Architecture Exists Between Man and Time
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Abstract

The light is the giver of presence.
Nature is eternal in time.
Man’s life is transitory.

Architecture is the joint between man and light, man and nature.
Abstract

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Introduction
Genesis
Beginning of life
Light gives presence to objects.
As sun rises, objects begin to show their silhouettes in the darkness.
Forms change from night to day.
The daylight is the source of beginnings.
The night reveals the silence of forms.
The desert is eternal in space and time.
Architecture brings the eternal into a space.
The passage leads man from one realm to another.
The elements of a passage instigate desire for movement.
Ramps move gradually through space.
The gateway is the threshold from one space to another.
The bridge connects space.
The roof compresses and extends space.
Framing and reflection bring the sky into Architecture.
Light becomes material.
The beginning is wonder, and the end is discovery.
Ruins communicate across time.
10 Projects
Ground and Figure relationships parallel the relationship between Architecture and the city. In Italian cities, we find the interesting condition that the reverse of the site plan also looks like the plan of the city. Outside space is no longer an outside space. It becomes an outside room, and through human perception, it constantly varies from inside to outside, inside to outside. I questioned, "Where is a border?" Maybe there exists no certain border between two spaces, or maybe Architectural components such as material change, step, gate, wall, or roof could sometimes provide ambiguous borders, sometimes strong borders. I strongly believe architecture should have an ambiguous boundary in the vertical, in the horizontal, or in both.

In Europe, there are many examples of vertical relationships to nature, because structures allow light in vertically. Horizontally, architecture is closed to the environment. We call it wall-oriented architecture. On the other hand, in Japanese traditional architecture, the exterior wall is ambiguous, and the vertical relation to the sky is completely destroyed by the deep, heavy roof. We call it roof-oriented architecture.
Aluminum and Brass
Louis I. Kahn said, “Monumentality in architecture may be defined as a quality, a spiritual quality inherent in a structure which conveys the feeling of its eternity, that it cannot be added to or changed.”

How to express the monumentality in architecture is the challenge I confronted in this scheme.

To endure time, the selection of the material is important.

Sometimes, creating monumentality is beyond the human scale; yet, for the architect, is this the only possibility? Absolutely not. Endurance of materials can make monumentality possible. For example, I sense the monumentality and the powerful presence of human events from ruins. Pueblo Bonito is an American Indian ruin in New Mexico. Most of the wooden parts have collapsed and disappeared through the flow of time. Rain, wind, and snow have destroyed the fragile parts of the architecture: roof, windows, interior walls, floors. Only the stone walls and foundations remain in this century to show the record of the activity. I could talk with ancient people through these ruins about how they lived and how they wanted to build their shelters.
This Millennium tower represents the past and the future of human culture. The tower is both an expression of the joint and the symbolic joint between different cultures and different times.

The site of this monumental tower is in Kasumigaseki, Tokyo, after a hypothetical enactment of the proposal that all the governmental buildings in that area move to the outskirts of Tokyo. Tokyo has been functioning to guide Japan since the 17th century and is one of the leading cities in the world today. Moreover, it is expected that in the next millennium, it will play a major role as a central area in the field of business, economics, and culture.

Since the influence of advanced technology, it seems that we are losing the originality of ourselves—our tradition, culture, and lifestyle. However, because of the advancing network system, people need not travel to or live in central metropolitan areas like Tokyo and Osaka. Because residents of smaller towns and regions can access many of the larger cities' resources via the network, those smaller pockets of the population will have a chance to maintain their own identity and culture again like before. The next millennium will celebrate the re-creation of individual cultures.

--Now is the time of the symbolic ending of such centralized power. The symmetry of this tower recalls the monuments that have always represented centralized authority, and thus it stands as a memorial to the past; however, it also thrusts upward from a localized place to provide a marker and a beacon for a new millennium with new objectives. Thus this Millennium Tower is the memorial of the past and the future.
“Architecture is frozen music.” We cannot grasp or touch space, time, or life. Architecture physically crystallizes a moment in space, time, and life.


Something exists in between spaces. What is that? Is it a finite thing? I don’t think so. I think there must be something larger. Infinity? Yes, that is it.

Therefore, Architecture can freeze a moment of eternity.
The incubator protects the hatching egg; the womb protects the baby. Because of the young age of kindergarten children, the shelter should protect them from the dangerous outside world. Children grow through playing with nature, and in spending time with each other in the grasp of kind and tenderly held hands.

Transversely, the shelter holds a central gathering place open to the sky and open to nature, and enclosed classrooms. Longitudinally, it shapes the stepped terrace along the hill, linking the inside to nature beyond.
Framing, The Windows of The Horizon

Minamata Memorial, Kumamoto, Japan

Minamata was a small fishermen’s village.

In the 1960’s, Chisso chemical Factory dumped mercury into Minamata Bay, bringing about the appearance of a new disease which contaminated fish and shellfish. The medical world named this disease “Minamata Disease.” Although the fishermen noticed the unusual change in the fish and shellfish, they could not avoid consuming them. It was the beginning of a tragedy. Two walls hold the meditation space for the victims of Minamata Disease.

Step by step, the wooden board path, made from abandoned fishing boats, leads to the memory of the fishermen’s day. The passage narrows, then opens again with two concrete walls. The walls leave the sacred space open to the sky. After going up the steps between the two walls, one reaches the threshold. The ends of two walls are capped in with bronze, framing the horizon. At the moment one reaches this threshold, the ocean horizon is brought into the monument.
Scraping the sky

32
1. Chrysler Building
2. Kou-kaku-rou
3. Bukkoku-ji
4. Sagrada Familia Cathedral
5. Kei-ri
6. Seoul
Silence

This memorial sits on the hill facing the ocean. The tapestries of dawn and dusk hang in the silhouette - memorizing the tragedy, carving into this loci, recording the fact forever.
Passage

Project 5
Alexandria Library, Alexandria, Virginia

The elements of the project are situated to form a gate between the primary and secondary volumes. By placing these volumes at the edge of the site, this gate now leads to a park along Potomac River.
Path of Wonder

Nestling the books along the wall creates the path of wonder and the discovery. In the deep valley of books in the darkness lies the unknown world before the dawn. Darkness is sometimes fear, anxiety, or uncertainty. Yet, after the darkness, comes desire, wishes, and courage.

In a tunnel, the traveller does not know what is ahead until one passes through. Often, the reader does not know what is ahead until he opens a book and finds a new world.

In the contrast of light and dark, the stacks provide a path of darkness and the reading areas terminate the darkness with light.
Architecture is a bridge connecting man and nature. Placing the architecture along the edge of the Research Center creates the illusion of pulling the walls from the ground. Massive walls are divided in two on the ravine, forming a gate to the conference center. All the activities - athletic, meeting, lectures, and temporary residences - occur under the great walls.
Ramps

Circulation happens in the walls.
The natural topography of the site suggests a gently sloping ramp for vertical circulation.
Ramps move through in the light and shadow, in tension and compression.
Ramps cut in the walls.

Activities happen in the woods.
Meditation space
Cantilevered out from the wall to the woods.
FIRE IN THE SUNLIGHT
CHAOS
FEAR
PAIN
DESPAIR
TEMPORARY

SILENCE IN THE MOONLIGHT
COURAGE
FORTITUDE
Pride
Determination
Temporal
Timeless
The Maryland World War II Memorial embodies inherent contradictions. It is at once a vessel burdened with unsettling memories, and a sublime presence that exudes enduring strength. It forces us to contemplate ruthless destruction and mass annihilation, yet it ponders the miracle of noble, heroic, selfless actions in the face of such tragedy. The Memorial leads us to a different place: it passes us through a crucible of chaos and courage, of fear and fortitude, of despair and determination, and finally it releases us from the clutches of these solemn milestones into serene silence.
The visitor arrives, whether by water or by land, in the midst of a bustling zone of activity. Ships, boats, automobiles, buses, and trucks converge and deposit their passengers and goods at the hub of the visitors’ center. Much like an airport or train station, this place of juncture provides a threshold, or portal, to another realm.

From this transitional ‘plinth,’ a system of five Ferris wheels lifts the visitor through multiple strata of programmatic spaces and offers sweeping, panoramic views of the harbor and the city. Thirty-six towers, which carry the five wheels as well as handle the vertical circulation of people and services, also support the individual platforms that house many of the various functional spaces. Thus, in addition to surveying the sites of Sydney first-hand from the slowly rotating wheels, the visitor may also disembark from his or her cab at any of these platform levels and explore the eclectic ensemble of exhibit, dining, retail, and performance spaces. The Ferris wheels thereby provide a broad overview of the context, while the platform spaces allow for the more refined investigation of specific cultural and historic subjects. Consequently, the visitor experiences several layers and scales of discovery: the observation of the capital region below and the navigation of the urban microcosm suspended 150 meters above.

In both modes of exploration, the visitor becomes a traveler, free to seek out information independently, rather than a tourist relegated to the confines of a guidebook. The traveler moves freely, both vertically and horizontally, through the maze-like complex, much as a child might explore a jungle gym on a playground. The center does not force-feed the visitor with information; rather, it offers vast amounts of data for discovery and personal. The researcher “surf” Sydney as one would “surf” the Internet. With this autonomy and responsibility come the sense of independence and the opportunity for accidental discoveries that distinguish travel from tourism.

Further, the process of investigation becomes interactive: visitors are invited to document their impressions and discoveries via various media and to contribute them to the existing body of information. As data accumulate, new platforms and spaces may be added within the matrix. Thus the composition continually metamorphoses and adapts over time, creating a “new international symbol for Sydney and Australia” that does not stagnate but rather perpetually refines and rediscovers itself.
Joy of Discovery

wheel—indepedent: own responsibility, accidents

platforms—plethora/menagerie of bits of information, visitors contribute, leave record—documentation, growth over time, slowly metamorphosing

composition—like technology of today, vast amounts of often disparate information available through a single source—freedom/fun of exploration and discovery: maze/jungle gym

variety of ‘scale’: wheel gives overview; platform allows more refined exploration/research of a specific subject
Plaza

Project 9
Trinity Episcopal School Additions, Richmond, Virginia

Plaza as an outside gathering place unifies the whole. Retaining wall is a boundary between Campus and Nature.
The problems of the existing conditions

Site condition

The site is not utilized to its full potential. Because of the slope of the hill, the human tends to face away from nature, not taking advantage of the beautiful scenery. The placement of the facilities do not contribute the unity of the school as a whole.

Windows

The lack of windows in the classrooms and in the hallways shut off the outside environment. This causes an alienation, or a “black out” psychologically. Unfortunately, the dark hallways also serve as the only place for the students to eat lunch.

Territory

In Japan, the students have their own classrooms where all their courses are taught. Teachers rotate around each classroom. As a result, the students have their own desks, which provides a sense of territory within the school. In contrast, the students in America migrate to various classrooms, while the teachers are stationary. Therefore, their sense of territory is limited to their own lockers. Because their lockers are too small to fit everything they need, backpacks spread out into the hallways. Although this creates a narrow, cramped space, this condition actually promotes socialization among the students. The idea of a social space for the students needs to be preserved in the new building.
Unity

In Greece, people gathered to exchange ideas and goods at the gathering place, or “Agora.” Although at that time certain architectural programs had not yet been discovered, human activity generated the opportunity for different building types. I felt there was a need for space in which people could get together, which led to my proposal of “Plaza.” This plaza also adds unity to the campus, because the new additions actually create the outside open space, or gathering place. Here, the students can socialize, have a class outside, or organize various events such as ceremonies, festivals, and assemblies. This idea applies to the social, physical, mental, and individual development goals of education.

Plaza

All buildings are interwoven around this gigantic plane. As people enter this campus, they penetrate the plaza by three steps through the trees. In section, the plaza is a concave space in relation to the existing buildings; convex makes a stage, in contrast, concave makes a room. The edge of the plaza varies. The steps lengthen to create a walkway to the entrances of the existing buildings, they shorten to create seats along the plaza. The border to the new addition is walls of framing and retaining. Framing walls make the windows to nature and retaining walls bulldoze against the force of earth. As if water spouts out from the dam, fingers come out from the walls under the force of compression. The passages to the new addition are ramps, continuous transformation of the plaza to the both ends, and X-shaped stairs carving into the earth, popping out from the retaining wall.
Single Sculpture
Carving out from the city
A center for the city
Dynamism exists within its form
Tree as a sculpture in the landscape

It suggests a given entrance into the campus.
Replacing tennis court with parking gives access through the trees.
Form of the plaza

Access to the plaza
White gravel leads to the field which leads to the woods. Wall leads to the roof of grass which leads to the woods. Desk leads to the slate of stones which leads to the woods. Unless the scenery is enhanced by architectural components, people rarely realize its beauty. Historically, architects have attempted to emphasize natural beauty by framing and by controlling circulation. This intentionally lures attention and curiosity towards designated spaces or scenes.

<table>
<thead>
<tr>
<th>Location</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closest view</td>
<td>roof of grass</td>
</tr>
<tr>
<td>Middle view</td>
<td>carpet of grass</td>
</tr>
<tr>
<td>Distant view</td>
<td>woods</td>
</tr>
</tbody>
</table>

The facade of this Architecture is the roof.

Walls and repetitive fingers frame views. The roof material changes from grass to gravel to differentiate surface. The Architecture involves closest view, middle view, and distant view, all of which change as a person interacts with the space. Three different condition exists within the linking view.
View from the study carrel
Connections
Plaza becomes Ramp
Promenade

Two way circulation links the plaza and the new addition, or "Information Center," by the transformation of the ramps into promenade. Just like an airport, one concourse leads to different destinations. This promenade connects people to the library and different specialized classrooms such as fine arts, music, and computers. The purpose of this information center is for interaction between library, art, music, gym, science, nature, and humans.

School is not only a small society, it is also a place for learning. To achieve this goal, students need the chance to explore many academic possibilities. My attempt for this scheme is to create a flow of space which allows students interactive views. Therefore, they can immediately understand what is going on in this Architecture. They can explore various activities and they might discover new interests. These kinds of places are formed by different architectural expressions: cave of library, concourse of promenade, fingers of locker rooms, and tables of specialized classrooms.
Layering

<table>
<thead>
<tr>
<th>Darkness</th>
<th>Lightness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cave</td>
<td>Field</td>
</tr>
<tr>
<td>Wall</td>
<td>Column</td>
</tr>
<tr>
<td>Individual</td>
<td>Public</td>
</tr>
</tbody>
</table>

Transversely, Architecture transforms from individual space to public space. Longitudinally, Architecture changes functionally into spaces such as specialized classrooms. The rooms hold locker rooms between them.
Spiritual Light
Only in the darkness, we can sense the light.
The gap between the retaining wall and the framing wall allows light to come in.
Under the subtle yet spiritual light, man will find a book, as if finding a small treasure chest in a cave.
Study: repeating elements

Study: roof surface

Study: plaza

Study: void and solid
Silence in The Moonlight

Project 10
Gorée Memorial, Dakar, Senegal
Gorée Memorial is a place where people gather and ponder the painful history of slavery. A tower stands at the intersection of the Boulevard and the future axis, which creates a focal point for this memorial, the city of Dakar, and the continent of Africa.

“The Door of No Return” on Gorée Island was the place where the slaves waited to be taken away from their country. In contrast, this memorial is a place to celebrate gaining freedom as well as a space to welcome the people of Africa.
Dakar City
Tower stands at the intersections of urban axes.
Radiation, expanded fingers

In Architectural expression,
six massive volumes sit on the hillside along Corniche Drive,
radiating from the central tower of the monument.
Voids between the masses make a doorway to the city and to the continent of Africa.
Six masses create an extension of the cliff and a gateway to the city from the Atlantic Ocean.

These masses contain the elements of the program:

1. Main Entrance
2. Navigation Museum
3. Slavery Museum
4. Collections and Archives, Temporary Museum
5. Research Center, Administrative
6. Technical Support
Joint between earth and ocean, past and memory, pain and hope.
Simple form

The simple form of a triangular wall, as if scraping the skies, creates a monumental presence. Between two walls, man will move from the darkness, the metaphor of pain, to the light, the metaphor of freedom. After this journey, he reaches the place where he feels complete freedom, open to the sky and open to the ocean.

Space within space

In order to create a spatial condition, each volume is formed by two massive walls (big space) with narrow openings containing the required functions (small space).

Promenade

The circulation sequence of this project is designed to assure a strong sense of locational reference throughout the complex. A curved promenade, three hundred meters in length, links all the volumes together; first level for the general public and second level for staff (private). There is no crossing between public and private paths, which makes it easy to control the security. The promenade assures a constant sense of orientation. From the central space, all the paths originate and return, interconnecting and balancing the relationship between the different facilities.
Columns of light

Each volume embodies the metaphor of the painful history of slavery.

Man experiences subtle light coming from these slits and from a gap between the ceiling and the wall.
Man can grasp a narrow slice of horizon through gaps at the ends of the walls.

Slavery Museum

Volume 3 contains the Slavery Museum. Beginning on the first floor one travels up through the space on a ramp that encircles the inside walls to the third floor six meters above.

The ramp shows exhibit material along the way and ends with a smaller exhibition space at the top.

The second floor remains inaccessible to the public and belongs to the premises of
Volume 2 is the Navigation Museum. This mass provides access for the public to all three levels of the complex while maintaining the separation between public and private paths. Within these two walls, one can look around the entire space or enter a smaller space made by the ramp. When entering this building, people are introduced to reception and information desks. Multiple paths are available within the large volume that contains boats, three-masted ships, a planetarium, and a cafeteria. Paths include a large ramp that wraps the interior of the space, allowing one to experience lightness and darkness, and the horizon outside and exhibitions inside. Various sequences of stairs lead one through the planetarium to the lower two floors; finally, an elevator takes one directly to the lower levels. Each path maintains the security established in the previous volumes, and also provides alternate options for handicapped individuals as well as the general public.
The Temporary exhibition space is on the first floor of Volume 4. The collections and archives are contained in this six floor space. Access to the two spaces are contained on the first floor: a side door for the temporary exhibition space and a vertical access, after passing through security for the collections and archives. Although there is a strong visual connection between the two types of spaces, the physical connections are distinct and separate. From either of the spaces one can sense the strong presence of the other since they are open to each other in order to visit the other one must exit the space and re-enter at the other entrance. This type of interlocking space allows people to relate only by sight through the huge open space; therefore, security control is easily maintained. The control room is located in front of the elevator where people must pass before they can enter the collections, and archives are located between the second floor and the sixth floor. Each floor contains the required program of the collections. Overall, this space creates the presence of books nesting on the walls, or a path through the valley of books.
To see, to be seen

Interlocking space creates an opportunity to explore different programs at the same time, which motivates one’s curiosity to go further.

Visual linking: the means to unexpected events.
Sequential perception: mitigates visual and physical movement.
Dynamism of space: the tension between the frozen and the kinetic.
Tower as a transition from the past to the future

This monumental tower consists of one stainless steel column that tapers outwards from the ocean. It sits on the intersection of the two axes, one side facing toward Gorée Island. The radiation of the passages represents the possibility of the African people being once again knitted together. The tower, as a beacon, stands off the edge of this monumental site and contains an observatory at the top, where people can look out over the whole city of Dakar and towards Gorée Island. An elevator will take people straight to sea level, where the boats will take them to Gorée Island.

Plaza

On the cliff, there exists the plaza between the ocean and the man-made volumes, where people can gather and perform activities such as ceremonies and festivals. The plaza remains a natural earth surface except for the passages, radiating from the focal point of the tower, linking the tower and the promenade.
Tower as beacon
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Time is infinite.
Nature endures time.
Architecture is a container for man, yet, it expands man's perception into time and space.
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“What is Architecture?”

This is my sincere challenge to you, and tribute to all the great architects
who devoted themselves to Architecture.

Koichiro Aratami
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