A SPECULATION
A Theater of Reflection | Reflection of a Theater

by
Chloe Allin, B.A.S.

A thesis submitted to the
Faculty of Graduate Studies
in partial fulfillment of
the requirements for the degree of

MASTER OF ARCHITECTURE
M.ARCH. (Professional)

Carleton University
Ottawa, Ontario
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Abstract

In the context of a theater, this project seeks to explore the spectral in architecture as a threshold which has the potential to engage and facilitate healthful dialog between the internal spaces of the body and its buildings. Reflection makes visible the invisible, and so captures the mind in an illusive game where the bodies internal spacial logic, (body image and body schema) reshapes itself in order to facilitate the virtual bodies inhabitation of the illusion. Through anthropomorphic imagining, the project seeks to foster this virtual inhabitation, both for the spectator and for the building as it may be imagined to possesses a character and so inhabit itself. The myth of “Echo and Narcissus” casts the theaters inaugural performance; appropriate to its situation below the waters of Dows lake in Ottawa.

A SPECULATION

A Theater of reflection | Reflection of a Theater

Thank you to the family, friends and faculty who supported and made enjoyable the first 6 years of my architectural education.

Thank you to Marco Frascari for his guidance.

Reflecting a Theater (narrative)

Beginning; the lights go down..

Building Description

Vesica Piscis

Upon the Lake

Acting Column

Echo Echo

Act III, Scene 2

Back Stage

Mr. and Mrs. Patron

Finis; the light comes up.. .

Theater of Reflection

1. Specular Beginnings

2. Body Specialty

3. Theater Proposal

Conclusion

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Bibliography

Beginning; the lights go down...

In an aura¹ of excitement and potential², the audience waits, breath held in that enveloping darkness, for the performance to begin.³ In these moments of blindness, before eyes adjust their visions, all together they are caught and suspended in this other reality beyond their actual location. (First submerged in a theater below the lake, but now also in the realm of illusion and spectacle.) This is not simply the opening night of Pedro Calderon's *Echo and Narcissus*,⁴ but is the theaters inaugural performance. From the inception of the building and its construction, to the casting of actors and mere selling of tickets. Every detail has been planned to augment the importance of the moment. The presence of potential surrounds them in the blackness of the space. It is not only for the audience who wait with anticipation, but also the building as it is wrapped in the same aura, poised on the cusp⁵ of its own first breath.⁶

1 Aura: An invisible emanation which seems to surround and be generated by a person, place or thing. Its origin via Latin from Greek, Breeze, Breath. Aura was first referred to as an odor. It later came to express other invisible presences such as light, social position, and temperament. In medical terms, the aura is the warning sensation felt just prior to an attack of epilepsy or migraine. [Oxford Dictionary....] In the theater, the audience feels the aura anticipation for the production beginning.

2 Potentiality: Absence in Presence. [Agamben]

3 Carreno, Antolio "Poetics of Closure in Calderon's Plays" *The Calderonian Stage*. Manuel Delgado Morales. London: Associated University Presses. 1997. "Within a playwright's creative plans in any theatrical piece, the first scene (the opening, or beginning) and the last (the ending or closure) give shape to its structure, its tone, and the dramatic pace of its characters. At the same time, these scenes are the keys to the success or the failure of the staging."

4 Of Greek mythology. Narcissus, a beautiful youth rejects Echo and to his own destruction, falls in love with his reflection in the water.

5 As a figurative point between two different situations or states, the building is poised between itself as potential for its purpose and as actualized in its purpose.

6 In its first performance, the building is given life through the purpose intended by inhabiting it.

A faint glow lingers from the natural light above. It falls down the column and central curtain alike, becoming more and more significant as the audiences eyes adjust to the almost complete darkness. The pause is at its breaking point, everything has been drawn in and is now held in that last agonizing second before the breath is released, when the lights will come up and the production begins.

7 Figure 2: Stage Plan and Reflected Sections. 14" x 28", Graphite Drawing, Colour Pencil and ink wash. Second of four part panel. (See fold out on page 28)

Building Description

The theater rests; it is partially submerged in the center of Dow's lake,⁸ like an island. It is the stage for the audience's arrival, as a body in the landscape it presents the audience as they arrive, both by water and land. From across the water, by boat and bridge the audience members arrive and make their descent, beyond the water's surface to the theater's stage which is secreted below.

In two circles, overlapping in their centers to form a stage, the audience chambers are divided. One is larger than the other - it protrudes through the lake's surface in the form of a rounded grassy hill. The other remains invisible, its smaller, rectangular interior completely submerged below the surface, except in winter when water levels lower⁹ and its roof is revealed. Ten meters below the water's surface,¹⁰ the stage is held in the crossed visions of the audience on either side.

Supporting and rising above the stage, a Column¹¹ supports and anchors the building from its lowest foundation to its highest reach above the lake. Within this column a stair spirals, enclosed in the concrete of the foundation below the stage, and facilitating an entrance from the practice space below onto the stage. The stair emerges at the stage area,

8 Dow's Lake is located at the Western edge of central Ottawa. Parkways and paths surround its periphery and it is bounded by the residential areas of Little Italy and the Glebe, Carleton University, the Experimental Farms and the Rideau Canal.

9 The Lake's water is controlled by the Rideau Canal system and acts as a reservoir for its use. In late fall the water levels are lowered approximately 6 feet. In early spring, the levels are again raised.

10 Refers to the stage's position in relation to the datum level of the water surface. Actual lake depth between 3 and 4 meters only.

11 The composite column is 3m in diameter, and rises a total of 25 meters above the stage surface - 15 meters above the water level and 10 below. Below the stage, the column is anchored in concrete, at the stage level, half of this thickness is revealed to present a spiral staircase, above the water level, the column becomes a tower and lookout which facilitates the maintenance of the stage lights and fly tower, as well as marks the theater's presence in the site.

providing vertical set for the actors and access upward to the fly tower supported by the Column. Above the lakes surface;¹² the Column marks the theaters presence, taking the form of a tower,¹³ or a lighthouse at night.

12 Figure 3: Site Plans. Composite Aerial Photo and Site Model. Upper Image Depicting Summer Conditions. Lower Image Depicting Winter. [See appendix images]

13 Watchtower derives from Speculation; from Latin *speculat* - “observe from vantage point”, from *specula* - “watchtower” or “mirror”, from *specere* - “to look”.

Vesica Piscis

The theaters' first stake was driven in winter, forged through the surface of ice, then water and into the earth below. This slender pillar was positioned in the center of the western region of Dow's Lake¹⁴ and about it a circle was drawn of twelve meter radius to mark the smaller of the two audience chambers to come.

Immediately afterwards, the column took on a pivotal role in the movements of the skaters who figure-eighted around it, and also for the below water dwellers, the fish, who congregated around its base and conducted their meetings with a new strength of unity and purpose.

Like tribal peoples who position all distances and locations with reference to their home village,¹⁵ the fishes began to regard this Column which rose, through the surface above them, as the center of their world. It was understood as the most sacred link between the top world of air and their watery realm below.

14 Dow's lake enjoys a picturesque surface and wooded shore which presents an illusion of untouched nature which is at odds with the reality of its violent history. Less than two hundred years ago the area was consumed by a great swamp, covered in bog and brambles and only enjoyed by mosquitoes. With the construction of the Rideau canal system in 1830, now a UNESCO World Heritage site, the area was flooded and the swamp became a shallow lake.

Where a train line once crossed the lakes southern connection to the canal, the cities O-Train now tunnels below. In spring and fall when the water is low, traces of an old causeway dividing the lake from north to south and hundreds of tree stumps become visible. While its initial purpose as a military route was never realized, the lake and surrounding Experimental Farm have flourished as central recreational areas. As a space island of greenery, this public space allows individuals to enjoy a quiet moment of reflection within the busy city.

15 Mircea Elade, Sacred and Profane.

As mirror creatures,¹⁶ both through their perspective taken from the other side of the waters surface and also by the reflectiveness of their bodies¹⁷ the fish enjoy privileged insight. In the circle,¹⁸ they saw the potential of two circles¹⁹ overlapped, the symbol of a threshold to come. As focused on a circle, double vision creates the illusion of two circles, in phantom form.²⁰ In the double vision the form of the Vesica Pisces, representing duality, threshold and the key to the fishes battle was revealed.

The circle did not remain a unrealized phantom figure for long - with its realization in the from of foundations and a building - the dreams of

16 Jorge Luis Borges. "Mirror Fauna" Book of Imaginary Beings.

"The first to awaken will be the Fish. Deep in the mirror we will perceive a very faint line and the color of this line will be like no other color. Later on, other shapes will begin to stir. Little by little they will differ from us; little by little they will not imitate us. They will break through the barriers of glass or metal and this time will not be defeated. Side by side with these mirror creatures, the creatures of water will join the battle."

17 Richard Gregory. Mirror in Mind.

18 Schneider. page 2

"The Circle is a reflection of the worlds - and our own - deep perfection, unity, design, excellence, wholeness and divine nature... Looking at a circle is like looking into a mirror. We create and respond irresistible to circles, cylinders, and spheres because we recognize ourselves in them."

19 Schneider. page 22

"The circle replicates a mate for itself by contemplating itself, reflecting its light, and casting its own shadow."

20 Figure 4: Focus upon the circle to the right. Allowing your eyes to relax, let your focus drift until the circle seems to separate into two side-by-side circles. When they touch each others center, hold this focus and you will recognize the phantom circle, the presence of two circles who's overlapping forms the vesica Pisces symbol (Latin: Bladder of the Fish, also called Mandorla, almond, or yoni). This is an experience of double vision, of the way in which our eyes bring two perspectives into one. We may imagine that the fish, with their eyes very much further apart then our own would have a more intense experience of this double vision.

the fish were dashed. The lakes water level²¹ did not raise as usual in the spring, but lowered until the Column stood only in earth and the fish could no longer inhabit it. For the fish, the reality of their bodies breath could no longer be ignored.

In the lakes revealed state, its bottom exposed, a flurry of activity was under taken. Upon the circles periphery, a second post was driven and its circle drawn, its center crossing the first post. Along the edge of both circles a series of foundation piles,²² three layers deep are driven into the mud providing a stable surface for a thick wall to rise, and dividing the interior of the circles from the water outside.

The walls erected around the circles were extended to the shore, the final form referencing the geometry's of the first figures. For the excavation down to the deepest foundation of the central column, the round walls hold back the water and the earth as well.

In this way an island²³ was constructed, raised from the lake, as an alluring figure, in the way it separated itself from the shore and would hold the theater secrets and submerged below.

21 The water levels of Dow's Lake are controlled by the Rideau Canal locks system. In winter the water level is lowered approximately six feet.

22 Piles are a necessity of this site, as its soil is of the soft swamp which used to reside in the lakes place.

23 Island: that which is isolated and detached, but also surrounded.

Upon the Lake

In Summer, the water levels rise and the building is completed, now only awaiting its audience. Upon the waters surface, reflection of the grassy hill completes the islands profile, forming an almond and the center of the Vesica Pisces. In this reflection, a connection between three worlds is made.²⁴ Here the theaters exterior facade and interior stage geometry is linked; between exterior elevation and interior plan.

The larger audience chamber is secreted below the hill, its rounded bulk gives form to its arching ceiling. The hill is supported by a wooden truss system, its datum resting upon the massive exterior walls on level with the waters surface. The roof of the second chamber is submerged and hidden from view until the water levels lower and its surface becomes a stage for winter performances.²⁵ The chambers ceiling curves downward as the mirror opposite to the larger chamber. Together these ceilings

24 Figure 5: M. C. Escher. *Three Worlds*. 1935.

25 Ottawa's Winterlude Festivities center around the Rideau Canal as the worlds longest skating rink. Dows lake anchors one end of its length and is used for many performances and events.

form a wave.²⁶

Between the two circles, the Column rises high above the water and stage below. The column character, as it rises past the waters surface changes, becoming a tower, a landmark to which the audience approaches as they come upon the site.

From the shore the building appears as an island in the water; or as an actor standing upon a stage; its reflection suggesting some hidden depth of character beyond the water surface.

26 Figure 6: The ceiling wave reflects (at a massive scale) the form of energy, either light sound or heat which is at the core of reflection. It is the wave which plays the active role in reflection. See section drawing.

North: Exterior Stage²⁷

To the lakes North side, the theater presents its most public face. Winter and Summer Festivals inhabit this shore and traffic (both vehicular and pedestrian) is heavy. The Column and Fly tower dominate this view, their presence forming a backdrop and acting as set for the winter stage upon the Auditoriums roof. At the rear of this stage, the column and fly tower act as backdrop and stage set, framing the performance.

27 Figure 7: View from North Shore. (Collage 1:500 model, site photos and sketch)

The North facade of the fly tower is faced in glass, such that Column and curtains housed inside become visible to those outside, especially at night with the direction of lighting. In this way, the interior of the theater is advertised to the outside, and takes an active role in building's exterior and interior theatricality. (Glass must possess ultraviolet resistance to protect the integrity of the fabric within.)

View from East side of the lake presents the full height of the Column, now as a tower which looks out over the water and marks the theaters first entrance. Boaters disembark here, at the edge of the two circles overlap, (marked by the Columns shaft) and move into the interior spaces of the fly tower. They pass the bulk of the Column on their left and descend a few steps such that they stand half below the water level as they move between the curtains and the exterior stage, and above the main stage, which is 10 meters below.²⁹ From this vantage above, they may look through the curtains and enjoy a vision of the stage beyond. The audience below might now look up and see the spectator above silhouetted against the sky.

28 Figure 8: Column Beacon. View from Center of Lake, to the East of the Building. (Collage of Site and model collage)

29 In these experiences, an awareness of the waters surface as a threshold is made. The inhabitants experience the awareness of being above, below and within the surface.

*South: Experimental Farm*³⁰

Walking via the paths of the Experimental Farms Arboretum to the south of the theater, the spectator, encounters a view of the rounded grassy form of the larger audience chamber and the crests of trees peeking above the water datum beside it. At first the hill dominates their view (its bulk animated by a small boat pulled up to its shore and its passengers enjoying the morning sun upon its gentle slope), but as they round the lake, the tree tops gather notice, as they suggest a hidden realm below the waters surface.

30 Figure 9: Experimental Farm. View from South side of lake. (Sketch and collage of 1:500 model and site photos)

*West: Across the Bridge and into the Woods*³¹

The audience is presented with two modes of transgressing the waters surface and descending into the theater. One is scaled to couples and small groups; taking them over the lakes surface to an enclosed stair via a arching wooden bridge. The bridge curves gently in its center, providing in its reflection a almond shape, and privileged view of the lake. Lined on one side by water and on the other by forested valley; one side by surface, the other by absence, the bridge takes the audience from the realm of the city into that of the theater.

Through a gently sloping park which steps down to form a natural amphitheater, the way is populated by willow trees and suitable for both an individuals wandering entrance and the egress of the audience as a one body post performance. In summer, the lobby and cafe doors open wide and the atmosphere of the park space is welcomed into the theater such that the move between above and below, between inside and outside, and between city and theater is gentle and does not draw attention to its movements.

31 Figure10 : Across the Bridge and into the Woods. Graphite and colour pencil drawing.

Acting Column³²

(As narrated by the Column)

I am taken into the actors body image. As a part of their body I am still, but always moving throughout changing distance and perspective. The actors awareness upon and of the stage is now a part of their bodies unconscious awareness.

32 Figure 11: Acting Column. Section.

In the way that you might know to avoid the squeaky board in a familiar floor, the actors have made my body a part of their performance. I have become an acting column. Both as a part of the actors' spacial awareness³³ and as the audience looks upon me to be as a figure upon the stage engaged in perpetuation their illusion.

(as the play progresses)

Echo slips up the column stairs, one hand above the railing. She does not touch it, but knows it is there, as if a magnetic field resonated between her hand and the stone. The column has become a part of her body's awareness, not something requiring conscious thought.

She has been waiting below, held in the body of the foundation, listening to Narcissus speak his folly to the Nymph of the pool. It was not Echo, but her actor, her image, who entered from the practice rooms below. This actor transformed as she moved upwards, every fiber stretched towards the stage. As she rounds the last bend, one half the audience enters her vision and she stops, waiting half above and half below the stage. The audience is above her, all of their focus and attention is upon Narcissus. She takes a moment to survey them before slipping up the final steps.

33 Figure 12: The actors, through practice, take the columns presence into their body's internal spacial logic such that its presence is constantly with them as they act upon the stage. In this way, they do not bump it in the dark, or find themselves upstaged by its presence.

34 Figure 12: Column Section. Graphite and Colour Pencil Drawing.

Towards Narcissus, Echo can construct no direct reply; instead she echoes³⁵ only the last fragments of his sentences; repeating his words in a selective order to reveal the means of his end.

*"No... you are dying... in love with... yourself..."*³⁶

These words, travel through the auditorium, now with a life of their own - their waves meeting its surfaces in both welcome and rejection.³⁷ Those surfaces closest to the stage hold not the voice, but cleverly reflect it back across the stage to the audience on the other side. Echo speaks to one side of the audience, and her voice is reflected back and beyond herself to the other.³⁸

As sound comes to the first portion of the audience, it is reflected further backwards by the chamber walls and ceiling to reach the ears at the rear of the chamber. Made up of stacked round clay tiles, the auditorium walls posses reflective faces and absorptive backs.³⁹ Striking the smooth cool stone of the interior curve of the column, the voice is reflected around to both sides of the audience. As the bodies of the audience absorb sound and limits its transmission, the solid seating tiers are faced in glazed wood, such that sound is reflected around the spectators legs

35 Echoes are created by sound waves hitting a reflective surface and returning back to the listener.

36 Calderon. Echo and Narcissus. Page 105.

37 With respect to the acoustics of the auditorium, some surfaces must be designed in a way to absorb sound, removing it from further travel, and some to reflect it so to help it to reach all of the audience. Materials closest to the stage are designed to direct the reflected sound back beyond the absorptive bodies in the audience to the rear of the chamber. Material at the rear of the auditorium must be absorptive so the audience does not experience an echo.

38 Upon; the curvature of the ceilings, upper edge of the balcony, the Columns interior surface, the auditoriums walls, the base of the seating tiers, and the floor of the stage, sound is redirected from the stage towards the ears at the back of both audiences.

39 Clay tiles half gazed. Their round hollow interiors provide cavity space for improved sound insulation, as well as space for structural reinforcement and utility conduit.

and back across the stage to the other audience.⁴⁰ The balcony facing the Column is faced in reflective material, such that not simply the actors faces, but also their voice is given a second time to the audience. Where the stage floor utilizes reflective light to present the actors, it also reflects sound up to the audience surrounding.

To the surfaces of the rear of the Audience chambers all sound is welcomed and drowned - Completely taken in by thick drapery, porous clay and raw wood ceiling.⁴¹ In these materials the echoes live unfulfilled. Where upon the surface of stone, and glass they bounce into nothing, in the porous and diffuse they are caught - lending mystery and the depth of lingering past performances.

ACT III Scene 2. Pedro Calderon's⁴² "Echo and Narcissus"

Where moments before the scene was set in the clear and bright valley of Arcadia, now the most significant moments began to unfold, the scene where Narcissus meets his reflection. The cheerful valley light is slowly muffled and layers of sheer cloth⁴³ descend to cover the stage to form a thick forest. These curtains, resembling so many long willow⁴⁴ branches brush the floor, gently moving with the air currents and obscuring

40 Acoustical success of the ancient Roman amphitheater, (where performance took place in the round) is attributed to the reflective material (stone) of the tiered seating benches.

41 As sound hits the walls in the further reaches of the auditoriums the tiles lose their glazing and are interspersed with soft curtains such that all surfaces absorb sound and limit

42 Pedro Calderon (1600-1681) was a prolific Spanish playwright and poet of the Golden age. His work, 'Echo y' Narcissus' (1672-74) (Echo and Narcissus) is a mythological play based upon the story of the title characters, and set in the forests surrounding Arcadia. [Calderon, 'Echo y Narcissus' Three Mythological Plays of Calderon, translation; Leon, Pedro: Warden, John. Introduction.]

43 Scrim; a thing which covers or obscures something. In theater a sheer curtain which remains opaque until lit from behind.

44 Stage directions suggest branches surrounding a spring. Willow trees grow naturally at the waters edge, such that their presence may be likely.

the view between the audience chambers. The only light visible is a pale glow of natural light now seeping through the spaces between the curtains above. This mirky haze casts soft shadows upon the floor and the first rows of audience, enveloping all in a sense of deep submersion. It is as though the forest glade resides beneath some hidden pool, with everyone suspended in a new watery reality.

Narcissus wanders with his head drooping, deep in thought through the willows. First to one side of the stages audience and then the other he dances and then pauses at the head of the curtains. Through the curtains, a pale spotlight now marks his figure separate from the branches. Narcissus raises his head and addresses the forest, as embodied in the audience surrounding him.

Where his weaving had obscured the vision of one side of the audience at any given time, now both sides are focused upon him. A palpable intimacy has engulfed the performance. Where in earlier scenes the audience had looked to each other across the stage, finding performance in the human backdrop which was their mirror, now that view is obscured and all attention comes to rest on Narcissus in this most crucial scene.

Next, a spotlight casts down, illuminating Narcissus's figure such that the entire audience can now see him through the curtains, though only the first few rows of audience can see across the stage to their counterparts on the other side.

NARCISSUS "I shall wait beside this enchanting brook. Do I dare to drink the crystal waters of its spring?... O Nymph, of the water... ...do not be offended that I dare approach you."

Narcissus begins to move around the outer edge of the stage, with his

vision always focused upon the willows in center. As he moves the curtains raise and a soft light begins to glow from below revealing a large rectangular depression across the length of the stage centered between the audience. Narcissus moves close to the Columns' base and kneeling upon those bottom steps, leans over the spring.⁴⁵

NARCISSUS "Oh my lucky stars! Whoever saw beauty like the beauty
I see here?"⁴⁶

Narcissus is captivated by love for the beautiful nymph of the spring and does not perceive his reflection, but the image of a beautiful goddess. He leans further and further over the water and observes a world of ice,

45 Figure13: Detail of figure 2. Graphite and colour pencil.

oddly like his own. Willow branches stretch downward and the sky's light glows beyond through the folds of thick curtain.

As Narcissus contemplates himself,⁴⁷ he moves up and down the steps looking for new angles and views to appreciate the Nymph. His gaze never waivers from the pool except to invite us to share in the appreciation of her beauty. At points, using the cables running up the edge of each stair he lengthens himself out across the water and stretches, searching for an entrance to the other world and a more complete vision of the beautiful Nymph.

Back Stage

The actor makes his exit past the columns base, around the stairs and into the welcoming darkness of the wings.⁴⁸ Pausing to return props to their place, he remains a little while to listen to the scene. Leaning against the Columns back, he steals a peak of the audiences reactions through the curtains gap. This actor plays the comic Bato, the character of the play who pokes fun of, but also reveals the illusions. It is not a difficult role for him. Bato feels particularly suited to this role as his own illusions are just beginning to be revealed. He had originally auditioned for the role of Narcissus, but was told he was too old. It was a hard vision for a vain man, but he takes it well, he is a craftsmen, and has found reassurance in the audiences enjoyment tonight.

Bato has now left himself just enough time to slip back to his dressing room before the final scene. He passes into the passage way, which circles the auditorium, held within the thickness of the exterior wall. As he goes, he runs his hand absently along the bumpy clay tile rounds of

47 Calderon. page 92

48 Wings: side area of the stage, out of the audiences view and usually obscured by curtains.

inner wall, in a soft rhythm, feeling his way as much as seeing. Passing offices, quick change rooms, and stairs to the storage and practice rooms below, he makes his way to the main actors rooms. These are held below the upper audience of the larger chamber, the inverted form of their rows informing the ceiling. Though below the water and earth, the dressing room is flooded in soft natural light, reflected down by a large white faced shaft along the exterior walls edge. Below this light Bato sits and observes his reflection.

Mr. and Mrs. Patron

Both Mr. and Mrs. Patron agreed, Bato's performance was the highlight of the show, thus far. Though Narcissus and Echo had presented several breath taking scenes, seeming to combine their words and movement effortlessly, Bato provided a much needed grounding to what could have been a overly visual and naive performance.

Their review took place while seated in the courtyard outside the bar. The trees glowing above them, illuminated by the light from the lobby, they sat on the steps leading up to the city, looking back down upon the building and lobby before them. It was a cozy feeling, the light and sounds of their fellow audience members drifting out through the large open doors of the cafe and lobby in a way presenting a beautiful spectacle, pulsating with energy and excitement. The moss covered

wall⁴⁹ to their right glistened, the lakes water slowly and continually seeping through and lending its reflection. In this space below the lake, they felt themselves belonging to another world.

The lights pulsed, one two three, and the audience began to make their return to their seats, one five minutes remaining of intermission. Mrs. Patron made her way to the ladies rooms, leaving Mr. to return to his seat and enjoy the spectacle of the returning audience as they move across the stage and up to their seats. Held in the thickness of the exterior wall, above the actors rooms the washrooms are positioned. As their entrance is marked by the shared light shaft which continues on below to the actors dressing rooms, their place glows warmly around the curvature of the rounded passage. Upon returning, the curtains are already drawn down around the auditorium entrances. She pauses a moment, slowly slipping a glance through to ensure that she may pass quietly unnoticed to her seat. For once she is pleased to have purchased seats in the less costly areas of the auditorium. Settling into her seat, she inhabits again the illusion before her.

49 Figure: 14: Wall detail. Clay tiles with half glazing. Interior pockets provide cavity space for improved insulation of sound, as well as space for structural reinforcement and utility conduit.

Finis

The last scene lingers, Echo has risen, becoming bodiless and Narcissus remains dimly visible upon the stage, though now as a flower, the Narcissus.⁵⁰ The audience is poised in the final moments of the illusion - their attention held still. As the lights slowly rise, they return to their body's, trying to fix to memory and hold the impression of the actors influence. Thoughts will soon return to their normal patterns, but for the last few moments the spell holds.

50 Figure 15: The Narcissus is often found close to water and grows with its head bent downward.

Insert pg, 31 **Figure 16:** Fold Out Four Section Panel:

1. Reflected Ceiling Plan and Narcissus. 2. Mirrored Interior Sections and stage plan. 3. Courtyard and entrance areas. 4. Shore and City Context.

1. THE SPECTRAL

"Water was mans first mirror.⁵¹ It was an inconvenient mirror - man saw himself against the sky and against the light. So, since he couldn't take the water and hang it on the wall, he had to invent the mirror to look at himself."⁵²

Saul Steinburg. Reflections and Shadows.

51 Figure 17: Willow Branch Reflections. Dows Lake, Ottawa. August. 2007.

52 Saul Steinberg. "Reflections and Shadows" pg. 75

Reflection⁵³ has fascinated since our beginnings, when early man looked upon his image in the water or upon some shiny piece and saw in it the power to show him his spectral⁵⁴ double, his soul.⁵⁵ In this phantom form a promise of immortality and also a reminder of his eventual bodily demise was present, giving rise to the many myths, legends and superstitions surrounding the mirror and the mirrors images.⁵⁶ For the purposes of this work, only a select few of these will be explored in depth, chosen as they relate to the project at hand. In the awareness of the material body's possession of an intangible twin, we gain access to a way of placing ourselves in the external world which is based upon our reflected presence in it.

Though constructed through our vision, reflection holds a place of relative invisibility. In many cases mirrors seem hardly to exist,⁵⁷ not simply in the illusive nature of their images,

53 Reflection as the throwing back by a body or surface of light, heat, or sound without absorbing it. A mirrors surface. A serious thought. A thing that is a consequence from or arises from something else. From latin Reflex - "bent back"

54 Spectral: Of, relating to, or having the properties of a mirror. From Latin Specere, to look.

55 Benjamin Goldburg Mirror and Man. pg. 3.

56 Goldburg. pg. 6.

57 Figure 18: "Narcissus." Caravaggio. 1597-1599

The early Greeks believed that the water spirits dwelling in springs had the power to drag an individuals reflection below the surface, leaving him soulless to die. It is probable that the myth of Narcissus derived from this superstition.

but in their common presence, so prevalent that it easily goes unrecognized. This was not always the case, as until recently, the mirror has been an extremely rare and costly item.⁵⁸

Contemporary daily dressing rituals revolve around the use of the mirror,⁵⁹ and dictate extreme awareness of personal appearance not considered before the mirror became a fixture.⁶⁰ Reflection may become a source of heightened self awareness, but this significance is made less dramatic through its commonality. In our adopted reliance of the mirror, it takes a place of invisibility in our consciousness.

Mirrors used in contemporary buildings are for the most part used invisibly. As they are utilized primarily for the illusionary spaces they construct and as their use is so deeply imbedded in our social and cultural patterns, their presence easily goes unnoticed. Where mirrors were once prized possessions, it is now their image which diverts our attention, if

58 Goldberg. Mirror and Man page 26-32.

Egyptian nobility possessed small hand mirrors of stone, metal and even of black glass. Their elaborate cosmetic rituals depended on these mirrors, a relationship which continues in much the same way today, though no longer for nobility only.

Until the mid 17th century large mirrors were still very much restricted to the wealthy, and during the Renaissance and into the 17th century the possession of a mirror divided the classes as an ultimate expression of wealth, power and fashion. The Venetian had been exporting glass since before the 10th century, with demand increasing through the centuries with advancements in technology. In 1460, a craftsman of Murano invented clear "crystal" glass and in 1507 mirror foiling (tin amalgum process) was combined with it to produce a mirror similar to today's. The Venetian continued their monopoly until the mid 16th century when France, tired of paying for its huge appetite in mirror undertook to steal their secrets and begin making their own glass. Their attempt was successful, and the court of France was furnished with more mirror then ever before. In 1673 the method of casting glass as flat plates was invented and where blown glass was limited in size and clarity, now much larger, perfect glass mirrors was possible, with far less effort. Previously all glass was made by glass blowers, such that the rounded form had to be cut, flattened and then polished in a long process. With this advance technologies in glass making the mirror became available to the middle classes and its power and aura of social privilege slowly faded. [See also Sabine Melchior-Bonnet. The Mirror: A History]

59 Goldberg. page 170.

Since the early Egyptians used the mirror to apply their makeup and the Nobility of the 16th Century kept a mirror at their toilet mirrors have taken a place in daily dressing rituals.

60 Gregory Richard Mirror in Mind. In most washrooms a mirrors absence is now of far greater notice then its presence.

we notice them at all.

Our use of reflection is so invasive, that even in its absence we attempt to use its rules to explain discrepancy in the repetitious or surreal image. René Magritte's 1937 painting entitled 'Not to be reproduced'⁶¹ challenges these preconceptions. Upon first glance, one seeks to explain its inconsistencies by the mirror, but we must quickly rule this out as the man's back is repeated in the reflection - an impossible feat. We all comprehend that reflection may convert the left to the right, but it is not capable of looking behind the subject. The second hypothesis is that the gold frame simply marks an open window revealing perfect double to the first, but again Magritte counters this solution with the reflection of the book on the mantle. We must accept that we are witnessing a degree of reality beyond that of reflection. Where the perspective of the mirror is a second degree reality,⁶² Magritte's painting presents a second or third degree beyond.

In the reflective image we are given insight into ourselves. In no other way is such perspective

61 Figure 19: "Not to be reproduced"
René Magritte (1937)

62 Steinberg, Saul *Reflections and Shadows* pg. 82. See also further degrees of reality. Throw a stone into the reflection, and almost expect reality to ripple with it.

possible, as it allows a view upon self unique to our own vision. From the photograph or video we are given self images, but these are static and are translated through another medium before our vision constructs them. Personal perspective makes the reflection one's own, while a static image is but a public copy, open for general interpretation. Reflection is one's own not simply as it references the bodies form, but as it is seen through vision. If you look only at reflection, and not at the reflecting part, you see a gratuitous reality exists for you alone.⁶³

In this way, reflection is a threshold into a realm of illusion and perception. Into a realm our bodies enjoy through our vision and imagination. It is a place of self construction, where the experience of reality, through the illusion of reflection can shape the body perception of itself.

63 Saul Steinberg Reflections and Shadows. pg. 75

2. Speciality of the Body

Through reflection, an opportunity for the body to inhabit illusion is presented. In the image reflected, our body enjoys a specialty separate from the material body. The reflected body is separate from, but informs the material self. In the space of the mirror, the body's internal specialty inhabits the illusion, and by its connection to the reality of the material body gives to it a taste of the illusion. This internal spacial logic is comprised of the body schema and body Image. These are those / neutral, unconscious (body schema) and explicit, conscious (body image) mental representations of the body and bodily functions.⁶⁴

Body Schema

The spatiality of the body, or body schema, is that “total awareness of [one's] posture in the intercessory world...”⁶⁵ which gives position to one's limbs in relation to the framework of the body, and to the body's spacial manifestation through its action. One's body is poised to situate itself in the dynamic world, and as such, the position of the body is always held with respect to the situation at hand. As the actions and intentions of the body shift, the body schema facilitates continued perception of position and anchors the body in its current situation. The body schema gives the body possession over its parts and envelopes the limbs not as some dissociated spectator, but as intrinsically connected to the origin of its perception.

64 Maxim I. Stamenov “Body schema, body image, and mirror neurons” Body Image and Body Schema page 21

Penfield and Boldrey's anthropomorphic image titled ‘the sensory and motor homunculus’ illustrates the way the body schema is implemented in the brain.

65 Maurice Merleau-Ponty Phenomenology of Perception. Page 114

Merleau-Ponty discards old notions of the body schema as “a compendium of our body experience” translated through visual stimulus into “kinesthetic and articular impressions of the moment”. Instead Merleau-Ponty proposes a new definition of body Schema as the “total awareness of my posture in the intersensory world”.

Van Bunder and Van de Vijver. Body Image and Body Schema.

Body Image is a conscious representation of the body appearance made up of perceptive, cognitive and emotional representations. Body Schema relates to the unconscious representations governing the bodies posture and movement. “The Body image relates to the capacity to move, the body image to the capacity to reflect”

At a primordial level, perception⁶⁶ anchors the body in the world, and situates the world in its position, to be perceived.⁶⁷ As opposed to traditional notions of cartesian space, the body's space may be viewed as a system of unification originating in its internal spatial relations. This is not an abstract arrangement of parts or an ether where objects float, it is the underlying power giving to things their position.⁶⁸ While external spatial systems locate objects with respect to other objects in a pattern of side by side relations⁶⁹, the space of the body is comprised with its parts interrelated in a very different way. For one's body the limbs are not assembled in any abstract juxtaposition, but rather envelope each other, such that a complete possession and knowledge of their position is understood.⁷⁰

My body moves with me through the world, allowing me to vary
my perspective upon objects in the world.⁷¹

External spatiality does not spread its logic past the boundary of our skin and into the body, because one's own body can not be external to itself. The body, unlike an object, can not be divorced or moved away from our perception. The body is the contextual organ for our spatial understanding. It is neither visible nor touchable in the way of an object because it is that which sees and touches.⁷²

66 Perception; the process, state, or ability of awareness through the senses.

67 Merleau-Ponty " " page 293

"Everything throws us back on to the Organic relations between the subject and space, to that gearing of the subject onto his world which is the origin of space."

68 Merleau-Ponty page 284

69 Merleau-Ponty page 112

70 Merleau-Ponty page 112

71 Merleau-Ponty. page 104

"...I observe external objects with my body, I handle them, examine them, walk around them, but my body is a thing which I do not observe..."

72 Merleau-Ponty. " " page 105

Shaping Body Schema

Though perception must originate from the body schema, it is not some rigid, inflexible understanding. Rather the bodies perception of its space maybe shaped by external stimulus, guided by our motivation to inhabit the world. The following experiments demonstrate the influence of external space upon our body schema in three distinct ways. Each study shows how our perception of reality maybe altered, such that the body schema must reshape itself to help the body inhabit its world. Specifically these examples apply the illusion of reflection in ways that either distort or reinforce the bodies internal spacial representations.

Case Study in Retinal Inversion

The subject of retinal inversion presents an example where the body's spatial logic is confronted by the altered perception of space inverted and alters its orientation in response. The subject is fitted with glasses to invert 'natural' retinal inversion⁷³, such that perception of up and down is reversed, with the effect of their entire landscape to appear inverted.⁷⁴ Over the course of a week, the subject gradually becomes accustomed to their new perspective, to the extent that they perceive a "horizon with a general orientation corresponding to their own".⁷⁵

While the visual world has been inverted, the tactile sensations of the body remain right way up, and the subject is confronted with two conflicting representations. The old orientation fades as the active relationship between the visual representation and the tactile body establishes a new orientation. The experience of movement guided by sight creates a harmony between the visual and tactile data which allows the subject to inhabit

73 As the retina receives light from the eyes lens in images inverted to their position in the world. It is the bodies spacial logic which inverts these images such that we can orient ourselves in the world.

74 Merleau-Ponty. page 285

For the experiment of retinal inversion the subject is fitted with an glasses which invert their 'normal' (naturally inverted) vision.

75 Merleau-Ponty Phenomenology of Perception page 285

the new situation.⁷⁶

While it is clear that direction and orientation can only exist for the subject who takes them, the subject must be rooted in an ‘absolute here’⁷⁷ or starting point before any spacial determination has significance. It is the body’s active stance, or motivation toward its purpose (as inhabiting the world) which provides its anchorage in the world. For the subject of retinal inversion, the subjects reorientation necessitates interactive experience, gathered from an anchored body schema to facilitate a gearing to the reoriented spacial logic.

Case Study of the Slanted Mirror

In the case of the slanted mirror, the subject views a room through a mirror angled at 45°. After a few moments of inspection, the titled image suddenly ‘rights’ itself.⁷⁸ The subject’s perception of their own orientation adjusts to the extent that they feel that they could inhabit the reflection.⁷⁹

The subject carries a perception of a certain spacial level, which held against the slanted

76 Merleau-Ponty “ ” page 286

The subject who engages in normal actives takes the visual data of these movements and translates them into their previous spacial orientation until the actions become habitual. In these habitual actions, stable associations are formed which gradually replace the former orientation with the new.

77 Merleau-Ponty “ ” page 115

“The word ‘here’ applied to my body does not refer to a determinate position in relation to other positions or to external coordinates, but the laying down of the first coordinates, the anchoring of the active body in an object, the situation of the body in face of its tasks.”

This absolute position is given anchorage through their active position in the situation of the world. As is the case of the retinal inversion, where movement and actions greatly improved the subject’s ability to orient himself in the inverted situation.

78 Merleau-Ponty “ ” page 289

At first the subject at first sees the room, and himself in it, as slanted and incorrect, but after a few minutes viewing, the spectral room suddenly rights itself to appears correctly vertical.

79 Merleau-Ponty page 291

After a few minutes, provided that he does not strengthen his initial anchorage by glancing away from the mirror, the reflected room miraculously “calls up a subject capable of living in it.”

reflection, makes apparent its tilted level.⁸⁰ This spatial level also serves to 'right' the slantedness, acting as the standard, in which objects such as door, wall and the subjects own body provide comparison. As cardinal points these elements serve to anchor the spectacle and reestablish the perception of normal. While the visual field can impose an orientation which is not of, or originating from the body, the body plays a crucial role in establishing a normal spacial level.

The body's position is located and anchored with respect to the situation at hand.⁸¹ In this way, the body inhabits its world. The subject is anchored in the spectacle and inhabits it to the extent that the virtual body 'ousts' the real body and the subject feels they have the slanted body needed to inhabit the reflected room.⁸² The virtual body is not divided or separate from the real body, but is simply an internalized visual representation of the real body.

As in the case of retinal inversion, where the subject made use of movement as the standards in which to reconcile their new orientation, the virtual body is a visual standard which, when applied to the external situation adjusts to facilitate the bodies experience in the new space. However, in the case of the slanted mirror reorientation is instantaneous. Where the first example augments how one perceives, the second distorts what one perceives.

80 Merleau-Ponty " " page 290

These standards become cardinal points, anchoring the spectacle reestablishing the perception of a normal level.

81 Merleau-Ponty " " page 291

"What counts for the orientation of the spectacle is not my body as it in fact is, as a thing in objective space, but as a system of possible actions, a virtual body with its phenomenal 'place' defined by its task and situation"

82 Merleau-Ponty " " page 291

Body Schema may be elucidated with the phantom limb when instead of being defined as "the residue of habitual cenesthesia, becomes the law of its constitution".

"It is then, a certain possession of the world by my body, a certain gearing of my body to the world."

Phantom Limb

For cases of body dysmorphia, the body schema or body image is rigid and unable to reconcile its internal representations with the reality of its body in the world. For the subject suffering from dysmorphia of body schema,⁸³ the conscious and unconscious internal representation of their body contradicts the reality of their actual body and its situation in the external world. This is the case for those individuals, who after the loss of a limb, experience pain in its absence. The victim of phantom limb is a prisoner of its established body schema.⁸⁴ The subject suffering from the dysmorphic perception of a phantom limb is caught in a misperception of their body where the absent limb is perceived as present. With limb amputation, the patients previous objective reality lies in ruins,⁸⁵ and instead of facing this condition and establishing a new bodily perception, the patient disregards their objective world and “seeks symbolic satisfaction”⁸⁶ in a private illusion. The patients experience of a phantom limb is not a representation of any limb, but the ambivalent presence of their own arm of the past. In this way the limb of the past is held prisoner in the present and is engaged in a haunting of the body.

For the phantom limb victim, the body schema can not adjust to its new amputated state, the mirror presents an illusion for our perception such that the schema is tricked. Through

83 Dysmorphic as the abnormality in size or shape of a body part.

84 Merleau-Ponty. Page 114

85 Merleau-Ponty. Page 99

“The ruin of the objective world, abandonment of true action, flight into a self contained realm are conditions favoring the illusion of those who have lost a limb...”

86 Merleau-Ponty page 99.

mirror therapy the patients pain may be reduced.⁸⁷ This therapy makes visual the illusion of the phantom limb, allowing the body to inhabit its spectacle and construct a bodily space in harmony with the fact of the amputation⁸⁸ The affliction gives movement and being to the illusion in a visually real and more objective way then the phantom.

A similar therapy is also used to treat the dysmorphic body image⁸⁹ of the anorexic who after spending progressively longer sessions gazing at their body in the mirror are able to reconcile this visual image with that misshapen one within.⁹⁰ The anorexic inhabits the reflection and ousts the older unhealthy representation.

For cases of body dysmorphia, the body schema or body image is rigid and has difficulty reconciling its specialty the reality the body in the world. All three case studies demonstrate the capacity of external experience to reshape perception. The case studies also establish reflection as an effective instrument in the formation of the bodies internal spacial logic.

87 Figure 20: Mirror Box Therapy.

The treatment involves the use of a mirrored box and has proved to be highly successful, especially in cases where the amputation is recent or where pain was not associated with the arm prior to amputation. The box is divided by a mirror into two compartments. In the side containing the mirror face the patient places their intact arm and as they look at this reflection they imagine it be their phantom limb. Through a series of daily exercises the patients pain gradually decreases. While for most cases the subject still feels the presence of the phantom arm, it no longer causes them pain, and as such the patient is given the ability to direct their purpose to other causes; to allow other limbs to lead their interest.

88 Merleau-Ponty. Page 79

“...to look at an object is to inhabit it, and from this inhabitation to grasp all things in terms of the aspect which they present to it. But in so far as I see those things too, they remain abodes open to my gaze, and, being potentially lodged in them, I already perceive from various angles the central object of my present vision. Thus every object is a mirror for all others.”

89 Gregory Richards. Mirror in Mind

90 Body image as the conscious representation of the body in the mind.

Introducing the Building

For the purposes of this paper, the relationship between body schema and the building will be discussed in two ways: 1. As the building is a part of the space external to the body, which through experience engages the body schema and as the building may itself be imagined to possess the anthropomorphic characteristics of its own internal speciality - a building schema and building image.

*"Just as we think architecture through our bodies, we think our bodies through architecture"*⁹¹

As we construct our built world, and perceiving it through the filter of our body's spatial logic, that spatiality is in turn guided by our experience of the building. In this reciprocal relationship the building and the body are locked in each others gaze, each responsible for the other. In this way, the healthful body (as both real body and virtual body) may positively impact the buildings character, and the healthful building has the potential to inform and shape the body.

Building Schema

The designer is most successful if they can get 'inside' their building before its construction. If they can inhabit the conceptual design, and in a way give to the building their own bodies spatiality. At the end of this process, the resulting building has been conceived as a body, with an organization which functions in a similar fashion.

The building designed as a object, is laid out in a purely pragmatic organization, without consideration of any meaningful inhabitation or response to the existing situation of its context. This variety of architecture is of the common type, designed and built without careful thought and relying entirely on the inhabitants to provide meaning. Buildings of this variety are not lacking a 'body schema' but rather are possessed by a dysmorphic spatiality.

91 Marco Frascari Monsters of Architecture page 1.

In designing the specific elements of a buildings design, the architect is motivated, with the other aspects of design consideration present only through their relationship to the design at hand. As the focus changes to the design of other aspects of the building, those past focuses are still held, but as in relation to the new design priorities. In the way that the body schema orients its focus around its current action in the world, the design of the building does also. As a result, the building possesses a spacial logic beyond that of linear proximity's. Their are invisible relationships which make up a spacial structure similar to the bodies. Through a considered design approach, the designer gives to the building the spacial logic of their body.

Like one's body, the Building's space is held within the outline of its exterior walls. The building possesses itself and holds a 'building logic' which envelopes its parts. For the building to take on these characteristics, we must imagine that it possesses a body and with it those internal spacial orders of the body. The Building, like one's Body, can never observe itself in the act of facing the world.

A building which holds self possession over its posture in the world is in control of its various parts and is able to situate their position within its framework with respect to a task at hand. Like the subject of retinal inversion, the building responds to its external world through its purpose to act in it. In this way, the building has a presence, through those absent spacial logic, which give it meaning.

Reflective Building

For the body, a building is generally belonging to exterior space, but with imagination, as for the actor who slips into the 'great phantom'⁹² we can inhabit the building, take on its orientation and situation and see in it a reflection of one's own internal spatiality and characteristics.

"Seen as a mirror, the building appears before the human body that looks at it and simultaneously

92 Merleau-Ponty page 120.

sees itself in it."⁹³

The building is a mirror for my body, and my body a mirror for the building. The building stands as a situation for the spacial engagement of the body; The logic of the bodies space when applied to the building have the potential to give it meaning. The building described as a mirror stands before our bodies, and informs their spatial logic in they way it reflects back to us our experiences as they inhabiting it.

93 Perez Oyarzun The mirror and the Cloak. Any Body page 220.

3. Theater of Illusion

With imagination, as for the actor who slips into the 'great phantom'⁹⁴ one can inhabit the constructed illusion, taking on its orientation and situation.⁹⁵ In the case studies involving the use of reflection to augment the perception of space, the accepted illusion actively augments the bodies mode of inhabiting the building. This section will introduce the theater as a reflective medium, which as a constructor of illusion may augment the relationship between the visible and invisible specialities of the body. It is to the theater, that one actively goes to suspend their perception of reality and seek immersion in a reflective illusion.

Between Actor and Audience

It is for the craftsmen of the performance to observe the world and project its reflection in a way which is palatable for the audience.⁹⁶ In this way the audience may feel themselves a part of the performance as they view their reflection in the actors figure. It is for the audience to escape into the scene, to place themselves within the actors character and thus enjoy the performance as actors in it. Through the filter of the staged spectacle the audience may commit murder, attempt seduction and may become both hero and villain. On the stage these potentials are played out, and enjoyed because they relieve us of their burden in real life.⁹⁷

94 Merleau Ponty. Page 120

95 Merleau Ponty. Page 118

96 Denis Diderot, Paradox on Acting page 122

"In the great comedy, the comedy of the world, to which I always come back, all the passionate soul's are on the stage, and all the men of genius in the pit. The former are called madmen; the latter, who are busy taking notes of the madmen's follies, are called wise men. It is the wise men's eye that seizes upon the flaw in all these various characters, depicts it, and makes you laugh both at the tiresome eccentrics who's victim you have been and at yourself."

97 Diderot Paradox on Acting pg. 121

The reflective actor is a craftsmen of the human portrait; one who takes inspiration from his subject and through his skill of expression, communicating that truth back to the world. The skilled actor works through “reflection[;] from a study of human nature, from constant imitation of some ideal model, from imagination, [and] from memory” to give uniform performances of quality.”⁹⁸ Where the reflective actor constantly replenishes their energy through study, the emotional actor always depends upon their own resources and risks depletion.⁹⁹ The reflective actor easily slips their real body into “the great phantom of the character to be played”¹⁰⁰

In the spectacle of the performance, the audience is engaged in watching a depiction of themselves, mirrored back through the skilled craft of those creators of the illusion. It is not simply the performances which endeavor to observe the world and present a work which mirrors it, the audience must also willing grasp this image and project their own selves (or virtual bodies) into it.

Theater Design:¹⁰¹

It is the role of the theater to craft an spectator experience which is easily grasped and enjoyed. In the construction of the performance, the actor and the building must work together to craft a successful illusion. Like the subjects inhabitation of the slanted room, the audience inhabits both the real spaces presented in the theater building and the illusionary spaces upon the stage.

The theater proposed by this project looks to the design precedent of Andrea Palladio’s Teatro Olimpico and attempts to construct a reflective illusion through the theaters staging, in its position within the landscape, and as it is designed anthropomorphically.

⁹⁸ Denis Diderot. Paradox on Acting. page 119

⁹⁹ Denis Diderot. Paradox on Acting. page 119

¹⁰⁰ Merleau Ponty. Page 120
The actor does not “...mistake imaginary situations for reality, but extricate their real bodies from the living situation...” making it “...breathe, speak and, if need be, weep in the realm of imagination.”

¹⁰¹ Refer to narrative descriptions of the theater project in the first section of this text.

Interior Staging

The theater design of this project will possess a stage which sits between double audience chambers which face each other across the stage.¹⁰² In this relationship one side of the audience is mirrored in the other with the threshold of illusion (the stage) between their vision.¹⁰³ As formed by two overlapping circles, the stage area in the center is the geometrical symbol, the vesica piscis.¹⁰⁴

For the audience to take an active part in the actors construction of the illusion, there must be a level of close physical proximity and a sense intimacy in the space.¹⁰⁵ The audience must be able to see the actors facial expressions and hear their worlds without the aid of electronic assistance. To this end, the scale of the theater is restricted (design includes 500

102 Figure 21: Transverse Stage Form and Vesica Piscis geometry.

103 Iain Mackintosh. Architecture, Actor and Audience.

Like the theater entirely in the round, the transverse stage design is considered most successful for performances of dance, music, and drama which do not rely on a backdrop or fixed set. The thrust stage provides a similar immersive experience, the audience surrounding three sides of the stage, but with the addition of a orientation in the 4th wall to anchor stage set and the audiences view. At the most extreme is the proscenium stage which entirely separates the audience and stage by a frame. For the purposes of this project the intimacy of the enclosed stage was desired, but with the double orientation lacking in the round and thrust formats. The transverse format takes both the focused direction of gaze found in the proscenium theater experience and the intimacy of theater in the round.

104 Mackintosh. page 144.

Thought the positioning between the audience and stage enjoys many variations, the use of ad quadratum geometry is common in many theater designs and illustrates the focus upon the "magical area called vesica piscis, where the worlds of the actor and audience interconnect."

105 Mackintosh. page 123.

Seats which are overly comfortable, with deep cushions and high backs give a sense of personal private experience which limits the individual's ability to engage in the spectacle. Instead bench seating contributes towards a collective experience and helps to thrust the spectator into the illusion.

seats), with steeply raked seating steps surrounding the stage and providing an intimate experience both of the action upon the stage and in the collective experience of the crowd sharing the rows.

Design Influence

Andrea Palladio's Teatro Olimpico,¹⁰⁶ of Vicenza, Italy creates a reflective relationship between its audience and stage unique to theater design. This theater is chosen as precedent by virtue of the sense of engulfing intimacy its unusual form evokes. The audience chamber forms a half circle of steeply raked seating, their angle mirroring the angles of the constructed perspective beyond the stage. In these perspectives the Seven streets of Thebes are shown and above them statues of the classical Gods and patrons. In this way, both through sectional geometry and also the characters of the statues, the audience sees beyond the actors there reflection across the stage. In the patron statues and constructed perspectives upon the stage, the audience is presented with a reflection

106 Figure 22: Teatro Olimpico, Vicenza, Italy. March 2008.

of themselves and given a illusion to inhabit.¹⁰⁷

As the audience is situated adjacent to the stage, they face their fellow audience members across the stage - in a semi traverse format.¹⁰⁸ Like the actor who must know themselves thoroughly before they may project themselves into their role, the theater must be grounded in its specific capacities. The body of the Teatro Olimpico is fixed not only in its orientation, (here is a farthest removal from the infamous black box theater) but as the stage set is permanent and utilized for every performance. In this way, the theater possesses its capacity; and from this solid stance move outward to construct the staged illusion. The theater proposed in Dow's Lake shares this specificity as its set is not intended to change beyond the augmentation of curtains and changes in lighting.

Inaugural Play:

The inaugural play for the theater project is Pedro Calderon's 'Eco y' Narcisco', chosen as its story examines notions of the self awareness, and reflection. The production tells the

107 Figure 23: Teatro Olimpico and Dow's Lake theater Sections.

108 Figure 24: Section of the Teatro Olimpico.

story of Narcissus,¹⁰⁹ and his extreme lack of self awareness, as he falls in love with his own, unrecognized reflection. 'Eco y' Narcisco' seeks to explore "...the nature of action in the world of Illusion."¹¹⁰

'Eco y Narcisco' was intended as a mythological drama of the *comedia mitologica* type which mingles myth with music and dance to create a form of drama close to the *zarzuela*, a popular form of Spanish musical comedy. Calderon's mythological plays were spectacles in the realm of today's Las Vegas musical; extravaganzas of illusion and pageantry. Though the courtly production of this piece would have relied on spectacular sets, its staging for the common people was much simpler. It is towards this intention that the proposed theater is motivated. As the play is constructed in only two landscapes and each are mentioned in the dialog, (the wild forest and the cultivated valley of Arcadia) the story does not rely on changes of elaborate setting to communicate its location. The dialog is mostly confrontational (between 2 characters) and mostly descriptive and poetic in nature, such that a small theater and simple setting aid its depiction, both visually (in following the actors expressions) and acoustically in hearing the actors voices and feeling the music surrounding the space.

The traverse stage suited to this work as its two side edges provide the double setting contexts required; the wild forest and the cultivated valley of arcadia. The Column represents the forested side, its base forming the cave of Narcissus's birth, its girth a tree of the forest, its steps a variation in altitude towards the mountains and beside it the depression in the stage which represents the water of Narcissus's reflection. Opposite the column is the audience entrance to the auditorium which leads directly to the city above. This side represents Arcadia, with its characters entering from below the balcony boxes of the most privileged house seats. It is above this area that the counter weights of the curtain system hang.

109 The myth of Narcissus tells a story of a beautiful young man who falls in love with his own reflection, mistaking it for a beautiful woman. This myth is one of the oldest dealing with reflection and has made a lasting impact on psychology and psychoanalysis as the definition for extreme vanity and conceit, but more significantly lack of self awareness.

110 Cascardi 132.

"[T]he problem for his [Calderon's] mythological characters is not simply to overcome prophecies but... to recognize illusion and then to find appropriate modes of action."

In responding to one set of design challenges, other productions in the future are given a backdrop from which to spring. The choice of production has a part in forming the context of the theaters design.¹¹¹ It is not only insurance that the foreseeable logistics of production are solved, but also that in the design towards a specific production, the building is given a character to inhabit its body in the future.

Lighting Narcissus:

Lighting is an essential component to the construction of the theatrical illusion. In the contrast of light against shadow, the action of the stage is illuminated and hidden to form the illusion. The perception of a scene - as cloaked in mystery - is given by the obscurity of shadow contrasted against the clarity of the lit object. Great control of light both natural and artificial light is necessary, especially in the double audience format.¹¹² The stage between double audiences is faced with the challenge of illuminating the actors while avoiding blinding either side of the audience.¹¹³ Lighting must be directed specifically upon the stage area, without spilling directly to the audiences eyes. This may be solved by lighting sharply angled above the stage, but this causes unflattering shadows obscuring the face. Here the reflective floor rescues the light from above, diffusely reflecting it back up to the actors face. Lighting in the form of lanterns upon the sides of the stage, natural lighting from above, and lighting in the hydraulic floor below the stage, provide specialized lighting alternatives as needed.

111 Fernando Rigon, *The Teatro Olimpico in Vicenza*. page 49.

Design towards the consideration of a inaugural theatrical piece is a practice not without precedence. Peladio's Teatro Olimpico of Vichenza was designed to facilitate the performance of a single work, 'Oedipus Rex'.

112 Natural light enters from the fly tower above, allowing and in the case of the design is facilitated by curtains and hidden lighting systems above in the fly tower, lighting to illuminate the actors faces on and opposite to the Column, and lighting, and lighting coming from below the adjustable floor.

113 Where traditional theaters may employ lighting from the rear of the auditorium or the foot of the stage to illuminate the actor without distorting shadows, this type of lighting relies on a rear wall to catch and diffuse the light coming from a low angle over the audiences heads.

Echo:

Acoustics in the double facing audiences provides a further challenge. Where the actor must bow to Narcissus, (in presenting their face fairly to both sides of the audience) Echo also must play her part, allowing the voice which is directed towards one audience to move to the rear of the space and also back across the stage to the other audience. If the time between the original sound and reflection is too large, the echo, or reflection of the sound will be perceptible and cause a muffling of clarity. In controlling the reflection of sound, the areas closest to the stage must be of selective and carefully oriented reflective materials and those at the rear of the auditorium absorptive. Sound is reflected upon the curvature of the ceilings (treated wood), the upper edge of the balcony (treated wood), the Columns interior stone surface, the auditoriums walls (glazed clay tiles), the base of the seating tiers (treated wood), and the floor of the stage (treated wood). Materials towards the rear spaces of the auditorium are made up of, unglazed clay tile, heavy curtains, and untreated wood detailing.¹¹⁴

Two: Theater and its Setting

The building, as it resides in its city, is a reflection of that context. The threshold between the reality of the greater city, and the buildings must facilitate the perception of a transition between those distinct realities; the reality of the city as grounding that of the illusionary theater. For the Theater project, sited in Dows Lake these thresholds are facilitated by the waters presence which surrounds the building and lends to it the mystery of an island. The Teatro Olimpico hides its spectacular interior in a unassuming facade, and its location is held a little apart from the city¹¹⁵ In this way, it becomes an island, a place held apart from the reality of the city such that the fantastic illusions constructed within are given space to breath.

The theater proposed for Dows Lake is situated between two worlds (above the water and

¹¹⁴ See 'echo echo' in narrative section of this work.

¹¹⁵ The theater is located at the end of the main street, such that one moves through the city, seemingly on a path to its threshold.

below) occupying the creative space which resides between. The building straddles the two worlds, such that at any moment, only one half may be experienced and one imagined.

As a whole, the building rests in the lake, like a body in the world, its posture focuses towards its interior illusion upon the stage, and outwardly in the way it presents itself to the world. As Narcissus, the building leans over the lake, its gaze focused inwardly towards the space of the stage it holds. Narcissus guides the gaze between the facing audiences, and as Echo, the theater building at time disintegrates, its body held in place, forgotten by its inhabitants as they are wrapped in the illusion constructed upon the stage.

Three: Building Character

"The intensification of [a] scenic quality of architecture, in which architectonic elements assume the quality of characters, enables us to imagine the fiction of an architecture which inhabits itself."¹¹⁶

As the theater building may be imagined to possess the spatial characteristics of the body, in its whole and in its parts it may be endowed with the bodies specialities. These characters direct the design, and give to the building their own spatial ordering and position, which remains invisibly part of the building after the character is forgotten.

The column upon the stage becomes a character, both actor and spectator in the building. As the Column is a figure on the stage, she is perceived by the audience to take part in the production. As the Column becomes a part of the actors body awareness, she takes on the actors specialty and moves with them before the audience. As a spectator, the column observes the actors upon the stage.

The theater building, is a spectator of life, people, emotion, humanity, and reflects this through the staging of its performance. The audience is then observing a reflection of themselves, and is constructed by the theatrical motivation to present a believable spectacle. In the staged illusion the spectator takes up and inhabits the actors character

116 Perez Oyarzun The mirror and the Cloak. Any Body page 220.

and situations such that they enact that reality as it were real. In returning to their real bodies a memory of that experience is carried acts upon the virtual body as it instructs our inhabitation of the world.

Conclusion:

Reflection is at its most fascinating when it confuses our perception of the real and the virtual, such that we must reshape our internal body space in order to inhabit the illusion. Belonging to the realm of potential, reflection possesses the capacity to bring about action.¹¹⁷ Though it is an illusive muse, reflection (through our perception) acts through our virtual bodies (body schema and body image) to engage the real body in its inhabitation of the world.

Reflection, brings into confrontation the self and the perception of self, creating a moment of obscurity where the individual has the opportunity to reassess their position with respect to their surroundings.

Through reflective techniques, the building may present an illusionary space for one to inhabit which mirrors the bodies actual presence in the real building. Within the theatrical project resides the potential for the construction of a virtual world where the bodies internal specialities may develop and come to instruct the physical body. The theater proposed in Dows lake is designed to magnify the audiences reflective experience by the stages orientation (as between opposing audiences), the buildings position in its site (as an island in the lake, straddling its surface) and through the staged Columns as it becomes a body, capable of holding both the specialities of the audience and of the building.

¹¹⁷ Giorgio Agamben *Potentialities* pg. 179

Both reflection and potentiality may be considered as the “presence of an absence”. Reflection and Potentiality take their place in absence, engaging the world without acting in it. To be gripped by potentiality is to wield capacity.

Intended as a speculation¹¹⁸ upon reflection as it constructs an illusionary realm inviting the bodies invisible inhabitation, this project proposes an immersive theatrical experience intended to engage the bodies internal spacial structure. Beginning in third person narrative, the writing is intended to provide an illusionary experience of the proposed design, such that the reader may virtually inhabit the theater and find themselves suspended in that illusion.¹¹⁹

118 A Speculation: The term is relevant to this work not simply as it is derived from the Latin Specere ("to look, referring literally to the mirror and / or its reflection") but also in the derivations close link to the visual senses of the body and to the theatrical medium. In the Speculum, is the tool to open up and look into the hidden cavities of the body. In the speculum is revealed the hidden specialities of the body. Spectacle is found upon the stage presented to the spectator and as the glasses one uses to improve vision. As a speculation, (a theory without firm evidence) the project seeks to propose a building geared towards engaging the bodies speciality as based upon theories of reflection - a most illusive form of evidence. Reflection is illusive in the way it flirts between visibility and invisibility, absence and presence.

119 Figure: Reflective eyes. Portrait of self, virtually inhabiting the lake. Drawn from mirror reference, but translated via both horizontal and vertical reflection into the drawing.

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Theater of Reflection

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