

THESIS REPORT ON
BOLLYWOOD MUSEUM
(NOIDA,UTTAR PRADESH)

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF:

BACHELOR OF INTERIOR DESIGN
BY
(AKHILESH YADAV)
(1180107003)

THESIS GUIDE
(AR. AANSHUL SINGH)

SESSION
2021-22

TO THE
SCHOOL OF ARCHITECTURE AND PLANNING BABU BANARASI DAS
UNIVERSITY

LUCKNOW
**SCHOOL OF ARCHITECTURE AND PLANNING BABU BANARASI DAS
UNIVERSITY,
LUCKNOW (U.P.).**

CERTIFICATE

I hereby recommend that the thesis entitled “ BOLLYWOOD MUSEUM (NOIDA)” under the supervision, is the bonafide work of the students and can be accepted as partial fulfillment of the requirement for the degree of Bachelor’s degree in interior design, school of Architecture and Planning, BBDU, Lucknow.

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Accepted

Recommendation

Not Accepted

External Examiner

External Examiner

ACKNOWLEDGEMENT

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AKHILESH YADAV

BABU BANARASI DAS UNIVERSITY, LUCKNOW (U.P.)

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SYNOPSIS

INTRODUCTION

- ❑ Over the last hundred years, the Indian Film Industry has grown by leaps and bounds and has undergone amazing technological changes.
- ❑ It is also becoming global and corporate thus arousing immense international interest. In keeping with global standards and preserving the rich cultural legacy of the film industry Film city is interested in establishing a World Class Bollywood Museum.
- ❑ The Bollywood Museum is dedicated to educating the public about the art, history, technique, and technology of film, television, and digital media and to examining their impact on culture and society.
- ❑ Bollywood is the informal name given to the popular Mumbai-based Hindi-language film industry in India. The term is often incorrectly used to refer to the whole of Indian cinema. Bollywood is only a part of the Indian film industry.
- ❑ Though Bollywood is one of the largest film industries in the world, it does not have a museum dedicated to it.

NEED OF TOPIC

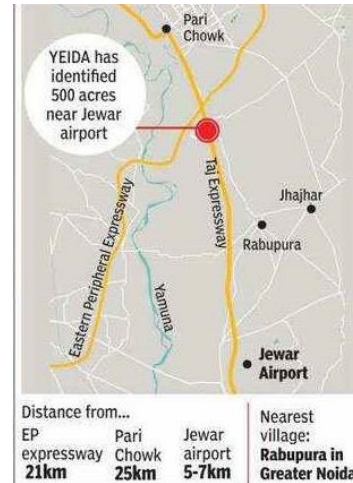
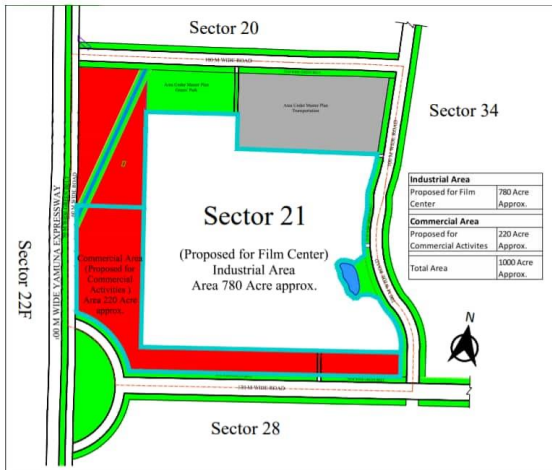
- ❑ We need the museum for a permanent exhibition of Bollywood memorabilia where new generation Bollywood aficionados can get a peek into the earlier decades of film industry.
- ❑ It provide a unique experience of revisiting Bollywood in its original historical grandeur and showcase various memorabilia of Indian cinema.
- ❑ Bollywood cinema is widely celebrated for its focus on layered expressions of emotion. The design for the Bollywood Museum pulls inspiration from this fundamental aspect of the medium – from its undulating iconic form to the multiple waves of spatial experience that cascade across the site.

AIM & OBJECTIVE

- ❑ Featuring works from pre-independent India to the present day, Bollywood museum charts the historical, political and cultural changes experienced by the country, as seen through the eyes of the Indian film industry.
- ❑ The exhibition brings together some of the most remarkable examples of Indian cinema art. From large-scale hoardings and posters, to photo cards, booklets and original film trailers, the exhibition will display landmark images and explore major themes which outline the stylistic and historic development of Indian cinema.
- ❑ Posters from many classic films are represented: the Oscar nominated epic Mother India; Sholay and recent blockbusters such as Lagaan and K3G, Slum dog Millionaire, etc.
- ❑ The concept of movement and flow carries through to structure. Beneath the complex flowing form lies a rational structure that enables flexibility of programming. Warehouse-like volumes accommodate exhibits ranging from actual sets to intimately presented memorabilia. Fittingly, the Bollywood Museum serves not as a box containing artifacts, but a living space celebrating and supporting it's a rich culture of film

SITE DETAILS

LOCATION :- H897+78F, Film City, Sector 21A, Noida, Uttar Pradesh 201301



CLIMATE

The climate here is considered to be a local steppe climate. During the year, there is little rainfall in Noida. According to Köppen and Geiger, this climate is classified as BSh. The temperature here averages 24.6 °C | 76.2 °F. The rainfall here is around 700 mm | 27.6 inch per year.

SCOPE

- ☐ To achieve a relationship between the visitor and the Bollywood world, The built form, as well as the interior and exterior spaces will be designed in order to connect the visitor to the world of Indian Cinema
- ☐ It would be designed to prevent physical fatigue, and maintain the visual interest of the visitor for the exhibits. The design will facilitate the functional connectivity of various spaces. Proper segregation of vehicular and pedestrian traffic will be taken care of.

LIMITATION

- ☐ Time factors may be the major constraints imposed on this study, so extent of detailing shall depend on the duration available
- ☐ Non availability of prototype case study
- ☐ No laid down norms exist for a project of this type
- ☐ Structural design calculations will not be carried out in detail
- ☐ Economic consideration will not be considered
- ☐ Study of building technologies will be qualitative

CLIENT

Uttar Pradesh Film & Cultural Department (A Government Of U.P. Undertaking)

METHODOLOGY

- ☐ SITE ANALYSIS
- ☐ SITE & SURROUNDINGS
- ☐ SITE CLIMATE
- ☐ CASE STUDY
- ☐ LITERATURE STUDY
- ☐ REQUIREMENT SHEET
- ☐ AREA ANALYSIS
- ☐ STANDARD SHEE
- ☐ CONCEPT SHEET
- ☐ DESIGN
- ☐ ELECTIVE
- ☐ VIEW

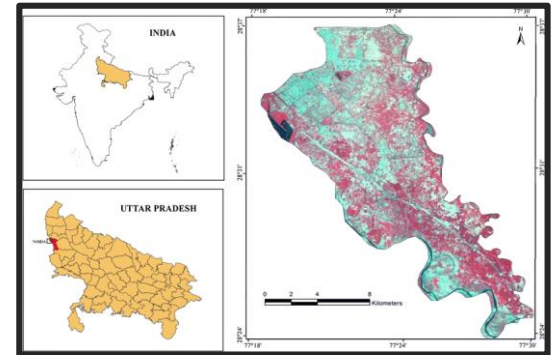
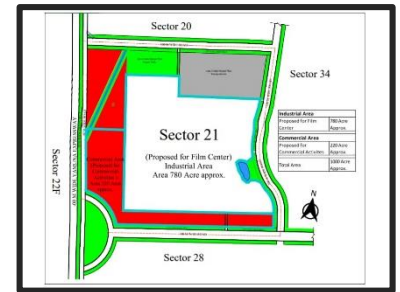
REFERENCE

THE REFERENCE IS TAKEN FROM YAZDANI STUDIO OF CANNON DESIGN.

SITE ANALYSIS

INTRODUCTION

- Over the last hundred years, the Indian Film Industry has grown by leaps and bounds and has undergone amazing technological changes.
- It is also becoming global and corporate thus arousing immense international interest. In keeping with global standards and preserving the rich cultural legacy of the film industry Film city is interested in establishing a World Class Bollywood Museum.
- The Bollywood Museum is dedicated to educating the public about the art, history, technique, and technology of film, television, and digital media and to examining their impact on culture and society.
- Bollywood is the informal name given to the popular Mumbai-based Hindi-language film industry in India. The term is often incorrectly used to refer to the whole of Indian cinema. Bollywood is only a part of the Indian film industry.
- Though Bollywood is one of the largest film industries in the world, it does not have a museum dedicated to it.



SITE INTRODUCTION

Noida, also known as New Okhla Industrial Development Authority (NOIDA) is spread over an area of 203 sq. kilometers, and has a populace of around 0.64 million is located at 28.57°N 77.32°E, lies in northern India in Gautam Buddha Nagar District of Uttar Pradesh state.

It is bound on the west and south-west by the Yamuna River, on the north and north-west by the city of Delhi, on the north-east by the cities of Delhi and Ghaziabad, India and on the north-east, east and south-east by the Hindon River.

Noida came into administrative existence on 17 April 1976 and celebrates 17 April as "Noida Day". Noida is famous for excellent roads and considered Country's greenest city.

- Latitude:** 28°34'47" N
- Longitude:** 77°19'47" E
- Elevation above sea level:** 206 m = 675 ft

ABOUT THE SITE

LOCATION: SECTOR 21, NOIDA, UTTAR PRADESH

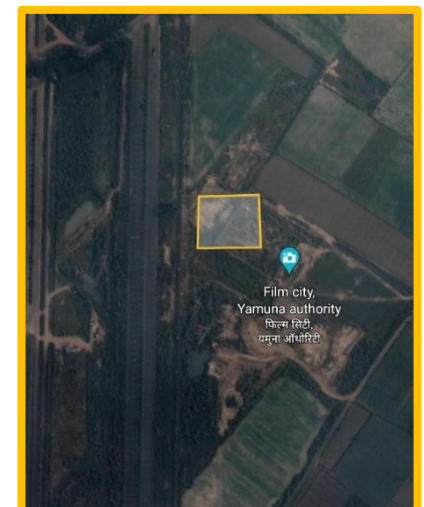
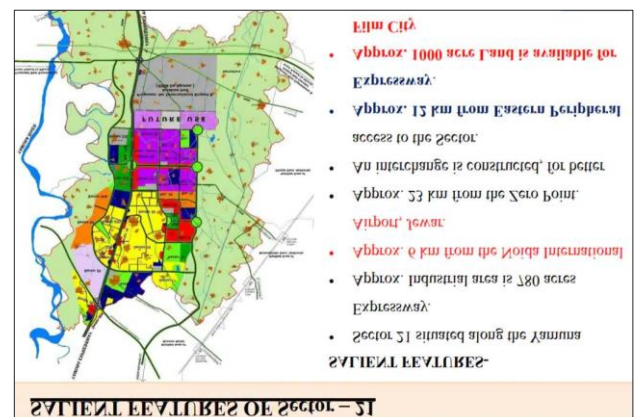
SITE AREA: 1000 ACRES

LONGITUDE & LATITUDE: 28°15'41"N 77°35'24"E

FACILITIES: PRE-PRODUCTION AND POST-PRODUCTION INFRASTRUCTURE, PROCESSING LABS, VFX AND DIGITAL TECHNOLOGY.

TOURIST AMENITIES: STAR HOTELS, RESORTS, ENTERTAINMENT ZONES, CINEMAS AND PARK.

LAND USE: 780 ACRES FOR INDUSTRIAL PURPOSES, 220 ACRES FOR COMMERCIAL PURPOSE.



GOOGLE EARTH PICTURE



JEWAR AIRPORT

6.00 km



ANAND VIHAR RAILWAY STATION

39.07 km



BUS STAND

560 m



METRO

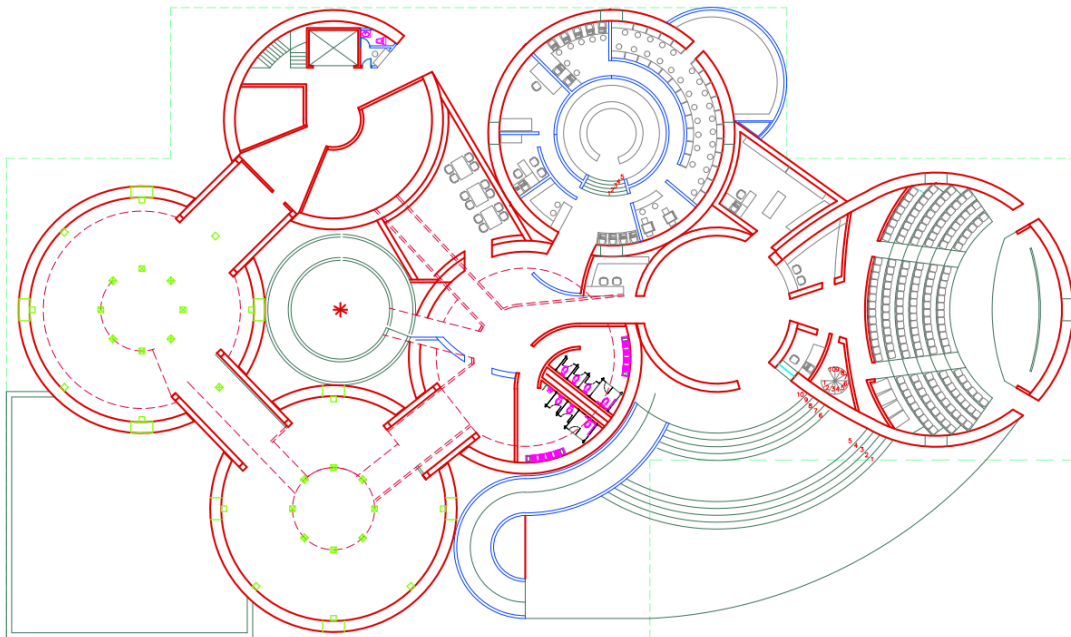
56 km



HIGHWAY

100 m

SITE PLAN



LITERATURE STUDY

01

BIHAR MUSEUM, PATNA

INTRODUCTION:

Patna is a city with a storied past and this land saw the advent of many glorious civilizations. The history of this city unravels like a ball of thread that surprises you with twists and turns as we travel over two millennia. The Patna Museum established in 1917 will soon turn a century old along with the date of discovery of its most cherished and visited artefact the world famous Didarganj Yakshi, a statue of monumental Mauryan vision. In the state of Bihar, the need for a new museum was seriously felt, the Pana Museum having limitations, both in physical space as well as in its design and methods of presentation.

Bihar Museum is a modern state of the art museum located in Patna. It was partially opened in August, 2015. The children's museum', the main entrance area, and an orientation theatre were the only parts opened to the public in August 2015. Later, in October 2017 remaining galleries were also opened. More than 100 artefacts were transferred here from Patna Museum.

It was planned as a history museum for the state of Bihar, and began construction in Bailey Road. Patna in October 2013 with an estimated budget of 2498 crore (US\$74 million). The Museum was planned to bring the region's thousands year history into focus, inspiring local residents and visitors from across the globe to explore Bihar's rich heritage, historic sites and cultural attractions.

RELEVANCE:

For the design of the Museum building world renowned architectural firms were invited submit their proposals and selection was on a competitive basis. Japanese firm, Maki and Associates submitted the winning concept, which they proposed to execute with OPOLIS Architects, based in Mumbai. For the Bihar Museum, Maki outlined a concept that was appealing to the sensory experience, fitting with practical considerations and making provisions for the future growth of the establishment. The architects visualized the Museum as if viewing it through different lenses to expand on four different facets“.



SITE:

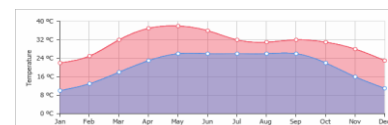
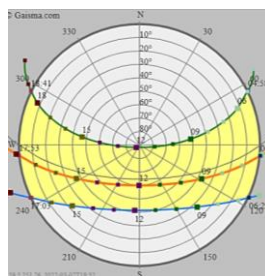
Department of Art, Culture and Youth, State of Bihar (DACY) proposed a new Museum on Bailey Road on the site west of the Patna Museum.

Latitude: 25° 36' 27.7704" N

Longitude: 85 7 12.9036" E

Connectivity:

- 3.6 km away from **Patna Junction**
- 4.5 km away from **Mithapur Bus Stand**
- > 4.7 km away from **Jay Prakash Narayan International Airport**



Maximum & Minimum temperature



Average humidity in Patna

Climate:

- Macro-Climate: **Hot & Humid**
- Average Temperature: **27.1 °C**
- Maximum Temperature: **46.0°C**
- Minimum Temperature: **1.1°C**
- Annual Precipitation: **1100 mm**
- Prevailing Wind Direction: **6km/h North-East**

AREA PROGRAMME:**AREA CHART**

Sr. No.	Space	No. of Units	Area (in sq. m)	Design Capacity
1.	ENTRANCE			100
	Entrance Court	-	400	
	Reception	1	30	
	Back Office	1	20	
	Information Help Desk	1	20	
	Ticket Counter	2	20	
	Drop off	1	200	
2.	ADMINISTRATION			50
	Staff Office	10	200	
	Director General's Chamber	1	30	
	Curator Office	2	40	
	Meeting Room	2	200	
	Staff Rest Room	1	100	
	Security Monitoring Room	1	30	
	Server Room	1	30	
	Staff Toilet (M/F)	5/5	50	
	Store	5	1000	
	Staff Canteen	1	200	
3.	WORKSHOP			200
	Wood Workshop	1	200	
	Metal Workshop	1	200	
	Terracotta Workshop	1	200	
	Store	1	200	
	Store Props	1	100	
4.	EXHIBITION GALLERY			1500
	Bronze Sculpture Store	1	300	
	Coins Vault	1	200	
	Textile Gallery	1	300	
	Miniature Gallery	1	300	
	Manuscript Gallery	1	100	
	Hindu Art Gallery	1	200	
	Buddhist Art Gallery	1	400	
	Jain Art Gallery	1	200	
	Tribal Art Gallery	1	600	
	Terracotta Gallery	1	300	
	Children's Museum	1	600	
	Pre Show Display	1	200	
	Post Show Display	1	100	
	Temporary Exhibition	1	1000	

5.	LIBRARY	-	300	100
	Librarian's Office	1	20	
	Cyber Room	1	30	
6.	AUDITORIUM	-	300	100
	Projection Room	1	20	
	Green Room	1	30	
7.	AMENITIES			
	Restaurant	1	250	50
	Museum Shop	2	200	50
	Seminar Hall	1	200	
	Toilet (M/F)	10/10	50	
8.	SERVICES			
	Maintenance	1	100	
	Janitor Room	1	50	
	Store	1	200	
	Housekeeping Centre	1	100	
	High Tension Control Room	1	200	
	HVAC Room	1	200	
9.	LABORATORY	4	200	50
10.	LOADING AREA	-	400	
11.	OPEN SPACES	-	1000	250
12.	PARKING	-	500	100
	VIP Parking	-	100	
	Staff Parking	-	100	
				50
13.	TRANSITION AREA (40% of Total Build up Area)		4800	
TOTAL AREA		17,000 Sq. M		

USER	ACTIVITY	SPACE
VISITOR	Visual Experience	Bronze Sculpture Store Coins Vault Textile Gallery Miniature Gallery Manuscript Gallery Hindu Art Gallery Buddhist Art Gallery Jain Art Gallery Tribal Art Gallery Terracotta Gallery

	<p>Children's Museum Pre Show Display Post Show Display Auditorium Temporary Exhibition</p> <p>Shopping</p> <p>Reading</p> <p>Parking</p> <p>Sanitation</p> <p>Beverage & Food</p>	<p>Museum Shop</p> <p>Library Cyber Room</p> <p>Parking Area</p> <p>Toilet</p> <p>Restaurant Staff Canteen</p>
ADMINISTRATION & SERVICE STAFF	<p>Official Work & Monitoring</p> <p>Services</p> <p>Meeting</p> <p>Retiring</p> <p>Beverage & Food</p> <p>Sanitation</p>	<p>Office Server Room</p> <p>Maintenance Janitor Room Store Housekeeping Centre High Tension Control Room HVAC Room</p> <p>Meeting Hall Seminar Hall</p> <p>Staff Rest Room</p> <p>Pantry</p> <p>Staff Toilet</p>
WORKER STAFF	Restoration	<p>Restoration Laboratory Store Reserve Collection</p>

SITE DISTRIBUTION



Chart 2.3 (i) Site Distribution

AREA DISTRIBUTION

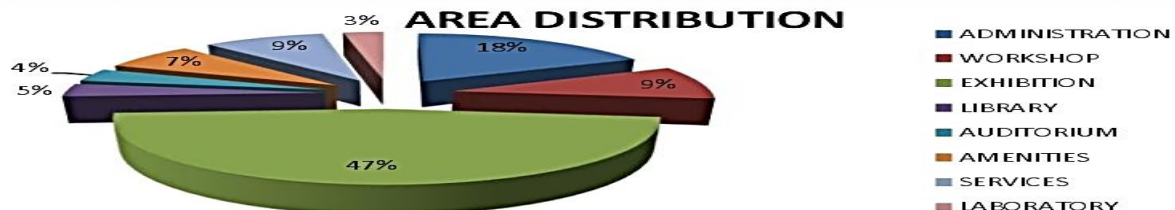


Chart 2.3 (ii) Site Distribution

CONCEPTUAL PLAN:

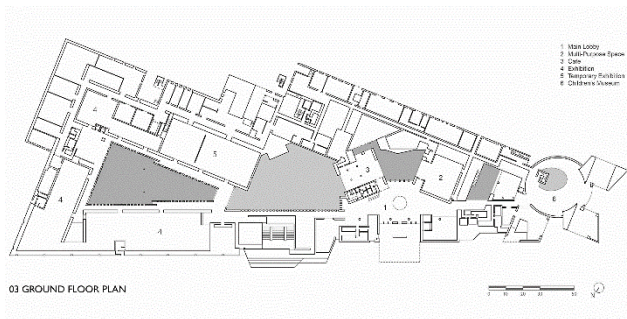
The constant presence of the natural environment within the Museum "campus creates a rich, unique experience with each visit, one that changes with the time and seasons. It is hoped that this will encourage repeat visitors, and together with world-class permanent and temporary exhibits - ensure that the Bihar Museum has a lasting educational impact for the children of Bihar and other visitors from across the world.

SITE PLAN:

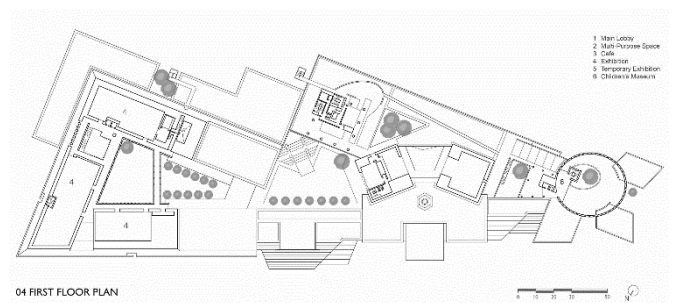
Inspired by the generous site, Fumihiko Maki conceived the Bihar Museum as a campus with interconnected landscape of built-up and open spaces with modest but dynamic profile, in harmony with the land. The campus incorporates primarily four zones i's, entrance, education, exhibition and administration. Each wing has been given a distinct and recognizable form within the complex.



Concept development of the Museum



Ground floor plan



First floor plan

CIRCULATION PLAN:

The circulation pattern was based on the history of Bihar, starting with Buddhism and Jainism followed by Mauryan and Gupta Empire to Sher Shah Suri and to the Colonial Past to exhibit the great history of Bihar to the Visitors.



ELEVATIONS:

Most of the external surfaces of the buildings are clad in zero-maintenance Corten steel, whose earthy brown-red colouration subtly contrasted with the surrounding greenery. The Corten steel is offset with Indian granite and sandstone, terracotta, and glass finishes a modern material palette with clear connections to Bihar's past and future.

NORTH ELEVATION



SOUTH ELEVATION



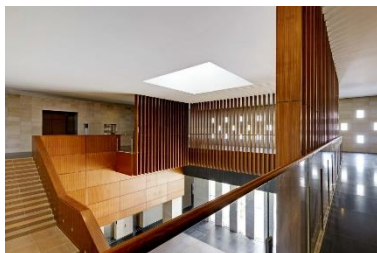
ZONING:

The spaces divide galleries into different specializations, also distinguishing the children's gallery with its own orientation section. The architecture constantly works to enhance the feeling of wonder and belonging to allow the visitor to explore and discover. The environment is thus envisioned as a learning landscape, a place that creates a sense of calm that is conducive to education.



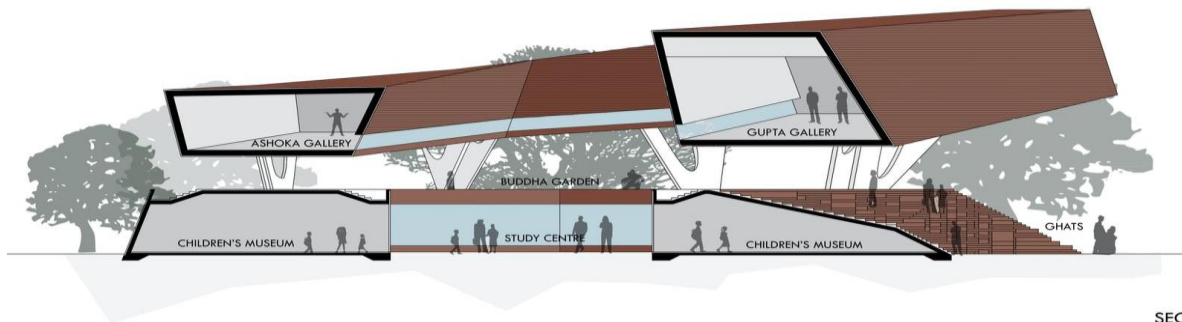
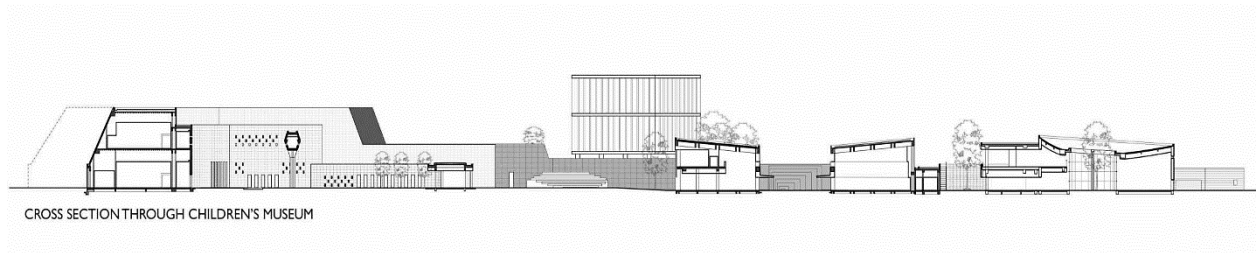
MATERIALS:

The Museum's exterior is characterized by extensive use of weathering steel, a durable material that complements its context and creates a dignified contrast to the surrounding greenery. The weathering steel symbolizes India's historical achievements in metallurgy as well as its current prominence within the international steel industry (of which Bihar's rich natural resources have played a critical role)



- It is supplemented with stone, terracotta, and glass finishes a modern material palette with clear connections to Bihar's past and future.

SECTIONS:.



LIGHTING:

Lighting is one of the main aspects of any museum, especially natural lighting and the architects has tackled this issue through bay winds, Façade lighting, luminous walls and a central courtyard. The Atrium at the entrance shows the importance of lighting in museum.



Natural Lighting in Bihar Museum

OBSERVATION:

The Museum as a symbol of Bihar penetrates the visitor's consciousness by its uniquely juxtaposed forms and building materials. Iron has links to India's ancient civilizations that thrived in this land and Maki has used weathering steel, also known as Cor-ten Steel, to enhance this symbolic connect with iron, industry and progress.

The architecture of the Museum thus works as a constructive shell for ordering the exhibits and to guide the visitor through a holistic process of learning and journeying through an expansive ground to discover the history of India and for each individual to connect with the greater symbolism.

Landscape of the Bihar Museum is designed beautifully, integrating the spaces through dynamic landscape. Landscape is one of the major aspects of any museum planning. Maki and Associates conceived the Bihar Museum as a "campus" - an interconnected landscape of buildings and exterior spaces that maintains a modest but dynamic profile, in harmony with existing site conditions.

DESIGN ANALYSIS:

All the built-up blocks have been strategically located in consonance with the configuration of the site. These blocks are linked together by cloisters which are characterised by deeply recessed openings and modern versions of traditional jaali screens.

These screens allowed natural light to enter, while shielding the spaces from heat, and providing relief from the vast black-box exhibition spaces. Spatial depth and layering channelling the Japanese concept of 'Oku' are used throughout, creating a sense of anticipation that culminates in the meditative Buddha courtyard.

CONCLUSION:

In the words of Fumihiko Maki, "As the building took shape. I came to see it as an extension of my ideas on the group form concept, which emphasizes linkages. Taking advantage of the elongated site in Patna, the museum complex could be called a 'chained group form' where heterogeneous elements are effectively linked by outdoor courts, plazas, and cloisters into a single complex. Because of the large site.

and extensive programme, this was the first opportunity in my long career to realize this kind of chained group form".

The museum is well designed and one of the most innovative museums in the present era, encompassing every aspect of design.

LITERATURE STUDY

02

SOLOMON R. GUGGENHEIM MUSEUM, NEW YORK

INTRODUCTION:

The Solomon R. Guggenheim Museum, often referred to as The Guggenheim, is an art museum located at 1071 Fifth Avenue on the corner of East 89th Street in the Upper East Side neighborhood of Manhattan, New York City. It is the permanent home of a continuously expanding collection of Impressionist, Post-Impressionist, early Modern and contemporary art and also features special exhibitions throughout the year. The museum was established by the Solomon R. Guggenheim Foundation in 1939 as the Museum of Non-Objective Painting, under the guidance of its first director, the artist Hilla von Rebay. It adopted its current name after the death of its founder, Solomon R. Guggenheim, in 1952.

Architect: Frank Lloyd Wright

Founders: Frank Lloyd Wright, Solomon R. Guggenheim, Peggy Guggenheim

RELEVANCE:

Wright held that a building should be a product of its place and its time, intimately connected to a particular moment and site—never the result of an imposed style. It is one of the best examples of art gallery around the world and design on basis of modern contemporary style.



Fig. 1.1 (i) Solomon R. Guggenheim Museum, New York

SCALE:

The project is one of the greatest architectural masterpieces of the known world. The museum is one of the best designed museums in the world. P. L. Wright's design philosophy makes this project one of its kind. The project covers about **4700 sq. m** of gallery space, **1400 sq. m** of office space, theatre, and retail space. **28m** tall atrium topped with expansive glass dome and main ramp coils upward **6 floors**, more than half a kilometre.

SITE:

The Solomon R. Guggenheim Museum, often referred to as The Guggenheim, is an art museum located at 1071 Fifth Avenue on the corner of East 89th Street in the Upper East Side neighbourhood of Manhattan, New York City.

Latitude: 40° 46' 58.728" N

Longitude: 73° 57' 32.2956" W

Connectivity:

- 5.1 km away from **Grand Central**
- 6.0 km away from **Pennsylvania Station**
- 29.2 km away from **J. F. Kennedy International Airport**

Climate:

- Macro-Climates: **Humid Continental**
- Average Temperature: **12 °C**
- Maximum Temperature: **27°C**
- Minimum Temperature: **-18 °C**
- Annual Precipitation: **1600 mm**
- Prevailing Wind Direction: **15km/h North-West**

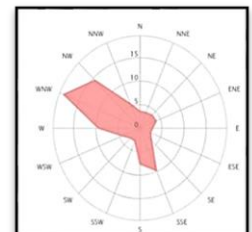
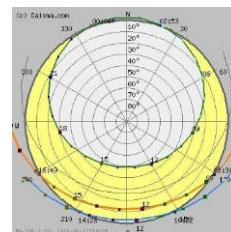
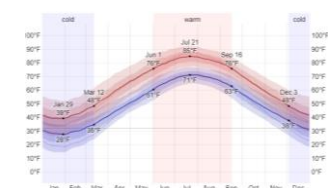
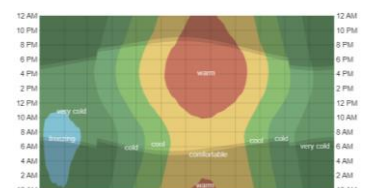


Fig. 1.2 (ii) Sun Path Diagram

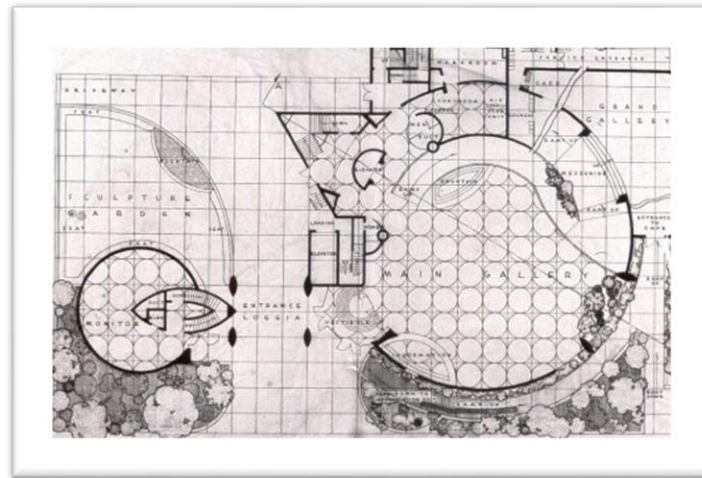


Average High and Low Temperature



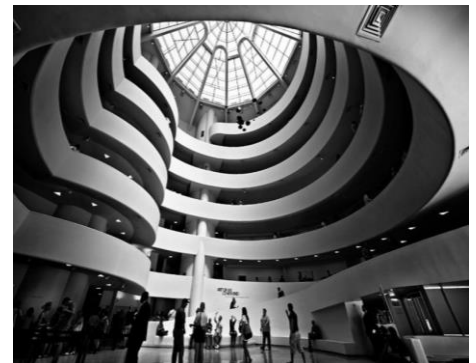
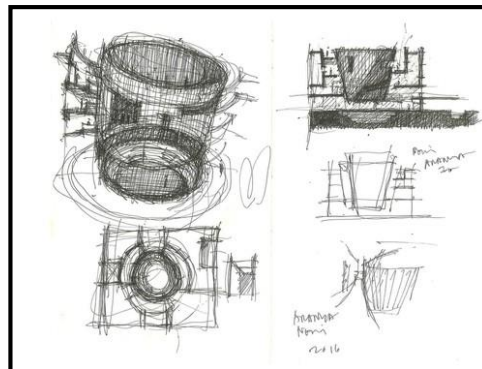
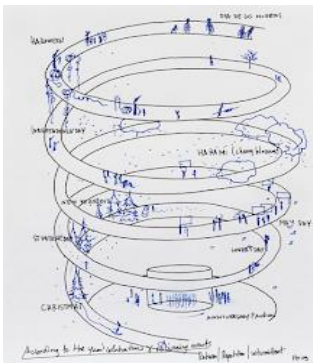
Average Hourly Temperature

SITE PLAN



DETAILS:

A giant spiral ramp circulates up to a giant dome with twelve narrow reinforced concrete partitions that pierce the spiral and serve as stiffeners. The web walls act as shear walls, transferring forces laterally and vertically, while helping resist bending moments. 12 radial web walls around the rotunda, 8 thick and 25 wide at the top were designed. Structural core includes staircase and elevator shaft. Acts as structural anchor and provides an alternate circulation to the ramp.



ZONING:

The museum was designed by zoning of spaces into exhibition spaces, administrative space and other amenities. Spaces were zoned vertically rather than horizontal approach. Four floors of exhibition space, three of which are double height, also have office and storage space for mechanical systems

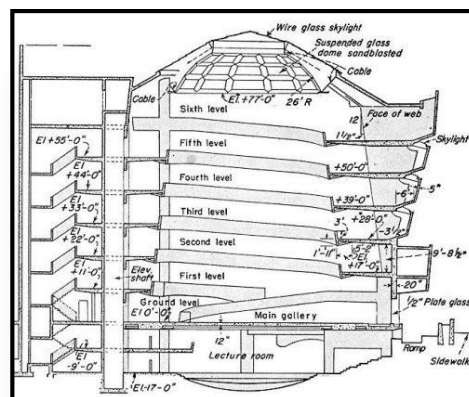


Fig. Vertical zoning Of Guggenheim Museum

FLOOR PLANS:

Four floors of exhibition space, three of which are double height, also have office and storage space for mechanical systems. Twelve radial web walls divide the gallery into 70 bays for viewing artwork. A large glass dome covers the entire rotunda, providing natural lighting inside the gallery. Skylights line each level of the rotunda, providing natural light along the periphery. The gallery walls are 9'6" tall and slope slightly outwards at 97 degrees from the floor. Designed to hold paintings, the tilt of the gallery walls was intended to replicate the slope of an easel.

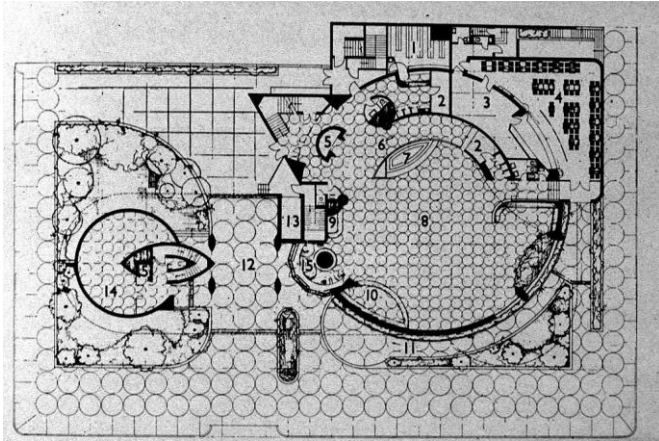


Fig. Floor Plan Of Guggenheim Museum

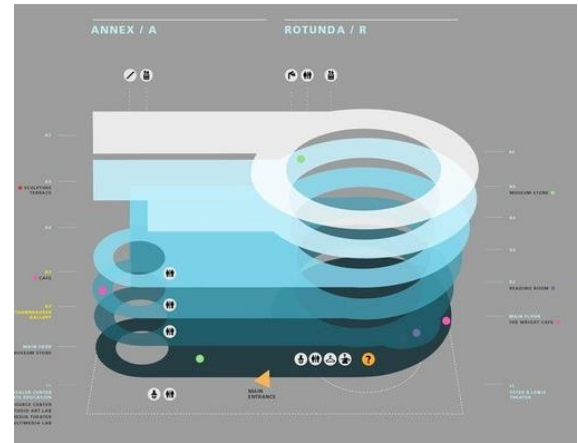
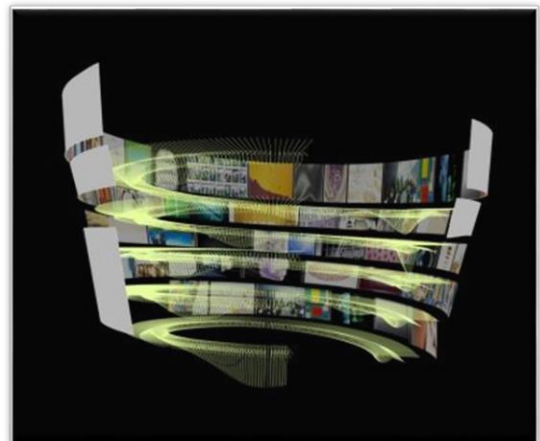
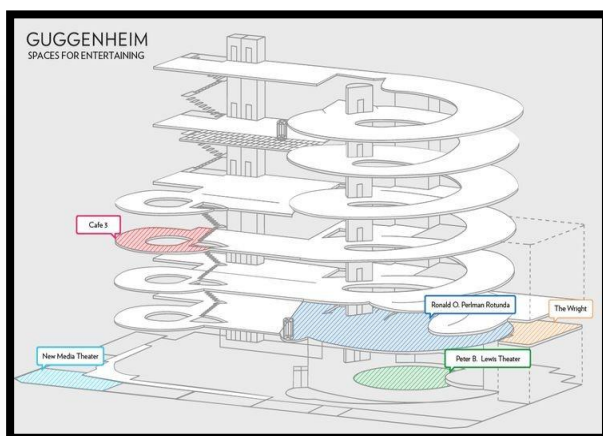


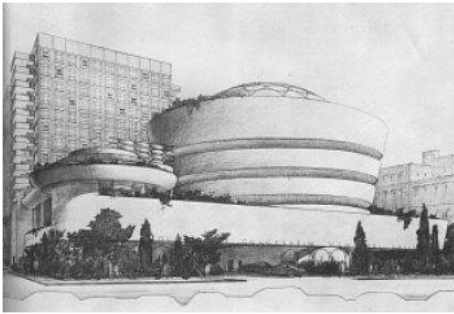
Fig. Guggenheim Museum

CIRCULATION PLAN:

In the Guggenheim, Wright intended to allow visitors to experience the collection paintings by taking an elevator to the top level then view artworks by descending the central spiral ramp. Museum currently designs exhibits to be viewed walking up the ramp rather than walking down. From street, building looks like a white ribbon rolled into a cylindrical shape, slightly wider at the top than at the bottom.



ELEVATION:



Front Elevation Of Guggenheim Museum

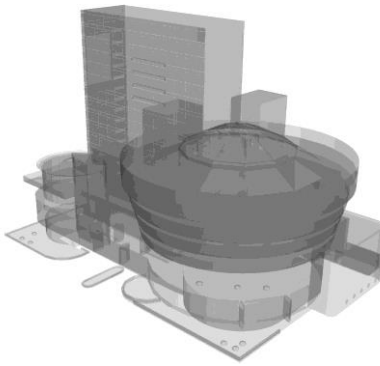


Fig. 3D View Of Guggenheim Museum

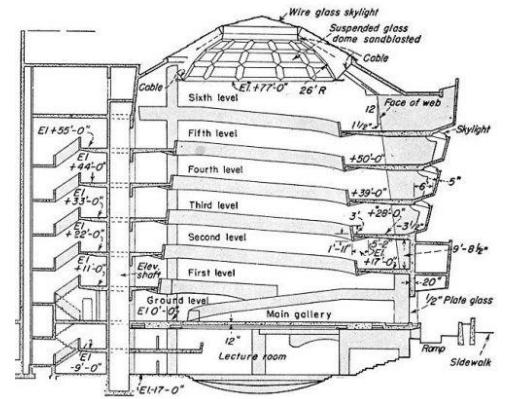
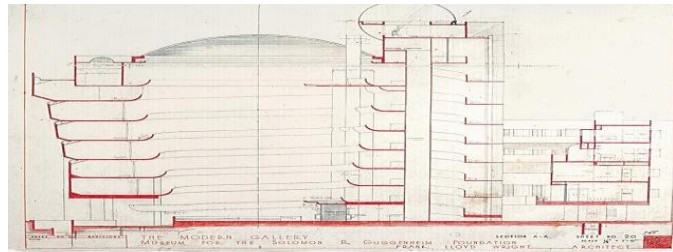


Fig. Section Of Guggenheim Museum



CONCEPTUAL PLAN:

Wright created the philosophy of "organic architecture," which maintains that the building should develop out of its natural surroundings. Although the word "organic" usually refers to something that bears the characteristics of plants or animals, for Frank Lloyd Wright the term organic architecture had a separate meaning. For him organic architecture was an interpretation of nature's principles manifested in buildings that were in harmony with the world around them. Building inspired by Wright's love for the automobile - Planetarium - designed for visitors to drive up the ziggurat-like ramps.

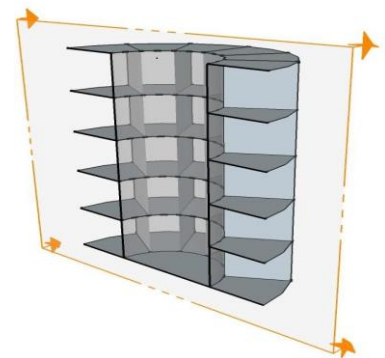
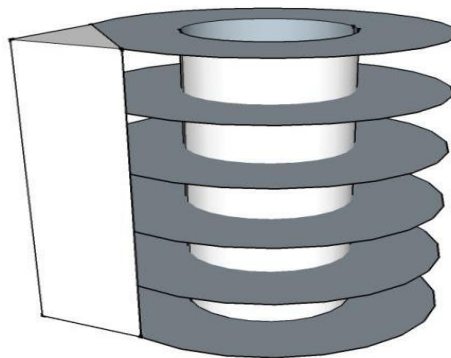
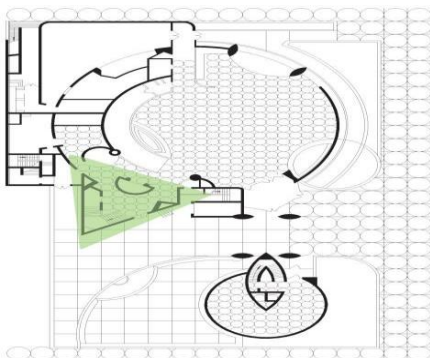


Fig. Structural Detail Of Guggenheim Museum

MATERIALS:

The Guggenheim is primarily composed of reinforced concrete. Normal weight cast in place concrete is the material of the lower levels. Light weight concrete is the material of the interior radial walls and the ramps. Gunite, or shotcrete, is the material used for the exterior of the spiral curved walls. Wright used gunite to achieve a seamless monolithic façade. Wright left out expansion joints, which would have created visual vertical breaks. He hoped the application of elastomeric paint, known as the "cocoon" would fill in the cracks formed during construction. The pairing of multiple types of concrete caused visible cracks in the façade. Steel framed windows, Aluminium skylights were designed Cement plasters soffits on metal lath.

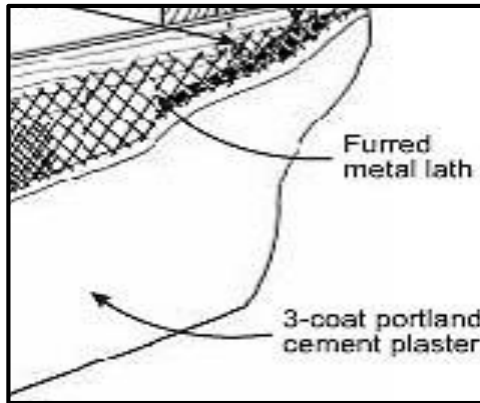


Fig. Material Used In Construction

LIGHTING:

Skylights was originally intended to illuminate the painting in natural light, but were changed to artificial to have more controlled lighting. The huge 29m atrium was designed for proper lighting conditions. Luminance ceiling was designed further for more lighting.



Fig. Luminance Ceiling & Atrium for natural lighting

AREA PROGRAMME:
AREA CHART

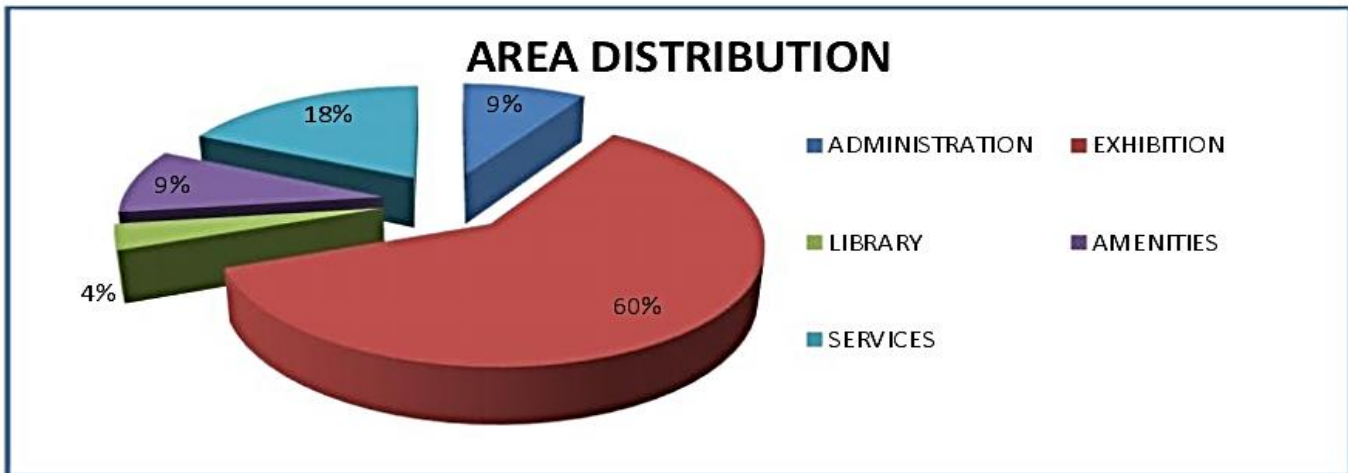
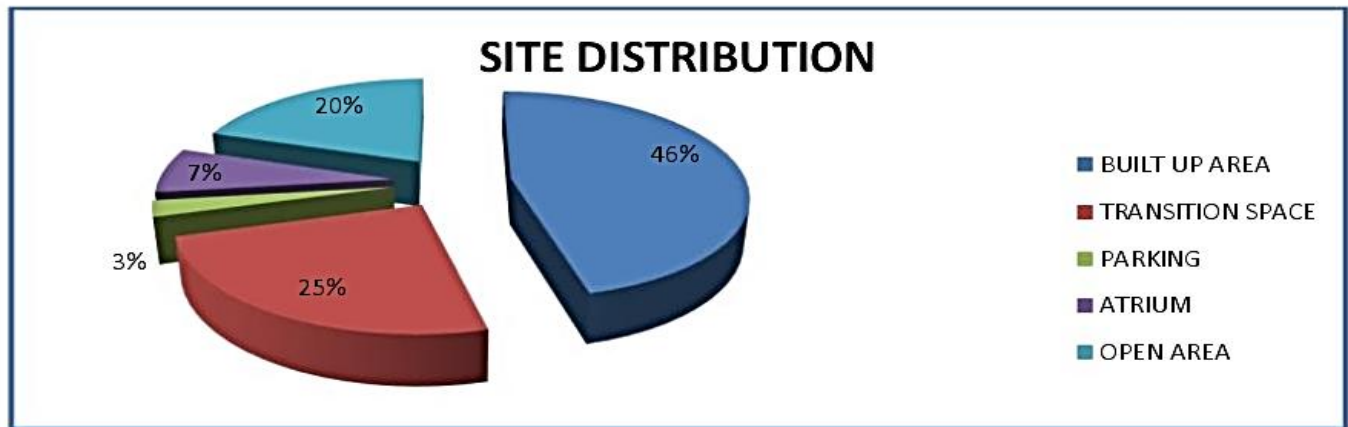
Sr. No.	Space	No. of Units	Area (in sq. m)	Design Capacity
1.	ENTRANCE			100
	Entrance Lobby	-	300	
	Reception	1	30	
	Back Office	1	20	
2.	ADMINISTRATION			50
	Staff Office	5	60	
	Director General's Chamber	1	20	
	Curator Office	1	12	
	Meeting Room	1	40	
	Staff Rest Room	1	40	
	Security Monitoring Room	1	20	
	Server Room	1	20	
	Staff Toilet (M/F)	5/5	30	
	Restoration Laboratory	1	200	50
	Pantry	1	40	
3.	EXHIBITION GALLERY			700
	Level 1 Gallery	1	200	
	Level 2 Gallery	1	400	
	Level 3 Gallery	1	800	
	Level 4 Gallery	1	800	
	Level 5 Gallery	1	800	
	Level 6 Gallery	1	400	
	Level 7 Gallery	1	200	
5.	LIBRARY	-	150	60
	Librarian's Office	1	20	
	Cyber Room	1	30	
7.	AMENITIES			
	Restaurant	1	200	50
	Museum Shop	1	100	40
	Seminar Hall	1	200	50
	Toilet (M/F)	10/10	50	
8.	SERVICES			
	Maintenance	1	200	
	Janitor Room	1	50	
	Store	5	200	
	Housekeeping Centre	1	200	
	High Tension Control Room	1	200	
	HVAC Room	1	200	

9.	PARKING	-	200	40
	Staff Parking	-	100	
10.	OPEN SPACES	-		250
	Atrium	-	900	
11.	TRANSITION AREA (40% of Total Build up Area)		3200	

TOTAL AREA	11,200 Sq. M
-------------------	---------------------

2.2 USER ACTIVITY:

USER	ACTIVITY	SPACE
VISITOR	Visual Experience	Level 1 Gallery Level 2 Gallery Level 3 Gallery Level 4 Gallery Level 5 Gallery Level 6 Gallery Level 7 Gallery
	Shopping	Museum Shop
	Reading	Library Cyber Room
	Parking	Parking Area
	Sanitation	Toilet
	Beverage & Food	Restaurant Water Fountain
ADMINISTRATION & SERVICE STAFF	Official Work & Monitoring	Office Server Room
	Services	Maintenance Janitor Room Store Housekeeping Centre High Tension Control Room HVAC Room
	Meeting	Meeting Hall Seminar Hall
	Retiring	Staff Rest Room
	Beverage & Food	Pantry

AREA DISTRIBUTION:**Chart 2.3 (ii) Site Distribution****DESIGN ANALYSIS:**

The design of the museum as one continuous floor with the levels of ramps overlooking the open atrium also allowed for the interaction of people on different levels, enhancing the design in section.

The curved walls of the interior were intended so that paintings had to be tilted backward. "as on the artist's easel." This was unsuccessful because the paintings were still very difficult to display because of the concavity of the walls, and because of this before its opening 21 artists signed a letter protesting about their display of work in such a space.

Many critics also argue that the building competes with the art work that is intended to be displayed, a problem which Museum Director James Johnson Sweeney took seriously, stating, and This is the most spectacular museum interior architecturally in this country. But my job is to show off a magnificent collection to its fullest. Wright also had a problem with Manhattan's building code administrators who argued with him over structural issues, such as the glass dome that had to be reduced in size and redesigned to include concrete ribs that are extensions of the discreet structural pillars on the exterior walls.

CONCLUSION:

Despite the opinion of critics, there is no doubt that Wright's design for the Guggenheim Museum provides a spatial freedom that is unique to his style. It took Wright 700 sketches and six sets of working drawings to turn his vision into an extraordinary sculpture of a building overlooking Central Park, that in the very least should be acknowledged as one of the most spatially beautiful International-style works of architecture. Wright also embraced new materials, machinery, and technologies. Far from seeing them in opposition to nature, he saw them as allies. Depending upon each other for their integrity, nature would inform and machinery execute a totally new architecture one where the machine's capacities transformed natural principles into architectural forms.

CASE STUDY

01

NATIONAL MUSEUM, NEW DELHI

INTRODUCTION:

The National Museum in New Delhi is one of the largest museums in India. It holds variety of articles ranging from pre-historic era to modern works of art. It was established on August 15, 1949 in the Darbar Hall of Rastrapati Bhavan. It functions under the Ministry of Culture, Government of India. The museum is situated on the corner Janpath and Maulana Azad Road. The blue-print of the National Museum had been prepared by the Gwyer Committee set up by the Government of India in 1946. The museum has around 200,000 works of art, both of Indian and foreign origin, covering over 5,000 years. It also houses the National Museum Institute of History of Arts, Conservation and Museology on the first floor which was established in 1983 and now is a Deemed University since 1989, and runs Master's and Doctoral level courses in History of Art, Conservation and Museology.

RELEVANCE:

The National Museum is one of the largest and well designed museums in India, also the museum is situated near to the site of the proposed thesis project, which make its selection important to understand the design feature of the area and issue faced. Also, as it is the National Museum of India, its selection becomes more important in reference to understand the design of the context and aspects of museum planning. Having a wide range of masterpieces of sculptural art in such medium stone, terracotta, stucco, bronze, gold, silver, ivory, bone, spanning a period of over two millennia, from the 3rd century BC to the 19th century AD, one of the longest in the history of world's art-heritage, the Department of Archaeology makes this museum a relevance choice for understanding the design context of the museum planning.



Displays in National Museum



SITE:

The museum is situated on the corner of Janpath and Maulana Azad Road over an area of 7.5 acres, with a built-up area of about 18,000 sq. m.

Latitude: 28° 36' 42.4764" N

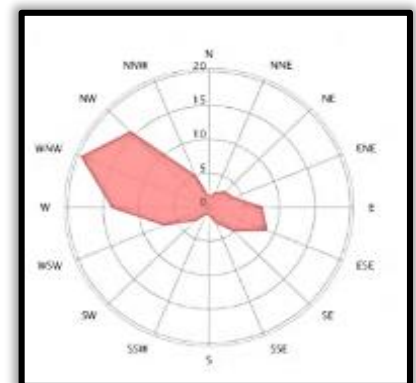
Longitude: 77° 13' 10.1748" E

Connectivity:

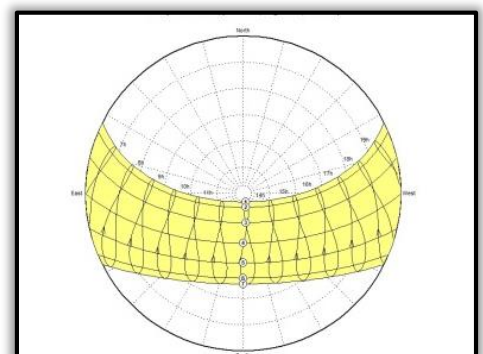
- 1.2 km away from **Central Secretariat Metro Station**
- 3.8 km away from **New Delhi Railway Station**
- 14.5 km away from **Indira Gandhi International Airport**
- Nearest stops: **National Museum Bus Stop**

Climate:

- Macro-Climate: **Humid Subtropical**
- Average Temperature: **25.0°C**
- Maximum Temperature: **47.0°C**
- Minimum Temperature: **-2.2°C**
- Annual Precipitation: **886 mm**
- Prevailing Wind Direction: **18km/h North-West**



Prevailing Wind Direction



Sun Path Diagram

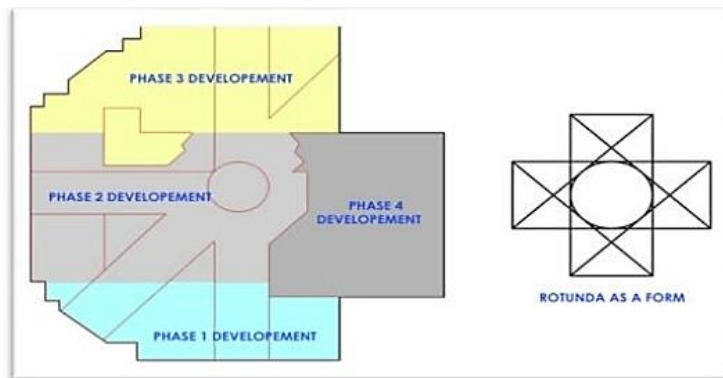
SCALE:

"If you spent only one minute with each piece in the National Museum's collection, it would take three years, nine months and twenty-three days to view every item.

Recognizing that 2,00,000 sculptures paintings, coins, decorative arts, textiles, arms and armours, manuscripts and anthropological objects can overwhelm even most enthusiastic visitor. It has about 25 main art gallery sections for encapsulating the diversity of the museum. The museum also encompasses a grand library and auditorium which make this museum one of the largest and well designed museums in India

CONCEPTUAL PLAN:

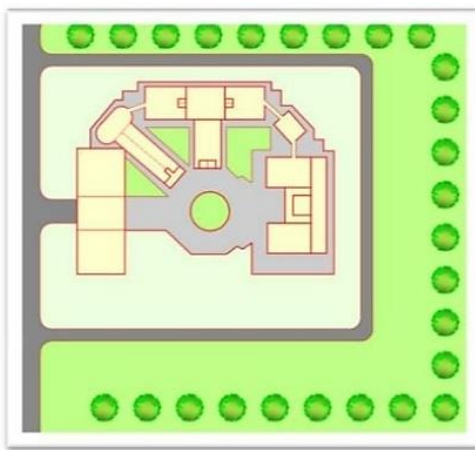
Building was designed such that it merges with the site surrounding. It was the first planned. museum at the National level. Building comprises of four storied with a basement. Basic plan of the building is fan shaped with a circular courtyard in between surrounded by a covered Veranda. Wings are linked with the courtyard according to different requirements and need. Hence, one's find that after watching the exhibits one finds himself again in the same place from where he/she started.



Concept development of the museum

SITE PLAN:

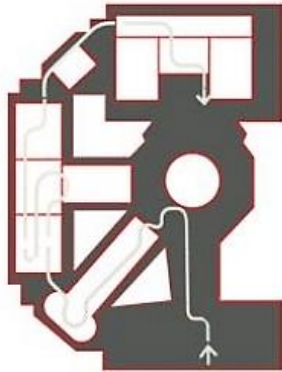
The site is not well designed as there is no segregation of spaces. There is no proper parking facility and the landscape area is not designed well. Parking facilities are provided at the adjacent building.



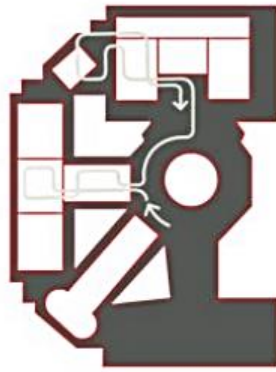
Site Plan of National Museum

CIRCULATION PLAN:

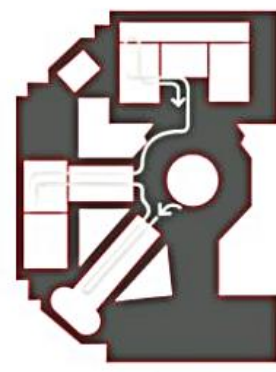
The Ideology behind the circulation pattern was that every section of exhibition can be experienced by the visitors and no section is left untouched.



GROUND FLOOR



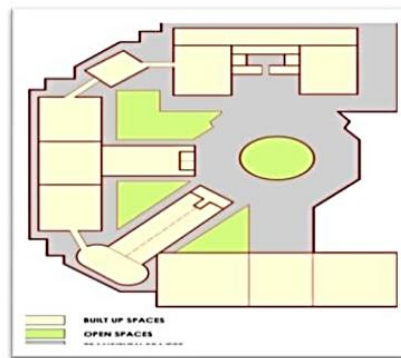
FIRST FLOOR



SECOND FLOOR

ZONING:

The zoning of the museum is done horizontally as well as vertically. Administration and other staff related spaces are placed at the basement of the museum. Services like HVAC, electrical and other are also placed at the basement. Exhibitions are placed at the upper level. Horizontally, the museum is zoned into open, transition and exhibition spaces. Such zoning makes museum a nice visitor's experience.



Horizontal zoning of National Museum

FLOOR PLANS:

Exhibition halls are interconnected with one another with a centre circulation court 6m wide. Separate entrance for VIP and physically handicapped is present. Basement consists of AC plan room, staff cafeteria, and workshop.



Basement plan



Ground Floor plan

Harapan Civilisation Gallery, Mauryan Gallery, Gupta Gallery, Terracotta Gallery. Bronze Gallery. Medieval Art Gallery, Buddhist Art Gallery, Jewellery Gallery, Decorative Art Gallery, Miniature Painting Gallery. Auditorium and Library are placed at **Ground Floor**.

Coins, Indian Wall Painting Gallery, Manuscript Gallery, Maritime Heritage Gallery. Ajanta Painting. Thanjavur Painting Gallery, Special Exhibition are placed at **First Floor**.

Textile Gallery, Western Art Gallery, Copper Gallery, Wood Carving Gallery. Tribal Art Gallery, Music Instrument Gallery. Arms & Armour Gallery, Asian Antique Gallery, Ethnic Art Gallery are placed at **Second Floor**.



First Floor plan



Second Floor plan

ELEVATIONS:



Courtyard

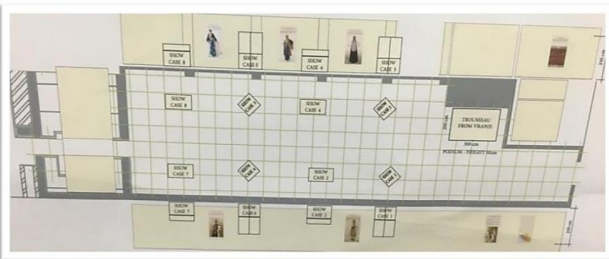


Model of National Museum

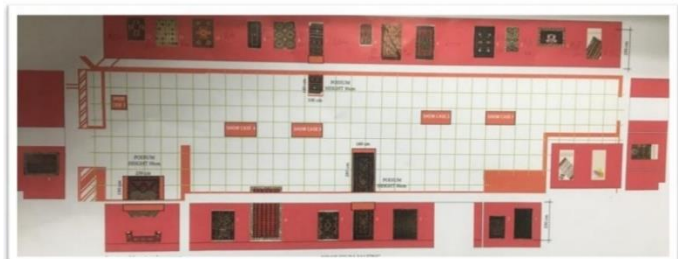


Front Elevation

DETAILS:



Special Exhibition plan



Special Exhibition plan

MATERIALS:



Use of Aluminum & Wood in Natural Museum

Interiors are done with the help of Wood, Glass and Stone. Flooring used is marble and Wood. Different wall colour and rendering is done to avoid monotony. Aluminium is also used in many sections such as Bronze and Coin Gallery. Building is made using high strength R.C.C. and red sandstone. Temporary structures are provided around the building.

LIGHTING:

Each display has its own focussed light, diffused light. Lights are used in false ceilings or hanged by steel section. No natural light are used inside the museum. Artificial lighting is done with day light exhibits kept to minimum. Natural lighting is only used in centre circulation court. Well played with focused lights with the use of concave and convex lenses different places. In jewellery section the gallery was dark and recessed pockets were made with minimal lighting. The whole structure is based around the central rotunda which lights up the entire corridor.



Effective use of Spot Lighting

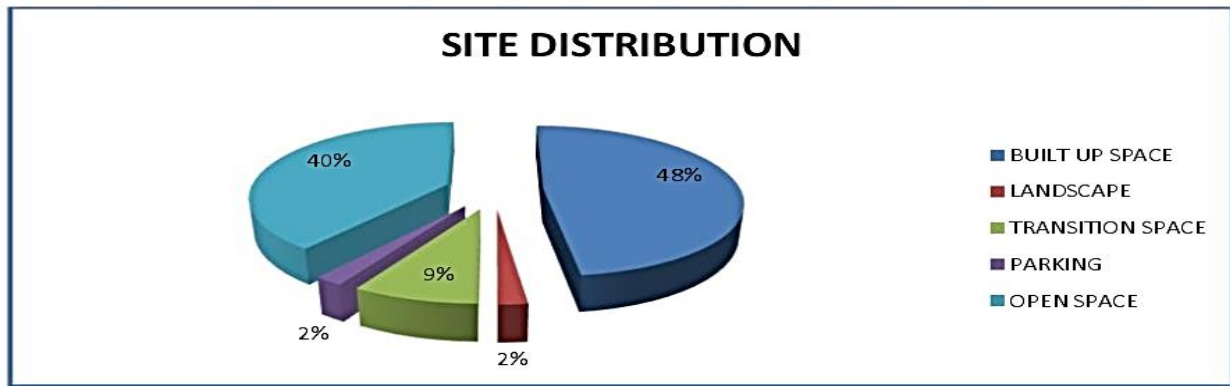
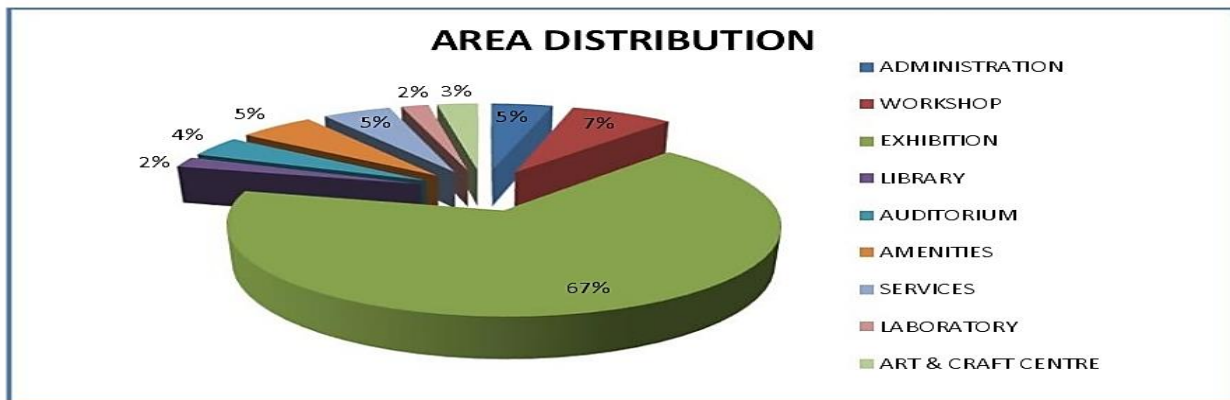
AREA PROGRAMME:
AREA CHART

Sr. No.	Space	No. of Units	Area (in sq. m)	Design Capacity
1.	ENTRANCE			100
	Entrance Hall	-	250	
	Reception	1	30	
	Back Office	1	20	
2.	ADMINISTRATION			
	Staff Office	10	120	50
	Director General's Chamber	1	30	
	Curator Office	2	20	
	Meeting Room	2	100	
	Staff Rest Room	1	40	
	Security Monitoring Room	1	20	
	Server Room	1	20	
	Staff Toilet (M/F)	5/5	50	
	Store	5	200	
	Staff Canteen	1	100	
3.	WORKSHOP			200
	Wood Workshop	1	200	
	Metal Workshop	1	200	
	Terracotta Workshop	1	200	
	Store	3	120	
	Store Props	1	80	
4.	EXHIBITION GALLERY			4000
	Harapan Civilisation Gallery	1	300	
	Mauryan Gallery	1	60	
	Gupta Gallery	1	300	
	Terracotta Gallery	1	300	
	Bronze Gallery	1	400	
	Medieval Art Gallery	1	400	
	Buddhist Art Gallery	1	300	
	Jewellery Gallery	1	400	
	Decorative Art Gallery	3	600	
	Miniature Painting Gallery	1	300	
	Textile Gallery	1	200	
	Western Art Gallery	1	200	
	Copper Gallery	1	200	
	Wood Carving Gallery	1	200	
	Tribal Art Gallery	1	400	
	Music Instrument Gallery	1	300	
	Arms & Armour Gallery	1	300	
	Asian Antique Gallery	4	1000	

	Ethnic Art Gallery	1	200	
	Coins	1	400	
	Indian Wall Painting Gallery	1	300	
	Manuscript Gallery	1	60	
	Maritime Heritage Gallery	1	300	
	Ajanta Painting	1	200	
	Thanjavur Painting Gallery	1	300	
	Special Exhibition	1	1000	
5.	LIBRARY	-	200	50
	Librarian's Office	1	20	
	Cyber Room	1	30	
6.	AUDITORIUM	-	500	250
	Projection Room	1	20	
	Green Room	1	30	
7.	AMENITIES			
	Restaurant	1	250	60
	Museum Shop	1	100	25
	Seminar Hall	1	200	50
	Toilet (M/F)	10/10	50	
8.	SERVICES			
	Maintenance	1	50	
	Janitor Room	1	20	
	Store	5	100	
	Housekeeping Centre	1	20	
	High Tension Control Room	1	200	
	HVAC Room	1	200	
9.	LABORATORY	4	200	50
10.	LOADING AREA	-	400	
11.	ART & CRAFT CENTRE	-	300	50
12.	OPEN SPACES	-		100
	Courtyard	4	100	
	Central Amphitheatre	-	100	
	Open Air Theatre	-	50	
13.	PARKING	-	500	100
	VIP Parking	-	100	
	Staff Parking	-	100	
14.	TRANSITION AREA (30% of Total Build up Area)		4000	
TOTAL AREA				
			18,500 Sq.M	

USER ACTIVITY:

USER	ACTIVITY	SPACE
VISITOR	Visual Experience	Harapan Civilisation Gallery Mauryan Gallery Gupta Gallery Terracotta Gallery Bronze Gallery Medieval Art Gallery Buddhist Art Gallery Jewellery Gallery Decorative Art Gallery Miniature Painting Gallery Textile Gallery Western Art Gallery Copper Gallery Wood Carving Gallery Tribal Art Gallery Music Instrument Gallery Arms & Armour Gallery Asian Antique Gallery Ethnic Art Gallery Coins Indian Wall Painting Gallery Manuscript Gallery Maritime Heritage Gallery Ajanta Painting Thanjavur Painting Gallery Special Exhibition Auditorium
	Shopping	Museum Shop
	Reading	Library Cyber Room
	Parking	Parking Area
	Sanitation	Toilet
	Beverage & Food	Restaurant Staff Canteen
ADMINISTRATION & SERVICE STAFF	Official Work & Monitoring	Office Server Room
	Services	Maintenance Janitor Room Store Housekeeping Centre

SITE DISTRIBUTION:**Chart 2.3 (i) Site Distribution****Chart 2.3 (ii) Site Distribution**

OBSERVATION:

The collection consists broadly of nine thousand six hundred objects, aesthetic and votive representing different themes - likeness of royal ladies, singers, dancers, kings, scenes of court-life and even animal figures representing aesthetic aspect of art, and myths, legends, narratives or deity images representing its religious aspect.

The ideology of circulation pattern in the museum is one a greater aspect in the museum, the ideology to make visitor experience each and every gallery and in a chronological sequence.

The ideology of circulation pattern in the museum is one a greater aspect in the museum, the ideology to make visitor experience each and every gallery and in a chronological sequence.

Proper parking facility was not there for visitor, Archaeological survey of India building was used for parking. Only front façade was articulated, rear façade was only plastered. Placement of toilet was not proper; entry was from the landing of staircase. Fire exits were hidden and in case of emergency it is difficult to come out of the place.

DESIGN ANALYSIS:

The Department has showcased its objects in different galleries, all on the ground floor. Though scholastic Approach might always present a different perception, the objects displayed in each gallery have been properly classified , the basis being dynastic, stylistic, chronological and religious Although ramp runs throughout the museum but still the design is not universal.

The use of artificial lighting inside the gallery balancing with shadows is one major design aspect of the museum, to prevent sculptures and exhibits from harsh sunlight. The internal courtyard is placed to light up the corridors.

CONCLUSION:

Having a wide range of masterpieces of sculptural art in such medium: stone, terracotta, stucco. bronze gold, silver, ivory, bone, spanning a period of over two millenniums, from the 3rd century BC to the 19th century AD. one of the longest in the history of world's art-heritage, the Department of Archaeology make this museum a relevance choice for understanding the design context of the museum planning The museum has its merits and demerits. Its zoning and circulation pattern has one of the major merits while on the other hand due to lack of space, landscape is not developed at optimum level. Use of materials and some new sections are designed from contemporary styles. The segregation of spaces, temporary and permanent exhibitions is one of the best design aspects of the museum.

CONCEPT

INTRODUCTION

- Over the last hundred years, the Indian Film Industry has grown by leaps and bounds and has undergone amazing technological changes.
- It is also becoming global and corporate thus arousing immense international interest. In keeping with global standards and preserving the rich cultural legacy of the film industry Film city is interested in establishing a World Class Bollywood Museum.
- The Bollywood Museum is dedicated to educating the public about the art, history, technique, and technology of film, television, and digital media and to examining their impact on culture and society.
- Though Bollywood is one of the largest film industries in the world, it does not have a museum dedicated to it.



CONCEPT

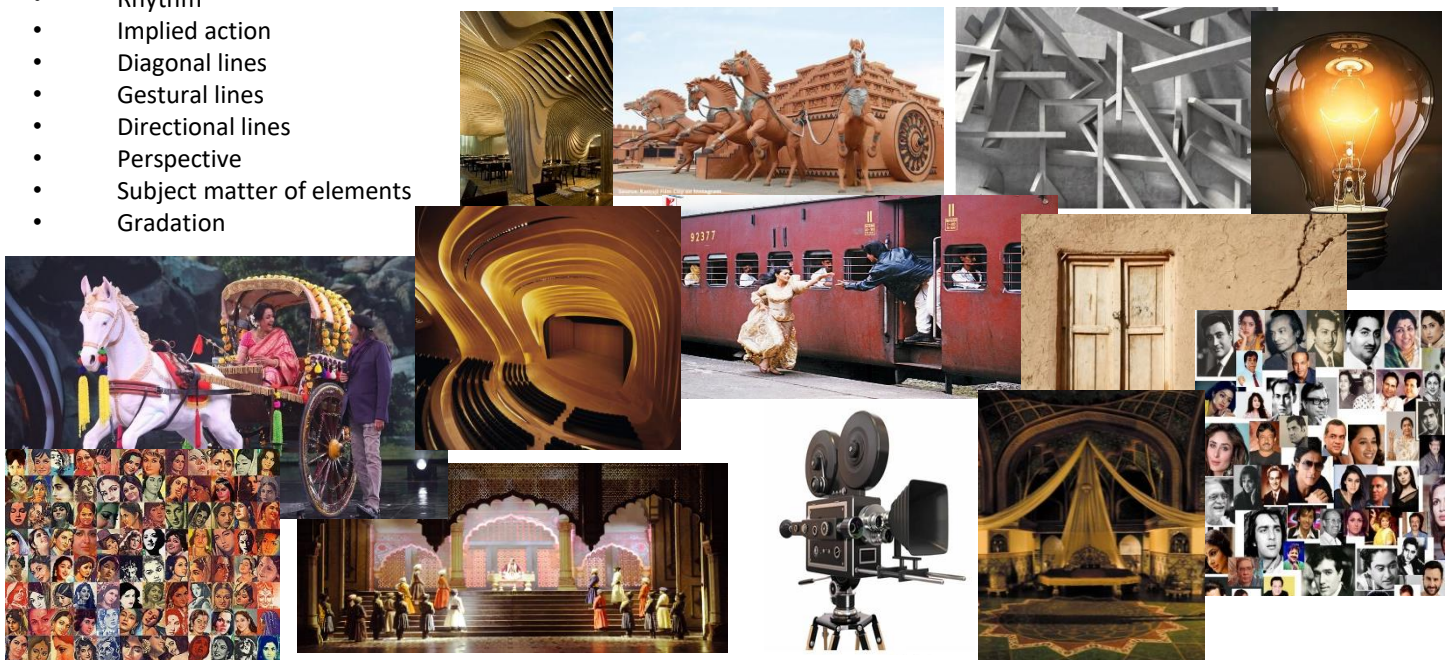
FLOW :

Flow is about movement and direction, and leading the eye from one part of a composition to another in the direction you want it to move. You create flow through a combination of visual weight and visual direction.

Elements of greater visual weight (focal points) pull the eye and become resting places. Other elements impart direction and move your eye from one point to another through visual cues such as arrows and lines.

- Repetition of elements
- Rhythm
- Implied action
- Diagonal lines
- Gestural lines
- Directional lines
- Perspective
- Subject matter of elements
- Gradation

MOOD BOARD



Material Board



Mud



Acoustic foam



Steel Panel



Aluminium Panel



Rubber Flooring



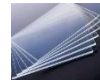
Paint



Tiles



Ply Board



Glass



Laminate Board



Leather



Mica



LED Strip Light



Track Light



Spot Light

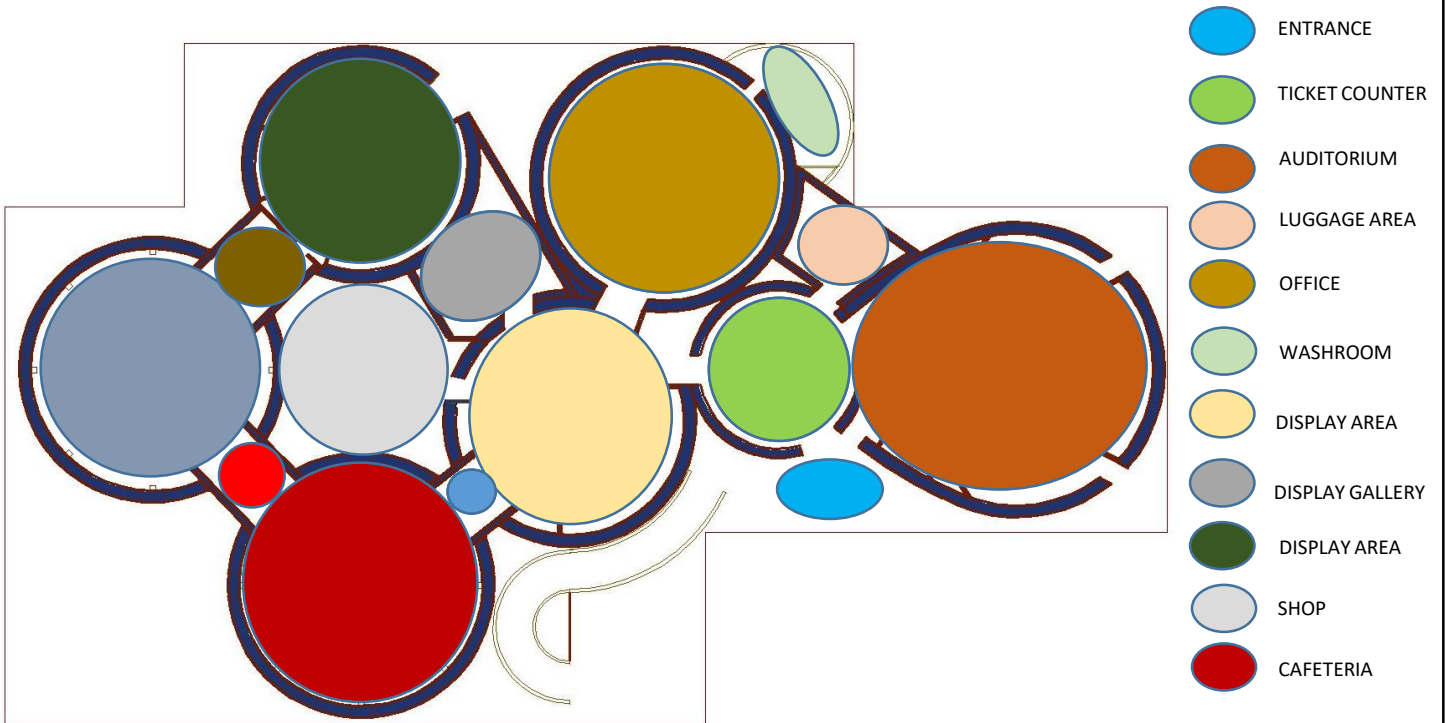


Concealed LED

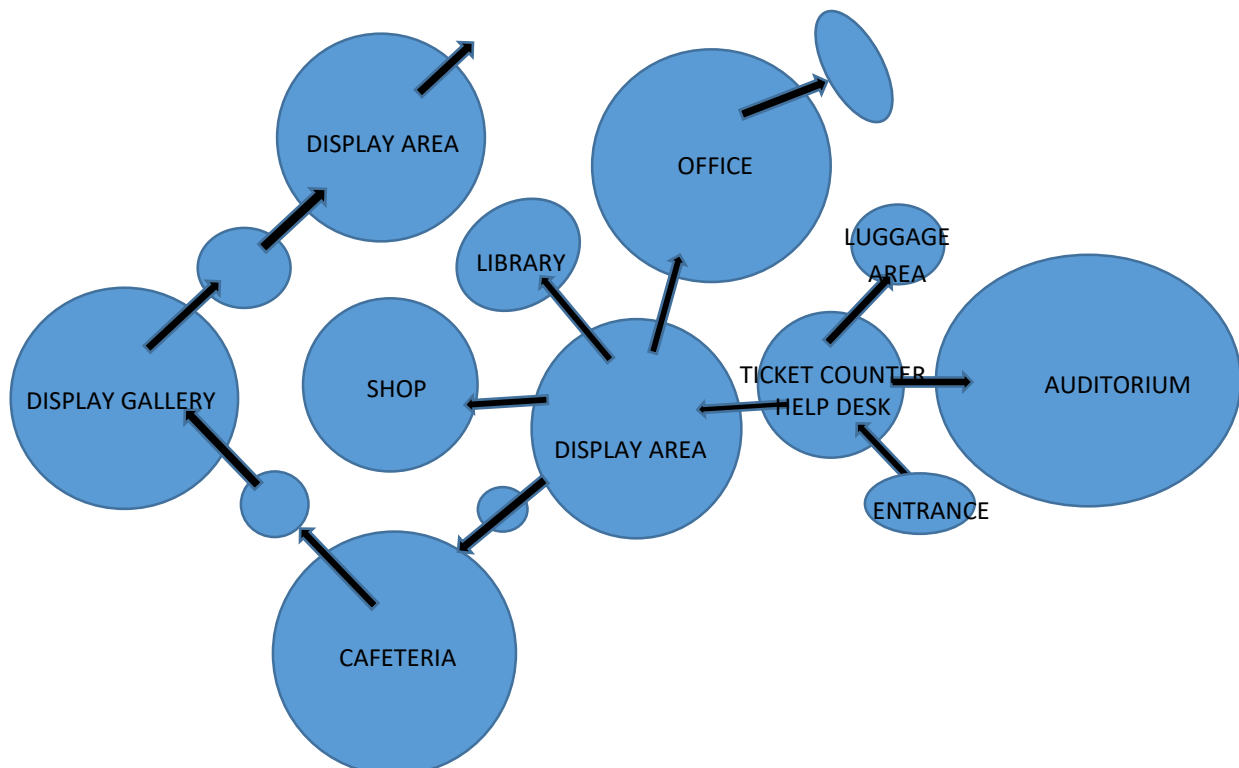
Framed Requirements :

- Entrance
- Ticket Counter
- Luggage Area
- Washroom
- Help Desk
- Office
- Display Area
- Display Gallery
- Auditorium
- Shop
- Cafeteria

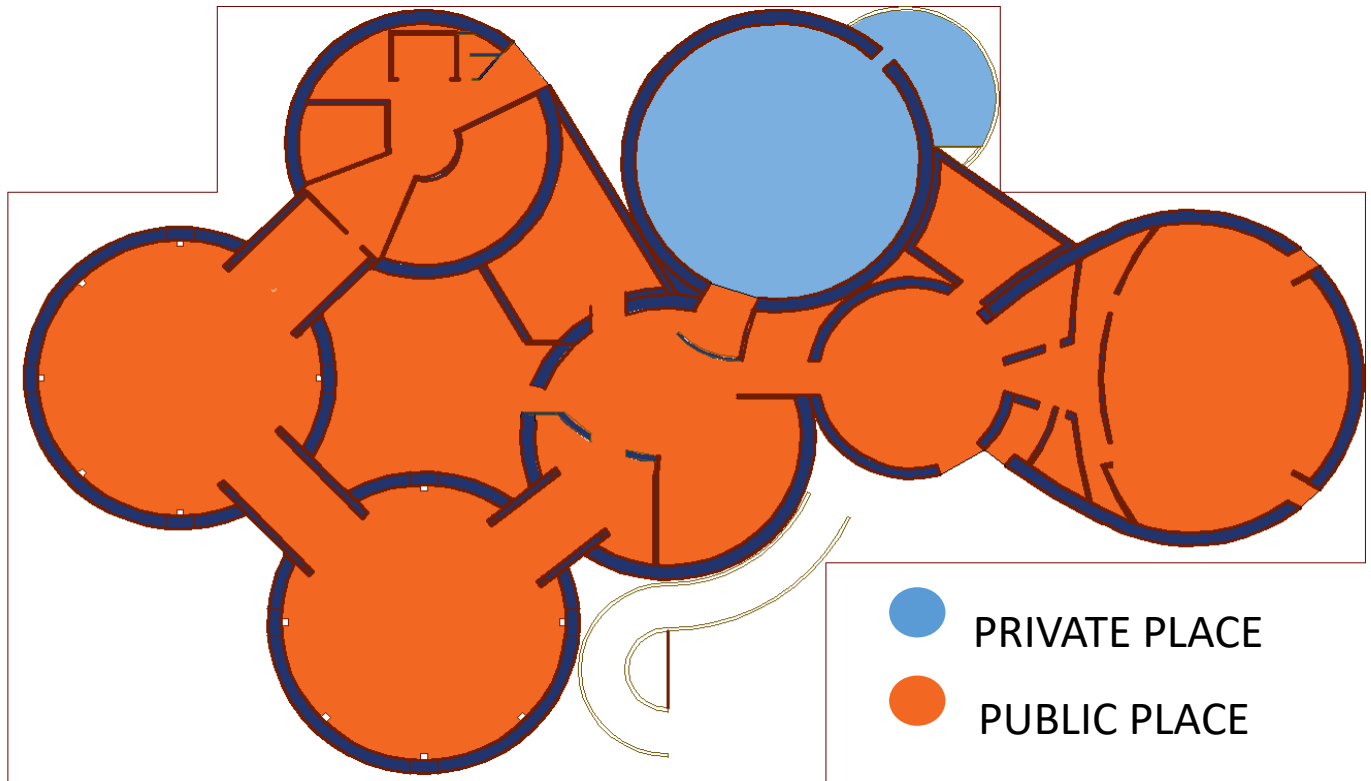
Segregation of Spaces



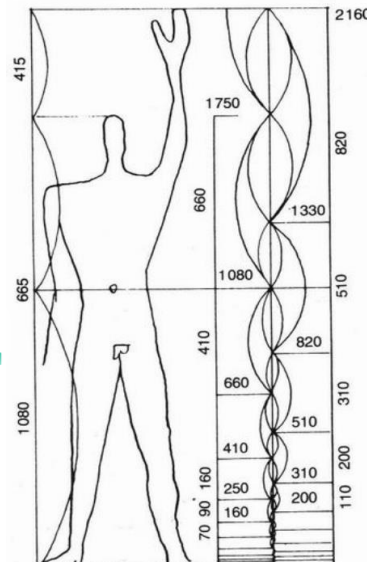
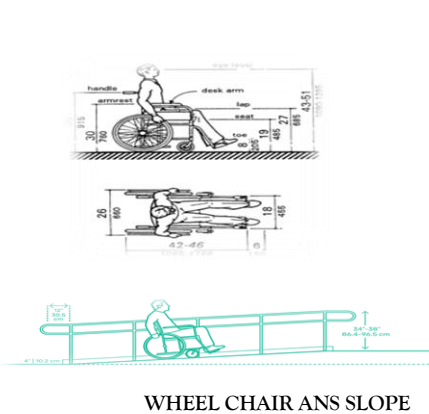
BUBBLE DIAGRAM



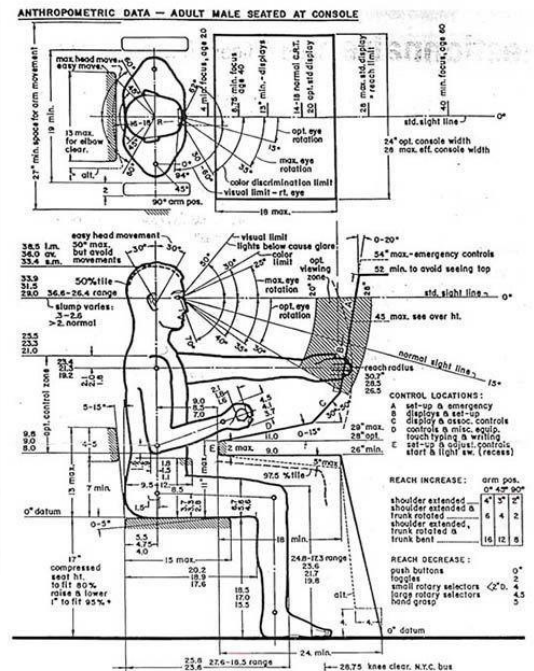
ZONING

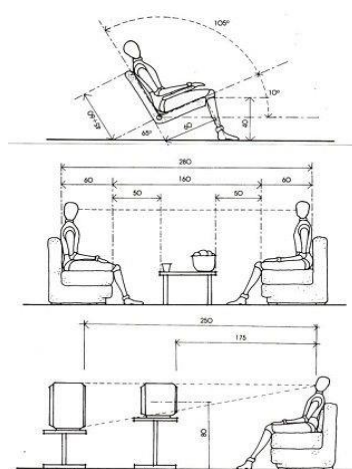


Anthropometry



OFFICE CHAIR AND TABLE



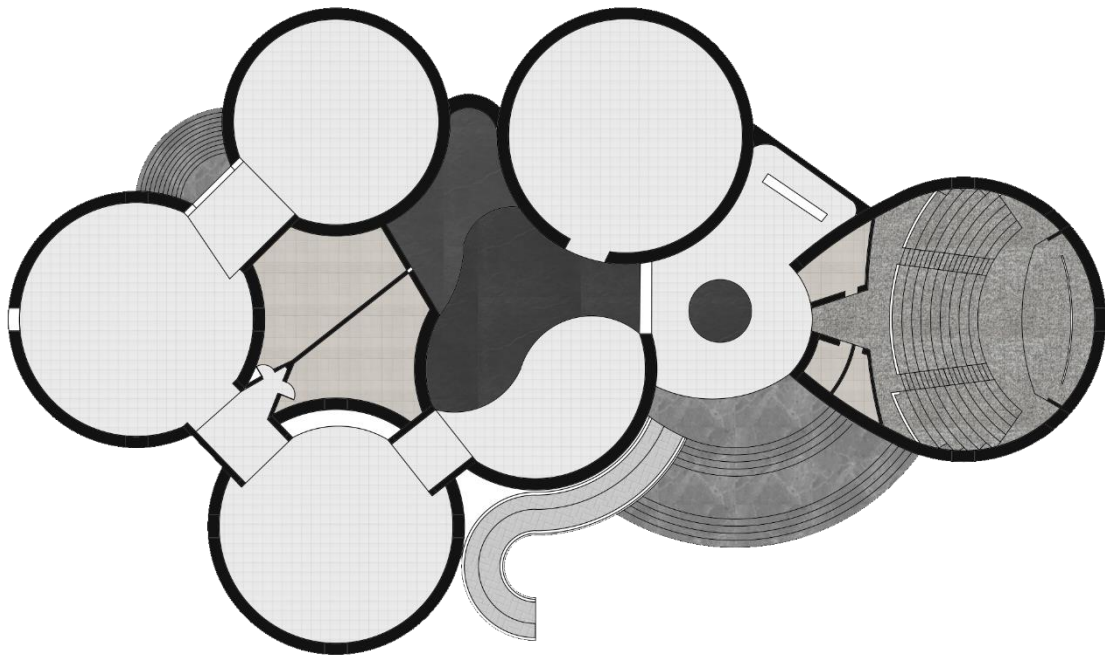


PLAN

SECTIONAL ELEVATION

ELEVATION

ELECTIVE (FLOORING)



Carpet

Size :- 900 x 5400

Price :- 25 rs / sqft



Vitrified Tiles (Cloudy Grey)

Size :- 600 x 600

Price :- 50 rs / sqft



Vitrified Tiles (Shark Grey)

Size :- 600 x 600

Price :- 50 rs / sqft



Vitrified Tiles (Grandma Grey)

Size :- 600 x 600

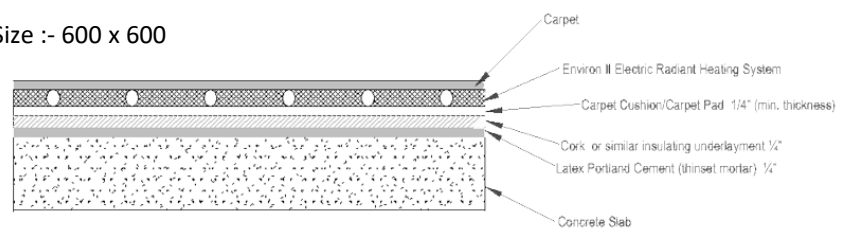
Price :- 50 rs / sqft



Ceramic Tiles (Mushroom Grey)

Size :- 600 x 600

Price :- 35 rs / sqft

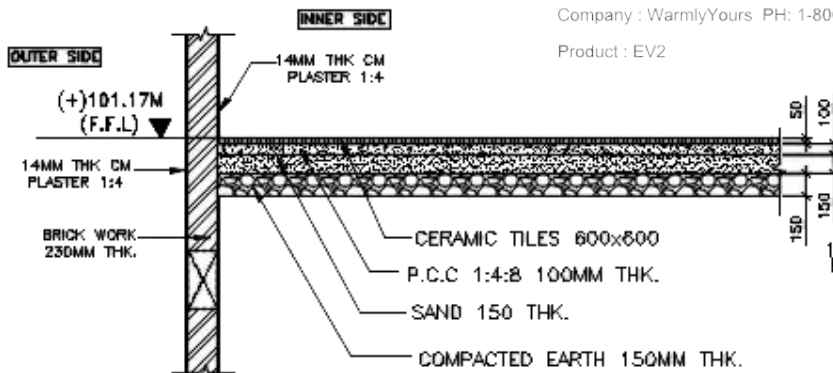


SCALE: N.T.S.

EV2 – Carpet on insulated concrete subfloor:

Company : WarmlyYours PH: 1-800-875-5285 FAX: 1-800-408-1100

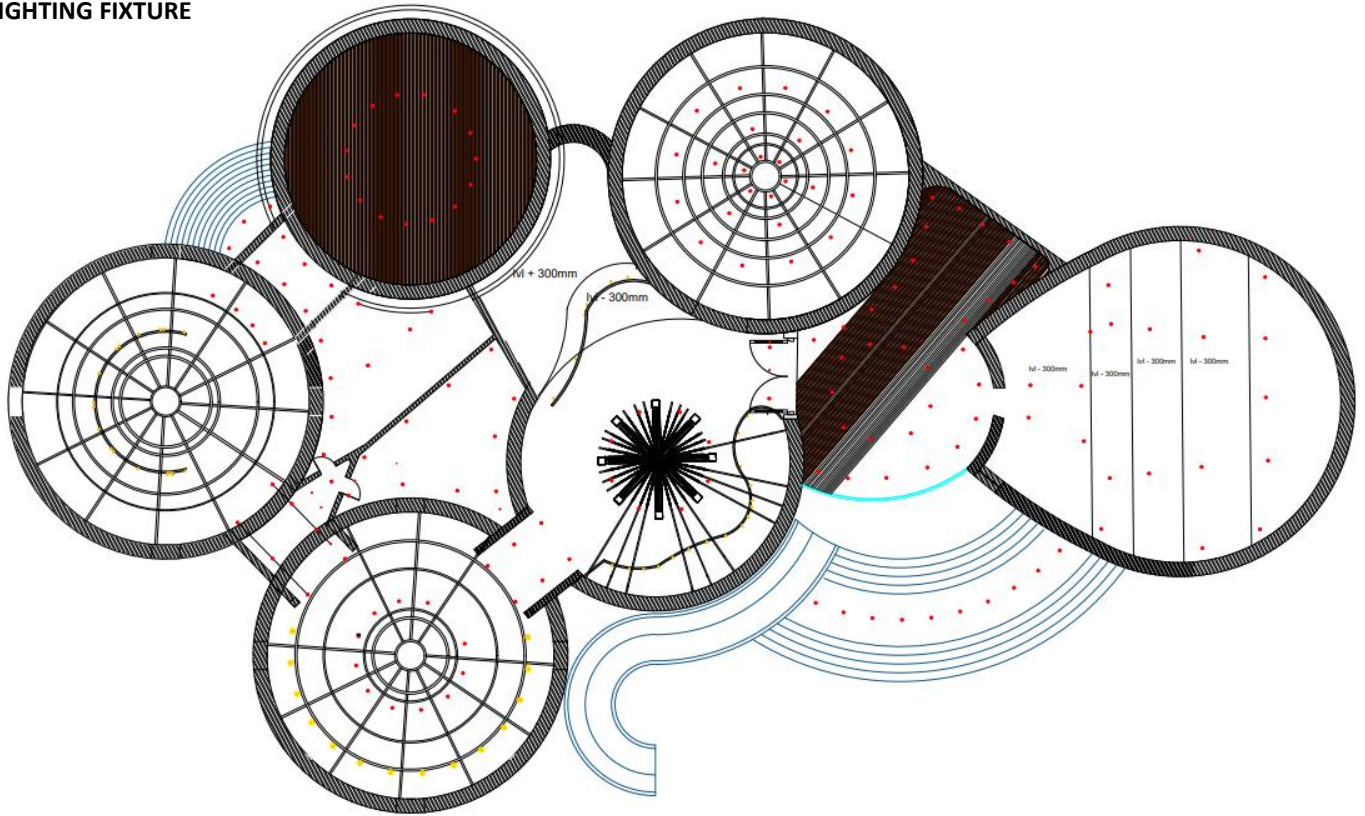
Product : EV2



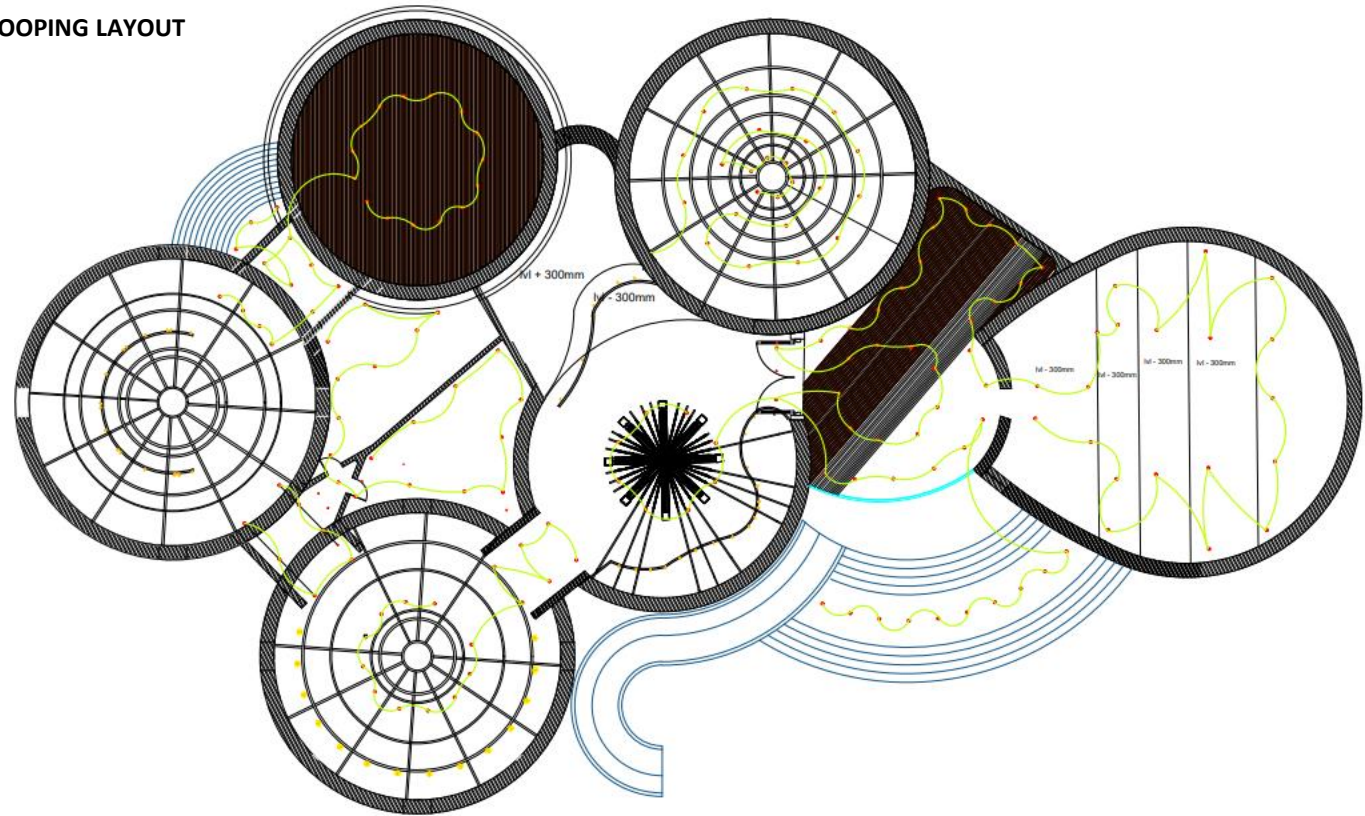
FLOORING DETAIL

ELECTRICAL

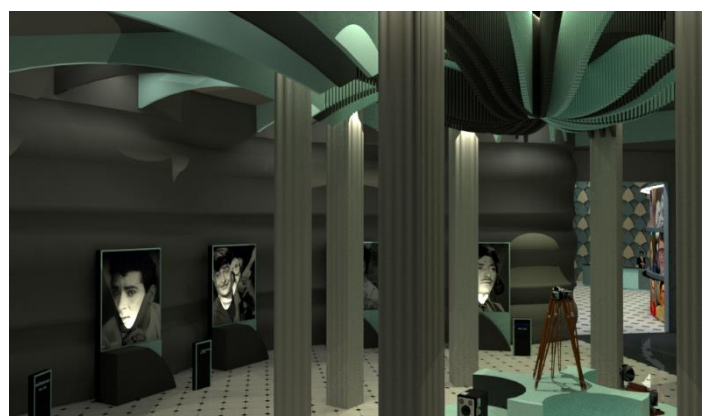
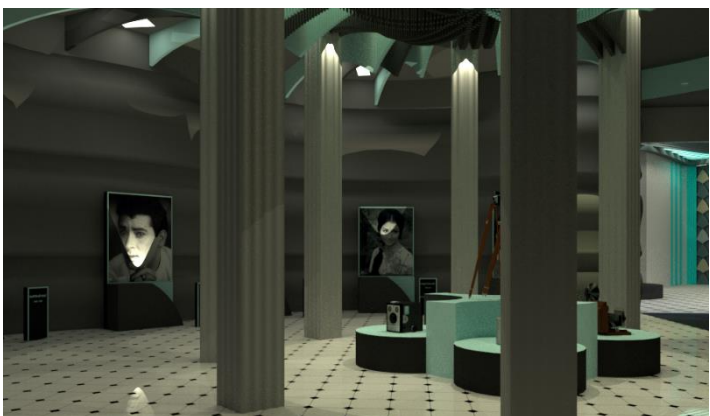
LIGHTING FIXTURE



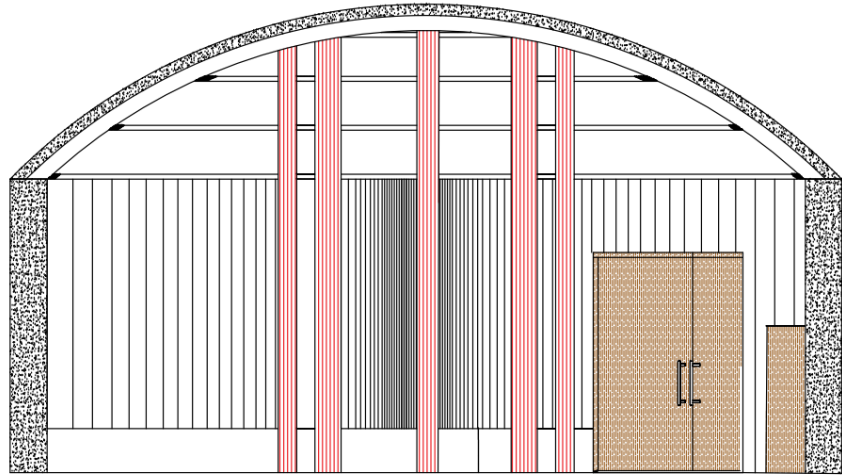
LOOPING LAYOUT



3D VIEW

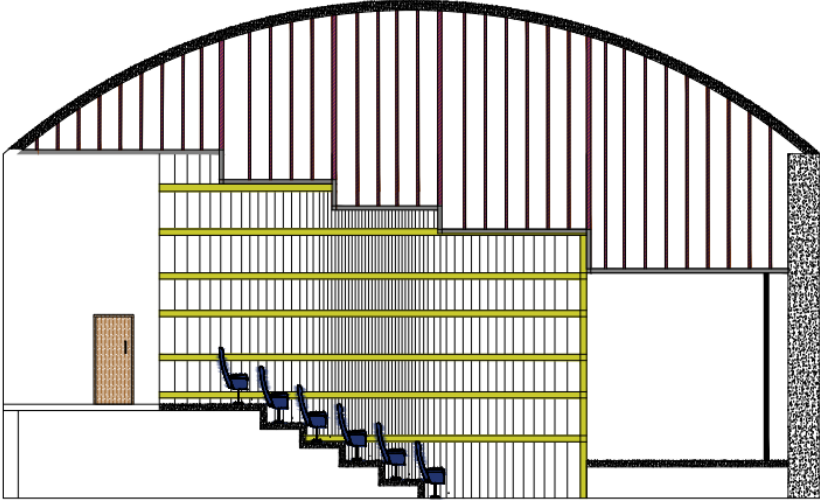




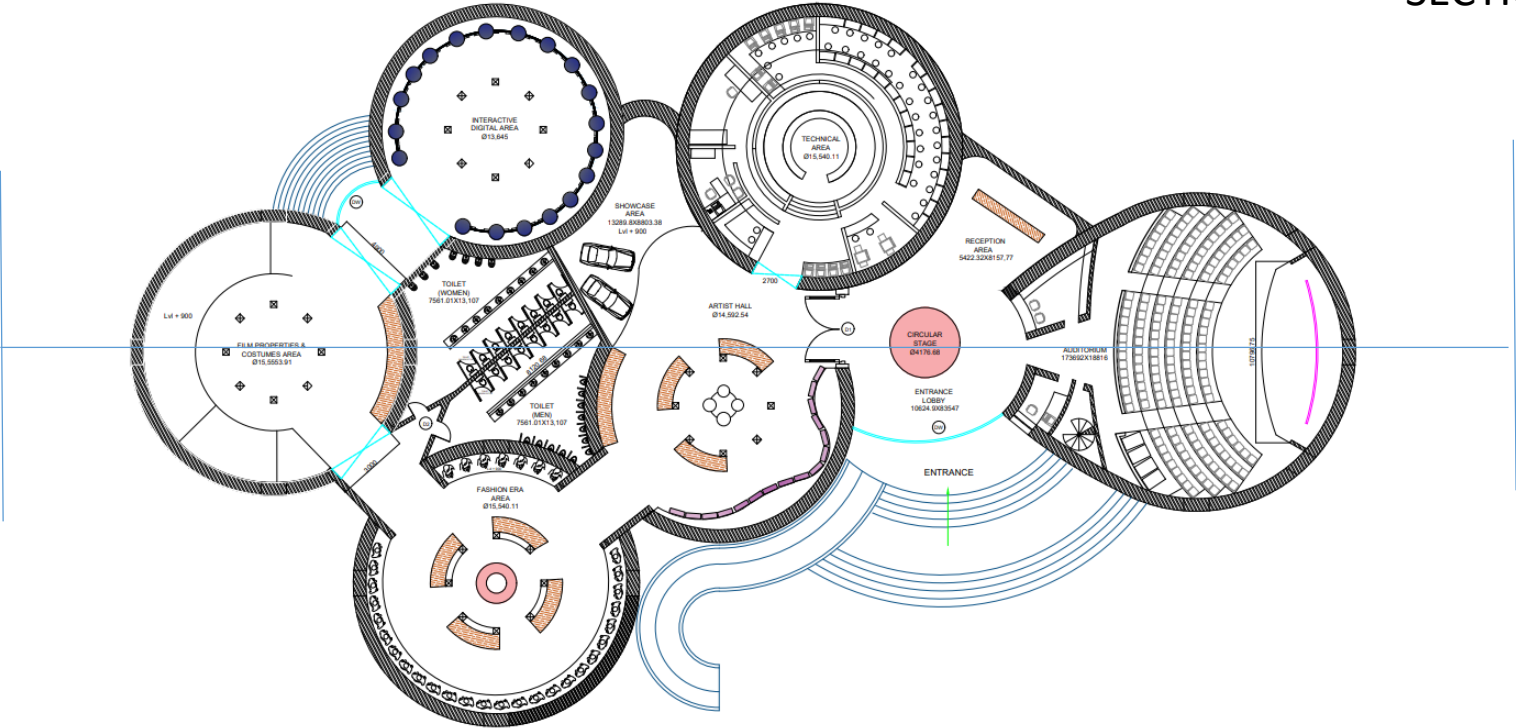


SECTIONAL ELEVATION A

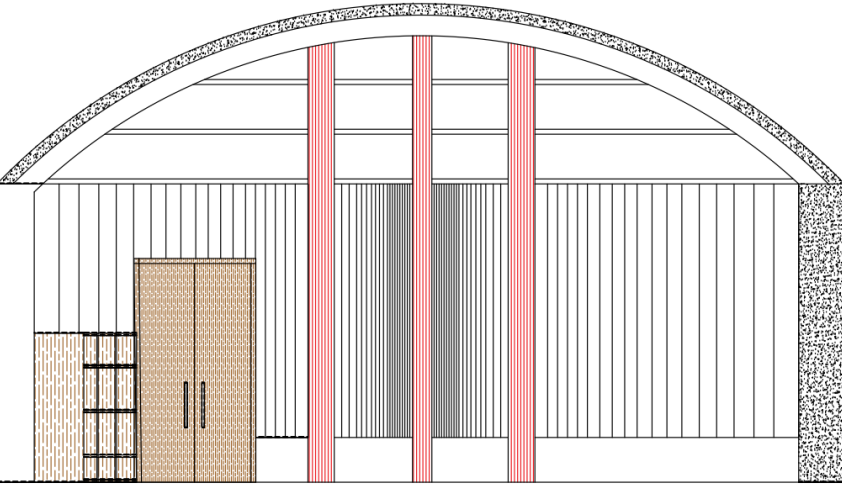
A



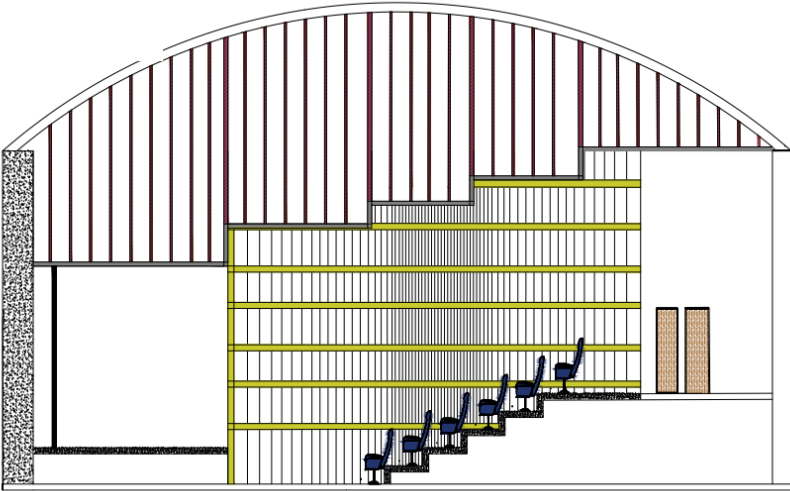
SECTIONAL ELEVATION A



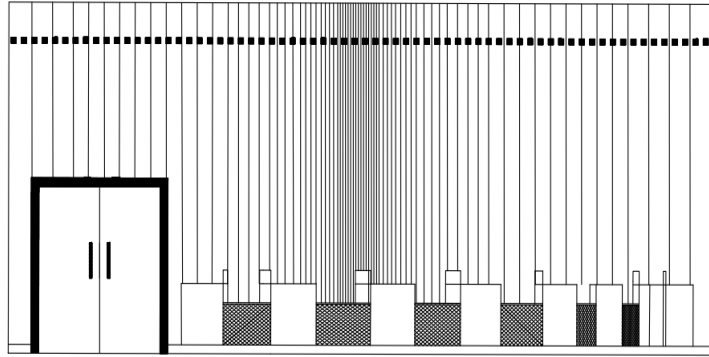
B



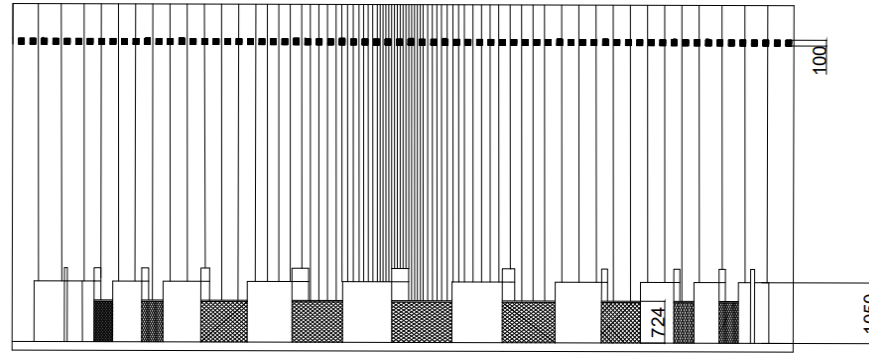
SECTIONAL ELEVATION B



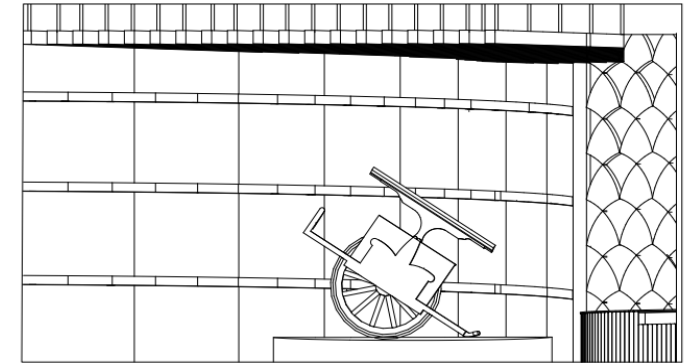
SECTIONAL ELEVATION B



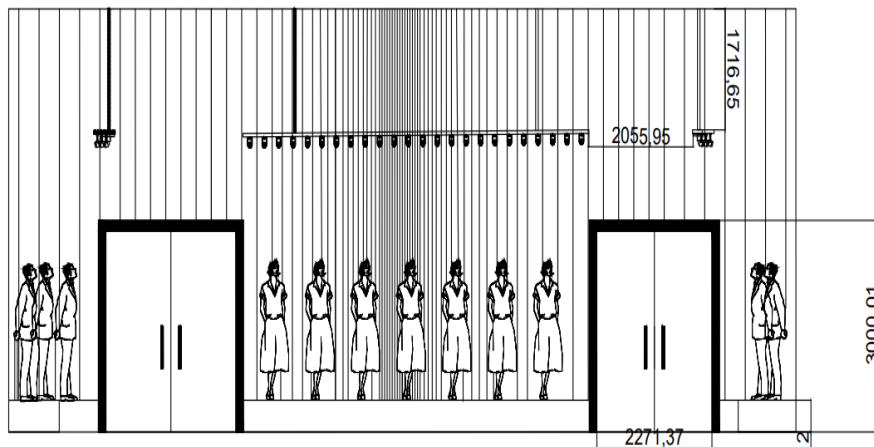
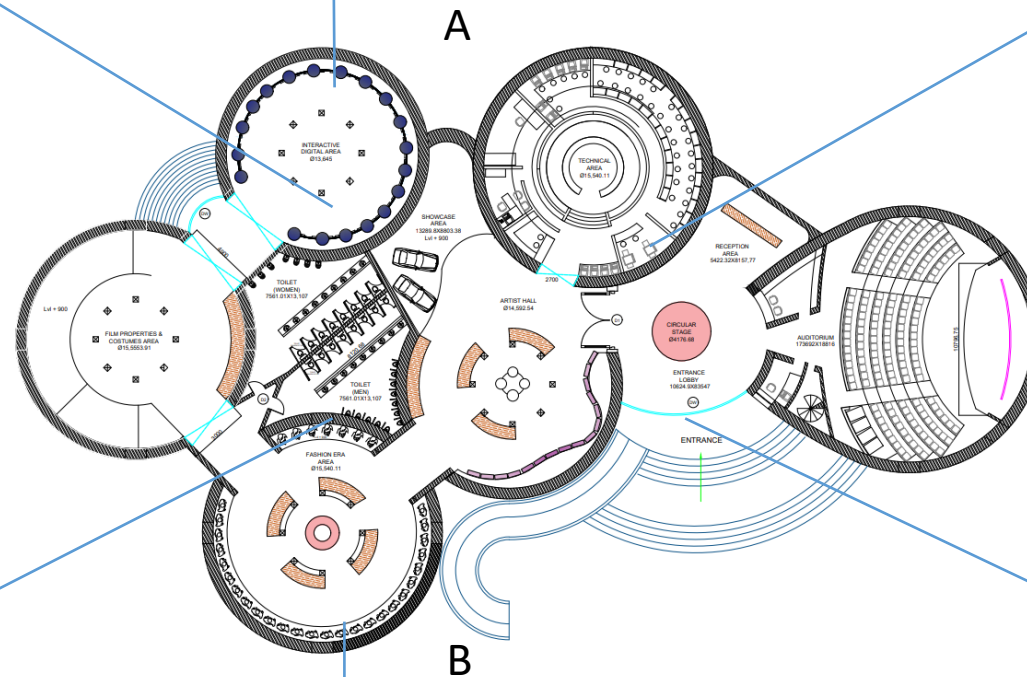
ELEVATION B



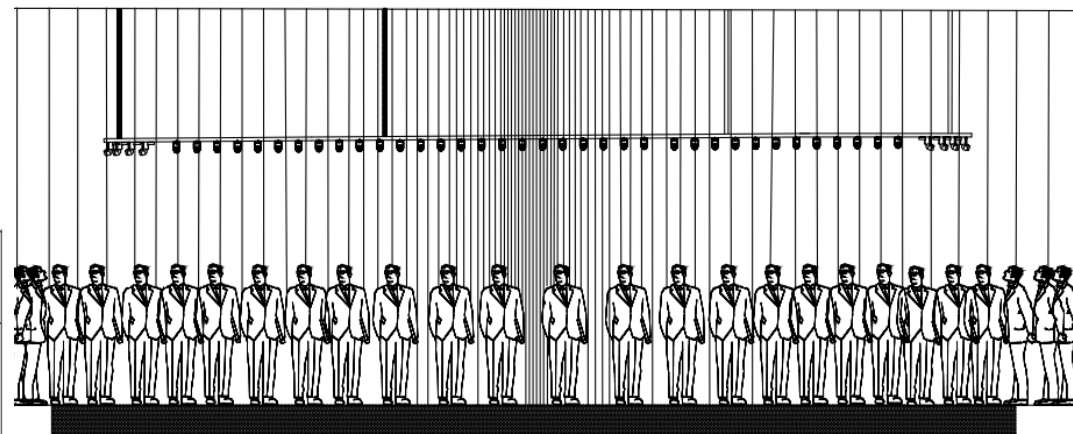
ELEVATION A



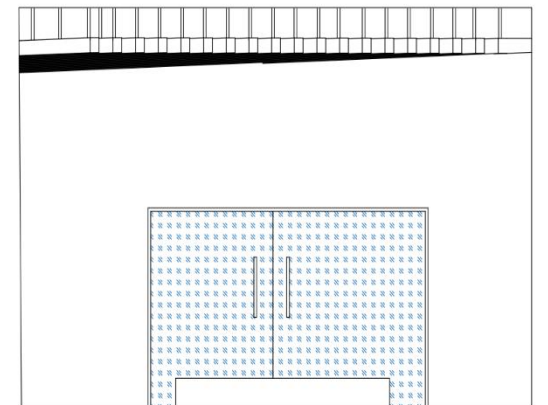
ELEVATION A



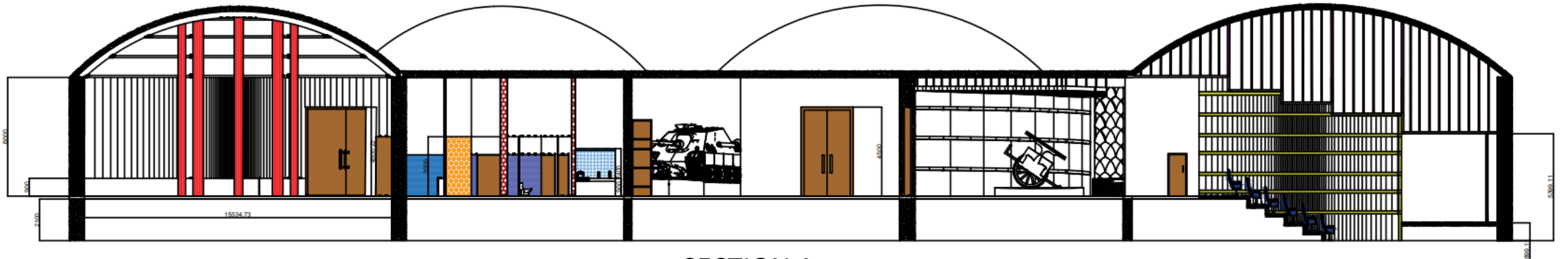
ELEVATION A



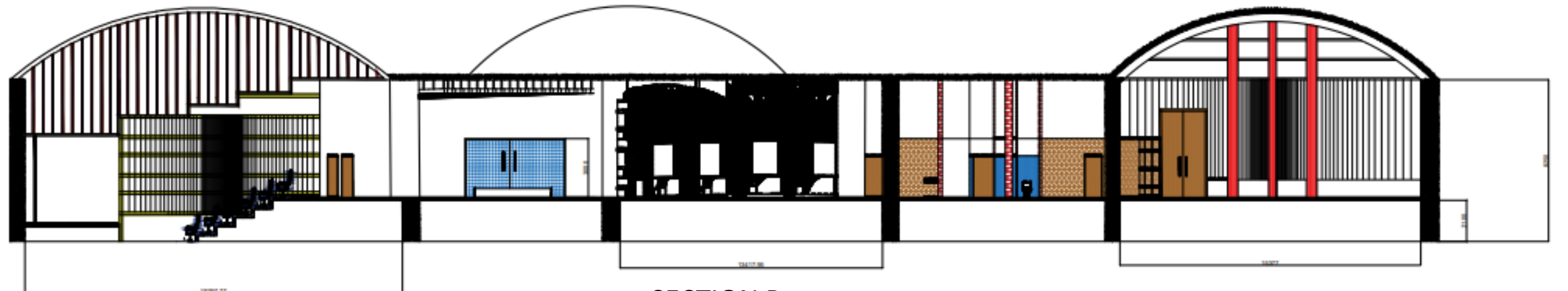
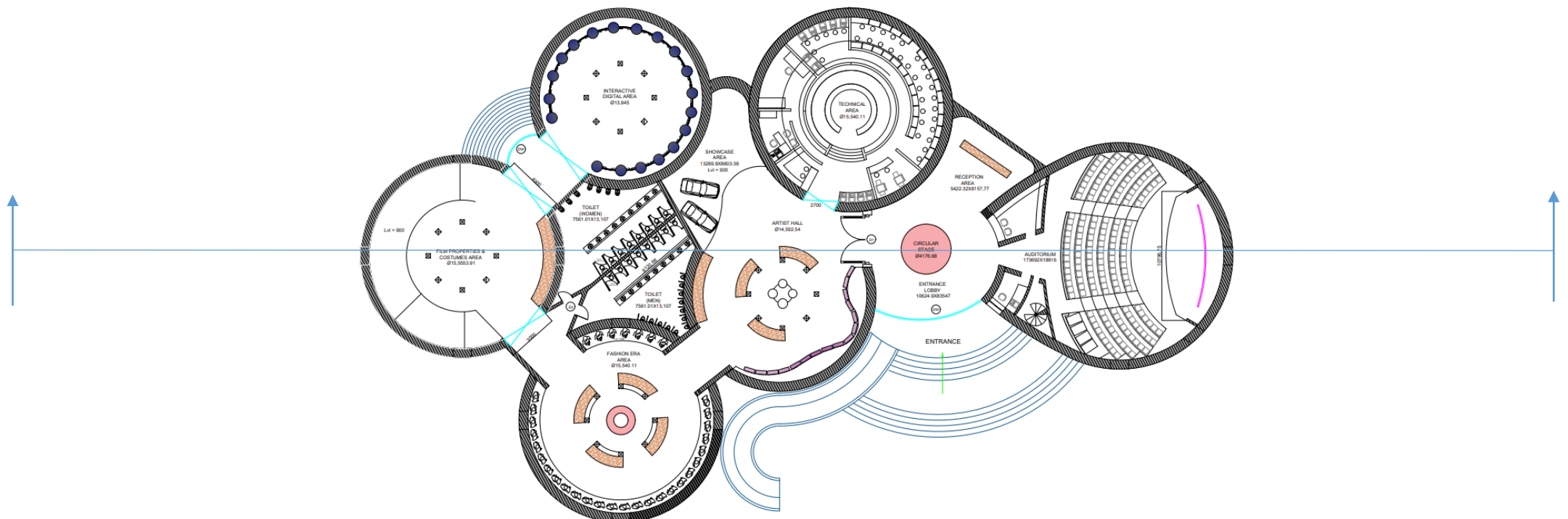
ELEVATION B



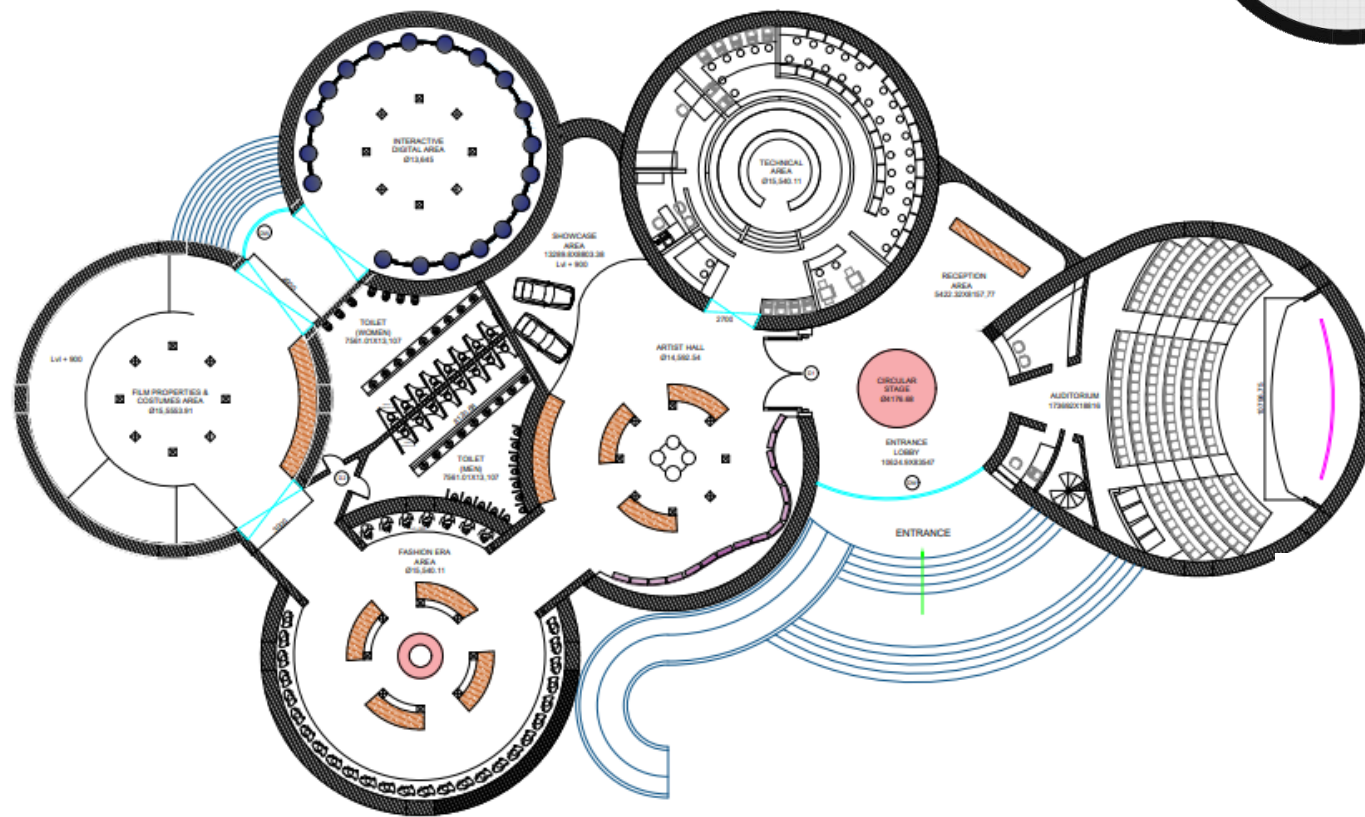
ELEVATION B



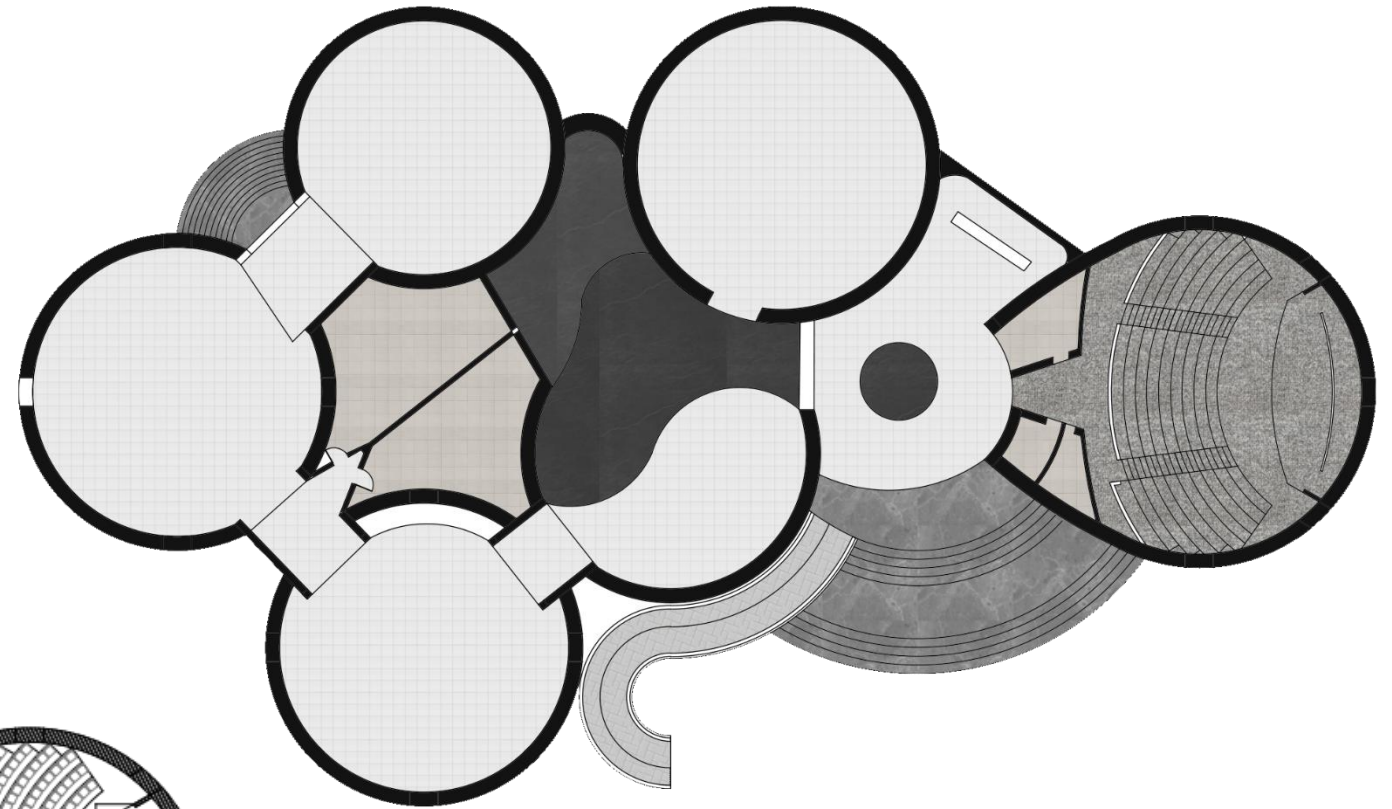
SECTION A



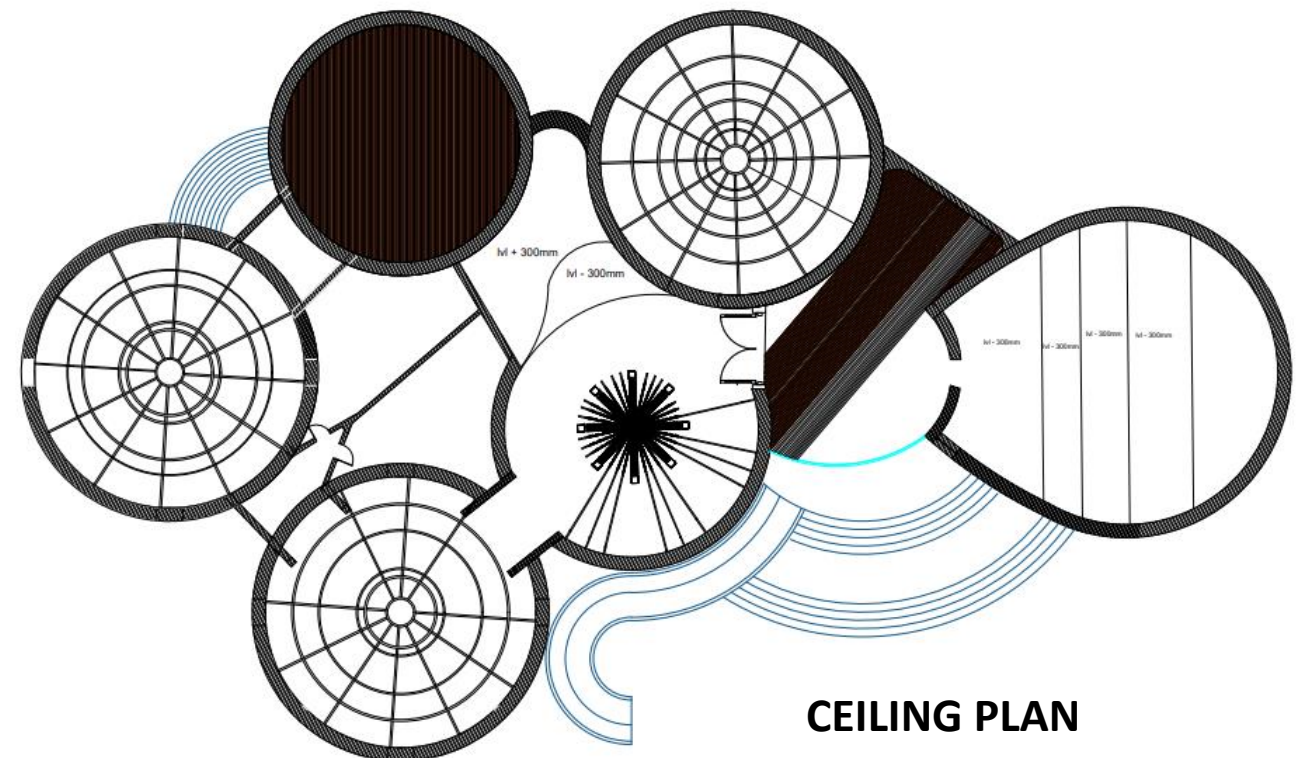
SECTION B



FURNITURE LAYOUT PLAN



FLOORING PLAN



CEILING PLAN