

# NATURAL HISTORY MUSEUM

K. SUNITHA RANI<sup>1</sup>, T. SWAPNA<sup>2</sup>, T. JHANSI<sup>3</sup>

<sup>1</sup> Assistant Professor, Dept of Architecture and Planning, University College of Architecture and Planning, A.N.U, Guntur, AP.

<sup>2</sup> Assistant Professor, Dept of Architecture and Planning, University College of Architecture and Planning, A.N.U, Guntur, AP.

<sup>3</sup> Assistant Professor, Dept of Architecture and Planning, University College of Architecture and Planning, A.N.U, Guntur, AP.

\*\*\*

**Abstract** The art of spaces is called architecture. Sometimes architectural space had an impact on human emotions. These are places where individuals may go to engage in culture. Study and appreciate art. A few museums are well-known for their art collections. The effect of architectural space across time is the main topic of this essay. The way spaces are arranged in relation to exhibits to provide a certain impact is a theoretical and practical challenge in museum and gallery design. Communicate the intended message to the guests. All of the functional and spatial specifications needed for museum development are included in this project. Through architectural manifestations, it hopes to impress visitors with a vivid history of its evolution. Cultural architecture, particularly museum architecture, has a big social impact and improves people's quality of life. Therefore, it is important to examine this type of architecture from a variety of angles in order to fully understand its spatial composition and functional organization.

**Keywords:** Natural history museums, Non-formal education, Learning experience, Indian visitors, Environmental awareness, Nature conservation, Heterogeneous society, Contextual model of learning

## 1. INTRODUCTION

Anybody may attend a museum, regardless of qualifications, and find inspiration in the tales of our past and present. The museum is the path ahead for human development. An organization that looks after, or conserves, a collection of artifacts and other items with artistic, cultural, historical, or scientific value is called a museum. These objects are on display for the public to see in a number of public museums through either temporary or permanent displays. A museum is a facility that chronicles human history. One of the main goals of museums is to teach, and education is one of the most crucial development requirements."

Three primary tasks of a museum:

- Education
- Presentation
- Forming of a collection.

## 1.1 PURPOSE

Before you begin to format your paper, first write and Just like education, public natural history museums provide entertainment while also serving as a means of education. A natural history museum's main purpose is to supply the scientific community with both historical and contemporary specimens for their studies, which advances our knowledge of the natural world. It offers a wealth of research opportunities for scientists and research institutions, which is advantageous to them, as well as conversational opportunities for the species.

## 2. HISTORY AND EVOLUTION OF MUSEUMS

### 2.1 HISTORY OF MUSEUMS

- Early museums were originally private collections of uncommon or unusual natural relics and objects owned by affluent people, families, or institutes of art.
- The "respectable" could frequently get entry to these museums for the general public, particularly to private art collections, although this was subject to the owner and his employees' whims.
- Purchasing and showcasing these intriguing artifacts was one method that wealthy men at this time rose in the social hierarchy of the elite world.
- From 'mouseion' to museum

The Greek mouseion, which denotes a location or temple devoted to the muses, is the source of the Latin term museum, plural musea, from whence the word "museums" is derived. A museum is a shrine, where the values of knowledge and art are paramount. It strikes a balance between artistic dedications.

## 2.2 Types of museums

### 2.2.1 Early museums

Early museums were originally private collections of uncommon or unusual natural relics and things owned by affluent people, families, or institutions. These were frequently on show in what were referred to as wonder chambers or cabinets of curiosities. Respectable people could frequently gain public admission, especially to private art collections, but this was subject to the owner's and his employees' whims. Ennigaldi-Nanna's museum, which was established in around 530 BC and featured Mesopotamian artifacts, was the oldest museum of its kind that has been found. It seems to have had enough visitors to justify labeling the organized collection, but there is no proof of this.



Fig -1: Early Museums

### 2.2.2 Modern museums

However, the middle and upper classes were frequently the only ones with access to these "public" museums. It can be challenging to get in.



Fig -2: Modern Museums

### 2.2.3 Contemporary art gallery

Most galleries of contemporary art are free to enter for the general public, however others are semi-private. Typically, they make money by keeping between 25% and 50% of art purchases. In addition, there are a lot of communal or nonprofit galleries. several international art markets view it

as gauche, although several galleries in major cities like Tokyo charge artists a daily flat fee.



Fig -3: Contemporary art gallery

### 2.3 Ancient History Museum (B.C.):

The concept of creating or expressing a museum dates back to ancient BC. An essential component of the historical libraries and schools was the museum. At his desire, a large library filled with priceless treasures and antiques was constructed in the Tal El Amarna area during the reign of Pharaoh Akhenaten (1335–1353 B.C.). Some cloned fragments of ancient, valuable pieces made of the same materials were discovered in Larsa, Mesopotamia (modern-day Iraq), dating back to the second millennium B.C. These fragments have been used for educational purposes. Sir Leonard Woolley also discovered other parts of Babylonian city, which demonstrate how the monarchs Nebuchadnezzar and Nabonidus cared for collections during their reigns.



Fig -4: Terracotta warriors and horses

### 2.4 Museums of Medieval from the 5th to the 15th century:

The introduction of Christianity in medieval Europe highlighted new developments in the religious philosophy and culture of the period, giving the church a high priority among rulers such as princes and dip-lomats. The majority of the art treasures were kept safe either in church safes or princess castles. Because collections had been used to pay for weapons throughout the war, they were extremely important economically. Furthermore, the cloned pieces from these collections were traded, and among them were some treasures belonging to the emperor Charlemagne (r. 800–

814), ruler of the Roman empire, and the Frankish king (768–800), who possessed several palaces in Nijmegen and Anglheim. These palaces held numerous treasures, including columns, golden and silver lights, and bronze doors, which were later divided between the church and the princes.



Fig -5: The Quadriga Triumphant

### 2.5 Museums of the 18<sup>th</sup> century

In Europe, the 18th century is regarded as the birth year of public museums. In addition to the new advancements in science, technology, and the arts, the public's interest in the arts and culture increased, particularly following this century's Industrial Revolution and the decline in the influence of the church and the upper class. Museums used to be exclusively accessible to the upper class, but they have been opened to the general public. During this time, new museums sprung up all throughout Europe. The Vatican collection, which included several old Renaissance masterpieces, was made public in 1734 at the Capitoline Museum (see image below) and 1772 at the Pio-Clementino Museum.



Fig -6: The Capitoline Museums are located on Capitoline Hill, which was designed by Michelangelo in 1568.

The American people began to emulate European culture and art after discovering the Americas and turning it into an English colony. As a result, they established the Charleston Museum in South Carolina in 1773, making it the oldest museum in the country. Although it initially presented natural history, it now also covers the entire history of the Civil War, the ancient world, and the Lowcountry, as shown in the figure below.



Fig -7: The Natural history

## 3. LITERATURE STUDY ON MUSEUMS

### 3.1 Standards and Functional Analysis

The issue of future growth and multi-phase building is taken into serious account in this planning. Three basic plans are provided as examples to show how a good small museum may be planned using the organizational diagram. These plans range in size from the smallest possible, measuring 1960 square feet, to 3823 square feet, representing three different capital expenditures and operating costs. As a general rule, all plans include allowances for future growth and multi-phase building.

### 3.2 Design Guidelines

In order to improve visitors' comprehension of the age, particular modifications and interpretations will be needed in addition to the general standards for the archaeological sites-museums. To put it another way, visitors to these kinds of museums should have an immersive experience that is enhanced by audio-visual materials, recorded content, interactive areas, adequate lighting, and music. Both inside and outside of the structure, the mood should be preserved.

1. The building's outside landscaping should be designed to enhance the museum's visitor experience.
2. The exhibition's concept and tone are supported and reflected in the aesthetic decisions made.
3. Spatial structure and orientation. and traffic movement are suitable for the exhibition's objectives.

### 3.3 MUSEUM PLANNING FACTORS

Planning a museum entails organizing both the physical area where the collection will be kept and the institution's real mission. The layout and design of museums differ depending on the collections they host, but generally speaking, they follow the guidelines of creating a place that is accessible to the public and effectively shows the selected objects.



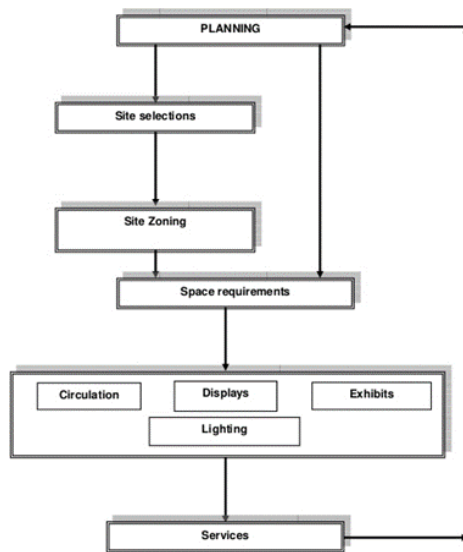


Chart -1: Museum planning flow chart

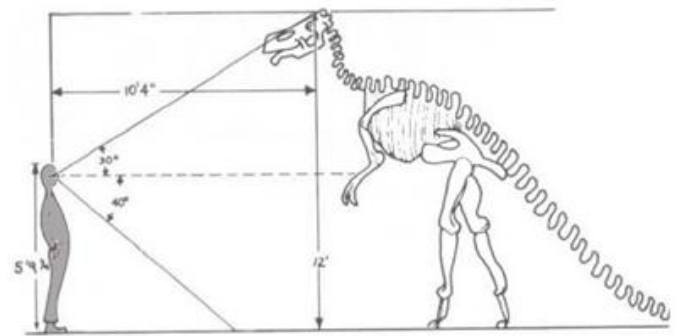


Fig -9: Viewing distance should increase with greater size of object

### 3.4 Gallery Design

- Visitors ought to be free to navigate the display without having to go by anything they have already seen.
- Enough room must be provided for guests to move at various speeds.
- When entering a gallery, visitors often turn right.
- Normal vision begins at an angle of 27° above eye level.
- Properly illuminated portraits or wall hangings should be hung 10 meters away from the observer, with the top not more than 4.9 meters above eye level and the bottom around 70 centimeters below.
- An ideal viewing area should have a sill height of 2.13 meters for photographs and 3–3.65 meters for sculptures.
- Each sculpture should have a 6–10 m<sup>2</sup> ground surface.

### 3.5 Gallery Arrangement Design

The majority of the time, humans can perceive and identify objects inside a roughly elliptical cone of vision, with the cone's tip at eye level, and minimal eye movement. The space will seem better to visitors, and they will be able to follow the display with ease. Staggered setups are frequently possible. This gives the place a certain air of mystery and makes visitors want to look around corners to find out what's around the next bend.

A large entryway into a hallway is not always required. Some interest is added by the arrangement of the cases, which somewhat constricts the entry before opening up the interior hall.

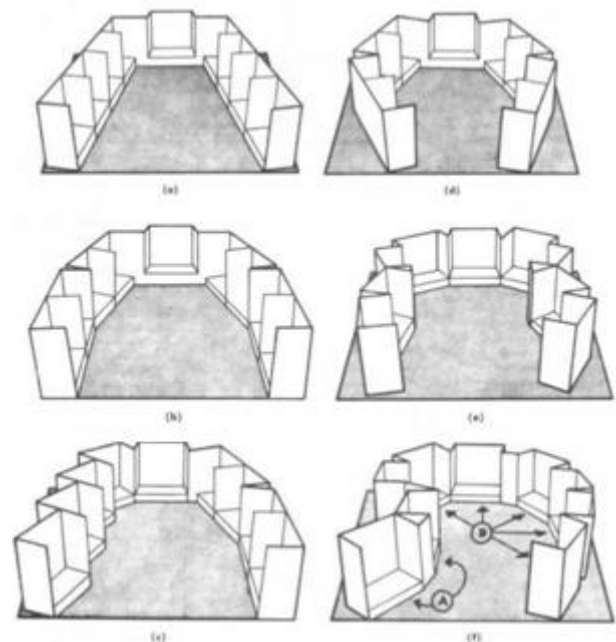


Fig -10: Possible gallery arrangements

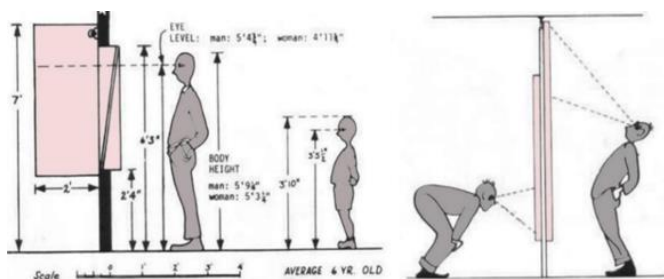


Fig -8: Gallery design vision levels

### 3.5 EXHIBITION ROOM- SHAPE AND REQUIREMENTS

Through altering their measurements and the proportions of height to breadth, as well as by utilizing diverse wall colors and flooring types. When choosing the form of the rooms, one crucial detail needs to be kept in mind. A square room, if it's larger than a particular amount (about 23 square feet). However, it is never ideal for them to be more than around 22 feet wide, 12 to 18 feet high, and 65 to 80 feet long. On the other hand, galleries meant for permanent exhibits may be rather large.

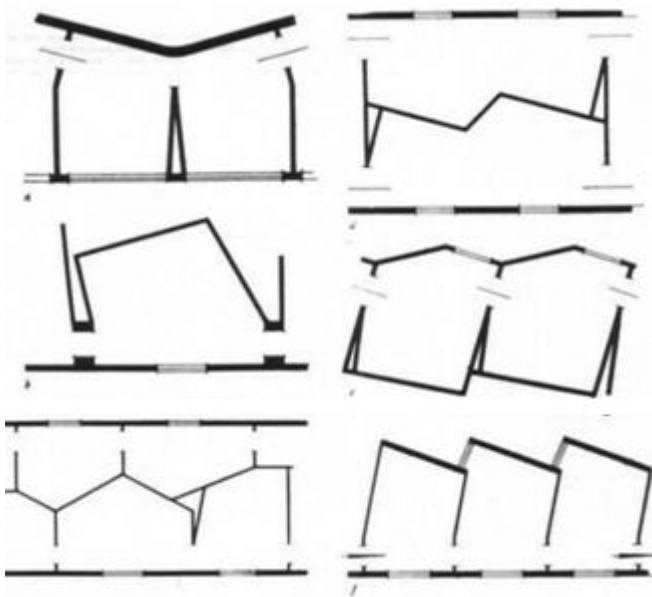


Fig -11: Exhibition space: layout and specifications

### 3. CONCLUSIONS

In conclusion, natural history museums play a vital role in educating the public about the natural world and its incredible biodiversity. By preserving specimens and artifacts from across the globe, these institutions allow visitors to come face-to-face with animals, plants, fossils, and cultures that they may never encounter in person. The exhibits spark curiosity and amazement about Earth's wonders.

Beyond their exhibits, natural history museums conduct important scientific research that advances our understanding of life on this planet, both present and past. Their collections are an invaluable resource for study. Museum scientists describe new species, analyze evolutionary relationships, and research topics like environmental change and conservation.

Additionally, natural history museums inspire the next generation of scientists, explorers, and environmental stewards. Children are awed by dinosaur skeletons, dazzled by gem and mineral displays, and develop an appreciation for

nature's marvels. These early museum experiences can kindle a lifelong enthusiasm for science and the outdoors.

In our rapidly changing world, the roles of collecting, researching, educating, and inspiring have never been more crucial for natural history museums. They are vital institutions that connect people to the planet's natural heritage and warn us about the fragility of life on Earth. Protecting these treasured museums ensures we preserve our understanding of the world for ages to come.

### REFERENCES

- [1] [https://www.architectmagazine.com/project-gallery/shanghai-natural-history-museum\\_o](https://www.architectmagazine.com/project-gallery/shanghai-natural-history-museum_o)
- [2] [https://www.google.co.in/search?q=snail+shell+concept+architecture&tbm=isch&hl=en&safe=active&sa=X&ved=2ahUKEwixsvn\\_i9LuA-hUzKbcAHU1IAAwQrNwCKAB6BQgBE-JEC&biw=1688&bih=749#imgrc=9Dj0V0gIO7ly3M](https://www.google.co.in/search?q=snail+shell+concept+architecture&tbm=isch&hl=en&safe=active&sa=X&ved=2ahUKEwixsvn_i9LuA-hUzKbcAHU1IAAwQrNwCKAB6BQgBE-JEC&biw=1688&bih=749#imgrc=9Dj0V0gIO7ly3M)
- [3] <https://www.dezeen.com/2020/11/30/shenzhen-natural-history-museum-3xn-zhubo-design-bh/>
- [4] [https://issuu.com/akash.patel9195/docs/a\\_contemporary\\_archeological\\_and\\_history\\_museum](https://issuu.com/akash.patel9195/docs/a_contemporary_archeological_and_history_museum)
- [5] [https://en.wikipedia.org/wiki/Transport\\_in\\_Visakhapatnam](https://en.wikipedia.org/wiki/Transport_in_Visakhapatnam)
- [6] <https://www.census2011.co.in/census/city/402-visakhapatnam.html>
- [7] <https://en.climate-data.org/asia/india/andhra-pradesh/visakhapatnam-2804/>
- [8] <https://www2.slideshare.net/RaghupathiKandiboina/city-profile-visakhapatnam>
- [9] <https://matadornetwork.com/read/best-natural-history-museums-world/>
- [10] <https://www.nhm-wien.ac.at/en>