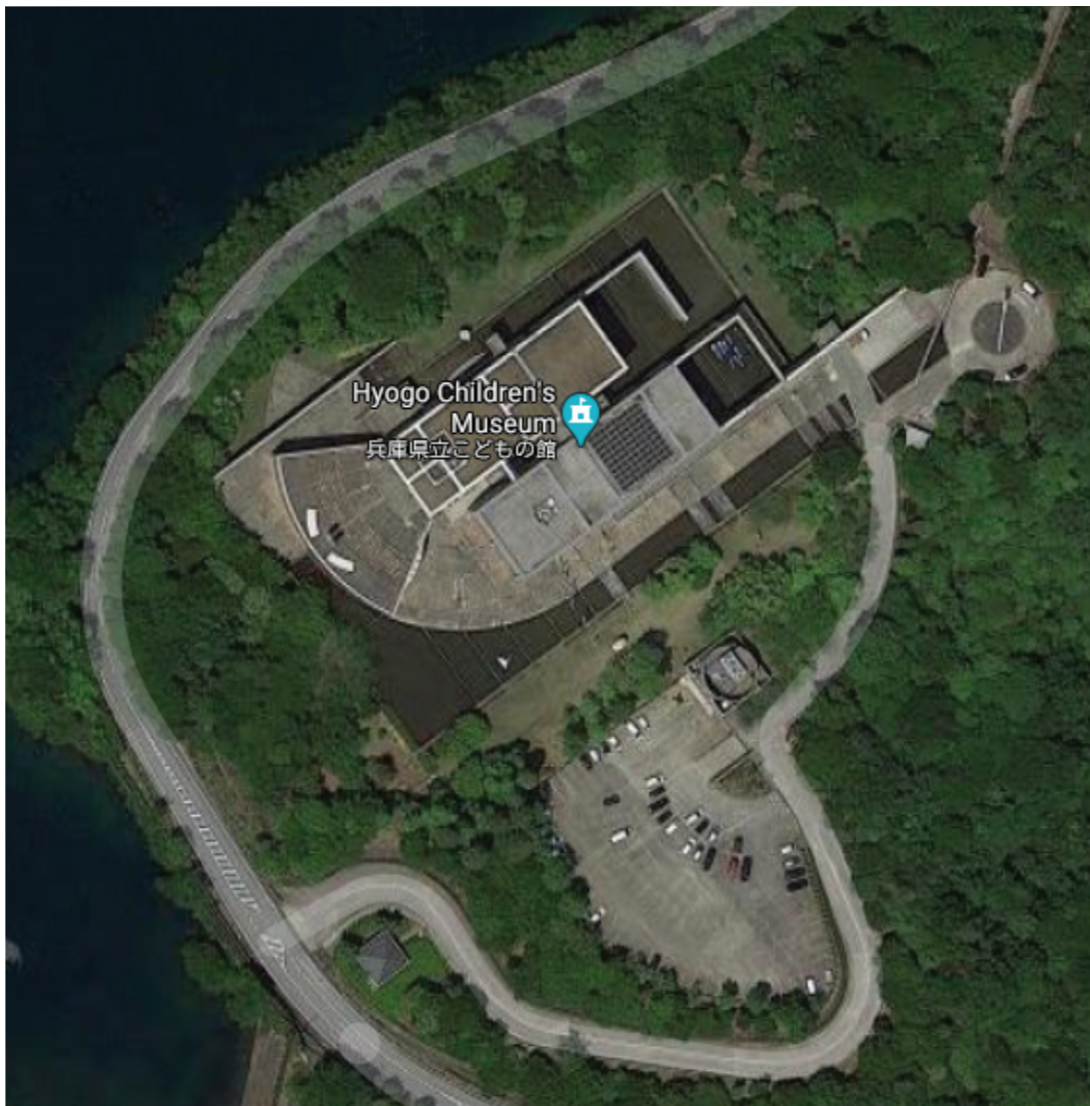


Children's Museum in Himeji, Japan

The Japanese architect Tadao Ando designed a museum for children in Himeji prefecture in Japan. It was built in 1988 – 1989. Its area constitutes 87,222 sq.m of the topography. It is located on a piece of land that juts out towards the water of the sea. It is shaped like a mini – peninsula, which is a shallow hillside that gets steeper all of a sudden as the topography gets closer to the shoreline.



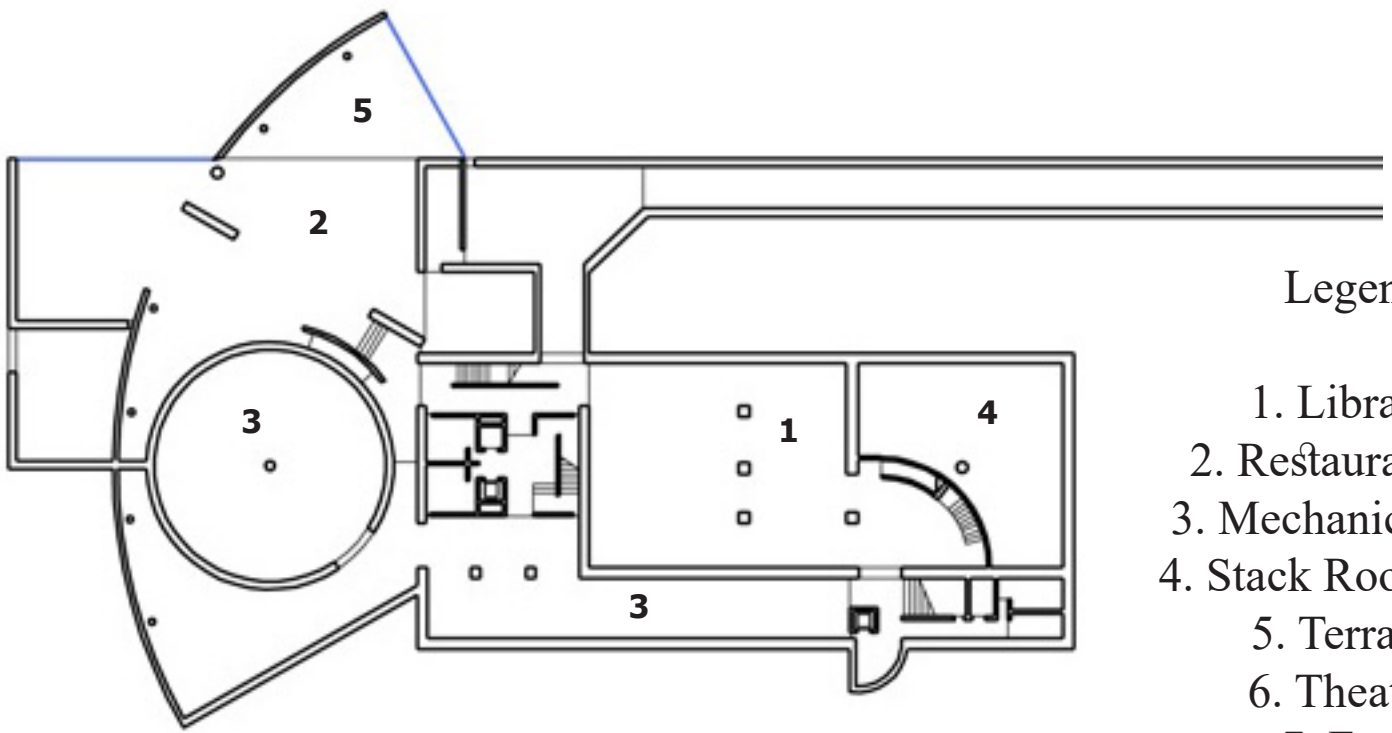
Bird's eye view of the museum and its site (from Google Earth)

The building's long axis is aligned parallel to the threshold of the sea shore, in such a way that its long blind walls face the north end of the compass. The long axis cuts through the hillside topography in a perpendicular fashion surging towards the west direction. It provides a perspective view towards the sea where the sun sets in the evening.



Perspective down the water terraces towards the sunset (from Google Maps)

The architect had to design a museum with several functions. These included exhibition galleries, a library, a restaurant, a theatre, a multi-purpose hall, meeting rooms, offices, and outdoor theatre. Ando started by placing two parallel-piped rectangular volumes adjacent to each other. They are long and narrow, and well-proportioned in relation to the long and narrow shape of the site.

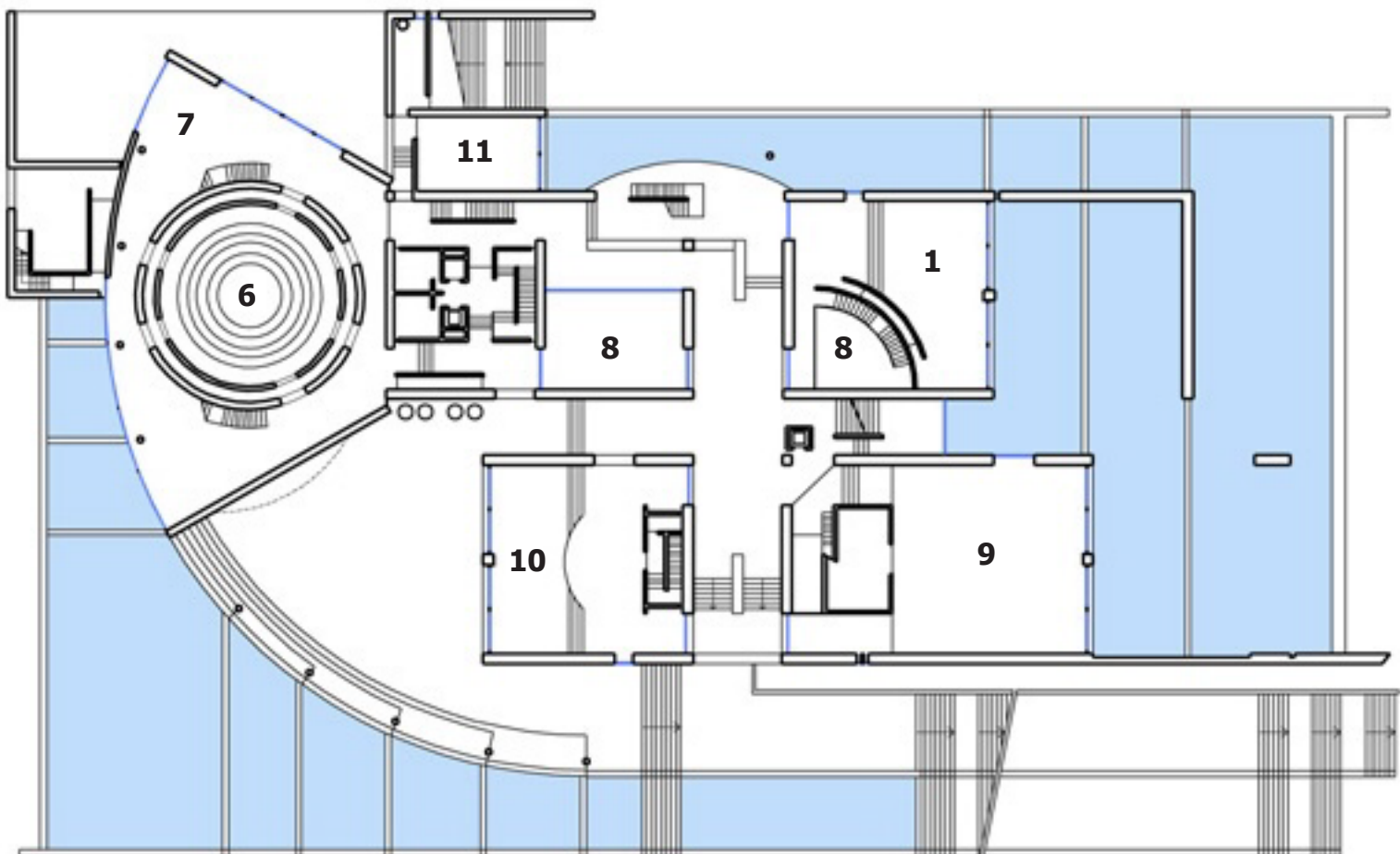


Legend:

- 1. Library
- 2. Restaurant
- 3. Mechanical
- 4. Stack Room
- 5. Terrace
- 6. Theatre
- 7. Foyer
- 8. Void
- 9. Multi-Purpose Hall
- 10. Gallery
- 11. Meeting Room

Pianta piano interrato / Basement plan

- 12. Office
- 13. Outdoor Theatre
- 14. Seminar Room
- 15. Information Office



Pianta piano terra / Ground floor plan

The rectangular volume located on the north flank of the compound is dragged forward a few meters away from the south volume remaining parallel to it. Its position gets shifted closer towards the sea. A fan shaped volume with a curved façade is attached to the rectangle on its short west side, providing a convex panoramic view towards the sea and the sunset.



Aerial View of the museum with its surrounding landscape (from Google Maps)

The building's two main masses are long volumes that cut through the topography very sharply. They are composed of pure geometry and straight lines that starkly contrast with the sinuous, undulating curves of the topography.

A six flight terraced staircase is located near the south block. The stairs are adjacent to the long blind fair-face exterior wall of the block. Their distance from the first flight down the slope towards the last flight is as long as the block.



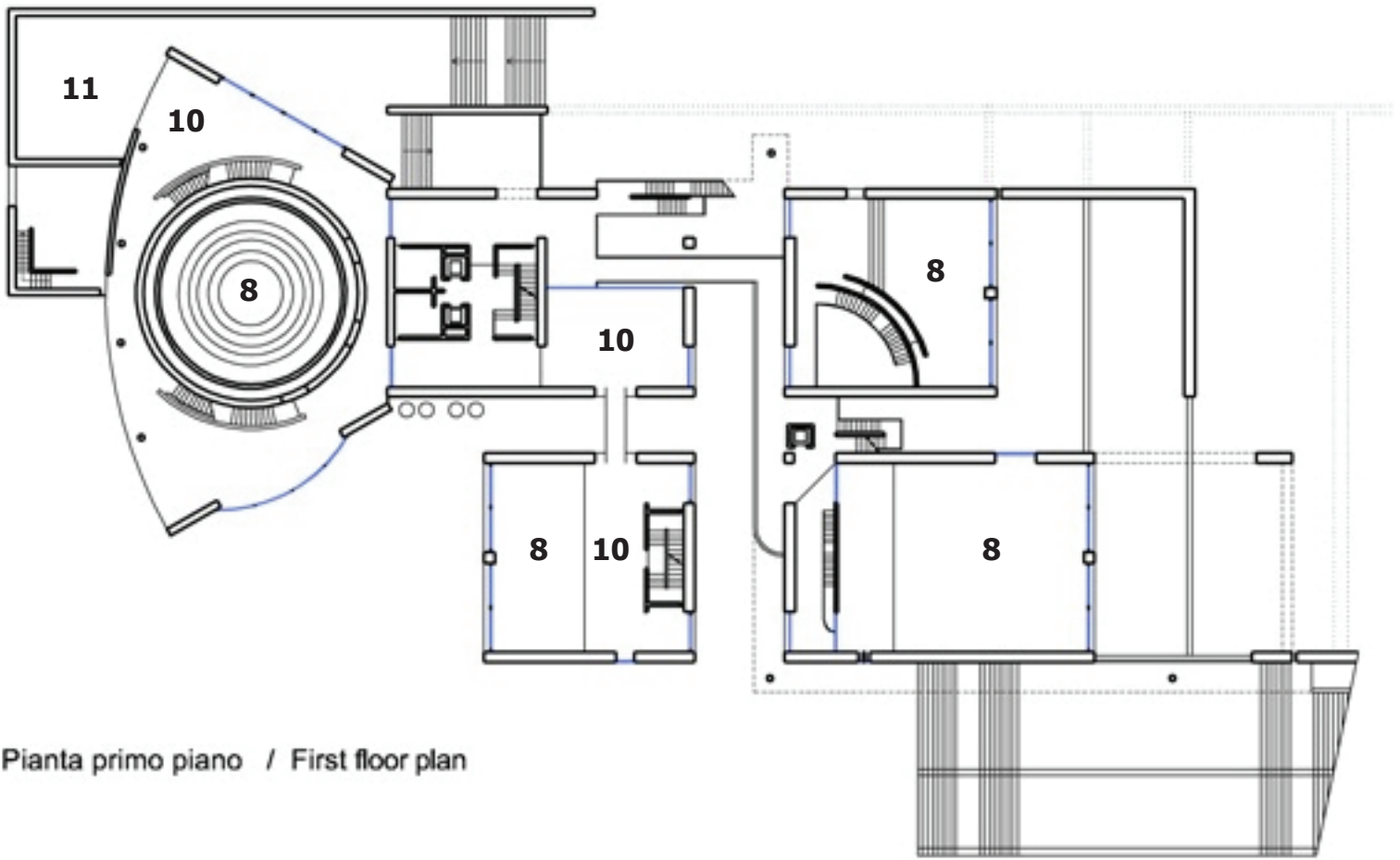
View of the long promenade bridge located at the south elevation (from Google Maps)

The visitor approaches the project from the east. From that position one can see the back wall of the project and the long perspective towards the west. The downward sloping terraces are composed of several flights of stairs with landings in between. The blindness of the southern wall blocks the view from outside to inside; giving the impression of a thick fortress that protects the building on the perimeter, and is encircled by a contemporary version of a moat of water surrounding a castle. The stairs and terraces extend toward the south and are covered with shallow water, which cascades down the steps into shallow pools all along the building up to the middle of the fan shaped volume. At the lowest level the threshold between the water and the dry terraces curves towards the right, and becomes part of the edge of a larger circle, comprising the overall composition of the entire project. The curved edge of the fan shaped volume is part of this virtual circle, and is bounded by two diagonal walls that meet the northern rectangular block behind it at an angle.

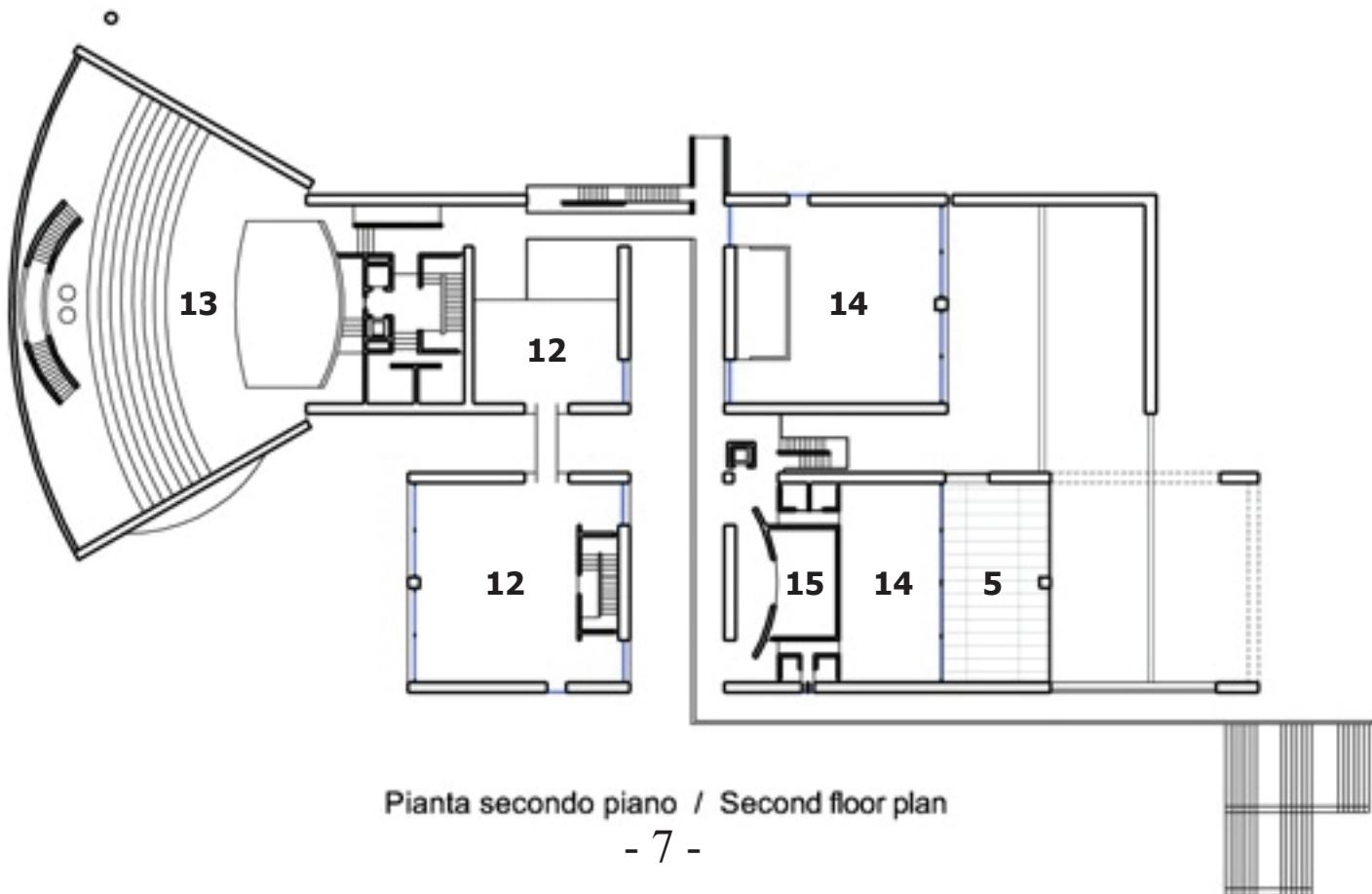


Perspective view of the building's south west corner (from Google Maps)

The two buildings parallel to each other are crossed by two passageways. One starts from the south edge of the first building and ends at the outer north edge of the second building. This triple height tunnel that cuts through the project intersects another longitudinal axis that separates the two main building blocks. The tunnel has two walkways aligned on top of each other, one on the first floor, and another walkway on top of it located on the second floor. They are designed as exterior balconies that are adjacent to one covered side of the building. They traverse the entire length of the tunnel from the south end to the north end of the building, and act as transition arteries to access the interiors of the east blocks.



Pianta primo piano / First floor plan



Pianta secondo piano / Second floor plan

The promenade on the second floor is a long bridge that allows the visitor to access the building directly from the exterior promenade, entering through the tunnel that cuts through the project laterally. As the visitor approaches the tunnel from the exterior promenade, he turns right entering the covered triple-height space, and continues walking on the same level across the bridge towards the north end of the building. This walkway ends at the other side of the building at a viewing platform where the user comes to a dead-end. The platform protrudes slightly out of the building's north elevation, like a small balcony, and is supported by a structural column directly below it. This architectural element is built for both structural purposes to support the platform, and for aesthetic purposes to accentuate the importance and location of the column's weighty presence and verticality beneath the platform. It also makes the form of the north elevation richer, and the exterior space more complex and intricate.



Perspective of the main exterior tunnel of the museum (from Google Maps)



Backyard north elevation with its viewing platform protruding out of it (from Google Maps)

The architect divided the interior spaces located behind the blind walls into four separate compartments. He distributed the functions in different box –like spaces that are positioned in a centrifugal rotating manner around the building’s cross-axes in plan.

At the south-east corner of the building, Ando placed a functional box that has three floors. He divided the volume into two spaces on the inside, hollowing out a double height space. In this space is located a multipurpose hall that has multiple functions. A thin interior balcony on the first floor provides the visitor with a downward view towards the ground floor and to the water covered floor located on the space outside, beyond the glass threshold of the large elevation that separates interior from exterior. On the outside, there is no roof slab above the pond. It is designed as if the ground floor of the multipurpose hall is an artificial shoreline, located at the edge of a very shallow pond, with a very thin rectilinear threshold between them that separates the two different materials on the floor. This kind of material effect implies a stark contrast between hard-floor and soft-water on the same plane. It also implies at the same time the seamlessness of surface as the floor transitions from tiling to a surface of water.

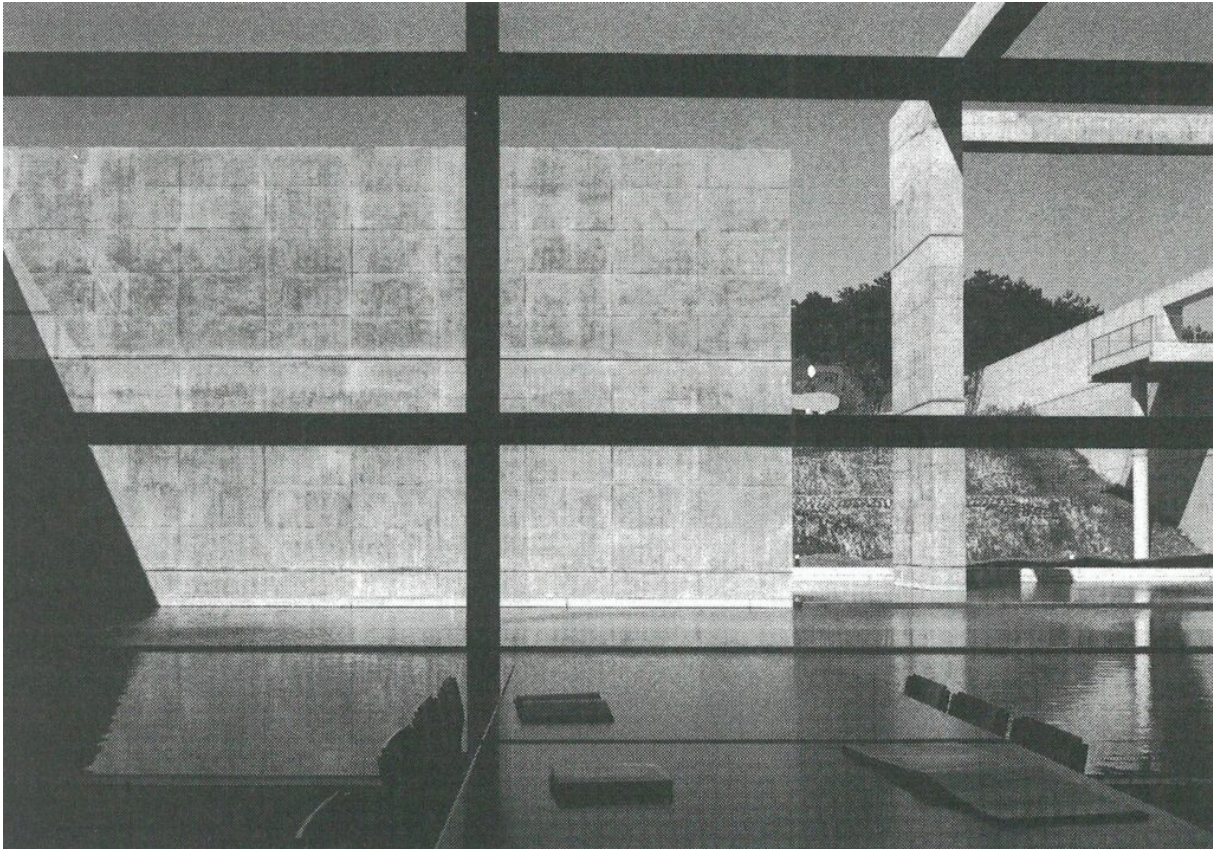


View of the water terraces outside the multipurpose hall and library (from Google Maps)

The main common artery provides the visitor with multiple entrances to the various functional spaces of the project. The second floor walkway itself can also be directly accessed from a secondary staircase from the ground floor to the second floor for shorter access. This staircase is located in the alleyway behind the promenade in between the project's volumes.

On top of the double height space on the second floor, above the multipurpose hall, Ando placed a single-level seminar room with an exterior terrace, and an information office behind it. It can be accessed directly without vertical circulation from the long distance linear promenade located on the same level.

The terrace on the second floor adjacent to the seminar room provides a direct view to the water below. The pond on the ground floor is framed by fair-face concrete columns, beams, and walls. They delineate the borders of the backyard. This way the volume's space and perspective are framed within a single composition consistent with the design's simple geometry. The details are carved out within the composition to enrich and articulate its architecture, and spatial quality in a subtractive manner. Thus, the building becomes more complex and more detailed without ruining its perfect simplicity and rectilinear pure geometry. So it's both simple and complex at the same time rendering its architectural design very pure and sophisticated.



View from the library out towards the water terraces that ends at a fair face wall (from Google Maps)

On the north east corner of the building, the second rectangular volume is shifted towards the west away from the back-eastern wall. Ando designed a similar space to its neighbour which has the same square proportion both in plan and in section. This space also has an opaque western wall, and a transparent eastern façade that provides a view to the artificial pond outside through the large floor to ceiling glass panels. This perspective on the other hand, unlike the one near it to the south is closed off by a blind fair-face wall in front of it, terminating the view towards the end of the pond at a shorter distance. These external walls and elements, despite them having no functional or structural purpose, seem to be necessary for the aesthetics of the composition.

This space contains a library on the ground floor, and a curved staircase that goes down a void towards the basement. The ground floor of the library is a split-level with shallow wide steps. There is another void in the slab above the basement located at its western flank, so the library can be viewed from an indoor balcony above.



The Library
(from Google Maps)

Above the ground floor, the library at the north-eastern wing of the building has a double-height volume from the ground to the first floor. Since it takes up the clear height of 2 floors, the space has a cubic volume with a square proportion both in plan and in section. The architect designed the elevation of this box at the east with transparent floor to ceiling glass panels that traverse the entire clear height of the space. This provides a large and wide view to the exterior backyard, where the ground is covered in water, and the perspective from the library terminates at a blind fair-face wall in front of it.



Inside the library viewing its space from above (from Google Maps)

The four main spaces on the second floor can be accessed from the exterior promenade. Above the double height spaced library, is a single height seminar room. It can be accessed by the exterior walkway directly from the project's tunnel space that cuts through the main artery. The two office spaces on the western flank of the building require the visitor to cross a series of small bridges from the exterior promenade. The movement through these spaces is linear, and in sequential manner. The second floor promenade is not the only access to the four spaces, but there are four different interior and exterior staircases that connect all the floors.

The architect designed on the second floor, a series of spatial sequences that alternate between exterior spaces to interior rooms, and then exterior bridge to another interior room. An alternating pattern of moving from outside to inside and then outside to inside again, and then outside again. This is what architects call spatial narrative in linear sequence.

Some other spaces designed in the building have non-linear circulation and sequences. Also some have indirect back and forth relationships both horizontally and vertically across different floors. Therefore, despite the building's simplicity, it is quite deep and complex in terms of spatial design and layout of rooms in three dimensions.

On the first floor is a small bridge that connects the interior gallery space located on the North West corner to another gallery in the double height space overlooking the void on the ground floor below it. The bridge connects the two interior spaces both physically for access, and spatially for direct circulation and connection between the two rooms.

Below the long promenade on the second floor, is another shorter bridge aligned with it on the first floor. It ends at the south porch, with a slightly curved balcony. At this balcony the visitor comes to a dead end railing acting as a viewing platform that provides a perspective to the south side of the project.

The sun-light that enters the tunnel, creates a very sharp contrasting light effect that pierces through the entire space. The difference between light and shadow, light and dark, interior and exterior, high and low volumes is very clear cut, sharp, vast, and abrupt. The architect uses this type of light/shadow effect to create a dynamic exterior tunnel with a long and narrow perspective in a relatively large and wide linear space, and to create a sense of awe and drama in the visitor. It can be analogous to the alleyways and urban spaces that pedestrians traverse in dense city districts which are relatively narrow and high in between the buildings.



Entrance to the main tunnel of the museum (from Google Maps)

The architect ends the composition of the building with a fan-shaped volume that has angled walls, and a panoramic curved glass façade that is directed towards the western sunset. This curved and angled space is designed as an annex attached to the second linear volume on the west end of the museum. It contains a double-height amphitheater with a suspended viewing platform on the first floor for audiences to sit and watch performances and presentations in the central circular theatre located on the ground floor.



Gallery above the theatre (from Google Maps)

The amphitheater is designed as a pure geometric circle that is surrounded on all four sides by viewing platforms. One can overlook from the upper floor down through the void. It provides a very theatrical dynamic view of the entire space inside the volume. On the roof above the first floor, is another stepped theatre that is open to the sky.



Curved rooftop theatre (from Google Maps)

The geometry of the curved glass façade continues its curvature outward along the same circumference of the geometric circle counter clock-wise from the west to the south. As the curvature of the extension of the façade continues outward onto the exterior landscaping, the architect terraced the hardscape in a gradual parallel manner. The straight lines of the terraces intersect the stepped concentric curves that are parallel to the outer circle at equal intervals offset from each other. The outer part of the landscaping is covered in shallow water. The inner part of the landscaping is dry and hard. The geometry of the landscaping is consistent with the language of the architecture and with its intersecting shapes and volumes.



View from theatre lobby (from Google Maps)

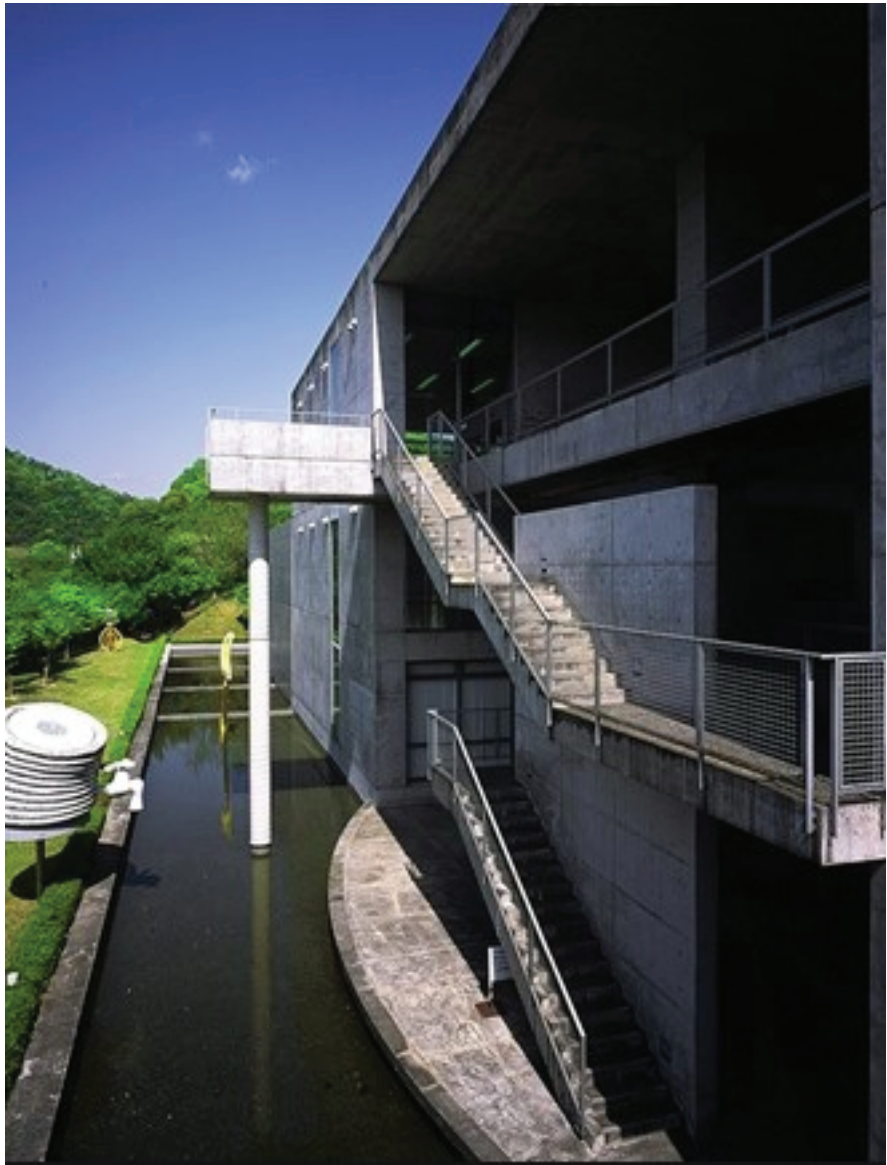


Detail of water terraces
(from Google Maps)



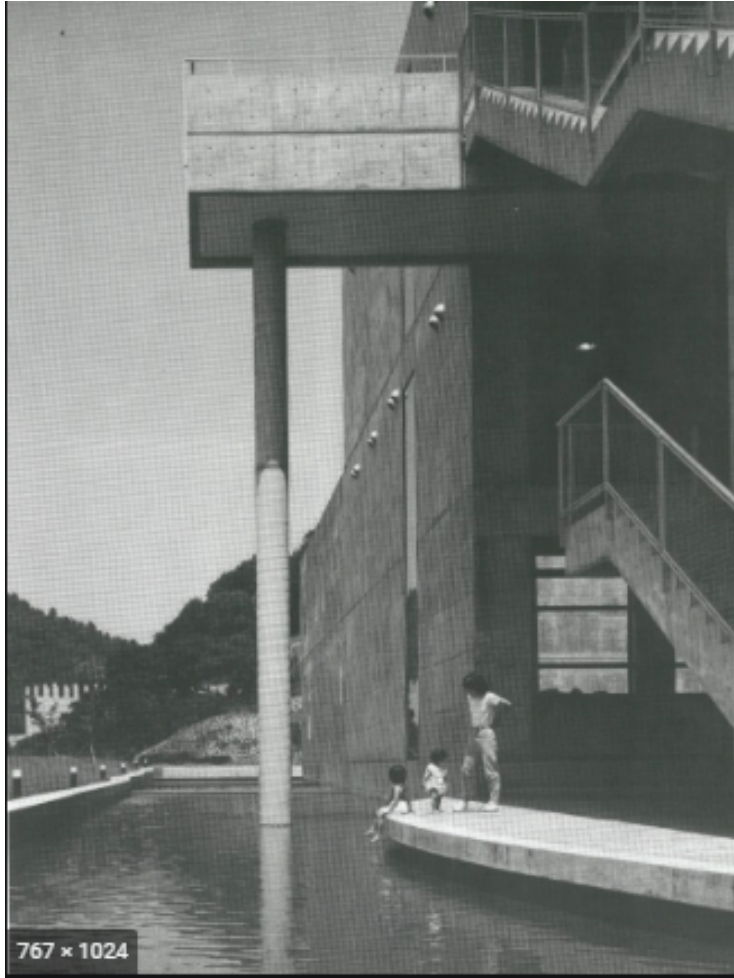
View of the fan-shaped wing and its curved glass elevation (from Google Maps)

The project's backyard at the northern end has a series of staircases and exterior alcoves that provide access for the user through vertical circulation to all three floors of the building. The staircases give a sculptural effect and composition for the north elevation, articulating its details, three-dimensionality and verticality. The staircases are also used to decrease the building's blandness, on its elevation making it more complex and detailed and giving it a richer quality with shadow effects. The northern end of the building has on its ground floor a slightly curved platform bulging out in a convex fashion. It is placed and designed near the staircase adjacent to the artificial pond, so that people standing there can contemplate the calm rippling water of the shallow pond facing the north elevation. Tadao Ando also ends and closes-off the composition at the north-eastern backyard with shallow water terraces.



Perspective of the backyard and its viewing platform and stairs (from Google Maps)

It is as if the entire project comes out of the ground like a piece of extruded land-art, which is terra formed according to the contour lines of the landscape. The artificial steps of the landscaping follow the downward slope of the natural topography of the site's natural terraces. The composition is complete not just through its architecture, but through its continuous landscaping. Ando's museum for children is a detailed impeccable work of art and architecture and landscaping, designed to a very high level of consistency and sensitivity to the site and its function as a museum. It has very visceral, exciting, and dynamic spatial qualities. They allow the visitors to explore its spaces and terraces in multiple ways and to discover its spaces as they unfold through its exploration in a seamless, sequential, and varied manner.



Viewing platform supported by a column immersed in the water (from Google Maps)



Children playing on the water terraces (from Google Maps)

All drawings courtesy of:

https://www.archweb.it/dwg/arch_arredi_famosi/tadao_ando/museum_of_children/museum_of_children.htm