

EXPERIENTIAL CENTER

A THESIS

Submitted in partial fulfillment of the requirements for the award
of Bachelor of Architecture degree

By

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DEPARTMENT OF ARCHITECTURE

BONAFIDE CERTIFICATE

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I, **Yadhavi A** hereby declare that the Thesis Report entitled “**Experiential Centre**” was done by me under the guidance of **Ar.Jhannupriya** (Internal Guide), **Ar.V.V.Sangavi**(Internal Review Member), and **Ar. Hariesh K Sakaran** (External Guide) Sathyabama Institute of Science and Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of Architecture Degree.

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THESIS SYNOPSIS

Archaeology is the study of human activity through the recovery and analysis of material culture. The archaeological record consists of artifacts, architecture, biofacts or ecofacts, sites, and cultural landscapes. Archaeology can be considered both social science and a branch of the humanities.

Mahabharata is one of the greatest epics in the nation and is considered “Knowledge from the womb of lust for land and women”, thus understanding this epic can lead a person to have a wider view of life and from the flaws, great life lessons can be learned. In order to show the whole world our rich past we had and the cultural activities we had and how brave and talented our ancestors were.

TABLE OF CONTENTS

1. INTRODUCTION

WHAT IS A MUSEUM	1
HISTORY OF MUSEUM	1
TYPES OF MUSEUMS	2
ARCHAEOLOGICAL MUSEUM	2
AIM	3
OBJECTIVE	3
SCOPE	3
NEED FOR THE PROJECT	3

2. CASE STUDIES:

NATIONAL MUSEUM, DELHI	4
BIHAR MUSEUM, PATNA	9
TRIBAL MUSEUM, BHOPAL	15
NEW ANTHEROPOLIS MUSEUM, GREECE	20
JEWISH MUSEUM, BERLIN	
INFERENCE	23
CRITICAL ANALYSIS	25
COMPARATIVE AREA STATEMENT	26

3. DATA COLLECTION AND STANDARDS

3.1. MAHABHARATA	27
3.2. KURU DYNASTY	28
3.3. PAGADAI AATTAM	29
3.4. HASTINAPUR	30
3.5. PROJECT PROPOSAL	31
3.6. SUSTAINABLE PLANNING	32
3.7. STANDARDS	

4. SITE

4.1. SITE SELECTION	33
4.2. SITE ANALYSIS	34

5. ARCHITECTURAL DESIGN

SPATIAL REQUIREMENTS	36
CONCEPT	37
MASTER PLANNING	37
DETAILED DRAWINGS	

6. CONCLUSION

7. BIBLIOGRAPHY

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
Fig 8.1	Museum	1
Fig 8.2	Display	1
fig 8.3	Early museums	1
fig 8.4	British museum	2
fig 8.5	Types of museums	2
fig. 8.6	National museum 1	4
Fig 8.7	National museum 2	5
Fig 8.8	National museum 3	5
Fig 8.9	National museum 4	6
Fig 8.10	National museum 5	7
Fig 8.11	National museum 6	7
Fig 8.12	National museum 7	8
Fig 8.13	National museum 8	8

Fig 8.14.	Bihar museum 1	9
Fig 8.15.	Bihar museum 2	9
Fig 8.16	Bihar museum 3	10
Fig 8.17	Bihar museum 4	10
Fig 8.18	Bihar museum 5	11
Fig 8.19	Bihar museum 6	11
Fig 8.20	Bihar museum 7	12
Fig 8.21	Bihar museum 8	12
Fig 8.22	Bihar museum 9	12
Fig 8.23	Bihar museum 10	13
Fig 8.23	Bihar museum 11	13
Fig 8.24	Bihar museum 12	14
Fig 8.25	Bihar museum 13	14
Fig 8.25	Tribal museum 1	15
Fig 8.26	Tribal museum 2	16
Fig 8.27	Tribal museum 3	16
Fig 8.28	Tribal museum 4	16
Fig 8.29	Tribal museum 5	17
Fig 8.30	Tribal museum 6	17
Fig 8.31	Tribal museum 7	18
Fig 8.32	Tribal museum 8	18
Fig 8.33	Tribal museum 9	19
Fig 8.34	Acropolis Museum 1	20
Fig 8.35	Acropolis Museum 2	20
Fig 8.36	Acropolis Museum 3	22
Fig 8.37	Acropolis Museum 4	22
Fig 8.38	Acropolis Museum 5	23

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
Table 9.1	Critical Analysis	25

LIST OF PLATES

PLATE NO.	TITLE	PAGE NO.
Plate 10.1	Comparative area statement	26
Plate 10.2	Concept	37
Plate 10.3	Master Planning	37
Plate 10.4	Experiential center sheet	38
Plate 10.5	Workshop plan	38
Plate 10.6	Workshop structural	39
Plate 10.7	Restaurant plan	39
Plate 10.8	Research lab	40
Plate 10.9	Research lab structural sheet	40
Plate 10.10	OAT and Day-care	41

1. INTRODUCTION

WHAT IS A MUSEUM

A museum is an institution that cares for a collection of artifacts and other objects of artistic, cultural, historical, or other scientific importance and makes it available for the public to view either permanently or temporarily.

It is the continuing acceleration of the digitization of information, combined with the increasing capacity of digital information storage



Fig 8.1 Museum



Fig 8.2 Display

Early museums began as the private collections of wealthy individuals, families, or institutions of art and rare or curious natural objects and artifacts. These were often displayed in so-called wonder rooms or cabinets of curiosities. Public access was often possible for the "respectable", especially to private art collections, but at the whim of the owner and his staff.

HISTORY OF MUSEUM:

The oldest public museums in the world opened in Rome during the Renaissance. However, many significant museums in the world were not founded until the 18th century and the Age of Enlightenment: The Capitoline Museums, the oldest public collection of art in the world, began in 1471.



Fig 8.3 Early museums



Vatican Museums, the second oldest museum in the world, traces its origins to the public displayed sculptural collection began in 1506

· The Royal Armouries in the Tower of London is the oldest museum in the United Kingdom. It opened to the public in 1660, though there had been paying privileged visitors to the armory displays from 1592.

The British Museum in London was founded in 1753 and opened to the public in 1759.[Sir Hans Sloane's personal collection of curios provided the initial foundation for the British Museum's collection.



Fig 8.4 British museum

TYPES OF MUSEUMS:

1 Archaeology museums

2 Art museums

3 History museums

4 Maritime museums

5 Military and war museums

6 Mobile museums

7 Natural history museums

8 Open-air museums

9 Science museums

10 Specialized museums

11 Virtual museums

12 Zoological parks and botanic grad



Fig 8.5 Types of museum

ARCHAEOLOGICAL MUSEUM:

Archaeology museums specialize in the display of archaeological artifacts.

AIM:

To design an experiential museum in order to promote and preserve the past of the nation in a modernized sustainable environment.

OBJECTIVE:

To design an experiential knowledge center for one of the greatest Sanskrit epics called the Mahabharata.

To design a research laboratory for the artifacts which attributes that Mahabharata was not just a mythological story but also our past history.

To design a sustainable and eco-friendly zone with pioneering infrastructure.

SCOPE:

The complexity of the program volumes gives the opportunity to develop many different design ideas.

To know the philosophy of our ancestors, to preserve their memories, and to pass the knowledge of survival and struggle to the future generation from the pros and cons of the past to have a better lifestyle is our duty.

The preservation, conservation, and documentation is the connecting path between the past and thus a museum is a place where the nation's pride dwells.

This experiential museum can promote tourism leading to employment growth under the Archeological Survey of India, strengthening the Tourism industry and leading to the country's overall economic and social development.

Designing a sustainable eco-friendly zone also leads to human well-being and economic development ensuring that the ecological systems are in balance and it also expands the lifespan of the environment.

NEED FOR THE PROJECT:

Mahabharata being one of the greatest epics in the nation, is considered as "Knowledge from the womb of lust for land and women", thus understanding this epic can lead a person to have a wider view of life and from the flaws, great life lessons can be learned.

In order to show the whole world our rich past we had and the cultural activities we had and how brave and talented our ancestors were.

2. CASE STUDIES:

NATIONAL MUSEUM, DELHI



Fig. 8.6 National museum 1

Being one of the largest museums in India. It holds a variety of articles ranging from the prehistoric era to modern works of art.

It functions under the Ministry of Culture.

The museum has around 200,000 works of art, both of Indian and foreign origin, covering over 5,000 years.

Has a wide range of masterpieces of sculptural art in such mediums: stone, terracotta, stucco, bronze gold, silver, ivory, and bone spanning a period of over two millenniums, from the 3rd century BC to the 19th century AD, one of the longest in the history of world's art-heritage, the Department of Archaeology make this museum a relevance.

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

CIRCULATION PLAN:

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

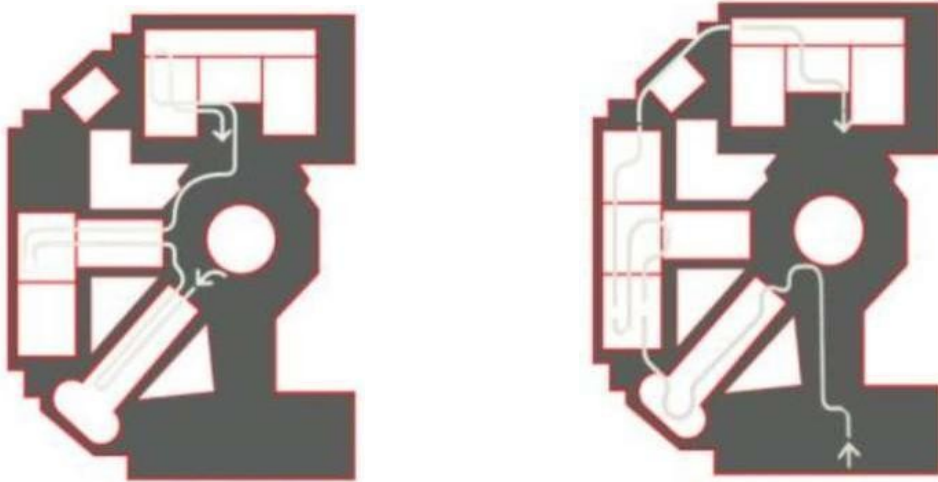


Fig 8.7 National museum 2

CONCEPTUAL PLAN:

The building was designed such that it merges with the site surrounding. It was the first planned museum at the National level. The building comprises four stories with a basement, Basic plan of the building is fan-shaped with a circular courtyard in between surrounded by a covered Veranda.

Wings are linked with the courtyard according to different requirements and needs.

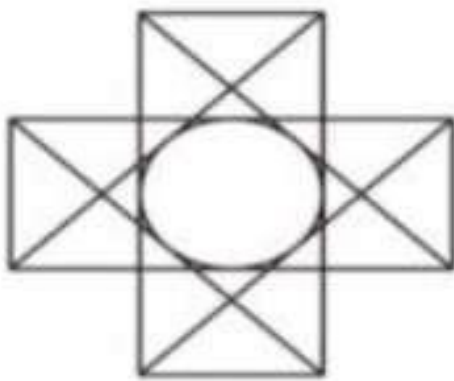


Fig 8.8 National museum

Hence, one finds that after watching the exhibits one finds himself again in the same place where he/she started.

ZONING:

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



Fig 8.9 National museum 4

FLOOR PLANS:

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

Harappan Civilisation Gallery, Mauryan Gallery, Gupta Gallery, Terracotta Gallery, Bronze Gallery, Medieval Art Gallery, Buddhist Art Gallery, Jewellery Gallery, Decorative Art Gallery, Miniature Painting Gallery, Auditorium, and Library are located on Ground Floor.

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

Textile Gallery, Western Art Gallery, Copper Gallery, Wood Carving Gallery, Tribal Art Gallery, Music Instrument Gallery, Arms & Armour Gallery, Asian Antique Gallery, Ethnic Art Gallery are located on the Second Floor.



Fig 8.10 National museum 5

MATERIALS:

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



Fig 8.11 National museum 6

LIGHTING:

Each display has its own focussed light. Lights are used in false ceilings or hung by steel sections. No natural light is used inside the museum. Artificial lighting is done with daylight exhibits kept to a minimum.

Natural lighting is only used in center circulation courts. Well played with focused lights with the use of concave and convex lenses in different places.

In the jewelry section, the gallery was dark and recessed pockets were made with minimal lighting. The whole structure is based around the central rotunda which lights up the entire corridor.



Fig 8.12 National museum 7

DESIGN ANALYSIS:

- The Department has showcased its objects in different galleries, all on the ground floor.
- The objects displayed in each gallery have been properly classified, the basis being dynastic, stylistic, chronological, and religious.
- Though the ramp runs throughout the museum, the design is not universal.
- The use of artificial lighting inside the gallery balancing with shadows is one major design aspect of the museum, to prevent sculptures and exhibits from harsh sunlight.
- The internal courtyard is placed to light up the corridors.



Fig 8.13 National museum 8

BIHAR MUSEUM, PATNA



Fig 8.14. Bihar museum

It was planned as a history museum for the state of Bihar and began construction in Bailey Road, Patna in October 2013 with an estimated budget of 2498 crore (US\$74 million).

The Museum was planned to bring the region's thousands-year history into focus, inspiring local residents and visitors from across the globe to explore Bihar's rich heritage, historic sites, and cultural attractions.

CONCEPTUAL PLAN:

The constant presence of the natural environment within the Museum's "campus" creates a rich, unique experience with each visit, one that changes with the time and seasons.



Fig 8.15 Bihar museum2

It is hoped that this will encourage repeat visitors, and together with world-class permanent and temporary exhibits - ensure that the Bihar Museum has a lasting educational impact for the children of Bihar and other visitors from across the world.

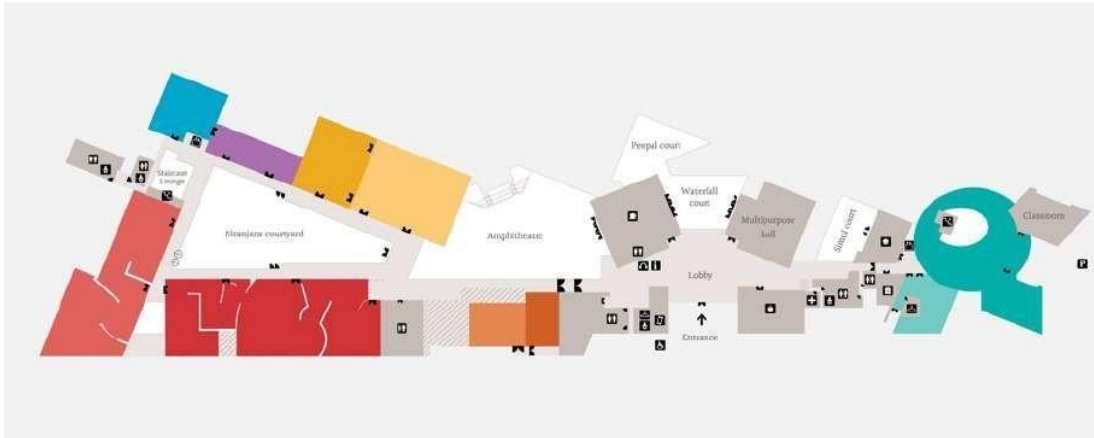


Fig 8.16 Bihar museum 3

CIRCULATION PLAN:

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

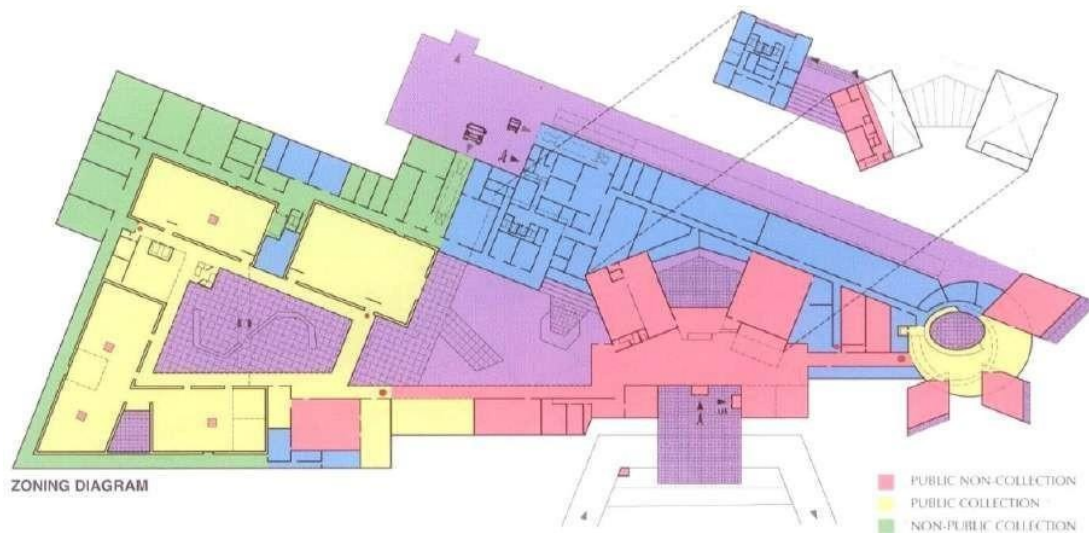


Fig 8.17 Bihar museum 4

SITE PLAN:

Inspired by the generous site, Fumihiko Maki conceived the Bihar Museum as a campus with the interconnected landscape of built-up and open spaces with modest but dynamic profiles, in harmony with the land.

The campus incorporates primarily four zones i.e., entrance, education, exhibition, and administration. Each wing has been given a distinct and recognizable shape within the complex.



Fig 8.18 Bihar museum 5

ZONING:

The spaces divide galleries into different specializations, also distinguishing the children's gallery with its own orientation section.

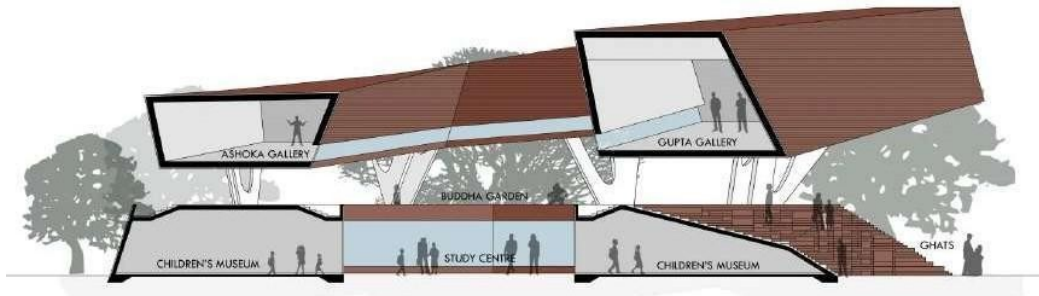


Fig 8.19 Bihar museum 6

The architecture constantly works to enhance the feeling of wonder and belonging to allow the visitor to explore and discover.

The environment is thus envisioned as a learning landscape, a place that creates a sense of calm that is conducive to education.

FLOOR PLANS:

All independent and smaller-scaled wings are linked together via seven open-to-sky courtyards, ensuring that all spaces are connected to the surrounding landscape. Each courtyard has a unique theme, configuration, and spatial quality. Some of these courtyards have been strategically located to preserve the existing trees on the site.



Fig 8.20 Bihar museum 7



Fig 8.21 Bihar museum 8

MATERIALS:

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

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



Fig 8.22 Bihar museum 9



Fig 8.23 Bihar museum 10

LIGHTING:

Lighting is one of the main aspects of any museum, especially natural lighting and the architects have tackled this issue through bay winds, Façade lighting, luminous walls, and a central courtyard.

Fig 8.23 Bihar museum 11

The Atrium at the entrance shows the importance of lighting in the museum.



Fig 8.24 Bihar museum 12

DESIGN ANALYSIS:

- All the built-up blocks have been strategically located in consonance with the configuration of the site. These blocks are linked together by cloisters which are characterized by deeply recessed openings and modern versions of traditional jali screens.
- These screens allowed natural light to enter, while shielding the spaces from heat, and providing relief from the vast black-box exhibition spaces. Spatial depth and layering channeling the Japanese concept of 'oku' are used throughout, creating a sense of anticipation that culminates in the meditative Buddha courtyard.



Fig 8.25 Bihar museum 13

TRIBAL MUSEUM, BHOPAL



Fig 8.25 Tribal museum 1

The Museum of Tribal Heritage at Bhopal was commissioned by the Government of Madhya Pradesh in 2004. The Museum is designed to create a fabric that the tribal communities could identify with, extend, and evolve, to represent them and express their own ideas and way of life with ease and spontaneity.

While the architecture of the Museum is inspired by tribal rhythms, geometries, materials, forms, aesthetics, and spatial consciousness, these very qualities are now acting as points of inspiration for the display materials being created by tribal artisans, supported by anthropologists, sociologists, and social workers and designed by Delhi based architect firm Kamath Design Studio under head architect Revathi Kamath.

The museum is amongst the best-designed museums in India. It is designed over a space of 28000 sq. meters. Visitors from all around the country come to visit this architectural masterpiece. The museum consists of six main exhibition galleries, an auditorium, an open-air theatre, and other amenities such as a library, restaurant, etc. The different galleries exhibit the lifestyle, artwork, cultural diversity, sports, aesthetics, and beliefs of these tribes.

Seven major tribes of Madhya Pradesh (MP) Gond, Bhil, Baiga, Kol, Korku, Sahariya, and Bhariya have recorded their fast-disappearing traditions in the tribal museum in Bhopal, transforming the oral narratives into huge paintings and sculptures. Baiga artist Ladlibai insists, "This is not a sangrahalay (museum), but our ghar (home). Things are changing in villages. But here, our children and grandchildren will know what our culture, past, and present, means.

The Museum is designed to create a fabric with which the tribal communities could identify, extend, and evolve, to represent them and express their own ideas and way of life with ease and spontaneity.



The site is developed on the contours of Shyamala hills, Bhopal The staff and visitors area has been segregated and the main entry was designed at first floor.



At the entrance, a person has 2 choices whether to go to the museum display or to the warehouse. After entering the main museum circulation path has been defined to make visitors go through the same passage and experience the whole museum. A separate passageway has been defined for the people with the office-related work. Special care has been taken for the movement of the physically challenged visitors. A central area for seating for the fatigue Central area was created around the small man-made lake with ducks which makes the view quite relaxing.



FLOOR PLANS:

The well-planned campus is divided into 6 galleries depicting Cultural Diversity, Tribal Life, Tribal Art, Tribal Mythology, and Tribals of Chhattisgarh and Tribal Games. It also has an Art Exhibition Gallery and Open Air Theatre. All the artifacts in Galleries are majorly taken from 7 major and most important tribes of state namely Gond, Bheel, Korku, Kol, Bharia, Baiga, and Saharia. The main entrance was on the First floor and connected the Ground floor through ramps.

MATERIALS:

The structure is built of steel tubes, castellated girders, and steel rods fabricated into intricate trusses. Steel seemed to be a natural choice in the land & location of ancient Iron Age & Bronze Age civilizations, and the contemporary truck bodybuilding industry.



Fig 8.29 Tribal museum 5

The walls use both local stone left exposed and brick plastered with crushed stone on the outside. and mud plaster on the inside. The roofs are made of half-round tiles, galvalume sheets and concrete with a topping of grass and groundcover.



Fig 8.30 Tribal museum 6

LIGHTING:

Courtyards puncture the built mass, bringing in light and air, while enabling the roof forms to establish modulated scales and compositions. Perforated lighting is also used to illuminate the spaces. Bamboos are used for providing shade in corridors.



Fig 8.31 Tribal museum 7

Artificial lighting is used strategically in the tribal museum. Spotlighting and task lighting are used particularly rather than ambient lighting. To balance shadows and luminance is easily checked by artificial lighting in the museum.



Fig 8.32 Tribal museum 8

DESIGN ANALYSIS:

- Spaces have been integrated according to the user's needs and activities; the display area has been designed at the upper level while the administrative workshop area is placed at the lower level. The main entrance is also placed at the upper level while the exit is at the lower level.
- The balance between natural and artificial lighting is well maintained. Natural lighting has been checked through shading devices. Artificial lighting is also designed strategically.
- The Museum is designed to create a fabric that the tribal communities could identify with, extend, and evolve, to represent them and express their own ideas and way of life with ease and spontaneity. While the architecture of the Museum is inspired by tribal rhythms, geometries, materials, forms, aesthetics, and spatial consciousness.



Fig 8.33 Tribal museum 9

NEW ACROPOLIS MUSEUM, ATHENS, GREECE



Fig 8.34 Acropolis Museum 1

Being located in the historic Makriyianni district, the Museum stands less than 1,000 feet southeast of the Parthenon. The top-floor Parthenon Gallery offers a 360-degree panoramic view of the Acropolis and modern Athens. The Museum is entered from the Dionysios Areopagitou pedestrian street, which links it to the Acropolis and other key archeological sites in Athens.

Program:

With 8,000 square meters (90,000 square feet) of exhibition space and a full range of visitor amenities, the Acropolis Museum tells the story of life on the Athenian Acropolis and its surroundings by uniting collections formerly dispersed in multiple institutions, including the small Acropolis Museum built in the 19th century.



Fig 8.35 Acropolis Museum 2

The rich collections provide visitors with a comprehensive picture of the human presence on the Acropolis, from prehistoric times through late antiquity. Integral to this program is the display of an archeological excavation on the site: ruins from the 4th through 7th centuries A.D., left intact and protected beneath the building and made visible through the first floor. Other program facilities include a 200-seat auditorium.



Fig 8.36 Acropolis Museum 3

Principal Design Features:

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.

Light:

The collection consists primarily of works of sculpture, many of them architectural pieces that originally decorated the monuments of the Acropolis, so the building that exhibits them is a museum of ambient natural light. The use of various types of glass allows light to flood into the top-floor Parthenon Gallery, to filter through skylights into the archaic galleries, and to penetrate the core of the building, gently touching the archeological excavation below the building.



Fig 8.37 Acropolis Museum 4

CIRCULATION:

The base hovers over the excavation on more than 100 slender concrete pillars. This level contains the lobby, temporary exhibition spaces, museum store, and support facilities.

The middle (which is trapezoidal in plan) is a double-height space that soars to 10 meters (33 feet), accommodating the galleries from the Archaic to the late Roman period.

The top is the rectangular, glass-enclosed, skylit Parthenon Gallery, over 7 meters high and with a floor space of over 2,050 square meters (22,100 square ft). It is shifted 23 degrees from the rest of the building to orient it directly toward the Acropolis.

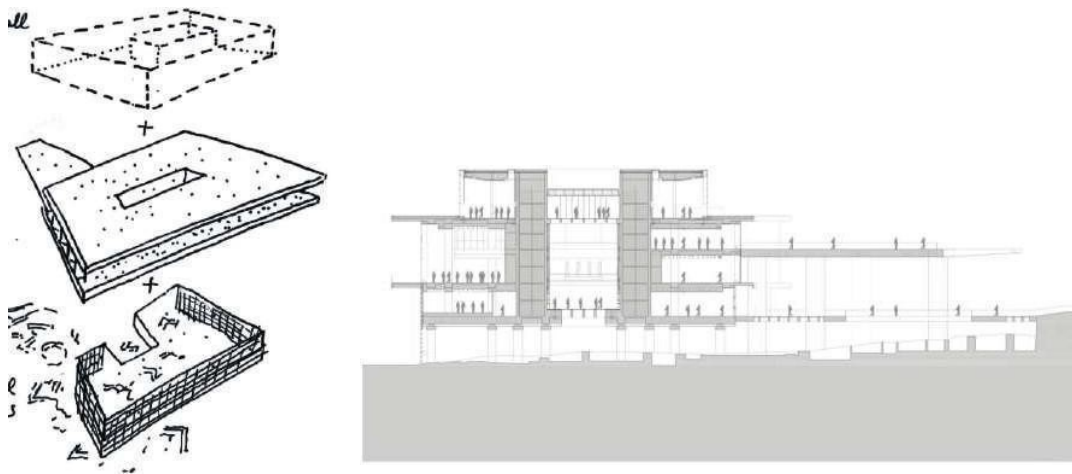
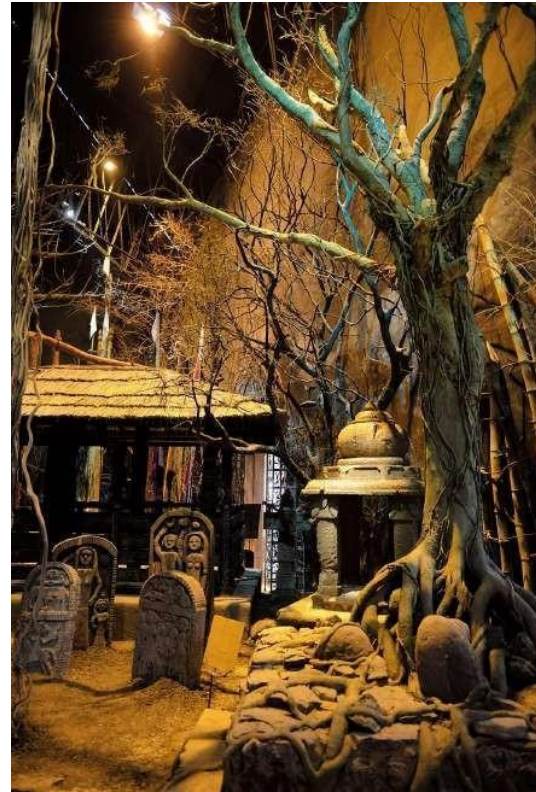


Fig 8.38 Acropolis Museum 5

INFERENCE:

The Tribal Museum in Bhopal is very thoughtfully planned and the entire campus is theme-based right from its entrance. Every artwork has some meaning to it which is beautifully depicted. This museum provides a new museum vision, the visitor experience, and an organizational plan which makes it one of its kind. The exhibition and display units are creatively developed through a unique design ideology which separates this museum from an orthodox museum. The best thing about the tribal museum, Bhopal, was its way of displaying tribes and different cultures. People can actually touch the sculptures. They can feel the material. All the sculptures and other show casing things were created by the tribal people themselves using the basic and old techniques.



The National Museum is one of the largest and well designed museums in India, also the museum is situated near to the site of the proposed thesis project, which make it important to understand the design feature of the area and the issue faced. Also, as it is the National Museum of India, its selection becomes more important in reference to understanding the design of the context and aspects of museum planning. The ideology of circulation patterns in the museum is one a greater aspect in the museum, the ideology to make visitors experience each and every gallery and in a chronological sequence.



Bihar Museum is a modern state of the art museum located in Patna. A 25,000 square meters museum and marketplace concept was to be developed. The generous 5.3 hectare plot along Patna's Bailey Road allowed for a variety of site planning approaches, while demanding sensitivity to its low-scale surroundings and prominent tree growth. The interconnected landscape of buildings and exterior spaces that maintains a modest but dynamic profile, in harmony with existing site conditions. All the built-up blocks have been strategically located in consonance with the configuration of the site. These blocks are linked together by cloisters which are characterised by deeply recessed openings and modern versions of traditional jali screens. These screens allowed natural light to enter, while shielding the spaces from heat, and providing relief from the vast black-box exhibition spaces. Spatial depth and layering channeling the Japanese concept of 'oku' are used throughout, creating a sense of anticipation that culminates in the meditative Buddha courtyard.



The New Acropolis Museum is one of the oldest museums. It gives a 360 degree panoramic view from the top floor towards the acropolis and modern athens. This museum is constructed over the archaeological site, where the visitors can view the site from the first floor. The design has a programmatic requirement for spaces.

CRITICAL ANALYSIS:

	NATIONAL MUSEUM, DELHI	BIHAR MUSEUM, PATNA	TRIBAL MUSEUM, BHOPAL
<i>Selection Criteria</i>	To understand the spaces and the architectural response	To understand the spaces and design as it is for a particular identity	To understand the way of exhibition
<i>Location</i>	India	India	India
<i>Year of Completion</i>	1949	2017	2011
<i>Architect</i>	Gwyer Committee	Maki Associates Opolis	Kamath design studio
<i>Ownership</i>	Indian Central Government	Bihar State Government	Madhya Pradesh State Government
<i>Site Area</i>	30,000 sq.m.	56,250 sq.m.	28,000 sq.m.
<i>Ground coverage</i>	25%	33%	25%
<i>Built-Up Area</i>	18,000	25,000 sq.m.	10,300 sq.m.
<i>F.A.R</i>	0.6	0.44	0.6
<i>Concept</i>	Chronological Circulation	Integrated Campus	Tribal Life
<i>Form</i>	Rotunda	Linear	Integration of circle
<i>Function</i>	Museum & Educational College	Museum	Museum & Exhibition
<i>Circulation</i>	Visitors can visit all the gallery	Linear integration of spaces	Depicting different stages of tribal life
<i>Lighting</i>	Mostly artificial lighting is used but courtyards produce natural lighting for corridors	Natural lighting is used at its optimum making it a high efficient design	Natural and artificial lights used strategically
<i>Facade</i>	Sandstones resembling the heritage of India	Corten sheets which relates to the rich history of Iron in the state	Tribal hut like structure with tribal paintings and carvings
<i>Landscape</i>	No proper development	Integrated landscape planning	No proper development
<i>Merits</i>	Circulation is planned well so the visitors can view all the galleries	Natural lighting used Space integration	Creating new visitor's experience New exhibiting ways Local materials used
<i>Demerits</i>	Not a barrier free universal design	Spaces integrated in a linear pattern	No developed workshops

**Table 9.1 - Critical Analysis
COMPARATIVE AREA STATEMENT:**

DESIGN PROGRAMME:								
SPACES	NATIONAL MUSEUM, DELHI (area in sq.m.)	BINARI MUSEUM, PATNA (area in sq.m.)	TRIBAL MUSEUM, BHOPAL (area in sq.m.)	REFERENCE FOR SPACES (area in sq.m.)	AUDITORIUM	250	100	200
ENTRANCE	100	100	40	100	Auditorium space	500	200	340
Entrance	250	400	100	300	Projection Room	20	20	20
Reception	30	30	20	30	Green Room	30	30	40
Black Office	30	30	10	20				
Info & Help Desk	+	20	+	20	AMENITIES			
Ticket Counter	+	20	+	20	Restaurant	250 (60)	200 (50)	200 (50)
Drac Cliff	+	200	+	+	Shops	100 (25)	200 (50)	100 (30)
					Seminar Halls	200 (50)	200 (50)	200 (50)
ADMIN	50	50	30	30	Toilets	50	50	25
Staff Office	100	200	60	200	Dormitory	+	+	50
Director's Chamber	30	30	20	50				
Curator Office	20	40	10	30	SERVICE			
Meeting Room	100	200	40	200	Maintenance	50	100	50
Staff Rest Room	40	100	40	60	Janitors Room	20	50	20
Security Monitoring Room	30	30	20	30	Store Room	100	200	100
Server Room	30	30	20	20	House Keeping	30	100	20
Staff Toilet	50	50	10	50	WFC Room	200	200	200
Store Room	200	1000	40	300	HVAC Room	200	200	200
Staff Canteen	100	200	40	200				
WORKSHOPS	200	200	300		RESEARCH LAB	50	50	
Bow and Arrow Making				200	Laboratory	200	200	600
Archery Ray				250				
Terracotta	200	200	200	200	LOADING AREA	300	400	400
Clay Sculpture Making				250				
EXHIBITION & MUSEUM GALLERIES	4000	1500	500	1500	OPEN SPACES	700	250	400
Main Chambers	+	+	+	4000	Courtyard	400		400
Arms & Armour Gallery	+	+	+	100	Central Amphitheatre	100	1000	1000
Terracotta Gallery	+	+	+	500	Open Air Theater	50		400
Outdoor Gallery	+	+	+	500				
Coin Gallery	+	+	+	200	PARKING	100	100	60
Ethnic Museum	+	+	+	100	Visitors	500	200	300
Art Gallery	+	+	+	400	VIP	100	100	100
Architectural Gallery	+	+	+	300	Staff	100	100	250
Jewels Gallery	+	+	+	500	TRANSITION AREA	4000 (30%)	4800 (42%)	2270 (30%)
Manuscript Gallery	+	+	+	500				2500 (20%)
LIBRARY	50	100	50		TOTAL BUILT UP AREA	38,500 SQ.M.	17,000 SQ.M.	10,286 SQ.M.
Library Space	200	300	30	300				14000 SQ.M.
Library Office	30	30	10	30				
Cyber Room	30	30	10	30				
Store Room				100				

Plate no. 10.1 - Comparative area statement

3. DATA COLLECTION AND STANDARDS

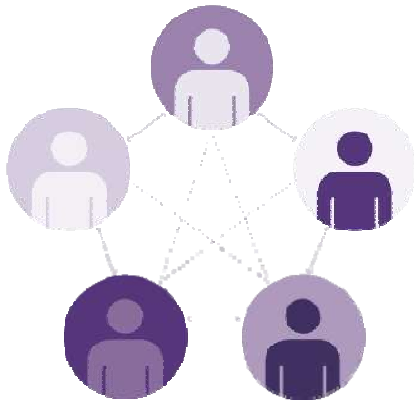
MAHABHARATA:

Mahabharata is an epic which is famous among Hindus. Hinduism is divided into innumerable sects and has no well-defined large-scale ecclesiastic organization. Hindus believe that the soul is eternal but is bound by the law of karma: „action' to the world of matter, which it can only escape after spiritual progress through an endless series of births



The Bhagwat Geeta where Mahabharata is a part of the chapter sets three important morals which are: The knowledge of life, selfless devotion towards actions and faith in the universe. These sets of morale as understood today the path of knowledge implies an awareness that

reality is one and spirituality is another. The supreme tranquilization is attained only when the selfless action among the fellow beings is performed.



The philosophy of Hinduism is embraced with the fact of Karma. This ideology is interpreted in the form of Mahabharata, which consists of no protagonist actions and the faith is questioned and betrayed. This Hindu mythology consists of a variation of characters and ideology where every Hindu philosophy is questioned and doubted.

A man's desires, needs, and sufferings are many and correspond to these hosts of minor gods and sufferings as well as various incarnations, manifestations, and aspects of the major gods. All these are united mythologically to one or the other major god. Krishna who is regarded as the God in the epic of Mahabharata is represented as a creator, diplomat, and destroyer. At the end of this epic, he as the supremely powerful and wise character in this epic is cursed and his whole dynasty gets destroyed due to civil war

KURU DYNASTY:

Hastinapur was the capital of the Kuru dynasty.

The Kuru Dynasty.

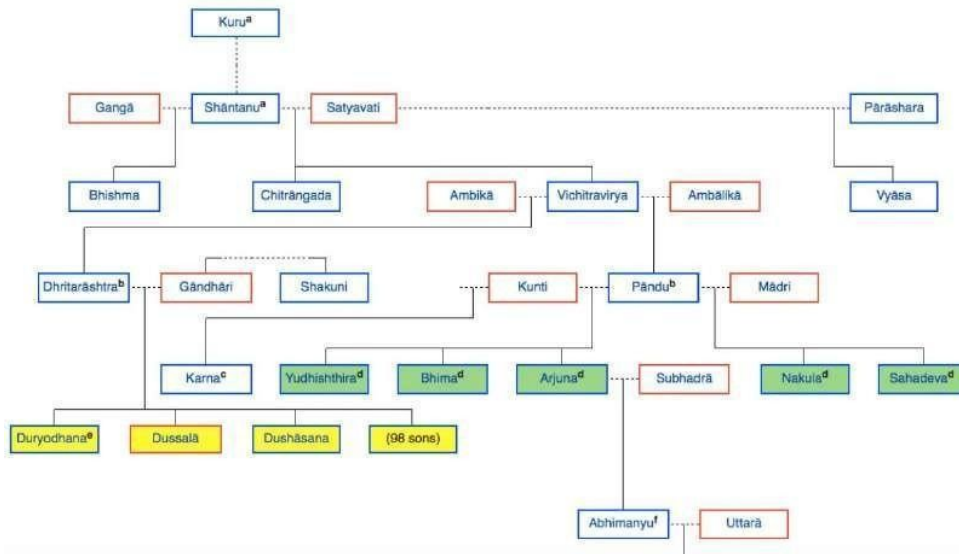
The Kuru clan was formed in the Middle Vedic period(1200–900 BCE) as a result of the alliance and merger between the Bharata and other Puru clans, in the aftermath of the Battle of the Ten Kings.



With their center of power in the Kurukshetra region, the Kurus formed the first political center of the Vedic period and were dominant roughly from 1200 to 800 BCE. The first Kuru capital was at Āsandīvat, identified with modern Assandh in Haryana. Later Hastinapur became the capital, but it was further divided unfairly between the pandavas and Kauravas.

The bad influence over Kauravas by their mother's brother against the pandavas led to the game called "pagadi attam" now called

as ludo where the pandavas lost their everything and after 12 years an official war broke out. But the whole lineage was destroyed due to the curse carried by one or the other.



The Pandava lineage was killed by Ashwathama in order to avenge and also which was also the last wish of his close friend Duryodhana, but the fetus carried by Uttar the wife of Abhimanyu (grandson of Arjuna and Krishna) was saved by Krishna after considering and pleadings of his sister Subhadra. And the saved fetus was the only means of lineage crowned to rule the Kuru dynasty by the name Parikshit.

PAGADAI AATTAM:

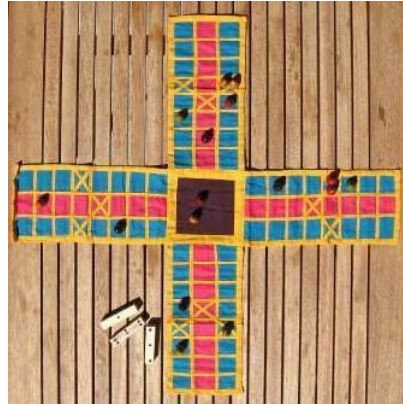
Pachisi was created in India in the 6th century. The earliest evidence of this game's evolution in India is the depiction of boards on the cathe ves of Ellora. The original version is described in Indian epic Mahabharata in which Shakuni uses, the cursed dice to beat the Pandavas and at last after losing everything, Yudhisthira puts his wife Draupadi on stake and loses her too.



However, Pandavas get all their belongings back after Draupadi vows to curse the whole Kuru lineage but stops at the intervention of Gandhari and seeing an opportunity to vent Draupadi's anger, Kuru king Dhritarashtra promises to give back the Pandavas, all that they had lost in the game.



It was also known as Chaupar in ancient times. The contemporary version was played by the Mughal emperors of India; a notable example is Akbar.



Pachisi was modified to use a cubic die with a dice cup and patented as "Ludo" in England in 1896] The Royal Navy took Ludo and converted it into the board game Uckers.

HASTINAPUR:

Excavations were conducted at Hastinapur (29°9'; 78°3', Dt Meerut, Uttar Pradesh) in 1950-52 by B.B.Lal on behalf of the ASI. Hastinapur, which is located between Meerut and Mawana in Uttar Pradesh is now a forgotten village, but the 1952 excavations revealed a few interesting discoveries which are highly debatable as to whether they can be really correlated with the Mahabharata period.



After the archaeological excavations at 'Vidura-ka-tila', a collection of several mounds, some being 50 to 60 feet high and extending a few furlongs, named after Vidura, a site 37 km (23 miles) north-east of Meerut, it was concluded to be remains of the ancient city of Hastinapur, the capital of Kauravas and Pandavas of Mahabharata, which was washed away by Ganges floods. In the archaeological excavations around Hastinapur, about 135 iron objects including arrows and spearheads, shafts, tongs, hooks, axes, and knives were found, which indicate the existence of vigorous iron industry. There are indications of brick-lined roads and drainage systems, and an agro – livestock-based economy. The painted grey ware (PGW) of Hastinapura has been assigned to 2800 BCE and beyond.

Further excavations at what is today referred to as Draupadi – ki – rasoi (Draupadi's Kitchen) and Draupadi Ghat resulted in the finding of copper utensils, iron seals, Ornaments made of gold and silver, terracotta discs and several oblong-shaped ivory dice used in the game of chauper, all dating to around 3000 BC. These places have been visited frequently by tourists since the excavations.

Between 1950 and 1952, Lal worked on the archaeology of sites accounted for in the Hindu epic Mahabharata, including Hastinapura, the capital city of the Kurus. He made discoveries of many Painted Grey Ware sites in the Indo-Gangetic Divide and upper Yamuna-Ganga doab.



PROJECT PROPOSAL:

The Indian EXPRESS

Budget 2020: Rakhigarhi to Hastinapur, why you should visit these archaeological sites

Budget 2020: Find out what makes the Archaeological sites that Niraj Kumar Singh announced in his budget speech, attractive tourist destinations.

By [Shraddha Singh](#)
Updated: February 2, 2020 5:41:34 am

Illustration and Photo: Devendra Kumar Singh/Anandamandir.com
Illustration/Devendra Kumar Singh/Anandamandir.com

Budget 2020: Union Finance Minister [Nirmala Sitharaman](#) proposed to develop [five archaeological sites](#) across India with on-site museums, as part of the [Union Budget 2020-21](#). The places include Rakhigarhi in Haryana, Hastinapur in Uttar Pradesh, Silvanagar in Assam, Dholavira in Gujarat and Adichanallur in Tamil Nadu. With remains of ancient civilisations to relics of royal opulence, these archaeological sites are also attractive tourist destinations. And if you are a fan of historical places and monuments, these sites should be added to your bucket list.

Hastinapur, Uttar Pradesh

Illustration: Devendra Kumar Singh/Anandamandir.com

We know Hastinapur as the ancient capital city of Pandavas and Kauravas from the epic Mahabharata. Naturally, it is the abode of princely ascetics and royal coquests. Excavations at Hastinapur reportedly began in 1950-52 on behalf of the Archaeological Survey of India and the items found included arrows, spearheads, shafts, tongs, hooks, axes and knives, amounting to about 135 iron objects. But that is not all. Located in Meerut district, Hastinapur interestingly marks a confluence of religions and is home to several places of worship. Shri Digambar Jain Tirth Manir is one of the oldest temples at the site, among others like Jambhuteswar Jain temple, Svetambar Jain temple, Prachin Digambar Jain Temple and Astapad Jain Temple, mentions the official site of UP Tourism.

Hastinapur is also known to be the birthplace of Parshv Ram Bhairav Singh, a disciple of Guru Govind Singh, the tenth Sikh guru, and welcomes devotees in significant numbers, especially at the Gurdwara at Satipur, Karamchandpur.



Under the division: Archeological Survey of India (ASI), Nirmala Sitharaman from the Ministry of Finance Department of India has proposed to develop 5 Archaeological sites.

One of them is a museum at Hastinapur to enhance knowledge about Mahabharata which is one of the greatest hindu sanskrit epics

This will lead to the development of the local area as the tourism rate

Uttar Pradesh Minister Neelkanth Tiwari told TOI, "As far as tourism is concerned, we had been gradually developing the town from our end; but for historical and cultural development, we had been seeking Union government's intervention both in terms of resources and funds. In fact, we had an elaborate meeting in this regard in September last year with various Union ministries

This will bring an increase in the employment rate in the level of workers as well as for people in the archeological department.

SUSTAINABLE PLANNING (SPECIAL STUDY):

- Sustainable design minimizes the negative environmental impact of buildings.
- It aims at solving the problems of society and the ecosystem.
- It means to enter the context in a natural way, planning and deciding on materials to have very few negative effects on the

environment.

- It strives to build or renovate buildings using a combination of energy-efficient technology, renewable materials, and innovative design.

- I. Sewage treatment plant
- II. Reduce, reuse, recycle
- III. Energy conservation
- IV. Renewable resource
- V. Pollution free or reduced
- VI. Aid economically
- VII. Non hazardous towards the neighboring forests



- As for sustainable planning the visitor's perspective must be considered.
- The environment must not be affected as there is a wide forest range.
- As it is a public government structure the profit of the project should be considered and must not be affected by this.

4. SITE

SITE SELECTION:

As the project is based on the mahabharata story relating to the hastinapur archeological site I have chosen a neighboring land that belongs to the government as the site for the project.

On-site Factors:

- The major on-site factors to be considered is that the site is likely to be an archeological site thus the ground should be excavated
- A small range of vegetation is present on the site in a discrete manner and a terrain with an elevation of about 10 - 25 cm.

Off-site Factors:

- There is a canal of the river Ganges at a distance of 50 in front of the site.
- There is a slight elevation next to the site towards the north direction.

- There are two small temples towards the south east direction of the site.
- The Archeological site is towards the north- east direction.
- There is a housing area towards the north of the site.

SITE NEIGHBOURS:

- ARCHEOLOGICAL SITE - 350M
- JAIN THRITIK TEMPLES - 1KM
- ROAD WIDTH - 18M
- GANGA CANAL - 100M
- WIDTH OF THE CANAL - 120M
- AREA - 60,500 SQ.M

SITE:

TRANSPORT:

BY AIR:

Delhi's IGI airport is the nearest airport to Hastinapur.

BY RAILWAY:

Meerut city railway station, Muzaffarnagar, and Hapur are the nearest railway stations to reach Hastinapura.

Delhi to Meerut City - Dehradun Shtbdi, Nanda Devi
Express Dehradun to Meerut City - NDLS Janshatabdi
Haridwar to Meerut City - Kalingautkal Express
Bulandshahr to Meerut City - Sangam Express
Agra to Meerut City - Chattisgarh Express, Panchvalley Pass,
Utkal Express

BY ROAD:

Arriving from the following nearby cities you can consider the below-listed route;

Meerut - 40 km via NH 34

Noida - 120 km via Mawana Kithaur Hapur Marg

Delhi - 136 km via NH 34

Moradabad - 128 km via NH 9

Kurukshetra - 178 km via NH 709 A

Haridwar - 121 km via Bijnor Haridwar Road

Apart from private transport one can also travel via govt run or private buses to Hastinapur from various metro cities.

Climate:

- With an average elevation of 218 metres (715 ft), Hastinapur experiences temperatures ranging from 5 to 40 °C (41 to 104 °F).
- Summer season is from March to May, during which the temperatures range from 32 to 40 °C (90 to 104 °F).
- The monsoon season is from July to September, during which the temperature is relatively low.
- Winter lasts from December to February, with December usually being the coldest month of the year.
- During this time, temperatures can drop to around 5 °C (41 °F), and don't usually go above 14 °C (57 °F)

Demographics:

- According to the 2001 Census of India, Hastinapur had a population of 58,452, with males constituting 53% of the population and females accounting for the remaining 47%.
- The literacy rate of the town was 73.9% against the national average of 59.5%.
- In Hastinapur, around 15% of the population was under 10 years of age.
- According to the 2011 Census of India, the Hastinapur population had reduced to 21,249.

LEGAL INFORMATION:

- Under the Government Of India

NATURAL PHYSICAL FEATURES:

- Full of trees
- Canal at a distance of 100m

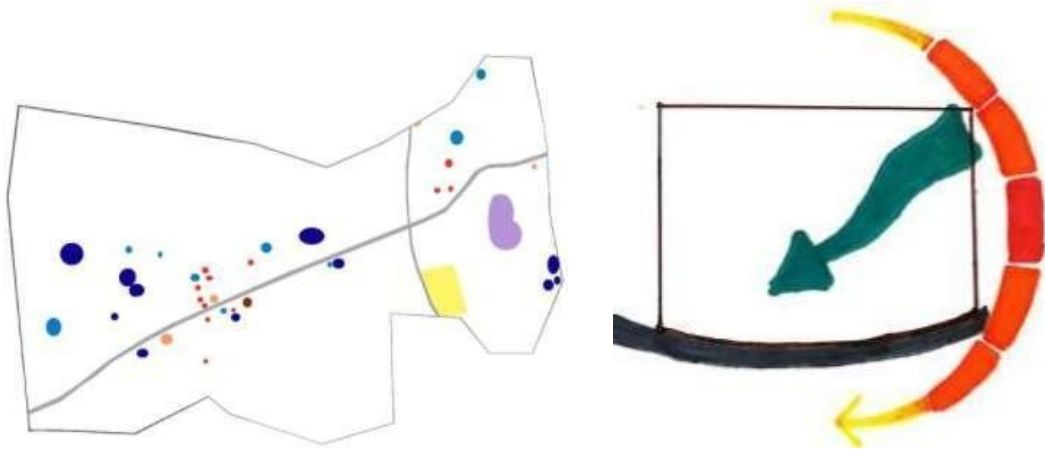
CIRCULATION:

- Access to the site through the Madhya Ganga Canal Road.
- No heavy traffic
- Less pedestrian movement

SOIL:

Loamy clay soil

- Suitable foundation is Raft Foundation
- But Pile Foundation can also be preferred



5. ARCHITECTURAL DESIGN

SPATIAL REQUIREMENTS:

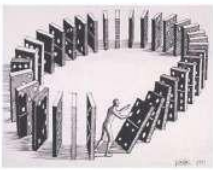
TOTAL SITE AREA : 60,500 SQ.M.
TOTAL BUILT UP AREA : 40% = 23,798
SQ.M. CIRCULATION : 20% = 12,100
SQ.M.
OPEN SPACE : 40 % = 24,602 SQ.M.

CONCEPT:

FORM DERIVATION:



The five brothers wanted to protect their wife from the humiliations caused by their family members.



KARMA: every action has an equal and opposite reaction and here every small mistake do have its own results.

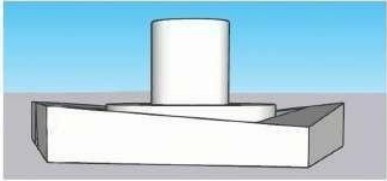


FIVE BROTHERS PROTECTING THEIR WIFE



ARCHERY WAS ONE OF THE MAJOR TECHNIQUE WHICH WAS USED IN THE WAR FIELD.





CONCEPT:





YADHAVI A
37210045
ESIS - S21 PROJ2

plate 10.3 Concept

MASTER PLANNING

MASTER PLAN:



EXPERIENCE THE PAST EPIC
THE MAHABARATHA



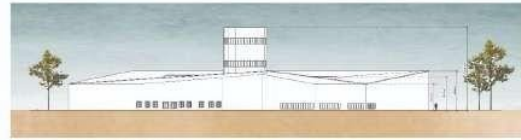
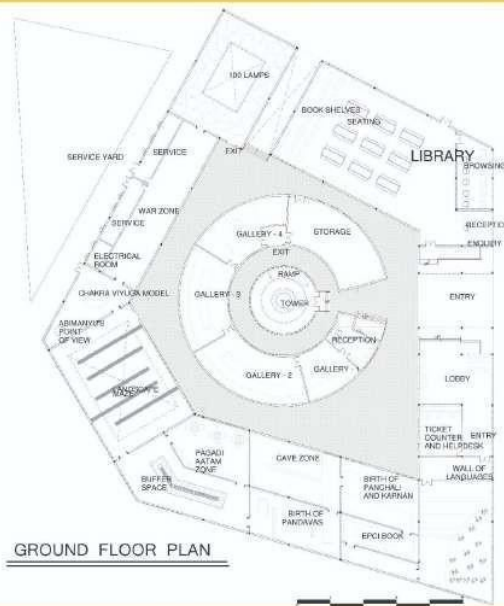


YADHAVI A
37210045
THESIS - S21 PROJ2

plate10.4 Master planning

DETAILED DRAWINGS

EXPERIENTIAL CENTER:



SOUTH ELEVATION



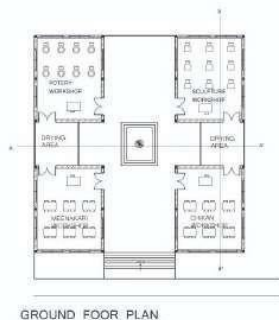
SECTION AA'



YADHAVI A
37210045
THESIS - S21 PROJ2

plate 10.5 Experiential center sheet

WORKSHOP:



GROUND FOOR PLAN



SECTION AA'



SECTION BB'



SOUTH ELEVATION



WEST ELEVATION



VIEW 1



VIEW 2



VIEW 3

SCALE: _____



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THESIS - S21 PROJ2

plate 10.6 Workshop plan

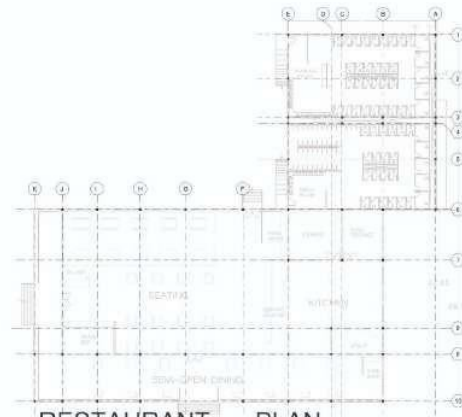
WORKSHOP AND RESTAURANT:



WORK SHOP - PLAN



VIEW 1



RESTAURANT - PLAN



VIEW 2



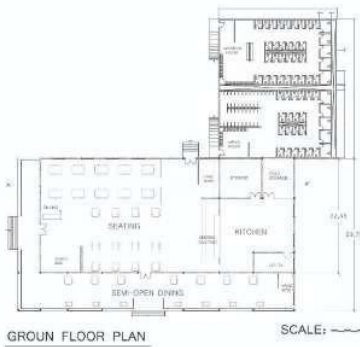
EXPERIENCE THE PAST EPIC
THE MAHABARATHA



YADHAVI A
37210045
THESIS - S21 PROJ2

plate 10.7 Workshop structural

RESTAURANT:



GROUN FLOOR PLAN

SCALE: 1:100



COMMUNITY DINING



VIEW FROM NORTH



OUTDOOR DINING



SECTION AA'



FRONT ELEVATION



WEST ELEVATION



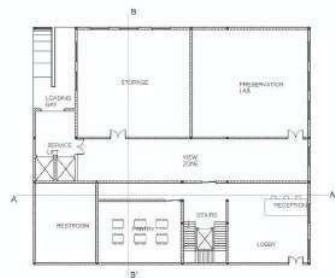
EXPERIENCE THE PAST EPIC
THE MAHABARATHA



YADHAVI A
37210045
THESIS - S21 PROJ2

plate 10.8 Restaurant plan

RESEARCH LAB:



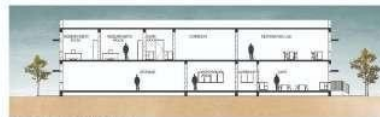
GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECTION AA'



SECTION BB'

SCALE



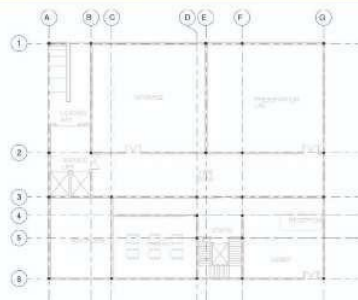
EXPERIENCE THE PAST EPIC
THE MAHABARATHA



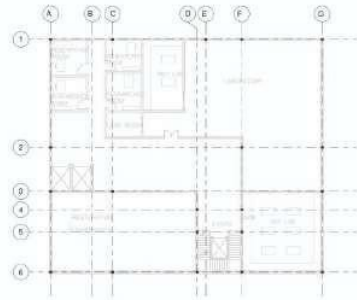
YADHAVI A
37210045
THESIS - S21 PROJ2

plate 10.9 Research lab

RESEARCH LAB:



GROUND FLOOR PLAN



FIRST FLOOR PLAN



WEST ELEVATION



NORTH ELEVATION



EXPERIENCE THE PAST EPIC
THE MAHABARATHA



YADHAVI A
37210045
THESIS - S21 PROJ2

plate 10.10 Research lab structural

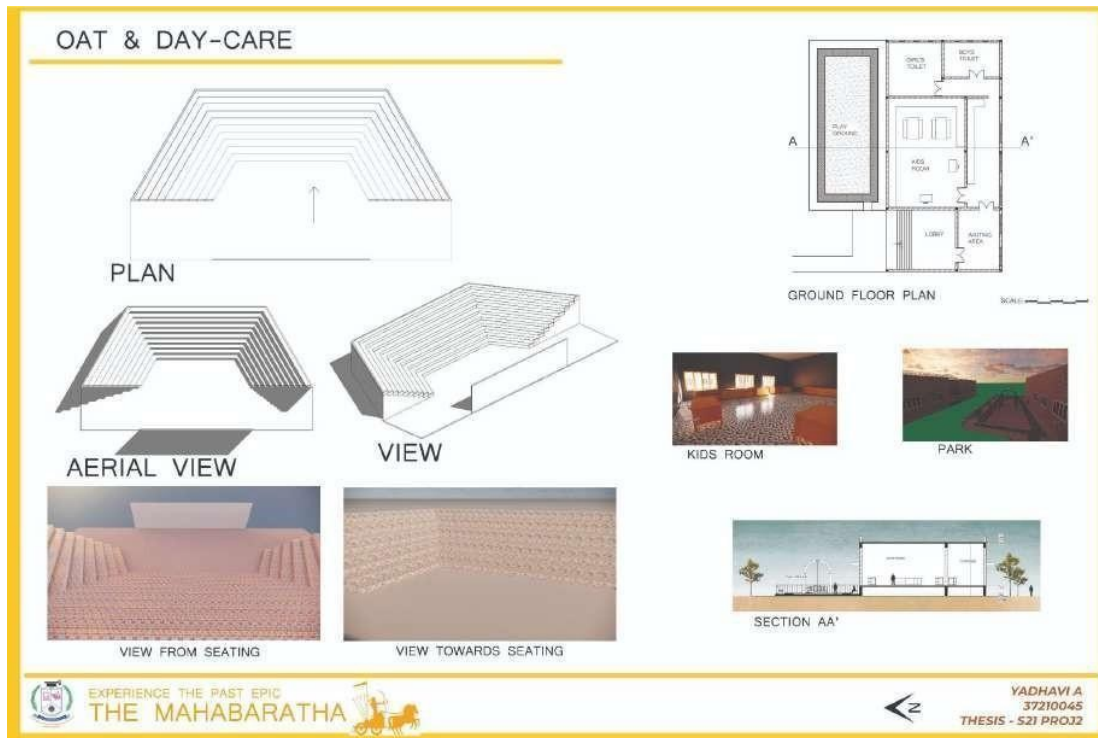


plate 10.11 OAT and Day-care

6. CONCLUSION

Thus the rich past of our nation can be carried out to the future generations for decades through this experiential center. The people can learn and experience through this as learning along with experience never lets them forget the incident.

The restaurant can also increase the footfall rate as there is a very few classy restaurants in the locality.

Overall, this project helps in the development of the economical and social state of the nation and also provides job placement for many people under the ASI.

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