

# X-Linkage

Contemporary Art Museum

# MSc Architecture-Built Environment-Interiors FINAL THESIS PROJECT

Project Location: Barcelona

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**POLITECNICO**  
MILANO 1863

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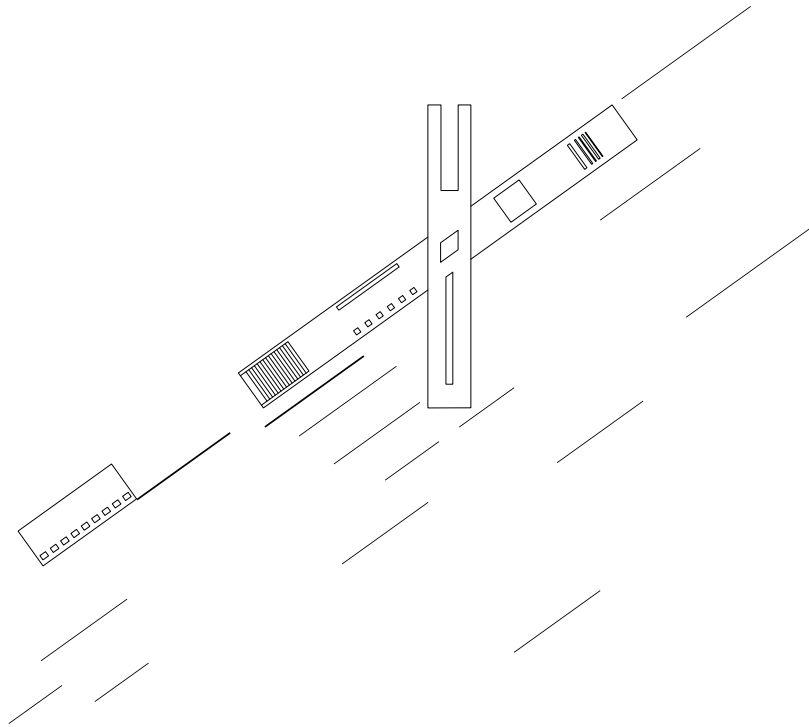
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# X-Linkage



# X-Linkage

## Contemporary Art Museum

Barcelona is a city that has a different character, historical values which have been combined in a one urban area by a historical challenges, a design of urban planner and nature. However, by the time as the developments and the growth on the population, create wrong developments on the urban scale which enables the **connections**. When we look towards to all the historical developments, first rule is not disturbing the ecological elements and creating equal qualified urban spaces for citizens. There are some critical elements that have been in Barcelona. These elements are Trinitat Vella, Parc del Forum, Plaça de les Glòries Catalanes and future Sagrera Linear Park project. As we look to Trinitat Vella, Parc del Forum and Plaça de les Glòries Catalanes, those elements can be count as **3 nodes** which create big **triangle**. For the city this triangle has a really important effect on social life. No matter how they are connected to city, those elements still cannot pass through the Besos river. So, river is still acting as big barrier which separate main city center and Badalona area. When we take into consideration, a new node which will be attached to triangle could be the, on the other side of the river could be a solution to create a new connection, **linkage** in the system. In the general masterplan, the main aim is creating a new node for triangle and also by using the potential green areas beside the Besos River, connecting the mountains and sea. Therefore, the connection is not in one connection, it has a two directional connection. To provide this type of bond, it should be **x-linkage**. The museum building is providing the x-linkage by directing the all area. In the connection of mountain-sea, museum has a role of linking an existing park and the green spine of the Besos river. In the other direction, museum is creating linkage between the Barri Oliveres neighbourhood and by passing through future Sagrera linear park connecting to Plaça de les Glòries Catalanes. By this x-linkage the main aim of the conecction of the city and the neighbourhoods in the other side of the river will be connected. This directional movement is not providing only by museum, also landscape elements are creating a **bridge** for the usage of the neighbourhood and the city center citizens. In the two side of the river there are two main functions. On the right side the is a x- shape contemporary art museum and on the other side there is artist recidency. The place where is artist residency located, there is a square which is connected to river and from underground to metro station. By all of these points the museum is creating new x-linkage and a new node for the whole system of Barcelona.

X-Linkage

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**01 | Reading**

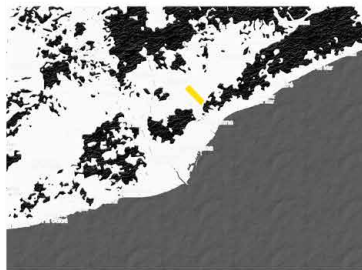
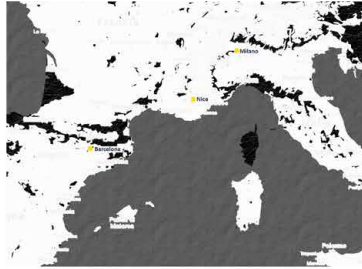
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Location Map



Green Spaces



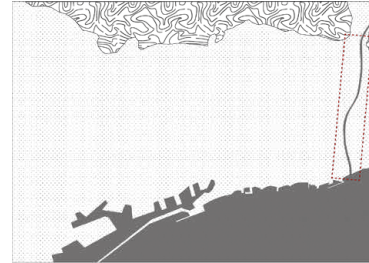
Transportation Map

**Location:** Barcelona is located on the coast of northeastern Spain. It is the capital and largest city of the autonomous community of Catalonia. Its urban area extends to numerous neighbouring municipalities within the Province of Barcelona. It is one of the largest metropolises on the Mediterranean Sea.

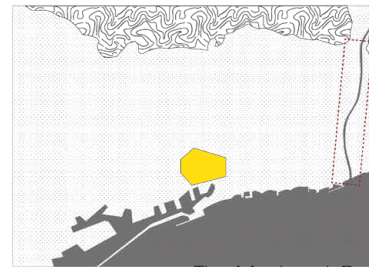
**Green Spaces:** Barcelona has lots of green spaces. The city is located between two rivers. The Besòs river is located on the northeast side of the city. And it is splitting two mountains and creating a valley. The name of the mountains are Parc Natural de la Serra de Collserola and Consorci del Parc de la Serralada de Marina. Beside the river, there are two green bands flowing along the river but the green spaces are not designed and it is separating the main city center and the industrial and new developing part of the city. The other green spaces inside the urban typology are well connected and accessible by the citizens. However, the two mountains are isolated from the city. Also by the territorial meaning, the landscape of the mountains is important; however, the green properties are a little bit different in the city than the original landscape territory. For reducing biodiversity in Barcelona, the mountains, river, and the sea can be a good linkage.

**Transportation:** Barcelona is served by an extensive local public transport network that includes a metro system, a bus network, a regional railway system, trams, funiculars, rack railways, a Gondola lift, and aerial cable cars. Barcelona has a good transportation system. However, there are few linking points between the other side of the river and the city.

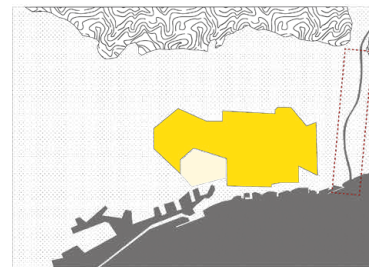
**History:** The earliest settlement of Barcelona is unclear. However, we can explore that the history of the Barcelona is leaning till the Roman Empire. In the modest beginnings are visible with two characteristics that can define Barcelona's developments over the years. In the first character we can see from the remaining that a bounded and compressed city, dense forms. The limits and physical walls hemmed the city in and holding the city citizens tightly together. This developments had been done in the medieval times. The second can be named as intentional city which is conceived and constructed by central planners. The most important plan is the Cerda plan. Perfectly designed and there are certain rules. There are axis and the designed building blocks with courtyards. The design bases depends on each citizens have on a per capita basis, enough water, clean air, sunlight, ventilation and spaces. The blocks are oriented Northwest to southeast to maximize daily sun exposure. Each block is almost identical proportions with buildings of regular heights and spacing and majority of green space. Commerce is located on the ground floor and the citizens living in the floor on the above and the workers are located on the upper floors. With this layout everybody is using the same streets and public spaces and reducing the social distance and inequality. After those two characteristic developments, we can also see the third character which is unplanned growth in Barcelona history. But we cannot named that one as an urban sprawl because the growth has been a plan. Over the centuries, Barcelona has been transformed.



Evolution of the City



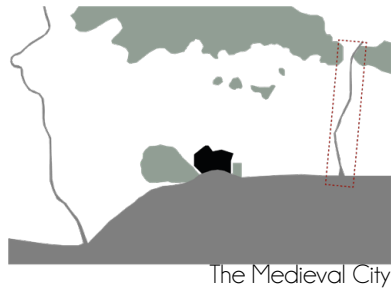
The Medieval City



The Cerda Plan



XXth Century Growth



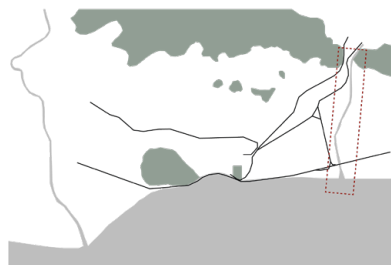
The Medieval City



The Main Canals



The Roads and Paths



The Railways

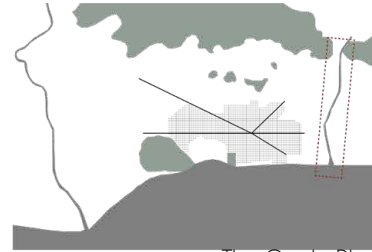
**Urban:** When we look to the city, we can see the adaptation to the geographic scenario. In this adaptation we can see elements that creates the identity. These elements are limited by the frames. These frames are lanscape, and circulations. Around these elements the city has been arised. These elements can be seen as a limitation objects. Barcelona has limited by the mountains and the sea. Architecture has a role of transformation of the territory by following the limitation elements. Combination of these elements with the built structure creates the city. Landscape and circulation play a key role in the dynamics of the city. Therefore, in Barcelona the axis, natural elements such as sea, mountains , rivers are creating the dynamics. In the passing through time, new elements are added and overlapping. The result of the overlapping is metamorphosis which is the transformation one form to another. Therefore, the final result become as a complex system. We can see the complexity and different elements' overlapping in the system. To read the city in a perfect way is looking their layers. In a result of this kind of looking made a clear conclusion. These elements can be divide as , the medieval city, the main river canals, the roads-paths, the railways, the Cerda, XXth century growth, the old rieres and green ramblas. When we look to those elements it is easier to find the voids, limits and traces. Those elements are the key elements to create a city. However, also they are creating some limits. This can be a problem for the city's continuity. In this city, the disconnection caused by the limits should be solved by using the green elements, buildings and water.



**The green nodes & Ramblas:** There are lots of green open spaces can be found in Barcelona. The city is more famous on the green ramblas. They have designed to reconnect the city. There are 3 main axis in the city and they can be counted as the main ramblas. The main aim is connecting the 3 different urban typologies which developed in the history and also connection of the green nodes. The future Sagrera Linear Park can be count as a new big rambla that connects Trinitat Velle and Parc de la Ciudadella. By creating metropolitan parks and the green ramblas in the city all the green infrastructure become connected.

**Rieres:** Rieres elements have a big role in the city and the ramblas. The main goal is carrying water when it rains, in a natural way. By doing this the climate management and fundamental water cycle is done. In time, rieres were the linkage between the mountains to sea and they are creating the main axis. Riere was now became as a Torre Estedella Streets as a green rambla. Therefore, Besos River has a big role and impact and connection of mountains and sea by adding the city in their system. Now, the river has become as a barrier that disconnects the two side of rieres and also along the river the urban typology has no connection between the water. The lack of connection creating the barrier.

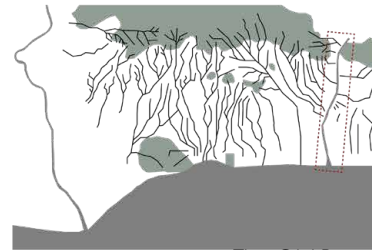
**Barriers:** The railway, polluted Besos River and hihways can be named as the barriers. By the future Sagrera Linear Park, medieval city and Serda Plan tried to be connected to Besos River and industrial zone. However, it is ending by not reaching to the other side of the river.



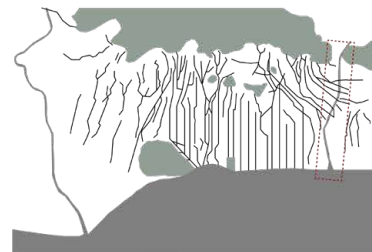
The Cerda Plan



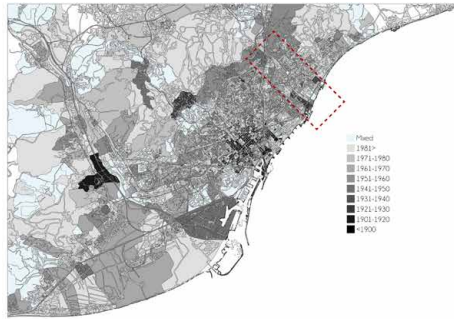
XXth Century Growth



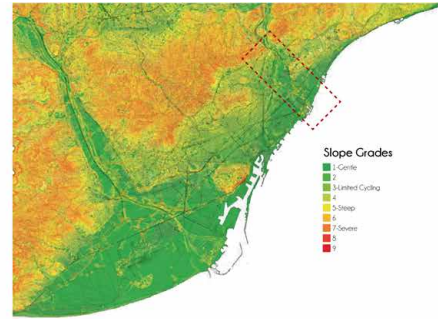
The Old Rieres



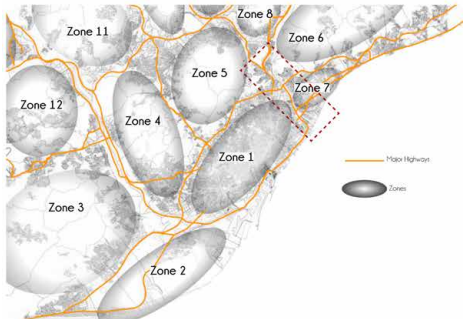
The Green Ramblas



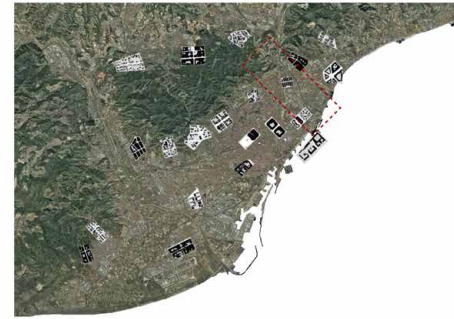
Building Age Analysis



Slope Analysis



Mobility Zones

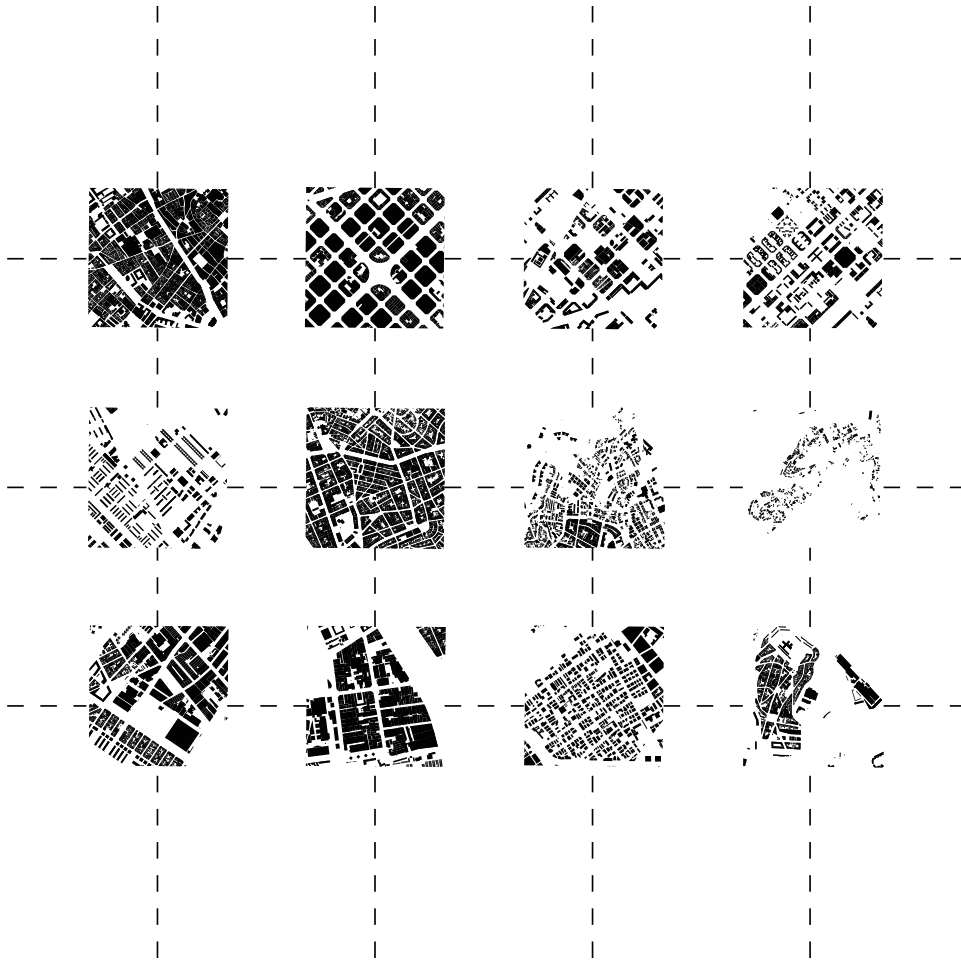


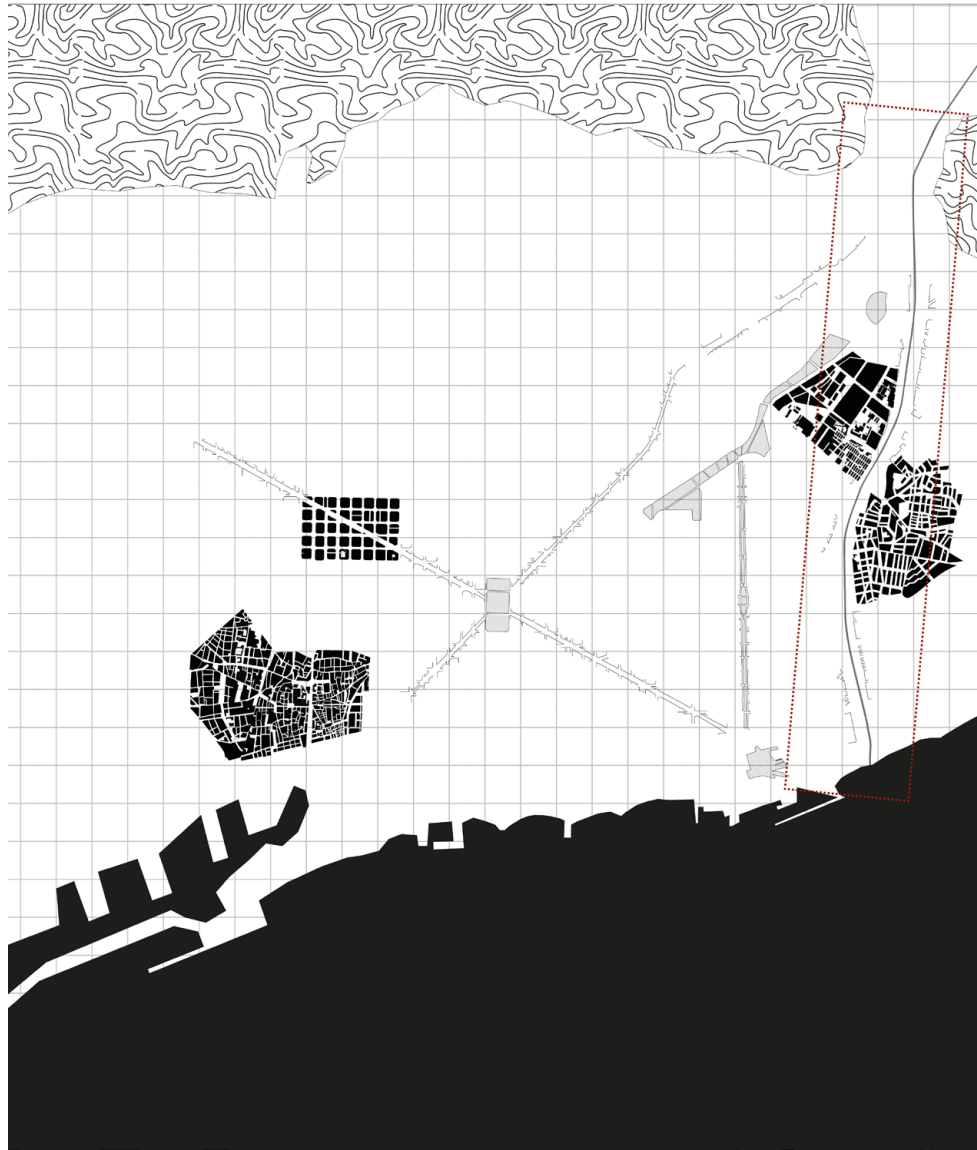
Urban Typologies

When we look to the building age analysis, we can see that mostly the oldest buildings are located in the center of the city. And in the site, we can see that the building ages are young. We can also say from looking in the urban typologies analysis, near the site building typologies are mostly industrial and built near future. Also the site is in the middle of the zones 1-5 and zones 6-7 so it is in the transition point and in important role to create a connections between the zones. In addition, when we consider the slope grades, we can see that from the sea up to mountains, slopes are increasing in a gradually. So the site is acting an important role in a lots of aspects. Therefore, we can say that the aim of the site is creating a keystone.



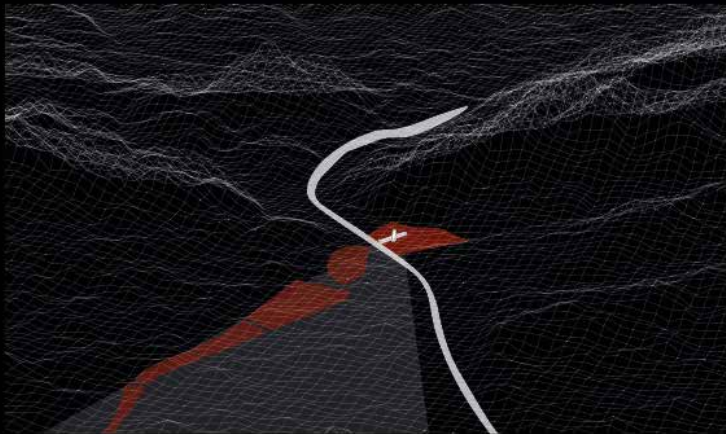
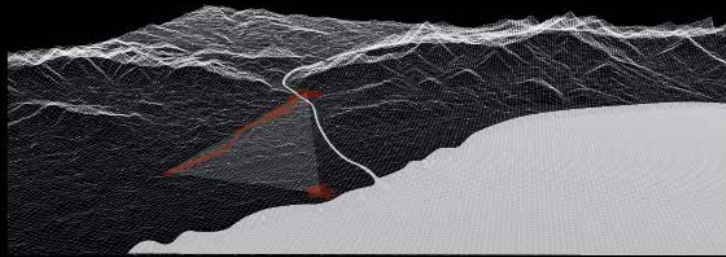
Open Spaces and Ramblas

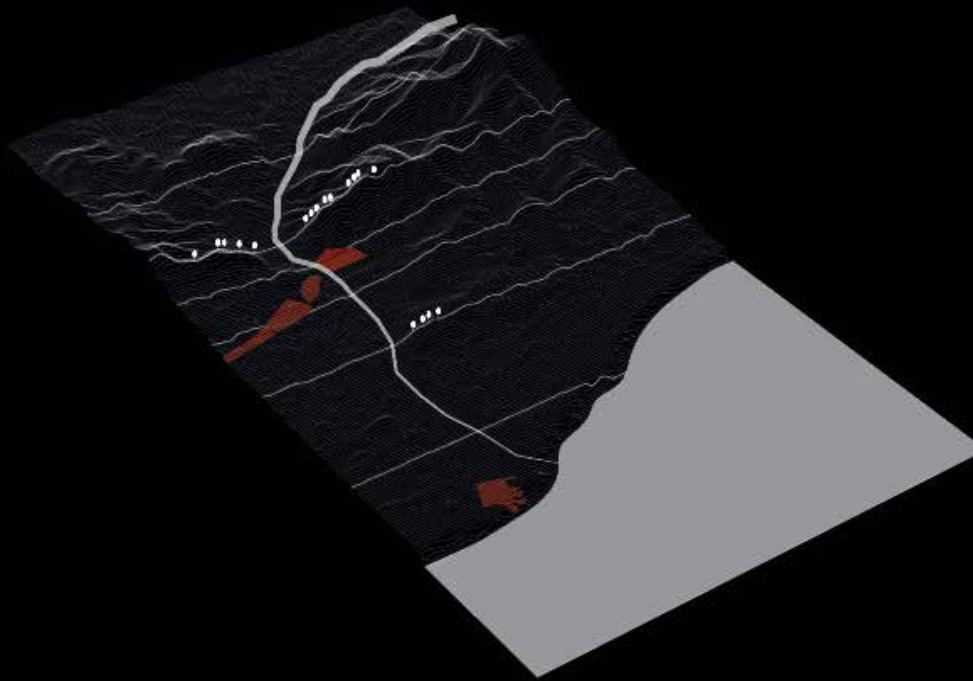




Urban Typology and Limits







#### Urban Sections

**Character of Topography:** When we look to the section of the along the Besos River, we can see the differences in the sections. River is acting like a spine and the most important focus point on the area. When we look to the section we can see the different characteristics. Therefore, for the intervention along the river can be differentiated. Some points the abandoned spaces should be used to attach them to river and in some points the tangent green areas should use to design river space and connection to water. When we look the topography near to the new area as a important node, it is mostly flat and behind the area the topography rising and the typology is turning from urban to landscape. Therefore, the are has a key point of connection of nature to the urban llife. Also, in the opposite side there are Trinitat Vella and future Sagrera Linear Park which are important for the connection of the different points and neighbours in Barcelona. Therefore, the main aim of the are is acting as a bridge and linkage point of the different areas of the city. the linkage is not only in the social aspects also for the territorial viewpoint. So , the balance between the architecture and the nature should be considered in the design approach.

X-Linkage



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Strategy

**Interpretations:** To understand the area's character and needs, we can create 3 categories. Those ones are **voids**, **limits** and **traces**.

**Voids:** When we look to the open spaces around the Besos river, all along the river beside the water there is continuous green band on the both sides. However, they are not in usage. As an advantage, the future Sagrera linear park is a qualified open spaces. Because it is creating a new connection inside the city which has also different functions such as railway station, sport centers, gardens. Trinitat Vella, Plaça de les Glòries Catalanes, Parc del Fòrum are also the important open spaces.

**Limits and Traces:** When we look the the limits and traces, we can analyse that there are some limits that block the continuity and fluidity. Along the river and in the opposite direction there is train which creates the limit. Also the bridges along the river cuts the relationship between the water and human. Therefore, in the city developments we are creating some passages but also in the opposite side we are disconnecting the relation between human, nature and city.

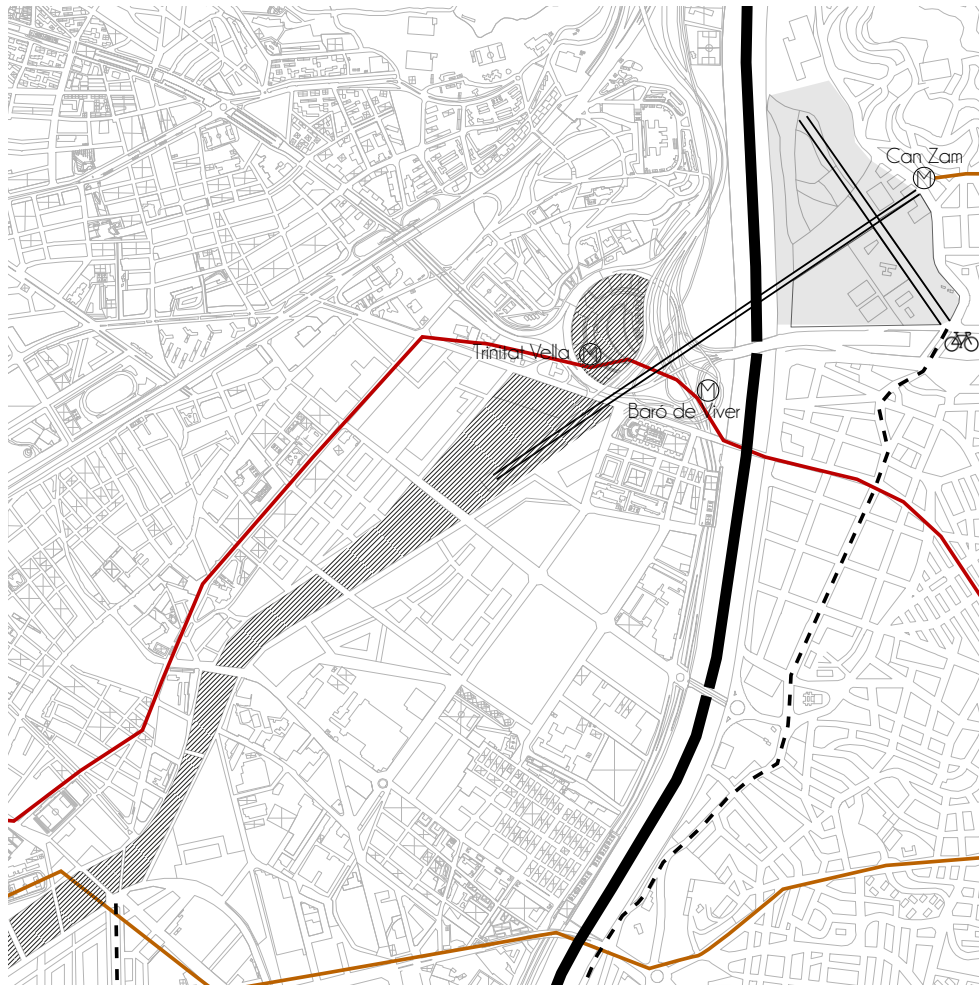
**Strategy:** According to the voids, limits and traces , we can understand that the main role in the strategy is the connection of the important voids and to be created a big triangle. The two nodes are existing ones which are Plaça de les Glòries Catalanes and Parc del Fòrum. The third one is the most important one, X-Linkage. Inside the site we two main traces considered and also creates the connections between the neighbourhoods and the triangle.





When we focus on the strategy, as the two axis were mentioned before, we can see the importance of these ones. First main axis is connection the Cam Zam Metro Station(Orange Line) and the Sagrera Linear Park project. It is also important that in the Sagrera Project there is train station hub so the connection between the orange line and the train station will be attached. So in this sense the project area become as a linkage point of the transportations systems.

Strategy



For the second reason of the first axis is the connection of the two different metro lines which are orange line and red lines. So the area become as a linkage point of different kind of people who are coming from different areas of the city. The other axis is connecting the existing designed park and the Santa Coloma de Gramenet neighbourhood. Also by designing a new bike path, the connection between the city and the new linkage point will be attached.

Strategy





Landmarks Mapping

### Landmarks of Everyday Life:

The history of monuments is as old as cities. In the history it is easy to see the lots of examples inside every city. Cities need monuments! Through the periods and histories of the cities, the monuments-landmarks have fascinated human beings. They enrich the cities and governments. They can be used as storages of memories, histories, arts. Also they can be a place to spend time, gathering places and meeting points. The architectonic character of the landmarks describes an attention grabbing man-made structure. It obtains a blazing dimension and gives an emotion of perfectionism. The most important feature of them is not speaking themselves. However, they are creating a spatial situation to have a spot in the city and rooted in the structure of daily life. Therefore, they can be seen as a significant part of the human-life in the cities.

On the other hand, the structure of the cities has changed due to the worldwide industrialisation. This is caused by shifting of values and the changing of the social demands. Also this means that this development caused a change in the spatial designs and architecture. In the city of Barcelona, we can say that the result of the industrialisation, the sense of the monuments and gathering places changes as a spatial design. To support and develop this change we need new perspectives for the contemporary museums as monuments.

When we look to the general mapping of landmark buildings and landmark natural elements, it is obvious that on the left part of Besòs River, in the central part of the Barcelona, there are lots of landmarks and they are creating a huge network. This network is sometimes just working by visual connections, sometimes they are connected by the roads. The topography of the Barcelona is variable. So in the hills and the city center, the tall building can create easily visual connections. When we look to the general system, the city of Barcelona is growing day by day. However, to the well connections of landmarks, the new elements are not added. Therefore, in this system, the new parameters which are new users living on the country-side, cannot be articulated.

In the analysis and in the strategy, the location of the site and museum building has already settled. But to create a concrete justification, we should also look at the connections with the landmarks. Generally, the landmarks in the city of Barcelona are punctuate. Only the Future Sagrera Linear Park is creating a linear path. Therefore, this linear park is the most important element for the connection of the museum and this system. By this connection, the museum area will be the only landmark which is located on the other side of the Besòs River. So the other side of the users also can be added to the new system easily. In a conclusion from the strategy, X-Linkage Museum is becoming sort of a new node and it has become the new one of these. The museum is completing this network system and the connections.

X-Linkage



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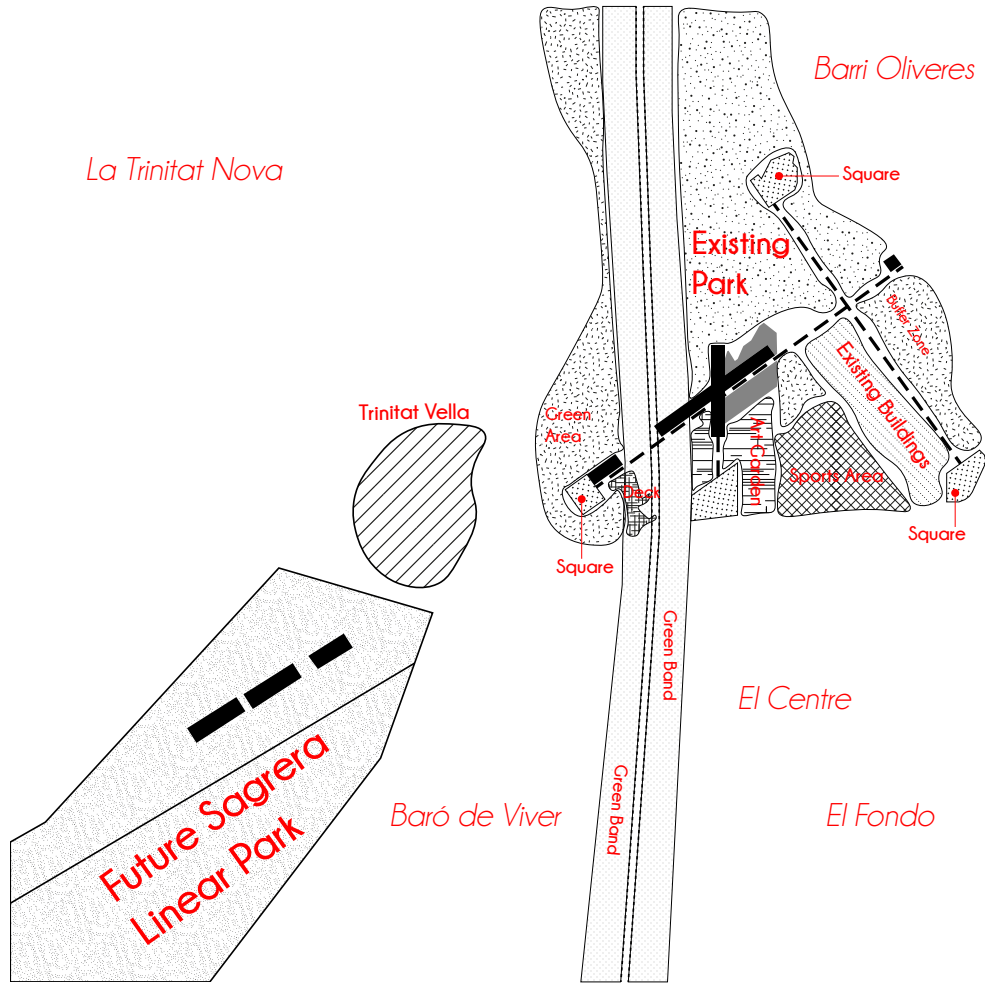
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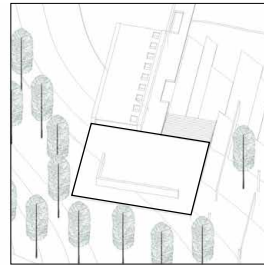


In the function diagram we can see that around the main axis and the museum building, there are different functional open spaces. The area is divided by different functional spaces but in the master plan these spaces are fluidal to each other. The functions are, sports area, art gardens, green areas, buffer zones, existing park, deck and squares. All these functions are surrounding to the museum building and to axis. Also the main green band around the river is passing through and connected.

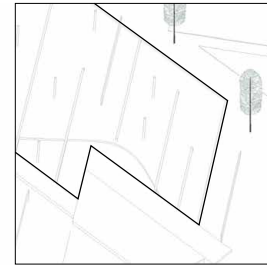
Function Diagram



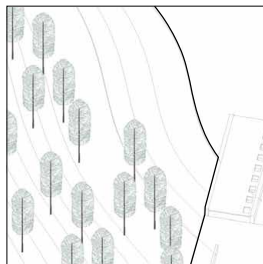
Deck-Water Connection



Square-Artist Residency



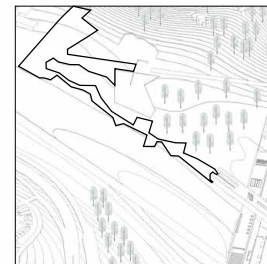
Art Garden



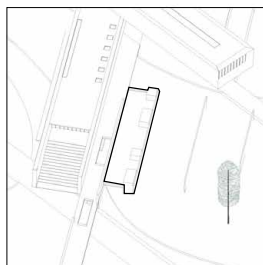
Green Area



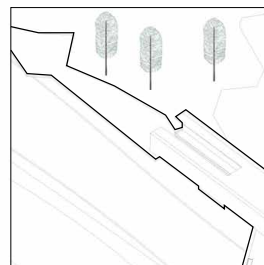
The Bridge



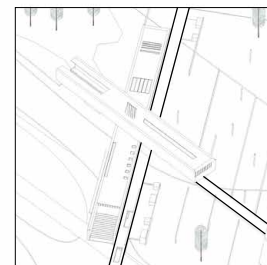
Existing Park



Additional Functions



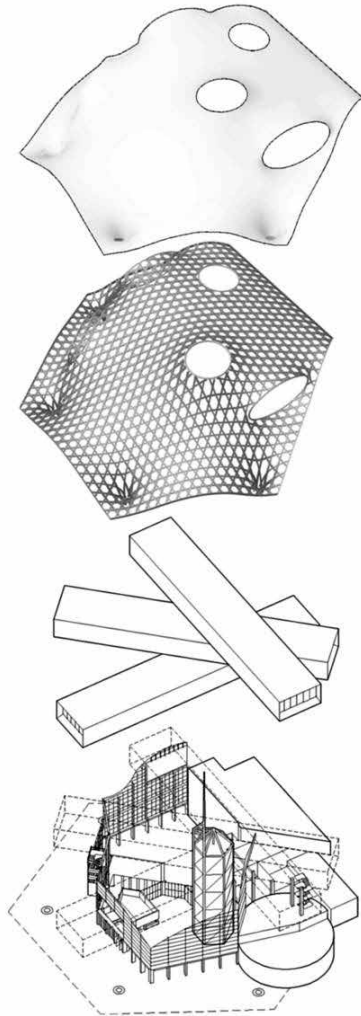
Existing Park Museum Connection



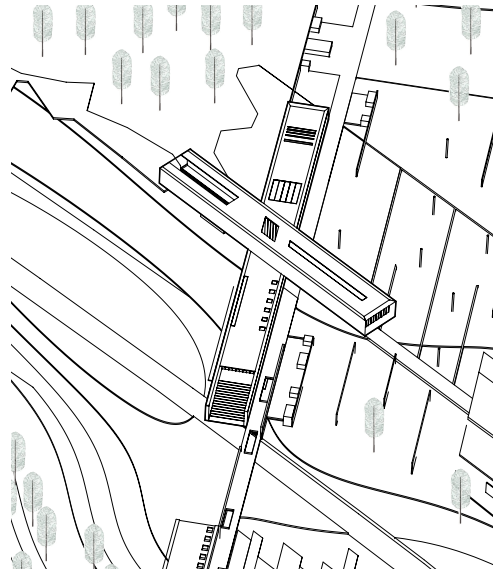
Main Axis

In the function diagram important highlights are marked. In these diagrams, we can see that every element is working with the neighbour functions. And these functions are connected each other. the museum building is not working individually. It is the key point building that create a linkage between the new designed public spaces and existing parks and buildings. Therefore, inside the area, the main strategy for the functions are also same, creating a linkage gathering point in this node.

Function Axonometric Diagram



Centre Pompidou-Metz  
Axonometric Drawing



### Mass Formation

The design decision of the building is the most important part of the project. The main effect of the mass is creating two directional volumes that just puts upon each other. Also, interior space is big and endless. For this one Centre Pompidou-Metz example can be a reference for the project. However, the location of the vertical circulation is not inside. In he example, circulation is just attached from outside. In X-linkage project the circulation is inside the building to create a central core of the building and then the directions are articulated inside of the space.

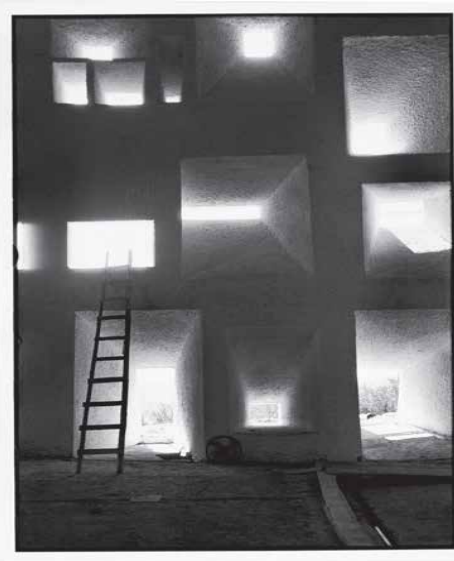
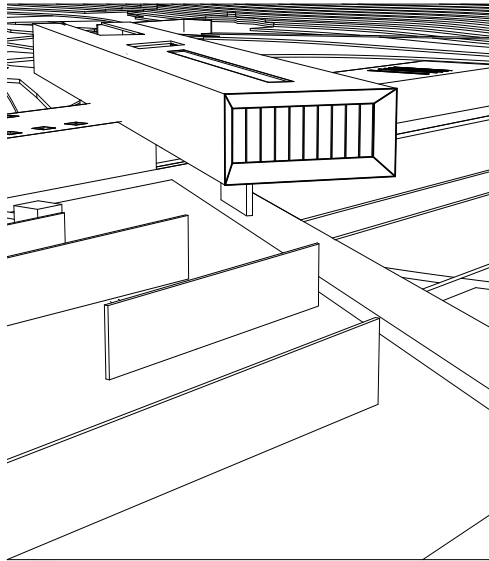
**Casa Study Example:** Centre Pompidou-Metz

**Architect:** Shigeru Ban Architects

**Location:** Metz, France

**Building Typology:** Museum

Case Study-1



### Window Perspective

For the window design, the huge windows in the edges has a big role to emphasize the vista and visual connection. Therefore, the window frames have an angular shape to create an enlarging image. In the case study, Le Corbusier's window frames have an angular shape and it is also controlling the light. In addition, when you look from the inside you can see that from the small window you can see an enlarged outside. For the X-linkage, the logic of the frames are the same. From inside to outside, the exterior is emphasized.

**Casa Study Example:** Chapel Notre Dame Du Haut

**Architect:** Le Corbusier

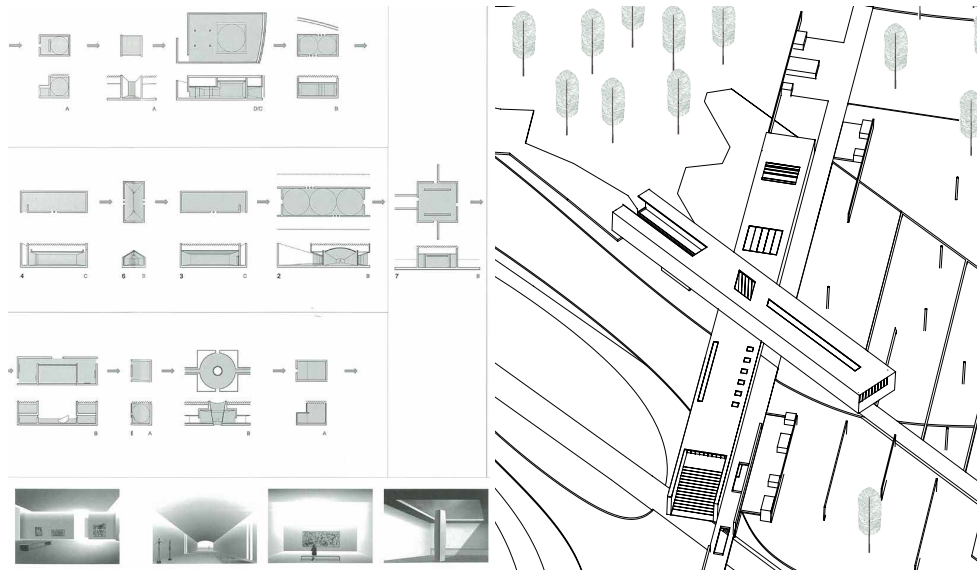
**Location:** Ronchamp, France

**Building Typology:** Chapel



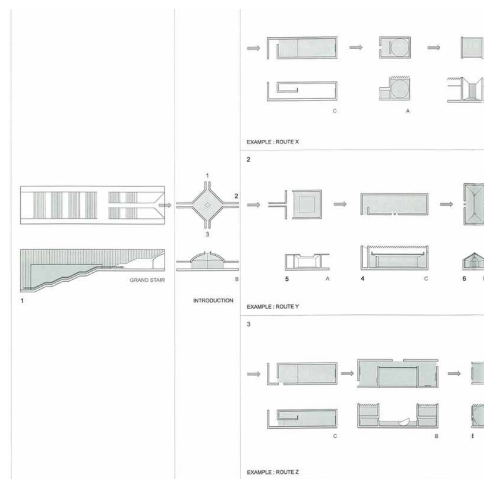
Chapel Notre Dame Du Haut-Windows

Case Study-2



### Sky Lights

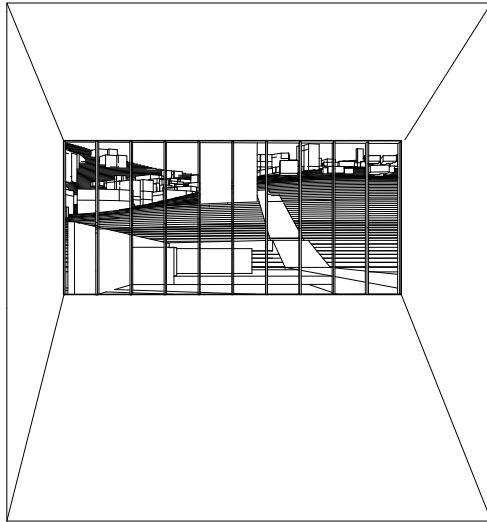
When we look to the skylights to the Tadao Ando's project we can see that geometrical sunlights are created and in different shapes. In X-linkage project the main thing is in a huge linear space creating different kind of interior space effect by changing the shape of the natural lights. By this, inside a huge space the divisions are made by light and these divisions are always changing. Therefore, we can say that in the interior space is always dynamic as the dynamic of the visitors. So, in every detail of the building, there is same decision which is creating a dynamic linkage point that directs people in different points.



**Casa Study Example:** When Sunlight Meets with Concrete

**Architect:** Tadao Ando

Case Study-3



### Creating Frames

In the project the most important topic is creating a visual connection by designing big openings and create a frame. In the case study the frames are designed by the volumes and create a vista points for the visitors. But in the X-linkage, the frames are inside the space and the location of the openings are in the edge of the volumes. By creating an opening in the edges, provide two vista points and between them there is a transformation period inside the museum space. So, the frames are one of the most important element in the building.

**Casa Study Example:** Shoji Ueda Museum of Photography

**Architect:** Shin Takamatsu Architects

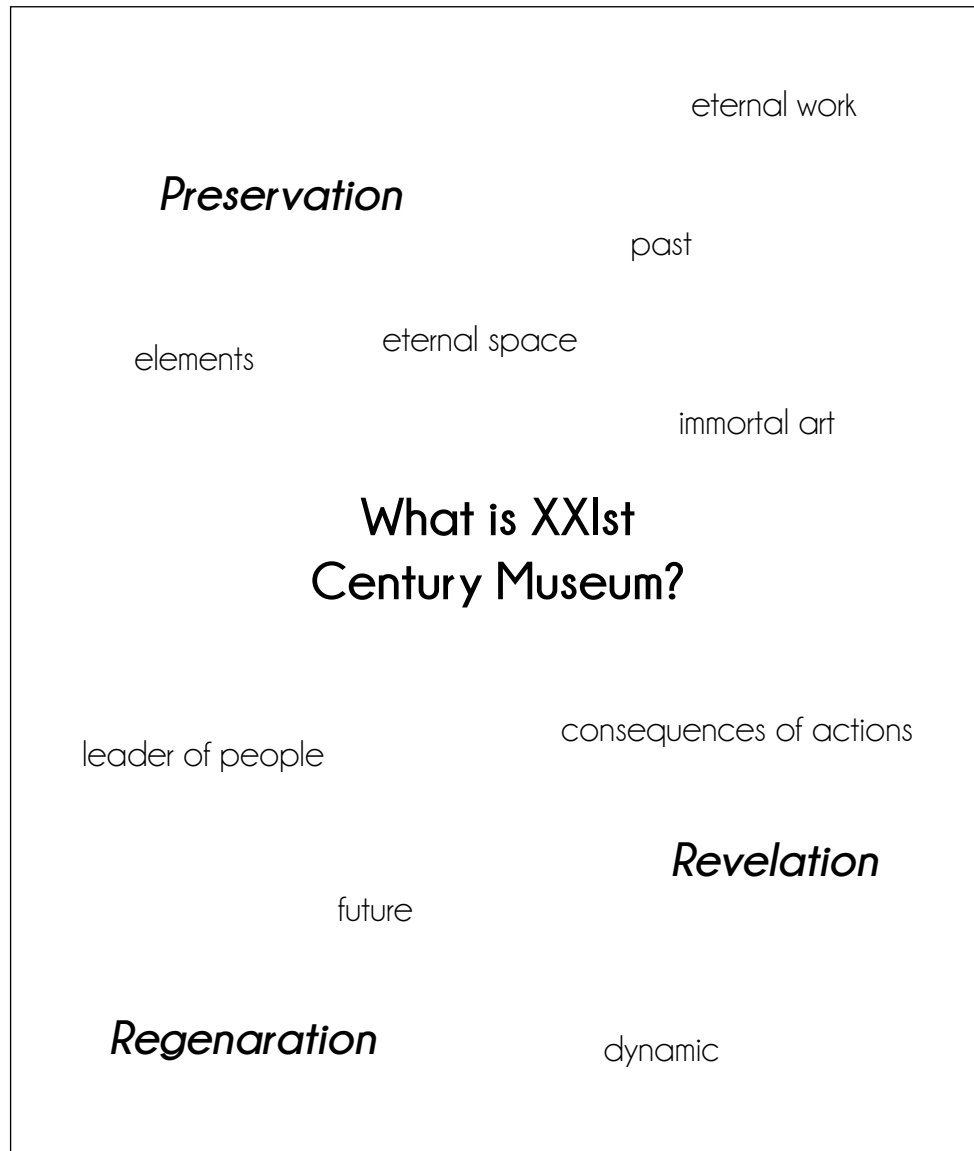
**Location:** Tottori, Japan

**Building Typology:** Museum



Shoji Ueda Museum of  
Photography, Vista Point

Case Study-4





## What is XXIst Century Museum?

In the history of the museums are developed depends on the changing on art works. The characteristic of the art is defining the quality of the space. For the past, the art pieces found in the archeological excavations, were small. Therefore, displaying of them are more easy. In a small rooms, inside the glass boxes, they can be displayed. Also, between the 1000s -1900s art pieces are big sculptures and paintings. In the past museums were designed specifically for these time lines. However, when we look to the XXIst century museums, they are not designing for definite time art pieces. They are timeless.

Timeless is really an important keyword to understand what we need as a space quality. Word of timeless contains **preservation**-of the past, **revelation**-ordering all the elements of the present and **regeneration**-of the future, through education and dissemination. So, past-present-future... The three tenses of time is contained in the space. Museums are leader of people, which shows these timelines and encountering. Therefore, it must be responsible for the larger consequences of its actions. The contemporary museums cannot be disconnected from the city and people. It should be a encountering space for people and time. In a conclusion we can say that it is **eternal space**.

When we look to these characters as a case studies we can see lots o examples for these museums. **Sanaa's 21st Century Contemporary Art Museum** can be a good example for it. It contains all the functions under one roof. From this example, we can say that also combining all the fuctions related on the museums can combine in one roof and create a encountering space. The second case study can be also from **Sanaa, New Art Museum** in New York. The galleries are connected from the opening view to the cityscape. Also the museum contain functions which are diverse but seperated in a simpliest way. Also, inside the XXIst Century Museums contain diverse functions but in a architectural way, they are seperated really simple but affective ways. The architecture is minimalist post modernist. The third important example will be **Museum of Modern Art in New York**, designed by Yoshio Taniguchi, Edward Durell Stone, Philip Goodwin. This example is an efective kind for the connection of the modernism to the past. The building is redefining the edges of historical building. There are lots of volumes and there is a journey between the past and the volumes. New York is a special city where is chaotic . But this museum is creating oppositeness and building a meditational space for an environment or viewing art. Also the oppositeness is creating a connection between the city and the museum. This is not a visual connection but it is emotional connection. In the interior space there are lots of different vista points that creates different windows to see the same space from different point of views.

To sum up the XXIst Century Museums, we can say that the tree words are important. They are preservation, revelation and regeneration. **Creative space connected with past, now and future.**

X-Linkage

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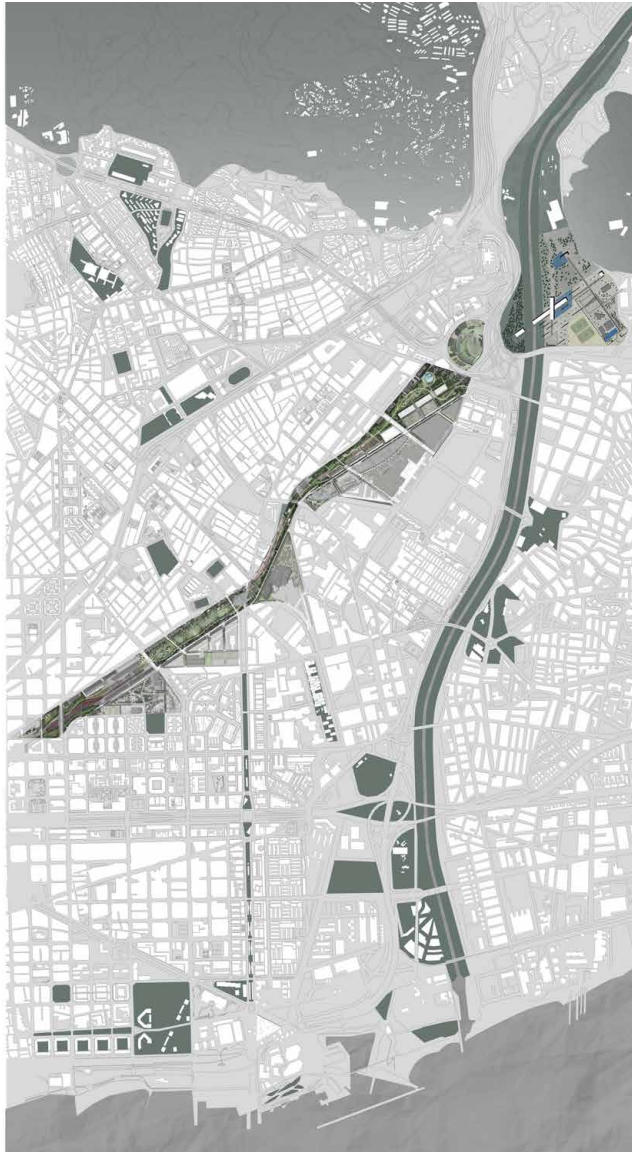
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**03 | Architecture**

04 | *Focus on Details*

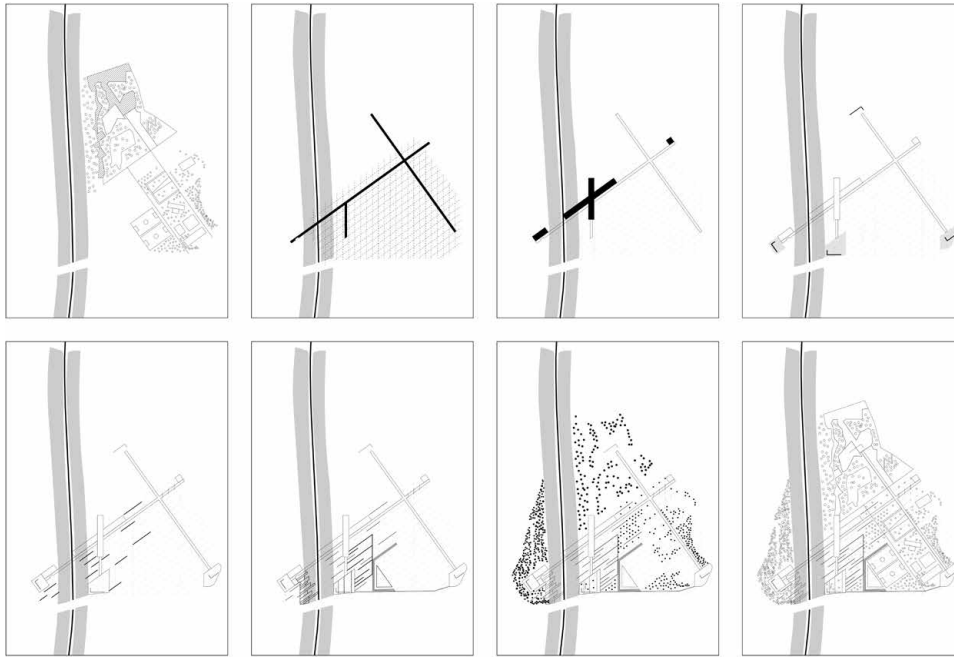
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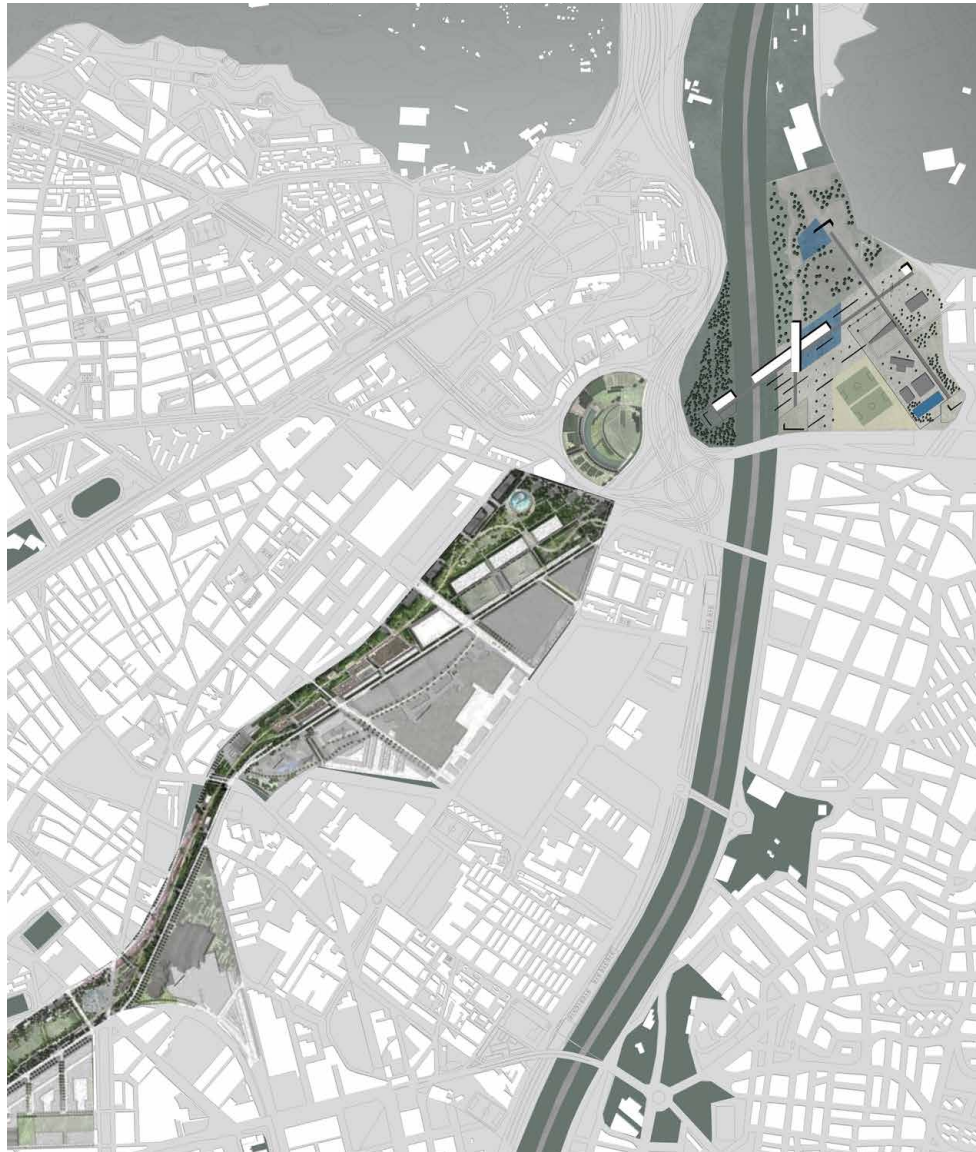


Master Plan  
Scale 1:10000

**Masterplan:** According to the strategy, the actions take place in the design. One of the most important element is voids and according to voids, the most related and the connection point is future Sagrera linear park. The nearest part of the project is the train station building. To create a visual connection, the artist residency, the one linear element of X-linkage museum building and vertical element are on the same direction. On the other linear element of the X-linkage museum building creating the connection between the existing park on the upper part of the site and the river-sea. In the upper part of the site there is existing area. And the rest of the area is abandoned and the of of the main aim is to try to find the relationship between the existing well design park and the unorganized site. Therefore, also inside the area, museum building has a big role for the connections. In the bigger scale and in the smaller scale, the detail of the museum building is always same, trying to find a x-linkage between the different type of users and scales.

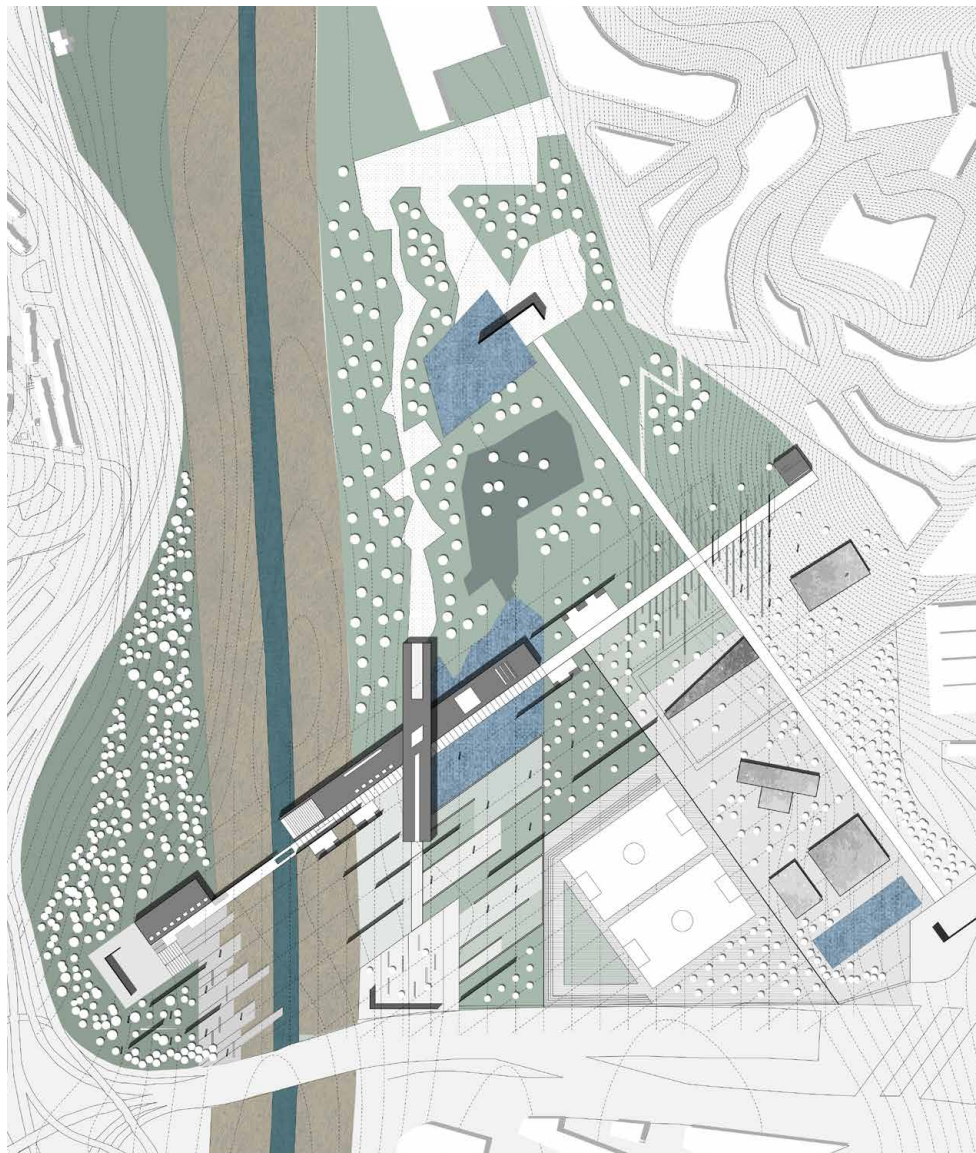


**Site Plan Diagram:** We can see the development of the site plan and process of the elements which are shown separately and the final result when all of them overlapping. In the first diagram we can see the existing situation of the site. The existing buildings, sport courts and the designed park can be seen. On the second diagram, the main axes are shown. According to those ones we can see that the main buildings are located. One of the axes is intersecting with the X-Linkage museum and it is creating mutual connections. At the end of the axis, there are public squares that point out the directions and also in the square which is connected to artist residency, there is an underground connection to the metro station. In the landscape, there are wall elements which are pointing out the direction between the two sides of the river. Therefore, they are creating some visual direction and creating visual vista points between two sides. Also in the area of artist residency, there is a deck which is creating the connection to the water. The deck's texture also communicates with the main direction. Also, inside the landscape, there are some small paths between the art gardens. The rest of the areas are full with trees and green areas. Overlapping of the elements creates the tension and the big connection between the main points.

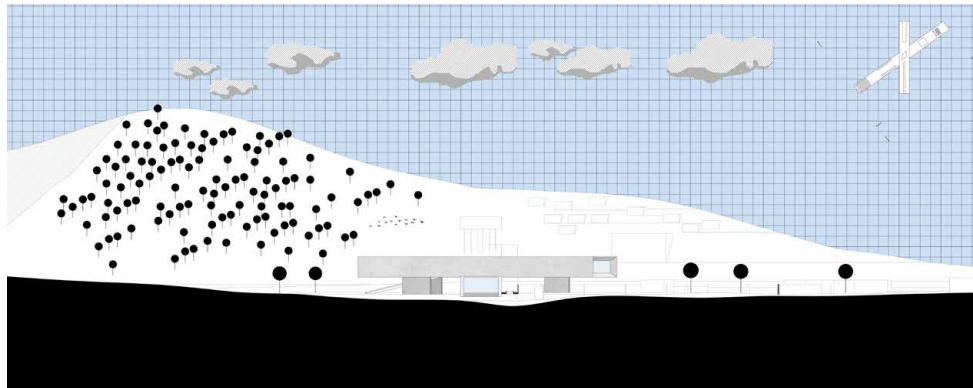


Master Plan  
Scale 1:5000

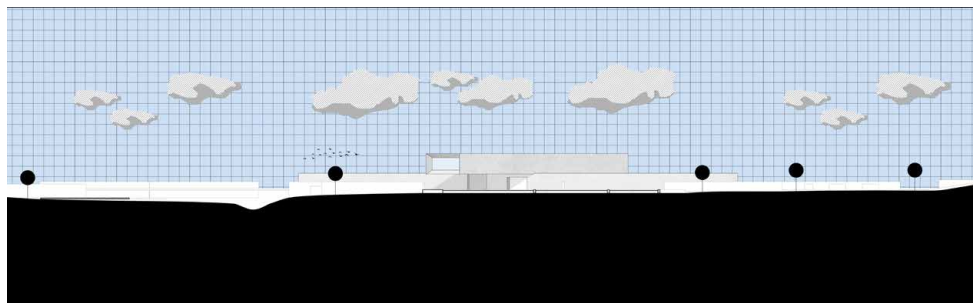




Master Plan  
Scale 1:2500

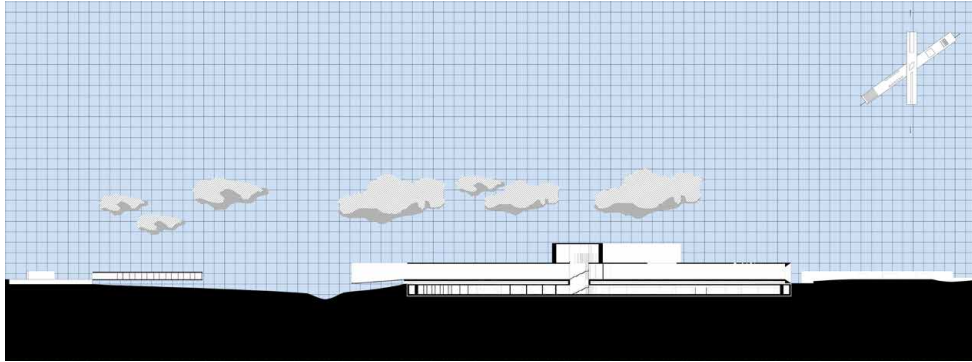


The general configuration of the X-linkage museum is the overlapping of two linear spaces. These two directional-volumes have a specific space character. Two linear building is located as the direction of two main axis. For the facade design, in the both rectangular boxes' longitudinal facades are pure concrete and there are no openings. Only the glass openings are on the short legnth. This is because of creating some vista points or visual connections or giving the direction for the users. In the first floor, there are two type of openings. One of them is openings with small stairs to create a relationship between the water and the artist residency. On the other side of the space the opening is facing to the mountains and the urban fabric. The second rectangular building has a different opening typology. One side is looking along the river to sea. The other opening has a view and also a ramp which is connecting to an existing park. Also that part is the end of the exhibitions and exit of the contemporary art museum. The general strategy of the project can also be seen at the desicion of the facades and the contrubution of the solid blocks.

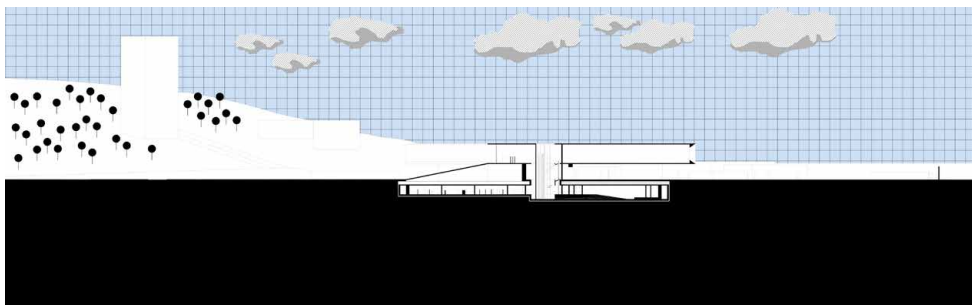


Elevations  
Scale 1:1000

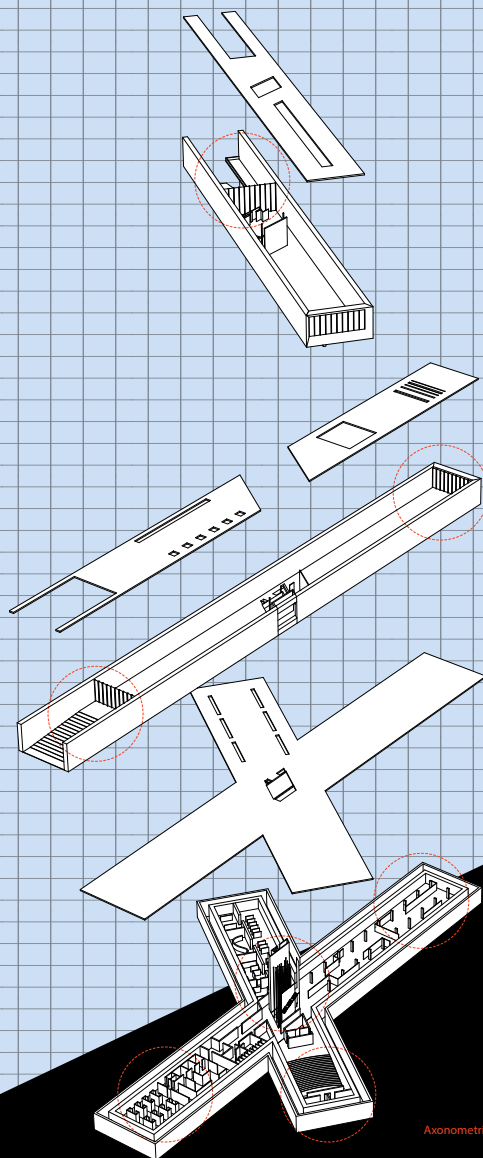




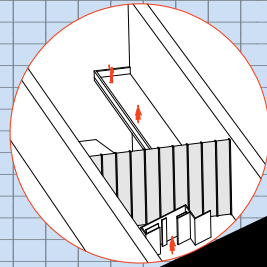
On the sections the relationship between the floors and also the connection between the outside and interior is much more obvious. From the outside of the building, the core space cannot be seen. However, it is most important and focused point for the interior circulation. In the core space, all of the vertical circulation elements are located. The four sides of the gallery space are different. One side where all of the emergency staircase, elevator and the toilet spaces the wall is pure concrete. On the opposite site the main, monumental staircase are located and the wall of the staircase is metal mesh. So there is no direct visual connection to open space. And the other two sides have glass. So, when we look to the space, it is possible to be seen different kind of material and light effects. In the gallery space, there are some poles that strengthen the verticality and they can be also use to let the green climbers grow. The ceiling height of each floor is also differentiated. The basement floor has smaller ceiling height than the other two floors. Because, on the basement there are functions which are more technical and not related on the other floors.



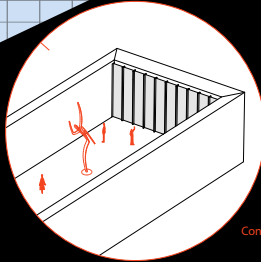
Sections  
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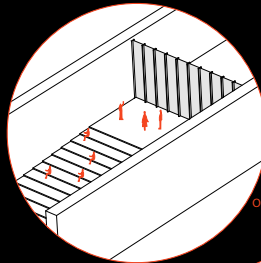
Axonometric Drawing



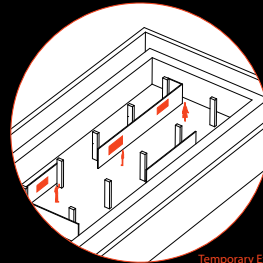
Museum Shop & Balcony



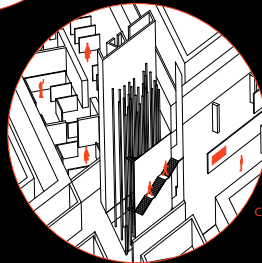
Contemporary Art Exhibition Space



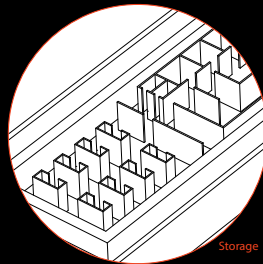
Outdoor Steps



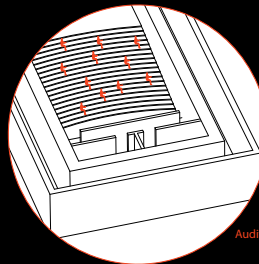
Temporary Exhibition



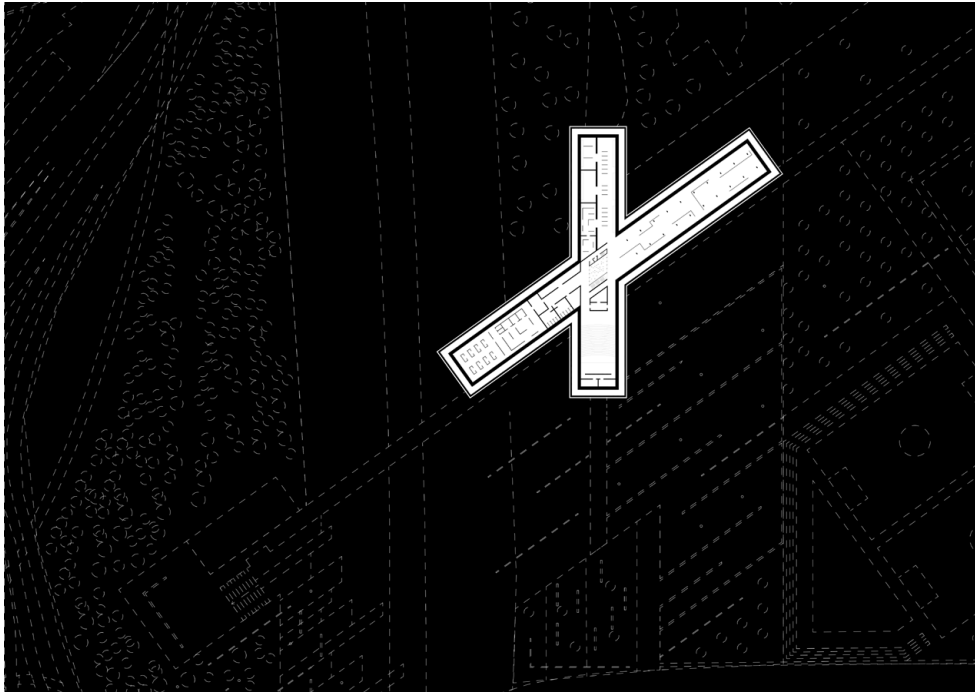
Circulation Core & Working Area



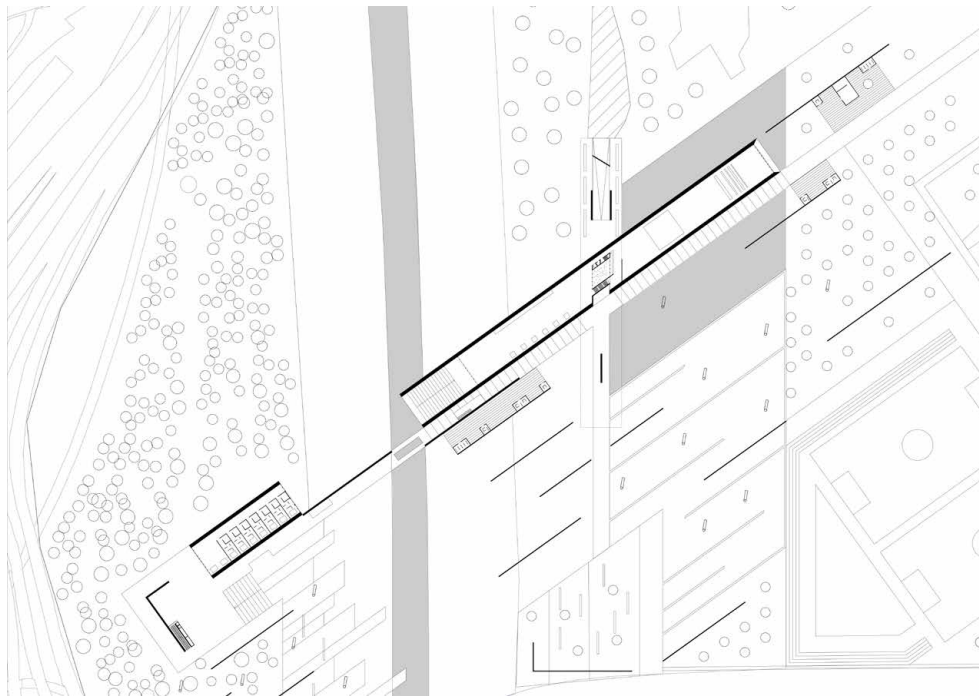
Storage



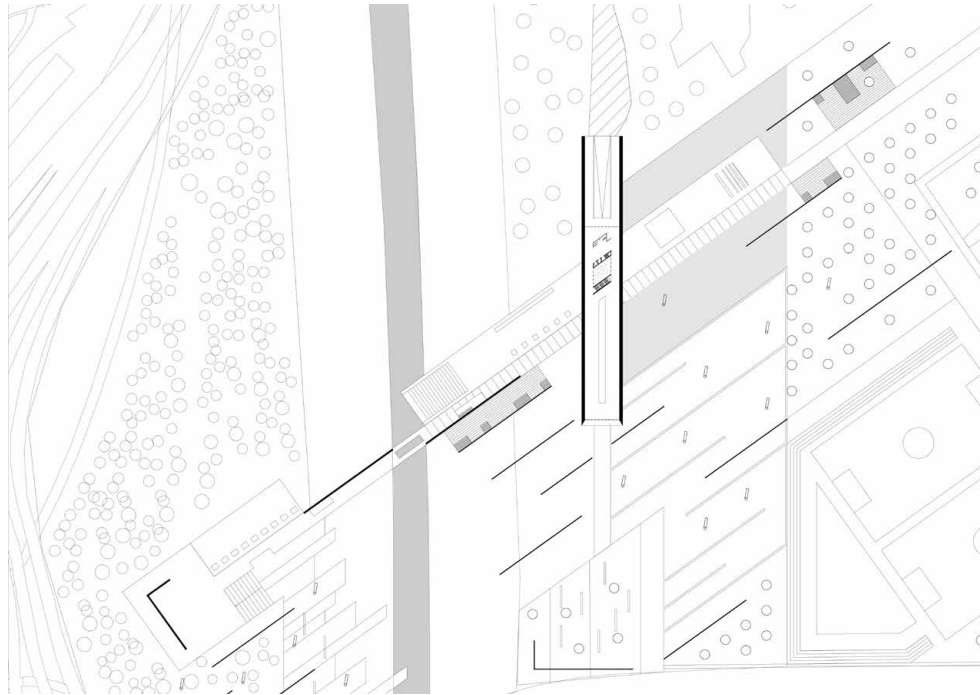
Auditorium



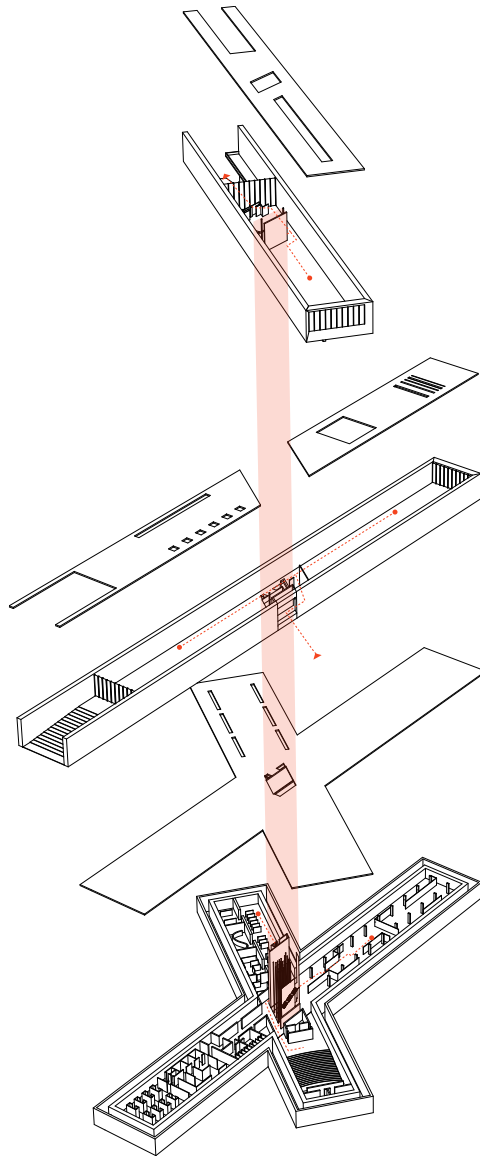
Basement Floor Plan  
Scale 1:1000



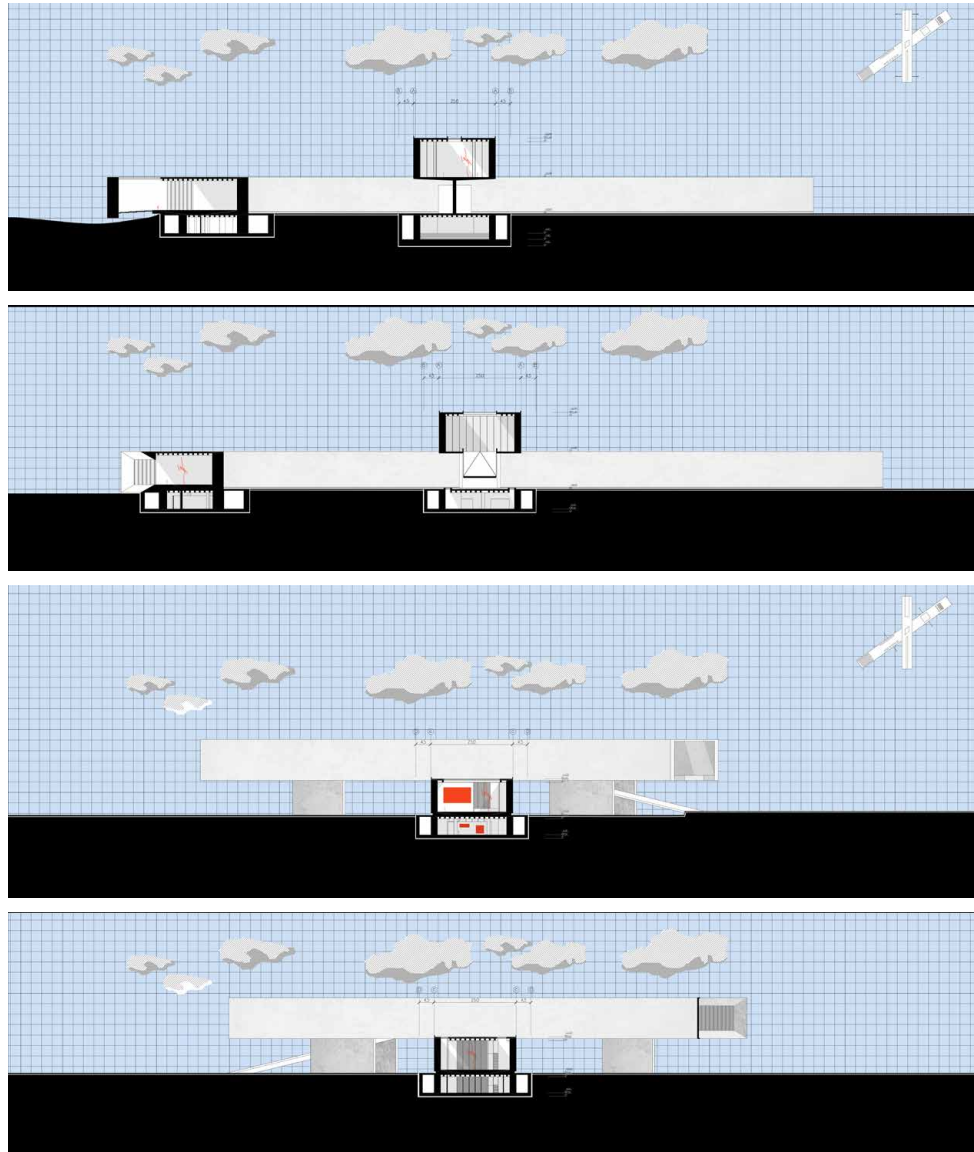
First Floor Plan  
Scale 1:1000



Second Floor Plan  
Scale 1:1000

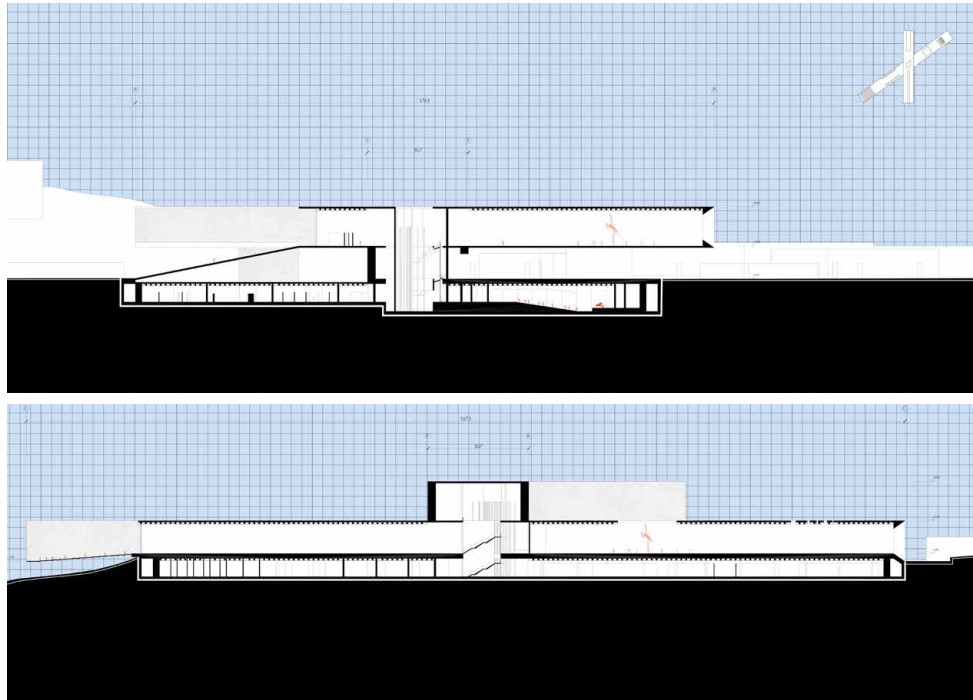


Circulation Diagram  
Scale 1:1000



Sections  
Scale 1:500





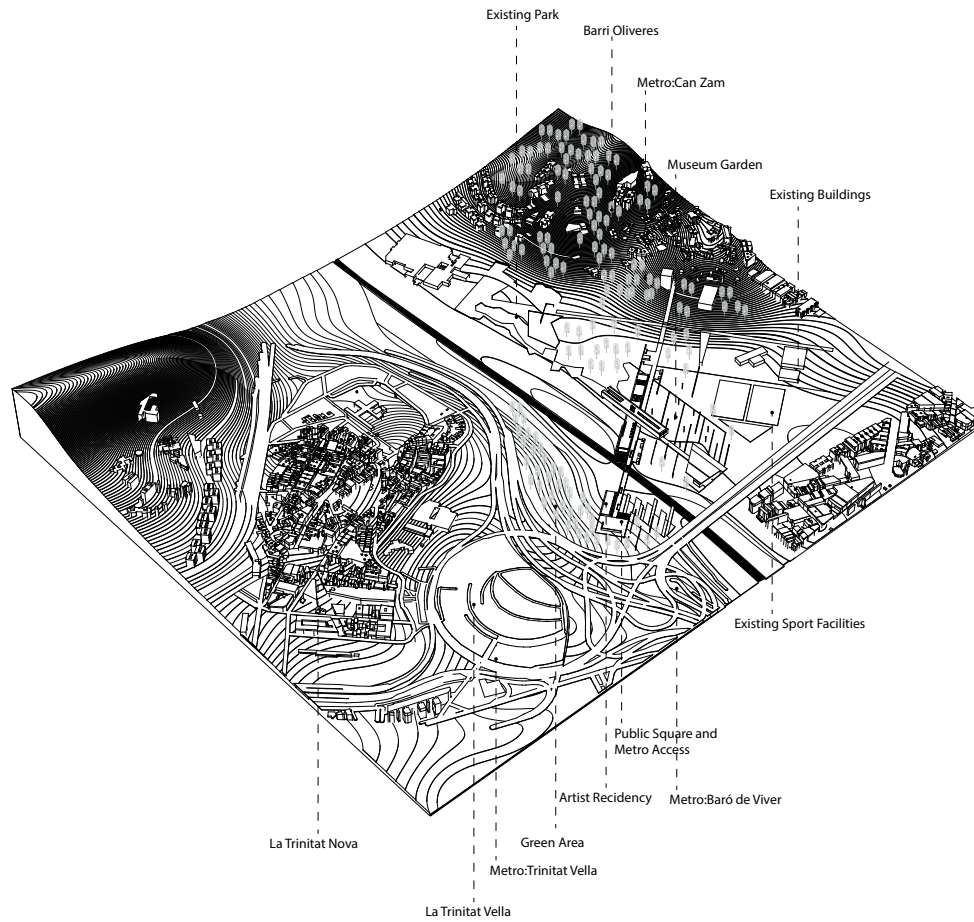
Sections  
Scale 1:500

The entrance of the museum is from the side, longitudinal side. The entrance is directed by the walls to control the visitors. After the ticket desk, in the ground floor there are big spaces for big contemporary sculptures. In the basement, there are auditorium, working stations, storage and permanent gallery which has a free plan with the columns and white walls that can be relocated. Only the working stations are taking light from the sky. Other spaces are illuminated by artificial lights and also lights coming from the core. The first floor plan is similar with the ground floor plan. There are big spaces for the huge contemporary sculpture pieces. Both floors illuminated by the glass windows on the edges and also there are differentiated skylights. By this decision, inside the gallery there can be seen different effects of the natural lights. Also, the floor plans are free, empty spaces. So the artists can design freely the space, also considering the different geometrical shape of lights. Inside the space, the light and the shadow is creating different senses. Also the first floor is in a sensation of flying. The two side of the space is carried by two small bearing walls.

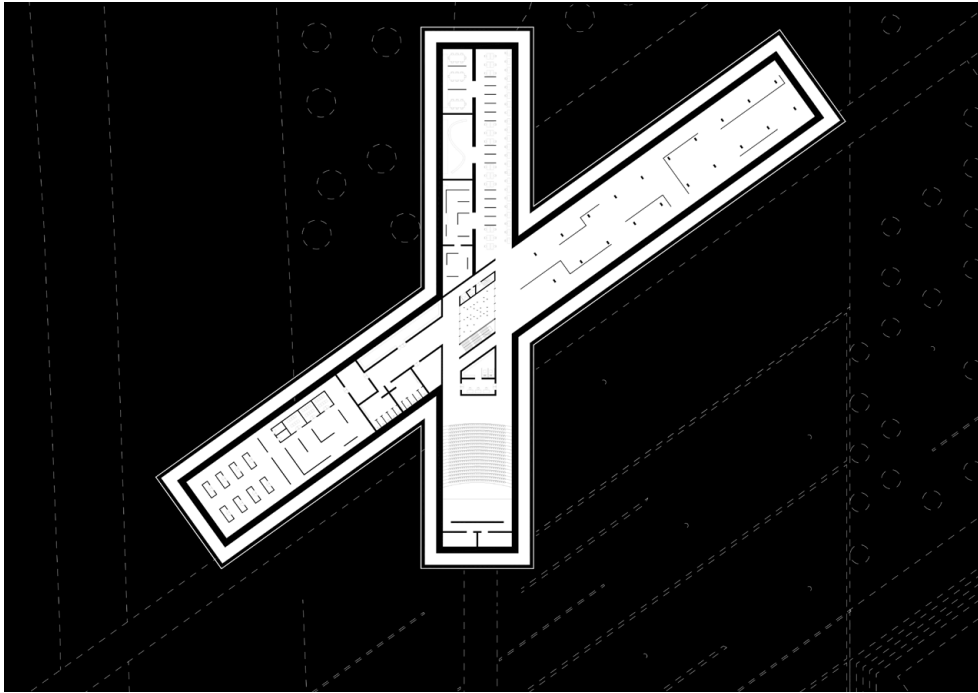
In the details of the plan, there is a circulation scheme in the building. The entrance to the museum is from the ground floor. There is an information and ticket desk. After that the contribution towards the building is happening. Only the entrance has a restricted circulation. Other parts of the museum has a free plan so the circulation scheme can be differentiated. In the details of the building, for the ground and the first floor the longitudinal walls are thick and pure concrete. So the directions of the view point is also created by the walls. The general materials of the museum building is concrete, glass, black metal mesh and black frames. The colors of the materials are cold so inside the building the sculptures can be much more visible and blazing. On the other side of the river there is an artist residency building. The building material decisions are the same with the museum to create a visual connection. Also these two buildings are connecting by the bridge. The bridge has some gaps to create some vista points to the ground. There are gaps on the river part and green part. On the artist residency side, there is a deck where people can be connected to water. In the topography by the stairs, the people are going down. There are benches. Also the floor patterns have the same grid rule so the direction of the patterns are showing the other side of the river.

### **The building as a Linkage of Social Intersection**

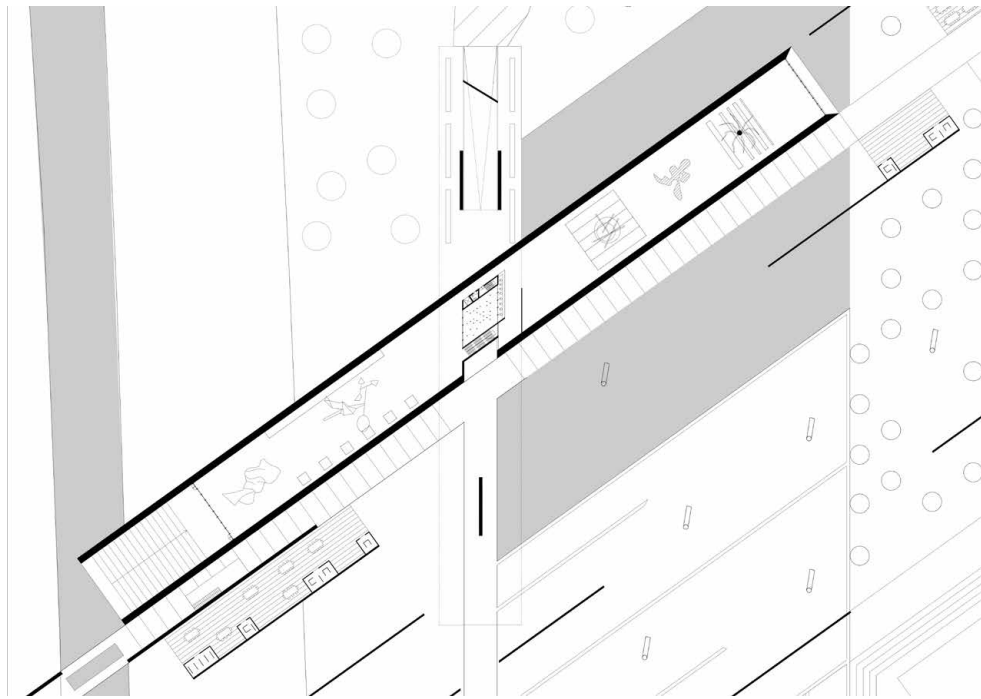
The main issue of the project is creating the linkage in the city which is started to dissolve. The museum is the key point, focus point of the project. The building is not just serving as a museum, also it is creating connection between lots of points. In the bigger scale, creating the big triangle and small quadrilateral. When we go deep inside the project, we can see that the neighbour is the newly designed park. When we look to the existing situation, the path of the park is not clear and connecting nothing. Therefore, one of the main aims is also trying to find a transition between the abandoned space and existing, designed park. The starting point of the museum is coming from the axis, connections from the city. After the circulation inside the museum, the exit is not in the same point. It is on the first floor. Ramp is going out from the museum and directly connecting to the park. So from the museum, the visitors directly connected to the existing park. Inside the park, two types of connection are found. One of them is visual the other one is physical. The green is continuing from the park towards the river so the connection is not stopping by only museum, it is continuing alongside the river towards the mountains. The physical connection is from the park, the circulation continuing as a circular shape and it is returning to the site. The axis as coming from the site is stuck in the existing park. From that part the connection is going through the urban fabric. Also from the square in the artist residency there is an underground connection to the metro station. So we can say that the nodes are defining the different social connections and from that nodes the axis going out and going into different directions. In the common intersection of the axis there is a building as a linkage of social intersection.



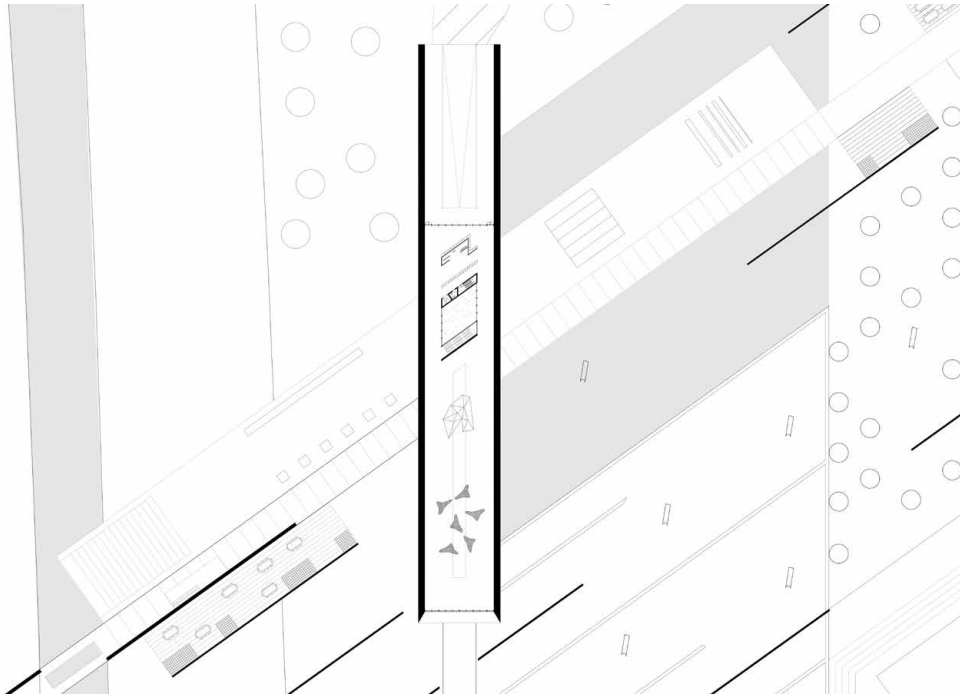
Relations of the Surrounding



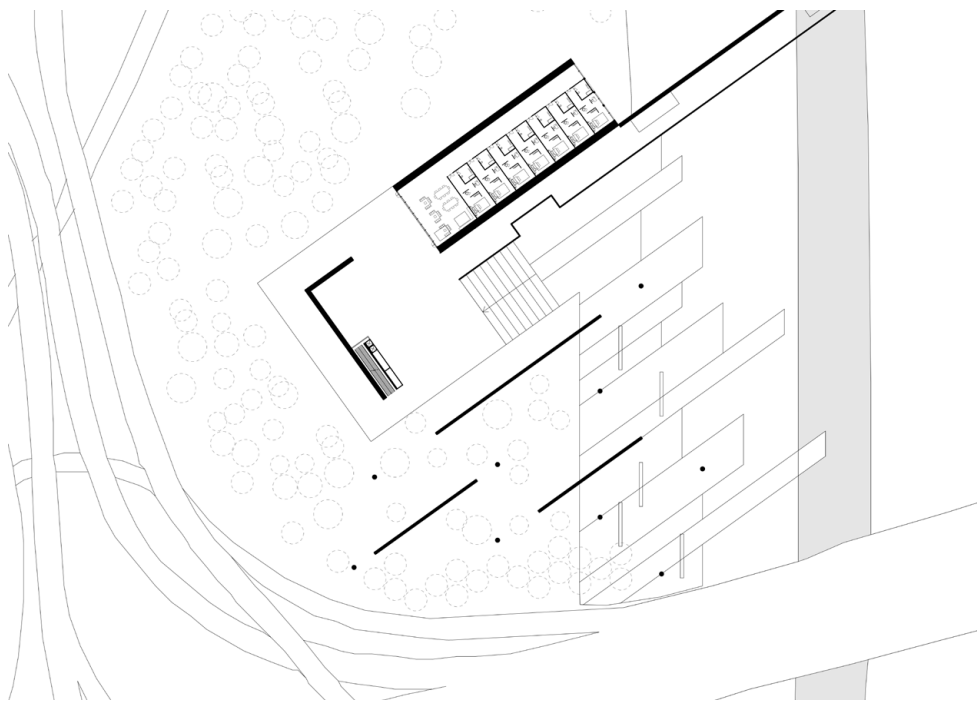
Basement Floor Plan  
Scale 1:500



Ground Floor Plan  
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Frist Floor Plan  
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Artist Residency Plan  
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X-Linkage



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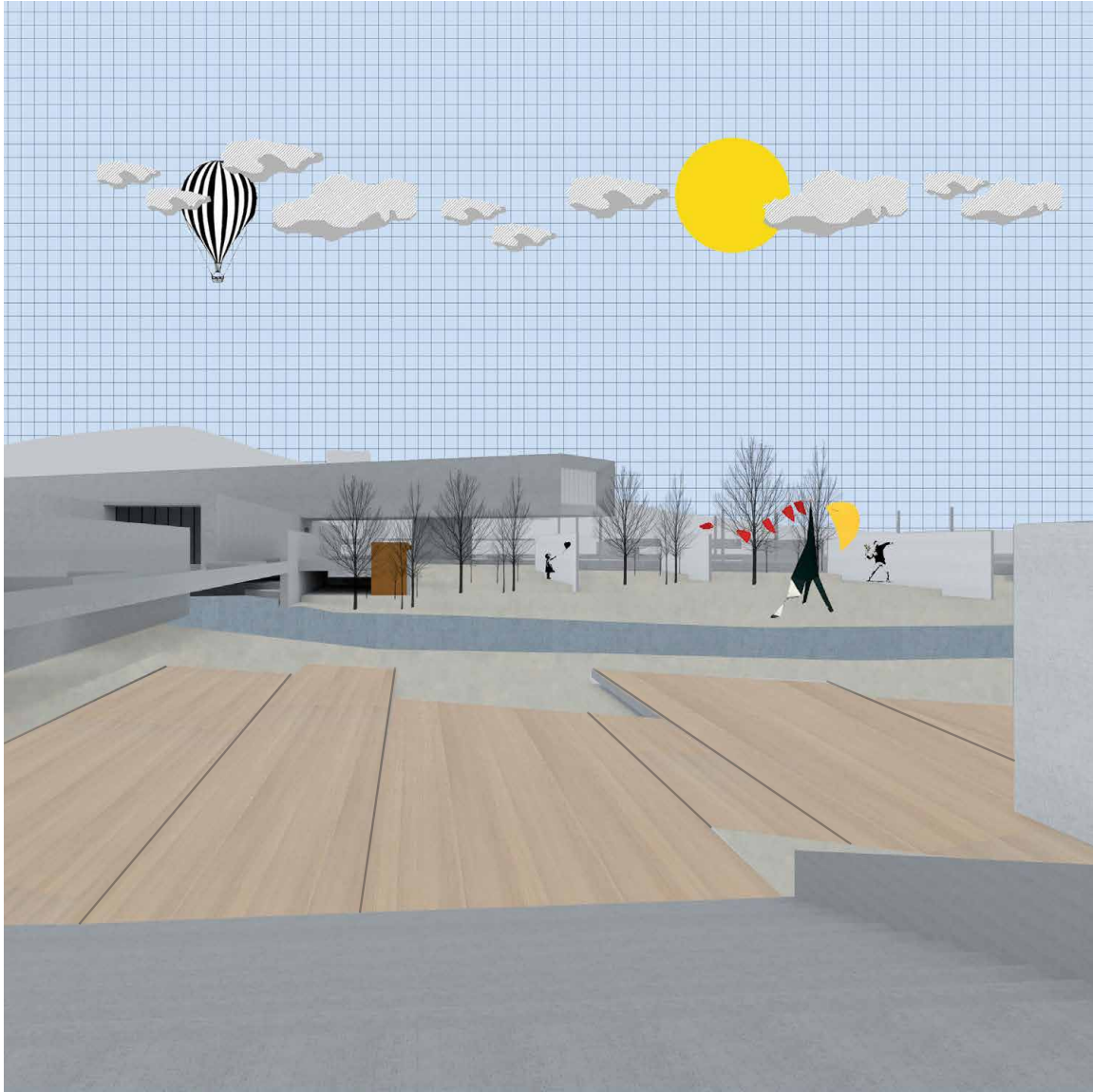
**04 | Focus on Details**

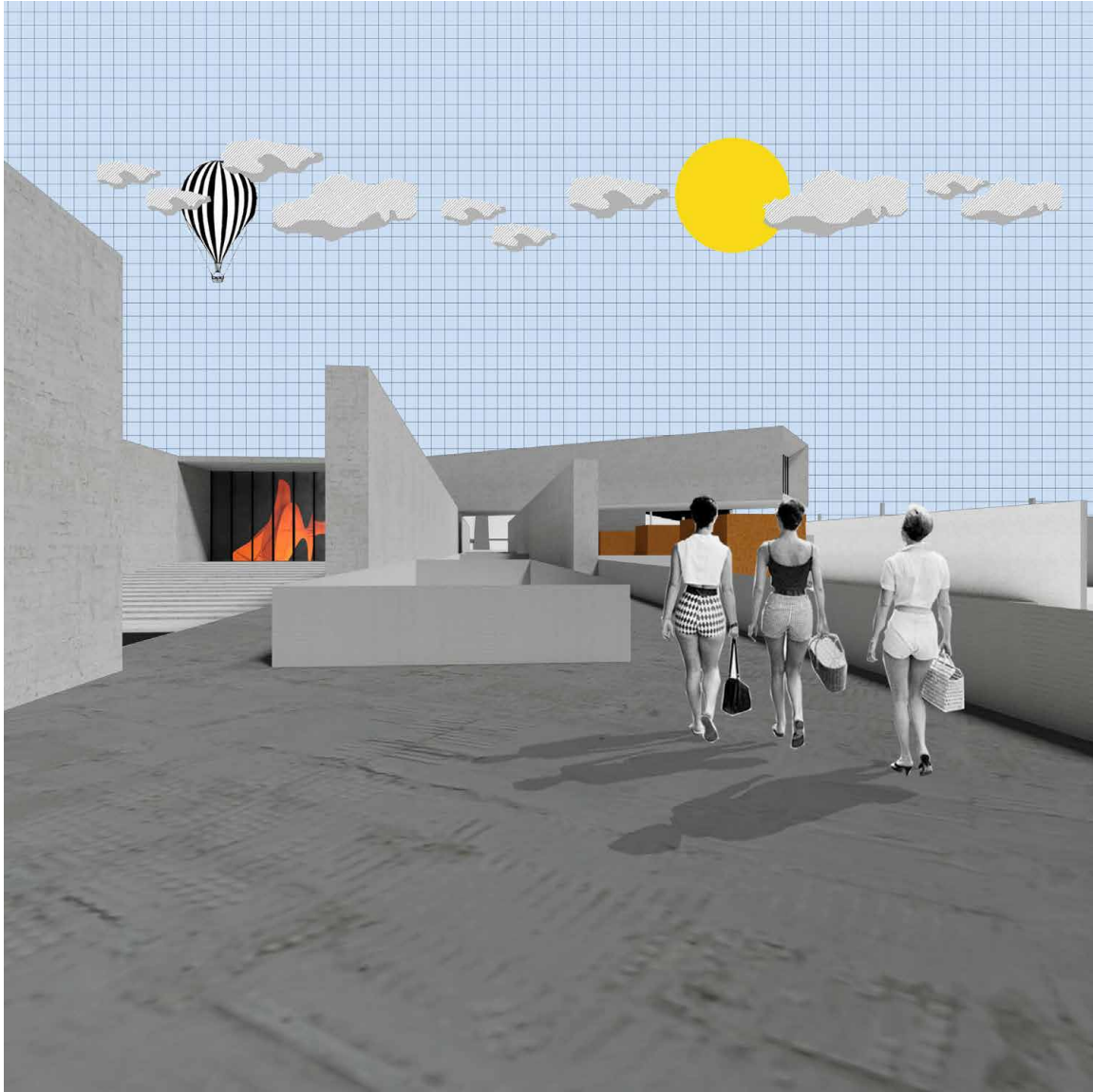
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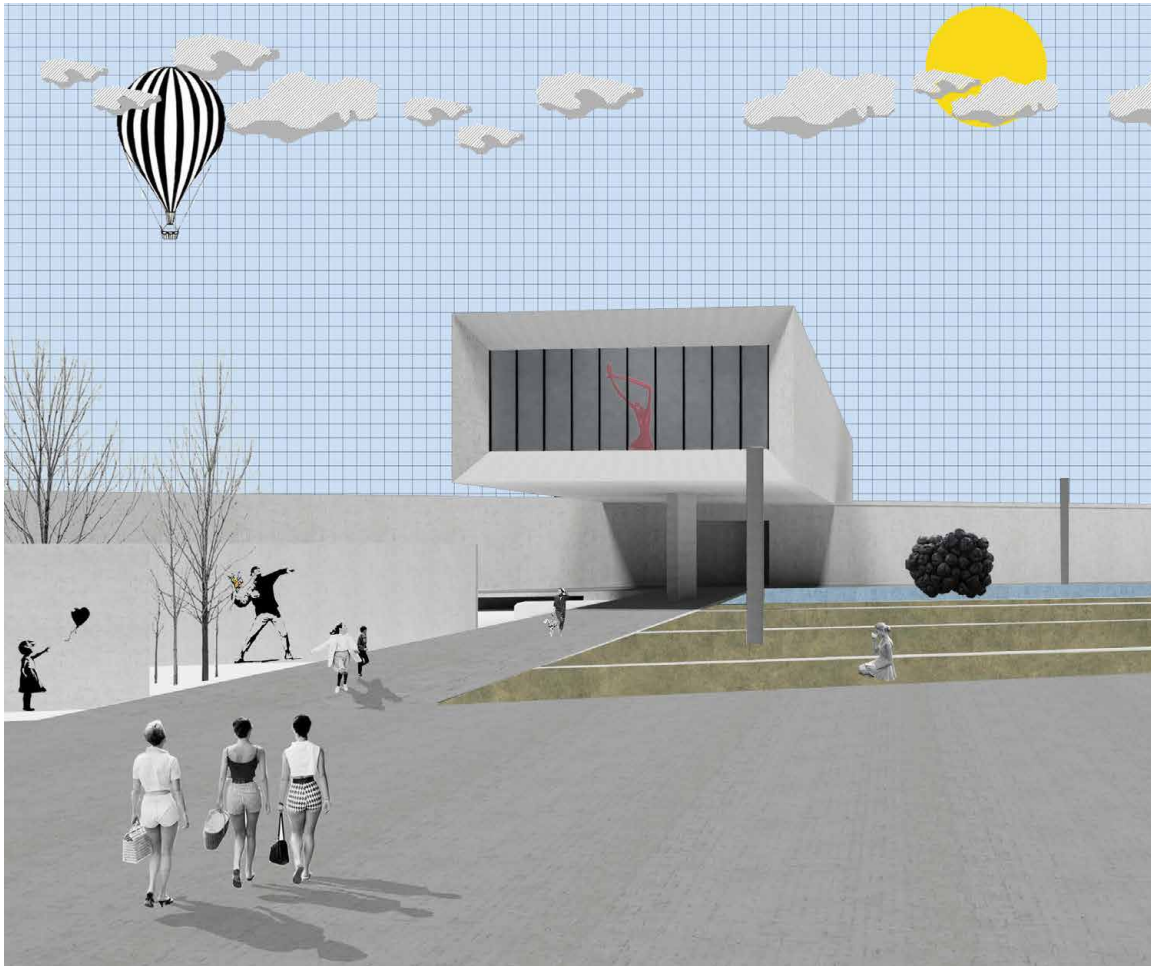
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When we focus on details in the design, the main and obvious element is the overlapping two blocks. By this detail, at the same time they are creating two different and main directions and they are creating a junctions point. Therefore, the two different directions are combine in a 3D way, not in a 2D flat connection. By this one, the junctions point is creating a connection between the sky and the earth.

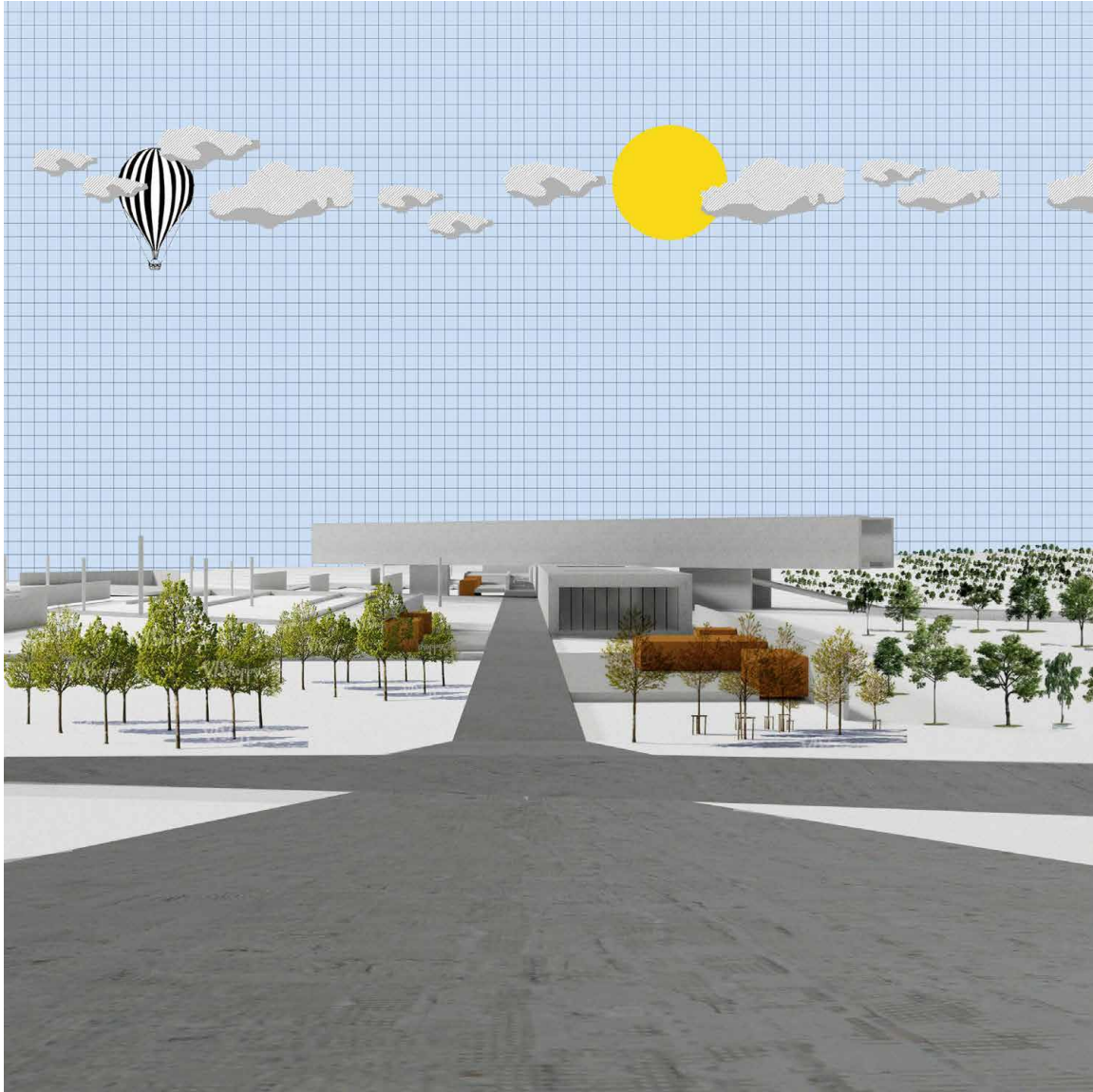




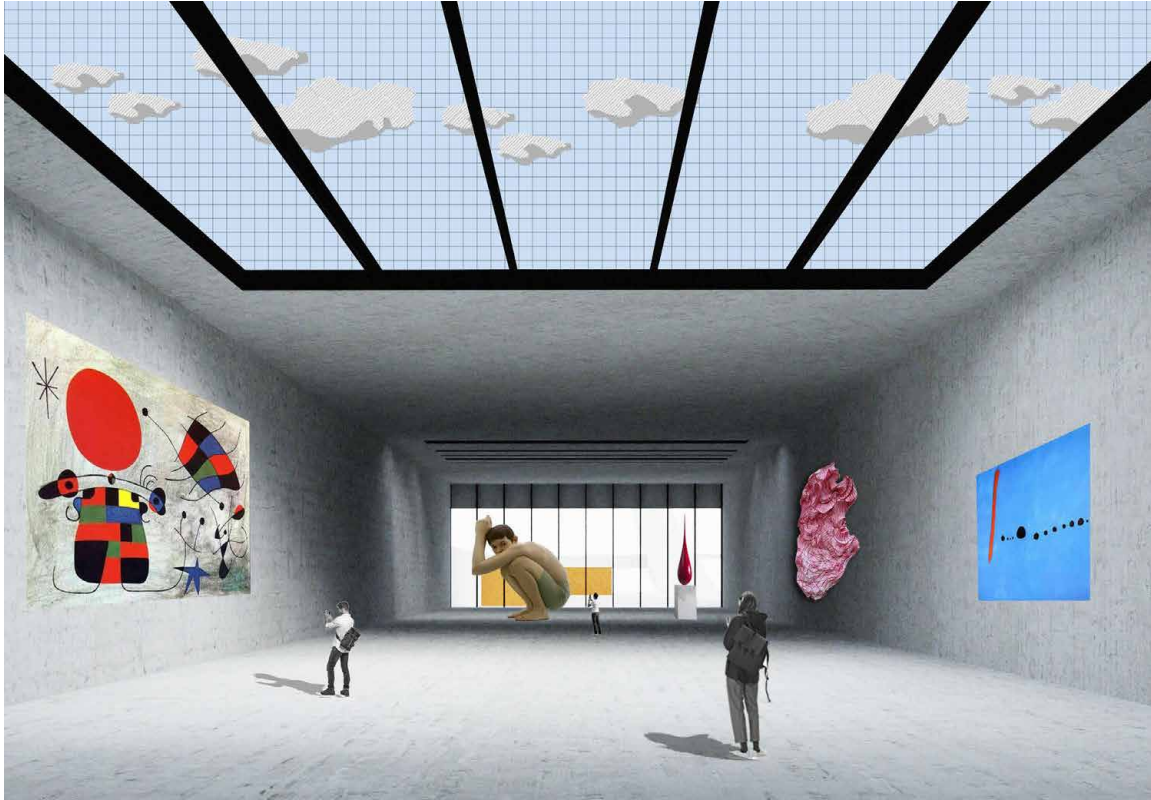


Creating an overlapping of two blocks is creating a chance to give a flying effect to the block which is located on the top. Also, it is specifying the boundaries outside. On the top there is a problem of the structure. The two sides of the cantilevered floors, under them, the bearing walls are different. On the entrance side, there is one wall in the middle carrying them and in the exit part there are two bearing walls beside the ramp. But the length of the walls are not going to the edge so the flying effect is still kept and also the effect of creating a direction is more dramatically given.



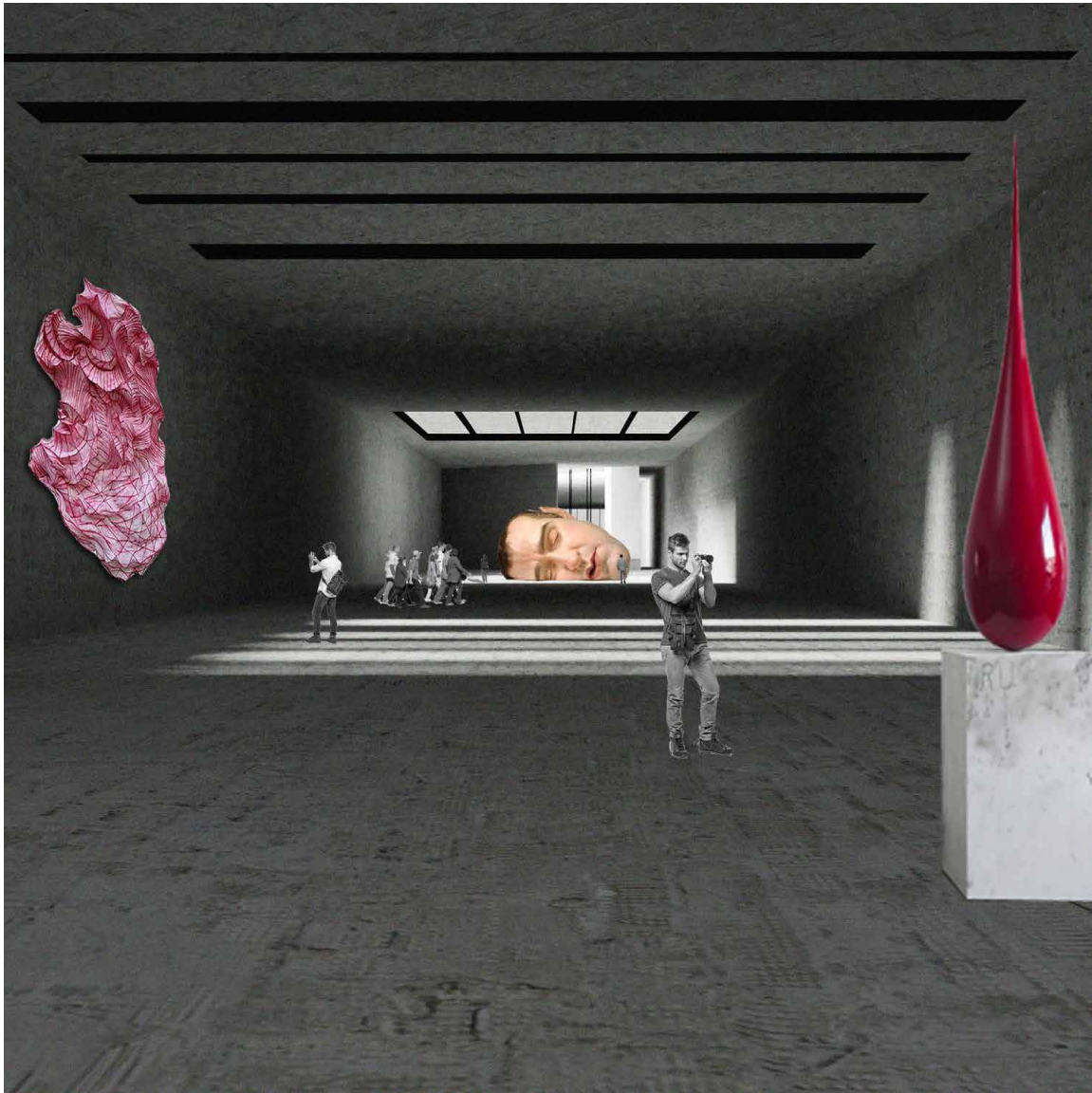






In the interior spaces, there are different details but the dominant concept is still obvious. Only the edges of the spaces has the big openings. The side walls are massive and giving the directions. The big openings are looking to the main directions and creating two types of connections. One of these connections are visual. From inside, the visitors can make a visual contact. One of the visual connections are horizontal and the others are vertical. In the gallery spaces, there are different kind of openings. The size and the location of the skylights are changing. Therefore, they are creating different kind of lightings and shadows. As a result, in a big empty space we can see the divisions by shadows and lights. So, the space is divided into different parts and gives different senses. In addition, the skylights are giving a natural lights on the art pieces. Therefore, in the museum there is no need for the artificial lights. By the changes in the conditions of the weather, the light will be changed and creating different senses in the space. The material of the walls are exposed concrete. This material is chosen to create a textured effects on the walls. Also, the material is really different from the Barcelona's architectural textures. It is creating a new effects and marking itself as a new node.







In this space the differentiation of the shapes and the location of the skylights are creating different kind of light effect. The location of the skylights are near to the walls so it is giving a chance to show off more art pieces on the wall and also still continuing the effect of creating directions. And the then of this space the connection with the direction is differentiated. There is an open space which is going down by steps slowly. Rather than creating a visual connection with the other side of the river, it is also creating a connection with the river, water. It is open space but still the two sides wall are continuing for not to loose the main effect of creating directions.

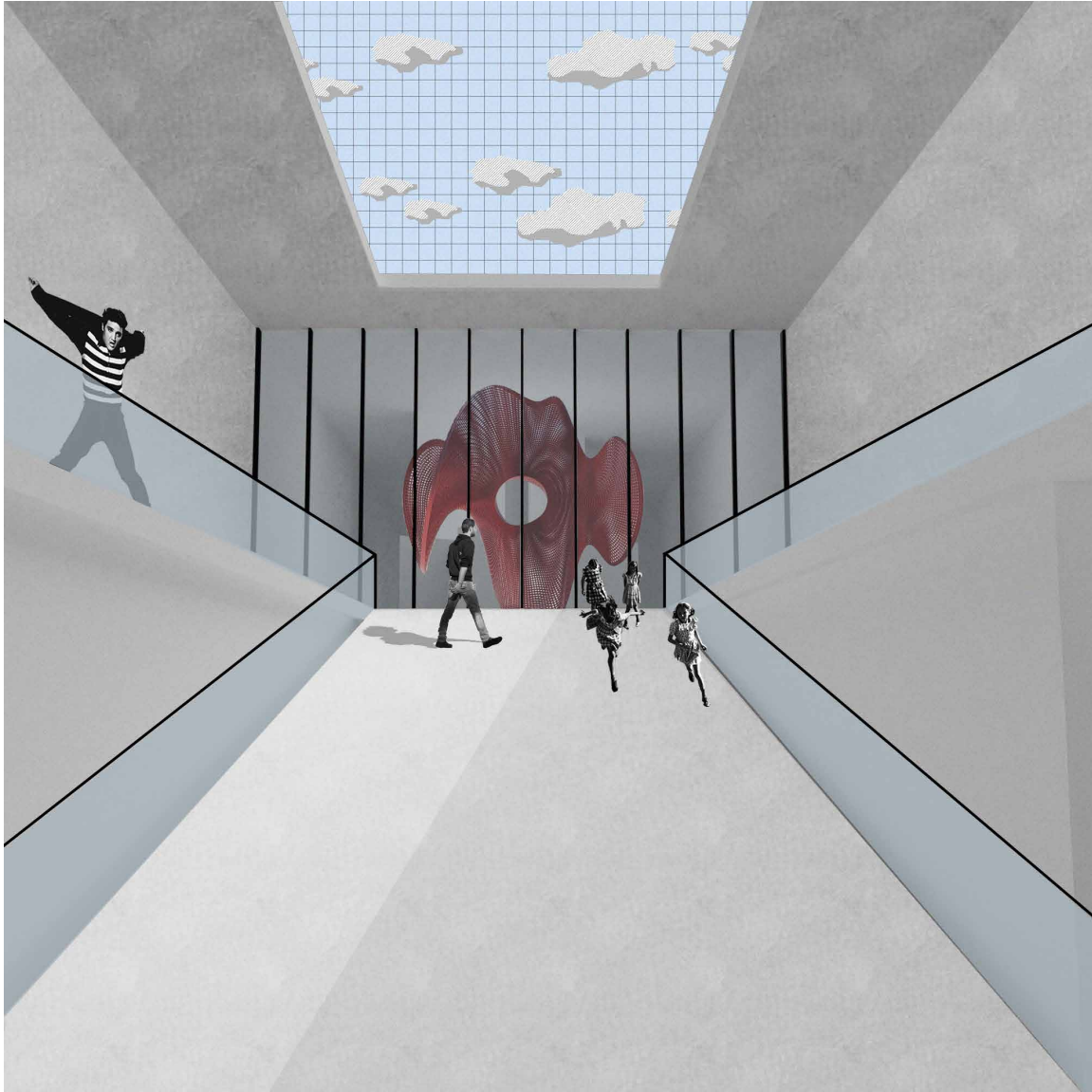


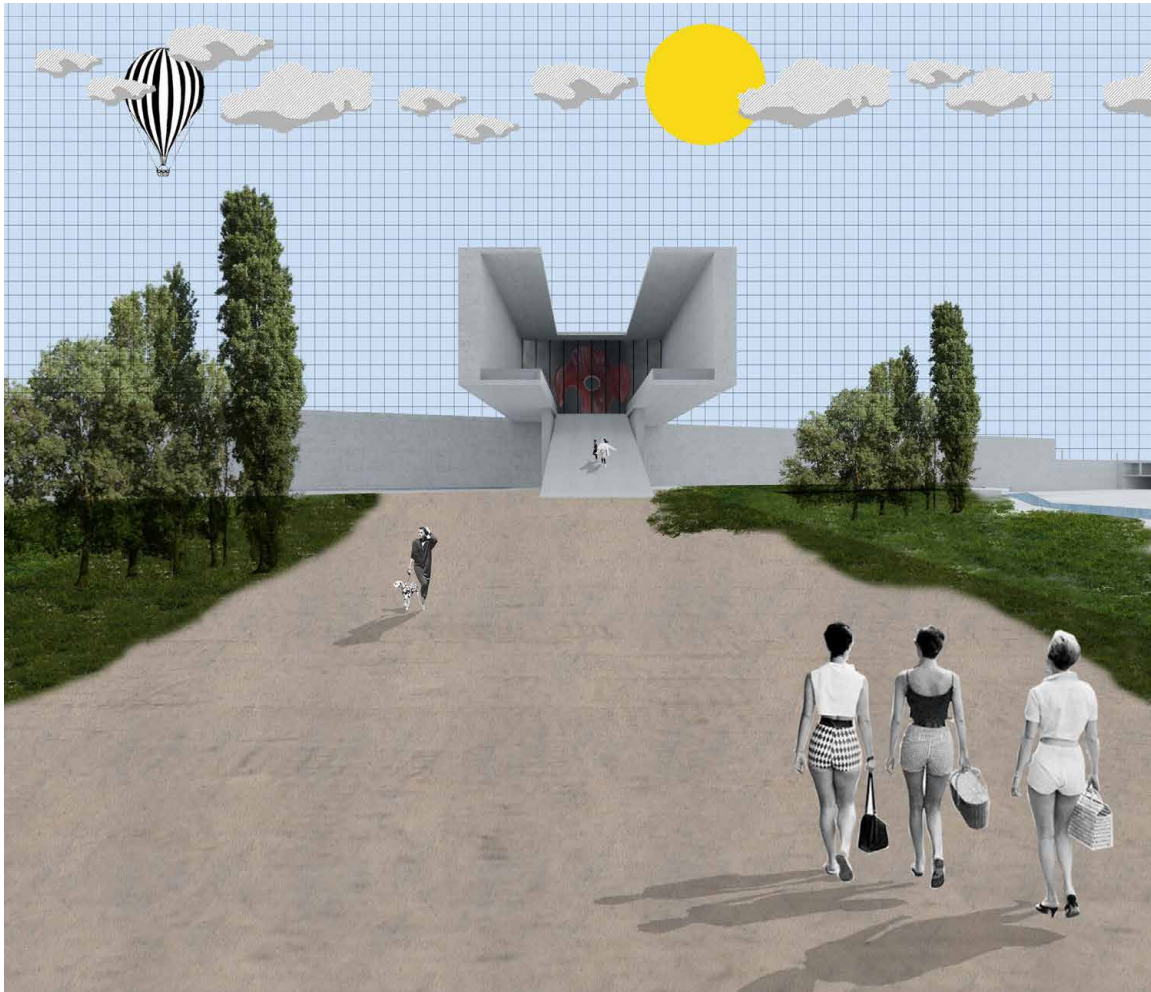


On the basement floor, the architectural decisions are different than the main floors. There is a small permanent exhibition place which is more refer to a classical orders of museums. Only the natural light is coming from the middle space. The other parts are illuminated by artificial lights. The tectonical character of this floor is generally by pilars and bearing walls. In the exhibition part, the walls are not reaching to the ceiling. So it gives a sense of changability of the walls. So, this space can be flexible and redesign. And on the other parts there are more functions which don't need to be visible as storage space are located. The other parts has different space configuration according to the functions.









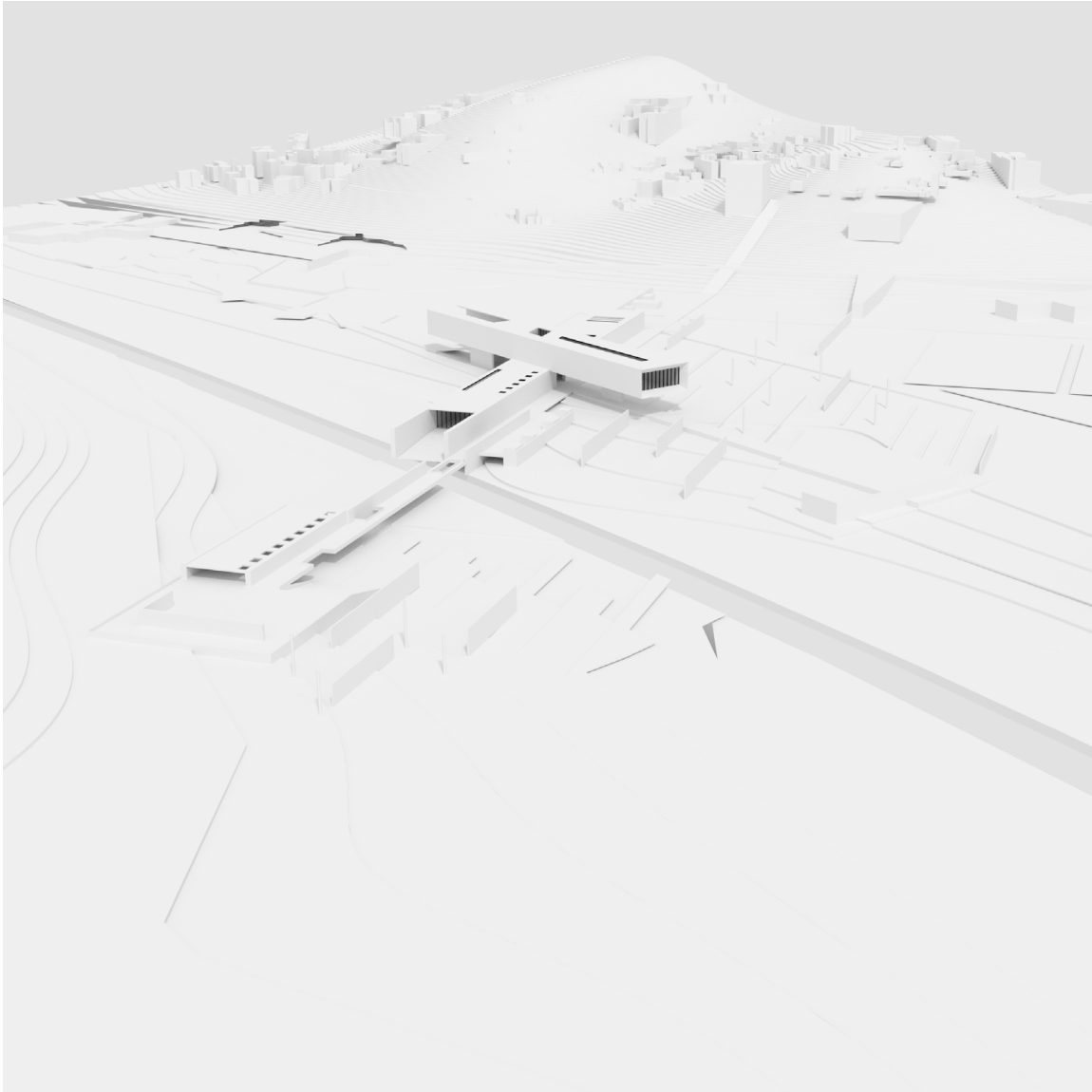
As a conclusion of the final detail of the museum is the exit point. This point is really important for the project's main idea. Because the exit of the museum is connecting to an existing park. So it has to have a specific architectural characters according the other edges. There is a ramp, balconies and a huge directional sky opening. So it is defining a continuity to the park and also creates a spot for visual connections from high point. So it is defining the ending of the museum and also continuity to the existing project.

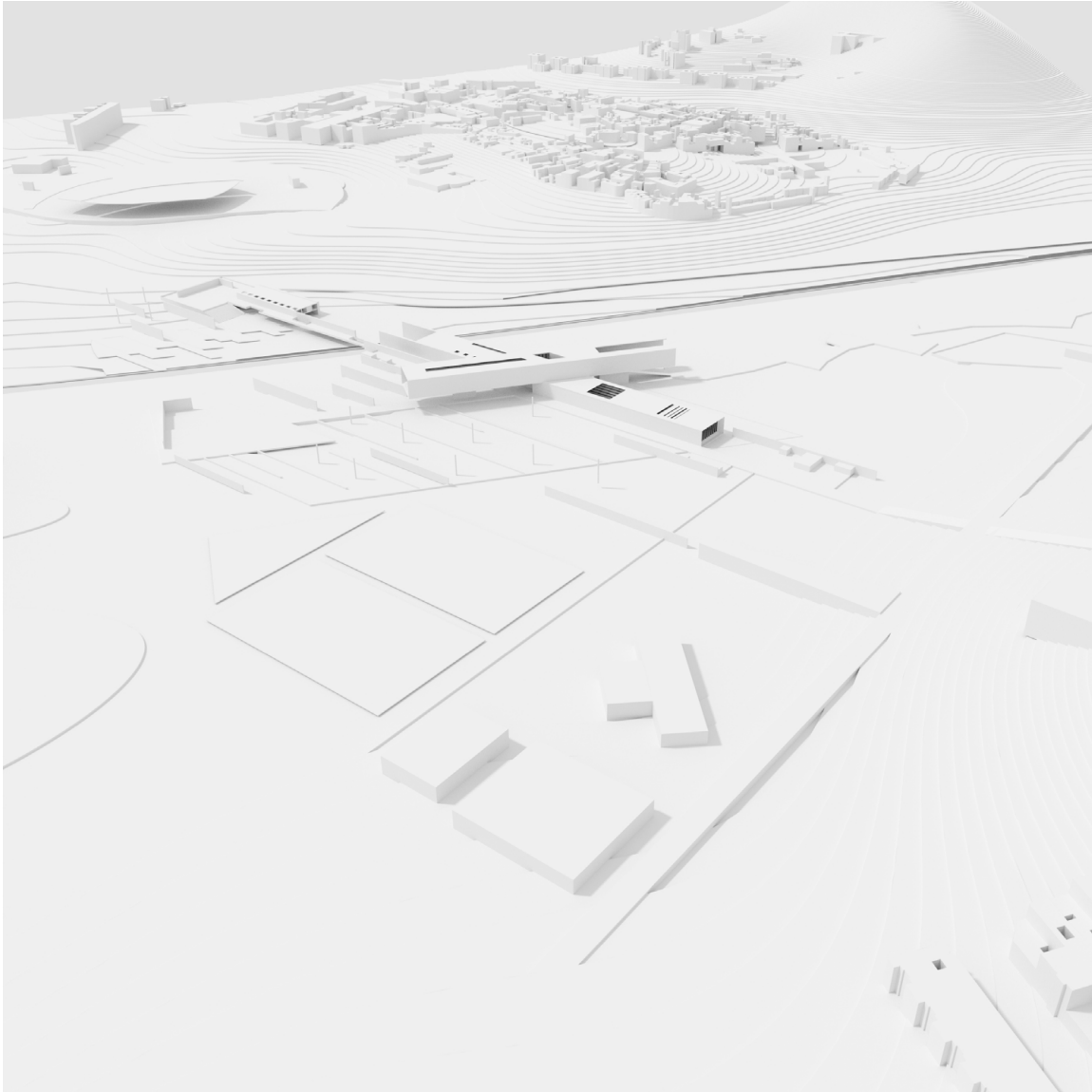


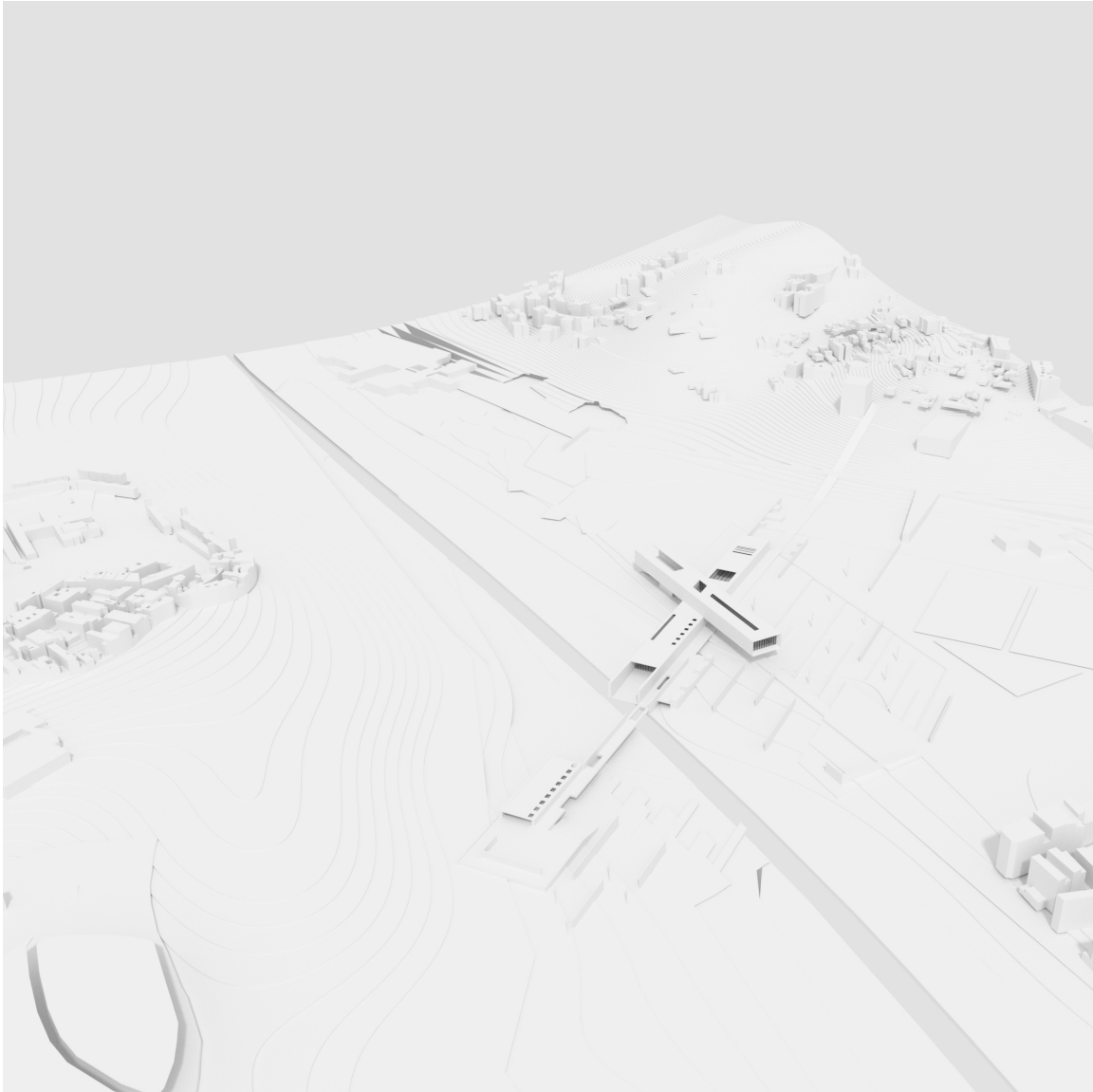


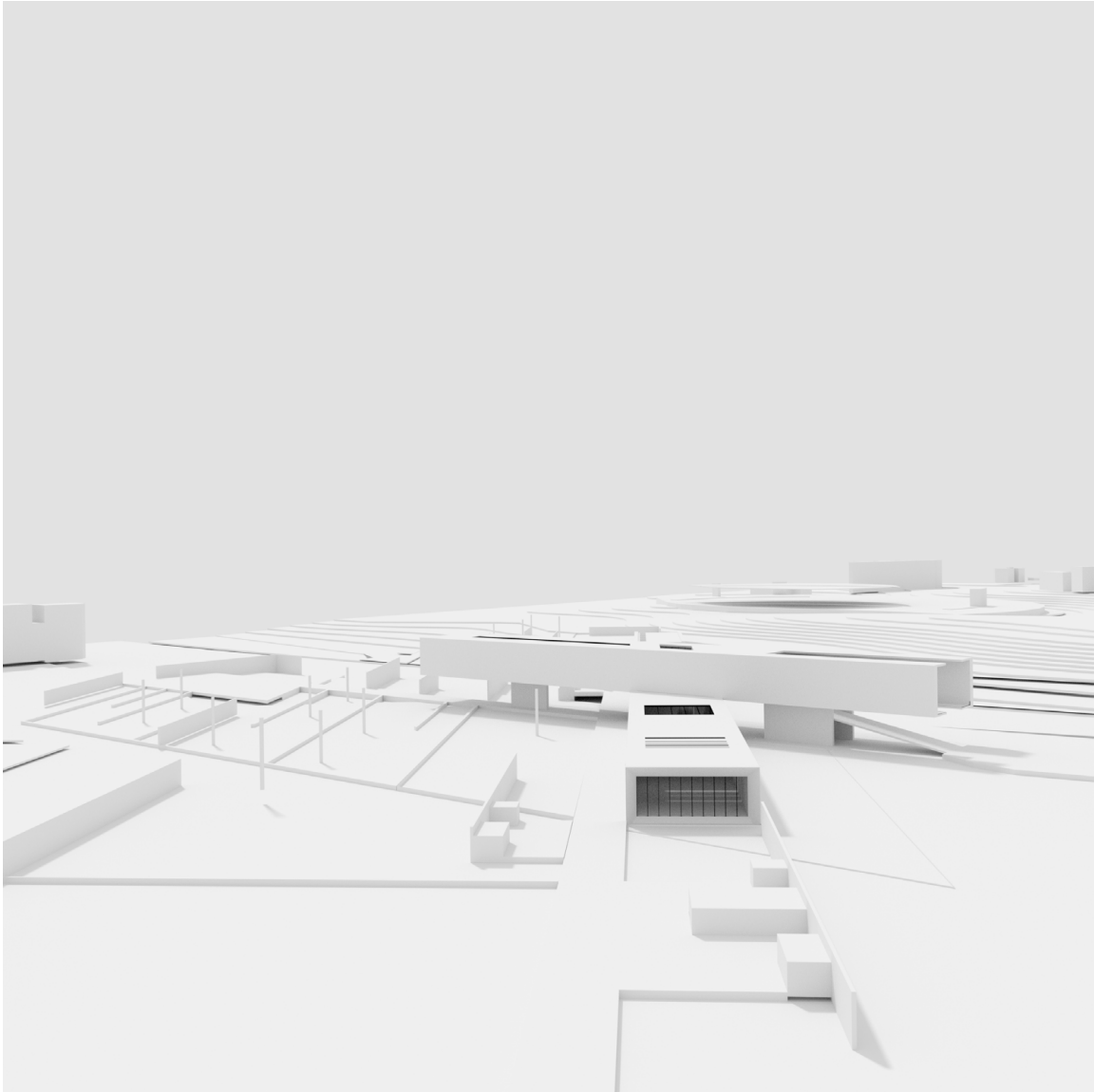


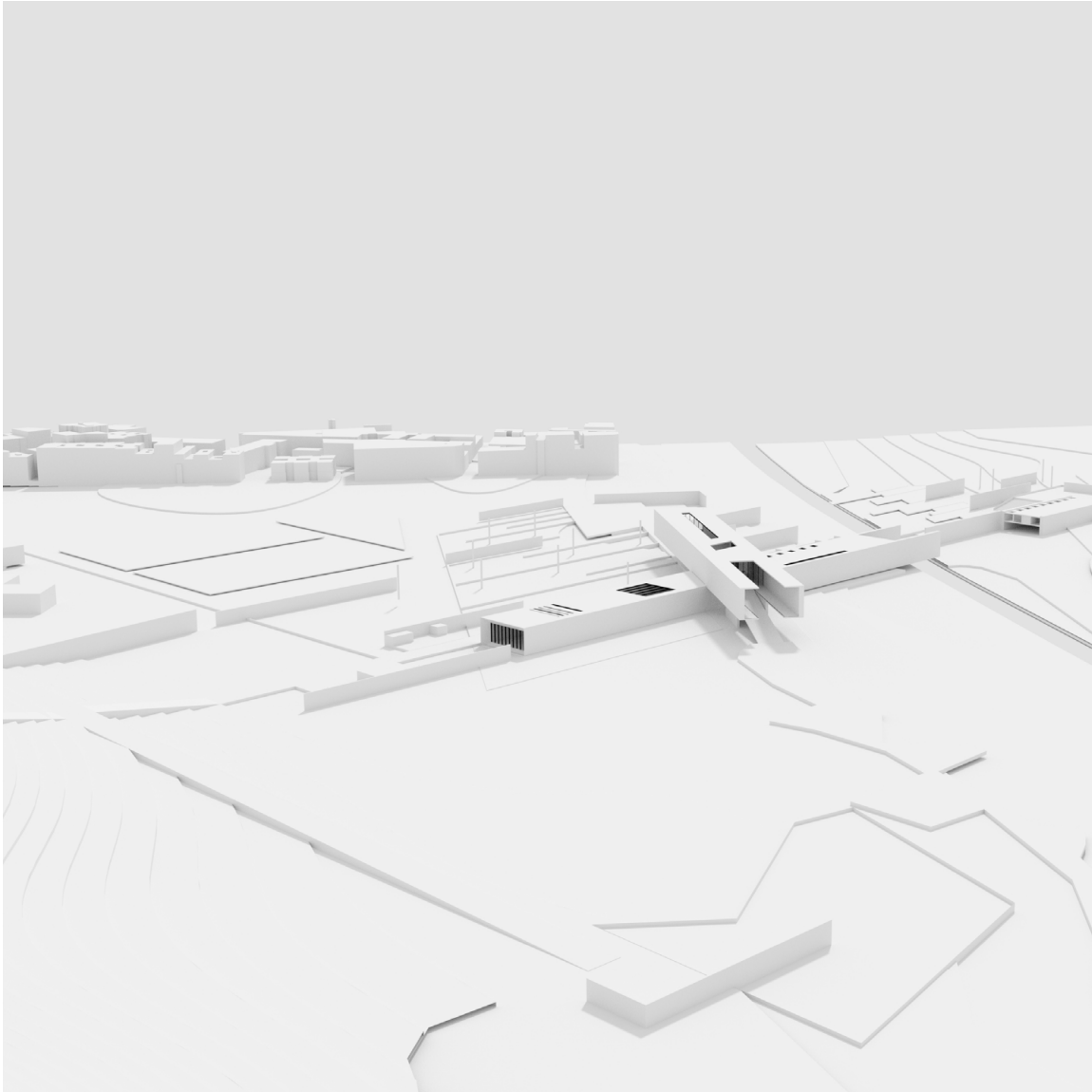


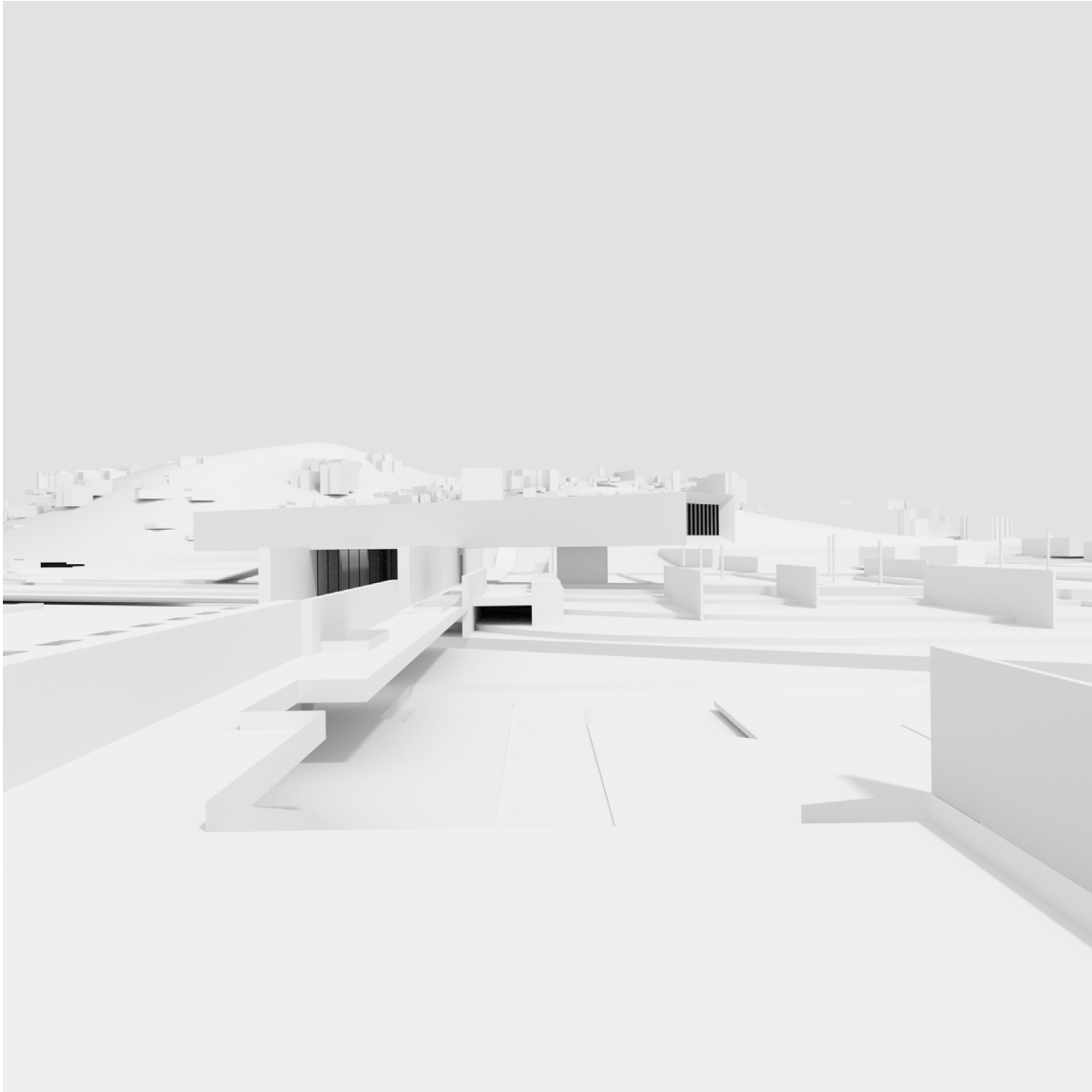






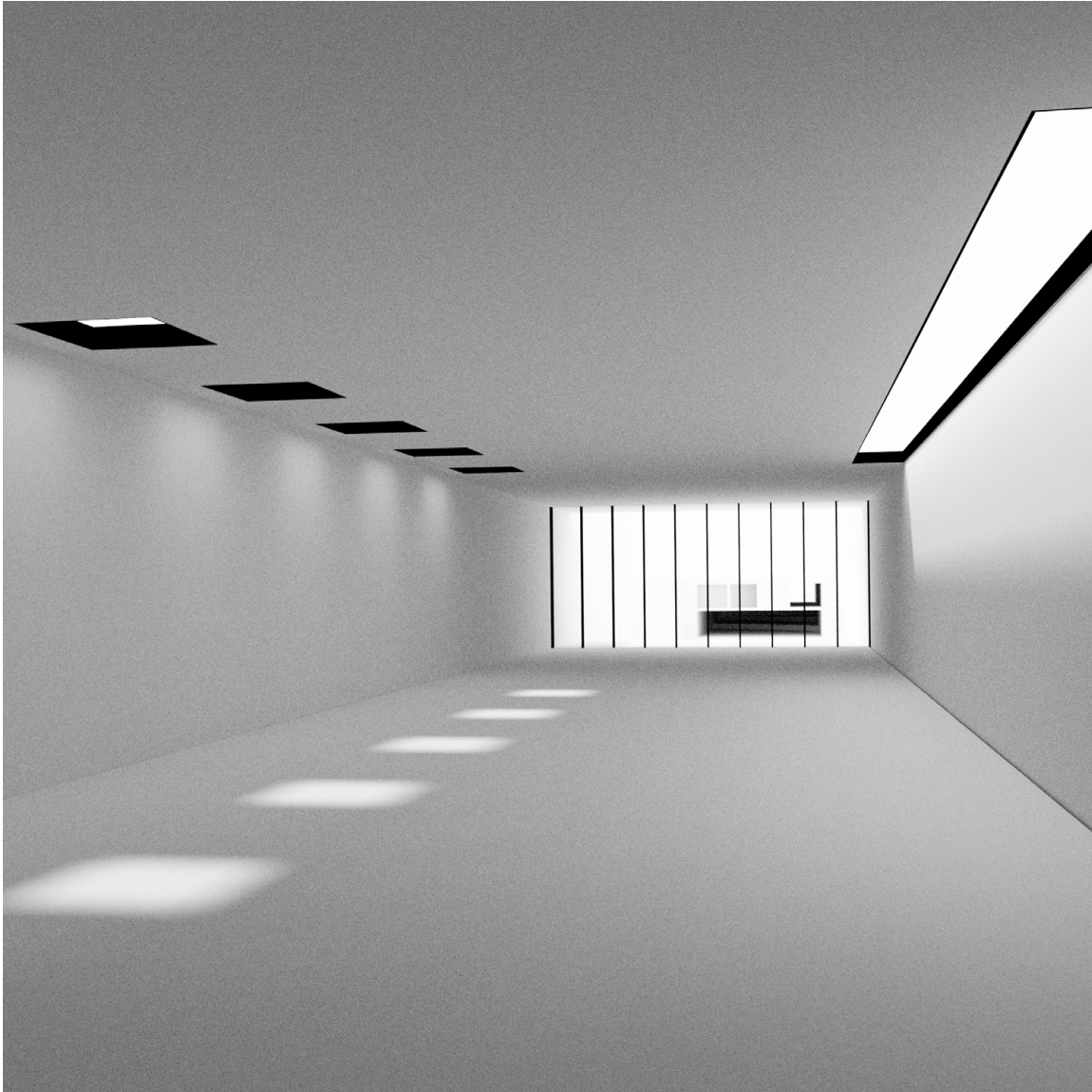


















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## Epilogue

Over the years Barcelona has developed in a different ways in architecture and urban aspects. In these developments, city borders are always extended. In these extentions, in every intervention made by a plan. Therefore, there are lots of rules to make the connections, city life better. However, after a time these extentions create some disconnected areas with the city center or important landmarks. We can say that the city is limited by natural elements such as rivers, sea, mountain and despite to those natural things also it is limited by man-made structures such as highways, roads. To redefine these limitation, creating a new attraction points, landmarks could work on creating a new connections.

According to the these problems, creating a new spot and landmark can be located in the most strategic point by looking to the important elements which are creating the connections and gathering places. These elements are landmarks, Besoa River and the transportation spots. According to those analysis, one of the most important element is Future Sagrera Linear Park project. Because, it is a project contains transportation and also it will be a landmark which is not point, it is a linear project so the connection with the city is concrete. Therefore, one element of the project is this project. In the city, between the landmarks, there are triangulated connections. From starting this point, the new project spot should be a new point to create and continue this triangulated pattern. Therefore, when we look to the landmarks , we can say that between the project area and Parc del Forum-Torre Agbar could be the new traingle. In addition, in the axis between Torre Agbar and the project area there is a Future Sagrera Linear Park. Therefore, this connection is strong and the one and only kind in the city. This connectional pattern is unique so the node of the site become much more powerful.

When we sum up those analysis, the museum building should be in a shape of responding to both nodes and also it should be not a ending point, also has an empty end. According to this, the project also provide a chance of continuity of this idea. Therefore, the shape of the building is X. So the two arms of the building is pointing out the existing landmarks, and the other two is creating a connection between city-nature and the museum as a connection node. So inside of the museum is a transformational space which provides new connections. These connections are visual and physical.

As a conclusion, this museum is not just museum, it is providing a new encounter space and new directions. The cities are always developing and expanding structures. Therefore, the interventions are done by architects should also consider the future developments. If this considerations are done, the possibility of the breaking of the connections will be decreased. By this one the most important thing is creating a connection spaces which are also not a transit point, also considering quality of the spaces which is provide a transformations and encounter spaces.





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## Books & Articles

....Art Journal-Vol. 35, No. 3 (Spring, 1976), pp. 253-258 (6 pages)

....Barcelona : urban sections : a new skyline for Barcelona,Bertelli, Guya,2011

....River, space, design : planning strategies, methods and projects for urban rivers, planning strategies,methods and projects for urban rivers, Martin Prominski, Antje Stokman, Susanne Zeller, Daniel Stimberg, Hinnerk Voermanek,2012

....AA Files No. 20 (Autumn 1990), pp. 46-54

.... Science, Technology, & Human Values Vol. 22, No. 1 (Winter, 1997), pp. 3-30

## Links

....<https://divisare.com/projects/197373-le-corbusier-cemal-emden-chapelle-notre-dame-du-haut>

....[https://www.archdaily.com/915270/when-sunlight-meets-tadao-andos-concrete/5cb60926284dd14261000007-when-sunlight-meets-tadao-andos-concrete-image?next\\_project=no](https://www.archdaily.com/915270/when-sunlight-meets-tadao-andos-concrete/5cb60926284dd14261000007-when-sunlight-meets-tadao-andos-concrete-image?next_project=no)

....[http://www.takamatsu.co.jp/\\_eng/projects/details.php?id=96](http://www.takamatsu.co.jp/_eng/projects/details.php?id=96)

....<https://www.arch2o.com/new-art-museum-sanaa/>

....<https://www.archdaily.com/430903/ad-classics-the-museum-of-modern-art>

....<https://www.archdaily.com/490141/centre-pompidou-metz-shigeru-ban-architects>

