Schulz corroborates, "places are hence designated by nouns. This implies that they are considered real 'things that exist'" (16). Instrumentally, the threshold makes up the door sill. It completes the enclosure of the door jamb and must be crossed when entering the house. When one steps over the threshold and enters a new territory, one leaves the other space behind. Without the threshold, one cannot begin, enter or leave, cross or change. It either confines or allows, welcoming or rejecting the other side, indicating the point in which the public, outside world ends, and private, inside world begins. It is a transition from the old to the new. It marks the point in which decisions and choices must be made in order to move on (1-19, Lang). "It is the dialectic of return and departure, of path and goal, is the essence of that existential 'spatiality' which is set into work by architecture" (13, Norberg-Schulz). The threshold either divides or connects. Heidegger says, "A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its presencing". Residually and mystically, it has been told, the threshold serves as the dwelling place of ghosts and souls of the dead, who lead an existence between the world of the living and the world of the dead. In the psychic and spiritual realm guardians prevent man from going too far or too fast and meeting or seeing more than he is capable of bearing in occult or esoteric knowledge (1-19, Lang).
The structural glass "Water" wall is comprised of layers of vertical glass, laminated with a clear resin. Glass is a liquid material. When light is reflected from its surface, it is wet and glossy in appearance.

The "Water" wall is the primary separation between the intimate spaces of the home and the familial areas. It becomes the primary interior threshold.

The threshold provides a location, thus allowing man to orient himself. It creates a place and space, a concrete thing that exists. The threshold, as a symbol of division or border, marks the place architecturally within the door, belonging to the wall, along the ceiling and across the floor. The threshold can only be fully understood if it is seen in connection between the two elements in which it is located. Without these elements, the threshold has no meaning. One cannot exist without the other. Each concept is clearly distinct from the other, the threshold simultaneously constituting a unity of the elements in opposition (1-19, Lang).
INTERIOR WINDOW @ STUDY (LEFT)
EXTERIOR WINDOW (RIGHT)

GLASS BENCH AT ENTRY
THIRD FLOOR PLAN:

1. BREAKFAST
2. KITCHEN
3. BEDROOM / OFFICE
4. BATH
5. CLOSET
6. UTILITY
7. DECK
8. DECK
9. FAMILY / GAME ROOM
10. DECK
11. BEDROOM
12. BEDROOM
“Wood springs. It is strong and flexible. It bends under the force of the wind and adapts to the changes of the season’s... The direction in space is East” (24. Simons).

The sliding louver panels are made of ipé wood which glide effortlessly across the heated tracks in the winter. When allowing full light to penetrate the space, the louvers are hidden away into exterior wall pockets.
The weather associated with wood is rain. Imagine showering outside year round. Frosted glass panels offer privacy where needed.
LITERATURE CITED


Le Corbusier, Ineffable Space. Pg 66.


Norberg-Schulz., Concept of Dwelling, Ch. 1, Dwelling and Existence, pages 13-30.

Norberg-Schulz., Genius Loci, Towards a Phenomenology of Architecture. (Rizzoli, 1980).


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