

NATIONAL TEXTILE MUSEUM

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01 INTRODUCTION

National Textile Museum located in Building 26 at Lot 50 Public Works Department Section 70, Jalan Sultan Hishammuddin, 50050 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur.

- 1896
- A. B. Hubback
- Area: 3259 m²
Floor area: 3145.3 m².
- 3.15°N, 101.69°E
- Mughal-Islamic orientation.

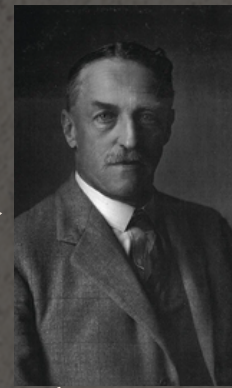
Visiting Hours:

9:00 a.m.

17:00 p.m.

Except on the first Monday of each month

02 ARCHITECT



ARTHUR BENISON HUBBACK (1871-1948)

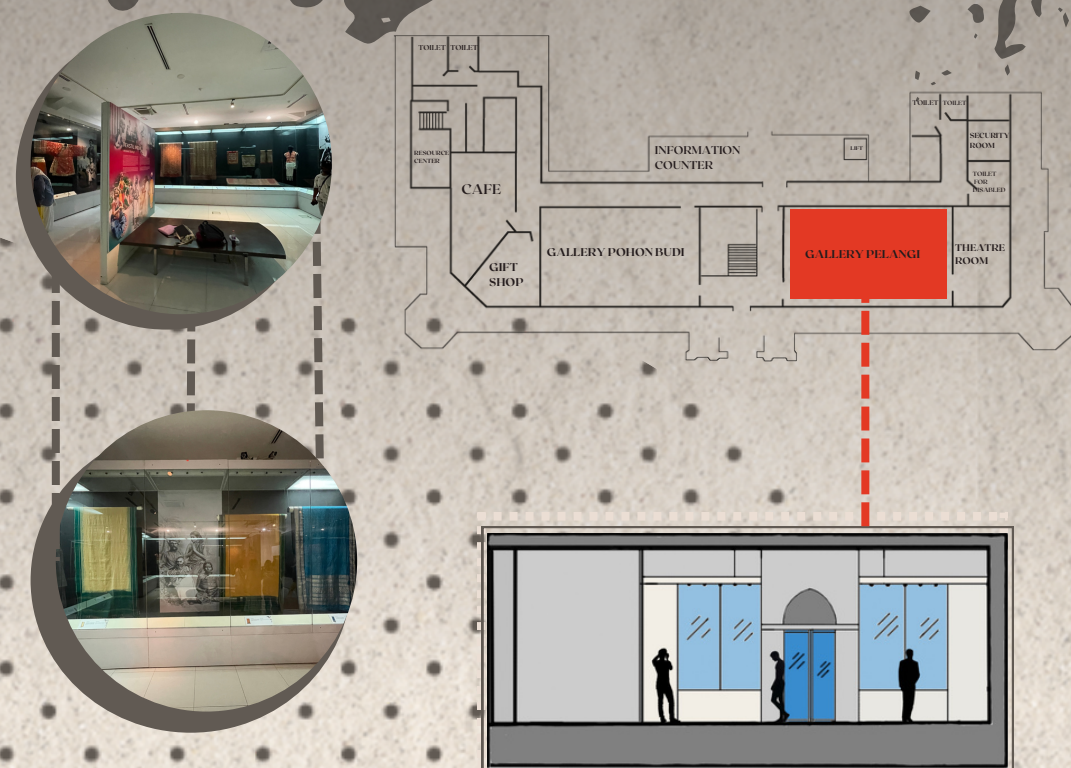
- English Architect, soldier & son of J. Hubback.
- Arrived in Malaya (1895) & Chief government architect of the British-run Federated Malay States (1900).
- Brigadier general during his service in the British Army.
- 2 brothers, wife with two children.
- Fettes College, Edinburgh.

03 HISTORY

- 1905**
The State Railways Headquarters Federated Malay States.
- 1917**
Submitted to the NSW gov & made of Selangor.
- 1959**
Occupied by the Selangor Water Works Dep., the Central & Bank of Ag.
- 1983**
Gazetted as a historical building in Bendapurba Act 1976.
- 1986**
Leased by the Malaysian Handicraft Development Corporation as a showcase for art and craft and made the Textile Museum.
- OCT 2007**
Access to the construction of the National Textile Museum as a follow-up approval from the Cabinet on July 13, 2005.
- JAN 9 2010**
The museum was opened to the public.

06 SPACE PLAN

The space has a very deemed lighting which is not focusing on the necessary elements. There are various lightings used in this area (both warm and cool tone). This area doesn't get any natural lighting either which is a plus.



03 CONCEPT

The museum is to track developments that characterize textile of community living in Malaysia since pre-history to present.

TYPES OF GALLERIES:



POHON BUDI

Textiles from the pre-historic times & its growth through trade.



PELANGI

Malaysia's ethnic groups with their respective textile treasures.



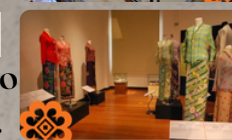
TELUK BERANTAI

Everlasting artistic heritage to this day produced by Malays.



RATNA SARI

Jewelry & personal adornments of the ethnic groups.



SAINDERA

Venue for the textile talk & other activities by museum & public.

05 ARCHITECTURAL STYLE

Mughal-Islamic: Indo-Islamic architecture developed by Mughals in the 16th to 18th centuries (Indian subcontinent).

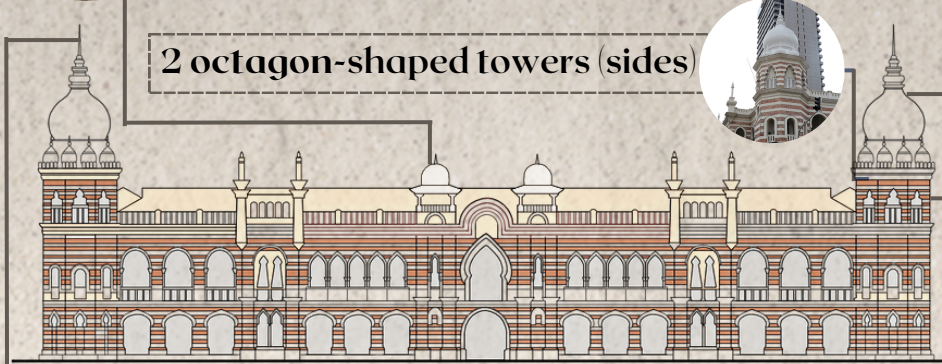
CHARACTERISTICS:

Concrete dome surrounded by smaller domes (each tower)



2 rectangular oval shaped poles that stretch out from the walls of the dome-roofed (Entrance).

2 octagon-shaped towers (sides)



West Elevation



Tall, slender, pointed structure on top of a roof of a building or tower which called spire.

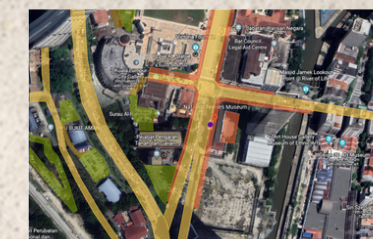
Streaks of red bricks and white plaster of its own revenue punctuated with alternates (characterising the adaptation of the Moghul-Islam style).

04 CONTEXTUAL STUDY



- Legend:**
- Dataran Merdeka
 - Memorial Library
 - Wisma Maran
 - KL City Gallery
 - Sultan Abd. Samad
 - College Gemilang
 - National History Museum
 - National Textile Museum
 - Bank
 - Daya Bumi
 - Central Market

CIRCULATION



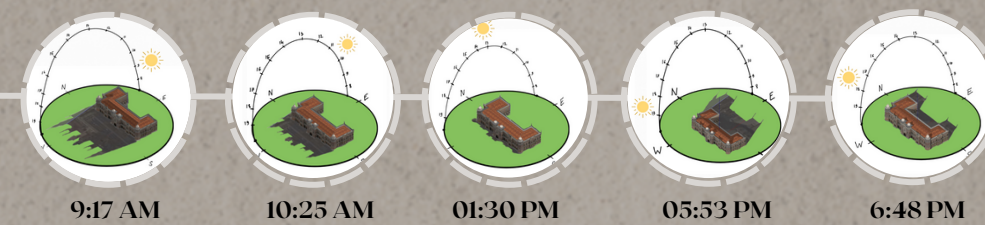
- Legend:**
- Main vehicular
 - Secondary vehicular
 - Pedestrian
 - Parking area
 - Main Entrance

RELATIONSHIP WITH OTHER BUILDINGS:

- MERDEKA SQUARE**
First Malaysian flag hoisted & Annual Independence Day Parade venue
- SULTAN ABD. SAMAD**
Offices of the Ministry of Communications & Tourism
- DAYABUMI COMPLEX**
Commercial facilities & one of the earliest skyscrapers in city
- CENTRAL MARKET**
Space for small businesses to sell their products to tourists in public

07 DAYLIGHTING ANALYSIS

SUNPATH DIAGRAM



SPACE	LUX
1	71
2	58
3	41
4	73
5	73
6	74
7	35
8	95

Space 8 allows users to have a clear visual imagine of their surrounds in that the light intensity is adequate enough.

35 lx

Space 7 (corner area of the room).



Lowest lux reading:

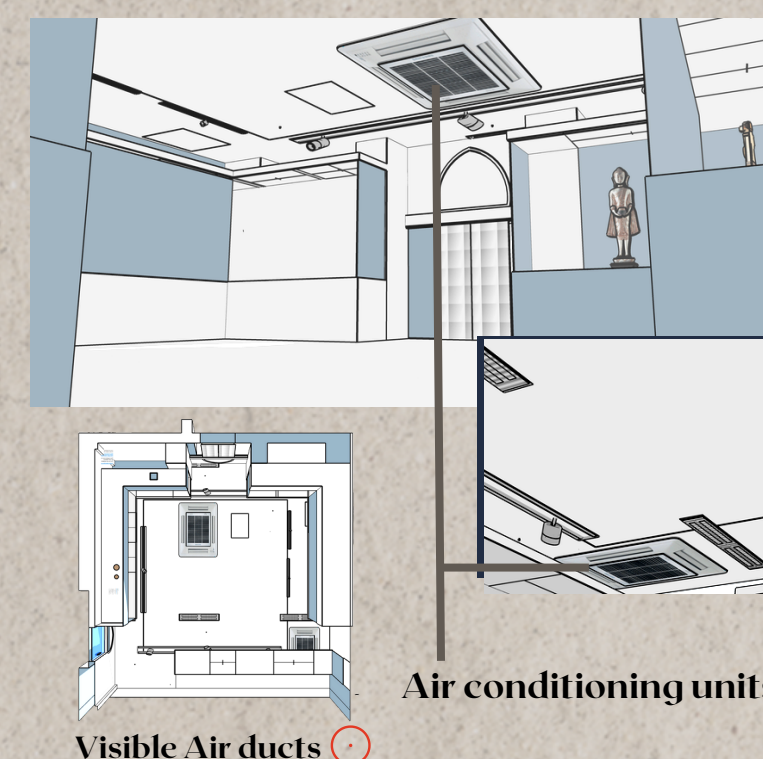
95 lx

Space 8 (sitting area in the center)



Space 7 with the least amount of lux (35lx) does not negatively affect the users vision or experience due to the fact that its the corner part of the room with little to nothing to look at.

08 VENTILATION



Visible Air ducts

Air conditioning units

FULLY ENCLOSED AREA

Ventilation provided from 2 air conditioning units keeping the room temperature at an average of 21 degrees celcius - ceiling air ducts preventing odors and textile deterioration

ISSUES WITH SPACE

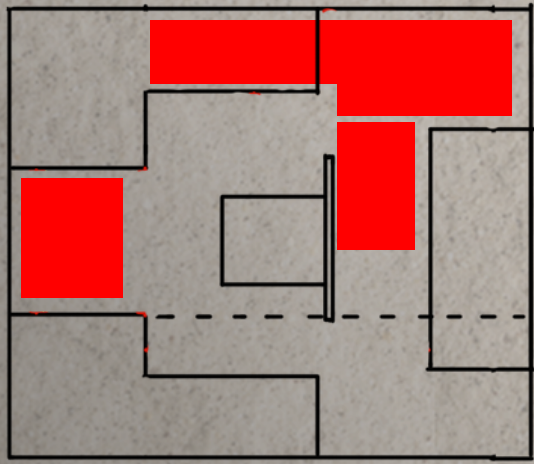
SPACE ENTRANCE

Very noticeable **lack of lighting** in this area. Although this corner of the room has no interest in itself, yet some of the **exhibits** located near this area do not receive enough light for guests to see their **main details**.

DISPLAY AREA



This plan shows the **darkest areas** of the room. The biggest **lack of light** is in the **upper left** corner and affects some of the exhibits in the display cases. A **small dark area** near the exit is **not as important** as the rest.



Plan of the space

A similar case of **lack of lighting** for the main details of the **exhibits**, but **more noticeable**, can be seen in this area.

As you can see, most of the **problems** with the place is the **lack of lighting**. This problem can be easily solved by installing **new lighting elements** that can correctly **emphasize** the **main details** of the **exhibits** and can also **illuminate** the entire area for visitors.

Each light has an energy saving bulb of 5000K temperature.

On the ceiling, the original track lights have been brought **closer to the centre** of the ceiling. This is to **lessen** the amount of **direct lighting** on the textiles whilst still illuminating the room.



The main lighting fixture used is a spotlight with a uniform light warmth of around 5000K (white light). In each display case section, there is 2 ceiling-mounted and 2 floor spotlights each positioned at an angle varying between 30-40° depending on the item.

AFTER ANALYSIS

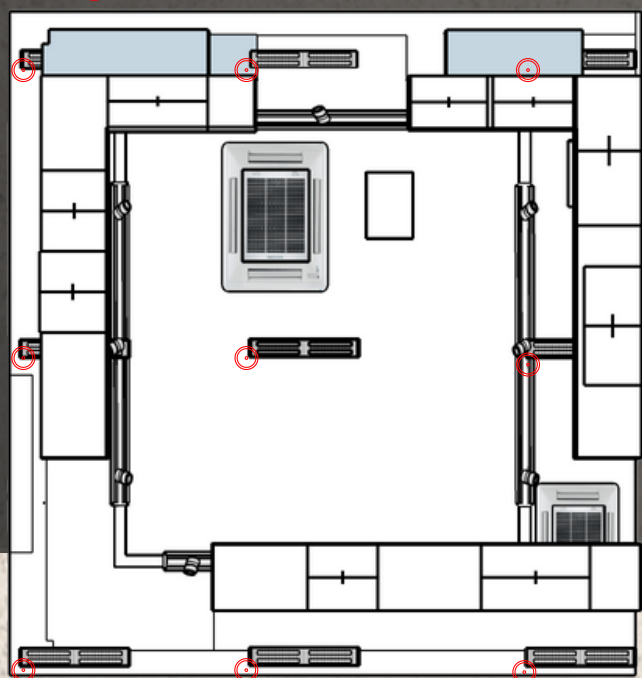
BEFORE:

The cabinet had big LED panels accompanied by 5 small spotlights (of different temperature) which made the display dim and incorrectly illuminated the items.



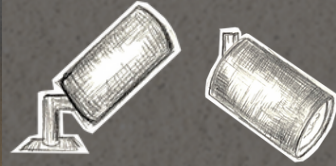
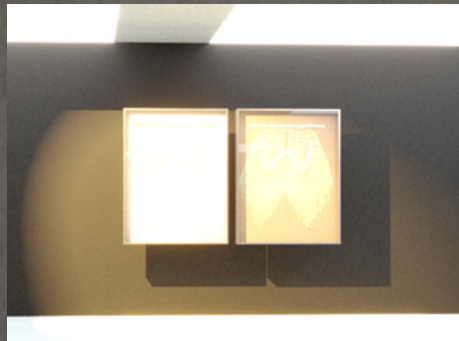
Original ceiling Plan

Ventilation ducts

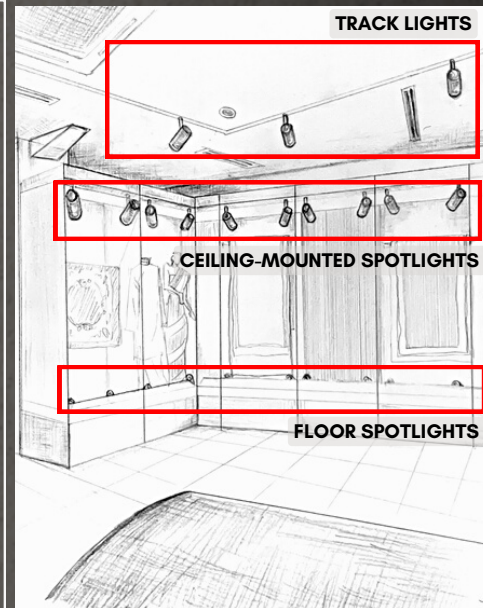


Reflected ceiling Plan

As this is a textile museum, positioning lights from the top and bottom pointing towards the item ensures that the item has **minimal shadow** and the colours can be seen as intended.



This concept sketch visualises the new lighting placement. Most of the new lights are placed **inside** the display cabinets. The purpose of this is to illuminate and place more emphasis on the display items rather than the room.



LUMEN METHOD

The **total number of lumens** available in a room **divided** by the **area of the room**. In order to perform this calculation, many **factors, coefficients, lamp lumen data** and **other quantities** must be gathered.

Lumen level required for a **museum** ranges from **50lm to 10lm**. However, for a textile museum, the **textile displayed** may be **sensitive**, thus, **50lm** is the **maximum lumen** that should be used.

$$\begin{aligned} \text{ROOM INDEX} &= \frac{L(W)}{(L+W) Hm} \\ &= \frac{7.35 \times 6.9}{(7.35+6.9) (345-175)} \\ &= 2 \end{aligned}$$

$$\begin{aligned} \text{NUMBER OF FIXTURES} &= \frac{E(A)}{F(UF)(MF)} \\ &= \frac{50(50.72)}{(745) (0.3) (0.65)} \\ &= 16 \end{aligned}$$

$$\begin{aligned} \text{MINIMUM SPACING} &= \frac{SHr}{(Hm)} \\ \text{BETWEEN LUMINAIRE} &= \frac{(100/345) (170)}{51cm} > 0.51m \end{aligned}$$

$$\begin{aligned} \text{NUMBER OF REQUIRED} &= \frac{W}{\text{MINIMUM SPACING}} \\ \text{ROWS FOR LUMINAIRE} &= \frac{6.9}{0.51} \\ &= 13.5 > 14 \end{aligned}$$

$$\begin{aligned} \text{NUMBER OF LUMINAIRE} &= \frac{\text{TOTAL LUMINAIRE}}{\text{NUMBER}} \\ \text{IN EACH ROW} &= \frac{16}{14} \\ &= 1 \end{aligned}$$

$$\begin{aligned} \text{AXIAL SPACING ALONG} &= \frac{L}{\text{NUMBER OF LUMINAIRE IN}} \\ \text{LUMINAIRE} &= \frac{6.9}{1} \\ &= 6.9 \end{aligned}$$

$$\begin{aligned} \text{TRANSVERSE SPACING} &= \frac{W}{\text{NUMBER OF LUMINAIRE IN}} \\ \text{ALONG LUMINAIRE} &= \frac{7.35}{1} \\ &= 7.35 \end{aligned}$$

Rainbow is the concave light of various strips of colors that appears in the sky.

TRADITIONAL TEXTILES

Kain pelangi is known as the royal yarn of multi-colored cloth.

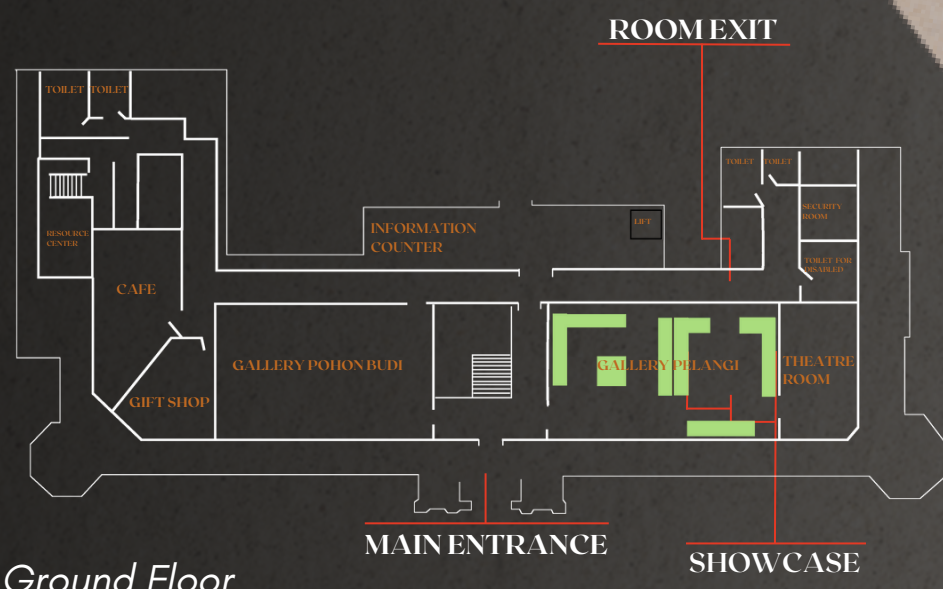
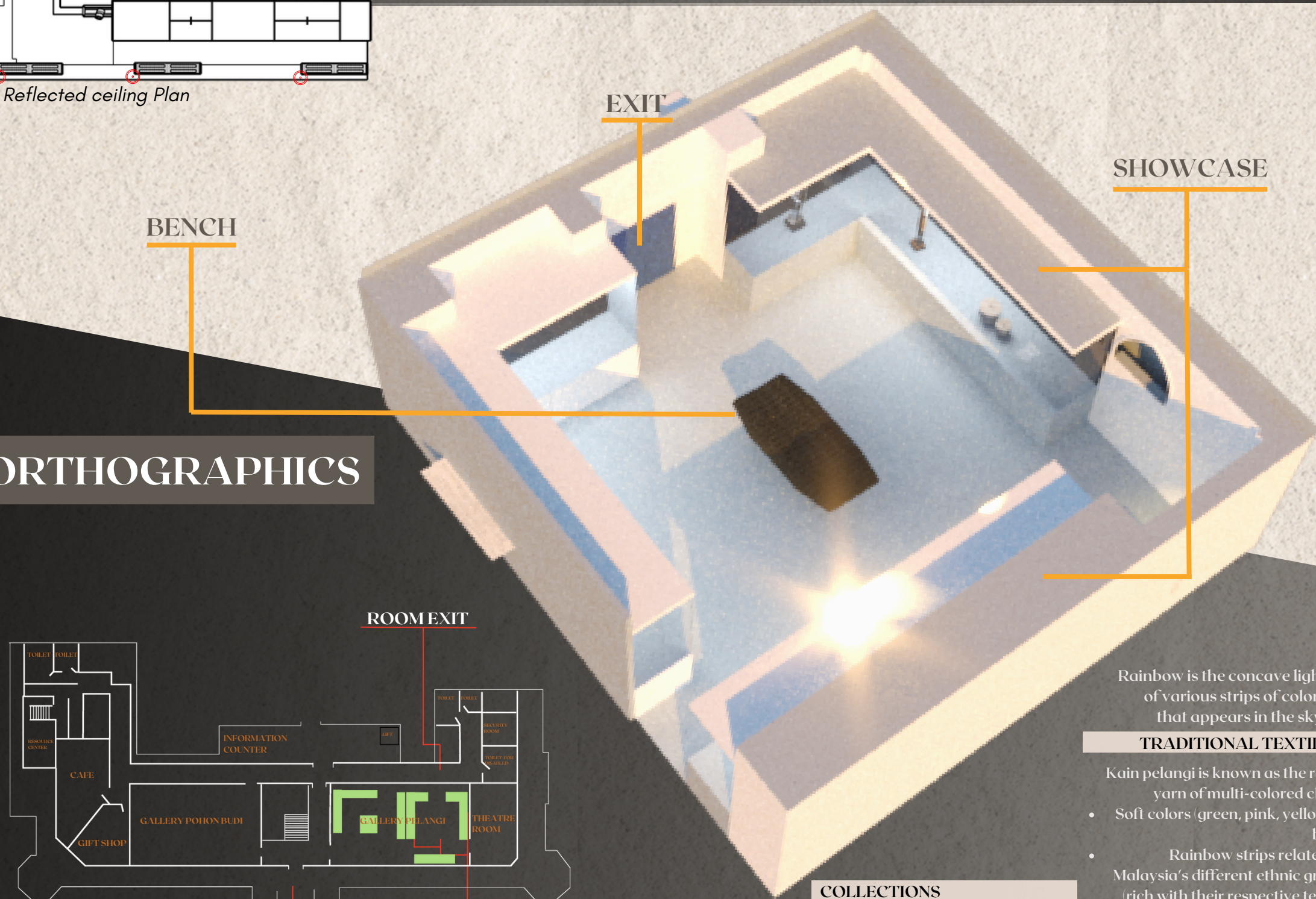
- Soft colors (green, pink, yellow & blue)
- Rainbow strips related to Malaysia's different ethnic group (rich with their respective textile treasures).

COLLECTIONS



Batik Baba Nyonya

ORTHOGRAPHICS



Ground Floor



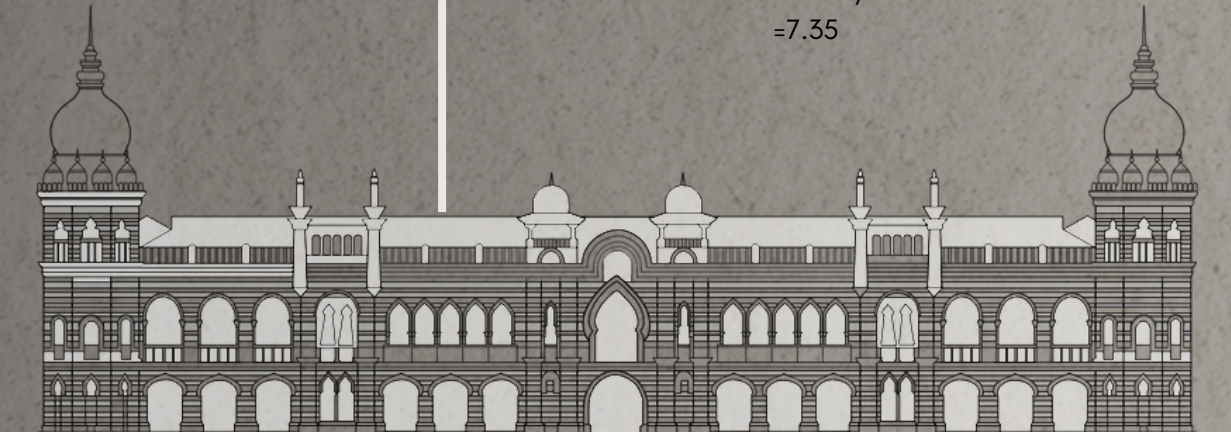
First Floor



Detailed Section



South Elevation



West Elevation

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