

**REINTERPRETING LEGACY OF MEHRAULI**

**THESIS**

*Submitted in partial fulfilment of the  
Requirements for the award of the degree  
Of*

**BACHELORS OF ARCHITECTURE**

By

**SHUBHAM MEHTA**



**GALGOTIAS**  
UNIVERSITY

SCHOOL OF ARCHITECTURE

GALGOTIAS UNIVERSITY

GREATER NOIDA

UTTAR PRADESH

# RE-INTERPRETING LEGACY OF MEHRAULI

Shubham Mehta

Bachelor of architecture

5<sup>th</sup> year, X semester

Guide: Ar. Ruchi Arora

## **CANDIDATE DECLARATION**

I hereby certify that the work that is being presented in this dissertation, entitled “REINTERPRETING LEGACY OF MEHRAULI” in partial fulfilment of the requirements for the award of the Bachelors of Architecture submitted to the School of Architecture of the Galgotias University Greater Noida, India, is an authentic record of my work carried out during the period December 2018 to May 2019, under the guidance of prof. Ar. Ruchi, Associate Professor of School of Architecture, Galgotias University, Greater Noida.

The matter embodied in this has not been submitted for the award of any other degree.

Place: Greater Noida

**Shubham Mehta**

Date:

Enrollment No. **1421101033**

---

## **CERTIFICATE**

This is to certify that the above mentioned statement made by the candidate is correct to the best of my knowledge.

### **Thesis Guide**

Ar. Ruchi  
Associate Professor  
School of Architecture  
Galgotias University  
Greater Noida, U.P  
India

### **Thesis Co-ordinator**

Ar. Ruchi

### **Dean SOA**

Prof. Atul Setia

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# CHAPTER 1

*Hazrat e Dehli kanf e adl o daad  
Jannat e adan ast ke adaad baad....*

*Hazrat e Dehli is an emblem of justice and charity  
A garden of heaven flourishes and will remain forever....*

*(Amir Khusrau)*

# 1 INTRODUCTION

Mehrauli is the oldest of Delhi's cities. Once the thriving capital of the Tomar and Chauhan dynasties and the Dar-ul-khilafat of the slave dynasty, today it lies forgotten. Its congested lanes and crumbling ruins are lost in a mishmash of history and modernity, the living and dead rubbing shoulders with each other.

The history of India, the various relics and artefacts from every stage of its evolution, memoirs of art and drama if showcased and prized in this country, can become a source of good revenue as crowds are sure to flock to witness these famous memorabilia.

The most renowned and visible feature is the Qutb Complex which is a protected UNESCO World Heritage Site. Others include the Mausoleum or Dargah of Khwaja Qutbuddin Bakhtiar Kaki who was a 13th Century Sufi Saint that is situated near the Qutub Minar Complex and is also a venue for the 'Phoolwalon-Ki-Sair' Festival celebrated every year.

Mehrauli also homes the Tomb of Balban and the 'Tomb of Khan Shahid' [Balban's son] which is situated close by in Mehrauli Archaeological Park. Khan Shahid died before he was crowned as the Sultan. The 'Rajon Ki Bain Baoli' or Step-well is another beautiful feature in Mehrauli. This Baoli was constructed in 1506 AD during the reign of Sikandar Lodhi with the primary purpose to store water in those days, however, today; it is completely dry and hence renamed as 'Sukhi Baoli' or 'dry Step-well'.

Another historical feature in Mehrauli is the Jamali Kamali Masjid that was built in 1528 AD in honor of Sufi Saint Shaikh Hamid Bin Fazlullah who was also known as Jalal Khan or Dervish Shaikh Jamali Kamboh Dihlawi. His Mausoleum that was built in 1536 AD is situated adjacent to this mosque. Other monumental features in this region include the Tomb of Adham Khan also known as 'Bhulbhulaiyan', the Tomb of Mughal General, Muhammad Quli Khan [later converted into Metcalfe House or Dilkusha by Sir Thomas Metcalfe], Sultan Ghari's Tomb, Madhi Masjid entrance gateway, the bastion of 'Lal Kot Fort', Zafar Mahal, Bagichi Ki Masjid, Mehrauli Archaeological Park.

An interpretation center is a place where everyone, with or without qualification, can enter and be inspired by the stories and tails of our past and present.

## 1.1 ABOUT THE CITY

Delhi is an amalgamation of many cities built at different times in its thousand-year history, and it is this history that has been its fascination for its citizens and visitors for centuries.

Mehrauli was originally known as ‘Mihirawali’ that means ‘The Home of Mihir’. It was founded and named after King Mihir Bhoja of the Gurjara-Pratihara Dynasty and is situated in the outskirts of Delhi.

Mehrauli is one of the seven ancient and medieval cities that form the present city of Delhi.. Historically, the first ancient city, ‘Lal Kot Fort’, was constructed by Anangpal I, a Gurjar Tanwar Chief around 731 AD that was later expanded by Anangpal II during the 11th Century AD. During the 12th Century AD, ‘Lal Kot Fort’ was further expanded by Prithvi Raj Chauhan after he defeated the Gurjar Tanwars Clan and took command over the City.

He renamed the City as ‘Qila Rai Pithora’. Delhi region during the first millennium AD there is very little left to visit from this period. The fragments of the building left from the Rajput era are **Suraj kund, lal kot (qila rai pithora)**. Later, the Rajputs were defeated by Mohammed Ghori in 1192 AD, who in turn handed over the administrative charge of the City to his General, Qutb-ud-din Aibak and then returned to Afghanistan. This battle laid the foundations of the Muslim rule in Northern India and the commencement of the Delhi Sultanate reign. *Mehrauli is distinguished by its historical past and showcases exquisite monuments and architectural insights*. It remained as the capital of the ruling Dynasties up till 1290 AD after which, the Capital was shifted to ‘Siri Fort’ during the Khilji Dynasty

Despite the fact that the capital was shifted from this region to Siri during the Slave Dynasty, the other Dynasties who once ruled this place have definitely left a distinctive feature in terms of the architecture seen in this region.

Three of India’s thirty-six Indian UNESCO world heritage sites are in Delhi and there are approximately 1,200 other monuments listed in INTACH’s (Indian national trust for cultural heritage) first survey. These buildings are in various states of repair some are well maintained, others are ruined: some are well loved and occupied, others are totally neglected.

Effectively, the real center of power shifted thrice, from the Mehrauli area to Shahjahanabad and from there to New Delhi.



Because the city has shifted from place to place over the centuries it is logical to follow the old-fashioned dynastic periodization when discussing the architecture. To some extent, dynastic changes led to a shift in style.

## **1.2 THE PROPOSITION AND RESEARCH**

Interpretation centre are new type of museum which are associated with visitor centre, and located at historical, cultural or natural site.

Interpretation centre use different type of medium to enhance the understanding of heritage. Types of medium could be graphic display, audio-visual, theatre, video, computer graphics, animatronics, tableau and reconstruction.

### **1.2.1 Aim**

*Reviving and interpreting the tangible and intangible heritage of Mehrauli.*

The thesis is a study of the historical and cultural heritage of Mehrauli, to find out the tangible and intangible aspects of the heritage and interpret them into a physical environment so that experience them spatially.

The project would act as an enhancement to the value of the past and the present. Interpret the intangible heritage of the Mehrauli, as exhibiting object from era might not be sufficient. It would be a reflection of socio-cultural life of the past. To create awareness about the city's rich historical and cultural heritage in order to make Mehrauli a successful, tourist-friendly and attractive destination.

An effort to bridge mishmash of history and modernity with the object displayed or by explaining the intangible aspects with the aid of different modes of media. This would help visitors understand the objects for the display in depth thereby adding more value to the exhibits.

The project is envisioned to develop as a cultural hub thereby evoking a sense of unity, perhaps through architectural elements, form or spatial configuration. Thus, interpretation Centre would play a critical role in preserving the value of the past and nurturing the values of the present and the future of the city.

The interpretation center will be interactive, with multiple exhibits and multimedia display. Boasting galleries depicting the history, culture, and architecture.

Visitor centers are distinctive purpose-built tourist facilities and their multiple functions are important in fostering sustainable regional tourism.

### 1.2.2 Area of research

- ***Understanding the heritage of Mehrauli.***  
Mehrauli being heritage center with more than 70 registered monuments it very important to promote the heritage of the oldest Islamic complex.
- ***The amalgamation of historical/classical principle and modern architectural language***  
Intend to research and learn about the various principles of Indo-Islamic architecture and contemporary modern architectural language. The response3 to a historical monument context which merges and respects the landscape yet maintain it's marked in contemporary design incorporating technological advancement.
- ***The architecture of an interpretation center with state-of-the-art museum display techniques in order to develop as a hub for dialogue and cultural exchange.***  
I am intend to learn about architecture as a medium for the creation of a cultural center which educates it's visitors about the heritage and acts as an active urban node where people exchange ideas.

## 1.3 THE RELEVANCE OF THE THESIS

Mehrauli archaeological park has evolved into a recognizable city icon, only a fraction of the city's population is fully aware of the site's significance. The center aims to inform its visitors of the historically, culturally and naturally rich setting of the Mehrauli archaeological park. It will acquaint the tourist about the history of the area, monument and its evolution before they visit the original splendor.



*Figure 1 vandalism of historic architecture elements*

Miss use of the artefacts. People sitting on the capital and the stones of the column.

Mehrauli archaeological park has enough ‘visitor attraction’ to engage visitors from 2-hours to 2 days there are many heritage walks which happen in the parks. Starts from bulban’s tomb.

The culturally rich setting of Mehrauli area, the centre will be a window to over millions tourist coming to the site for showcasing the balban’s tomb, the tomb of Shahid Khan, stepped Rajon ki baoli, bagichi ki Masjid, ruins.

#### **1.4 THE PROJECT (OBJECTIVE)**

To inform people about Mehrauli archaeological park. Centre will focus on bringing alive the legacy of pluralistic cultural traditions, art and architectural history of the Mehrauli area in a meaningful, elegant and entertaining manner, appealing to a cross-section of visitors, from school children to international tourists. Enhance visitor experience and understanding of the Mehrauli archaeological park. A center for learning for the 300,000 annual school children visits. In response to a dramatic increase in visitors to Qutub complex in Delhi.

The Centre’s aims include a better understanding of Islamic architecture, its associated building craft traditions, and the development of the Mehrauli area’s pluralist cultural traditions.

The project is expected to enhance the quality of tourism-related functions and in return increase the inflow of tourist. Moreover, the project is to facilitate the local craftsmen and artists in providing them a platform to produce better quality artifact's learn and share skills exhibits their work eventually marker it.

## 1.5 NEED FOR PROJECT

Mehrauli archaeological park has evolved into a recognizable city icon, only a fraction of the city's population is fully aware of the site's significance. The center aims to inform its visitors of the historically, culturally and naturally rich setting of the Mehrauli archaeological park. It will acquaint the tourist about the history of the area, monument and its evolution before they visit the original splendour.

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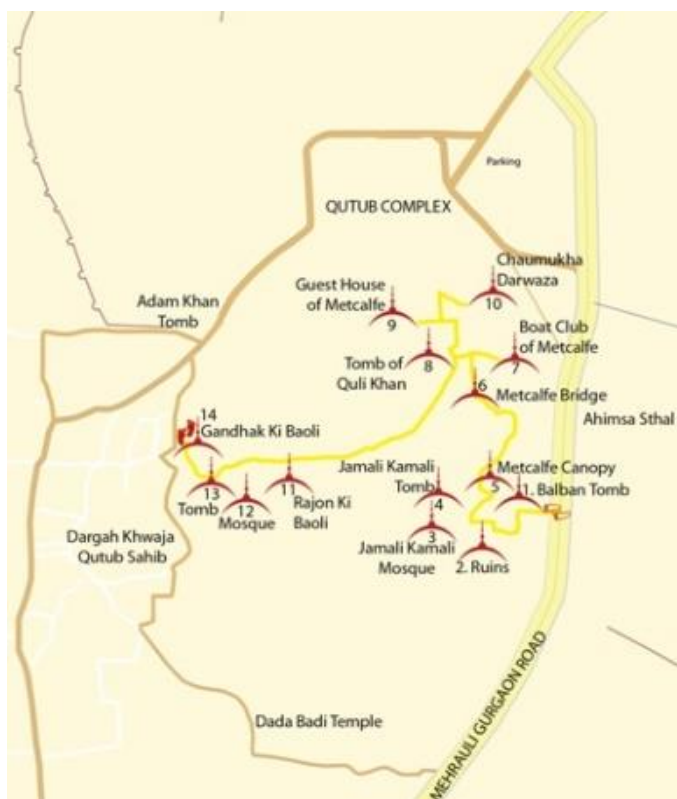


Figure 2 Heritage walk route

<sup>1 1</sup> <http://delhi.gov.in>

There are many heritage walks conducted by various foundation, trust, organisations and Delhi tourism. Which cover the whole Mehrauli with walk and cycle tours as well.

## **1.6 DESIGN CONCEPTION AND PROCESS. (METHODOLOGY)**

As per the definition of UNESCO, **intangible cultural heritage** include oral traditions, performing arts, social practices, rituals, festive events, knowledge, intangible and practices concerning nature and the universe or the knowledge and skills to produce traditional craft.

### **1.6.1 Activity definition**

Taking different perspectives, the residents and the visitor, the expectations from an interpretation center and historical-cultural definition of heritage may vary. The resident who have absorbed the cultural and behavioral practices may seek to inform themselves about their bases and the visitors, aware of the culture of the place through literary means, exhibits and installation might seek to experience these practice at a personal interactive or live level.

In this case, the historical and cultural resource may be in the form of experiences, artifacts, information, literature, art-craft local food and much more.

### **1.6.2 Process**

Initiating with some case studies it will help in better understanding of **function, programming, zoning, design philosophy** behind the interpretation center. As it has a relevance to the interpretation center at the Humayun's tomb. By studying the complexes in the context which will help me understand the need for design and will serve as standard guidance.

- **Study site condition-** location/surrounding, land area and configuration, climate, access, landform, topography, geography, soil type, vegetation, atmosphere, existing structure.
- **President study-** case study of related building typology its function, orientation, engagement with the citizen. i.e- the study of interpretation center Humayun tomb, Qutub shahi tomb complex interpretation center,
- **Critical analysis-** comparing the case study with the brief of the project.
- **Conceptualizing-** understanding the context and designing concepts.
- **draft design-** initial drafting.
- **finalizing designing-** finalizing detailed designing sheets



## 1.7 SITE

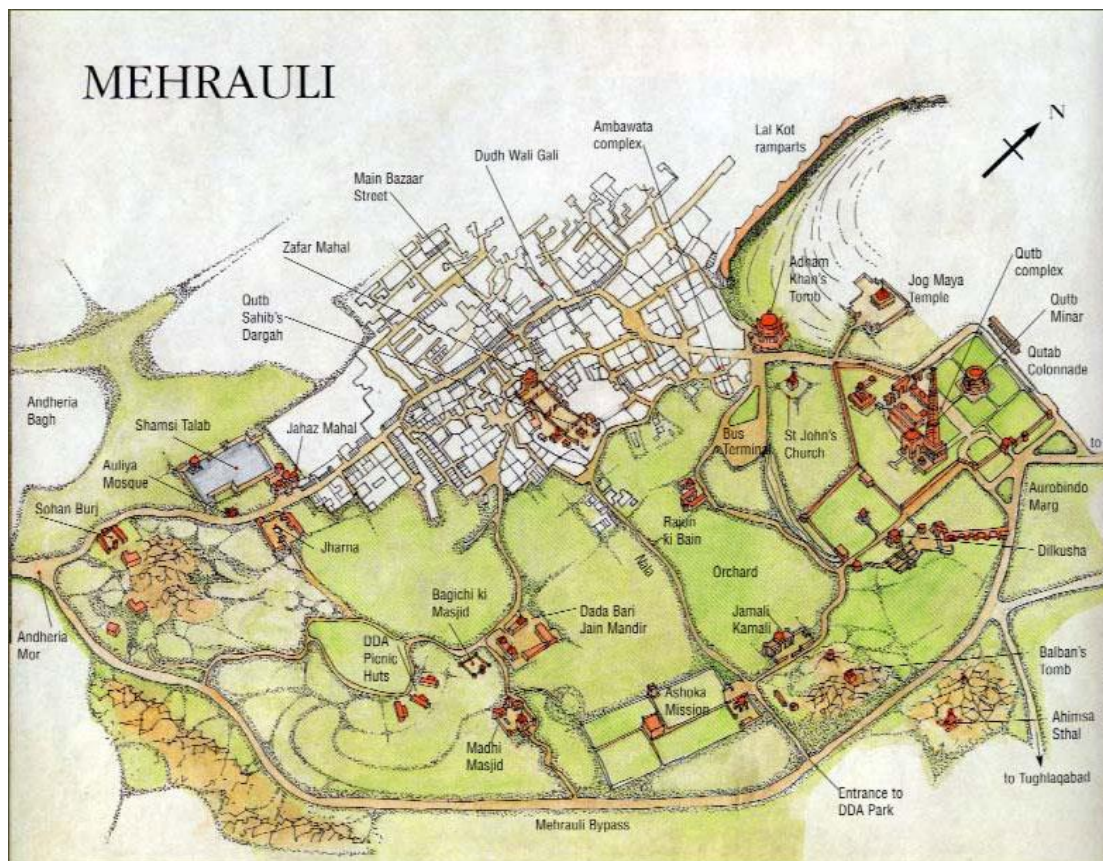


Figure 3 Mehrauli monuments

2

As per ministry of tourism, the government of India under the Swadesh darshan scheme has launched ‘**development of iconic tourism site in India**’ project 17 tourism sites in 12 clusters of international acclaim have been identified to be developed in a comprehensive manner. Out of which Qutub minar is listed at fourth places to be developed with allied services. INTACH is asked to define a boundary to Mehrauli archaeological park which is also a DDA land and to suggest a site for interpretation center as done in Humayun's tomb. So, a Purposed site for interpretation center is a 10-acre land which faces Aurobindo Marg. In front of Qutub complex and easily connected with bulban's tomb which is the starting point for heritage walk's conducted by many organizations i.e Delhi gov., intach Delhi chapter, icomos. The site is easily accessible from Saket metro station and Qutub Minar metro station. There is a bus stand lado Sarai crossing in front of the site which makes it convenient for people to visit. The idea of

<sup>2</sup>[google.com/maps/place/Mehrauli+Archaeological+Park](https://www.google.com/maps/place/Mehrauli+Archaeological+Park)

proposing this site is because of facilities available around. **The proximity, accessibility, and relevance** of the site.

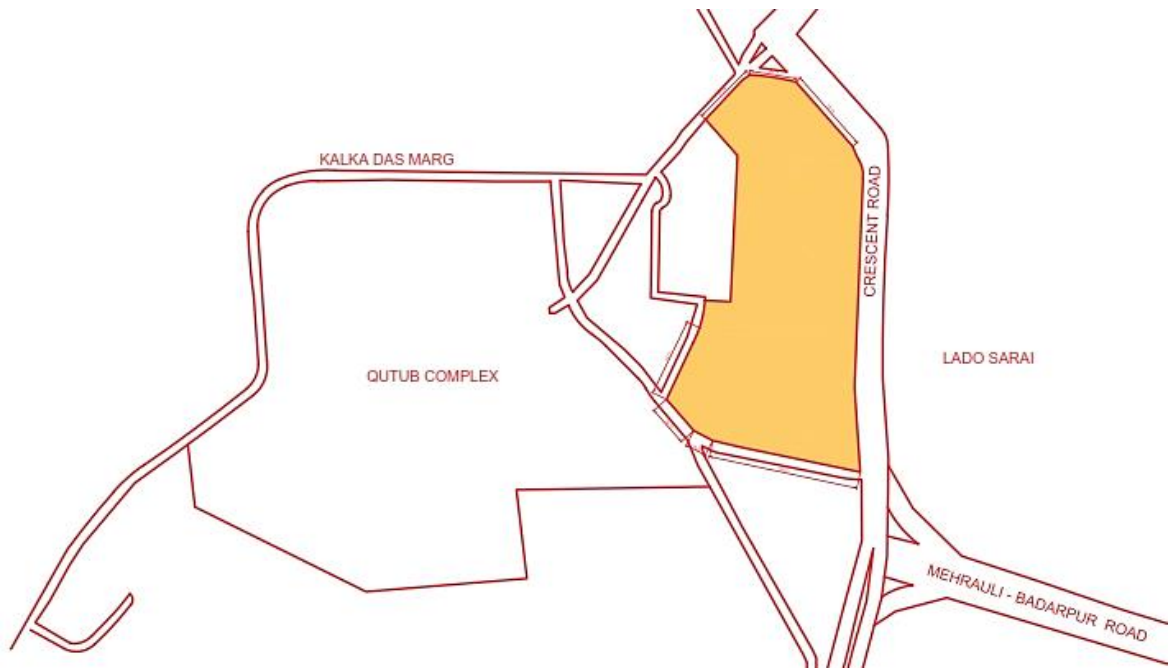


Figure 4 Proposed site

SITE	AREA	IS	43,970	SQM	(10.08	ACRES).
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## CHAPTER 2

*Waqf hai uske liye jaan e azeez  
Kaabe ke khadim o shaidaaii ki....*

*My life is an endowment of my beloved  
The divorce and lover of the scared shrine....*

*(Meera bai)*



## 2 LITERATURE STUDY

### 2.1 THE ARCHITECTURE OF THE QUTB COMPLEX

A UNESCO World Heritage Site, the Qutb Minar Complex is dominated by the early thirteenth century stone tower, towering above the horizon. It was once part of the first urban complex in Delhi, Lal Kot, built by the Tomar Rajput rulers. Following the victory of Mahmud of Ghazni over Prithviraj Chauhan, the Turk rulers of Delhi constructed the major structures that still exist here today. As you enter the complex, you cross the almost totally collapsed outermost wall of the Quwwat-ul-Islam mosque, constructed by Alauddin Khalji.

The Alai Darwaza on the left formed part of Alauddin's wall and was designed as the entrance to the mosque. The Qutb Minar was started by Qutbuddin Aibak, who only saw the construction of the first storey during his lifetime. What you see of the Qutb today is the result of additions made by his successor Iltutmish and later by Firoz Shah Tughlaq. Sikandar Lodi too made repairs to the structure in the sixteenth century.

The British attempted to replace a fallen cupola, but this was so inconsistent with the rest of the minaret that it was removed and now forms part of the complex. The wondrous

Iron Pillar, the unfinished Alai Minar, and the tomb of Iltutmish are some of the other structures in the complex.

### 2.1.1 Tomb of Imam Zamin



*Figure 5 Tomb of Imam Zamin*

East of the Alai Darwaza stands the tomb of Imam Zamin. A native of Turkestan, Zamin came to India during the reign of Sikandar Lodi (AD 1488–1517) and probably discharged important duties in connection with the Quwwat-ul-Islam Mosque. This striking tomb is typical of the Lodi period with sandstone piers filled in with lattice Screens. The square chamber is surmounted by a dome of sandstone covered with plaster, rising from an octagonal drum.

## 2.1.2 Quwwat-ul-Islam mosque



*Figure 6 Quwwat ul Islam Mosque*

Jami Masjid, later called the Quwwat-ul-Islam ('Might of Islam') Mosque, was the first mosque built in Delhi after Islamic conquest at the end of the twelfth century. Founded by Qutbuddin Aibak, the mosque acquired its first set of boundaries over the remnants of twenty-seven Hindu-Jain temples that were demolished deliberately as an act of war to establish the power of Ghurid Turk rule in Delhi. The mosque was extended after Aibak's death by Iltutmish in the year 1230. Extension of the western screen wall from either side resulted in a space almost double the size of the original mosque.

These extensions reveal an apparent maturity in both design and detailing, being stylistically more geometric than the ones erected during Aibak's rule. Further additions by Alauddin Khalji (AD1296–1316) in the later part of his reign led to a substantial expansion of the mosque and other distinct structures within the entire complex. The colonnades possibly served as temporary shelters and the double story enclosures along the corners seem to have exclusively served the royalty or perhaps more particularly the women for both independent and community prayers.

### 2.1.3 Qutb Minar

The foundation of this world-famous heritage tower known as the Qutb Minar was laid



Figure 7 Qutub Minar

by the Qutbuddin Aibak of the Mamluk dynasty tower the end of the twelfth century.

The construction was interrupted at the first story by his death, and the remaining three stories were completed in matching material and style by his successor Iltutmish commonly known as Altamash in (A.D 1230 in A.D 1368) the Minar was damaged by lighting later Firuz Shah Tughluq (A.D

1351 – 1388) replaced the top storey by the existing two storeys faced with marble Sikandar Lodi (1489 – 1517) also executed some repairs to the Minar in A.D 1503, when it was again injured by lighting.

The tower has a diameter of 14.32 meter at the base and about 2.75 meters at the top with a height of 72.5 meters and ascended by 379 steps, it is the highest stone tower in India. And a perfect example of minar to exist.

The variegated plan of its stalactite pendentive brackets and an ornate band of the inscription on its façade heightens its decorative effect.



### 2.1.4 Iron pillar



*Figure 8 Iron Pillar*

standing, but not long past. The Iron Pillar dates back even further than the ruined Islamic building, which surrounds it, but the iron pillar gives away nothing of its age on first glance.

Iron Pillar at Mehrauli has a height of 7.2 meters. It stands on an artistically carved base with a diameter of 48 cm and a weight of 6.5 tonnes. The upper part of the pillar, which narrows slightly at the top, is around 29 cm wide at the tip. Iron pillar that is located in the Quwwat-ul Mosque. It weighs more than 6 tons and is made of 98% wrought iron. It is thought that the Iron Pillar of Delhi was crafted using forge welding. It stands around the Iron Pillar in ruins, giving away its great age.

The mosque is a relic of an Islamic India, long-

### 2.1.5 Alai Darwaza



Figure 9 Alai Darwaza

The Alai Darwaza was conceived to be the main gateway to the ambitious extension of the Quwwat-ul-Islam Mosque undertaken by Alauddin Khalji in the early fourteenth century. Its four gateways, forming a square, are covered by a wide bulging dome with a central knob, resting on horse-shoe shaped arches. Finished in red sandstone and marble, the entire gateway except the dome is richly carved with geometrical patterns and inscriptions in *naskh* characters; the arches are decorated with a lotus bud fringe on the underside—features that seem to be an influence of West-Asian traditions. Its elegant proportions and excellent decorations Make Alai Darwaza one of the finest examples of the early Sultanate style of Architecture in India.

### 2.1.6 Alai minar



*Figure 10 Alai Minar*

The **Alai Minar** is an unfinished tower in the Qutub Complex, construction of which was started by Alauddin Khalji. Sultan Ala-ud-din Khalji also executed the plan and increased the size of the enclosures of the Quwwat-UI-Islam Masjid by four times its original size to provide a ceremonial entrance gateway on either sides of the mosque. He wanted the Alai Minar to match up with the size of the increased height of the mosque and also wanted a second tower of victory under his name and hence the Alai Minar began to take its shape. The construction was completed up till the first storey and at a height of 24.5 metres but unfortunately, the construction was abandoned after the death of Sultan Ala-ud-din Khalji in 1316 AD and the subsequent successors could not continue the further construction as they were defeated and the Delhi Sultanate was taken over by the Tughlaq dynasty.



### 2.1.7 Khwaja qutbuddin Bakhtiyar kaki



*Figure 11 Khwaja Qutbuddin Bakhtiyar Kaki*

The Qutb Sahib Dargah is considered to be a very sacred place by pilgrims of different religions. The shrine is a favorite to locals and people irrespective of religion visit the dargah every day to pay homage to the great Sufi saint. However, Fridays and Thursdays are also special days to visit and experience the qawwalis night and celebration in the dargah. The dargah is the venue of his annual Urs and Phool Walon Ki Sair festival. The Urs is celebrated with high regards. The entire dargah complex is beautifully decorated with flowers, sparklers and fairy-lights and Qawwali mehfil are held all night long. The dargah also boasts of a still continuing association with the dargah of Hazrat Moinuddin Chishti at Ajmer every year, devotees of Hazrat Chishti begin assembling at Hazrat Kaki s dargah almost a month before Hazrat Chishti s Urs celebrations. Hazrat Chishti had it proclaimed that visit to his tomb complex would be incomplete without first visiting Hazrat Kaki s tomb complex, hence these devotees begin assembling here and wait for the full moon night when the date of Hazrat Chishti s Urs date is decided upon according to the traditional lunar calendar following which they proceed on foot to Hazrat Chishti s Dargah - every mendicant, saint and devotee in this colorful congregation is armed with a wooden stick topped with a fluttering green flag and hence it is known as the Festival of Sticks Chhadiyon ka Mela . According to popular Sufi believe the tomb of a holy man sanctifies the area around it and a burial in



the vicinity can provide a short cut to heaven. It is said that if a pilgrim who truly believes in the saint, makes a wish and ties a thread near the grave, his wishes will be fulfilled. After the fulfilment of the wish, the pilgrim should return to thank the thread and untie the thread. Women devotees are not allowed in the courtyard where the tomb stands and most of them can be seen sitting and praying next to white marble lattice screens, which separate the visitors from the central courtyard

### 2.1.8 Jamali Kamali tomb and Mosque



3

Figure 12 Jamali Kamali tomb

The Mosque of Jamali Kamali has a single central dome and is elaborately ornate accompanied with stuccowork depicting a blend of the architectural styles of Moth Ki Masjid and Sher Shah Mosque made of red sandstone and marble ornamentation. As you enter, the Mosque welcomes you through five arched openings of which the central arched opening is higher than the rest and is flanked by a shallow rectangular feature projecting from a wall imitating the form of a column. As you turn towards the western wall, you will notice richly decorated inscriptions from the Holy Book of Quran and a narrow gallery that runs along the walls of the mosque leading to the second storey that reveals three bay or oriel windows. The Front of the Prayer Hall is elaborately decorated

<sup>3</sup> Delhi tourism

with lotus buds pendent below the parapet while the rear corners of the Mosque are dressed with octagonal shaped towers.

Within the same complex and north of the Mosque, you can approach the Tombs of Jamali and Kamali that lies within a huge garden and courtyard. The Tomb has a flat dome and is built in the form of a square chamber measuring 7.6 Sq. Mts. It houses two graves made of marble, one which belongs to Saint Jamali and the other belongs to Kamali whose identity is still unknown even today but may have been associated with Jamali during his lifetime. The square chamber depicts ornate stuccowork and exquisite interior decor while the exterior is dressed in stunning blue coloured tiles engraved with verses composed by Saint Jamali himself.

The Tomb of Jamali Kamali and the Mosque are protected monuments maintained by the Archaeological Survey of India (ASI) and the amount of Rs. 15, 00,000 has been funded by the Government to restore and conserve these precious ancient masterpieces. Friday prayers and assembly gatherings have been prohibited within the Mosque in order to protect and conserve whatever is left of these ancient monuments, however, a few of the Muslim communities do force their congregation into these ancient Mosques to offer prayers which includes this Mosque and the famous Mosque within the Qutb Minar Complex in South Delhi.

Tourists and Visitors can visit the Mosque and Tomb of Jamali Kamali on all days from mornings up till evenings with no entry fee including free photography.

## **2.2 MUSEUM ARCHITECTURE DESIGN**

An architect is a professional who deals with the design, planning and construction of buildings.

The most important aspect of being an architect is his ability to transform an idea into reality. Before design a building an architect has to consider a lot of factors.

Designing a museum building could be considered especially challenging because of a museum's unique functions and roles and Society.

### **2.2.1 What are the primary rules of a museum now a days?**

Encouraging the spirit of experimentation invention and innovation informing and inspiring with knowledge and expertise Safeguarding valuable works of different time periods and Origins. Conversing and restoring works in the collection reflecting a relationship with society bringing attention to the normally and noticed aspects of life

travelling to time to tell stories from the collections facilitating conversation dialogue discussion and social interaction Challenging our normal models and perceptions

#### Display

Apart from relative Lee neutral display spaces such as conventional white cube galleries and screening room's reconfigurable spaces will also be needed for multipurpose facilities and flexibilities

#### Recreation

Open public spaces inside and outside the Museum invite visitors to enjoy themselves Deccan lie on the grass have a cup of tea with friends or simply enjoy being surrounded by stunning scenery

#### Learning

Various kind of learning and activities space will be available where visitors will learn all sorts of all sorts of new ideas

### **2.2.2 What kind of spaces does a museum building need?**

An architect has to design a range of spaces to accommodate the diverse specific and changing needs of a museum

#### 2.2.2.1 Administration

They must be working space for museum staff to curate, promote, and produce exhibitions and programs

#### 2.2.2.2 Creation

David B Studio space pop practitioners and visitors to express their creativity

#### 2.2.2.3 Research

Books and archival materials in the research centre are kept in depth study and research

#### 2.2.2.4 Conservation and storage

It must be built as a shelter to protect and preserve collections against extreme temperatures humidity insects and other threats

### **2.2.3 How to create an organised different spaces to facilitate circulation and activities within a museum?**

With the variety of activities going on the Museum functions like a small city. An architect never forgets the intent of an architectural design by envisioning the actual activities and experiences that will happen in the museum the architect will come up

within igneous building design that not only creates and architectural spaces but also a vital place with particular meaning for every individual.

#### **2.2.4 Where will the Museum building be located?**

Thinking of the context of time and place the building design should be responsive to the land upon which it will be situated and also be able to represent the era of its creation and beyond. The building should be helped define the museums role in the urban context its connectivity to its surroundings its accessibility and the arrival experience offered to its visitors.

#### **2.2.5 How to overcome limitations and develop an innovative Museum building design?**

As a design process advances complication in inevitably arises. An architect often has to overcome hindrances imposed by the site location and other factors architect who is fast on his feet would somehow find opportunities from challenges creating imposing forms that are striking yet remarkable in overcoming structural complication.

#### **2.2.6 What comes after how an architectural design be appreciated?**

The study of architecture encourages are critical Awareness of the built environment and enhances our appreciation and understanding of architectural and spatial design two collecting material such as drawings models photographs videos documents and other archival materials game records the history of people and their places encourages research in the field of architecture and prompts Reflection from our visitors about some of the broader issues facing our society

### **2.3 TYPES OF EXHIBITIONS:**

#### **2.3.1 Core Exhibitions**

Planned as part of the core concept structure or storyline of a museum, these exhibitions should use approaches that will not tire the visitor, that will not quickly look old fashioned and should use material that can endure them.

#### **2.3.2 Temporary Exhibitions**

These type of museums do not have to follow the museum's overall display policy and storyline and they offer visitor's a chance to see something new within a specific time span. They must use contemporary and innovative materials and presentation systems

### **2.3.3 Travelling or ‘Blockbuster’ Exhibitions**

Aims to provide the opportunity to see and experience the content to a large number of people, in different locations. The design of this type calls for flexibility in terms of layout, so that it can be fitted into different shapes and sizes of exhibition galleries of different institutions and ease of erection, maintenance, mounting, dismounting as well as ease of transportation between venues.

## **2.4 DESIGN OF THE MUSEUM (PLANNING, SPACE REQUIREMENTS)**

Although new buildings are comparatively rare, there is much work in converting, refurbishing and upgrading existing museums and galleries.

Museums and galleries are often housed on historic buildings and are, as such, major exhibits in their own right. Birmingham’s Gas Hall Gallery (1993) by Stanton Williams, for example, was originally an Edwardian municipal hall.

### **2.4.1 The Client:**

The client is likely to be the museum curators or conservators who have the objects to display and know all about them. Access to such specialist knowledge is important to the design process.

### **2.4.2 Design issues and criteria:**

Space requirements are governed by the size of the collection, the method of display, the size of the artefacts and the projected rate of growth of the collection. Generally, larger artefacts require significantly more display space if their full impact is to be communicated.

High capacity floor loading is an important consideration for locations of heavy items in exhibition and storage areas, and has to be provided for anticipated numbers and likely distribution of visitors.

### **2.4.3 Typical schedule of accommodation:**

This includes exhibition rooms, auditorium, multiple-use event spaces, library, shop, workshops, conservation areas, offices, cafeteria, etc.

Shop: should be accessible without having to enter the museum gallery. At the same time, it should not be too dominant; shoppers have to be reminded where the shop is.

Resource centre: in main gallery space or store area, where researchers can handle and examine objects under controlled environmental conditions and approved supervision.

High-quality lecture spaces and seminar rooms: extra income as conference suites.

#### **2.4.4 Special temporary exhibitions:**

These are important in attracting visitors to museums, which therefore need to provide good facilities for such events. Particular needs are for workshop access with clear wide access to the gallery, and also provision for deliveries, from the street, of construction materials and loaned objects in large crates.

#### **2.4.5 Utilisation of floor space:**

The average ratio of gallery to non-gallery space in the UK is 48:52, with permanent displays taking up 40% of the total area. Non-gallery space includes areas devoted to storage, curatorial activities, visitor facilities and education.

#### **2.4.6 Storage:**

Compact mobile shelving reduces storage space. Storage space required should be calculated on the basis of the volume of all objects in the collection with allowances for planned annual growth and unplanned donations (15% extra space).

### **2.5 ACCESS AND CIRCULATION (PLANNING, PUBLIC SPACE AND ORIENTATION)**

#### **2.5.1 Entrance:**

This can be accessible and democratic or ceremonial and imposing. An entrance at ground level is welcoming, particularly if combined with an open, diaphanous (rather than a closed, bastion like) appearance to the public; on the other hand, the ascent of a monumental staircase makes entering the building a ceremony.

#### **2.5.2 Visitor orientation:**

A very important aspect of museum design; the visitors need a clear idea of the layout of the exhibition rooms.

#### **2.5.3 A central atrium:**

Interconnecting all the rooms with a central atrium enables visitors to orient themselves and choose the rooms they wish to visit.

#### **2.5.4 Access for people with disabilities:**

The building should accommodate the needs of people with any kind of disability.

Entrance: Ideally the building should be accessible to all through the main entrance.

Where there are conservation constraints with an historic building, changing the main



point of entry for everyone can avoid the need for harmful alterations. Otherwise a separate route for wheelchair and others may be necessary.

**Circulations:** If possible all visitors with or without disabilities, should use the same routes throughout. Where space permits, the preferred method of changing levels is a ramp. Otherwise provide a lift device, independently operable: -stair lift or, better still, a platform stair lift for wheelchair users – vertical hydraulic-type platform lift – stair climbers for wheelchair users (this is a last resort as it does not allow independent access).

WCs for disabled users at all levels.

**Staff needs** Access is required for staff with disabilities to all offices and stores, with accessible toilet facilities on the office level. This would open up this areas to disabled students, researches and colleagues from elsewhere wishing to study items in store.

## 2.6 LIBRARY

**Collection space** – to take account of books (open access and closed), periodicals (display and back issues) and non-print resources. Digital resources may need some space allocation. Electronic workstation space – for staff use, public use in the main areas as well as in meeting room areas. A public access catalogue used from a seated position requires 4 m .User seating space – at tables or alone. Plan for 5 seats per 1000 users. Table seating requires 2.5 m<sup>2</sup> per reader, a study carrel, and lounge chairs 3–4 m. A useful average is 3 m per seated reader.

**Staff work space** – including areas in the public part of the library and separate work room facilities. Fifteen square meters per staff work area (e.g. issue counter, help desk) is a good planning guide.

**Meeting space** – including conference space, a lecture theatre or a room for children's activities. Space would also need to be allocated to other functions like cafes with storage space for equipment.

**Special use space** – e.g. a local history room, job centre, tourist information centre or special collection with appropriate facilities for users to access the material.

**Non-assignable space** – including toilets, stairs, lifts, corridors and space required for heating or other systems on which the library depends. In general, non-assignable space accounts for between 20 and 25% of the gross floor area of a typical library.

## CHAPTER 3

*Rahta hai ibaadat mein humein maut ka khatka  
Hum yaad e khuda karte hain, kar le na khuda yaad....*

*In the midst of my prayer, death stays on my mind  
I remember God, lest God remembers me....*



### 3 CHAPTER 3: DATA COLLECTION

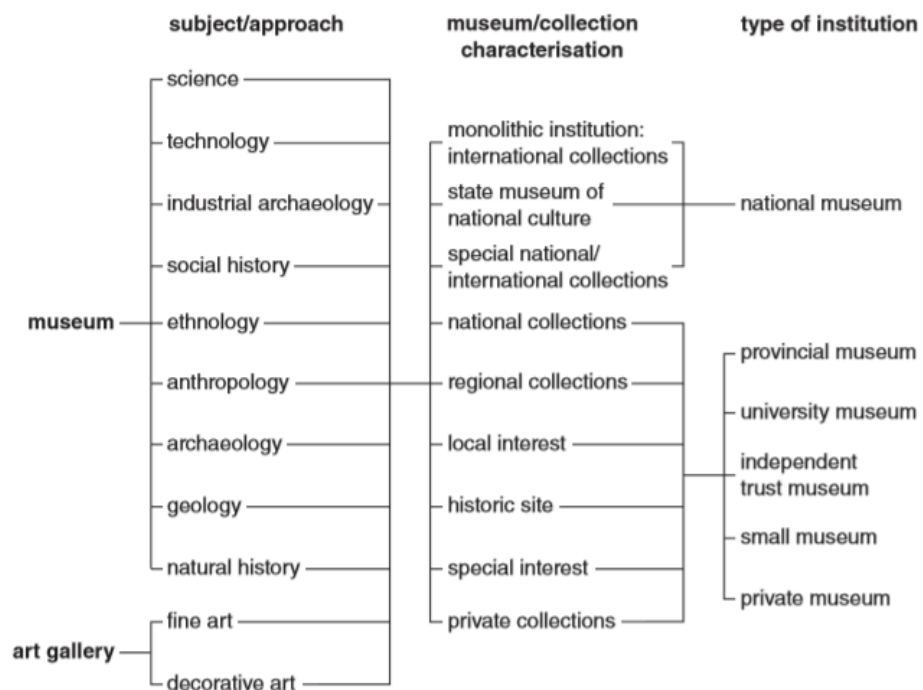
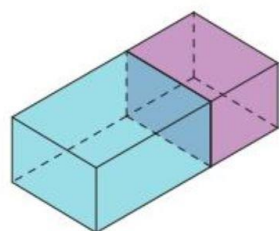
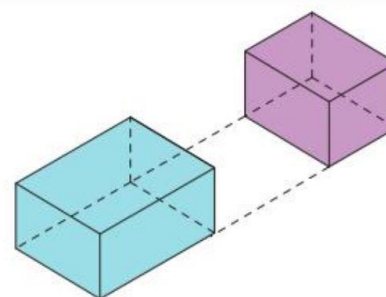


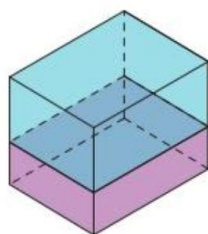
Figure 13 Typology based on musicological approach / interpretive discipline; collection characterisation; and institution



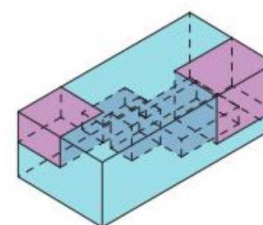
Horizontally divided



Spatially divided



Vertically divided



Mixed-use

Figure 14 Space division

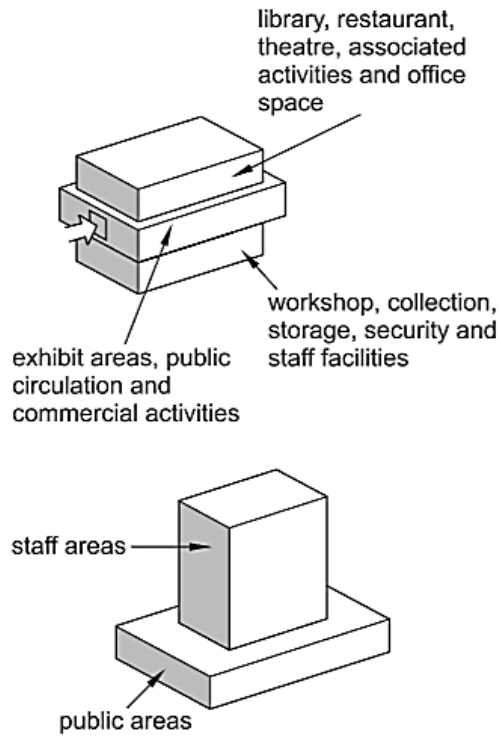


Figure 15 Two basic massing concepts that allow public area to be organised on one level

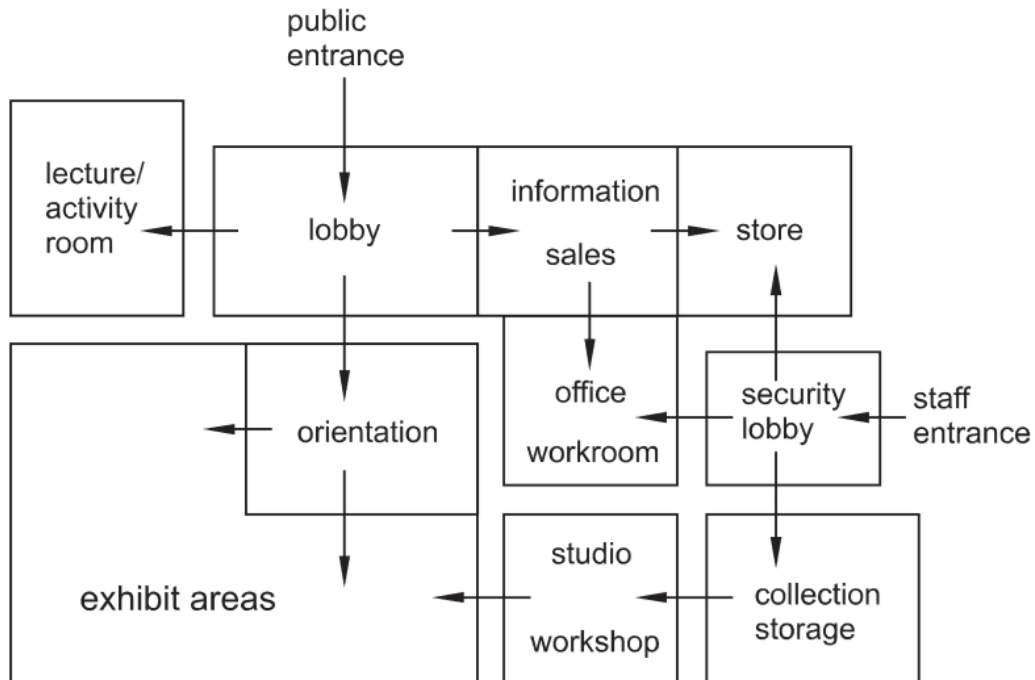


Figure 16 A possible layout diagrams for a small museum

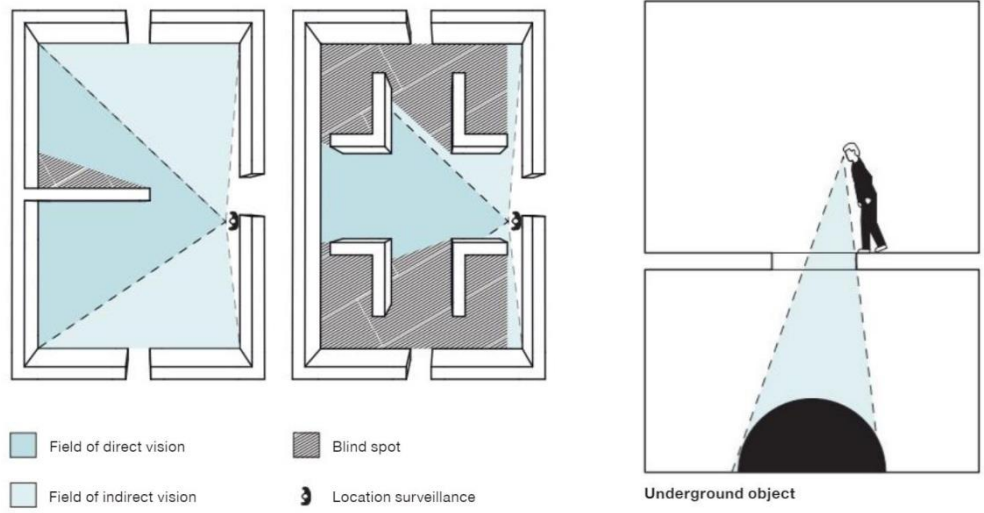
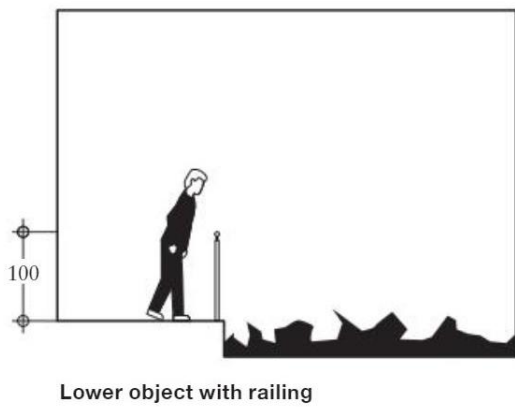
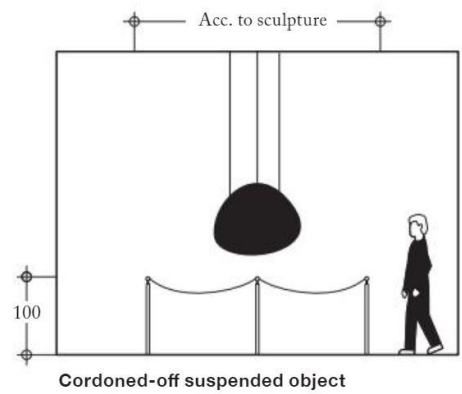


Figure 17 Blind Spots



Lower object with railing

Figure 20 Cordoned off Suspended object



Cordoned-off suspended object

Figure 18 Figure 24 Underground object

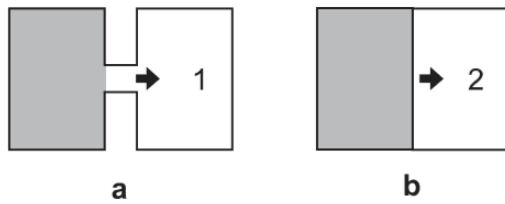


Figure 19 Lower object with railing

Figure 21 Three modes of expansion: a Block addition, b Extension, c new building

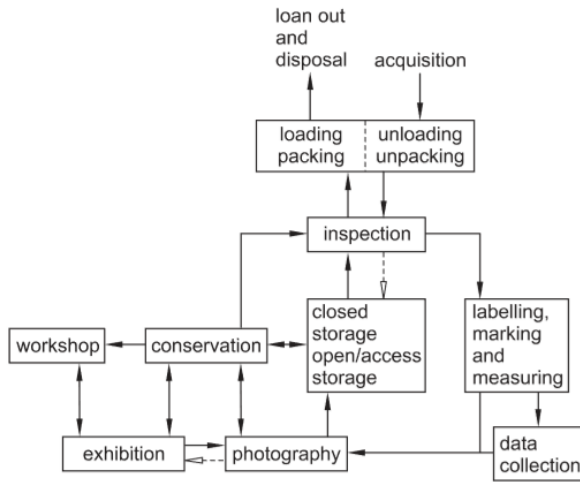


Figure 22 Flow diagram of collection item movement in the operation of collection services: exhibition, conservation and collections management

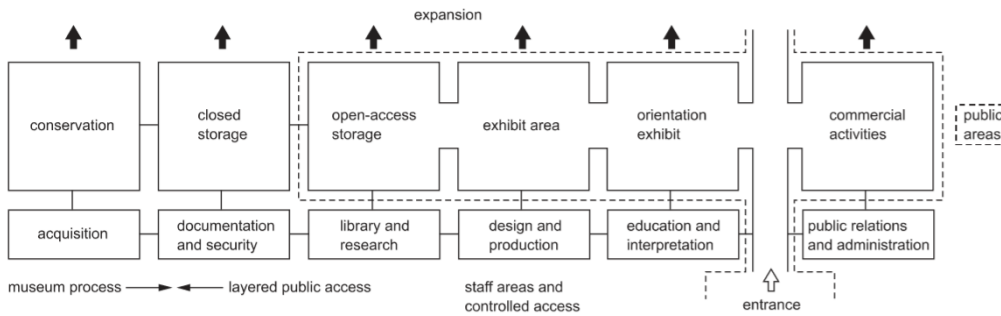


Figure 23 A layout concepts showing a clear relationship between museum function and an approach to zoning and expansion

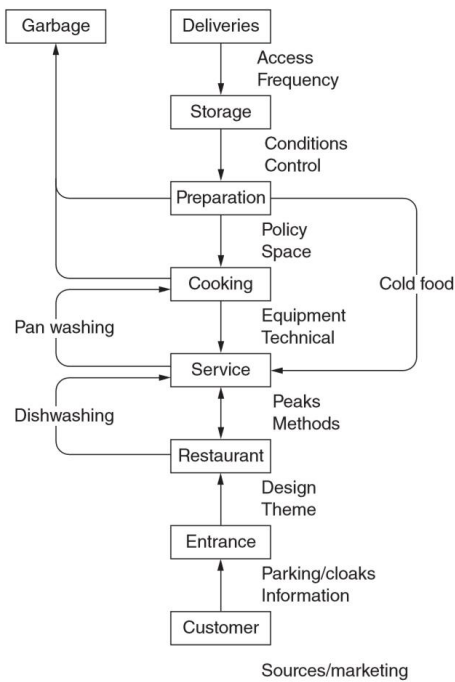


Figure 24 Food service planning

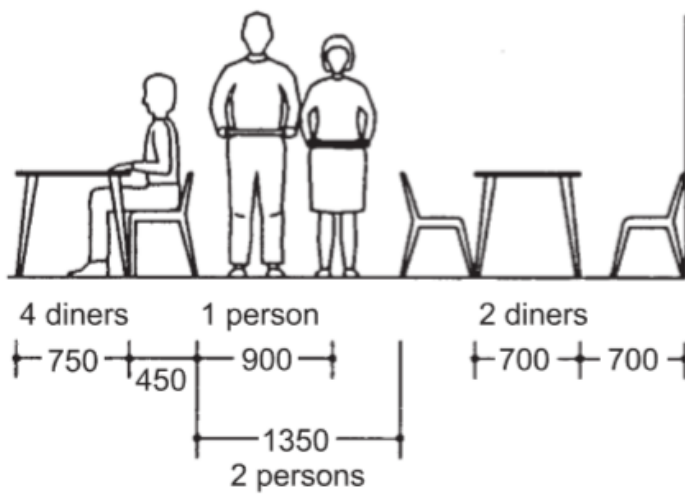
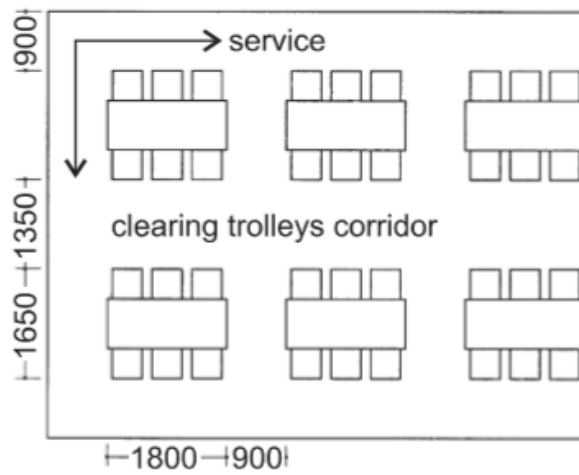
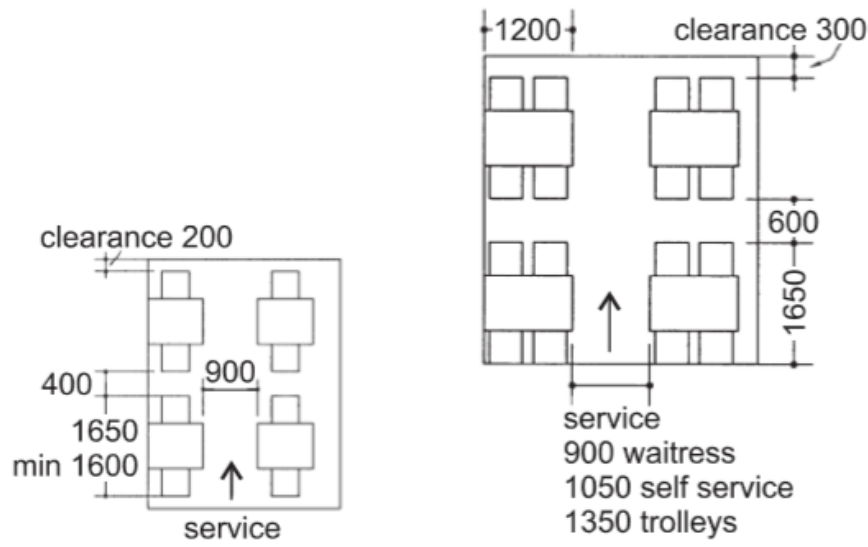


Figure 25 Minimum space between tables to allow for seating, access and circulation

## 3.1 OBJECT DISPLAY

### 3.1.1 9.2 Open Display

- All objects on open display must be secure from theft and damage.
- All objects identified for potential open display will be viewed and agreed on an object-to-object basis depending on their conservation assessments.

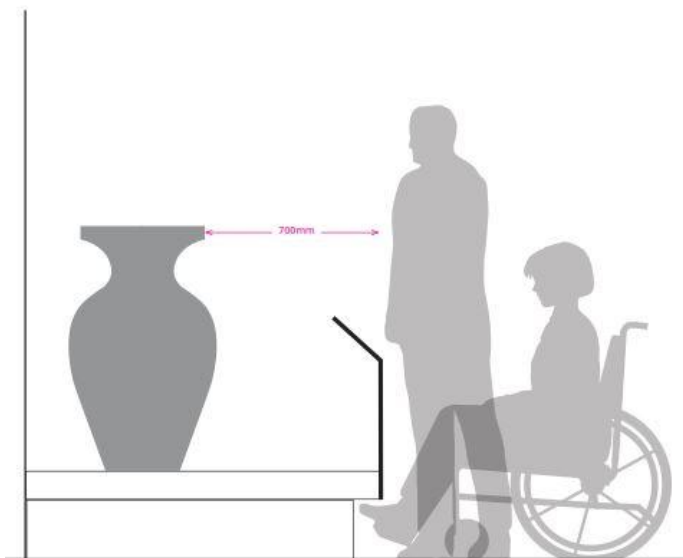


Figure 26 distance from object

	Distance	Distance Min
<b>Recommended distance to place objects out of 'casual arm's length' taken from the edge of the object to the edge of any proposed form of barrier</b>	700mm	600mm*

Table 1 distance from object

### 3.1.2 General Visitor

These are the recommended measurements for developing displays for general visitors.

- Don't place objects in such a way that they could present a hazard to visitors.

Avoid placing objects less than 305mm in height on the floor. If objects smaller than this must be placed at floor level, they should be placed away from the circulation route, be well lit, and placed against a contrasting background or protected by psychological barriers.

- All object displays, cased or otherwise, must be viewable by all, including people who are small in stature or in wheelchairs.
- Cased objects will where possible be displayed within the optimum viewing band. Smaller 2D or detailed objects will be displayed within the narrower commended viewing band.

<b>Object display</b>	<b>Min height FFL mm</b>	<b>Max height FFL mm</b>
<b>General – Viewing band</b>	700	2000
<b>Small objects – Viewing band</b>	800	1600
<b>Very small items – Viewing band</b>	800	1015
<b>Wall mounted items over 1000mm deep</b>	600	2030
<b>Ceiling hung items</b>	600	2400
<b>Protective zone (arm’s length)</b>	305	-

Table 2 Object distance

### 3.1.3 Cased Objects

- All the elements in a display should be visually accessible to all visitors. All cased displays should fall within the general optimum viewing band of 750–2000mm. Ensure everything is visible from a wheelchair. Desk cases should be no higher than 800mm FFL.
- Position small objects or those with fine detail in the front portion of a case, with larger items behind.
- Provide a toe space of 224mm x 180mm deep around cases and plinths to allow Wheelchair access.
- Position small items or those with fine detail no higher than 1015mm

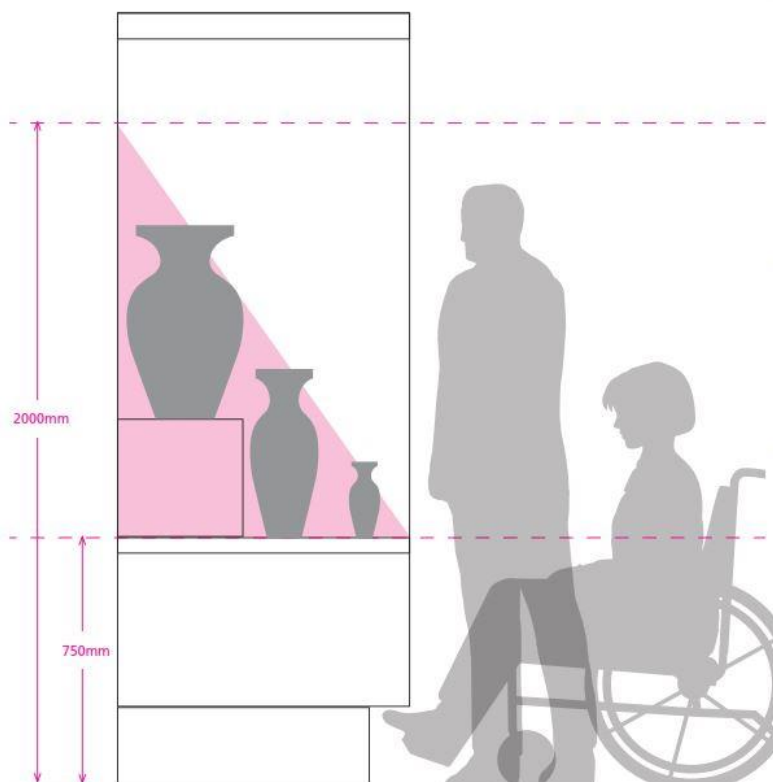


Figure 27 Distance from cased object



from floor level. Objects placed above this height are only seen from below by people in wheelchairs or people who are small in stature.

## 3.2 DISPLAY AND CIRCULATION SPACES

Seating and wheelchair spaces should be provided in main display spaces adjacent to the main circulation routes and evenly dispersed throughout the building. The minimum width of space for one wheelchair user is 760mm; space for two wheelchair users together is a minimum of 1675mm. Avoid tortuous circulation routes and cul-de-sacs. Primary circulation and exit routes should be 1500mm wide, but may be reduced to

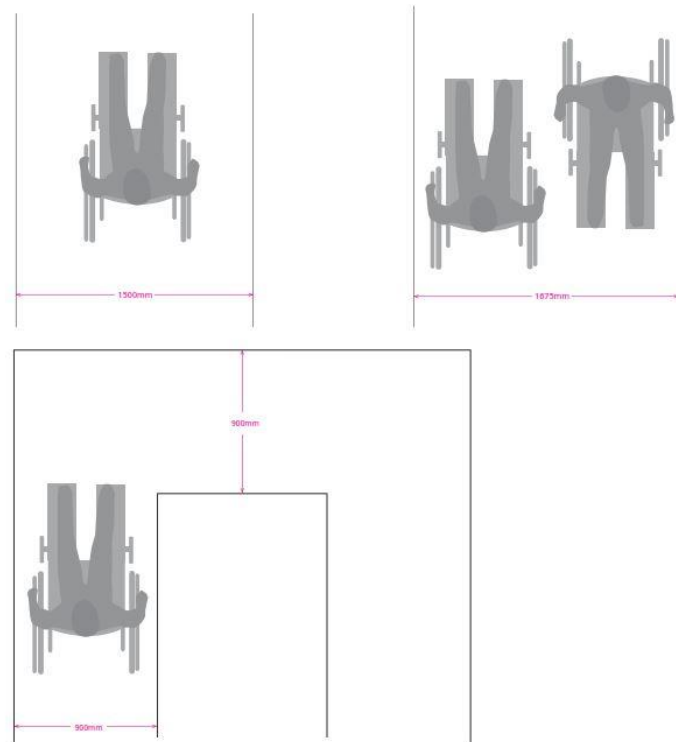


Figure 28 Circulation of wheelchair

1200mm wide where unavoidable. The circulation route around displays can

be reduced to 900mm wide, if necessary. Allow 1500 x 1800mm for turning points. Entrances and doors: level access should be maintained at all entrances and exits, with a circulation space of 1500mm at each door. The entrance to exhibitions should be clearly signed. Avoid projections onto circulation routes if possible, or provide visual and tactile warnings. Use colour, tone and decoration to contrast wall, floor and ceiling planes. Avoid strong vibrant patterns as they can be disorienting.

## 3.3 LIGHTING

### 3.3.1 General

Light levels can vary depending on the type of exhibition, the material being displayed and the desired ambience. The balance between conservation and display requirements must be carefully considered. Objects can be grouped into three categories of light sensitivity:

1. Insensitive to light: metals, stone, ceramics, glass and enamels.
2. Sensitive to light: oil paintings, wood, ivory, bone, some works on paper.

3. Textiles, art on paper, fur and feathers, dyed leather.

These are the recommended minimum light levels:

<i>Task</i>	<i>Maintained IL luminance</i>	<i>Limiting Glare Rating</i>	<i>Min Colour Rendering</i>
<i>Ambient lighting</i>	50–300 lux	28	80
<i>Visitor circulation routes</i>	100–300 lux	28	80
<i>Insensitive to light displays</i>	50 lux		
<i>Sensitive to light displays</i>	150 lux		
<i>Very sensitive to light displays</i>	No maximum		
<i>Work surface (general)</i>	300–400 lux		
<i>Work surface (detailed work)</i>	400–1000 lux		
<i>Text panels</i>	100–300 lux	25	80
<i>Directional signage*</i>	200–300 lux	19	80
<i>Ramps, stairs</i>	150–300 lux	25	80
<i>Objects, specimens</i>	Note 1		
<i>Reading Areas</i>	500 lux	19	80

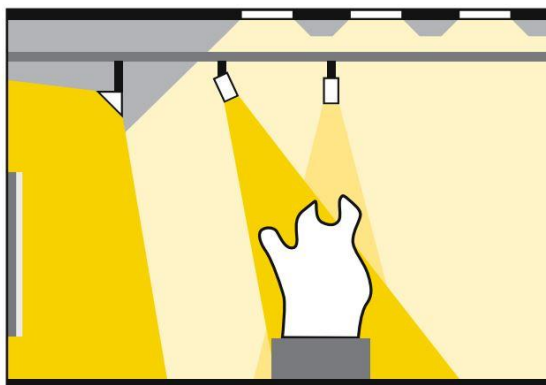


Figure 29 Supplementary directional lighting for object in the room

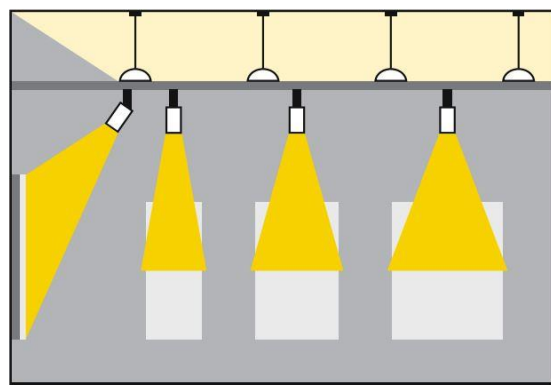


Figure 30 Indirect and Direct components produce diffuse and directional lighting respectively

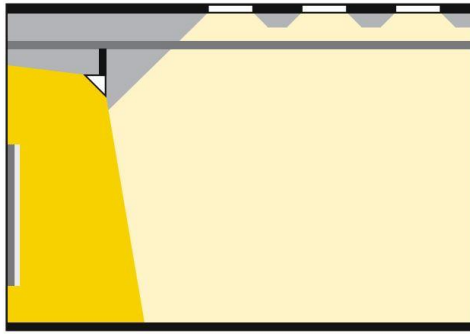


Figure 31 Directional lighting for the wall, diffuse lighting for the room

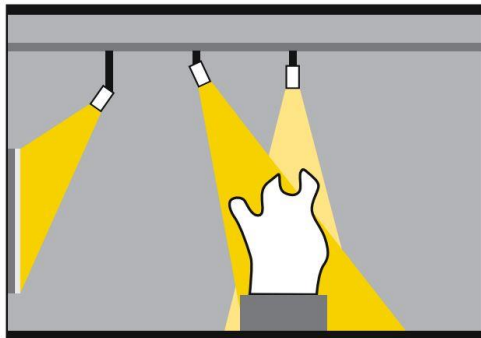


Figure 32 Solely directional light

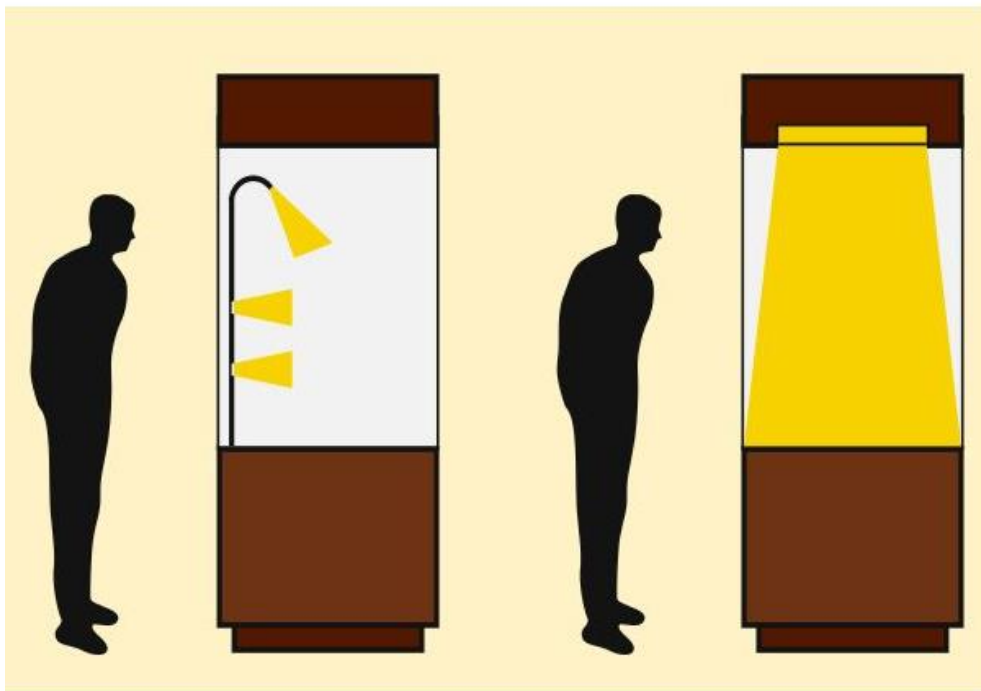


Figure 33 8+9 Directional lighting accentuates exhibits, planar lighting makes for uniform illumination.

### 3.4 COLOUR

In general visitor areas, display spaces and rooms, colours for graphics panels and labels must maintain a high contrast (80%) between text and background. Other interpretation elements may require alternative approaches and should be addressed on an individual basis.

When choosing colours:

Make sure that walls, doorways, and furniture are visually separated from the floor colour. Remember that people with low vision and visual perceptual difficulties require at least 70% contrast in colour and hue to negotiate a space. If the floor, walls, cases, plinths, and benches are all the same hue all the component parts of the room/space will blend together;

- if adequate colour contrasts between structures are not achievable then think about using contrasting strips of colour around the bases of walls, structures or furniture;
- if a space requires low lighting for conservation or atmospheric reasons, think about using lighter colour ranges to compensate;
- remember that the colours and patterns of display floor surfaces must give accurate information about the depth, height, and condition of the floor surface. Avoid patterned carpets and floor tiles on uneven surfaces and in low-lit areas; and
- avoid certain colour combinations, particularly those within the same tonal range, such as red on green or vice versa and blue/yellow. Remember that 8% of the male population and 0.1% of the female population are red-green colour-blind and a smaller number of people are blue/yellow colour blind.

## CHAPTER 4

*Yun har ek naqsh pe  
Jukti hai jabeen  
Tera naqsh e kaf e paa  
Ho jaise ....*

*My forehead prostrates  
At every inscription  
As if it were your footprint....*

*(sufi tabassum)*

## 4 CHAPTER 4: CASE STUDY

### 4.1 INTERPRETATION CENTER HUMAYUN'S TOMB, NEW DELHI, INDIA

#### 4.1.1 Introduction

*Location: New Delhi, India.*

*The climate of Delhi, India is a composite.*

*The museum is designed by VIR MUELLER associates in 2.5 acres.*

*The project started in 2014 and it is in the construction phase*



*Figure 34 view interpretation centre*

#### 4.1.2 Nizamuddin Urban Renewal Initiative

The urban renewal initiative, supported by the Aga Khan trust for culture is making enormous strides in revitalizing and unifying the three historical sites of Humayun's tomb, Nizamuddin basti, and Sundar nursery into one unique heritage precinct.

#### 4.1.3 Objective

A significant visitor facility that enhances the experience for the 2 million annual visitors to the world heritage site Humayun's tomb and bridges the adjoining area of Sundar nursery and Hazrat Nizamuddin basti.



Located at the juncture of the three historically connected sites, the Humayun's tomb site museum has been proposed as a means of enhancing the experience for the growing volume of visitors to this historic precinct.

It is intended to become a hub of an intellectual exchange of ideas showcasing the kaleidoscope of art, architecture, and culture, thereby opening up a newer channel of communication between tourist, student, academics, professionals and agencies.

The Humayun tomb site museum aspires to promote a public understanding of the culture and aesthetic practices that flourished during the Mughal era and to create a

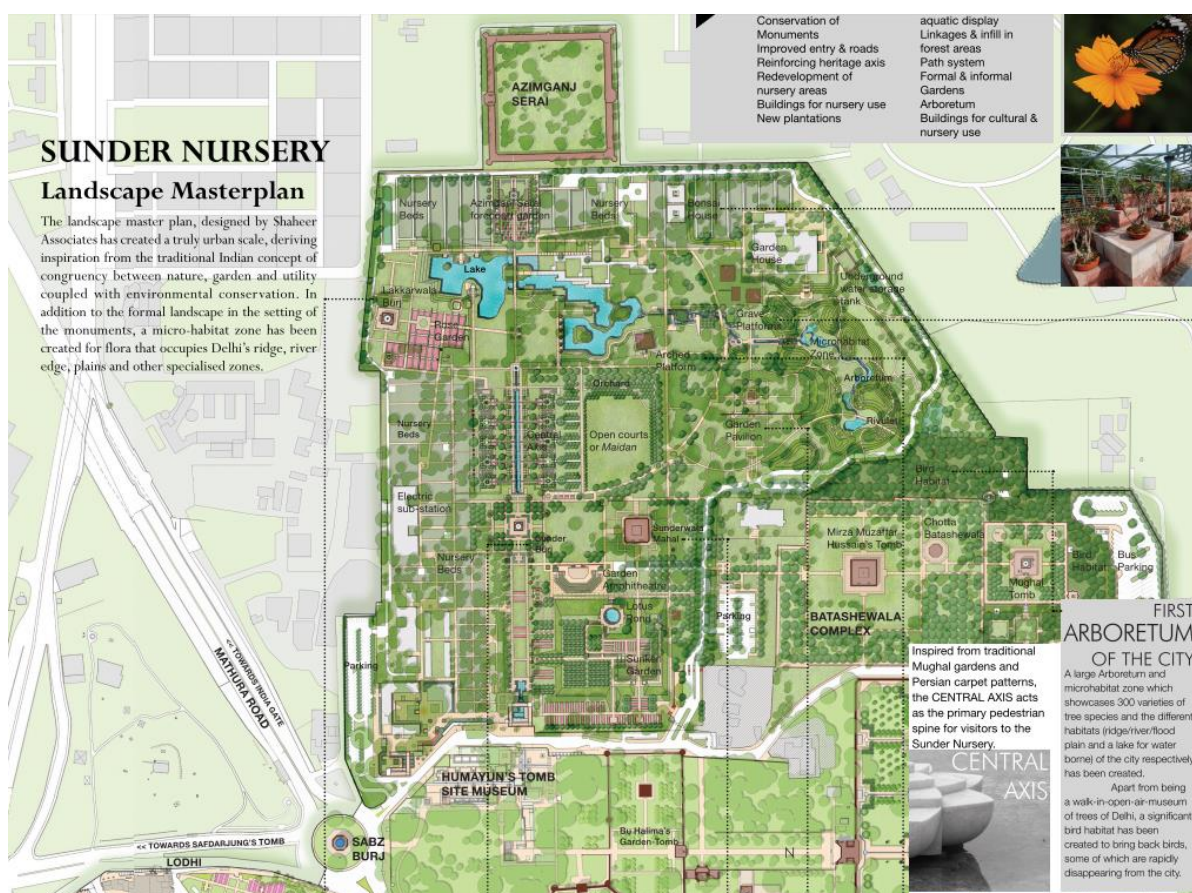


Figure 35 master plan sunder nursery

musicological experience worthy of this extraordinary world heritage site.

#### 4.1.4 Building Design:

The museum is built as a sunken building inspired the traditional step well (baolis) of northern India and the tradition of geometric form of Mughal architecture.

The museum is situated at the entrance of Sunder nursery and the Humayun's tomb. The entry plaza experience enables visitors to purchase ticket, orient themselves, and avail public amenities. Sensitively arranged under the foliage of the large trees, this plaza also



acts as a threshold to the many attributes of the site. An auditorium, library, craft gallery, seminar room, and administrative office are all located adjacent to the entry plaza.

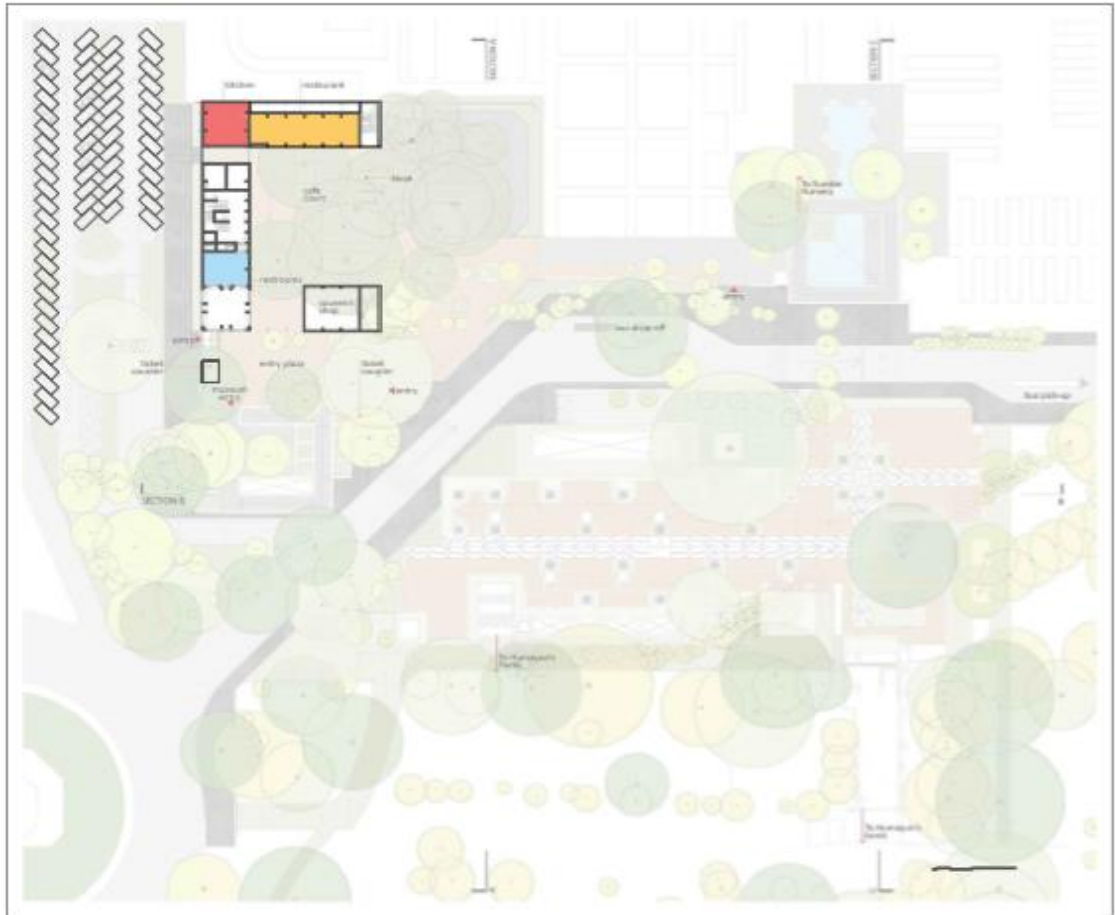


Figure 36 ground floor interpretation centre



Figure 37 Section interpretation centre

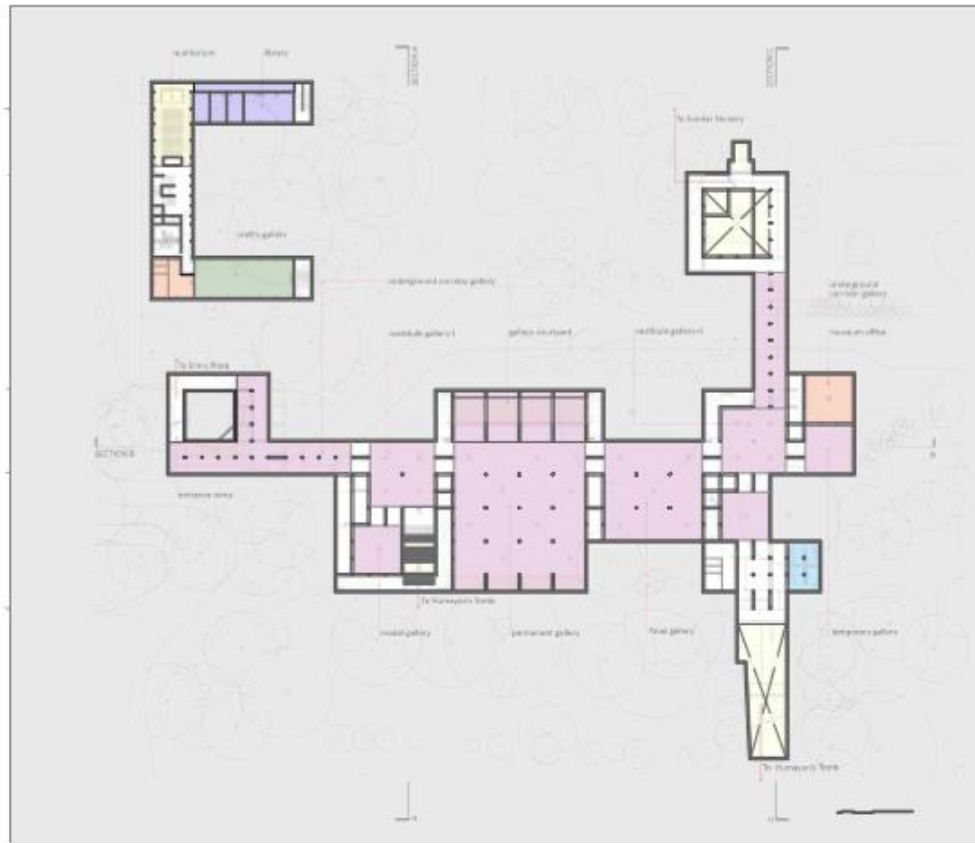


Figure 38 Basement interpretation centre

Visitors descend through a wide, ramped garden into the Humayun's tomb site museum, where they experience the magnificent craft traditions that flourished during this period the illuminated plastered ceiling reflect the geometrical sophistication of the Mughal age.

The architecture of the museum has been derived from this tradition of geometry - the gallery space is arranged in a sequence has also been developed along a primary axis, spanning the entire length of the museum. Natural light, filtered through the skylight as well as open courtyards, illuminates the gallery areas. The complex engineering as a system is woven around each gallery through dedicated service corridor, thus facilitating optimal curatorial and museum management protocols

The circulation axis – wheelchair accessible with wide ramp – spans the length of HTIC. Natural light, filtered through, skylights and courtyards, illuminates the galleries enabling display of Mughal architecture, faced treatment, landscape element, and ornamental tradition.

Area program

Name	Area in sq. m
<b>Ground level</b>	
<b>Café court</b>	990
<b>Souvenir shop</b>	130
<b>Craft gallery</b>	90
<b>Restaurant</b>	196
<b>kitchen</b>	107
<b>Toilet block</b>	84
<b>Basement level</b>	
<b>Library</b>	240
<b>Auditorium</b>	200
<b>Permanent gallery</b>	1200
<b>Model gallery</b>	400
<b>Finial gallery</b>	600
<b>Corridor gallery 1</b>	480
<b>Corridor gallery 2</b>	270
<b>Temporary gallery</b>	146
<b>Vestibule gallery 1</b>	260
<b>Vestibule gallery 2</b>	260
<b>Museum office</b>	150
<b>Toilet</b>	94

*Table 3 Area study of Interpretation centre Humayun's Tomb*

#### **4.1.5 Structure and Material**

The core building material used is concrete. Which is finished with gypsum, marble, sandstone.

The illuminated plastered ceiling in the galleries reflects the geometric sophistication of the Mughal age. Live demonstration of the building craft such as stonework, tile work, incised plaster work, as well as prominent Mughal craft be a permanent activity.

### 4.1.6 Circulation

The interpretation center is composed of a cafeteria building and a museum-cum-exhibition hall, which connected through entry plaza.

In the main building, there is a large entrance foyer which is connected with vestibule gallery space I, permanent gallery, a model gallery, vestibule gallery space II, final gallery, underground corridor gallery, and office spaces.

Then through the staircase and ramp, we can approach the Sundar nursery and the Humayun's tomb.

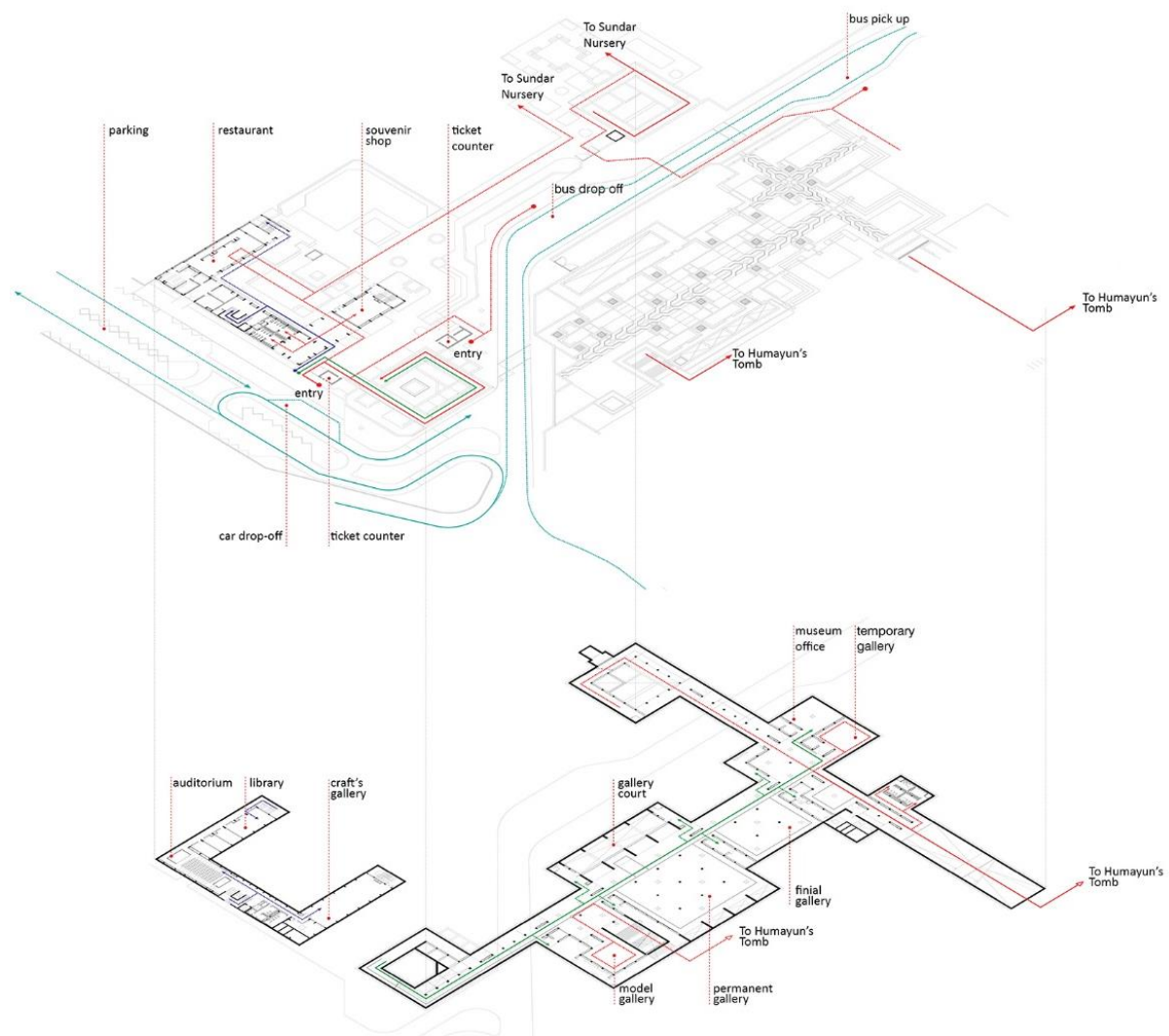


Figure 39 circulation interpretation centre

### 4.1.7 Features of the building

Reflect Islamic architecture with a contemporary flavor.

Ease of accessibility.

Use of sunlight in interiors of gallery.

Connectivity to with different approach and vision

## 4.2 SABARMATI ASHRAM (GANDHI SAMARAK MUSEUM), AHMEDABAD, INDIA

### 4.2.1 Introduction

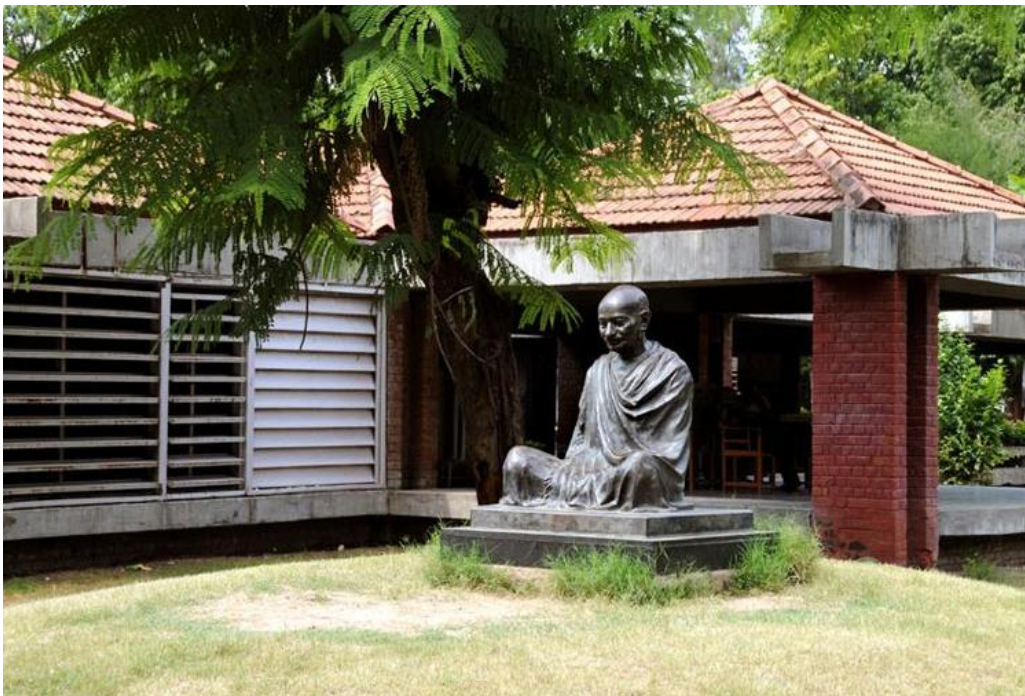
*Architects: Charles Correa*

*Typology: Cultural Architecture / Museum, Residence*

*Location: Sabarmati Ashram, a suburb of Ahmedabad, India*

*Project year: 1963*

*Materials: Wooden doors, stone floors, ceramic tile roofs, and brick columns<sup>4</sup>*



*Figure 40 Gandhi Smarak museum*

The Gandhi Smarak Sangrahalaya is an excellent example of combining the Hindu architectural/cosmological idea of isotropy and Modernist functional planning. The application of the concept of isotropy (similar to fractals) can be seen in

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<sup>4</sup> <http://archeyes.com>



Hindu temples on their façade by applying repeated small infinitely scalable structures. In the Smarak Sangrahalaya, the modular grid is adopted for planning which is easy to repeat and can be extended easily.

Correa has allocated the five distinctly functional programme such as letters, books, photographs and painting, meetings and offices by combining the same modular grid in an asymmetrical manner.

#### **4.2.2 Objective**

The Smarak Sangrahalaya is museum dedicated to Mahatma Gandhi. The modular pavilion unit is designed for easy extension and emphasizes the accumulation of a single element to make a whole. Correa placed five distinctly programmed interior spaces within the Asymmetrical grid plan.

#### **4.2.3 Building Design:**

The plan of the museum can be also compared to village houses of India's Banni region, Kutch district of Gujarat. In these houses, the different function of the house are located in different huts and the common space is used to be circulation space to move from one hut to another.

**The units are grouped in a consciously asymmetric manner to be analogous to the Indian village with its pathways and seem randomly placed buildings and its meeting points; in this instance the central water court.**

The courtyards, water body, and the pathways are placed in very random order to give a feeling of an Indian village.

He is using a modular grid but at the same time, he is also following organic planning of village to break the rigidity of the grid. In the end, it can be concluded, Charles Correa is using the modular grid refers to modernism but he is somehow also inspiring this modular grid to ancient architecture and vernacular architecture.

It is difficult to find the source of inspiration of modular grid and the way it is used. He is having observations from history, as well present but he knows also to deviate from all to create unique architecture.

Tiled roofs, brick walls, stone floors, and wooden doors combine to form basic modular units of 6x6 m, in a typology analogous to the villages so central to Gandhi's thinking. They are grouped in a casual meandering pattern, creating a pathway along which the visitor progresses towards the centrally situated water court (refreshing in the dry heat of Ahmedabad).

Some of the units are enclosed by walls; the various display-cum-study places so created being counterpointed by areas of visual rest where the visitor can meditate. This configuration generates a wide spectrum of conditions, varying all the way from closed-box to open-to-the-sky, the modifications from one zone to another along the spectrum being signaled by subtle and almost imperceptible changes in light and air movement.

Because the collection will, by its very nature, be added to in time the Sangrahalaya is a living structure which can grow and modulate. Recently, more units were added, extending the pattern. This process will continue as more photographs, letters and other documents are collected, each generation of young Indians making its contribution and paying its homage to the Mahatma Gandhi.



Figure 41 Gandhi Smarak museum section



Figure 42 Gandhi Smarak museum plan



#### **4.2.4 Structure and Material**

The materials used in the construction are similar to those in the other buildings in the Ashram: tiled roofs, brick walls, stone floors, and wooden doors. The only addition is the concrete channel that acts as beam and rainfall conduit, and which permits expansion for additional construction to be added in the future. No glass windows were used anywhere in the building (in deference to Gandhi's rejection of modern industrialized products), light and ventilation are provided by operable wooden louvers.

#### **4.2.5 Circulation**

The initial construction consisted of 51 modular units. Some of the units are enclosed by walls; the exhibition spaces so created counterpointed by areas for rest where the visitor can sit. Units grouped in a casual meandering pattern, creating a pathway along which the visitor progresses towards the centrally situated water court.

## 4.3 MUSEUM OF ISLAMIC ART, DOHA, QATAR

### 4.3.1 Introduction

*Location: Doha, Qatar. Doha is the capital of Qatar (near Saudi Arabia).*

*The climate of Doha, Qatar is a hot dry desert.*

*The museum's interior gallery space was designed by a team lead by JM Wilmotte of Wilmotte associates.*

*The museum is designed by architect I.M PEI in 8.6 acres.*

*The project year 2005 – 2008*

*Size: 35,500 sqm.*



*Figure 43 view of museum of Islamic art*

The museum of Islamic art is dedicated to reflecting the full vitality, complexity, and diversity of the arts of the Islamic world. It is a world-class collecting institution which preserves, studies and exhibits masterpiece spanning three continents and centuries.

As a center of information, research, and creativity, the museum aims to reach a global audience and serve as a hub for dialogue and cultural exchange.

I.M Pei final design inspiration was the 13<sup>th</sup>- century sabil (ablution foundation) of the mosque of Ahmad ibn tulun in Cairo, Egypt (9<sup>th</sup> century). In the “**austerity and simplicity**” of the sabil, he found “**a severe architecture that comes to life in the sun,**

**with its shadows and shades of color”** the sabil offered **“an almost cubist experience of geometric progression”** which evoked an abstract vision of the key design element of Islamic architecture.

The building stands in the sea some 195 feet off Doha's cornice. Apart from approximately 64 acres of dunes and oases on the shoreline behind the museum offers shelter and a picturesque backdrop.

### **4.3.2 Objective**

To find the essence of the MIA, one of I.M Pei's masterpieces and how the rich and complex heritage of Islamic building is contextually and architecturally summarized in a simple and new form.

### **4.3.3 Building Design:**

I.M Pei was first convinced that his own architecture would be modern; however, his design would follow something more than being totally international and modern. The exterior architecture of the museum of Islamic art follow a simplistic architectural trend, yet it was inspired by the mosque of Ibn tulun.

Inspired by the fountain located in the middle of the mosque. This element surround by double arches, moving from an octagon to a square and from a square to a circle.

Architect found that the influence of climate and culture led to many interpretations of Islamic Architecture.

- Grand Mosque in Cordoba, Spain
- Fatehpur Sikri, India

The upper and lower basement plan of the museum have irregular shapes formed mostly by rectangles and squares with a strong inclined line indicating the link between the bridges and the entrance of the museum. However from the second to the fifth floor, the plans take the shape of an octagon where four of the ribs are distinctly larger than the other four and it gives the impression of a square plan.

### **4.3.4 Elements of design**

Water canal

Water fountain

Domes

Mihrab

### 4.3.5 Design principles

Movement

Symmetry

Rhythm

Centralization

Transformation

### 4.3.6 Environmental appraisal

The museum as a pleasant place

Overloaded places vs. calm places

Over entering the museum, people are engaged in another type of experience that is occupied with formality and movement through hierarchically connected space. The exhibition galleries are distributed in a categorised manner as the importance of historical pieces are ascending from the ground floor to the second floor. The highest floor, on the other hand, is reserved for VIP visitor; it has a meeting room and a valuable library.

The museum is composed of a 5- story main building and a 2 story education wing. Which are connected across a central courtyard.

The main building's angular volume step back progressively as they rise around a 164-foot – high domed atrium, which is concealed from view by the walls of a central tower.

A sheet of glass rises to a height of 45 meters on the north side of the museum offering views of the gulf and west bay area of Doha from all 5 floors of the atrium.

The form of the dome changes as the structure descends, so its perimeter becomes an octagonal and then a square, which in turn is transformed into four triangular column support.

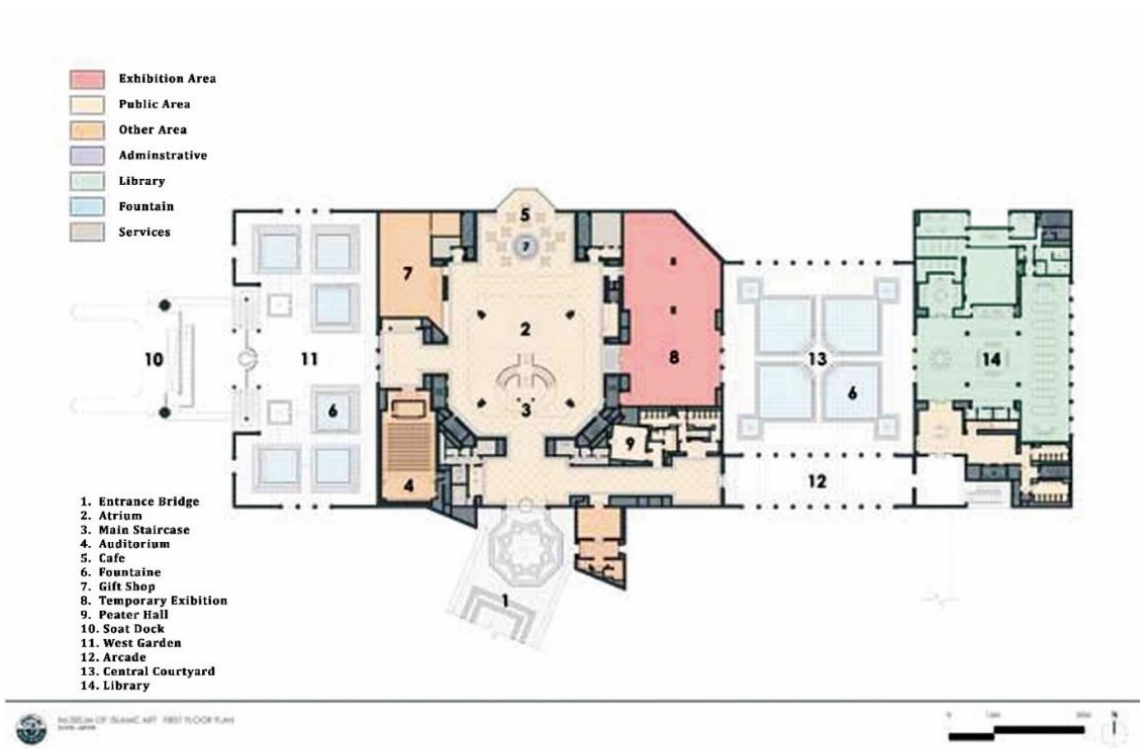


Figure 44 Museum of Islamic art ground floor plan

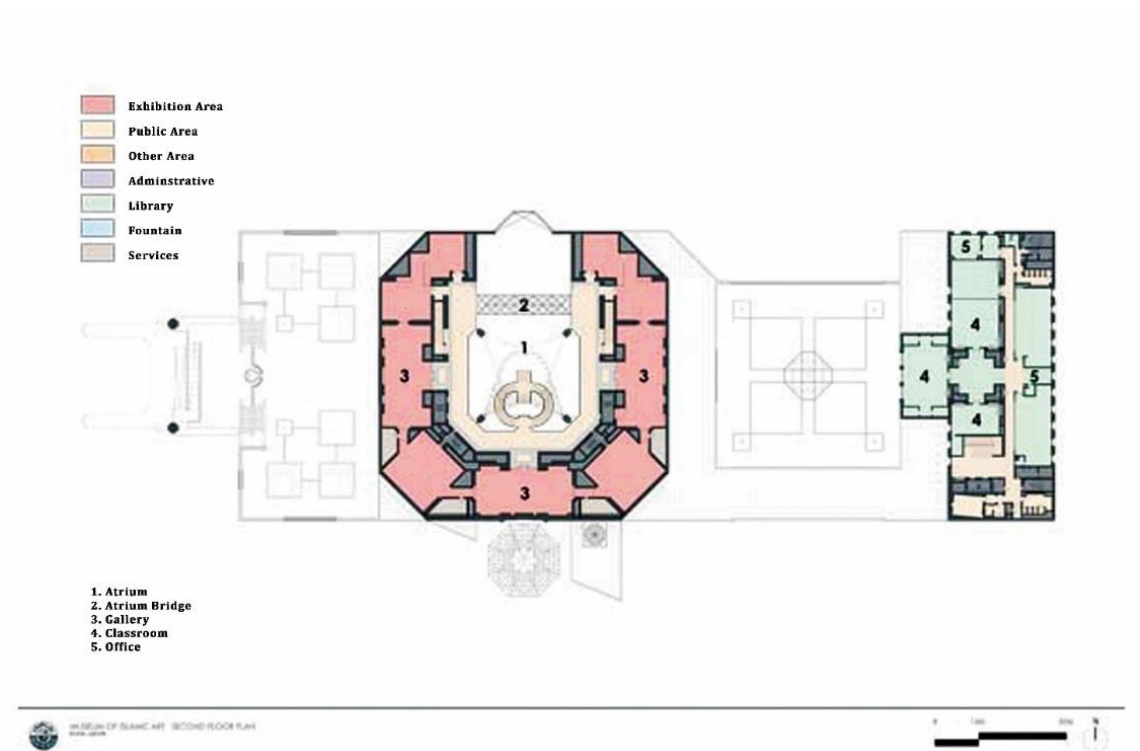


Figure 45 Museum of Islamic art first floor plan

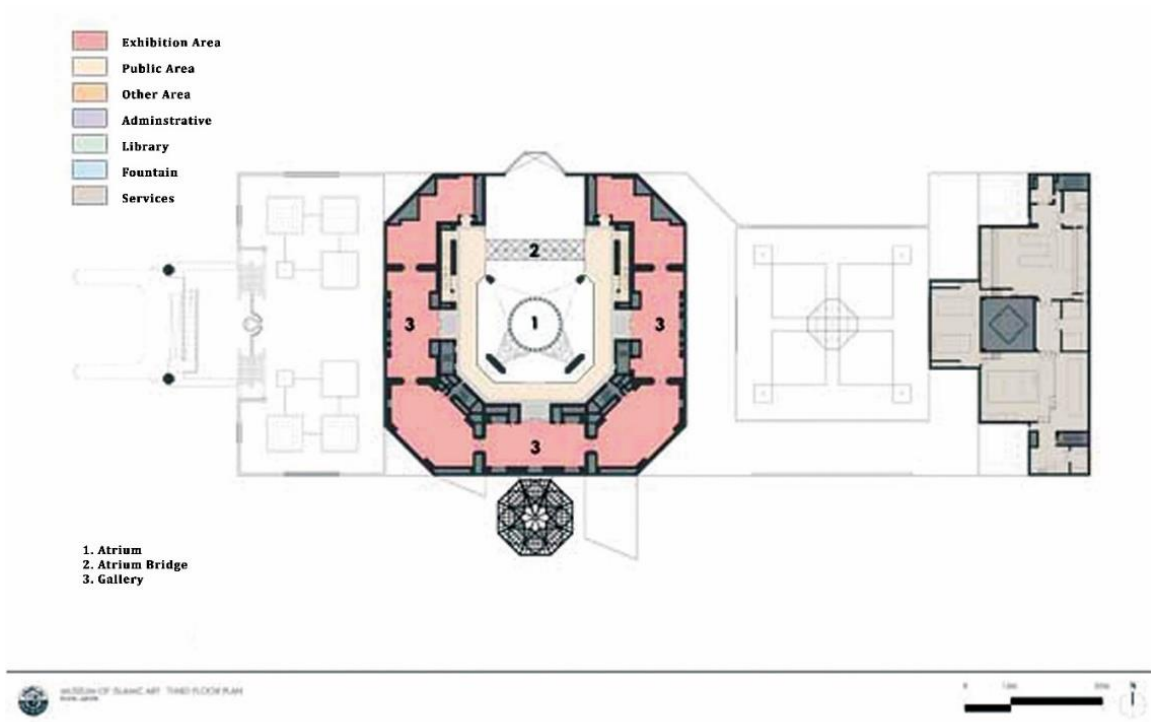


Figure 46 Museum of Islamic art second floor plan

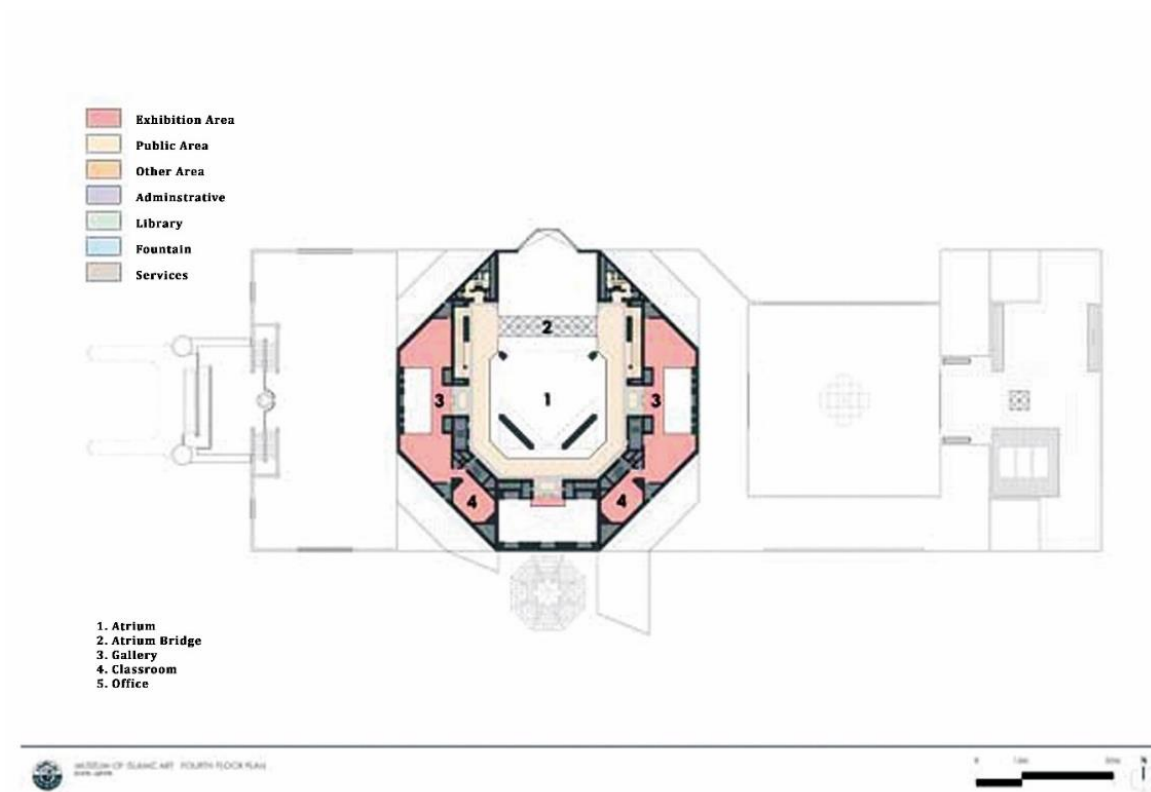


Figure 47 Museum of Islamic art third floor plan

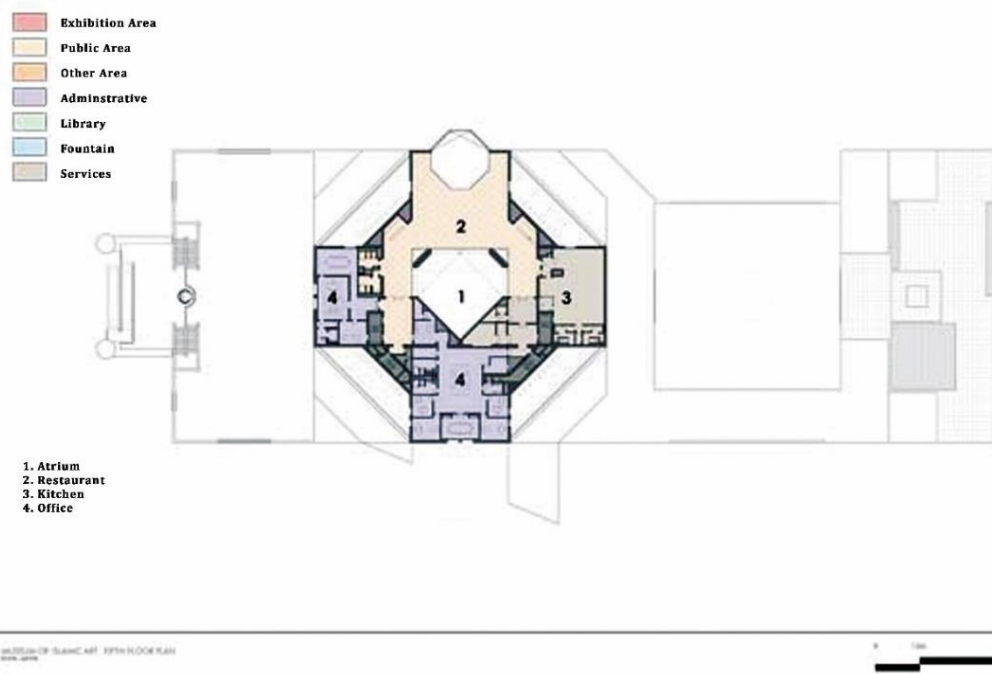


Figure 48 Museum of Islamic art fourth floor plan

#### Area program

<i>Space</i>	<b>Area in square meter</b>
<i>Permanent space</i>	3100
<i>Temporary Space</i>	750
<i>Study Gallery</i>	375
<i>Education wing</i>	2700
<i>Library</i>	820
<i>Conservation lab</i>	400
<i>Collection storage</i>	1800
<i>Auditorium (197 seat)</i>	430
<i>Restaurant</i>	380
<i>Gift shop</i>	300

#### 4.3.7 Structure and material

Stand-alone island is created to ensure future buildings would never encroach on the Museum.



The building stands in the sea come 195 feet off Doha's Cornice.

A landscape of approx 64 acres of dunes and oases on the shoreline behind the Museum offers shelter and a picturesque backdrop.

Built of fine materials, such as cream colored Magny and Chamesson limestone from France, Jer Mist Granite from the US.

#### **4.3.8 Circulation**

The museum is composed of a five-story main building and a two-story Educational Wing, which connected across a central courtyard.

In the main building, there is a large entrance foyer which is connected with temporary exhibition space, coffee shop, museum shop, and auditorium.

Then through the staircase and lift, we can access the other floor of the main building.

All exhibition spaces are directly connected with the central courtyard.

The location of the circulation system within the museum is situated well to urge people moving around in all directions, through keeping them intact with its core. Two staircases start on the first and end up on the fifth floor, for instance, and are located a fair distance from the ground floor freestanding staircase, he or she will be able to enjoy the scenery of the atrium.

#### **4.3.9 Features of the building**

The main building has a 164-foot high domed atrium, which is concealed from outside view by the walls of a central tower.

A glass curtain wall on the north side of the museum.

The ceiling is embellished with intricate coffered domes. And perforated metal chandeliers hand in the atrium.

Two more lanterns, each 100 feet tall, mark the boat dock on the west side of the museum, creating a grand entrance for guest arriving by boat.

## 4.4 NEW ACROPOLIS MUSEUM, ATHENS, GREECE

### 4.4.1 Introduction

*Location: located in the historic area of makryianni, the museum stand southeast of the Parthenon.*

*Architect: Bernard tschumi architect, new York/paris + Michael photiadis, ARSY, Associate architect, Athens*

*Year: 2009*

*Size: 21,000 sqm.*



*Figure 49 Arial view acropolis museum*

Located on the southeast side of the hill of the Acropolis the ancient road that led to the “sacred rock” in classical times. It is located 280 meters straight down the hill the Parthenon, at the entrance of a network of pedestrian walkways that link the archaeological site and monuments of the Acropolis. This location was carefully selected to allow a dialogue between the museum’s exhibition space and the building of the Acropolis.

### 4.4.2 Objective

A museum designed to cherish the history of acropolis in Athens, the remains and the artefacts of Parthenon are displayed beautiful and to connect visitor with the heritage of acropolis.

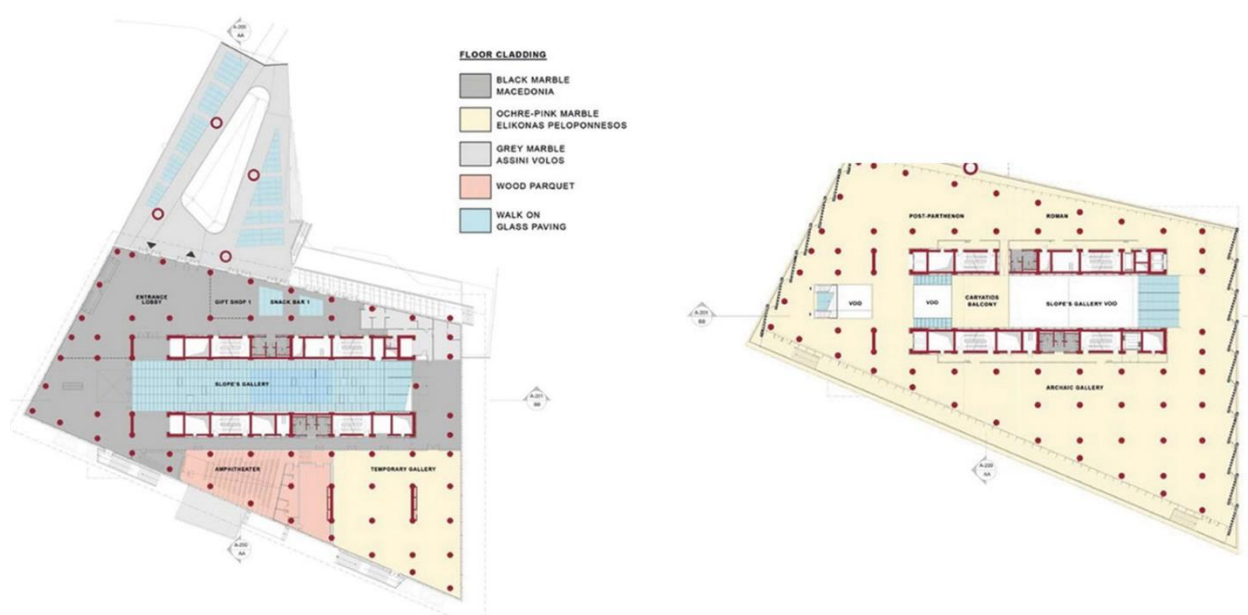
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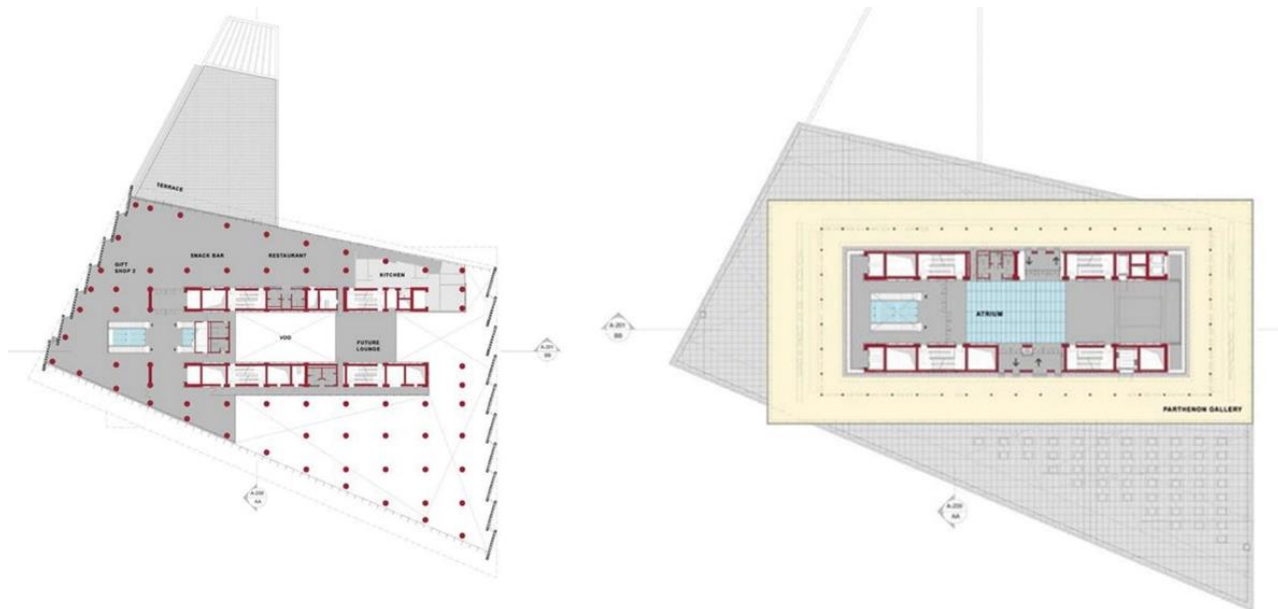
<sup>5</sup> <https://www.archdaily.com>

### 4.4.3 Building Design

The museum is articulated into three layers, as opposed to distinct floors. Floor-opening on the base level allow the visitor to view the remains beneath the museum. The double-height ceiling in the middle layer accommodates a wide range of different pieces on permanent display.

Designed with spare horizontal lines and utmost simplicity, the Museum is deliberately non-monumental, focusing the visitor's attention on extraordinary works of art. With the greatest possible clarity, the design translates programmatic requirements into architecture.





### Basement

- Excavations
- Offices
- Deliveries

### Ground floor

- Entrance
- Lobby
- Shop
- Café
- Glass ramp
- Auditorium
- Temporary exhibition space
- Void

### First floor

- Gallery
- Void

### Second floor

- Public terrace
- Shop
- Restaurant
- Balcony lounge
- Void
- V.I.P area

### Third floor

- Parthenon gallery

#### 4.4.4 Structure and Material

- The building was designed in relation to the durability and resistance to the passage of time.
- The material was selected for their simplicity and sobriety: glass, concrete, and marble.
- The transparency of glass light filters gently through a screen printing process.
- The structure is reinforced concrete.

- The marble floor is differentiated according to the area of the building: black for movement, light beige for the galleries.

#### 4.4.5 <sup>6</sup>Circulation

The circulation in the museum is raised in chronological order so that the visitor crosses an architectural and historical tour. The visitor's route is, therefore, a clear, three-dimensional loop. It goes up from the lobby via escalator to the double-height galleries for the archaic period; upward again by escalator to the Parthenon gallery; then back down to Roman Empire galleries and out towards the Acropolis itself.

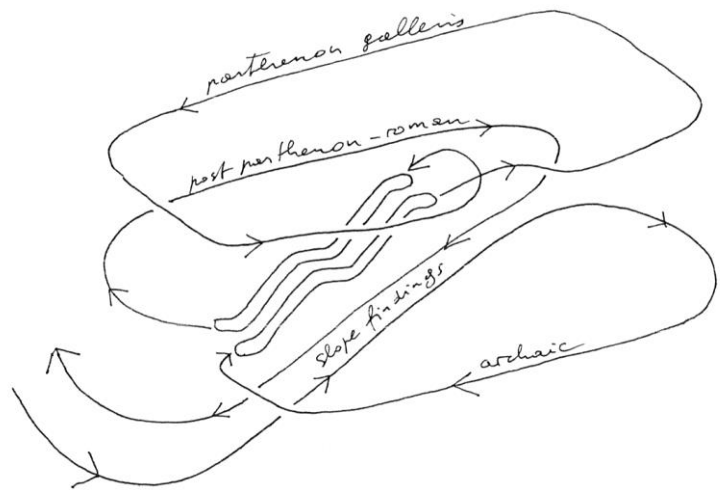
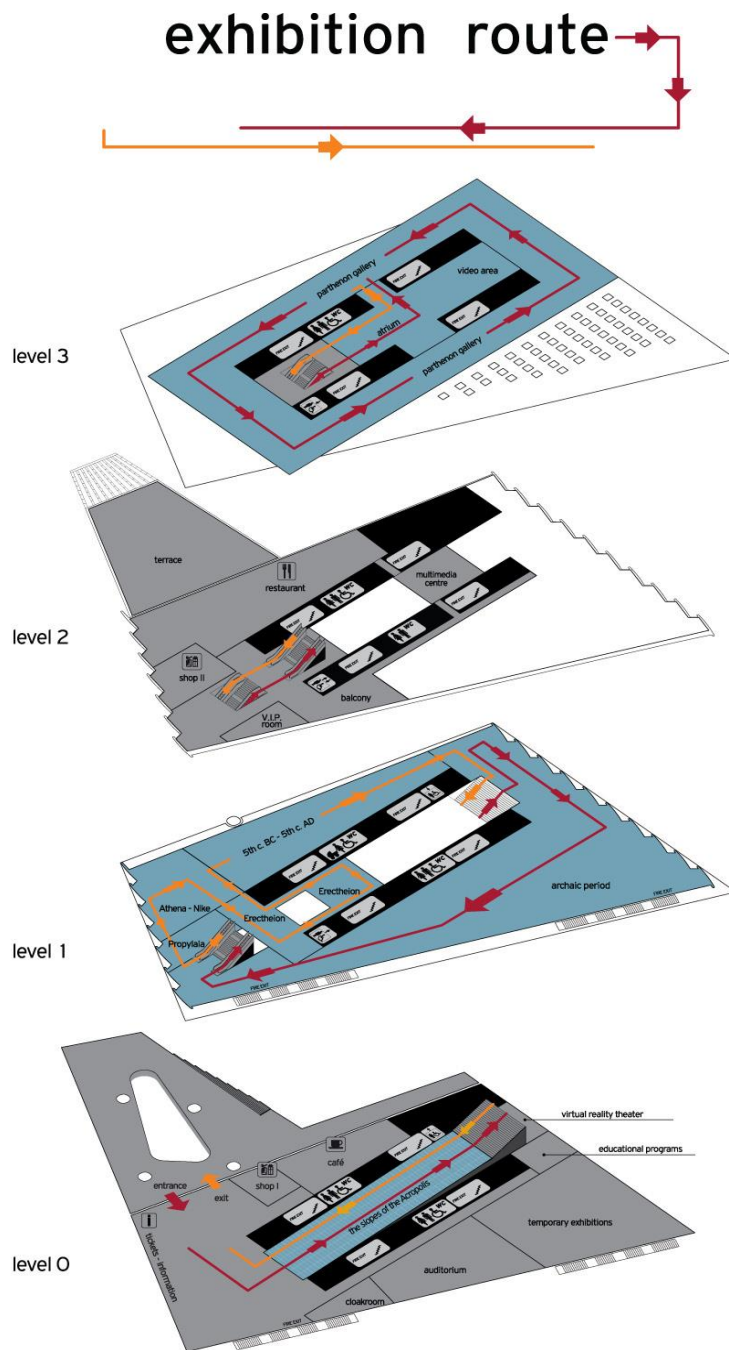


Figure 50 circulation acropolis museum

The top layer is the Parthenon gallery, which mimics the dimension of the Parthenon and is rotated 23 degrees from the rest of the building to align with the historic structure.

Glass perimeter walls allow seamless views of the Acropolis and Athens, and the concrete center of the room displays the Parthenon frieze precisely as it was arranged and oriented in the original monument. Natural light from the Parthenon gallery is filtered through its glass-floored atrium to the floor below.

<sup>6</sup> <https://www.archdaily.com>



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Figure 51 circulation acropolis museum

#### 4.4.6 Features of the building.

The circulation of museum is continuous in 3 dimension.

The void in building is a great approach to display the remains and form a new way to display artefacts. The visual connection between the gallery of Parthenon and Parthenon on acropolis is a great approach which give visitor a link between the artefacts and the real marvel.

The sense of using materials at different levels and there uses.

<sup>7</sup> <https://www.archdaily.com>

## CHAPTER 5

*Masjid e oo jama'e faid e illah  
Zamzam e khutba e oo ta bamah....*

*The Jama Masjid has been raised by the Grace of God  
The sound of its Khutaba- azan- echoes as high in the  
Heaven as the Moon....*

*(Amir Khusrau)*



## 5 CHAPTER 5: COMPARATIVE ANALYSIS

Table 4 Comparative analysis of case study

	<b>Interpretation Centre Humayun's Tomb</b>	<b>Gandhi Memorial Museum (Sabarmati Ashram )</b>	<b>Museum of Islamic Art (virtual)</b>	<b>New acropolis museum</b>
<b>Selection Criteria</b>	To understand the design of Interpretation Centre dedicated to a particular identity	To understand functionality and circulation of Museum	To understand symbolism in Architecture.	To understand way of exhibition and visitors experience and how contemporary architecture blend with classic
<b>Location</b>	Delhi, India	Ahmedabad, India	Doha, Qatar	Athens, Greek
<b>Year of completion</b>	2019			2011
<b>Architect</b>	Vir Muller	Charles Correa	I.M Pei	Bernard Tschumi
<b>Site area</b>				
<b>Ground Coverage</b>	30%			
<b>F.A.R</b>				
<b>Maximum Height</b>		6 meter		

<b>Concept</b>	the museum is built as a sunken building inspired by the traditional step well (baolis) of the northern India and the tradition of geometric forms in Mughal architecture	The Smarak Sangrahalaya, the modular pavilion unit is designed for easy extension and emphasizes the accumulation of a single element to make a whole. Correa placed five distinctly programmed interior spaces within the asymmetrical grid plan.	Three considerations: borrowing elements from the past, integrating these elements in harmonious pattern and abstract forms that link past and present, and creating various social logic of space that ranges from pleasurable public space to intimate spatial setting.	Concept New Museum Of Acropolis Simple And Resize Architecture With Mathematical And Conceptual Clarity Of Ancient Greece Light Concept Museum Of Natural Light Motion Concept Tectonic And Programmatic Concept
<b>Form</b>	Rectangular form with a sunken museum	51 identical square units which are clubbed together with central water body	The exterior architecture of the museum of Islamic art follow a simplistic architectural trend, yet it was inspired by the mosque of Ibn tulun.	Rectangular Geometry With Overlapping Layers Of Gallery
<b>Design</b>	The museum is built as a sunken building inspired the traditional step well (baolis) of northern India and the tradition of geometric form of Mughal architecture.	The units are grouped in a consciously asymmetric manner to be analogous to the Indian village with its pathways and seem randomly placed buildings and its meeting points; in this instance the central water court.	The upper and lower basement plan of the museum have irregular shapes formed mostly by rectangles and squares with a strong inclined line indicating the link between the bridges and the entrance of the museum. However from the second to the fifth floor, the plans take the shape of an octagon where	The museum is articulated into three layers, as opposed to distinct floors. Floor-opening on the base level allow the visitor to view the remains beneath the museum. The double-height ceiling in the middle layer accommodates a wide range of different pieces on permanent display.

<b>Circulation</b>	Straight axis connection with gallery connected in series which is leading to sundar nursery and Humayun's tomb.	The exhibition spaces so created counter pointed by areas for rest where the visitor can sit.	The circulation system with in museum is situated well to urge people moving around in all directions, through keeping them intact with its core.	The Circulation In The Museum Is Raised In Chronological Order So That The Visitor Crosses An Architectural And Historical Tour.
<b>Lighting</b>	natural and artificial for spot lighting on the artefacts	Natural lighting	artificial for spot lighting on the artefacts	Natural and artificial for spot lighting on the artefacts

four of the ribs are distinctly larger than the other four and it gives the impression of a square plan

## Features

Reflect Islamic architecture with a contemporary flavour.  
Ease of accessibility.  
Use of sunlight in interiors of gallery.

The modular simplicity of the structure is continued in the use of basic materials: stone floors, brick walls, wooden doors and louvered windows devoid of glass, and riled roofs. The units are grouped in a consciously asymmetric manner to be analogous to the Indian village with its pathways and seemingly randomly placed buildings and its meeting points; in this instance the central water court.

The main building has a 164-foot high domed atrium, which is concealed from outside view by the walls of a central tower. A glass curtain wall on the north side of the museum. The ceiling is embellished with intricate coffered domes. And perforated metal chandeliers hang in the atrium. Two more lanterns, each 100 feet tall, mark the boat dock on the west side of the museum, creating a grand entrance for guest arriving by boat.

The circulation of museum is continuous in 3 dimension. The void in building is a great approach to display the remains and form a new way to display artefacts. The visual connection between the galley of Parthenon and Parthenon on acropolis is a great approach which give visitor a link between the artefacts and the real marvel. The sense of using materials at different levels and there uses

<b>Sno</b>	<b>Space</b>	<b>Area of humauns tomb</b>	<b>area of museum of Islamic Art</b>	<b>Area of Acropolis Museum</b>
<b>1</b>	Permanent gallery Space	3600	3100	14000
<b>2</b>	Temporary gallery space	146	750	350
<b>3</b>	Library	240	820	
<b>4</b>	Conservation		400	
<b>5</b>	Collection Storage		1800	
<b>6</b>	Auditorium	200 (110)	430 (197)	250 (180)
<b>7</b>	Restaurant	196	380	770
<b>8</b>	Gift Shop	90	300	150
<b>9</b>	Museum office	150		

## CHAPTER 6

*Tusi moyiaan noo maar mukadey se  
 Naat khaddoon wang kuthandey se  
 Gal kardia da gala gutheey se  
 hun teer lagaya kas ker jee  
 Bas ker jee hum bas ker jee....*

*You killed the once who were already dead  
 Tossed like a ball with your baton on head  
 You chocked my words in my throat  
 Your arrow hit the quarry and smote  
 Enough is enough....*

*(Baba Bulleh Shah)*

## 6 CHAPTER 6: SITE ANALYSIS

### 6.1 SITE STUDY

#### 6.1.1 Latitude: 28°31'31.9"N

#### 6.1.2 Longitude: 77°11'21.6"E<sup>8</sup>

#### 6.1.3 Altitude: 244.25 meters.<sup>9</sup> Above the sea level.

#### 6.1.4 Climate

Delhi's has an extreme climate. It is very hot in summer (April - July) and cold in winter (December - January). The average temperature can vary from 25°C to 45°C during the summer and 22°C to 5°C during the winter.

Wind direction distribution in %  
January

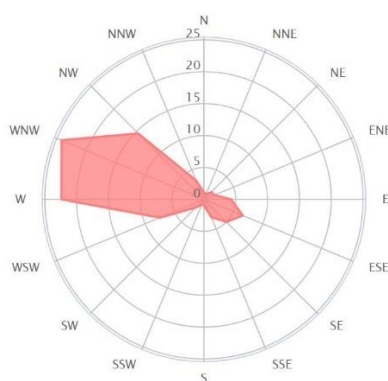


Figure 52 Wind direction in January

Wind direction distribution in %  
April

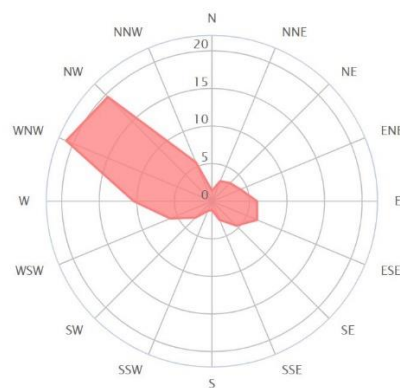


Figure 53 Wind direction in April

Wind direction distribution in %  
July

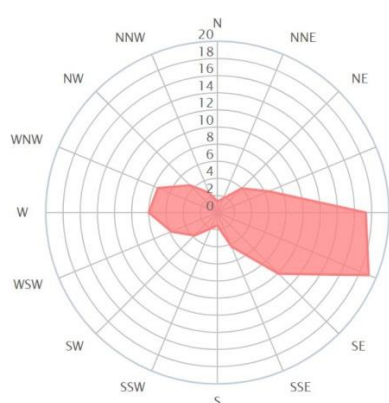


Figure 54 Wind direction in July

Wind direction distribution in %  
October

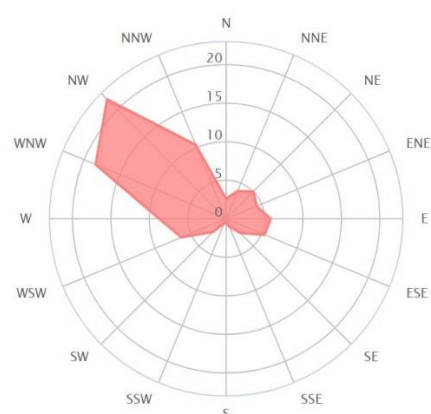
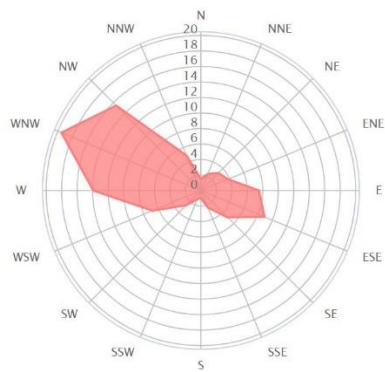


Figure 55 Wind direction in October

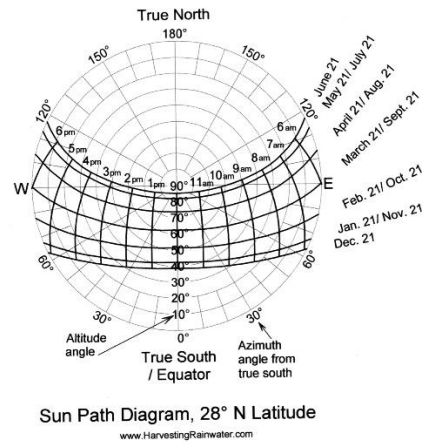
<sup>8</sup> Google maps

<sup>9</sup> [daftlogic.com/sandbox-google-maps-find-altitude.htm](http://daftlogic.com/sandbox-google-maps-find-altitude.htm)



Wind direction distribution in %  
Year

10



11

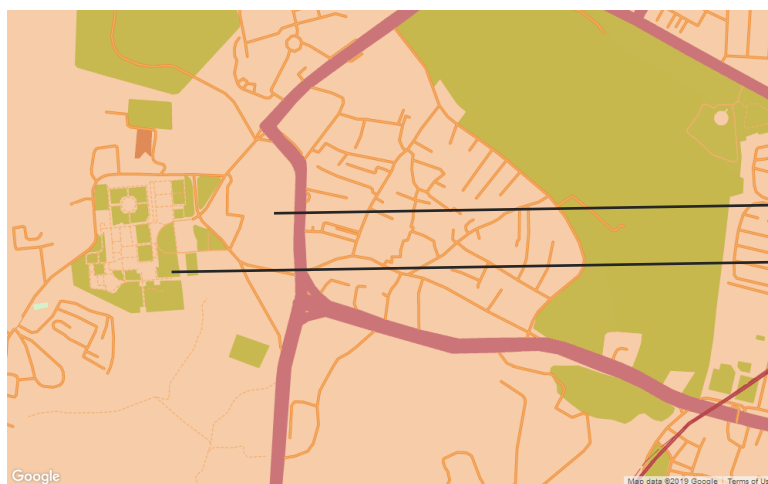
Figure 56 Wind direction in year

Figure 57 sun path diagram

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔
Wind probability >= 4 Beaufort (%)	4	7	10	10	10	13	6	5	6	3	2	3	6
Average Wind speed (kts)	6	7	7	8	8	8	7	7	7	6	6	6	6
Average air temp. (°C)	16	21	27	34	37	37	32	32	32	30	24	19	28

## 6.1.5 Location

The site is in Mehrauli, New Delhi. Which is in the vicinity of Qutub complex and Mehrauli archaeological park. Masjid Haji Ali Jan is situated at the adjacent south side of the site. There is lado Sarai crossing bus stand on the periphery of the site.



Site

Qutub complex

<sup>10</sup> Windfinder.com

<sup>11</sup> HarvestingRainwater.com

### 6.1.6 Area

The total area of the site is 10.08 acres

### 6.1.7 Shape

The site is an irregular polygon in shape

### 6.1.8 Road connectivity

The site is accessible through almost all modes of transportation. The site is led by the crescent road (Sri Aurobindo Marg) which is the national highway 148A.

Connective nodes	Distance in km
Indra Gandhi international airport	15
Safdarjung airport	10
New Delhi railway station	16
Old Delhi railway station	17
Maharana Pratap ISBT, Kashmiri gate	21
Police station	6.3
Qutub minar metro station	1.4

Table 5 Connectivity to site

### 6.1.9 Orientation

The site is a little stretched, the orientation of the site is **north-south**.

### 6.1.10 Topography

The site has a **gentle slope** which runs towards the connecting road (Aurobindo Marg) in front of it.

### 6.1.11 Soil condition

There is **alluvial soil**<sup>12</sup> on the site. The bearing capacity of the soil is **150 kN/m<sup>2</sup>** on the site.

### 6.1.12 Seismic zone

The seismic zone of the site is **IV**.

### 6.1.13 Vegetation

There are variety of trees on the site few are old and dense green. Some are newly planted most of them are **viliati keekar** (*Acacia karoo*). The tree, has infested the ridge, wiping out

<sup>12</sup> [mapsofindia.com/maps/schoolchildrens/major-soil-types-map.html5](http://mapsofindia.com/maps/schoolchildrens/major-soil-types-map.html5)

the indigenous species and dealing a blow to biodiversity in the area. It is also depleting the

Name of tree	Botanical name	height
Khair	Acacia catechu	5 meter
Viliati keekar	Acacia karoo	12 meter
Phulai	Acacia modesta	9 meter
Kumtha	Acacia sengal	5 meter
Subabool	Lucaena lencocephala	10 meter
Juinjheri	Bauhinia racemose	5 meter
Neem	Azadirachta indica	12 meter
Red cassia	Cassia rorcburgi	5 meter
Lemon scented gum	Carymbia citriodora	12 meter

ground water table.

Table 6 List of tree

### 6.1.14 Surrounding

The context of the site has **Qutub complex** which is **UNESCO world heritage site**, **Mehrauli archaeological park**, **ruins of quila rai pithora**, **the garden of five senses** and **lado Sarai**. There are an **Indian cottage industry** and the **parking for the Qutub complex** with **ticket counter**, **clock room**, **toilet**, **food stalls**, **management office**, and **security office** at the rear side (west side) of the site.

### 6.1.15 Bylaws

Max. Ground coverage: 25%

F.A.R: 1.25

Max. Height limit: 15M

Parking requirement: 2 ECS

Setbacks: On Asian Highway 2: 15 M

On All Other Side: 12 M

## CHAPTER 7

*Waqai sair hai yeh dekhne ki ke qaabil  
Chashm e anjum ho na iss sair par kun maai'l....*

*To look at this ceremony is such a delight  
Why wouldn't the stars gaze at this very ceremony....*

*(Bahadur Shah Zafar)*

## 7 CHAPTER 7: REQUIREMENTS

Table 7 Area chart

<b>Total site area</b>	<b>10.08 Acres</b> 43970
<b>Ground coverage</b>	<b>25%</b> 10,992.50
<b>F.A.R</b>	<b>1.25</b>

### Souvenirs Shop

Sno	Space	Area	Units	Area
1	Shop	9	6	56
	<b>Total</b>			<b>56</b>
	<b>25% of Total of Circulation</b>			<b>14</b>
	<b>10% of Total of Circulation</b>			<b>5.6</b>
				75.6

### Exhibition Space

Sno	Space	Area	Units	Area
1	Space	56	1	56
	<b>Total</b>			<b>56</b>
	<b>25% of Total of Circulation</b>			<b>14</b>
	<b>10% of Total of Circulation</b>			<b>5.6</b>
				75.6

### Tourist Block

Sno	Space	Area	Units	Area
1	Foyer	60	1	60
2	He Toilet	35	2	70
3	She Toilet	22	2	44
4	Handicapped Toilet	4	2	4
5	Clock Room	30	1	30
6	Craft Gallery	270	1	270
7	Audio Visual Room	120	1	120
8	Information/Reception	150	1	150
9	Waiting / Ticket Collection	300	1	300
10	Ticket Counter	16	1	16
11	Lift Lobby	30	3	90
12	Management entrance foyer	70	1	70
13	Clock Room	32	1	32
14	Management Security	32	1	32

15	Management store	23	1	23
16	Management He toilet	12	2	24
17	Management She toilet	12	2	24
18	Account office	75	1	75
19	AHU	26	3	78
20	Service Entry	15	1	15
21	Staff Toilet	16	1	16
22	Weighing Lobby	35	1	35
23	Dark Room	15	1	15
24	Store	100	1	100
25	Store Management	34	1	34
26	Management Lift Lobby	23	3	73
27	Restaurant	600	1	600
28	Kitchen	82	1	82
29	Washing	32	1	32
30	Store	34	1	34
31	Store For kitchen	21	1	21
32	Staff He toilet	16	1	16
33	Staff She toilet	9	1	9
34	Temporary Gallery	250	1	250
35	Air Handling Unit	26	1	26
36	Corridor Gallery	140	1	140
37	Management He toilet	12	1	12
38	Management She Toilet	12	1	12
39	Café	75	1	75
40	Terrace Café	134	1	134
41	Management Waiting area	32	1	32
42	Director	32	1	32
43	Curator	32	1	32
44	Management He toilet	12	1	12
46	Management She Toilet	12	1	12
47	Assistant Curator	20	4	80
48	Conference	38	2	76
49	Lift Room	21	2	45
50	Air Handling Unit	26	3	78
51	Department Store	68	1	68
	<b>Total</b>			<b>4370</b>
	<b>25% of Total of Circulation</b>			<b>1090</b>
	<b>10% of Total of Circulation</b>			<b>437</b>
				<b>5897</b>

		<b>Museum</b>			
<b>Sno</b>	<b>Space</b>	<b>Area</b>	<b>Units</b>	<b>Area</b>	
1	Security guard room	32	1	32	
2	Security	32	1	32	
3	Gallery	1400	1	1400	
4	Gallery store	32	1	32	
5	Corridor gallery	66	1	66	
6	Electrical panel Room	12	1	12	
7	He toilet	20	3	60	
8	She toilet	10	3	30	
9	Handicapped Toilet	4	3	12	
10	Gallery Lobby	100	2	200	
11	Air Handling Unit	30	3	90	
12	Museum Service Lobby	80	1	80	
13	Gallery	1480	1	1480	
14	Gallery store	32	1	32	
15	Electrical Room	12	1	12	
16	Gallery Lobby	106	1	106	
17	Gallery Manager	32	1	32	
18	Digital gallery	134	1	134	
19	Museum Service Lobby	80	1	80	
20	Conservation	108	1	108	
21	Workshop	108	1	108	
22	Labelling	135	1	135	
23	Marking	135	1	135	
24	Electrical Room	12	1	12	
25	Gallery Manager	32	1	32	
26	Museum Service Lobby	80	1	80	
27	Pantry	99	1	99	
28	Gallery Manager	32	1	32	
29	Assistant Curator	20	1	20	
30	Assistant Curator	30	1	30	
31	Dark Storage	32	1	32	
32	Hanging Gallery space	160	1	160	
33	Store	94	1	94	
<b>Total</b>				<b>5640</b>	
<b>25% of Total of Circulation</b>				<b>1410</b>	
<b>10% of Total of Circulation</b>				<b>564</b>	
				<b>7614</b>	



<b>Library</b>					
<b>Sno</b>	<b>Space</b>	<b>Area</b>	<b>Units</b>	<b>Area</b>	
1	Book shelf	137	1	137	
3	Reading	70	2	140	
4	Stair	32	1	32	
5	Enquiry	18	1	18	
6	Store	15	1	15	
7	He Toilet	18	2	36	
8	She Toilet	14	2	28	
9	Book shelf	160	1	160	
10	Online General	32	1	32	
11	Librarian Room	25	1	25	
	<b>Total</b>				<b>623</b>
	<b>25% of Total of Circulation</b>				<b>155</b>
	<b>10% of Total of Circulation</b>				<b>62</b>
					<b>840</b>

<b>Auditorium</b>					
<b>Sno</b>	<b>Space</b>	<b>Area</b>	<b>Units</b>	<b>Area</b>	
1	Auditorium waiting	48	1	48	
2	Lift Lobby	20	2	40	
3	Stair	32	2	64	
4	Rehearsal Area	60	1	60	
5	VIP	16	1	16	
6	Female Green Room	18	1	18	
7	Male Green Room	18	1	18	
8	Back Stage	26	1	26	
9	She Toilet	12	2	24	
10	He Toilet	20	2	40	
11	Auditorium waiting	48	1	48	
12	Auditorium	275	1	275	
13	Projection Room	19	1	19	
14	Waiting/ snack lobby	167	1	167	
13	Store	23	1	23	
15	She Toilet	12	1	12	
16	He Toilet	18	1	18	
	<b>Total</b>				<b>916</b>
	<b>25% of Total of Circulation</b>				<b>229</b>
	<b>10% of Total of Circulation</b>				<b>91</b>
					<b>1236</b>

## CHAPTER 8

*Teri Talash mein jab gum huwa koi banda,  
To us ko bande se maula bana diya tu ne....*

*When a man loses himself in search of you  
You elevate him from a slave to being your friend....*

*(Hazrat allama Ghulam Ahmed Gilimi Chishti)*

## 8 CHAPTER 8: CONCEPT

Reviving and interpreting the tangible and intangible heritage of Mehrauli. Needs Examining and exploring the history of the place Mehrauli and the tails associated with in the places.

### Some tails

- There are various theories about the origin of the name Mehrauli. Like *mihirwali* and '*meher-wali*' meaning 'blessing of the saint' (Khawaja Bakhtiyar kaki). It is said to be the old Delhi Mehrauli.
- Delhi developed into not only a royal capital but also a cultural and literary hub
- Sultan Iltutmish had built his famous *qasr e safed* or white Palace either on or near the remaining of the palace of Rai pithora. Excavation conducted by ASI under BR mani during 1992 to 1995 have shown remaining of the palace that was covered with white lime plaster which could have been the qasr e safed. It was the scene of many coordination including Sultan Razia as an assassination. It is no longer extant.
- There was apparently *Kushk e sabz* aur green Palace too ISI found green enamelled ties with Arabic inscriptions and ornaments during excavation qutubuddin Aibak as his Regent in Delhi
- 27 Hindu and Jain temples present in the killer Rai pithora were demolished
- One can see the cleverness in placing the columns shafts bases Lintels and roofs of the demolished temples to form corridor of the mosque
- one must admire how cleverly they were built here each of stones had been placed horizontally over the top of that below it and bought in in a little closer in smaller circles the stability depending on the outer edge of the Ring it is very simple method of construction
- the central arch though formed by shaping the inner edges of each course as if the idea of a true arch begin to take shape from the back of the arch As some of the stones were cut in a manner so that they could take a certain amount of thrust
- Alai Darwaza - this gate is so complete in every way right from its building technique to the exquisite Decorations

## 8.1 DESIGN PHILOSOPHY

### 8.1.1 Interpreting the past

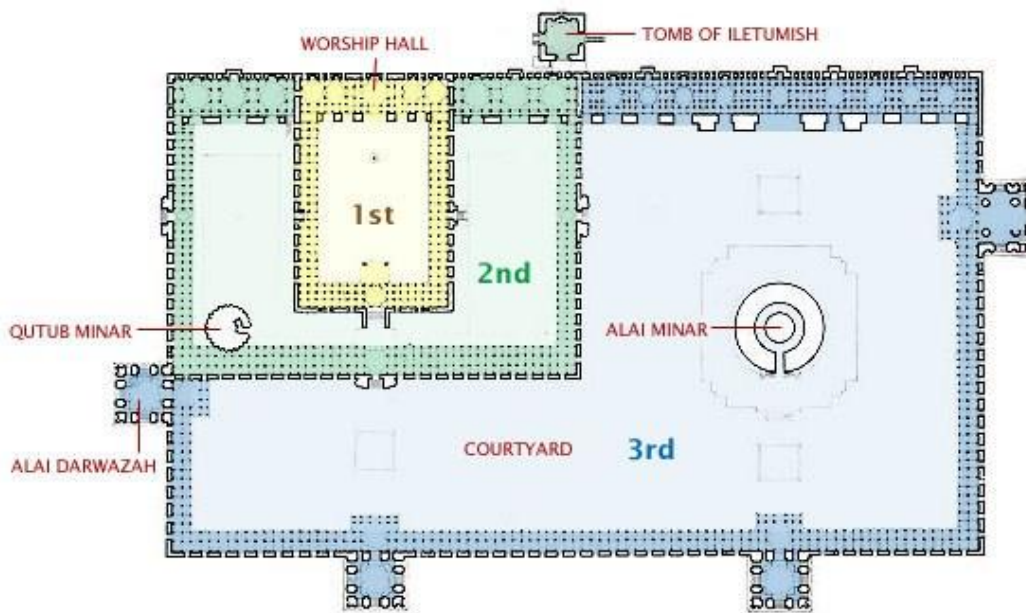


Figure 58 Plan of Qutub Complex



Figure 59 inscription of on the mosque wall

Figure 60 cloister space in Qutub complex

The Qutub complex had undergone three major extensions in two dynasty slave and khilji under the three rulers. These extensions were done to meet the need of public following the basic architectural pattern with different techniques and materials.

The basic form is rectangular with colonnades small openings on exterior and a courtyard inside. There are series of column and hierarchy of spaces from open to semi open to enclose.

Different type of volume to experience double height column space to mezzanine space which look towards massive arched wall as mihrab.

whereas in Jamali Kamali Masjid and Tomb It is very plain on the exterior but there's a bust of colour inside it is built with tile ornamentation and immediately under the ceiling runs a long Persian inscription inverse executed in Naksh characters cut in plaster.



Figure 61 Exterior of Jamali Kamali Tomb

Expressing or interpreting the form for the museum from the architectural master piece in Mehrauli. From basic cube form at base and transforming into octagon and turning to a dome for roofing.

There is carving and extensive work in interior which act as a surprise element for the viewer

Using the same phenomena the basis form is obtained from the

Qutub complex.



Figure 62 Interior of Jamali Kamali Tomb

- The cubic form with solidity on the facade and intricacy to experience.
- Different type of volumes with constant change in the expression of light and enclosure.
- Contemporised form to interpret the wall of arch
- Bursting of different shapes of shadows.
- Creating various social spaces for interaction and scope for expansion.



### 8.1.2 Design consideration

- Borrowing element from the past.
- Integrating these element in harmonious pattern and abstract form that link past and present.
- Creating various social logic of space that ranges from pleasurable public space to intimate spatial setting.

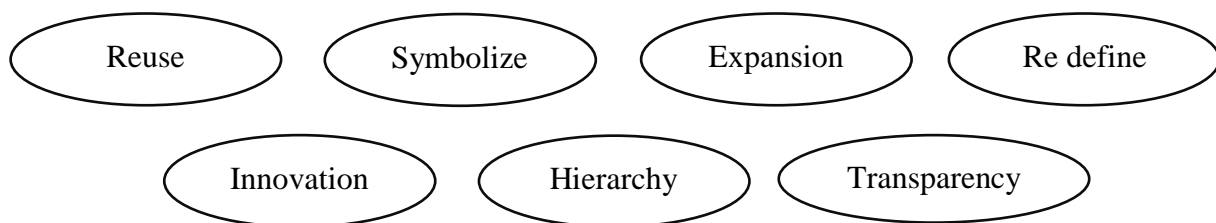
### 8.1.3 Design Principles

The principles of design are what can be felt by observing any design or composition and what makes them more beautiful and memorable.

- Movement
- Symmetry
- Rhythm
- Centralization
- Hierarchy

### 8.1.4 Building concept

I remained faithful to the inspiration I had found in the mosque Quwwat ul Islam (Jami masjid) and Jamali Kamali tomb derived from its austerity and the simplicity. It was this essence that I attempted to bring fourth in interpretation centre.



#### 8.1.4.1 Site planning

##### Access to Site

There are two important nodes around the side and a bus stand (lado Sarai) with a secondary road leading towards Qutub Complex. Second node is at the end of crescent road by segregating all three Entry there is ease of access to the site by all the medium with maintaining uninterrupted vehicular movement on road. Where service entry is from rear side.

### Understanding the site

The site is Rich in vegetation with variety of trees of different height and foliage which act as a good noise channel. There is a complete peaceful environment at the site so segregating the site for public spaces and intimate private space is based on access to the site

The public spaces could be arranged near the parking and museum could be at the rear side which act as clam space Public spaces like bazar, interaction plaza, public exhibition space, tourist facilities.

### Zoning

The site is through crescent road further the movement on site is linear maintaining the axis and the vista of the building with spaces arranged around it this gives vision to visitor for movement on the site

### Blocking

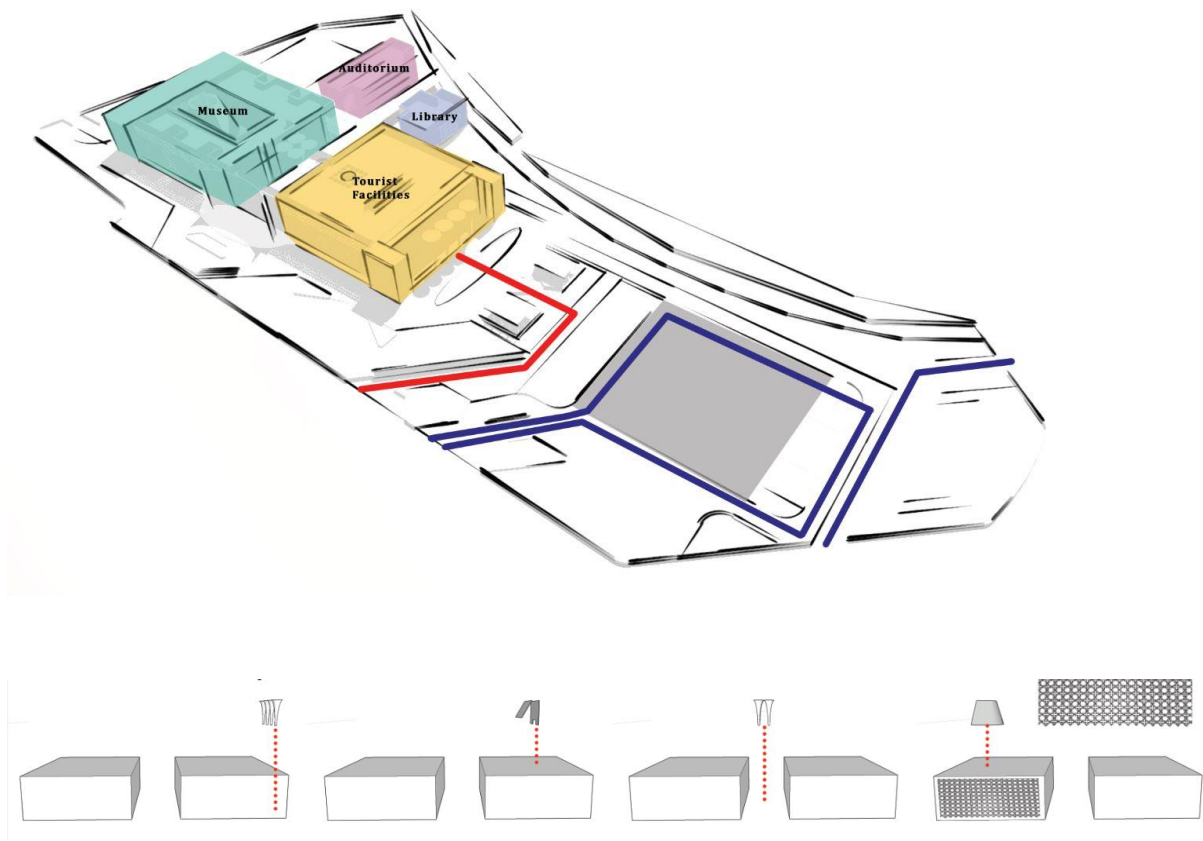
The blocking is done on site where there is minimum trees with least intervention to site. The perceptual facade of the building from the road will develop a solid contemporary Islamic building with intricacy on facade. The facade of the building will block the view of Qutub so as to tease visitor to move ahead to explore the museum.

Expressing volumes in the gallery the exhibition spaces with counterpointed by areas for rest where the visitor can sit.

The blocking are done in a way to facilitate visitor with tourist facilities and connecting them with galleries, auditorium and library with multiple spaces for interaction, preventing damage to trees and arranging in harmonious way to get a good circulation which allow visitor to move around in all the ways.

the connections are axial connecting every block.





1. Wall of false arch which interpret the Mosque Wall in contemporary way
2. Tapered Void it blend the building with different voids to experience with a constant change in light pattern which is prominent feature in Qutub complex with mezzanine at corners.
3. Passage with Blind Arcade
4. The Minar Gallery which is created with trapezoidal void which connect floors.

## CHAPTER 9

*Uske farog e husn se, jhamke hai sab mein noor  
Sham-e-haram ho yaan ke diya somnath ka ....*

*The splendor of his beauty fills everything with light  
Be it candle in mecca or the lamp in somnath....*

*(Mir taqi Mir)*

## 9 CHAPTER 9: DESIGN

## 10 REFERENCES

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