CONTEMPORARY ART MUSEUM
Agargaon, Sher E Bangla Nagar, Dhaka

By
Dilshad Samina Soha
08308002

Seminar II

Submitted in partial fulfillment of the requirements
for the degree of Bachelor of Architecture
Department of Architecture
BRAC University

August 2013
ABSTRACT

Contemporary art seems to exist in a zone of freedom. It keeps distance from the rules and conventions of the ordinary functional character of everyday life. Quieter contemplation and intellectual play exist together in that zone and offences against systems of belief. This dissertation paper is a descriptive article discussing the various aspects and considerations explored during the thesis project design of the Contemporary Art Museum in Dhaka, Bangladesh. The following will attempt to describe in detail the various relevant factors which were required to understand and consider during the design exercise. In addition, this museum is designed in such a way that serves as a breathing space for the city and responds to the social, environmental, economic and artistic hunger of the human mind. The special quality of the museum is the hierarchy of spaces which would assist as a canvas for representing people’s emotions and life.
ACKNOWLEDGEMENTS

First of all thanks to Almighty Allah, without who's mercy completion of this dissertation would have been impossible. I would like to thank my Prof. Fuad H. Mallik and Zainab F. Ali. I show my full gratitude to my instructors A.F. MahmudunNobi, ImonChowdhuree, NandiniAwal, Shakil Ahmed Shimul and RubaiyaSultana for guiding & helping me through the project & this report. I would also like to acknowledge my parents, who kept awake with me almost every singling night with their endless prayers and keeping up with my demands and temperaments. I value the guidance of my well-wishers and appreciate the encouragement of my dear friends, siblings and university mamas, who constantly kept me in their prayers.
# TABLE OF CONTENTS

## 01. INTRODUCTION OF THE PROJECT

1.1 Introduction  
1.2 Project Brief  
1.3 Project background  
1.4 Rationale of the project  
1.5 Aims and objectives of the project  
1.6 Functions & Programs required for the project  
1.7 Reasons for choosing the site

## 02. SITE APPRAISAL

2.1 The Site  
2.2 Site & Surroundings  
2.3 Environmental considerations  
2.4 SWOT Analysis

## 03. LITERATURE STUDY

3.1 Museum  
3.2 Roots of Museum and Galleries  
3.3 Beginning of Public Museum  
3.4 Lighting and Space quality of Museum  
3.5 Display and storage requirement  
3.6 Importance within a country  
3.7 Art Galleries and Museum in Dhaka  
3.8 The Role of the Art Museum  
3.9 Modern technology as a threat of replacing museums

## 04. CASE STUDIES

4.1 Case Study 01: The Kimbell Art Museum  
4.2 Case Study 02: Heigh Museum of Art  
4.3 Rosenthal Center for Contemporary art  
4.4 Jinan contemporary art museum proposals
05. PROGRAM DEVELOPMENT

5.1 Proposed Program
5.2 Developed Program
5.3 Far calculation
5.4 Conceptual Layout

06. CONCEPTUAL STAGE AND DESIGN DEVELOPMENT

6.1 Conceptual stage
6.2 Study & Approach from the site
6.3 1st phase
6.4 2nd phase- Form derivation
6.5 3rd phase- Circulation
6.6 4th phase- Gallery
6.7 5th phase- Landscape

07. FINAL DESIGN

7.1 Designed site and master plan
7.2 Floor plans
7.3 Elevations
7.4 Sections
7.5 Three dimensional perspective views of space
7.6 Model of the project

CONCLUSION

REFERENCE
CHAPTER 01

INTRODUCTION OF THE PROJECT

1.1 INTRODUCTION

Contemporary art is art produced in this present period of time. It is of the post 1960-modemist period. It includes and develops from postmodern art, which itself is a successor to Modern art. It seems to exist in a zone of freedom, keeping distance from the ordinary functional character of everyday life and from its rules and conventions. Quieter contemplation and intellectual play exist together in that zone and offences against systems of belief. Since the early part of the 20th century, a common concern was what creates art. In the contemporary period (1950 to now), the concept of avant-garde has come to define what art is.

After that Contemporary art is noticed of by galleries, museums, and collectors. Museums are an excellent place to learn about art as it relates to history. The art in museums represents the evolution of our understanding of society. These innovative works are symbols of how humans have learned to perceive their world. It enhances our understanding of various cultures. Beliefs and traditions are handed down through generations through the art of individual cultures. Medieval and Renaissance artists sought to create images that could show people the glory of God or the saints - that would teach people something about the divine. With art, there is nothing like seeing the real thing. Starting from the cave painting of pre-historic art to now-a-days contemporary art depicts almost the same relationship with the human mind. There were appreciations as well as criticisms for it. But it was the desire of good artworks that pushed the society to show creativity in more innovative way.

The display of these creative works was limited at a time in compare of today's world. Now more and more people can watch exhibitions due to the blessing of modern technology. Since 1990s, when the flourishing in museum building started, the public has greeted opening of new museums with enormous excitements. The typical definition of museum has changed over time. Museum or exhibition places are no longer only the houses of exhibit things. It offers people different interactive ways of knowing art and provides facilities such as theatre space, exhibition hub, archives, artist's studio etc. along with restaurant, shops.
Every country of the world has their individual identity. They are always busy to exhibit them. Art museum expresses the history & evolution of a country, all aspects of human living in that particular society, including its diversity, lineage, race, etc. It gives an idea of the "ideology" or national character of the people. It also showcases the creative achievements, technical development, innovation, application, etc. By adding the public facilities, an Art museum can serve as a public gathering space and hold country's creativity in front of the world.

1.2 PROJECT BRIEF

1.2.1 Name of the project: Contemporary Art Museum

1.2.2 Project type: Cultural

1.2.3 Client: Ministry of Cultural Affairs, Govt. of Bangladesh

1.2.4 Location: Agargaon, Sher-e-Banglanagar, Dhaka, Bangladesh

1.2.5 Site area: 309528 sq. ft.

1.3 PROJECT BACKGROUND

Agargaon is one of the parts of the master plan for Sher-E-Bangla nagar, done by architect L. I. Kahn. The land was allocated for different sectors like assembly, secretariat, hospital, housing and civic sectors. The chosen site is a government land, which was chosen for a craft museum, but later got cancelled. Far ahead ministry of cultural affairs, Govt. of Bangladesh, proposed the land dedicated to contemporary art museum. Though some part of the land has given to other, but still the left over area can contribute a lot for the people.
1.4 RATIONALE OF THE PROJECT

Nowadays art is a diverse tapestry of rich, colorful pieces that reflect the vibrant culture of an area. It has covered centuries, and encompasses woodwork, terracotta, paintings, scroll paintings, textiles, architecture and sculpture. But we are going to lose these for lack of proper and sufficient public place. Our society is becoming introvert for limited space of sharing ideas and views. In the long run, it may affect our country’s prosperity. Art is something that has potential to make peoples mind free. This project would be such a platform where people would share their ideas and will certainly help to make the citizens think for the society in a broader perspective. There are a lot of people in Bangladesh, who are involved in creative works. So this project can contribute a great significance locally and nationally, and can play as a good urban center for the city.

1.5 AIMS AND OBJECTIVES OF THE PROJECT

The aims of this project are:

- To preserve and exhibits contemporary arts
- To promote the knowledge; enjoyment and cultivation of the contemporary arts
- To show the Statement of Progress & Progression- creative achievements, technical development, innovation, application, etc.
- To communicate and share the ideas and emotions of artists and viewers.
- To encourage the engagement of foreign artists.
1.6 FUNCTIONS & PROGRAMS REQUIRED FOR THE PROJECT

- Administration
- Permanent gallery
- Temporary gallery
- Multipurpose hall
- Seminar room
- Library
- Open exhibition area
- Cafeteria
- Art workshop
- Studio for artists
- Souvenir shop
- Service and facilities
- Parking

1.7 REASONS FOR CHOOSING THE SITE

Architect Louis I Kahn developed the master plan for Sher-E-Bangla nagar in 1962, when he designed the National Assembly Building for Dhaka city. Important structures like national assembly, national library exist here. Agargaon area has not fully developed yet. There are spaces with diverse urban development opportunities. Wide roads & dedicated public places surround the site. It has an approximately central location. It has technological importance also. Computer city, radio station & Science museum is very close to the site. The site is attractive to a diverse group of age. Also a known place for tourists & foreigners, as the China-Bangladesh Friendship Convention Center is nearby. According to the consideration, the chosen site can be a perfect place in Dhaka city to have a public facility or gathering space, like a contemporary art museum.
CHAPTER 02

SITE APPRAISAL

2.1 THE SITE

2.1.1 Location of the site: Agargaon, Sher-e-Banglanagar, Dhaka, Bangladesh
2.1.2 Site area: 309528 sq. ft.
2.1.3 Altitude: 9m from sea level
2.1.4 Latitude: 23°46' N
2.1.5 Longitude: 90°22' E
2.2 SITE & SURROUNDINGS

2.2.1 Existing site

The site is in Agargaon, which is a part of the master plan of Sher-E-Bangla nagar. Shere-e-Bangla Nagar is the heart of Dhaka. All government office and Parliamentary office situated in this area. It is divided into six sectors. The location of the chosen site is at the civic sector.

Fig03: Master plan of Sher-e- Banglanagar
Source: Rajuk, Dhaka, Bangladesh
2.2.2 Existing land use

The site is a government land. It is located on a secondary road opposite of Islamic Foundation and is surrounded by Passport office, LGED office, Technical Education Board, Probin Hitoishi Kendra and Geriatric Hospital Institute and staff quarter, DESCO and Shere-e-Bangla Nagar government staff quarter. Currently the site is occupied by illegal built slum, tea stalls, temporary Bus stand and a portion of it is used by the police. Maximum land area is now marshy low lying vacant land.
2.2.3 Adjacent land use

According to the Kahn's plan, the site is located in a mixed use area. Dedicated public spaces, institutions & facilities surround the site. To the north and south, land is used for housing sector. To west and east is used for civic sector. The site is surrounded mostly by schools, offices, conference hall and museum. All government office and Parliamentary office also situated in this area.
2.2.4 Road network and circulation

The site is very permeable. Access from anywhere to the site is very easy. It sits on the joining road of Mirpur and Begum Rokeya Sharani. It is the corner plot of two roads on Syed Mehbub Hossain Sharani.
2.2.5 Traffic analysis

The road adjacent to the site is not currently overloaded by traffic. Every kind of vehicle has accessibility to the site.

![Traffic analysis map](image)

*Fig09: Traffic analysis map*

2.2.6 Site surrounding

Build structures and their distance from the site is necessary to address because the nearby buildings have impact on the site.

![Site surrounding](image)

*Fig10: Site surrounding*

1. IDB Bhaban
2. Shomaj Sheba Bhaban
3. Forest Department
4. Local Government Engineering Department
5. Passport Office
6. Sher-e-Banglanagar
7. National Parade Ground
8. Housing
9. National Library and Archive
10. Palli Karma Shahayak Foundation
11. Islamic Foundation
12. National Institute of Local Government
13. Science Museum
2.3 ENVIRONMENTAL CONSIDERATION

2.3.1 Topography

The topography of the site is a flat land with a small and shallow natural water body in it. There has no great variation in the elevation.

2.3.2 Habitation

To the north it is still undeveloped. To the west the settlement is formal offices and national archive. There is height variations from twenty storied to two storied.

2.3.3 Climatic consideration

The site receives constant southern breeze as the building height of the southern site is not more than two storied. West side is blocked with buildings, don’t need any shading. It also receives ample amount of north light.

Fig11: Site climate map
2.4 SWOT ANALYSIS

2.4.1 Strength

- Agargaon is a rapidly developing area and hasn't fully developed yet. So the site has the potential of becoming a good urban public place.
- The place can be the center of creative work of the country.
- Central location of the city and easily accessible.
- Wide roads.
- Is located in along the secondary road. So no rush of traffic & less traffic congestion.
- Technologically rich site. The science museum, computer city, radio station in around.
- Attracts tourists & foreigners.
- Is located in lash of green.
- Invites a diverse age group.
- Exhibitions, cultural programs saturate the public life at different times of the year.
- Important public spaces are nearby.
- The west side is mostly filled with building structure which provides sufficient shed.

Fig 12: Central location of the site gives a positive point for becoming a good public space
Source: Google
2.4.2 Weakness

- Lots of unused spaces surrounding the site.
- Negative space created by unused spaces.
- At night the area becomes insecure.
- The site and surrounding is not properly taken care by the authority.
- Two sides of the site face high rise buildings, which blocks view.

2.4.3 Opportunity

- The other public buildings around would make a positive force for the site.
- Lots of open spaces around.
- Can be a vibrant & useful public hub & civic space.

2.4.4 Threat

- If not handled properly, the area might have a bad effect on the community, as possibilities are huge.
- Unplanned development may spoil the master plan of Sher -E-Banglanagar done by architect Louis Kahn.
CHAPTER 03

LITERATURE STUDY

3.1 MUSEUM

3.1.1 Defining Museum

A museum is a building or institution which houses a collection of artifacts. Museums collect and care for objects of scientific, artistic, cultural, or historical importance and make them available for public viewing through exhibits that may be permanent or temporary. Most large museums are located in major cities throughout the world and more local ones exist in smaller cities, towns and even the countryside. Early museums began as the private collections of wealthy individuals, families or institutions of art and rare or curious natural objects and artifacts. The museums of ancient times, such as the museum of Alexandria, would be equivalent to a modern graduate institute. The modern meaning of the word can be traced to the Museum of Pergamon in Anatolia, which was one of the earliest to have displayed artworks. Nevertheless, museums to this day contribute new knowledge to their fields and continue to build collections that are useful for both research and display.

3.1.2 Art Museum

An art museum or art gallery is a building or space for the exhibition of art, usually visual art. Museums can be public or private. It depends on the ownership of a collection of the museum. Paintings are the most commonly displayed art objects. Besides it can also preserves sculpture, photographs, illustration, illustration art and the objects from the applied arts. Although primarily concerned of the art museum is to provide a space to show works of visual art, but sometimes it can host other artistic activities, such as music concert or poetry reading.
3.2 ROOTS OF MUSEUM AND GALLERIES

From the history, the Greeks and Romans are the first who started to keep records of the collections of precious objects. The term "Museum" was first used during this Renaissance period. When enthusiasm for the products of classical antiquity and a sense of history first developed, art collection began with Italian Renaissance. In 16th century first formal setting of display was done by Bramante in Vatican. The displaying method was completely different at that time. All the art works were jumbled together in the walls, ceilings. Their purpose was to delight. Viewers had to find what object attract them and make their own connection with that object.

3.3 BEGINNING OF PUBLIC MUSEUM

Tower of London, the university museum at Basel and Ashmolean at Oxford University was the first museum in 1683, after the exhibition of Uffizi in 1591. The museums of that time were supported by public revenues such as British Museum of 1753. In 19th century, a dramatic rise of museum was noticed. In that time museum was designed as a piece of ceremonial architecture. There the idea of the sacred was translated into secular or national or civic term. Museums of this century were supported by a limited audience who were educated and refined. Now there is a much broader audience.

Fig13: Development of Museum
3.4 LIGHTING & SPACE QUALITY OF MUSEUMS

Museums rank among the most demanding and exacting of all lighting applications. Visitors come from far and wide to see the exhibits, which must be displayed in the best possible light, literally as well as figuratively. This means they must not only be easy to see, interpret, understand and appreciate—all the way down to the smallest detail—but also look as attractive as their artists and creators intended. The long-term damage that light can inflict on artwork and artifacts complicates matters even further—as does the fact that these objects come in a variety of shapes, sizes, colors and textures, all of which can impact the lighting equation.

![Image of a museum space](image)

*Fig14: Space quality of museum*
*Source: Google*

Lighting in museums and art galleries plays a key role in a visitor’s ability to perceive and enjoy both the artifacts in a museum and the building in total. In order to develop a successful lighting scheme, a museum lighting designer must satisfy many conflicting design requirements. Their primary concern is effectively illuminating artwork, but they can be constrained by energy conservation standards which require light levels below 15 foot candles in some exhibit spaces. As an additional concern, they must consider the visual comfort of visitors. It is this last criterion that this report explores.
A lack of consideration for the visual comfort of visitors on a designer's part can potentially handicap an individual's ability to view displays. Dramatic variations in light levels from exhibit to exhibit, or from exterior to interior, can affect a visitor's ability to appreciate artwork because the human eye requires several minutes to adjust to large changes in light levels. Sharply contrasting light levels between a bright entry and a dark gallery can be very disturbing, and potentially even painful.

### 3.5 DISPLAY AND STORAGE REQUIREMENT

<table>
<thead>
<tr>
<th>Museum types</th>
<th>Display (% ground floor area)</th>
<th>Storage (% ground floor area)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Local authority</td>
<td>57</td>
<td>25</td>
</tr>
<tr>
<td>Independent</td>
<td>58</td>
<td>12</td>
</tr>
<tr>
<td>All museums</td>
<td>53.</td>
<td>19</td>
</tr>
</tbody>
</table>
3.6 IMPORTANCE OF ART MUSEUM WITHIN A COUNTRY

Museum showcases the history & evolution of a culture or a country, all aspects of human living in that particular society, including its diversity, lineage, race, etc. It gives an idea of the "ideology" or national character of the people; the unity as well as the diversity. It also showcases the creative achievements, technical development, innovation, application, etc. So it is a Statement of Progress & Progression. Museum is more about "facts" & artifacts - what actually occurred as revealed through the selection of displays.

Art museum is a representation of the Perspective of the times & the artists. It shows how contemporary artists interpreted & chose to Represent Reality through their eyes & vision. It may or may not be "factual" but it does reflect the times - how much freedom & patronage artists received, international exchange or influence, & so on. Some works can also symbolic & may have encoded or deeper meaning than what is apparent. Art museum is a symbol or representation of the country's heritage, human inheritance & progress, a window to the distant past.

3.7 ART GALLERIES AND MUSEUMS IN DHAKA

<table>
<thead>
<tr>
<th>National Art Gallery at Shilpakala Academy</th>
<th>Segun Bagicha, Dhaka.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh College of Arts and Crafts</td>
<td>Kazi Nazrul Islam Avenue, Dhaka.</td>
</tr>
<tr>
<td>Contemporary Arts Ensemble,</td>
<td>48/1, Commercial Building, South Avenue, Gulshan.</td>
</tr>
<tr>
<td>Saju Art Gallery</td>
<td>F 28 DMC Market, Gulshan, Dhaka.</td>
</tr>
<tr>
<td>La Galerie</td>
<td>54 Kamal Ataturk Avenue, Gulshan, Dhaka.</td>
</tr>
<tr>
<td>Jiraj Art Gallery</td>
<td>12 Shahbag Shopping Complex, Dhaka,</td>
</tr>
<tr>
<td>Haque Art and Crafts</td>
<td>F 36, North DMC Market, Gulshan,</td>
</tr>
<tr>
<td>Yeart Gallery</td>
<td>F 37 North DMC Market, Gulshan, Dhaka,</td>
</tr>
<tr>
<td>Shilpangan</td>
<td>House 15, Road 4 Dhanmondi, Dhaka.</td>
</tr>
<tr>
<td>Bangladesh Folk art Gallery</td>
<td>Panam Nagar, Sonargaon.</td>
</tr>
<tr>
<td>Galary</td>
<td>21, 765 Satmasjid Road, Dhanmondi, Dhaka.</td>
</tr>
</tbody>
</table>
From the list, it is seen that there are lot of galleries at Gulsan area, and few galleries at Dhanmondi and near old Dhaka. But other areas of Dhaka and at its center, there is no galleries. Besides all galleries exhibits recent works of artists as a temporary exhibition, but there is no contemporary art museum which can expressed the current activities of the world.

3.8 THE ROLE OF THE ART MUSEUM

3.8.1 The Role of the Art museum from today's perspective

The idea of the museum has changed with time. It is now more interactive and more open. The museum has to be welcoming and needs to communicate to the widest possible audience. It should have an all-embracing image. It should not house only art or sculpture, but also should house people, their emotions and feelings.

Today's museum represents how a society sees itself. It is the symbol of commercial and cultural achievement of a country. It is a place for visitor's attractions, which might help in global tourism. Nowadays museum is a place of multifunction, which has to combine traditional roles of interpreting and conserving a wide range of artifacts, large scale retail area, and new technology. It acts like an art market where artists are being promoted. Exhibits are not displayed in static form. A huge number of people will be welcomed by temporary galleries in the museum. Large scale installation projects, video and performance make the whole museum livelier participatory and interactive. People who will be coming here will be wishing to shop, relax and have a seminar. It is flexible, spaces has multiple function.
3.8.2 The Role of the Art Gallery in the Digital Age

The art gallery used to be the place where art was hung and admired. In today's world of flicker, Facebook, and instant photo sharing technology, images today are more easily accessible and reproducible than ever before. If the art gallery used to be the place where art was contained and contextualized, then the question raise about the role of the art gallery in today's world.

In history, before the invention of reproductive technologies such as the camera, classical artists created works of art in a time period. Now those images are freely captured and distributed all over the world. Technology has been able to decontextualize art, removing it from galleries and museums and repositioning it in places where it was never intended to be seen. The painting on the wall has been replaced by the camera through which any picture can be reproduced and making it available in any size, anywhere, for any purposes.

Art has spilled over onto the digital world. Surfing the internet, one can look through thousands of photographs and paintings instantly via google images or photo sharing. So internet has become the new free and democratic art gallery. Though art galleries still exist, they're becoming more museum-like than before; the art gallery is becoming a space where original artworks are relied, but it's no longer the only space where art can be enjoyed.

3.9 Modern Technologies As a Threat of Replacing Museums

In today's society, modern technology is upgrading constantly every day, and the advanced electronics gradually replace many areas of our real lives. More and more people can watch exhibitions through television or internet at home due to modern technology. So a threat can be raised that museums and art galleries will be disappeared soon. But it should not be done because exhibition on internet or television will never be able to give the same as an art museum.
Viewing exhibitions at home is not as well as enjoying the views in the museums. Advanced technology can't provide the realistic feeling to audiences. Though people who watch exhibitions on TV or internet at home, save the time and money on the road, which is a great advantage, but in accordance with recent research, experts suggest the lifestyle of individuals in modern society is unhealthy because they lack physical exercise and face-to-face communication.

Museums can promote the development of tourism. Many tourists prefer to visit a museum to realize local culture as well as to enjoy artworks from masters. Along with it, the importance of museums and art galleries is plain in terms of education and culture. First of all, authentic exhibits cannot be completely displayed only by images and videos. It is like travelling to a place is much better than viewing the landscape of that place on TV or photos, so the best method to learn one thing is to experience it. Moreover, museums and art galleries preserve some cultural heritages for which these buildings will not disappear unless people abandon their culture.
CHAPTER 04

CASE STUDY

4.1 THE KIMBELL ART MUSEUM

4.1.1 Project Brief

<table>
<thead>
<tr>
<th><strong>Architect</strong></th>
<th>Louis I. Kahn</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Fort Worth, Texas</td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td>1967 to 1972</td>
</tr>
<tr>
<td><strong>Building Type</strong></td>
<td>art museum</td>
</tr>
<tr>
<td><strong>Construction System</strong></td>
<td>reinforced concrete</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td>temperate</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>urban park setting</td>
</tr>
<tr>
<td><strong>Style</strong></td>
<td>Modern</td>
</tr>
<tr>
<td><strong>Notes</strong></td>
<td>vaulted ceilings with integrated day lighting</td>
</tr>
</tbody>
</table>

*Fig16: Kimbell art museum*
*Source: Greatbuildings*

*Fig17: Kimbell art museum*
*Source: Google*
4.1.2 Project description

The Kimbell Art Museum was designed by renowned architect Louis I. Kahn. It is recognized as one of the most significant works of architecture of recent times. The building is especially famous for the silvery natural light spreading across from its vaulted gallery ceilings. It is a small building with excellent art collection, traveling art exhibitions, educational programs and an extensive research library. In 1990, the museum got Twenty-five Year Award from American Institute of Architects.

4.1.3 Architectural features

Vault

The aesthetics of the Kimbell Art Museum is derived from the more classically oriented sensibility of its architect Louis I. Kahn. The museum is composed of 16 parallel vaults. Each are 100 feet (30.6 m) long, 20 feet (6 m) high and 20 feet (6 m) wide (internal measurements). Intervening low channels separate the vaults. The vaults are grouped into three wings. The north and south wings each have six vaults, with the western one open as a portico. The central space has four vaults, with the western one open as an entry porch facing a courtyard partially enclosed by the two outside wings.

Fig18: Vault of Kimbell art museum
Source: Google
4.1.4 Function arrangement, skylight and atmosphere

With one exception, the art galleries are located on the upper floor of the museum to allow access to natural light. Service, curatorial spaces and an additional gallery are located at the ground floor. Each interior vault has a slot along its apex to allow natural light into the galleries. Air ducts and other mechanical services are located in the flat channels between the vaults.

Reflectors spread sunlight across the gallery ceilings. Kahn showed that the curved ceiling shells are supported only at their corners by allowing a thin strip of outside light to enter along the tops of the long gallery walls and a thicker arc of light to enter at the end of each gallery. In areas without art, such as the lobby, cafeteria and library, the entire reflector is perforated, making it possible for people standing beneath to glimpse passing clouds. In the gallery spaces, the central part of the reflector, which is directly beneath the sun, is solid, while the remainder is perforated. The concrete surfaces of the ceiling were given a high finish to further assist the reflection of the light.

The ends of the vaults are made of concrete block. They are faced with travertine inside and out. Steel handrails were "blasted" with ground pecan shells to create a matte surface texture. The museum has three glass-walled courtyards that bring natural light to the gallery spaces. One of them penetrates the gallery floor to bring natural light to the conservation studio on the ground floor.

Fig19: (a) interior space with daylight; (b) exterior wall detail; (c) exterior porch space; (d) cleavage space between two masses
Source: Greatbuildings
4.1.5 Landscaping

The idea was that, open porches flanking the entrance would create a good transition from the lawn and courtyard to the galleries inside. The main entrance past a lawn edged by pools with running water, the visitor enters a courtyard through a grove of Yaupon holly trees. The sound of footsteps on the gravel walkway echoes from the walls on either side of the courtyard and is magnified under the curved ceiling of the entry porch. After that subtle preparation, the visitor enters the hushed museum with silvery light spread across its ceiling.

![Image of the vault of Kimbell art museum](image-url)

Fig20: Vault of Kimbell art museum
Source: Google

4.1.6 Findings

- The repetition of a vault like form has made it rigid yet rich simplicity.
- The shell at the portico is supported only at its four corners, minimizing obstruction at floor level.
- The covered exterior and a beautifully articulated concrete structural frame with infill paneled walls of travertine gives a dull shine look.
- Its classic sense of timelessness is conveyed by the respect for materials and details.
- A diffused natural light enters into the interior space through continuous interior suspended screen and reflected downward off the curve of the vault.
4.2 HEIGH MUSEUM OF ART

4.2.1 Project Brief

| Architect | Richard Meier |
| Location | Atlanta, Georgia |
| Date | 1983 |
| Building Type | art museum |
| Construction System | concrete frame, enameled steel cladding |
| Style | Modern |
| Notes | curved facade to sunny atrium |

Fig21: Heigh Museum of Art
Source: Greatbuildings
4.2.2 Project description and findings

A classical four square part is manipulated to create spatial distinctions worthy of the museum's important placement and public function within the cultural scope of Atlanta. One of the quadrants is carved out to create the monumental and orienting atrium space whose edge-defining circulation ramps pay respect to the swirling Guggenheim. Richard Meier's characteristically white building houses an auditorium, a ground level court, cafe, museum shop, members lounge, required staff support spaces, and varied display spaces featuring painting, sculpture, and furniture. Natural light is prevalent and adjustable to meet specific exhibit needs.

The structure consists of steel columns and frame and concrete slabs. The granite plinth acts as a horizontal datum for the ramps and, in elevation, as an anchor for the white porcelain-enamed steel panels cladding the galleries below. Light, whether direct or filtered, admitted through skylights, ribbon glazing, clerestory strips, or minimal perforations in the panel wall, is a consistent preoccupation throughout: apart from its functional aspect, it is a symbol of the museum's role as a place of aesthetic illumination and enlightened cultural values. The primary intention of the architecture is to encourage the discovery of these values, and to foster a contemplative appreciation of the museum's collection through its own spatial experience.

Fig22: Edge-defining circulation ramps of the carved orienting atrium space of High Museum of Art
Source: Greatbuildings
Fig23: Interior space of Heigh Museum of Art
Source: Greatbuildings

Fig24: Exterior space of Heigh Museum of Art
Source: Greatbuildings
4.3 ROSENTHAL CENTER FOR CONTEMPORARY ART

4.3.1 Project Brief

<table>
<thead>
<tr>
<th>Architect</th>
<th>Zaha Hadid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Cincinnati, USA</td>
</tr>
<tr>
<td>Date</td>
<td>2001 to 2003</td>
</tr>
<tr>
<td>Building Type</td>
<td>art museum</td>
</tr>
<tr>
<td>Building footprint</td>
<td>11,000 sqft</td>
</tr>
<tr>
<td>Total area</td>
<td>80,000 sqft</td>
</tr>
<tr>
<td>Floors</td>
<td>7</td>
</tr>
<tr>
<td>Style</td>
<td>Modern</td>
</tr>
<tr>
<td>Material</td>
<td>Concrete, steel, glass</td>
</tr>
<tr>
<td>Major design features</td>
<td>Urban Carpet, Jigsaw Puzzle, Skin/Sculpture</td>
</tr>
</tbody>
</table>

Fig25: Rosenthal center for contemporary art
Source: Google
4.3.2 Architectural features

- Building is smoothly blended with urban context.
- Lighting sources have been distributed properly by one major source and other supporting sources.
- Galleries with different height are accommodated.
- The building seems as if floating.

Fig26: Rosenthal center for contemporary art
Source: Google

4.3.3 Findings

- The museum gets positive impact of surrounding for locating in a corner plot.
- Situated on a busy road, but perfectly performs its functions.
- Major light source is from the top of circulation way. Others are from the side of the building.
- Simple ways have used to make an experiential space.
- Stair plays a drama rather than a boring straight vertical access.
- Gallery space ratio is 20% of total area.
4.4 JINAN CONTEMPORARY ART MUSEUM PROPOSALS

4.4.1 Project Brief

<table>
<thead>
<tr>
<th>Architect</th>
<th>United Design Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Jinan, China</td>
</tr>
<tr>
<td>Date</td>
<td>2001 to 2003</td>
</tr>
<tr>
<td>Building Type</td>
<td>art museum</td>
</tr>
<tr>
<td>Building footprint</td>
<td>11,000 sqft</td>
</tr>
<tr>
<td>Total area</td>
<td>80,000 sqft</td>
</tr>
<tr>
<td>Floors</td>
<td>7</td>
</tr>
<tr>
<td>Style</td>
<td>Modern</td>
</tr>
<tr>
<td>Material</td>
<td>Concrete, limestone</td>
</tr>
<tr>
<td>Major design features</td>
<td>Atrium, Hierarchical circulation, Skin/Sculpture</td>
</tr>
</tbody>
</table>

Fig27: Jinan contemporary art museum
Source: Archdaily

4.3.2 Architectural features and findings
- Has relationship with the existing buildings.
- Maintaining the symmetry of the system.
- Atrium and hierarchical circulation inside the building.
- Elliptical exhibition space.
- Main four entrances.
- Used external membrane, double glazed skin, semitransparent finish to reveal the interior complexity.
- Gallery space ratio is 20% of total area.

Fig28: Jinan contemporary art museum
Source: Archdaily
CHAPTER 05

PROGRAM DEVELOPMENT

5.1 PROPOSED PROGRAM

- Administration 5500 sqft
- Permanent gallery 61200 sqft
- Temporary gallery 34000 sqft
- Multipurpose hall 4700 sqft
- Seminar room 4350 sqft
- Library 6200 sqft
- Cafeteria 2400 sqft
- Art workshop 9400 sqft
- Studio for artists 7000 sqft
- Souvenir shop 400 sqft

5.2 DEVELOPED PROGRAM
<table>
<thead>
<tr>
<th>Zone</th>
<th>Functional Activity</th>
<th>Quantity</th>
<th>Area/space (sqft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>Reception</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Lobby</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Office space</td>
<td>18</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Toilets</td>
<td>1</td>
<td>women-3, men-5</td>
</tr>
<tr>
<td></td>
<td>Curator</td>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Curator PA</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Complex Superintendent</td>
<td>6</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Conference Room</td>
<td>110</td>
<td>1200</td>
</tr>
<tr>
<td></td>
<td>Staff Room</td>
<td>6</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Toilet</td>
<td>women-1, men-1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>5500</td>
</tr>
<tr>
<td>Permanent Gallery space</td>
<td>Space for exhibition</td>
<td></td>
<td>58000</td>
</tr>
<tr>
<td></td>
<td>Store/ Archive</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Workshop/ repair unit/conservation</td>
<td></td>
<td>2200</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>61200</td>
</tr>
<tr>
<td>Temporary Gallery space</td>
<td>Lobby space</td>
<td></td>
<td>4000</td>
</tr>
<tr>
<td></td>
<td>gallery</td>
<td></td>
<td>28000</td>
</tr>
<tr>
<td></td>
<td>Store/ Archive</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>34000</td>
</tr>
<tr>
<td>Multipurpose hall</td>
<td>Lobby</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Toilets</td>
<td>women-6,men-8</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Ticket Counter</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Location</td>
<td>Item</td>
<td>Quantity</td>
<td>Cost</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Seminar Hall</td>
<td>Lobby</td>
<td>1</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Toilets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>women-4, men-6</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Seating</td>
<td>300</td>
<td>3500</td>
</tr>
<tr>
<td></td>
<td>Chair Closet</td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>4350</td>
</tr>
<tr>
<td>Library</td>
<td>Lobby</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Information center</td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Toilets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>women-7, men-10</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Reading space</td>
<td>66</td>
<td>3200</td>
</tr>
<tr>
<td></td>
<td>Store</td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Stack area</td>
<td>1</td>
<td>1200</td>
</tr>
<tr>
<td></td>
<td>Librarians room</td>
<td>2</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>6200</td>
</tr>
<tr>
<td>Cafe</td>
<td>Service area</td>
<td>1</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Toilets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>women-7, men-8</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Store</td>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Eating space</td>
<td>1</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>2400</td>
</tr>
<tr>
<td>Art workshop</td>
<td>Combined workshop area</td>
<td>1</td>
<td>5000</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
<td>---</td>
<td>------</td>
</tr>
<tr>
<td>Store</td>
<td></td>
<td>1</td>
<td>1000</td>
</tr>
<tr>
<td>Toilets</td>
<td>women-7, men-8</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Lecture room-3</td>
<td></td>
<td>78</td>
<td>1000 x 3 = 3000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>9400</td>
</tr>
<tr>
<td>Studio for artist</td>
<td>Studio space</td>
<td></td>
<td>6000</td>
</tr>
<tr>
<td>Toilets</td>
<td>women-7, men-8</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Common space for interaction</td>
<td></td>
<td></td>
<td>600</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>7000</td>
</tr>
<tr>
<td>Book/museum shop</td>
<td></td>
<td></td>
<td>400</td>
</tr>
</tbody>
</table>

Total program area = 135150

Circulation 30% = 40545

Total built area = 1702404

Parking for 100 cars
5.3 FAR CALCULATION

Site Area, A = 309528 sqft
Road width around the site = 100' (highest) & 60' (lowest)
= 30 m & 18 m
So, for any educational or other public institute,
FAR = 5.5
MGC = 50% of A = 154764 sqft
Total Built Area, TBA = FAR x Site Area
= 5.5 x 309528
= 1702404 sqft
Total floors can be built on the site (maximum) = TBA/MGC
= 11
Setback for the site:
Front = 1.5 m = 5'
Back = 3 m = 10'
Each side = 3 m = 10'

5.4 CONCEPTUAL LAYOUT

Fig29: Conceptual layout diagram of the functions
CHAPTER 06

CONCEPTUAL STAGE AND DESIGN DEVELOPMENT

6.1 CONCEPTUAL STAGE

To design a contemporary art museum, the concept was to create a hierarchy of spaces. After studying numerous case studies of art museums and contemporary art characters, it was clear that museum should have flexible spaces and spaces for multi-use. Because there is no boundary in height of contemporary art. They can be very high and can be different in sizes and materials. So spaces of different dimensions are needed. Installation projects needed open spaces, semi-open spaces, and even closed area. For fulfilling the demand of different material used in installation arts, landscape will be specially designed to serves as a platform for them. The structure will be exposed. Column and beam will be designed in such a way that they are coming from the ground and by holding each other creating a sculpture itself. So the building itself would be an exhibit object. A plaza will be introduced to make the area more vibrant and colorful.

- HIARARCHY OF GALLERY SPACE
- INTERLOCKING, SEPARATE
- GALLERY AS INDIVIDUAL MASS
- CONNECTING BY THE CIRCULATION
- OPEN, SEMI OPEN, CLOSED SPACE
- WINDOW VIEW, SPACE OF INSTALLATION

Fig30: Conceptual diagrams
6.2 STUDY & APPROACH FROM THE SITE

6.2.1 Circulation and zoning understanding

From case studies, a circulation diagram is done to understand the zoning. I found that there are to separate zone in sense of security. Museum functions need security, on the other hand and public functions need openness. So public functions – multipurpose hall, café, office, library suit best at the ground because it will be easily accessible from the road. Museum functions will be placed on upper floor. Natural light can be used properly for the gallery.
Fig33: Sectional diagram

A raised plaza is introduced to welcome the city people from the road, who serves as temporary gallery space, goes directly to the museum lobby and gives shed to the ground floor functions. At the top of the galleries, a parasol roof is also introduce for sun and rain protection.

6.3 1ST PHASE

6.3.1 Entry/ Exit

Three type of entry should be considered- Vehicular entry, pedestrian entry and service entry. The site is located at the corner of main road and secondary road. By emphasizing pedestrian entry more, main road will be open for cycle, walking people and restricted for vehicles. The secondary road will be used for vehicular and service entry.
6.3.2 Zoning

The site will be divided into four parts. The north-east part of the site has offices. So it will be referred as silent zone and office, library, seminar will place here. The south-east part is connection of silent zone to road. Cafe restaurants can place here to relax and time pass. The south-east part will be referred as moving zone because it is connected with two roads and suitable for shops, seating, weighting type functions. The north-west part has connection with road and also silent area, so suitable for multipurpose hall. Thus the zoning is done. But the problem is, distance between café and multipurpose hall is too much. So the café and library will exchanged their places.
6.3.2 Plan and Model

Fig36: Plan and Conceptual model

6.4 2\textsuperscript{ND} PHASE_ FORM DERIVATION

Fig37: Models for deciding form

6.5 3\textsuperscript{RD} PHASE_ CIRCULATION

Fig38: (a) Ground floor, (b) Plaza, (c) gallery
6.6.1 Gallery_Painting and sketch

Fig 39: Gallery space

6.6.2 Gallery_Sculpture and Painting

Fig 40: Gallery space
Fig 41: Gallery space

6.6.3 Gallery Photography and film

Fig 42: Video, Photography, Sound
6.7 5TH PHASE_ LANDSCAPE

Fig 43: Landscape
CHAPTER 07

FINAL DESIGN

7.1 DESIGNED SITE AND MASTER PLAN

Fig44: Roof plan
7.2 FLOOR PLANS

Fig. 45: Ground floor plan

Fig. 46: Plaza level plan

Fig. 47: 2nd floor plan
Fig48: 3rd floor plan

Fig49: 4th floor plan

Fig50: 5th floor plan

Fig51: 6th floor plan

7th floor (roof)

Roof plan without parasol roof

Roof plan with parasol roof

Fig52: Roof plan
7.3 ELEVATIONS

Fig53: West Elevation

Fig54: South Elevation

7.4 SECTIONS

Fig55: Section AA'

Fig56: Section BB'
7.5 THREE DIMENSIONAL PERSPECTIVE VIEWS OF SPACE
7.6 MODEL OF THE PROJECT

Fig57: Site model

Fig58: Concept models

Fig59: Final model
Fig60: Final model
CONCLUSION

The stated above chapters include the process & journey of completion of the design of a Contemporary art museum. The main idea of this project was to create quality spaces which get active by the users. The main plaza serves as a breathing place to make citizen relief. The whole site is an event platform that will add a new urban character by accommodating daily gatherings, cultural-social events which will be reflect on people’s life.
REFERENCE


Laura Hourston, Museum Builders 2, Wiley Academy, Great Britain


www.archsociety.com

www.archspace.com

www.bdcnetwork.com

www.e-architect.co.uk

www.google.com

www.greatbuildings.com

www.wikimapia.org

www.wikipedia.com