Contour and Layers: 
An Architectural Exploration 

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Master of Architecture 

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The book is a series of plates, pictures and writings which are the results of an architectural thesis exploring, line, contour and layers. The plates are scans of original work by the author, made in a combination of media including: pencil, pastel, water-color, photograph, study models, hand-drafted drawings, and computer aided drawings. A transcript of the presentation of the work at the thesis defense is included. The simple idea is the impression of contour by the expression of layers. The contour is a line tracing the motion and movement of architecture. Resulting from practice in drawing using pastels, pencil and paper the line, through continuity, can twist, pass over, go under and around- joining parts into an organized whole. Following a program of a modern bath, an architectural space is made, built by layers. The thesis is an architectural exploration of layers and the resultant contours.
Acknowledgments:

Thank you to my family and Nicole for their support.
Thank you to the Graduate Faculty at Virginia Tech for your help and patience.
Thank you to my fellow graduate students for the sharing and making of a studio.
Thank you especially to Steve, Scott and Kay, the members of the committee which helped guide this thesis. You helped me see things I missed; and move on from those things which are better off in the tried pile.
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Contour and Layers:
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The simple idea is the impression of contour by the expression of layers. The contour is a line tracing the motion and movement of architecture. Resulting from practice in drawing using pastels, pencil and paper the line, through continuity, can twist, pass over, go under and around- joining parts into an organized whole. Following a program of a modern bath, an architectural space is made, built by layers. The thesis is an architectural exploration of layers and the resultant contours.
As practice, drawing makes architecture.
Architecture is a built thing.
Design goes towards building.
So the plan is designed and these sections are architecture. They are built upon the paper and contain the markings of decision. They were layered upon lines of representation.

The section is drawn from the plan of the floor and the ceiling. The plan is instrumental, being an object designed and built upon.

The section as made is traced making the contour. The contour here is a line tracing the motion and movement of the architecture. This line, through continuity, can twist, pass over, go under and around – joining parts into an organized whole. In this way, this is a natural act which I believe harmonizes the space.
Main Bathing Floor Plan
a-outside pool
b-lap pool
c-plunge pool
d-soaking tub
e-play pool
f-cold plunge pool
g-foot soak stream
h-bath chamber
i-lounge chairs
j-ramp
k-bounding benches
l-bounding platform

Scale 1/16in=1ft
Lower Level Floor Plan

- entrance vestibule (a)
- changing rooms (b)
- reception nook (c)
- mechanical rooms (d)

Scale 1/16in=1ft
Geometry is the guide. As a tool for the architect, it acts as a translator. Here descriptive geometry shows the true heights of the roof members.
Contour Overlay 3
plunge pool
I began by drawing lines.
I reviewed them, listening.
I saw them, but had to be open to what the lines showed.
Lines converge, connect, or stay parallel.
The relationships of the space in-between began to have meaning.
The potential architecture becomes dependable. This, I have come to believe, is also necessary.
Pastel Drawing expressing layering, lines and movement
Line Drawing expression welcome, depth, and movement.
Pastel Drawing expressing rhythm in two directions
Pastel Drawing expressing lines, direction and the space in-between.
Pastel Drawing expressing rhythm
I mention dependence. In this way the architecture cannot be pure, nor as straightforward as I have described. Programs, representation, symbol, signs, and codified parts also make up the building. The architecture must be in a relationship of harmony with these parts or it will be overwhelmed by these factors. This project began by a dependence on program, one of a public bath. In past times this was a common public building type; contemporarily it has morphed into a hybrid of a spa or aquatic center. Through work and realization the program has become more of a factor, in the building and less commanding as a generator. This was an important moment for me as the program began as the intended generator which it cannot do. The architecture is what is poetic and can inspire, not the program.
Study Model made of layers.

I have come to know horizon as a line which bounds, but by its presence implies something beyond. This implication arouses wonder.

Here layers of lines bound the architecture. They set off relationships and give the space grain.
Study Models
a-ceiling geometry
b-entrance
Contour Overlay 5
entrance area
View of Entrance as approached on foot
Pastel Drawing in plan of spatial flow
Individual Bath Chamber

a-watercolor section/perspective with plan
b-section
First View
approach by car
Contour Overlays
contours combined
Thesis Defense Transcript:

Thank you for coming. These last three years have come and gone quickly. I would not have been able to reach this point without the support of my family and partner Nicole. I would also like to thank the Faculty at Virginia Tech for their help and patience. Thank you to my fellow graduate student classmates, for acting like sounding boards, participating in studio and numerous architectural discussions after hours in the cellar of the Cellar. I would like to especially thank Steve, Scott and Kay who made up the committee which allowed me to see the things I was missing and helped me to forget the things I thought I was seeing. Thank you very much.

The simple idea is the impression of contour by the expression of layers. The contour here is a line tracing the motion and movement of the architecture. This line, through continuity, can twist, pass over, go under and around – joining parts into an organized whole. In this way this is a natural act which I believe harmonizes the space. Of interest as a study is the presence of horizon. Through several talks with Professor Steve Thompson and a helpful reading of Heidegger, I have come to know horizon as a line which bounds, but by its presence implies something beyond. This implication arouses wonder. Here layers of lines bound the architecture. They set off relationships and give the space grain. The lines expand and contract, they move up and down, in and out.

Todd Williams, a very good contemporary architect, spoke on campus earlier this year. In his talk he said that the ground plan is the place where sense is made and going up or down deeply affects the sensibilities. This building is always going up and down. The plan gives a sense of movement, like swimming. I would add to Mr. Williams's statement that if the plan is where sense is made then the ceiling is where the sense comes from. Although the roof is also moving, it does so in two directions, which are equal and opposite, so it is in balance. By modulation, of a repeated geometry, the ceiling steadies the floor. The plan works sensible, but for me it has more of an instrumental use. The plan was useful as an under layer upon which the building was constructed. The arrival to the plan highlights the process, practice and participation of the thesis.

I have learned of the necessity to act by these ways in order to come to know architecture. I began by drawing lines. I reviewed them, listening. I saw them but had to be open to what the lines showed. Lines converge, connect, or stay parallel. The relationships of the space in-between began to have meaning. The potential architecture becomes dependable. This I have come to believe is also necessary.

As practice, drawing makes architecture. Architecture is a built thing. Design goes towards building. So the plan is designed and these sections are architecture. They are built upon the paper and contain the markings of decision. They were layered upon lines of representation. According to the architecture educator Marco Frascari, the markings of making give the drawings emotion by becoming characters to the space of the page. I mentioned dependence. In this way the architecture cannot be pure, nor as straightforward as I have described.

Programs, representation, symbol, signs, and codified parts also make up the building. The architecture must be in a relationship of harmony with these parts or it will be overwhelmed by these factors. This project began by a dependence on program, - one of a public bath. In past times this was a common public building type; contemporarily it has morphed into a hybrid of a spa or aquatic center. Through working and realization the program has become more of a factor, in the building and less commanding as a generator. This was an important moment for me as the program began as the intended generator which it cannot do.

The architecture is what is poetic and can inspire, not the program. I invite you all to participate in the architecture. To orientate let me briefly explore a sequence of this building:

Approach by car
Approach by foot to the entrance
Information desk
Changing rooms
Grand stair to main bathing space- water flows down bounding the way up.
Plunge pool
Lap pool
Cold plunge pool
Soaking pools
Inside out pool for playing watching.
Stillness-individual bathing chamber
Bounded by six foot border, at times as benches and raised walking platform.
All modulated by the roof extending over the space.
Please ask me any questions or feel free to share any commentary.
Thank you!
All drawings, paintings, models, pictures, and writings contained in this work are the products of the author.