

Muhamed Sokolovic, BSc

Design Museum Mexico City

MASTER'S THESIS

to achieve the university degree of
Diplom-Ingenieur
Master's degree programme: Architecture

submitted to

Graz University of Technology

Supervisor

Ass.Prof. Dipl.-Ing. Dr.techn. Milena Stavric

Institute of Architecture and Media

Graz, January 2015

AFFIDATIV

I declare that I have authored this thesis independently, that I have not used other than the declared sources/resources, and that I have explicitly indicated all material which has been quoted either literally or by content from the sources used. The text document uploaded to TUGRAZonline is identical to the present master's thesis dissertation.

Date

Signature

CONTENTS

1.	INTRODUCTION	10
2.	COMPETITION	12
	2.1 About ArchTriumph Competitions	13
	2.2 Competition Summary	14
	2.3 Competition Aim	15
	2.4 Competition Time Table	18
3.	MEXICO CITY	20
	3.1 Climate	23
	3.2 Topography & Geology	25
	3.3 Art and Culture	26

3.4	Architecture	28
3.5	Museums	30
4.	DESIGN MUSEUM	38
5.	CASE STUDY	42
5.1	Design Museum Holon, Holon, Israel	44
5.2	Júmex Museum, Mexico City, Mexico	50
5.3	New Art Museum, New Yourk, USA	58
6.	PROJECT	64
6.1	Site	65
6.2	Project Proposal	68
6.3	Program	69

6.4	Concept	75
6.5	Funtional Organisation	80
6.6	Construction	87
6.7	Facade	87
6.8	Renderings and First Skatches	88
7.	CONCLUSION	92
8.	SOURCES	94
8.1	Image Sources	95
8.2	Internet Sources and Literature	97

INTRODUCTION

Contemporary museums, especially art museums, are one of the most important building tasks in the public domain. Like a mirror of society, museums are a very important cultural element of every urban place. Freedom of design, like no other building typology, makes museums extraordinary popular in the architecture world. Museums are usually very expensive and often related with famous architects.

Beside cultural values, museums can have great importance for the economy of their location. Most museum-goers have heard of the so-called Bilbao effect, which has it that Frank O. Gehry's Guggenheim Bilbao is responsible for the renewal of that Spanish city's center.

Museums are public facilities which should be interesting and attractive for their visitors. Their interior spaces, organization and aesthetics are of great importance for their proper function. Besides these qualities, a museum has to be a secure archive for high-value showpieces.

As a dream for every architect to design a museum, open competitions are a great opportunity for freeing imagination and living that dream.

2. COMPETITION



2.1 ABOUT ArchTriumph

(<http://www.archtriumph.com/about.asp>)

ArchTriumph is the first platform of its kind to launch a number of competitions simultaneously including an “Architecture Competition Winners (Winner of Winners)” spanning various topics within a number of categories. It is one of the only competition of its kind to give architects, graduate architects or student architect the opportunity to build or be involved in building a showcase structure of the kind. ArchTriumph recognize that design competitions are a core process of the architecture practice in the real world and offer architects the unique and vital platform to pitch for work and present ideas.

Archtriumph Awards are an unusual opportunity for architects to develop informal opportunities for learning and promotion of their view on design or in general their designs.

Architects such as Renzo Piano, Jean Nouvel, Richard Rogers, Dominique Perrault, David Chipperfield and Zaha Hadid have had their careers made or enhanced by winning an important competition.¹

General Information:

ArchTriumph, Registered in England & Wales No.: 5812345

VAT Registration No.:978512969

¹ Archtriumph - About Us < <http://www.archtriumph.com/about.asp>>, in < <http://www.archtriumph.com>> 06.06.2014.

2.2 COMPETITION SUMMARY

Project Title: Design Museum - Mexico City

Project Sponsor: ArchTriumph

Total Prize Fund: 5000\$ USD

Location: Avenida Paseo de la Reforma 423 /Rio Lema, Cuatemoc, 06500
06500 Ciudad de Mexico, Distrito Federal, Mexico City, Mexico

The Proposed Site's Benefit:

The site for this Competition is the icon Reforma Avenue in the Federal District with its great vantage point and an area of Mexico's city early modernisation drive.

The Proposed Use:

There is a desire to create a Museum for Contemporary Design in such a public space with a needed for inclusion, socialising, relaxation, discussion, reflection, escapism, view and enjoyment of an attractive and interactive space. The main public entrance to the Museum should be Reforma Avenue

Eligibility: This Competition is open to architects, graduate architects, architecture students designers, engineers, urban planners, landscape architects or teams of maximum individuals.¹

¹ Archtriumph - Events < <http://www.archtriumph.com/events.asp> >, in < <http://www.archtriumph.com> >, 06.06.2014.

2.3 COMPETITION AIM

The aim of this single stage International competition is to select the design proposal that most exhibit a high degree of creative flare and is of high quality for an inclusive public design museum space and to hopefully achieve the following:

- Explore new design ideas that challenge the profession.
- Encourage architectural experimentation, including form, function and materials in design proposal.
- Encourage the respect of the context and natural topography of a site.
- Provide a visual focal and reference point.
- Encourage an amount of artistry as an integral part of the architectural process and experience.
- Encourage designs and architecture that embraces the awareness and engagement with members of the general public.
- Encourage and reward design excellence at a small or large scale, which integrates function, structure, details and the spirit of the environment which it is to exist.¹

¹ Archtriumph - Events < <http://www.archtriumph.com/events.asp> >, in < <http://www.archtriumph.com> >, 06.06.2014.

2.3 COMPETITION AIM

- To be able to work on small or large scale/budget projects with equal imagination and commitment.
- Encourage the employment of ecological and sustainable design in as many or all aspect of their design work.
- To be able to work on small or large scale/budget projects with equal imagination and commitment.
- Provides a visual focal point onto this prominent location, reinforcing and enhancing the urban design qualities of the area.
- Respects the context of the site and is of high quality design.
- Contributes to the sense of place at chosen location and complementing the building next to it and any views across from it.
- Reflects the natural topography of the site and take advantage of this to provide interesting forms and vertical integration and good circulation.
- Encourage uses, which have a direct relationship with a Design Museum.¹

¹ Archtriumph - Events < <http://www.archtriumph.com/events.asp> >, in < <http://www.archtriumph.com> >, 06.06.2014.

2.3 COMPETITION AIM

- Encourage designs that propose the value and appropriateness of contemporary architecture.
- Research, respond and highlight the unique aspects of innovative design.
- Provides a visual focal point onto this prominent location, reinforcing and enhancing the urban design qualities of the area.
- Enhance and recognising landmark location and buildings around it.
- Maximise the visual potential of the site.
- Discourage and disguise any negative aspects of the surrounding.
- Exhibit commitment to exploring new ways of engaging the general public through your architecture and design practice.¹

¹ Archtriumph - Events < <http://www.archtriumph.com/events.asp> >, in < <http://www.archtriumph.com> >, 06.06.2014.

2.4 COMPETITION TIME TABLE

Competition Announcement _____	08th April 2014
Special Registration Begins _____	22nd April 2014
Early Registration Begins _____	09th May 2014
Standard Registration Begins _____	09th June 2014
Late Registration Begins _____	11th September 2014
Submission Closes _____	30th September 2014
Panel Deliberation _____	01-27th October 2014
Winners Announcement _____	05th November 2014 ¹

¹ Archtriumph - Events < <http://www.archtriumph.com/events.asp> >, in < <http://www.archtriumph.com> >, 06.06.2014.

3. MEXICO CITY

Coordinates: 19°26'N 99°8'W
Total Area: 1,485 km² (573 sq mi)
Elevation: 2,250 m (7,380 ft)
Highest Elevation: 3,930 m (12,890 ft)
Population: City:8,851,080
Urban:21,200,000
Density: 6,000/km² (15,000/sq mi)



Mexico City (Spanish: Ciudad de México), officially known as México, is capital of Mexico. As a countries largest city Mexico city is also most important, cultural, educational, political and financial center.

Mexico City is located in large valley (Valle de México) at an altitude of 2,240 metres above sea. The city consists of sixteen boroughs.

Land area of of Mexico City is1,485 square kilometres. The Greater Mexico City is the largest metropolitan on american continent with 21.2 million people, as well the largest Spanish-speaking city in the world.

Originally built on an island of Lake Texcoco by the Aztecs in 1325 as Tenochtitlan, which was almost completely destroyed in the 1521 siege of Tenochtitlan, and subsequently redesigned and rebuilt in accordance with the Spanish urban standards. In 1524, the municipality of Mexico City was established, known as México Tenochtitlán, and as of 1585 it was officially known as Ciudad de México (Mexico City). Mexico City was the political, administrative and financial center of a major part of the Spanish colonies. The Federal District was created in 1824 after achieved independence from Spain.

As a stand-alone country, in 2013, Mexico City would be the fifth-largest economy in Latin America—five times as large as Costa Rica's and about the same size as Peru's.

3.1 CLIMATE

Mexico City has a subtropical highland climate (Köppen climate classification Cwb), due to its tropical location and high elevation. The lower region of the valley receives less rainfall than the upper regions of the south

The average annual temperature varies from 12 to 16 °C (54 to 61 °F), depending on the altitude of the borough. The temperature is rarely below 3 °C (37 °F) or above 30 °C (86 °F). The lowest temperature ever registered was -4.4 °C (24.1 °F), and the highest temperature on record is 33.9 °C (93.0 °F).

The region of the Valley of Mexico receives anti-cyclonic systems. The weak winds of these systems do not allow for the dispersion of the air pollutants which are produced by the 50,000 industries and 4 million vehicles operating in and around the metropolitan area.¹

¹ Orientation in Mexico City
< http://www.triposo.com/loc/Mexico_City/orientation >, in < <http://www.triposo.com> >, 01. 07. 2014.

The area receives about 820 millimetres (32.3 in) of annual rainfall, which is concentrated from June through September/October with little or no precipitation the remainder of the year. The area has two main seasons. The rainy season runs from June to October when winds bring in tropical moisture from the sea. The dry season runs from November to May, when the air is relatively drier. This dry season subdivides into a cold period and a warm period. The cold period spans from November to February when polar air masses push down from the north and keep the air fairly dry. The warm period extends from March to May when tropical winds again dominate but do not yet carry enough moisture for rain.¹

¹ Mexico City(Ciudad de México)
< <http://sustainablepurdue.weebly.com/mexico-city.html> > , in < <http://sustainablepurdue.weebly.com> > ,
08. 07. 2014.

3.2 TOPOGRAPHY AND GEOLOGY

Mexico City is located in the Valley of Mexico, sometimes called the Basin of Mexico. This valley is located in the Trans-Mexican Volcanic Belt in the high plateaus of south-central Mexico. It has a minimum altitude of 2,200 meters (7,217 feet) above sea level and is surrounded by mountains and volcanoes that reach elevations of over 5,000 meters. This valley has no natural drainage outlet for the waters that flow from the mountainsides, making the city vulnerable to flooding. Drainage was engineered through the use of canals and tunnels starting in the 17th century. The city primarily rests on what was Lake Texcoco. Seismic activity is frequent here. Lake Texcoco was drained starting from the 17th century.¹

¹ Mexico City(Ciudad de México)
< <http://sustainablepurdue.weebly.com/mexico-city.html> > , in < <http://sustainablepurdue.weebly.com> > ,
08. 07. 2014.

3.3 ART AND CULTURE

Mexico City is an important cultural center. It has a rich history of artistic expression. Since the mesoamerican pre-Classical period the inhabitants of the settlements around Lake Texcoco produced many works of art and complex craftsmanship, some of which are today displayed at the world-renowned National Museum of Anthropology and the Templo Mayor museum. While many pieces of pottery and stone-engraving have survived, the great majority of the Amerindian iconography was destroyed during the Conquest of Mexico.

Early attempts during the colonial era were made to recover and preserve some Aztec and other Amerindian iconography and history. From then, artistic expressions in Mexico were mostly religious in theme.

After the Mexican Revolution, an avant-garde artistic movement originated in Mexico City: muralism. Many of the works of muralists José Clemente Orozco, David Alfaro Siqueiros and Diego Rivera are displayed in numerous buildings in the city, most notably at the National Palace and the Palacio de Bellas Artes. Frida Kahlo, wife of Rivera, with a strong nationalist expression, was also one of the most renowned of Mexican painters. Her house (Figure 3-01) has become a museum that displays many of her works.

It was in the second half of the 20th century that the artistic movement began to drift apart from the Revolutionary theme. José Luis Cuevas opted for a modernist style in contrast to the muralist movement associated with social politics.



Figure 3-01- House of Frida Kahlo

3.4 ARCHITECTURE

Under the rule of Porfirio Díaz, Mexico City experienced a massive transformation. Díaz's goal was to create a city which could rival the great European cities. He and his government came to the conclusion that they would use Paris as a model, while still containing remnants of Amerindian and Hispanic elements. This style of Mexican-French fusion architecture became colloquially known as Porfirian Architecture. Many of Mexico City's major attractions and landmarks were built during this era in this style.

Díaz's plans called for the entire city to eventually be modernized or rebuilt in the Porfirian/French style of the Colonia Roma but the Mexican Revolution began soon after and the plans never came to fruition with many projects being left half completed. One of the best examples of this is the Monument to the Mexican Revolution. Originally the monument was to be the main dome of Díaz's new senate hall, but when the revolution erupted only the dome of the senate hall and its supporting pillars were completed, this was subsequently seen as a symbol by many Mexicans that the Porfirian era was over once and for all and as such, it was turned into a monument to victory over Díaz.

20th Century To Present

The northern, central, and western areas of the city are marked with hundreds of high rise buildings. The Angel of Independence, completed in 1910 has become a modern icon of the city. The history of the rest of the 20th century to the present focuses on the phenomenal growth of the city and its environmental and political consequences. In 1900, the population of Mexico City was about 500,000. The city began to grow rapidly westward in the early part of the 20th century and then began to grow upwards in the 1950s, with the Torre Latinoamericana becoming the city's first skyscraper. The 1968 Olympic Games brought about the construction of large sporting facilities. In 1969, the Metro system was inaugurated. Explosive growth in the population of the city started from the 1960s, with the population overflowing the boundaries of the Federal District into the neighboring state of Mexico, especially to the north, northwest and northeast.

3.5 MUSEUMS

Mexico City has numerous museums dedicated to art, including Mexican colonial, modern and contemporary and international art. Mexico City has more than 150 museums including those above and the Museum of Anthropology and History and the major addition to the city's museum scene is the Museum of Remembrance and Tolerance (Museo de la Memoria y Tolerancia), inaugurated in early 2011. On Figure 3-02 are displayed some important museums near to location of planned Archtriumph design museum.

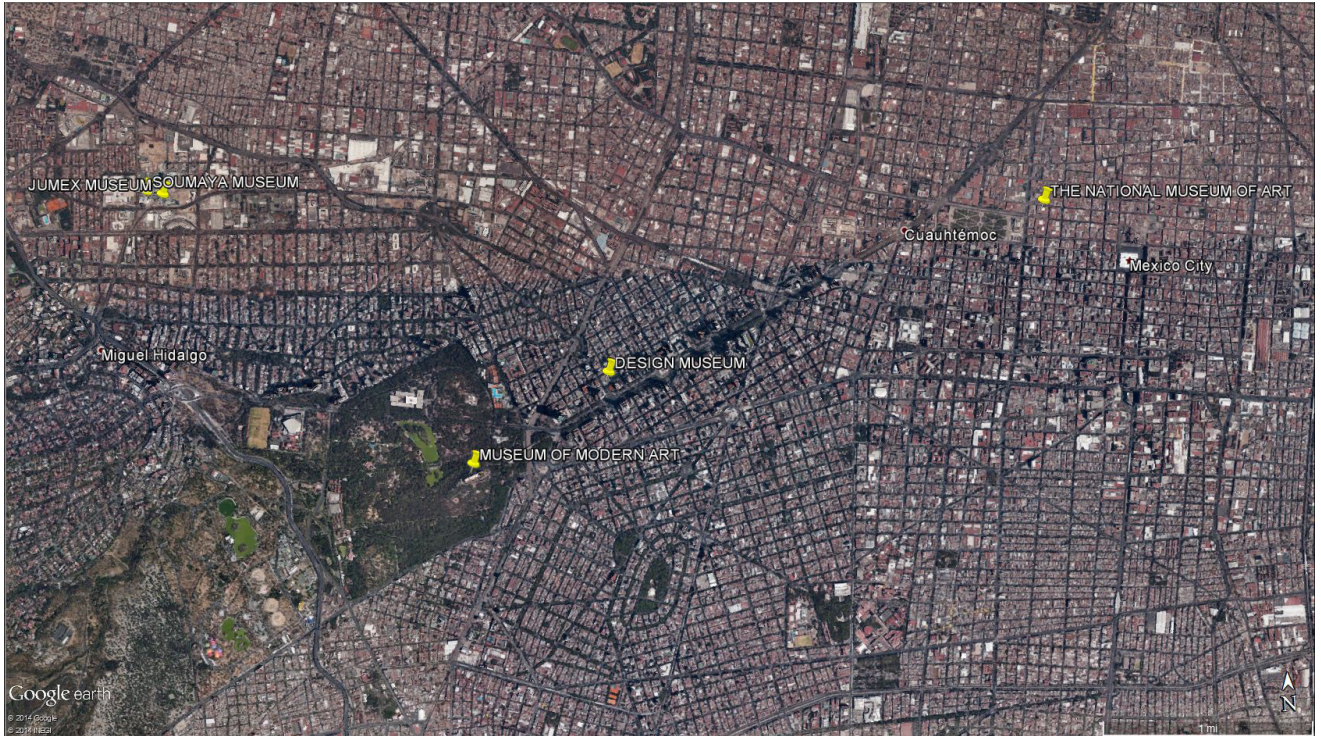


Figure 3-02 - Location of important museums in Mexico City (google earth)



Figure 3-03 - Museo Soumaya

The Museo Soumaya (Figure 3-03) has the largest private collection of original Rodin sculptures outside Paris. It also has large collection of Dalí sculptures. Futuristic look of the building makes it as a contrast to its surrounding.



Figure 3-04 - The Museo de Arte Moderno

The Museo de Arte Moderno or Museum of Modern Art (Figure 3-04) houses works of Mexican artists from the 20th century, including Rivera, Orozco, Siqueiros, Kahlo, Gerzso, Carrington, Tamayo, among others. This museum also regularly hosts temporary exhibits of international modern art.



Figure 3-05 - Museo Júmex

The new Museo Júmex in Nuevo Polanc (Figure 3-05) designed by David Chipperfield Architects. More information on page 50.



Figure 3-06 - The National Museum of Art

The National Museum of Art (Museo Nacional de Arte, Figure 3-06) located in the historic center. It is former palace which now houses large collection of Mexica artists. Museum presents also visiting exhibits.



Figure 3-07 - Museo Tamayo

The Museo Tamayo (Figure 3-07) is known for his donator painter Rufino Tamayo. Museum houses artworks collection of international contemporary art. The collection includes pieces by Picasso, Klee, Kandinsky, Warhol and many others.

4. DESIGN MUSEUM

What is Design Museum?

Unlike the other art museums design museum focuses on industrial, fashion, graphic, architectural, soft and hard product design. For example, chairs are pretty as a design icon and one of most popular objects for design museum exhibitions. The name "museum of decorative or applied arts" is more often to hear nowadays, which is a synonyme for design museum. First design museums exist only science late 20th century.

Victoria and Albert Museum in London is one of the first museums dedicated to design. Some of the Contemporary Art Museums houses very important design collections of today. Examples are MoMA in New York City or Pompidue Center in Paris. New Collection (Neue Sammlung) in Munich is a different concept of museum which cooperate with three other Munich museums what makes it as the largest design museum in the world.

Here is the list of important existing design related museums:

- Vitra Design Museum, Weil am Rhein (Figure 4-01)
- Museum of Modern Art, New York (Figure 4-02)
- Cooper-Hewitt, New York
- Design Exchange, Toronto
- Museu de Arte Moderna, São Paulo
- Design Museum, London (Figure 4-03)
- The V&A, London
- Design Museum, Helsinki
- Stedelijk Museum, Amsterdam (Figure 4-04)
- Design Museum, Copenhagen
- Museum of Design, Zürich



Figure 4-01 - Vitra Design Museum, Weil am Rhein



Figure 4-02 - Museum of Modern Art, New York



Figure 4-03 - Design Museum, London



Figure 4-04 - Stedelijk Museum, Amsterdam

5. CASE STUDY

In order to understand the concept of Design Museum, how it work and how to successfully create the proposal, case study of existing examples is needed. Choice of three Buildings with different approach to same typology, has as a result more good answers for one question.

DESIGN MUSEUM HOLON, Ron Arad Architects, Holon, Israel

Is one of the new design museums with focus on exterior design. Façade of the building makes strong expression with message for passengers to recognize a function through design of the building.

JUMEX MUSEUM, David Chipperfield Architects, Mexico City, Mexico

Jumex Museum is a new Museum for Mexico City. David Chipperfield's design gives the answers on question: "How to do it in Mexico City". Because of the same location, climate and typology, Case Study for Jumex Museum should help to make successful competition proposal.

NEW ART MUSEUM, SANAA Architects, New York, USA

The New Contemporary Art Museum in New York is a precious building with clear concept and strong impact. SANAA won Pritzker Prize 2010 for 21st Century Museum of Contemporary Art in Kanazawa (2003), where New Art Museum got the special mention.

5.1 CASE STUDY

Design Museum Holon

Location: Holon, Israel

Architects: Ron Arad Architects Ltd
Project Director: Asa Bruno
Project Architect: James Foster
Design Team: Marta Granda, Tavis W.
Steel Band Contractor:

Marzorati Ronchetti

Client: Holon Municipality
Project Area: 4,100 sqm
Budget: £11.1m: £2707/sqm
Project Year: 2003-2010

Figure 5-01- Design Museum Holon



Design Museum Holon (Figure 5-01) is the first museum in Israel dedicated to Design. Architect and industrial designer Ron Arad in cooperation with Bruni Asa was responsible to do design and planning for this museum. The museum is in the eastern part of the new culture area of Holon that includes the Médiathèque (central library, theater, cinémathèque). The faculty of design in the Holon Institute of Technology is nearby.



Figure 5-02- Design Museum Holon

Under a dark-colored part of facade is a route into a small organic-shaped space, full of light and shadows casted by the structure from above. Warm-colored 5 Cor-Ten steel bands (Weathering Steel, Figure 5-02) exposed to sunlight makes different hues, which horizontally goes from burgundy at the base to orange stripes at the top.

The building appears as an organic form. Building is formed by a large upper (Figure 5-04) and a small lower gallery (Figure 5-03), both rectilinear. The spaces might allow flexibility but the fact that their perimeter wasn't reflected externally could concern architect as visitors who expect that form should be reflecting the form of the space held within.

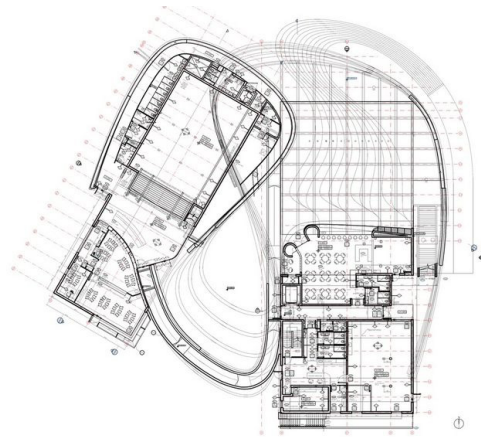


Figure 5-03 - Ground Floor

Inside of the building main space is occupied by two levels of galleries (Figure 5-05) with changing exhibits. The galleries are connected by a ramp, which is the main circulation route in the building, taking visitors between galleries and floors. In cave-like environment in circulation part it leads to opening up to large, bright open spaces that house the artworks.

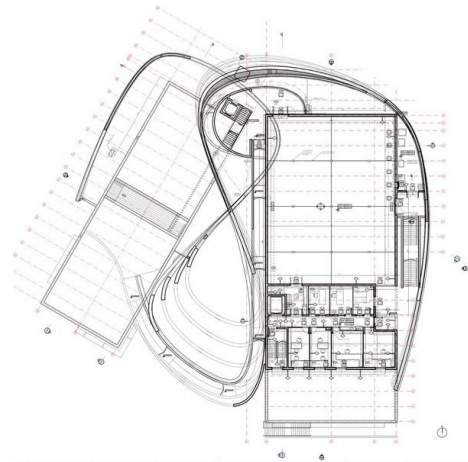


Figure 5-04 - Upper Floor

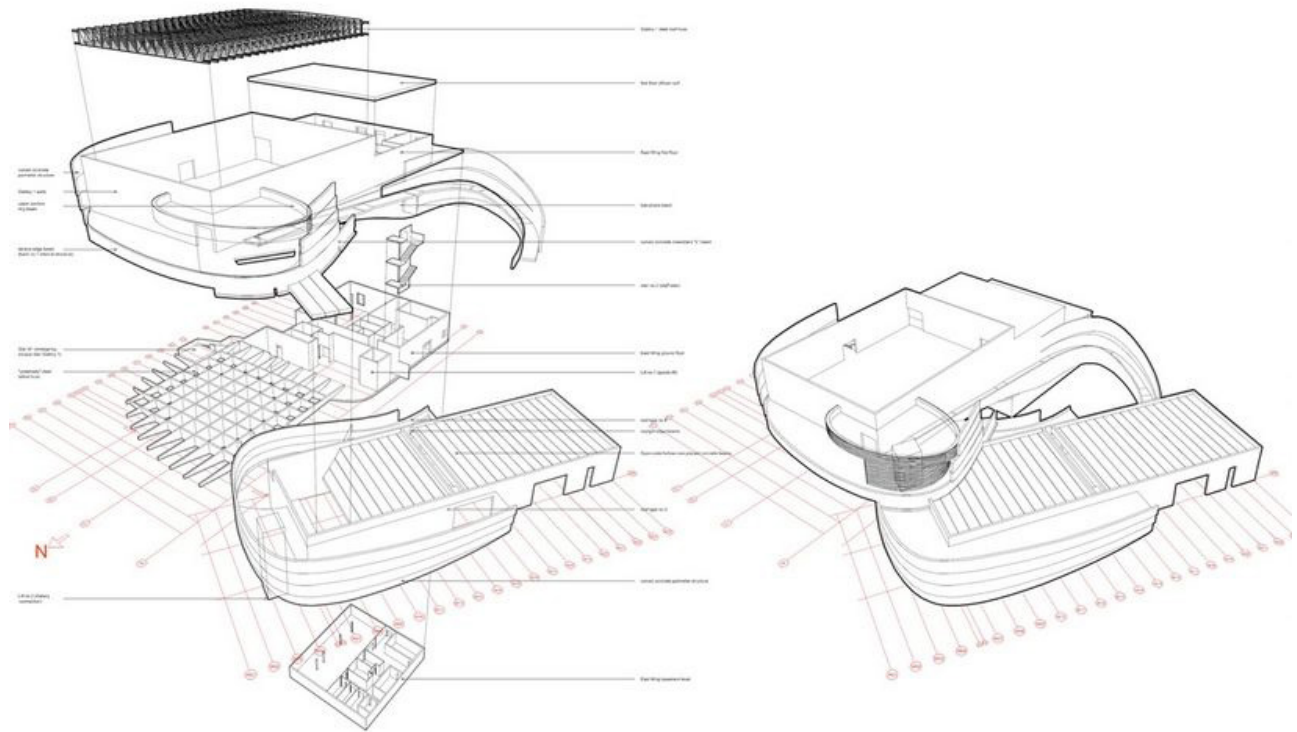


Figure 5-05 - 3D project explanation

Lower Gallery which is on the main floor, currently is showing two separate, but related, exhibits. On its walls, the rise of the Israeli textile industry is mapped out with explanations and visual examples of the Fourth Aliyah (or "Textile Aliya"), tying Israel's design history to the wave of immigration from Eastern Europe in the 1920s.

Arad has convincingly managed to do two distinct buildings. One is an inventive, piece of sculpture, the other a logical and set of gallery spaces, with one locked in the other. The museum's shop is connected to a small cafe.

Walking up the ramp on the way to the stairs for the Upper Gallery, are three television screens showing TED.com talks. It is a place to sit, take moment and watch an engaging lecture for a few minutes. Upper Gallery features the exhibit of the unique design landscape from several Central European countries.

In addition to the featured exhibitions, Design Museum Holon will house an 'Experience Archive', a collection of international and Israeli design related objects, materials and resources which are all accessible to the public. The archive will be an interactive environment for in-depth research on design, from concepts and materials to execution and trends.



Figure 5-07 - Cor-Ten Steel Bands

Five dominant bands of Cor-Ten steel (Figure 5-07) which surround the museum's internal volumes act as a spine for the building. They are supporting building structurally and make expression of its exterior design. In relation to its surroundings. The bands are never entirely obscured from the visitor's sight, and act as a visual key to one's position within the museum.

Architectural imaginary of Ron Arad's vision is most visible when the sun shines through the openings of the facade, what makes this museum most rewarding by visiting on sunny day.

5.2 CASE STUDY

Júmex Museum

Location: Mexico City, Mexico

Architects: David Chipperfield Arch.
Project Director: Andrew Phillips
Project Architect: Peter Jurschitzka

Client: Eugenio Lopez
Project Area: 2.500 sqm
Project Year: 2009 - 2013

Figure 5-07 - Jumex Museum





Figure 5-08 - The Plaza Carso - Somaya Museum (left) and Jumex Museum (right)

This over 2,500 square meter big, four-story high museum is first David Chipperfield's project realized in Latin America. Jumex Museum (Figure 5-07) will house the most important private art collection in Latin America, assembled by Eugenio López Alonso. It will also presents a selection of over 2750 artworks by contemporary artists such as Jeff Koons, Olafur Eliasson and Tacita Dean, as well as Mexican artists including Abraham Cruzvillegas, Gabriel Orozco and other.

The Plaza Carso (Figure 5-08) beside Jumex Museum is a place with few more fabulous Buildings as the Soumaya Museum and a underground theatre. Óscar Rodríguez leading architect of TAAU Studio was a local collaborator with Dawid Chipperfield Architects on this project.



Figure 5-09 - Loggia

Looking building from outside, it makes expression of massive sharp edged stone. Few large orthogonal openings on facade change feeling of huge closed cubus. Continuity of travertine coating on facade reflect an traditional and sculptural look of the building.

Upper two floors of the building houses the primary exhibition space. Roof gallery is designed for special exhibition with need for naturally lighted space. Lower floors provide more social and community based program. Art storage facilities, administrative offices, plant room and multi-purpose room occupies the fourth floor of the building. Rised slab of ground floor interact with public plaza what makes it more accessible and public. It makes an easy connection for plaza and loggia (Figure 5-09) which sits between ground floor and upper galleries. Loggia with huge openings on outer walls allows visitors to enjoy in elevated views of the surrounding. Four floors under ground floor provide parking space for this building.

All windows of Jumex museum are full-height glazing with steel frames. Total cost of this giant windows are around 3 million dollars.

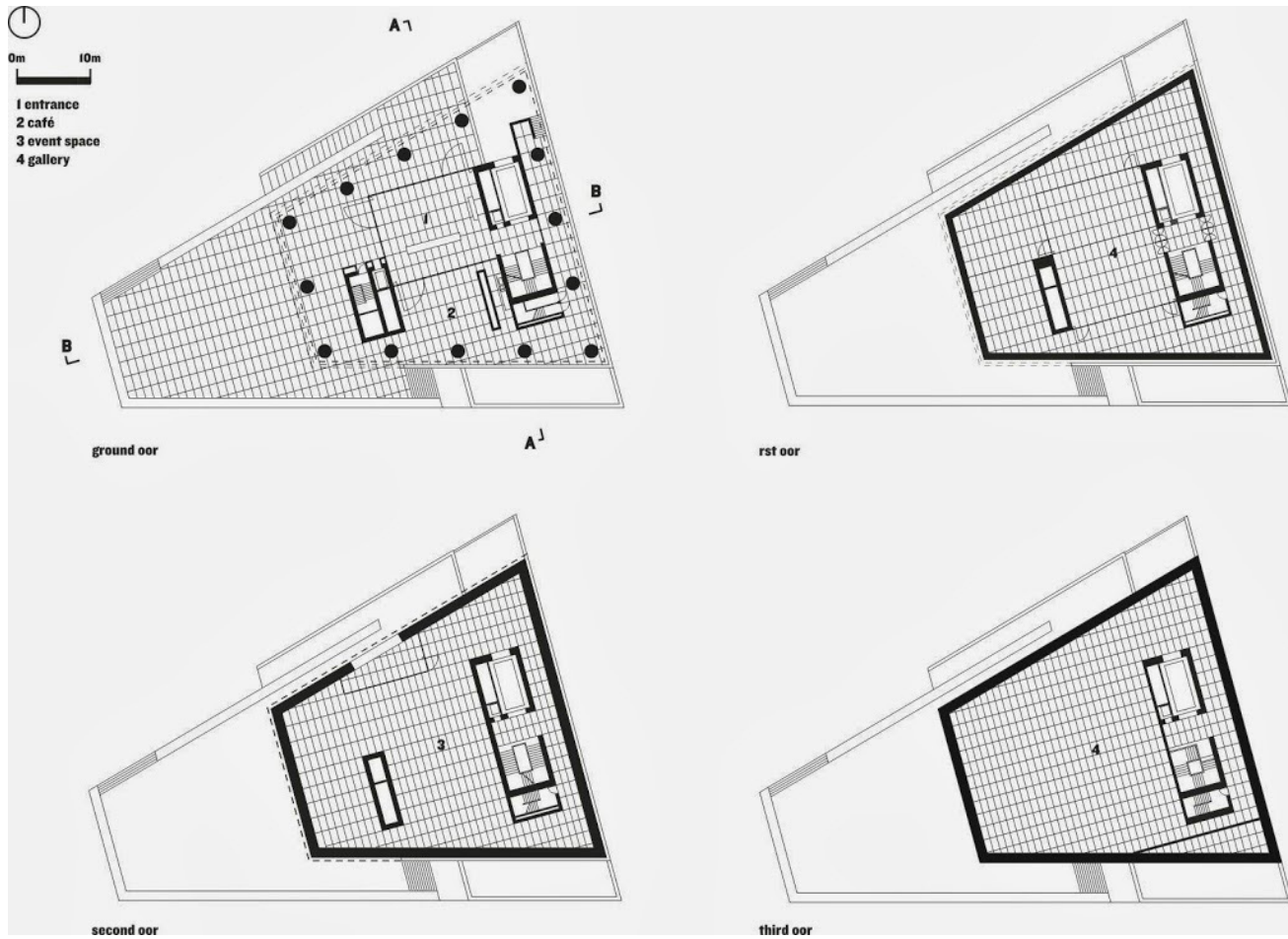


Figure 5-10 - Floor Plans

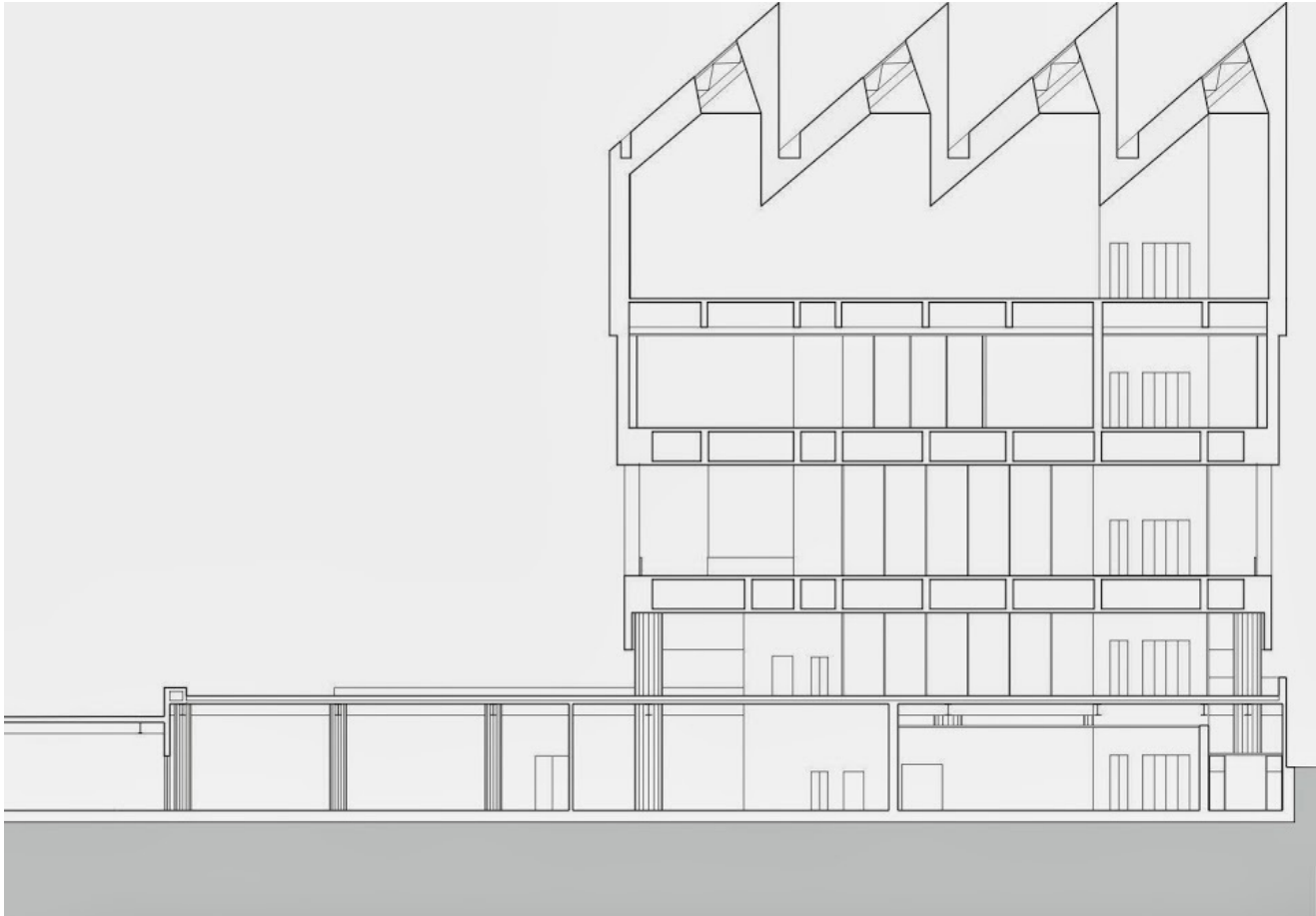


Figure 5-11 - Section through the Building

Under 10 meter high ceiling of museum's top floor gallery is designed to bring natural light into inner space. To avoid direct sunlight from exhibition space Chipperfield uses industrial like saw tooth roof design (Figure 5-12). As a result this design makes indirect sunlight (Figure 5-13) which is optimal for presented artwork. Gallery space has huge benefit from indirect sunlight. In this environment artwork, like painting is truly presented, with most realistic color hue.



Figure 5-12 - Saw Tooth Roof



Figure 5-13 - Natural lighted Gallery on Top Floor

Selected section of interview with David Chipperfield
interviewed and written by Edwin Heathcote

Chipperfield himself makes the point that this is the first major institutional building in Mexico City to be designed by an international architect. Does that knowledge, I wonder, put a special onus on the designer?

“The question is,” he replies, “could we make this building more vital, more civic than it was at its previous location? This is a quasi-public building so we had to ask, ‘What is public space?’ We had to make it so that you didn’t just enter it through the lobby, but that there are a series of thresholds. The first, where you enter the building, is where you step onto the travertine, you step up from the street. We are still toying with the idea of having the ticket desk outside the building – the climate here is so good you can play with the location of the threshold. It’s only crime that’s an issue.”¹

The second threshold, Chipperfield explains, is the interior – that in-out lobby. “[Mexican architect Luis] Barragán used that inside-outside idea so well, eroding the notion of the threshold and we wanted to enjoy that too,” he says.¹

Chipperfield’s Júmex never attempts the sculptural or theoretical daring of museum buildings by some of his famous contemporaries. He is drawn to beautiful volumes and elegant details rather than to some universal concept of flexible space

1 Edwin Heathcote (16.05.2014.): David Chipperfield’s Museo Jumex
< <http://www.iconeye.com/architecture/features/item/10224-david-chipperfield-s-museo-jumex> >,
in < <http://www.iconeye.com> > , 20. 10. 2014.

5.3 CASE STUDY

New Art Museum
Location: New York, USA

Architects: SANAA
Project Director: Florian Idenburg
Project Architect: Jonas Elding
Javier Haddad, Erika Hidaka,
Hiroaki Katagiri, Toshihiro Oki
Koji Yoshida

Client: Eugenio Lopez
Project Area: 5450m²
Project Year: 2002 - 2007

Figure 5-14 - New Art Museum



New Art Museum (Figure 5-14) is designed by Tokyo-based architects Kazuyo Sejima and Ryue Nishizawa/SANAA. Architects with experience in building museums are chosen to Design their first Museum for New York. It is an eight-story building located at 235 Bowery, cultural place where was living and working many generation of artists. This is the first fine art museum which was built from ground up in downtown of Manhattan. For Architects it was shocked and impressed by location where the new museum should be built.

Figure 5-15 - Stairs



Basic geometry of the building is made of six shifted rectangular boxes what makes an dynamic composition. This approach to design has as a result spaces with different hight at every level, day lighted galleries (Figure 5-17) and all column free. This small shifts allows natural light in each gallery which can be controlled through a shades system placed beneath the glass. Whole structure is carried by off-centred core and diagonal columns on facade. This combination of construction frees building of columns inside. Diagonal columns can be seen as a nice interior detail in fourth floor.

Facade (Figure 5-16) is made of white walls covered with anodized aluminium mash, as an aesthetic solution. It is semi-transparent skin which reflects sunlight on strange way what covers offices windows and other openings on facade. Building looks light, clean and elegant. At night with combination of artificial light and hidden openings on facade, museum shows parts of its interior and the life from inside.

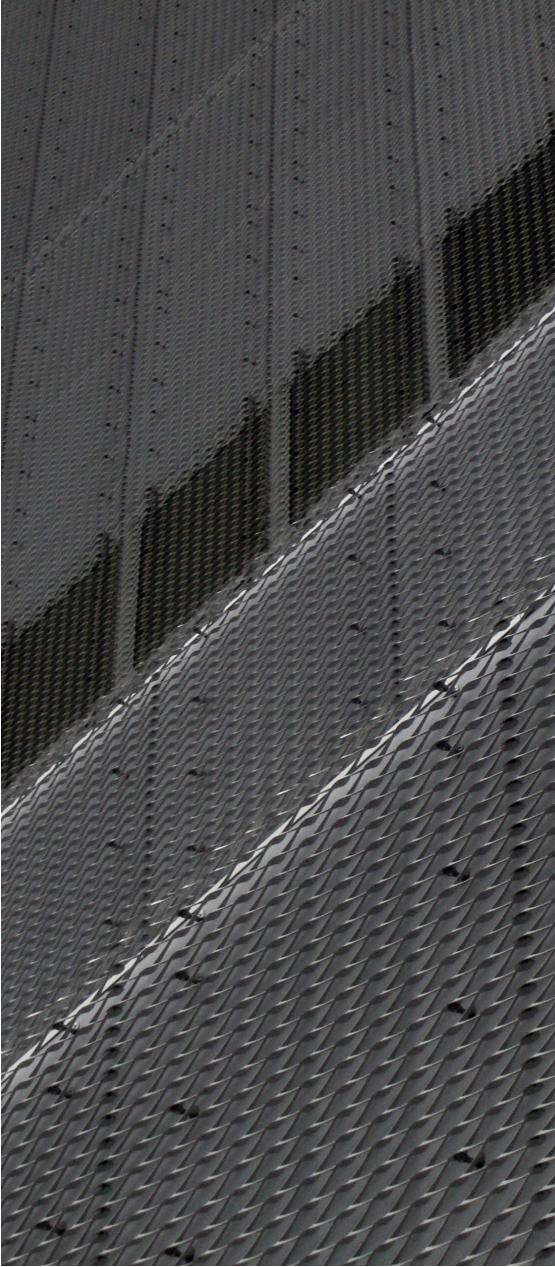


Figure 5-16 - Facade



Figure 5-17 (Up) Gallery and Figure 5-18 - Terrace



Figure 5-19 - Section through the Building

Ground floor is bigger than other upper floors. It is organized as lobby, cafe, and small gallery space. The first four floors are public galleries with free and flexible spaces for different kinds of exhibitions. The Education Center is at the 5th floor, administration and offices at the 6th. The seventh floor is planned for multi-purpose space. All spaces on the top floors get terraces (Figure 5-18) and open panoramic views. The auditorium is situated in the basement of the building. The highest box of the structure and one floor below are reserved for the mechanical roof and space for other mechanical needs.

Selected section of Interview with SANAA
written by newmuseum.org

Sejima and Nishizawa, who received the commission in 2002, have described the building as their response to the history and powerful personalities of both the New Museum and its storied site. "The Bowery was very gritty when we first visited it," they have said. "We were a bit shocked, but we were also impressed that a fine art museum wanted to be there. In the end, the Bowery and the New Museum have a lot in common. Both have a history of being very accepting, open, embracing of every idiosyncrasy in an unprejudiced manner. When we learned about the history of the New Museum we were flabbergasted by its attitude, which is very political, very focused on new ideas, fearless. The New Museum is a combination of elegant and urban. We were determined to make a building that felt like that."¹

Reflecting upon the completed building, five years from initial conception to completion, SANAA has stated: "The new New Museum building is both part of SANAA and the New Museum. In the time that we have been together, both have changed very much. In some ways we are both bigger, more relaxed, but still always hoping to explore and find new things. The New Museum is intriguing because it is always trying to find itself and we hope that continues to be so. Our building is an attempt to express that adventurousness and freedom."¹

1 official New Art Museum NY webpage < <http://www.newmuseum.org/building> >
< <http://www.newmuseum.org> > , 10. 11. 2014.

6. PROJECT

6.1 SITE

The site which is the subject of the competition is the area of the cinepolis complex on Avenida Paseo de la Reforma 423 (Figure 6-01) including the carpark along the Rio Misisipi and Rio Lema in the federal district of Mexico City. It is approximately 9300 m2 in area (with approximately perimeter of 406 metres) in size.

It is bounded by Avenida Paseo de la Reforma, Rio Misisipi and Rio Lema.



Figure 6-01 - Site 01 - google earth

RECENT HISTORY

The site is currently a cinema complex, shopping complex and carpark with the Diana fountain on Reforma Avenue just right across from the main entrance to the cinepolis complex.

SITE CONTEXT AND ANALYSIS

The proposed site exist between Reforma Avenue to the South, Rio Misisipi to the West, Rio Lema to the North and Commercial buildings and a school to the East of the plot.

This is an important site and a Museum will attract a lot of interest, by virtue of it being:

- next to a key junction;
- A site next to the prominent corner site of Reforma Avenue with important splayed view and walk traffic;
- A site visible both in short and medium views from Diana Fountain;
- A provider of cultural interest and enhancement to the area's charm;
- A site along a historic avenue and in a district with many other Museums;

DESCRIPTION

The site covers cinepolis complex on Avenida Paseo de la Reforma 423, the carpark along the Rio Misisipi and Rio Lema in the federal district of Mexico City as shown on *Site 01* (picture on page_).

PROPOSED USES

There is a desire to create a new Contemporary Design Museum on the site to house and showcase contemporary Mexican and International design and architectural creations. The design show include a public spaces with a need for inclusion, socialising, relaxation, discussion, reflection, escapism, view and enjoyment of an attractive and interactive space and also semi-private and private spaces for staff only.

The site's main access should be on Reforma Avenue with the visibility from the main public access routes.

6.2 THE PROPOSAL

New Contemporary Design Museum should house a collection of contemporary designs by both Mexican and International designers. The proposed Museum's collection will cover an exciting range of items from product, industrial, graphic, fashion to architectural designs.

The proposed Museum should explore the role of Museum today and the relevance, expectation and possibility for an inspirational space where visitors can comfortably engage with design and architecture through the exhibits and the space itself.

6.3 PROGRAM

The program is ment to design public Design Museum with a need for inclusion, socialising, relaxation, escape, view and enjoyment of a high quality space.

The design should be visually and aesthetically engaging. It should provide an ideal contemporary space for enjoying Design and Architecture creations with a functional environment suitable for offering a sense of learning and relaxation.

ENTRANCE ZONE:

Entrance:

The main entrance to the Museum is located on Reforma Avenue with other vehicular access to the site from Rio Misisipi and Rio Lema.

Entrance Hall:

A space including a reception office for ticketing facility, visitors guidance, information desk, screens and seating.

Entrance Exhibition Hall:

An exhibition hall linked to the entrance where architecture and design exhibition or installations can be staged.

Cloak-Room:

wA cloakroom for holding visitor's coats and bags.

5 x Permanent Collection Gallery Spaces:

- Gallery Space 1 - dedicated to Graphic Design exhibitions.
- Gallery Space 2 - dedicated to Hard Product Design exhibitions.
- Gallery Space 3 - dedicated to Soft Product Design exhibitions.
- Gallery Space 4 - designated to Fashion Design exhibitions.
- Gallery Space 5 - designated to Architecture Design exhibitions.

1 x Great Gallery Space - Large Multi-purpose space with high ceiling for changing displays, special exhibitions or commission contemporary design & architecture works.

1 x Roof Gallery - Small gallery with natural lighting

Learning and Interpretation Interval Space: Space for visitors to discuss and reflect within or linked to each gallery space.

STORAGE ZONE: A number of storage rooms should be provided.

AUDITORIUM ZONE: An auditorium with capacity for 300 people.

SHOP ZONE: A space where Design and Architecture books / souvenirs will be sold.

PUBLIC RESTROOMS ZONE: There should be convenience facilities on every level of the proposed design;

- Women: toilet cubicles, washbasins on each level.
- Men: urinals, toilet cubicles, washbasins on each level.
- Baby Changing facilities: Baby-changing rooms on each level.

LOADING AREA ZONE: A space for service loading that allows:

- A parking area for a delivery truck access.
- A loading area with a freight elevator able to reach every level of the building.
- A security point for vehicular access control.

PARKING ZONE:

Parking area: Underground area for parking cars, motor cycles, mopeds and bicycle with security access control.

ADMINISTRATION ZONE:

- 6 small offices
- meeting room
- Restroom facilities for the woffices

RESOURCE AREA ZONE: Space with facilities for digital research and resource.

Study Center/Library/Archives: A quiet area for design and architecture study linked to a library space including facility for digital research and resource

Media Center: A space with latest workstations and Printing.

SOCIAL ZONE:

Café, Bar and Restaurant: Space for Café, Bar and Restaurant which can be within the building or part of a garden or roof terrace.

GARDEN ZONE: A garden or green space with seating.

CIRCULATION:

One emergency/service stairs through the building's levels.

One loading elevator with access to every level from the loading area.

Visitors elevators distributed along building length.

Total Plot Size for Museum Area: 9300 m²

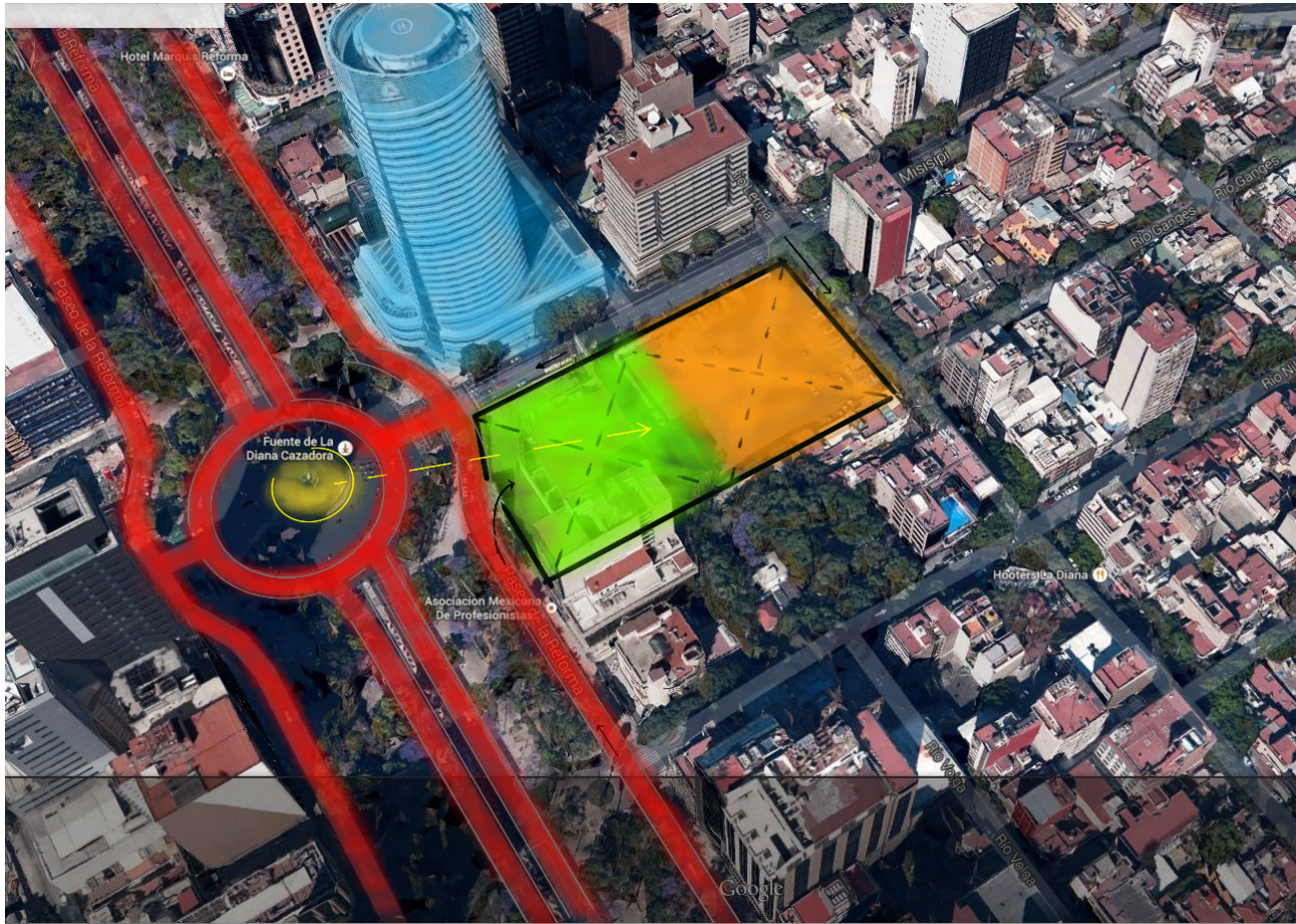


Figure 6-02 - Site 02 - google earth

RED - Reforma Avenue
YELLOW - Diana Fountain
BLUE - The St. Regis Mexico City (hotel)

GREEN - green area (public space)
ORANGE - Design Museum position

6.4 CONCEPT

South of museums site is Reforma Avenue, loud traffic zone meant to be the access point to location. On west side of museum location is placed an skyscraper (blue on Site 02) which shadow covers other surrounding buildings during a day.

Basic idea was to divide museums site on two functional areas. North half of museums site (orange on Figure 6-02) is planned for museum building and its functions, while the south side (green on Figure 6-02) will be an green, open public space as also entrance zone for the new museum. It will be an connection and buffer zone between Reforma Avenue, St. Regis Mexico City hotel and museums building. Museum building is distanced from main traffic routes what garanties quiet place for gallery spaces. The Diana Fountain should become nice views in north direction, where with distance through open space benefits of seeing new museum as a whole or part of composition.



Figure 6-03 - Site 03 - google earth

Luxury hotel St. Regis Mexico City (left red circle on Figure 6-03) is the far highest building in its surrounding, which jumps out visually as a dominant object. This building is starting and reference point for site organization of the future museum. Repeating the same round shape of the tower will make a new vertical communication and entrance for a new museum. Opposite to the hotel red ring on right side (see Figure 6-03) will go underground. With this approach visual composition of the area becomes a new dimension.

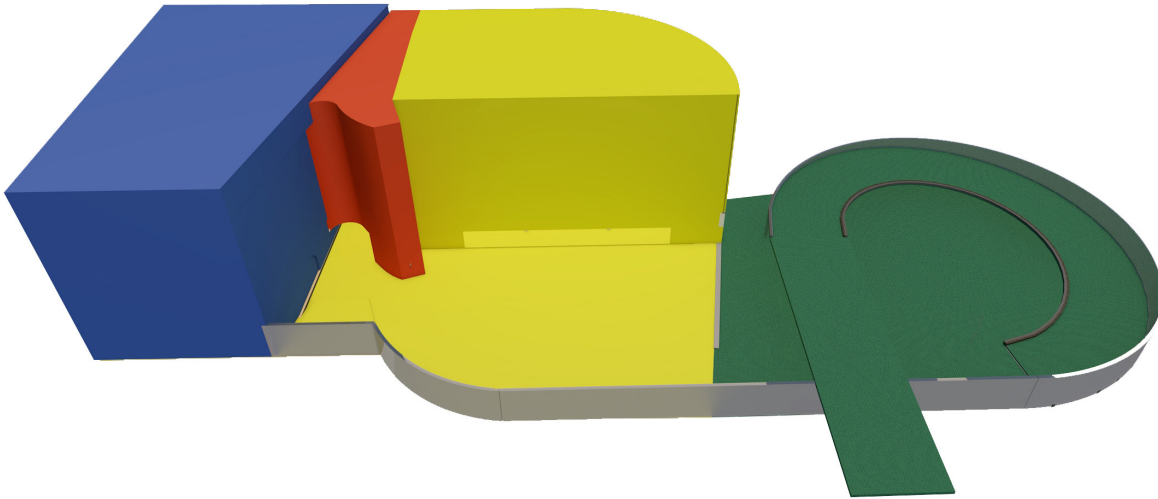


Figure 6-04 - 3D Model explanation

Functional organization of the museum is achieved by splitting object in functional units. First unite on left side(see blue in Figure 6-04) is meant as a more public and civic functions such are: study center, library, media center, administration and other. This unit will have separate entrance with no direct access to museum exhibition spaces. Main museum entrance is achieved through round ramp which is part of entrance zone (green on Figure 6-04). Exhibition spaces (yellow on Figure 6-04) are in center position of the building where vertical communication (red on Figure) dividing them from other functional unit.

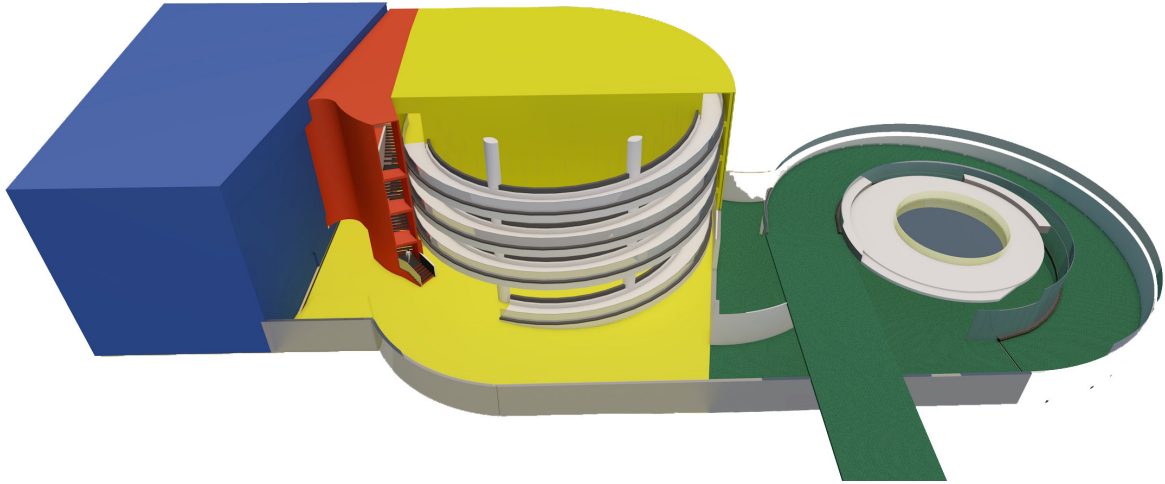
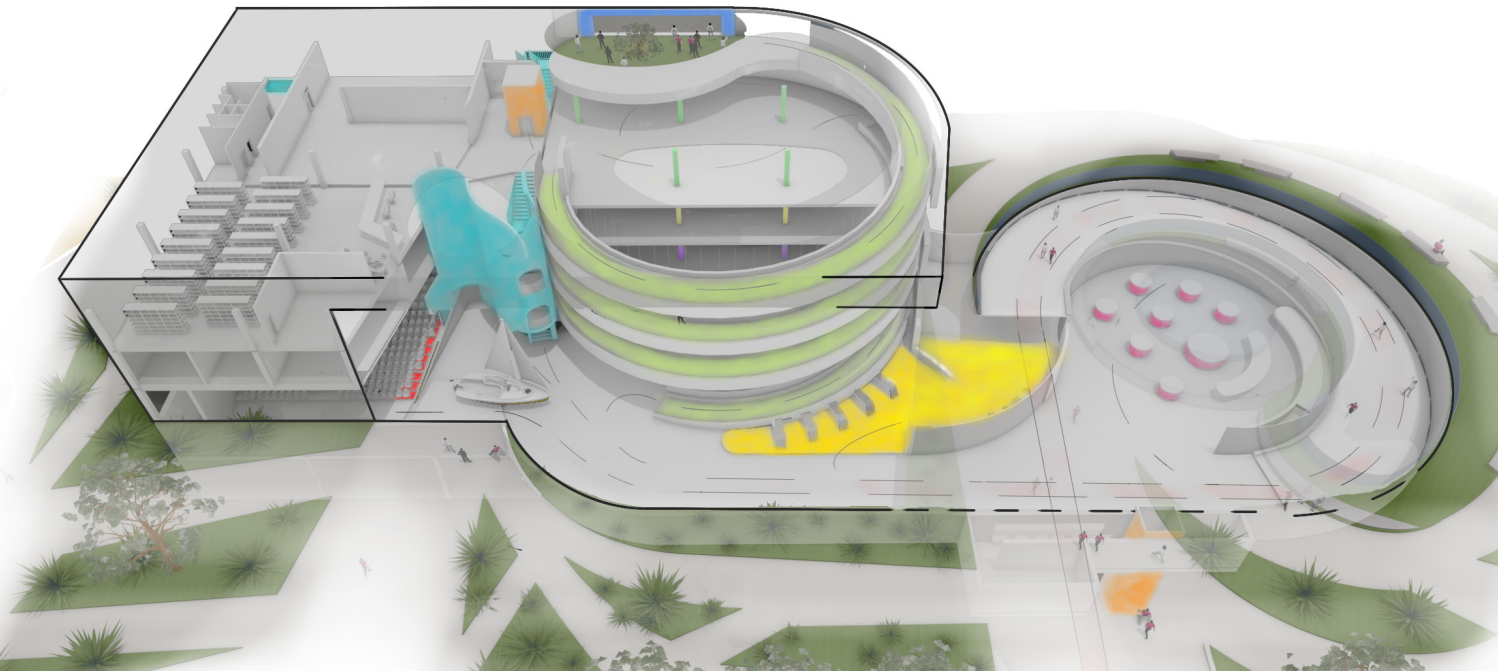


Figure 6-05 - 3D Model explanation

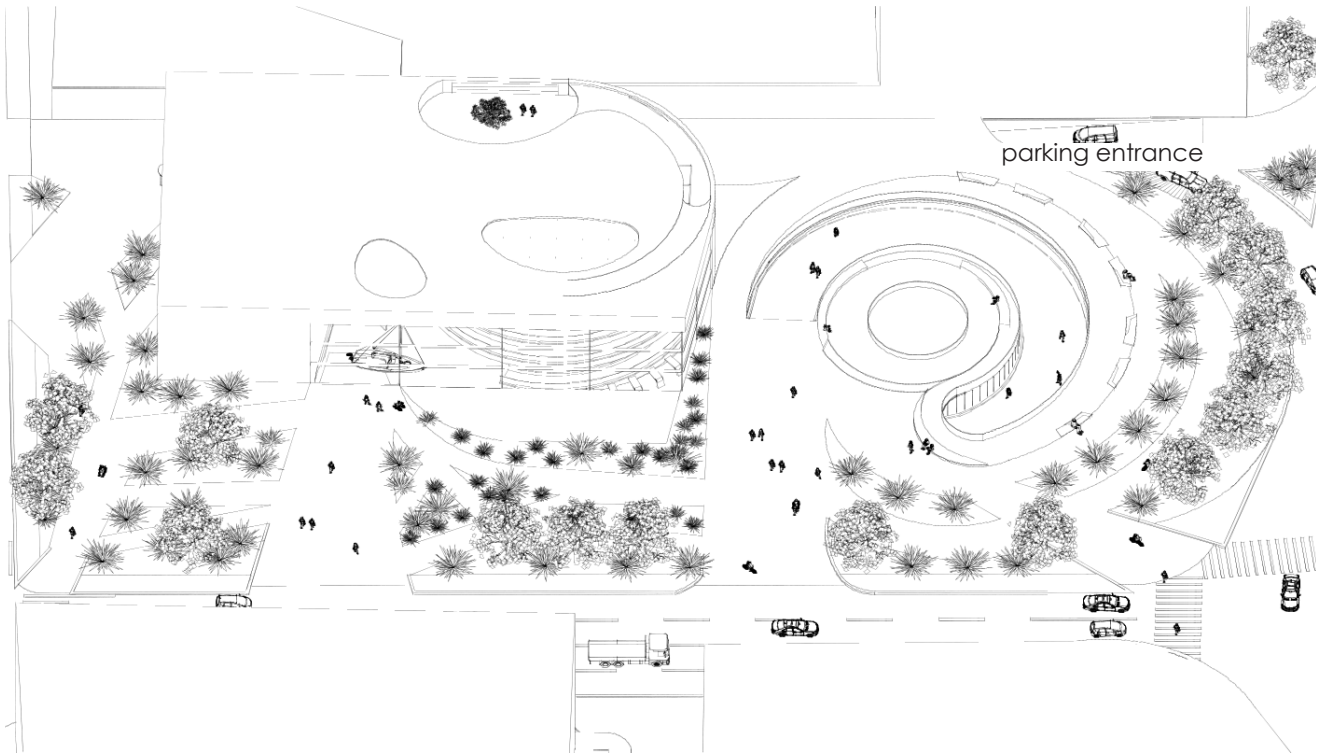
Central point of the museum is the great gallery space, located in underground floor, which rises till the ceiling with total height of 16 meters. Here will be exhibit huge design models. New round ramps (see Figure 6-05) starting from underground floor, will connect every gallery with next one on upper floor. Involving ramps into this space will split great gallery and make possible to see huge models from different angles and heights. As a part of exhibition this ramps are making continuity and unity of all exhibition spaces.

6.5 FUNTIONAL ORGANISATION

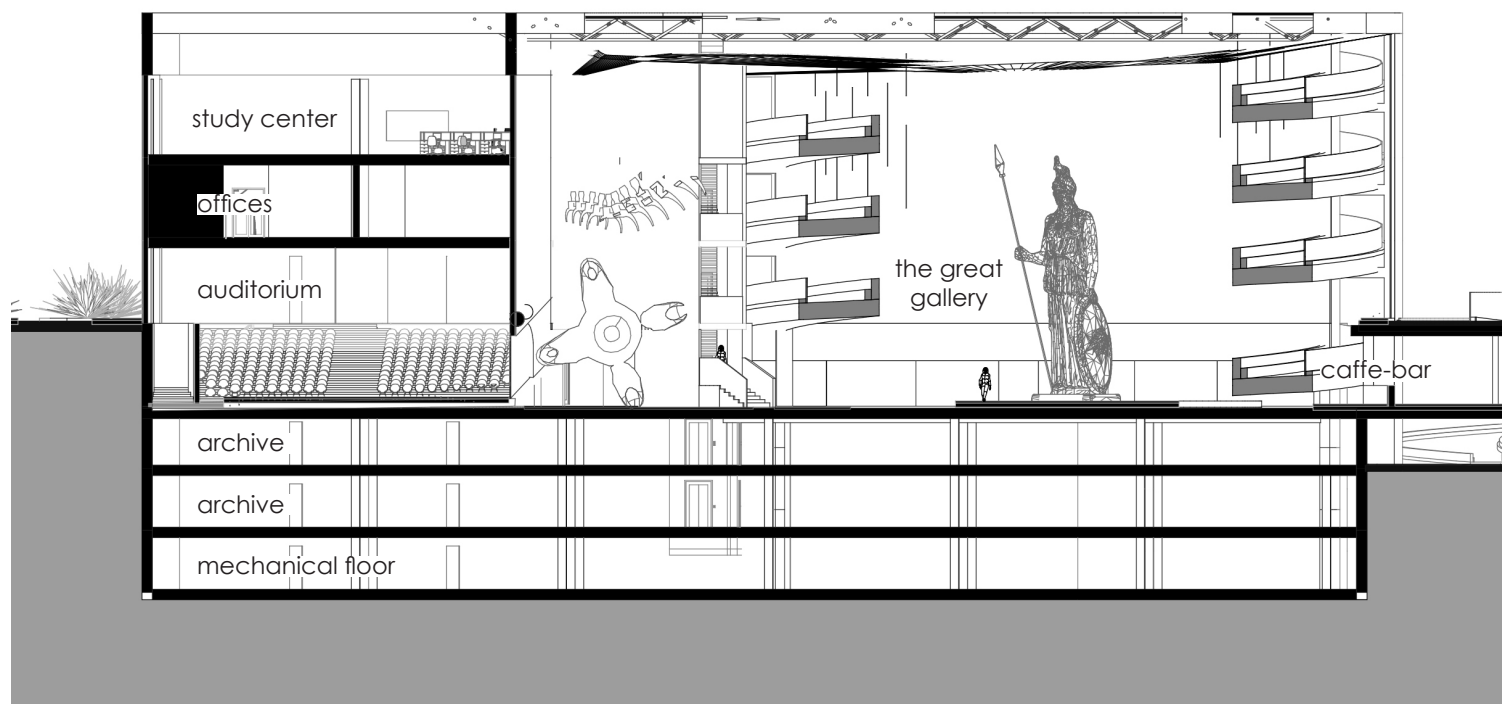
- stairs
- elevators
- caffe-bar
- shop
- auditorium

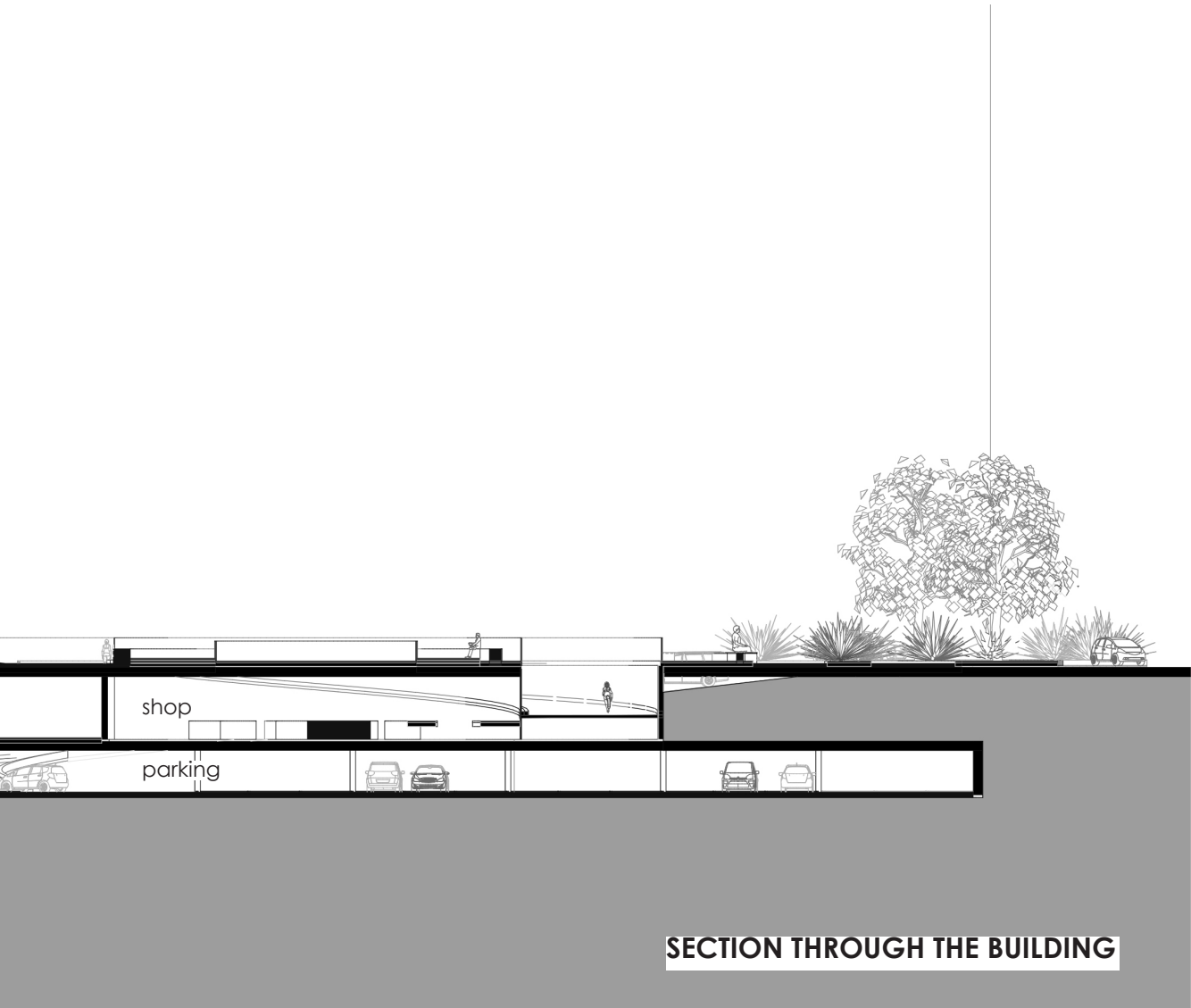


3D Model explanation

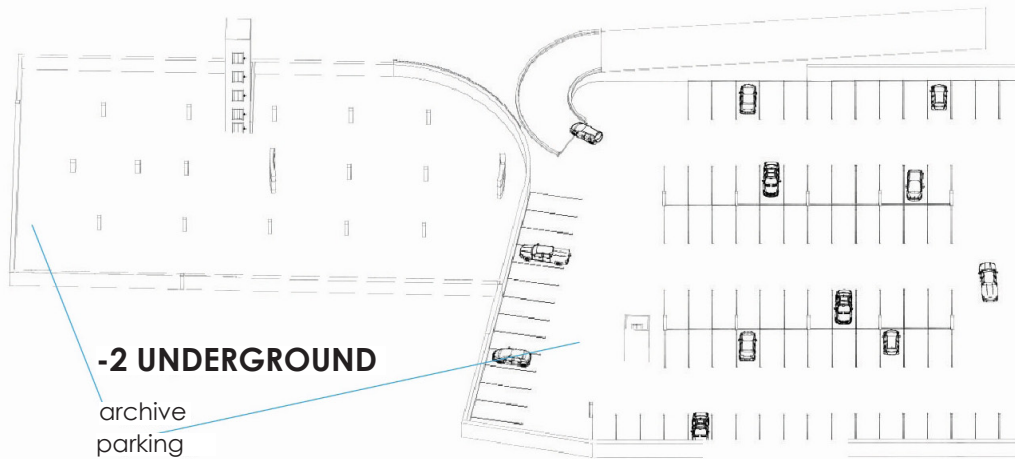
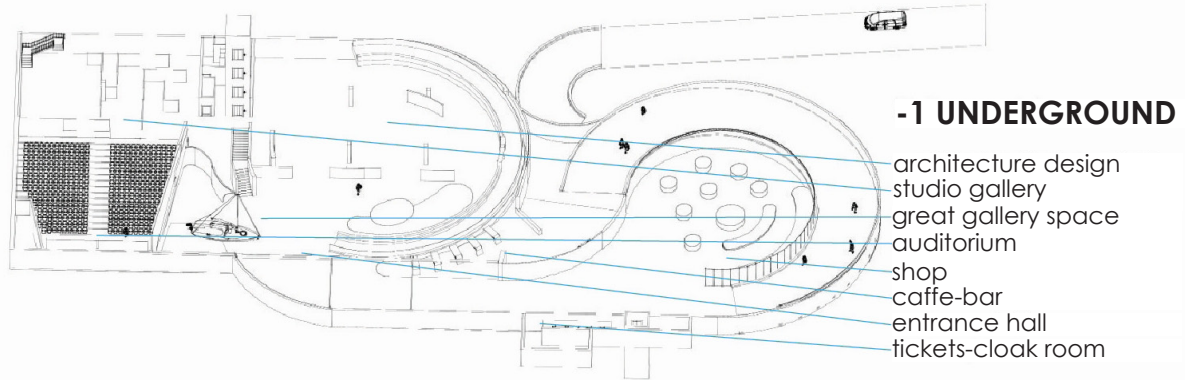


BIRD EYE VIEW - digital drawing

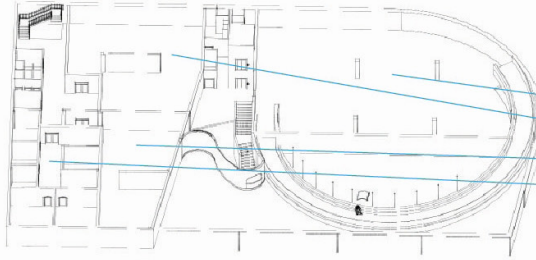




SECTION THROUGH THE BUILDING

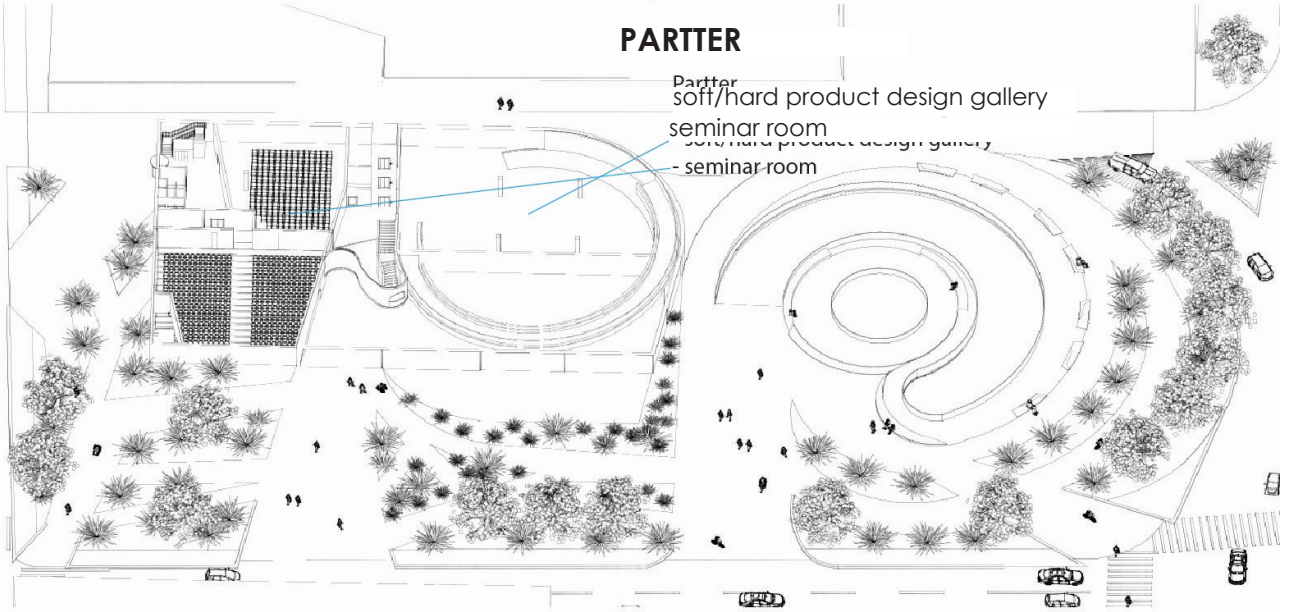


1st FLOOR

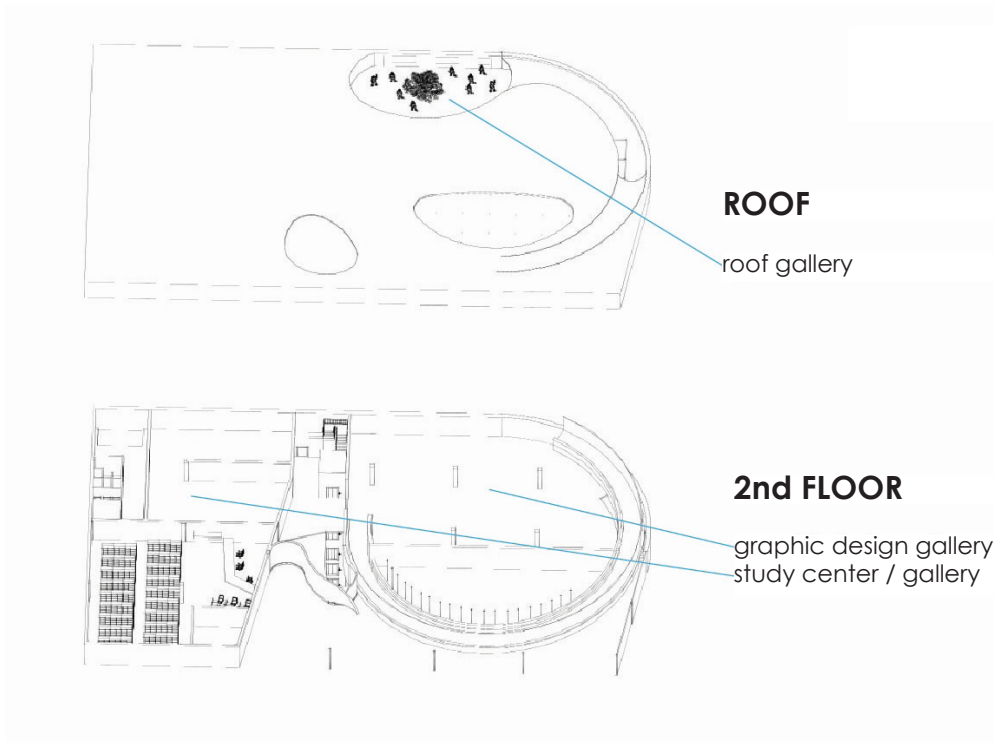


- 1st Floor
- fashion design
- media center
- studio design
- administration
- administration

PARTER



- Parter
- soft/hard product design gallery
- seminar room
- soft/hard product design gallery
- seminar room



6.6 CONSTRUCTION

Main building construction is supported by combination of reinforced concrete columns and walls. The round ramps are designed with steel construction which is wedged on massive reinforced concrete walls. Part of roof above the great gallery space is made of metal truss. Roofs metal truss and all gallery ramps are supported through two columns, which ensure their stability. This columns carry roof loads made by hanging objects.

6.7 FACADE

Big part of facade and roof is covered with matte shiny aluminium. Huge opening on front facade is closed by row of 3 meter wide and 12 meter high glass panels (Figure 6-09). this gigantic horizontally undivided glass panels ensuring maximal transparency. Glass is held by perforated metal columns between each panel. Left part of front facade is removable by sliding in order to bring big models in inner space. This combination of simple aluminium facade and huge glass panels are focusing on inside of the building, what for passengers should have “eye-catch” effect for.

6.8 RENDERINGS AND FIRST SKETCHES



Figure 6-06 - The bird eye view

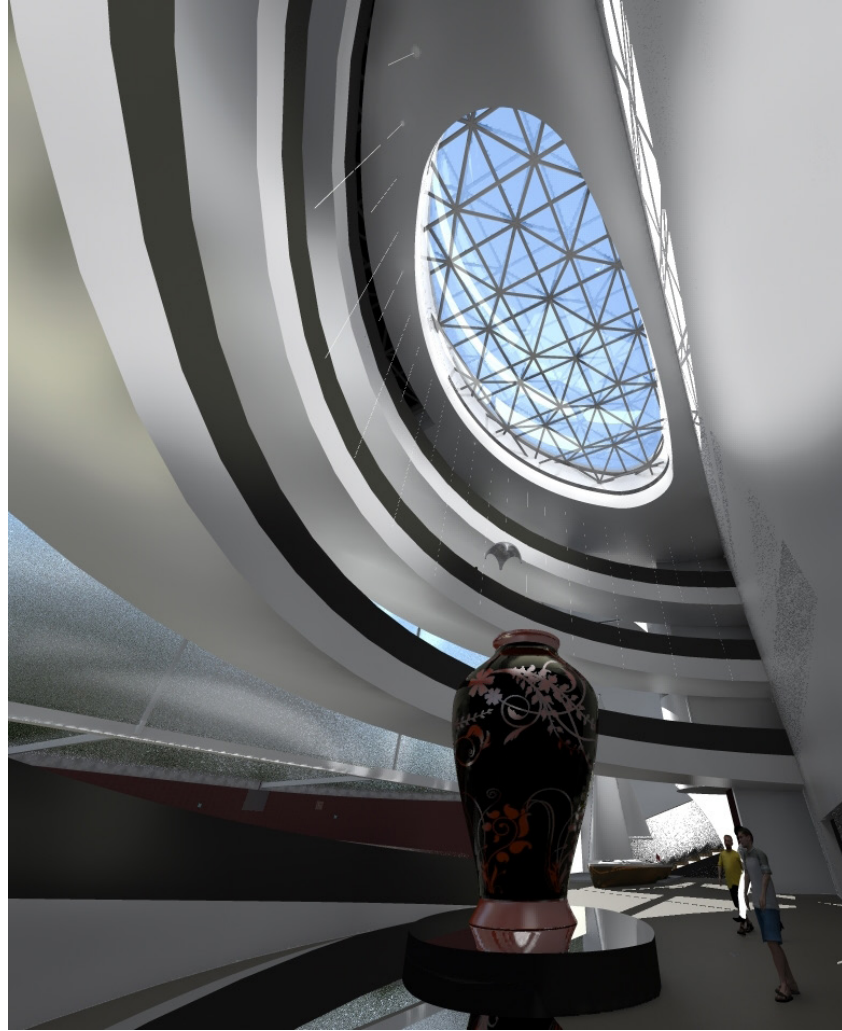


Figure 6-07 - roof opening detail

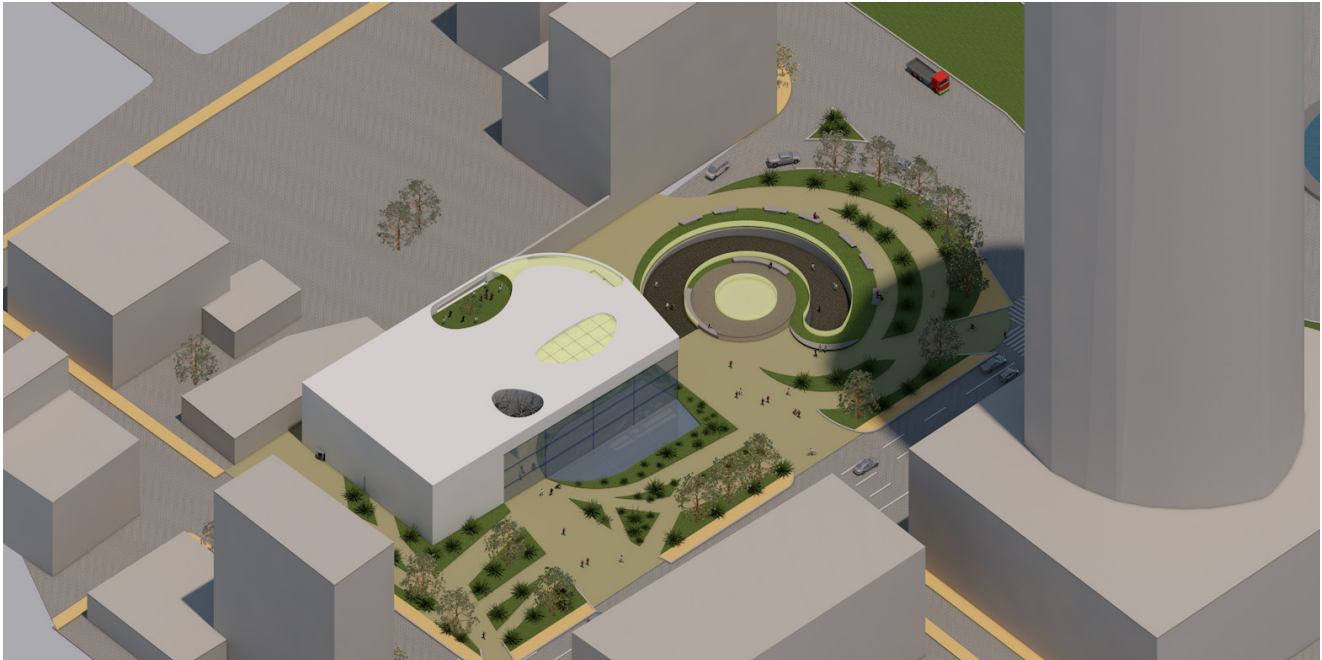
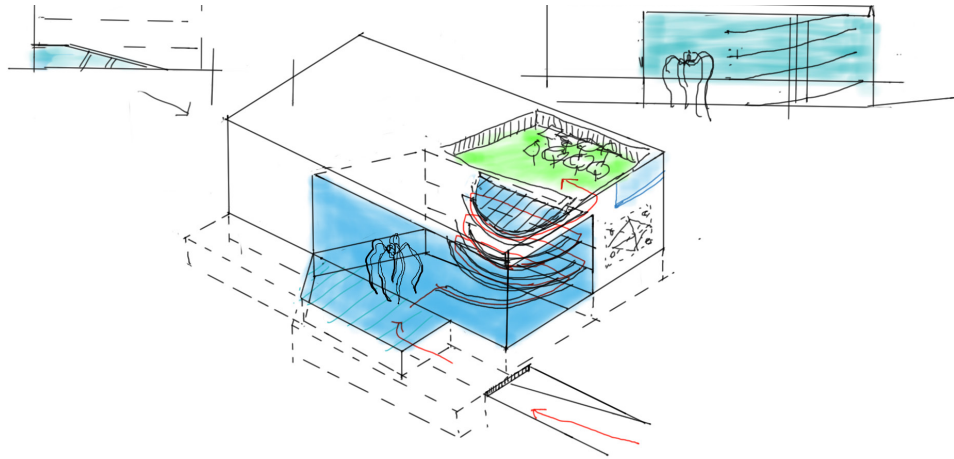


Figure 6-08 - The bird eye view

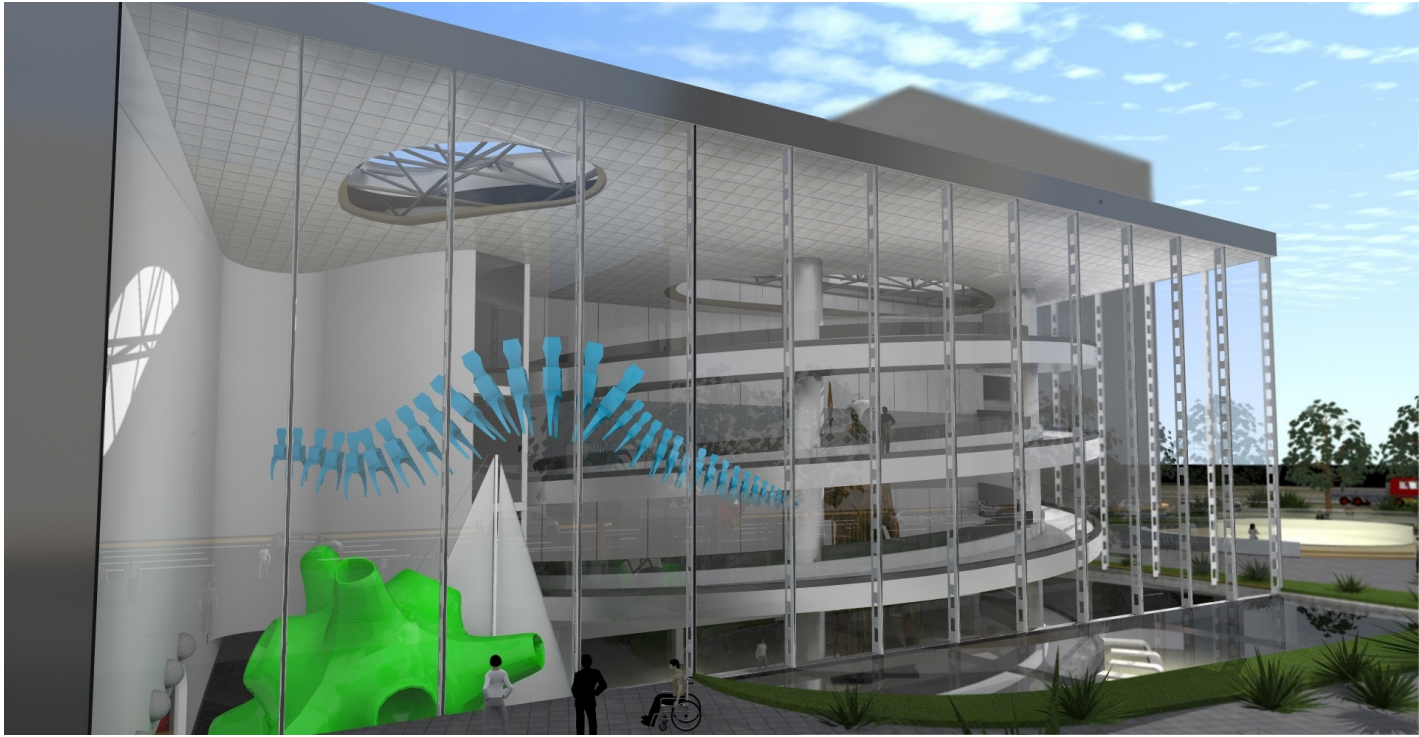


Figure 6-09 - Facade

7. CONCLUSION

Mexico City as a cultural center of Mexico is house of many museums. The design museum the missing one in this metropolitan, but also not as necessarily required. The reason is existence of many other art-fine art related museums. In last decade design museums were very supported and increasingly visited in big cities. That have increased their popularity and need for building new ones.

Archtriumph's proposal for design museum in Mexico City is just an idea and suggestion to think about missing typology. With existing location in urban part of Mexico City this proposal becomes realistic dimension. It challenges with sites surrounding, climate and topography.

Design museums can but do not have to be strictly connected with local culture or local architecture. Approach of this proposal is not based on Mexican tradition, but integrating and designing for better spatial qualities on this site. Dropping out the idea of stunning crazy shaped building this proposal is based on exterior simplicity and attractiveness of inner space. Seen from outside this space should visually invite passengers as a lure to experience it.

8. SOURCES

8.1 IMAGE SOURCES

ART AND CULTURE

Figure 3-01 - - http://www.designboom.com/wp-content/uploads/2013/11/18_886_06_D_SAA_200.jpg
 - http://assets1.wallpaper.com/wallpaper/live/galleryimages/17054413/gallery/04_Museo_Jumex_Arte_Contemporaneo.jpg

MUSEUMS IN MEXICO CITY

Figure 3-03 - http://ad009cdnb.archdaily.net/wp-content/uploads/2014/09/54173c9ac07a80984c000012_video-time-lapse-through-fr-ee-s-museo-soumaya_01_museo_soumaya.jpg
Figure 3-04 - <http://miled.com/wp-content/uploads/2014/09/MAM.jpg>
Figure 3-05 - https://huuitron.files.wordpress.com/2013/12/ar_museo-jumex_06.jpg
Figure 3-06 - <http://upload.wikimedia.org/wikipedia/commons/3/3c/MUNAL.jpg>
Figure 3-07 - <http://latimesblogs.latimes.com/.a/6a00d8341c630a53ef01761777c050970c-pi>

DESIGN MUSEUM

Figure 4-01 - http://www.upperrhinevalley.com/sites/default/files/public/styles/colorbox_normal/public/content/644/vitra_design_museum_frank_gehry_1989_c_vitra_design_museum_foto_thomas_dix.jpg?itok=BbAHHole
Figure 4-02 - http://upload.wikimedia.org/wikipedia/commons/1/1e/Design_Museum.jpg
Figure 4-03 - <http://nyogalleristny.files.wordpress.com/2014/01/461565689.jpg>
Figure 4-04 - http://www.mnque.com/wp-content/uploads/2014/08/Stedelijk_Museum.jpg

CASE STUDY - DESIGN MUSEUM HOLON

Figure 5-01 - http://upload.wikimedia.org/wikipedia/commons/e/e5/PikiWiki_Israel_9392_Design_Museum_Holon.JPG
Figure 5-02 - <http://www.formakers.eu/media/41.111.1328040558.holon03jpg.jpg>
Figure 5-03 - <http://ad009cdnb.archdaily.net/wp-content/uploads/2010/11/1288988495-level--01-plan-1000x708.jpg>

Figure 5-04 - <http://ad009cdnb.archdaily.net/wp-content/uploads/2010/11/1288988520-roof-plan-1000x708.jpg>

Figure 5-05 - <http://cdn.spacescapeplanni.netdna-cdn.com/wp-content/uploads/2012/09/Design-Museum-Holon-By-Ron-Arad-Architects-exploded-axo.jpg>

Figure 5-06 - <http://ad009cdnb.archdaily.net/wp-content/uploads/2010/11/1288988544-section-03-1000x648.jpg>

CASE STUDY - JUMEX MUSEUM

Figure 5-07 - http://www.domusweb.it//content/dam/domusweb/en/architecture/2013/12/03/the_museum_as_platform/01Museo-Jumex-Chipperfield.jpg

Figure 5-08 - http://fr-ee.org/projects/wp-content/gallery/plazacarso/free_plaza_carso_masterplan01.jpg

Figure 5-09 - [http://3.bp.blogspot.com/-B_CE7i2U334/Uoo-ZPpfQcl/AAAAAAAAyTI/X-1aVARBh7w/s1600/David+Chipperfield+.+Museo+Jumex+.+Mexico+City+\(4\).jpg](http://3.bp.blogspot.com/-B_CE7i2U334/Uoo-ZPpfQcl/AAAAAAAAyTI/X-1aVARBh7w/s1600/David+Chipperfield+.+Museo+Jumex+.+Mexico+City+(4).jpg)

Figure 5-10 - http://www.architectural-review.com/Pictures/web/g/t/l/PlanPreviewImag_636.jpg

Figure 5-11 - http://www.designboom.com/wp-content/uploads/2013/11/18_886_06_D_SAA_200.jpg

Figure 5-12 - <http://i1.wp.com/aasarchitecture.com/wp-content/uploads/2014/03/Museo-Jumex-by-David-Chipperfield-Architects-06.jpg>

Figure 5-13 - http://assets1.wallpaper.com/wallpaper/live/galleryimages/17054413/gallery/04_Museo_Jumex_Arte_Contemporaneo.jpg

NEW ART MUSEUM

Figure 5-14 - http://www.tufts.edu/alumni/magazine/winter2008/images/features/photo_sanaa.jpg

Figure 5-15 - <https://fchas.files.wordpress.com/2013/03/stair3.jpg>

Figure 5-16 - http://upload.wikimedia.org/wikipedia/commons/f/f6/New_Museum_of_Contemporary_Art_-_Facade_-_by_flyoverstate.jpg

Figure 5-17 - <http://ideasgn.com/wp-content/uploads/2013/05/New-Museum-of-Contemporary-Art-By-SANAA-in-New-York-United-States-013.jpg>

Figure 5-18 - <http://ad009cdnb.archdaily.net/wp-content/uploads/2010/07/1280267649-skyroom-terrace-photo-by-dean-kaufman-dk-528x400.jpg>

Figure 5-19 - <http://www.archdaily.com/70822/new-art-museum-sanaa/sections-71/>

8.2 INTERNET SOURCES AND LITERATURE

- <http://aasarchitecture.com/2014/03/museo-jumex-by-david-chipperfield-architects.html>
- <http://www.archdaily.com/70822/new-art-museum-sanaa/>
- <http://www.archdaily.com/452226/museo-soumaya-fr-ee-fernando-romero-enterprise/>
- <http://www.architectural-review.com/buildings/museo-jumex-in-mexico-city-by-david-chipperfield-architects/8658048.article>
- <http://architizer.com/projects/museo-soumaya/>
- http://archrecord.construction.com/news/daily/archives/2010/100129designmuseum_arad_israel.asp
- <http://archrecord.construction.com/projects/portfolio/2014/05/1405-museo-jumex-david-chipperfield-architects.asp>
- <http://www.arcspace.com/features/sanaa/new-museum/>
- <http://www.archtriumph.com/about.asp>
- <http://www.creativebloq.com/design/best-design-museums-8133954>
- <http://www.dezeen.com/2007/11/22/new-museum-of-contemporary-art-in-new-york-by-kazuyo-sejima-ryue-nishizawasanaa/>
- <http://www.dmh.org.il/press/press.aspx?pid=3&catId=0>
- <http://www.dmh.org.il/pages/default.aspx?catId=1>
- http://www.domusweb.it/en/architecture/2013/12/03/the_museum_as_platform.html
- <http://www.e-architect.co.uk/israel/design-museum-holon>
- <http://www.ft.com/cms/s/2/5bfc3cc4-51cf-11e3-8c42-00144feabdc0.html#axzz33ZindbH3>
- <http://www.haaretz.com/travel-in-israel/tourist-tip-of-the-day/the-holon-design-museum-1.505126>
- <http://www.iconeye.com/architecture/features/item/10224-david-chipperfield-s-museo-jumex>
- http://www.luchfordapm.com/case-studies_e.asp
- <http://www.museotamayo.org>
- <http://www.newmuseum.org/building>
- <http://www.soumaya.com.mx>
- <http://sustainablepurdue.weebly.com/mexico-city.html>
- <http://www.theguardian.com/culture/2010/feb/07/ron-arad-design-museum-holon>
- <http://www.wallpaper.com/architecture/museo-jumex-by-david-chipperfield-architects-opens-in-mexico-city/6971#ZWjbmUJ0y9eTeA8U.99>

- Chris van Uffelen - Contemporary Museums: Architecture · History · Collections, Braun, Salenstein, Switzerland, 2010
- Mimi Zeiger - New Museum Architecture: Innovative Buildings from around the World (Architecture & Design), Thames and Hudson Ltd, London, UK, 2005
- Paul A. Barreneche - New Museum, Phaidon Press, London, UK
- Phaidon - The Art Museum - Phaidon Press, London, UK, 2011
- Philip Jodidio - Architecture Now! Museums, Taschen, Cologne, Germany, 2011
- Xiaolu Li - Museums, Liaoning Science & Technology Publishing House Shenyang, Liaoning, China, 2010