Treatise of Body | Space

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Structures that have sheltered us since the dawn of time have echoed the human anatomy. Architecture is often referred to as the human body. In accordance, we can summarize the success in architecture to be experience. In reference to experience there are two edges to place. Yet, these are orchestrated respectively as a synthesis yet they never are evenly weighted. The two cannot be viewed purely separate nor fulfillment in one guarantees satisfaction in the others. However there is a disconnect between the body, the city, and the landscape. How is it decided the appropriateness of such hierarchy? There has been tremendous success and many failures do to this hierarchy. Perhaps such failures are due to the emphasis on architecture viewed as an immaterial object and making it superficial. What makes a city feel like a city. It is the intimate connection between body, architecture, and nature. How do we mediate those connections? Or give them strength? There is a depth communicated by visual language more than just the book face. It is the aesthetic that intrigues people with the artistry and unifies it wholly as a system within by experience. With this sensual understanding the city communicates an empowerment as a space.
Program Statement

Program Identification:

Spaces should be inspiring and must have an depth that communicates of the intrinsic value. Spaces are intended for people. These are structures built for people by people yet many of us fall victim to such buildings. We are a visually dominated race, we pre-dispose our opinions based on the delight of site. However, we can not just create places that adhere only to our visual senses. To isolate one sensation would deprive the satisfaction of true spatial experiences. How can we enhance our other senses? How can we orchestrate them together to create an authentic experience?

Aesthetic literally means the study of the nature of sensation. Architecture can create moments that are multi-sensory.

The idea is to look at a city that identifies it's much success from aesthetic. Toronto exemplifies a city of culture and art and is under development to magnify it's reputation.

Articulation of Intent:

The intent is to allow the space to be scripted by experience. Place shall be defined through each new sensational experience. The idea is to involve a variety of senses of the body not just visual to experience the aesthetic of space.

Enumeration of Actions:

Movement: How can architecture facilitate our energy into and throughout space rather that impede upon our path? How does it foster to human curiosity to explore? Movement is not implied to be physically restricting; how can movement of the other senses be utilized?

Action: How can people leaves trace or memory of the body on architecture? Answer: action - defined: effect or influence; an act that one consciously wills and that may be characterized by physical or mental activity. An extension of movement. Acting as an interaction between movement and architecture. Next question is what can be left as mark?

Listening: This doesn't pertain to merely the acknowledgement of sound entering in one's ear; this is just hearing. Space shall be a cause for full conscious attentiveness and retrospectively, a subconscious awareness of what is being perceived by the ear.

Perceiving: Attraction to the space will create new audiences and seating. There may not necessarily be a presented stage as a focal point. The aesthetic itself shall be the performance and the stage. The audience will be reinforced to use their unfocused peripheral vision to perceive "place".

Sensing: The senses have been analyzed in a hierarchical fashion where sight is regarded as the noblest of our senses, the tactile senses revered in a close second. These two senses are social senses where as the remaining three are more archaic. All people are welcomed to be integrated into this space. Users that do not have all 5 reliable senses shall not be deprived of that sensual experiences in the space. How can architecture resurrect these archaic senses without placing a specific definition of that sense?
The humanistic consciousness in buildings was theoretically defined by classical architecture. Sir Henry Wotton stated from the free translation of Vitruvius’s writing noting the 3 elements of success. Orchestralized respectively as a synthesis yet never evenly weighed. The 3 can’t be viewed purely separate nor fulfillment in guarantees satisfaction in the others.

The following studies are investigations of pivotal structures of the 20th century. Each very controversial and critically acclaimed as consummate failures and ultimate successes. Each emphasize and isolate one of the elements of success Provided as Anti-thesis studies.

**The Pompidou Centre**  
(Beauborg)  
Paris, France  
Richard Rogers | Renzo Piano  
1971 - 1977  
Musee National d’Art Moderne & Bibliotheque Pubilque; IRCAM

“Unwrapped”

“Turned the architecture world upside down”

“High-tech Iconclast”
Ideal building of Commodity. Not just Functionally focal but redefines commodity for an “exchange value” to also the “sign value. This building redefined and questioned aesthetic into a powerful industrial communication system. It grants the same right of social status to the masses as Robert Venturi’s decorated shed. The controversy would lie in the distinction between a civic spectacle and architecture. The question: Is the dialogue of functional aesthetic of signs turned into a useless distraction?
In my own experience of working relationships between architects and artists, whose work I admire, there is always a point where personal choices are made - choices that have to do with space, form, color, shape, content - and which require the same kind of energy, information, vision, expertise, or whatever. When Jasper Johns paints with his little brush, he's being informed differently than when I'm making a metal wall. It's a different background of information that leads to different connections, even if the general dynamic, the intention, and end result have to do with similar choices concerning how the light, the texture, and the quality of surface work.

(Dalco) FG

The Guggenheim Museum

Bilboa, Spain
Frank O. Gehry
1997
Museum

“Rewrapped”

“The greatest building of our time”

“World’s Most Spectacular Buildings in the style of Deconstructivism”
Where the building becomes the monument, Guggenheim holds much of the same criticism as the Pompidou Center. To many architects this becomes cynical mercantilism. No doubt it is beautiful, it is the dimension of the best marketing process from Pompidou. The boundaries of architecture and design become indistinguishable.

The second skin becomes here as wrapping paper where the content definitely renounces it’s container, and depends solely upon the presence of the only covering
Tectonic Study
FIRMNESS :: COMMODITY :: DELIGHT

The Beginnings of Brutalism

La Maison du Fada (The Lunatic’s House)

Cite Radieuse (Radiant City)

Unite d’Habitation
Marseilles, France
Le Corbusier
1946-1952
Residential
Appearance was solely isolated by measurement. Le Corbusier sneered at style as “nothing more than a feather in a woman’s hat”.

Function was measured but not the body subjectively but for mere mathematical convenience. The female body was also rejected in proportional reference.

The stairs were designed proportionate to the human body but not to comfort via tread and height. Design consisted of inserted blocks mathematically interlocked and measured using the Golden Section.

It was a veritable city (urban massing) within a building. There were isolated events and it did not amount to the cul-
Volume responds spectacularly to human movement, creating a series of audio-visual experiences.

The following two precedents studies emphasize movement and spatial recognition by acknowledging the intrinsic value of body and building. Physical interaction of space and other bodies makes us conscious of our surroundings.

“Volume responds spectacularly to human movement, creating a series of audio-visual experiences”
The Turning Torso

Santiago Calatrava
2005
Residential
Consisting of 9 cubes each 5 stories tall.

Total of 190 meters tall

Visual language is conveyed within the interior. Sensational experiences are delivered with the impression of light, movement of walls, views of Malmö and Copenhagen.

Designed for a prominent urban site which is highlighted by the intersection of two roads. Conceived to enhance and enlarge public space. It is meant to be seen as a free-standing sculptural element posed within the cityscape.
The box units communicates through the sculpture’s steel support which contains a nucleus of internal elevators and stairs.
Kahn concerned himself with the natural light, functionalism, and spatial harmony in this architectural design. The desires of both the architect and the scientist were to bring a solution out of the dark and into the light. The dark is where the mental work was developed and the light is where the physical work continues.
Anish Kapoor is an internationally acclaimed British artist. This is his first piece of public sculpture in the U.S. He did not name the piece Cloud Gate until after it was mostly completed in July 2004. In the meantime, the Chicago public had already dubbed it “the bean,” a name he initially criticized but has now come to embrace.

The sculpture is shaped like an ellipse, and its legume-like appearance has caused it to be nicknamed “The Bean.” It is made of 168 highly polished stainless steel plates, and stands at 33 feet high, 66 feet long, and 42 feet wide, weighing 110 tons. From a distance it could be mistaken for a huge drop of mercury, while up close its highly reflective surface captures and transforms the skyline, the downtown cityscape, and even the passers-by into a wonderfully warped new vista. The artist, Anish Kapoor, has referred to the sculpture as “a gate to Chicago, a poetic idea about the city it reflects.” The 12-foot underbelly is called the “omphalos” or navel and multiplies reflections in a vortex.
Designed by Jaume Plensa, it opened in July 2004. The fountain consists of a black granite reflecting pool located between a pair of artistic and technically sophisticated opposing glass brick sculptures measuring 50 feet (15.2 m) in height. The structure involved numerous complicated electronics and architectural considerations and the construction and design cost $17 million. Throughout most of the warmer months, it incorporates water in the form of a cascade and spouting water nozzle as well as a reflecting pool. The sculptures are known for the digital videos of Chicago residents that they display continuously throughout the year.  

After two architectural firms refused the contract to make Plensa’s design a reality, the firm Krueck & Sexton Architects accepted it although it was a departure from their residential and corporate office portfolio. They designed a special stainless steel T-frame both to bear the gravity load of the 50 feet (15.2 m) walls and to withstand the lateral wind forces. The frame holds all the glass blocks, but it transfers the load to the base in a zigzag pattern. Rods measuring 0.5 inches (12.7 mm) in diameter anchor to the structure and project into the frame for lateral stability, while triangular corner brackets add support.

The glass was custom made at a factory in Pittsburgh, Pennsylvania and fitted into small sections of the frame. The glass is white glass rather than the usual green glass that results from iron impurities. Each block is 5 inches by 10 inches by 2 inches (13 cm x 25 cm x 5.1 cm) with glass thin enough to avoid image distortion, with one out of the six faces of the block polished; the other five surfaces are textured.
The pavilion includes 4,000 fixed seats and 95,000 sq ft great lawn that accommodates an additional audience of 7,000. The pavilion features a 120 ft proscenium theatre with a brushed stainless steel headdress. The main stage, which can accommodate a full orchestra and chorus of 150 members, is connected by this frame to a trellis of interlocking crisscrossing steel pipes that support the sound system. The innovative sound system distributes sound to mimic indoor concert hall acoustics. The trellis is 600 feet by 300 feet. The cost of the project was $60 million. The structure is named after Jay Pritzker.

Connecting Millennium Park to Daley Bicentennial Plaza, east of the park, this 925-foot-long winding bridge, Frank Gehry’s first, provides incomparable views of the Chicago skyline, Grant Park and Lake Michigan. Clad in brushed stainless steel panels, the BP Bridge complements the Pritzker Pavilion in function as well as design by creating an acoustic barrier from the traffic noise below. It also has a 5% slope to allow easy access for people who are physically challenged.

BP BRIDGE | Pritzker Pavilion

Millenium Park

The pavilion includes 4,000 fixed seats and 95,000 sq ft great lawn that accommodates an additional audience of 7,000. The pavilion features a 120 ft proscenium theatre with a brushed stainless steel headdress. The main stage, which can accommodate a full orchestra and chorus of 150 members, is connected by this frame to a trellis of interlocking crisscrossing steel pipes that support the sound system. The innovative sound system distributes sound to mimic indoor concert hall acoustics. The trellis is 600 feet by 300 feet. The cost of the project was $60 million. The structure is named after Jay Pritzker.
Seattle Olympic Sculpture Park

The Olympic Sculpture Park is a public park in Seattle, Washington that opened on January 20, 2007. Alexander Calder’s Eagle, near the center of the Olympic Sculpture Park. The park consists of a nine acre outdoor sculpture museum and beach. The park was designed by Weiss/Manfredi Architects, along with Charles Anderson Landscape Architecture and other consultants.
The ideal site of this project would be one with visible boundaries. Some kind of literal barrier, be it a bridge, expressway, tunnel, or a waterway. This site would need something to separate it splitting into two entities almost therefore stymieing pedestrians. This site needs to have some disconnect whether it is zoned inappropriately or vast parking lot that lacks vitality but is significant enough to have potential whether it would be a cultural node or a community. A site will be considered in Toronto Canada with the Downtown Waterfront district.
"Yonge Street is one of Toronto’s most unique public spaces. No other street in the city is so open to public interaction as this place. When the Toronto Blue Jays won the World Series, there was an estimated 1 million people on Yonge Street to celebrate. Indeed, Toronto’s ‘Main Street.’ The rich cultural activity and cultural history of the route makes it a hub of social activity. The opening of Dundas Square, Yonge Street is set to become even more the cultural and civic zone of the city. The energy of Yonge Street transforms the waterfront into the launching point for the Toronto Island Ferries, but it does not fully connect the area to its larger city presence."

OPORTUNITIES: “The foot of Yonge has been identified as a preeminent location for a significant cultural facility... as a place of celebration, seems most appropriate for Yonge Street.”
Site Analysis

Existing Site At the Base of Yonge Street
**Amphitheater Pavilion**
Yonge St. - Queen's Quay.

### A. Bathrooms
- Men (1 @ 160 sf) 160 sf
- Women (1 @ 180 sf) 180 sf

### B. Stage
- Audience Seating (8 sf per person) 4000 people 16000 sf
- Backstage/Stage 1200 sf
- Dressing Rooms 520 sf
- Storage 450 sf
- Orchestra Pit 400 sf
- Sound Room 160 sf
- Electrical Room 160 sf
- Mechanical Room 300 sf

### A. Lobby
- Restrooms
  - Men (4 @ 160 sf) 640 sf
  - Women (4 @ 180 sf) 720 sf

### Circulation/Structure @ 20%
- 19530 sf
- 3906 sf

**Subtotal** 23436 sf

**Skatepark:**
Yonge Street

- 1000 sf
- 2360 sf
- Subtotal 2832 sf
- Circulation/Structure @ 20%
- 23436 sf
# Program Framing

**RESTAURANT**

<table>
<thead>
<tr>
<th>Restaurant: Yonge St. - Queen's Quay</th>
<th>10560 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Dining Rooms</td>
<td>4200 sf</td>
</tr>
<tr>
<td>Seating (12 sf per person) 350 people</td>
<td></td>
</tr>
<tr>
<td>B. Kitchen</td>
<td>2800 sf</td>
</tr>
<tr>
<td>E. Rest Rooms</td>
<td>1440 sf</td>
</tr>
<tr>
<td>Ladies (8 @180 sf)</td>
<td></td>
</tr>
<tr>
<td>Men (6 @ 160 sf)</td>
<td>960 sf</td>
</tr>
<tr>
<td>Subtotal</td>
<td>9400 sf</td>
</tr>
<tr>
<td>Circulation/Structure @ 20%</td>
<td>1880 sf</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>11280 sf</td>
</tr>
</tbody>
</table>

| Pavilion                            | 23436 sf |
| SkatePark                           | 2832 sf  |
| **TOTAL**                            | 39179 sf |

| Parking: 200 spaces (300 sf per vehicle) | 36,000 nsf |
Classical Architecture has been revered, duplicated, and interpreted by a vast amount of architects because it was not only structurally ingenious, site-specific, and aesthetically pleasing but it was highly successful in terms of phenomenology. It was incredibly intriguingly and provoked sensual experiences. What is so successful about it? I tested some of the approach such as the Golden Section.

A chalk drawing progresses to sketching out water reflection that further propelled me to twist metal. This reflects light and plays with our visual perception.

Investigations of proportion and composition. Using Mathematical sequences to discover something authentic in the experience.
I investigated the Heidegger’s idea of the Horizon through means of an architectural element: the wall. We not only react to architecture but also in reverse.
Again experimenting with geometry, mathematics, and symmetry. To take a new perspective and look at the idea of craving the edges out and into. From a birdseye view, we experience this from the vertical.
Each model represents a word I interpreted earlier with graphics.

Here, I was trying to understand urban mass movement that slowly but surely dissipates toward the bottom.
How would the ever-changing skyline of Toronto be obstructed by new structure
“Today the ‘depth of our being’ is on thin ice” (Holl 8). The city is an infra-
structure of many different layers creating an ever-changing skyline and as-
cribes a dense fabric. Distraction becomes inevitable and too often blinding
by the man-made structures. It is very easy to lose the sense of self within the
city rather than emplacing the body within it. Within the hectic urban environ-
ment these connections are disjointed. There is potential in our consciousness;
to actively perceive place, natural or built, as a whole while experiencing it
within the scale of space and further contemplate the details. It is in this think-
ing that understanding these intrinsic values becomes apparent. Looking from
the macro fully to the micro we can look at ‘place’ in detail.

It was Mies Von den Rohe that said, “God is in the details”, ironic for this dis-
course: modernism referred architecture as the art of the eye. “From advances
in technology and culture, from a phenomenological stance, modernist design
has produced one-sided intellectual and imposing structures but it has not fa-
cilitated human rootedness”Pallasma 17). Le Corbusier one of fathers of the
modernist movement became aware of the bias towards the visual nature of
design towards the end of his career. In creating Chapel Ronchamp, Le Cor
busier departs from his principles of standardization. He lets the site take the command of the form and orchestrates a poetic structure that stirs the senses.

“Forms bathed in light. Inside and outside; below and above. Inside we enter walk around, we look at things while walking around and the forms take on meaning; they expand, they combine with one another. Outside: we approach, we see, our interest is aroused, we stop, we appreciate, we turn around, we discover. We receive a series of sensory shocks, one after the other, varying in emotion: the joy comes into play. We walk, we turn, we never stop moving or turning toward things. Note the tools we use to perceive architecture. The architectural sensation we experience stems from hundreds of different perceptions. It is the promenade, the movements we make that act as the motor for architectural events” (Stoller 8)

Ronchamp is an architectural ensemble that referenced many similarities with the Acropolis- ‘starting from the ascent at the bottom of the hill to architectural and landscape events along the way, before finally terminating at the sanctuary itself – the chapel’ (Stoller). Le Corbusier like other modernists, revered classical geometry, investigating in depth proportion and composition, ultimately publishing two of interpretative theories, “le Modular” and “le Modular II” based on the Golden Section. His structures were regarded as stoic, and sequenced in vain using Fibonacci’s Sequence as a mathematical convenience rather than meaningful insight to human scale; bias toward only the male body for reference. It was not till Ronchamp did he reference classical elements for experience than meaningful insight to human scale; bias toward only the male body for reference. It was not till Ronchamp did Le Corbusier reference classical elements for perceptive experience.

Ronchamp was one of Le Corbusier’s most celebrated works all as a result from formidable relationship with the site that provided an irresistible genius loci for the response. “Nature can enfold us in its’s multisensory embrace. The multiplicity of peripheral stimuli effectively pull us into the reality of its space” (Pallasmaa 65). As modernism progressed, a movement began to adapt phenomenological ideas to counter the placelessness and lack meaning that modernism offered: Critical Regionalism. In Kenneth Frampton’s “Towards a Critical Regionalism: Six Points for an Architecture of Resistance”, Point Five - Culture vs. Nature: Topography, Context, Climate, Light and Tectonic Form addresses what is evident by the title: expose the innate qualities thus eradicating the placelessness of the site. Kenneth Frampton provides several architects that he analyzed to be Critical Regionalists such as Tadoa Ando and Alvar Alto. Others were criticized by placing them between two catego
ries: High-tech and Facades. Such architects as Richard Rogers was named as a High-Tech by creating the Pompidou Center, leads by example for the demise of culture. Robert Venturi and Michael Graves were listed as Facades, “[They] produce an onslaught of universal civilization stifled by increasing hunger for development” (Frampton 19). Richard Rogers’ Pompidou is in this book provided as one of the tectonic study, somewhat of an anti-precedent study.

Tadao Ando differs himself from Modernism for his endeavor to express tension or opposition between the standardization of functionality and transparency in its utilitarian and rational motives.

“I believe in removing architecture from function after ensuring the observation of functional basis. In other words, I like to see how far architecture can pursue function and then, after the pursuit has been made, to see how far architecture can be removed from function. The significance of Architecture is found in the distance between it and function” (Pallasma 62)

Eastern thinking is deeply rooted in tradition and has a profound relational understanding of the concept of space. Kisho Kurukawa one of the leaders of the Metabolism movement wrote,

“Architecture and cities are always changing, so likewise, their structures should be open, and their relationship with nature valued. We should not be preoccupied with matter, with substance” (Kurokawa 16)

One of architect if present during the movement would been an advocate for Critical Regionalism would have been Louis Kahn most notably the Salk Institute in La Jolla, California. It has evoked emotion in silence and in light. He has influenced many critical regionalists including Tadao Ando. Tadao Ando and Louis Kahn have many close similitudes in their approach to design. The Salk Institute is presented as a precedent study.

This thesis investigation proposes to connect the body, city, and landscape. By embodying the basis of critical regionalism and emphasize on the phenomenological elements we can re-think urban landscape.

It is important to note that the body is in a constant dialogue with it’s surroundings. Juhani Pallasmaa says that “architecture is our primary instrument in relating us with space” (Pallasmaa 17), so what is currently missing? He states that the present predicament is caused from modern architecture but not wholly is it at fault. “What is missing from our dwelling today are the potential transactions between the body, imagination, and environment”(Pallasmaa 41). Experience is the crux of this thesis, to understand these connections by under
manicured, juxtaposed, or contained.

How do we get structures, our bodies, and nature to respond efficiently together harmoniously? Architecture is a mediator of our experience. By magnifying our experiences we can pass through the wall that can act as now a threshold.

In conclusion, there can be an integral relationship between the nature, the city, and the body.

This is a proposal for a new form of city that will draw people that can explore a sensual urban environment by fostering a more direct form of stewardship of nature. A first-true water-based park in the Toronto agglomeration coupled with an undertone of regeneration.

The direct correlation between dense urban environment and its immediate natural environment will provoke a new way of experience, where the Yonge St. landscape becomes a definite expression of a particular form of landscape. Rather the landscape, and the city being juxtaposed while the body is a mere spectator, they will be homogenous.
Final Design
SITE PLAN

RAFT PROGRESSION
1. PHASE ONE: TUNNEL WALL
2. PHASE TWO: TRANSITION
3. PHASE THREE: TRANSFORMATION
4. BRIDGE

PARK DESTINATION
5. RESTAURANT
6. BARBER SHOP
7. GYM
8. SAND BEACH
9. LOOKOUT POINT
10. ORGAN POND PROHIBITION
11. AMBULANCE

HYDROLOGY & TOPOGRAPHY

TOPOGRAPHY
WATER SYSTEMS
SURFACE
TREE CANOPY

NETWORK
The ramping system incorporates several systems, the main being a hollow box girder that can withstand the curvilinear tensional forces. Post-tensioned precast concrete continuously spanned with pretensioned cables. The second system will involve steel trusses that are connected by ties to support the wooden rain screen around the hollow box girder. At lower heights the ramps will only involve the truss system and cantilever to the ground. That will span approximately 200 ft. The depth being approximately 7 ft deep and 15 to 20 feet wide. This ramps provide unique experience as a hybrid parkway in the air. There are several nodes that transitions the ramps into viewing areas for audiences such as the amphitheater and the skate park.
Bibliography


Notes
