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BUILDING APPRECIATION OF TRADITIONAL HOUSES IN MHOW

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ABSTRACT

Traditional architecture which define the culture and historical identity of building, even which mates us look back to the past. Some amazing valuable Heritage like this can be seen in MHOW too. MHOW is a British settlement where there is a wonderful confluence of British and Indian traditional architecture. But this building Heritage is now getting decrepit with time and it is outdated according to their modern functional requirement. Although traditional architecture in MHOW is accumulated experience of successive generation. But the modern building gives attention only to standards and rule, which do not suits to Indian culture and ignore the traditional spaces which is integration of socio culture norms.

This research paper explore traditional MHOW residences, majorly focusing on those which are Indian traditional based. In order to gain a better understanding of the houses in the selected areas and there inhabitants this paper based on ethnographical study consists of observations, informal interviews, constructed questionnairies and architectural study for the houses specially elevations.

The contribution of this study is to search for architecture deep knowledge of traditional residence form to encourage the designers to think about the residential architectural design as product of social culture norms.

Key words :-

Traditional, Culture, Historical identity, Socio-Culture, Ethnographical.

1 INTRODUCTION

Traditional architecture is a term used to describe architectural designs for structures that have existed for a long time and are linked to a particular culture or region. It frequently exhibits characteristics of the historical, social, and cultural values of the people who produced it.

The use of local materials and techniques is one of the distinguishing features of traditional architecture. Traditional buildings are made of natural materials such as stone, clay, wood, and thatch and are designed in respond to local climate conditions.

Another important aspect of traditional architecture is its relationship to the surrounding landscape and environment. Traditionaly are often designed to blend in with their surroundings, and may include features such as Courtyards, Slope roof and Carvings.

traditional architecture as a way of promoting sustainability, preserving cultural heritage, and creating more human-scale and community-oriented built environments.

Some amazing valuable Heritage like this can be seen in MHIW too.

From the historical point of view, the history of MHOW is many years old, almost from the Maratha period. But It was declared as a town in 1818 by British officer John Malcoln. The town, formerly a large British cantonment known as MHOW (military headquarter of war).

MHOW used to be the headquarters of the 5th (MHOW) Division of the Southern Command during the British Raj. Later in 2003 the government of Madhya Pradesh moved to rename the town Dr. Ambedkar Nagar.

Today this small town is associated with the diverse cultural. Where there is a wonderful blend of British and Indian traditional Architecture.

British architecture which used ionic/gothic column, key stone arch, mortifies or brackets. Where as Indian traditional architecture mainly pointed cinquefoil arch, multifoil arch, intricate carvings and mostly used natural materials.

2 CONTEXT

2.1 LOCATION

Figure 1

Latitude : 22° Longitude : 75°

MHOW is located at south-west of Indore city.

2.2 CLIMATE

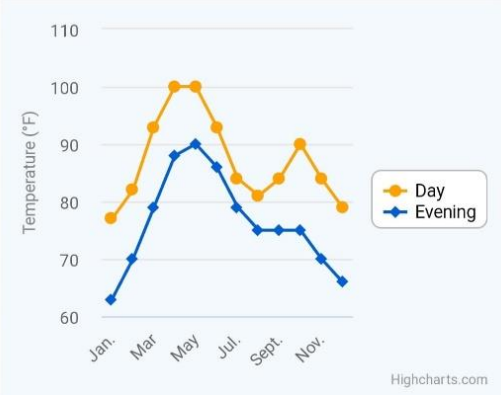

Figure 2: Average Temperature

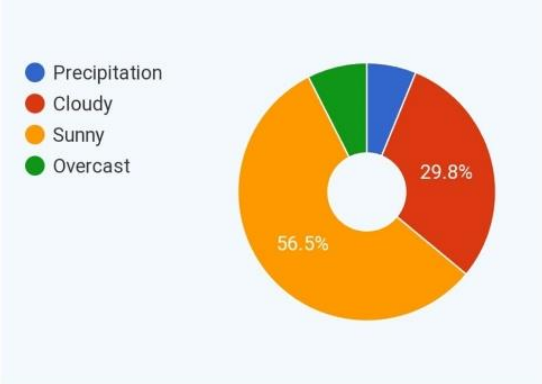

Figure 3: Weather

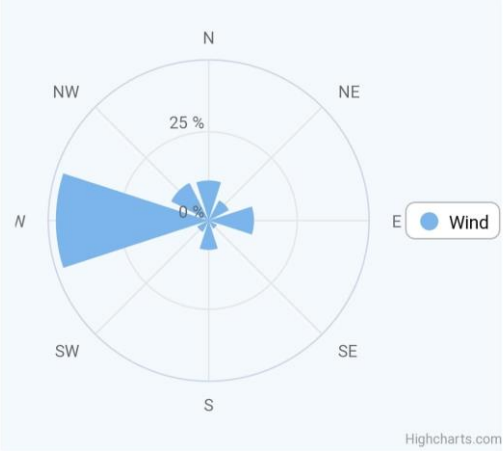

Figure 4: Wind Rose

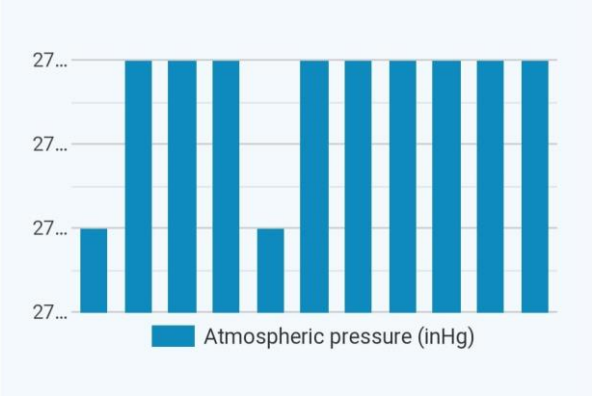

Figure 5: Atmospheric Pressure

2.3 GEOGRAPHY

Geographically, Indore is located in the Malwa plateau with Vindhyas Ranges fringing its southern end.

2.4 TOPOGRAPHY

The drainage flows primarily to the north, and There are steep hills and valleys with narrow streams in the town's south eastern region. It has Janapao hills and Singarchori, the highest peak of the Malwa Plateau, to the west. by and large black cotton soil in most of the areas. It is high in nutrients, which are essential for the growth of dry crops. The basic composition of rocks found in its core is black basalt, and the entire region falls under Seismic Zone III, which is prone to earthquakes measuring 6.5 on the Richter scale.

2.5 WATER BODIES

MHOW is situated at the confluence of River Chambal and Gambhir, but the largest supply water to the town by Narmda river.

3 HOUSING TYPOLOGY

The traditional houses of MHOW are about 100 years old, which is at its peak and it's getting damaged with time. Even it's outdated according to their modern functional requirements. The houses in are linear and almost identical, the uniqueness is there design. Which follows the same principles.

3.1 VAASTU

based on principles of design, layout, measurements, ground preparation, space arrangement, and spatial geometry described in ancient texts.

3.2 LAYOUT

The straight plan, divided into three phases. First for semi-closed meeting space (varandha, shop & Drawing room), second phase for family members (kitchen &Bed room) and third phase for toilet & Wash Area.

3.3 PROPORTION

Proportion specifies the ideal height-to-width ratio of a building in order to create a perfectly proportionate structure. Are of 1:2, 2:3 and 3:5 proportions.

3.4 MATERIAL

Natural materials have been used extensively like :- Teak Wood, Clay bricks, Lime, basalt, Clay Tiles for roofing.

3.5 CONSTRUCTION TECHNIQUE

Load bearing structure were used with I section beam for duplexes. The plinth of the house was made of basalt which give strength and keep away from moisture. Beam, column and truss are consist of hard wood (teak is primarily used). Double or triple walls were made to cool the house.

3.6 LIGHT AND VENTILATION

Maximize usage of windows in front, which is the major source of natural light and ventilation.

Along with privacy, Jali also serves as light and ventilation.

To stand lamps nishes were created in the walls for night time.

Sloping roof with clay tiles act as a passive cooling.

3.7 GEOMETRY

Geometry is always important and mysterious. A geometry begins with a line, then an angle, then a triangle, then a square, then a circle, and so on, eventually deriving complex forms.

3.8 CARVINGS

Wood carving has played an important role in the preservation of cultural traditions. It has been used both decoratively and functionally. Traditional style is characterised by intricately carved furniture and architectural details.

4 CASE STUDIES

The intension for the field study is to collect quality information about building design, materials and cultural factors. In order to get better understanding of the houses, selected areas and dating Around 100 were consider.

4.1 CASE STUDY 1

Figure 6

Name :- Hussainy Traders

Dating :- 1919 (104 y/o)

Orientation : East Facing

Plan of Form :- Rectangular (3X15m)

Plinth :- Medium (30cm)

Building Height :- G+2 (8.1m)

Architectural Features :- Multifoil Arch, Kalash Pattern Column, Bracket, Glass Window, Lamp niche, Sliding Folding Door, Wooden Mortifs.

Materials :- Wood, Lime finished wall, Corrugated sheet, Metal Jali and Glass.

4.2 CASE STUDY 2

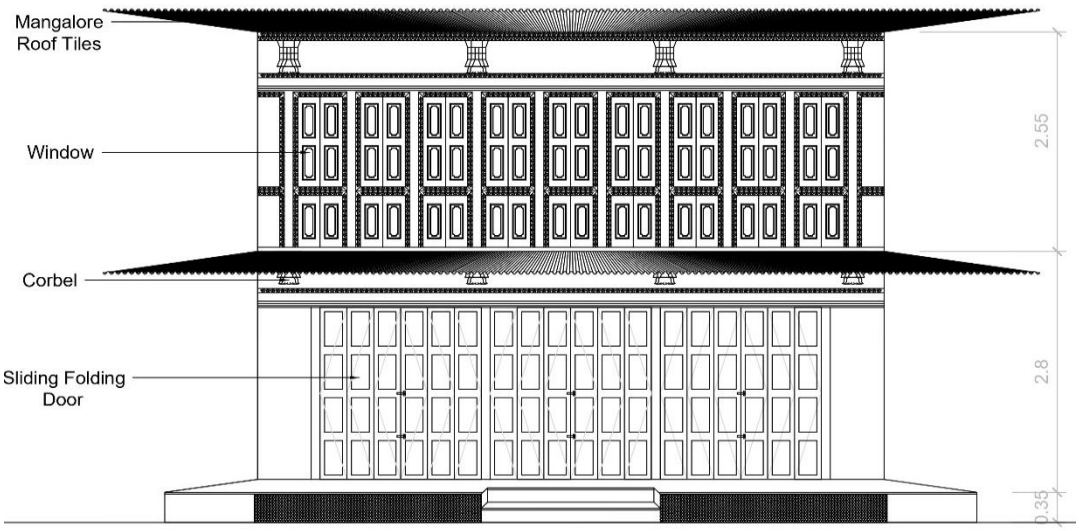

Figure 7

Name :- Ashok Tiwari ji

Dating :- 1930 (93y/o)

Orientation : West

Plan of Form :- Rectangular (7X15m)

Plinth :- Medium (35cm)

Building Height :- G+1 (5.7m)

Architectural Features :- Bracket, Window, Sliding Folding Door, Wooden Mortifs.

Materials :- Wood, Lime finished wall.

4.3 CASE STUDY 3

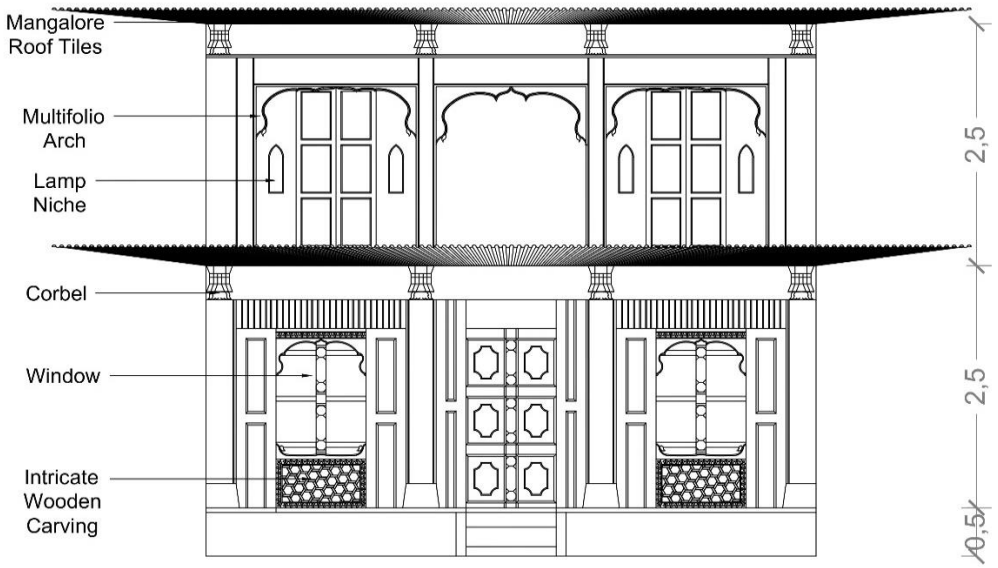

Figure 8

Name :- Damodar ji

Dating :- 1916 (106y/o)

Orientation : North

Plan of Form :- Rectangular (6X15m)

Plinth :- Medium (50cm)

Building Height :- G+1 (5.5m)

Architectural Features :- Bracket, Window, Door, Wooden Mortifs, Pointed Cinquefoil Arch

Materials :- Wood, Lime finished wall.

4.4 CASE STUDY 4

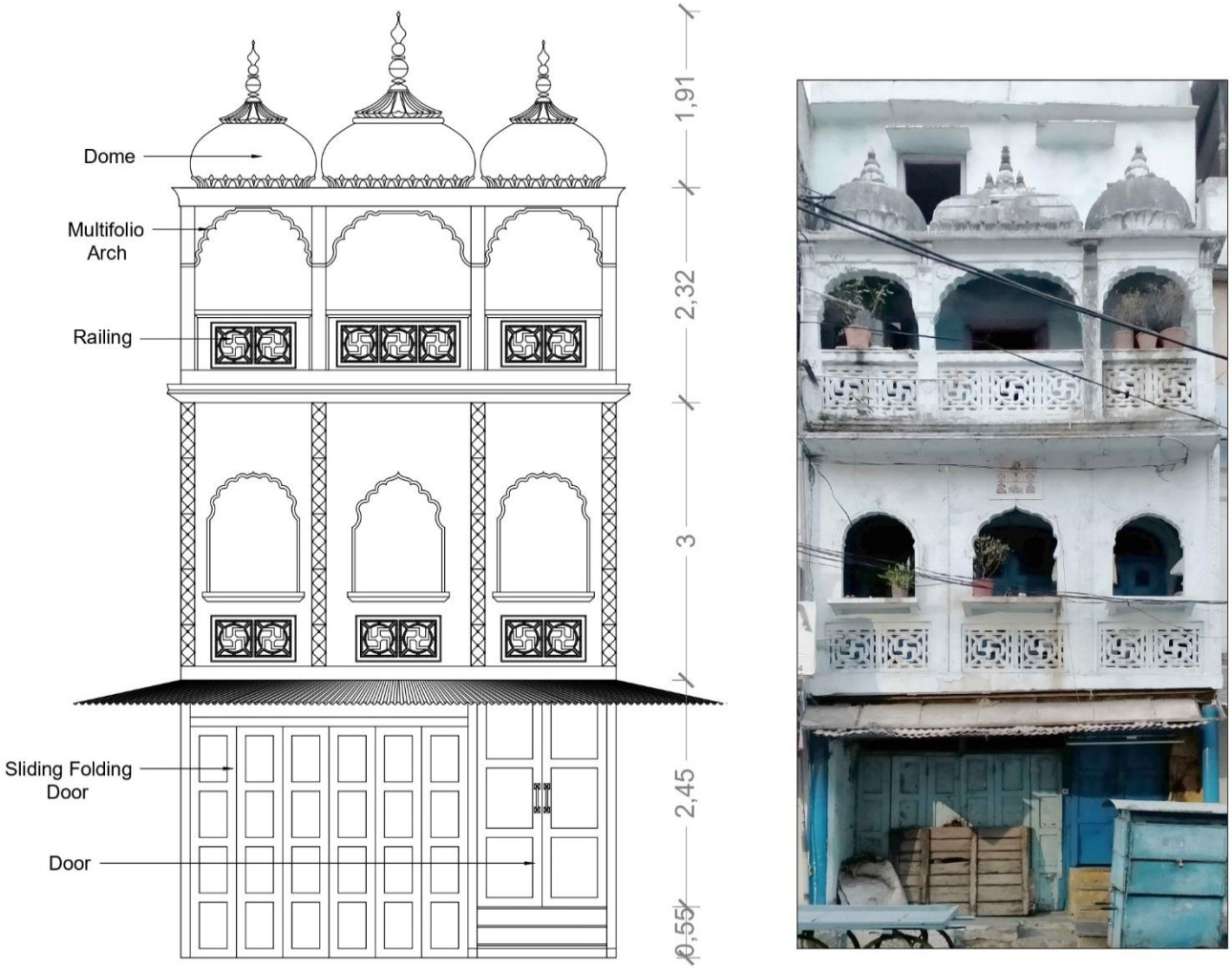

Figure 9

Name :- Agrawal ji

Dating :- 1925 (98y/o)

Orientation : East

Plan of Form :- Rectangular (4.7X20m)

Plinth :- Medium (50cm)

Building Height :- G+2 (10m)

Architectural Features :- Dome, Door, Mortifs, Draped Arch

Materials :- Wood, Lime finished wall.

4.5 CASE STUDY 5

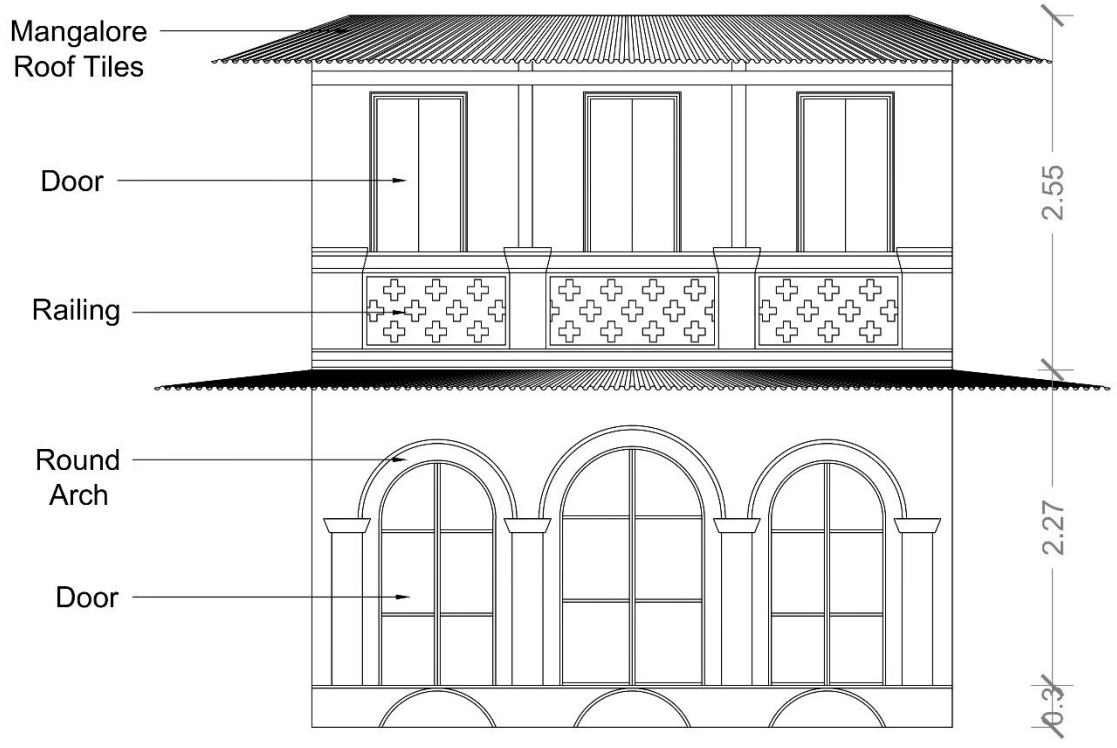

Figure 10

Name :- Manjula Jain

Dating :- 1923 (100y/o)

Orientation : West

Plan of Form :- Rectangular (4.5X16m)

Plinth :- Medium (30cm)

Building Height :- G+1 (5m)

Architectural Features :- Door, Mortifs, Round Arch

Materials :- Wood, Lime finished wall.

5. Axonometric View

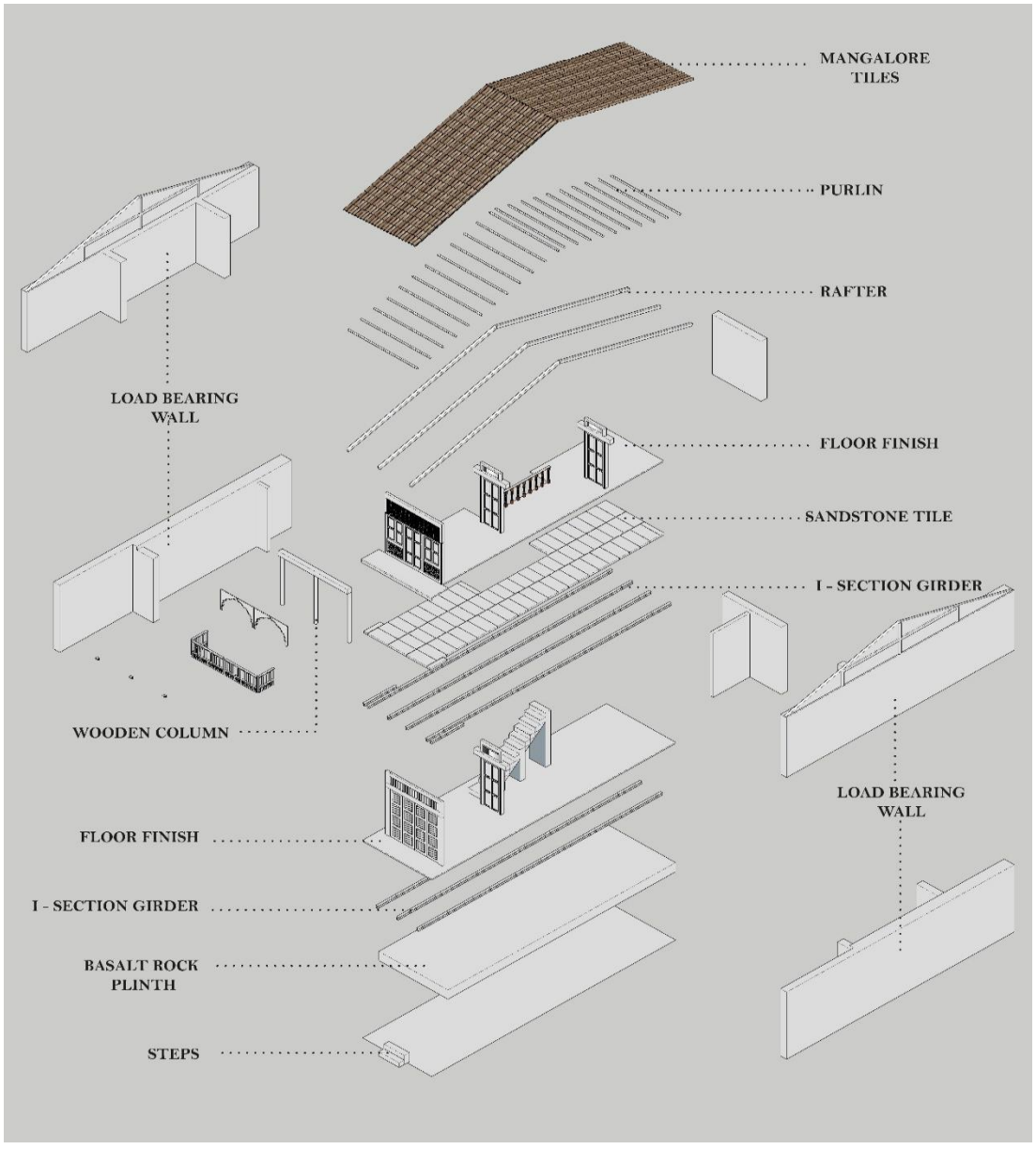

Figure 10

This view is showing the construction details of the house. Since the base is of basalt rock, the wall size of 30 to 50 cm to bear the load of the structure. I-section girders were used for long spans at the distance of 80 -100cm, in which sandstone tiles were placed and red oxide was used for floor finish. Elevation, doors and windows were made of teak wood which is durable and easy to intricate carvings on it. The wall used to be made of clay brick, which was finished with lime. The slope roof of the house is of Mangalore tiles, which rests on purlins and rafters, along with safety and privacy work as a natural ventilation system.

CONCLUSION

Although traditional architecture in MHOW is accumulated experience of successive generation. But the modern building gives attention only to standards and rule, which damaged our treasured Heritage.

This study has explored Houses which integrate amazing workmenship of carvings & detailing done by hands, with focuses on Elevation design which deals with Vaastu, Geometry, Proportion, Material & Construction techniques.

Study gives new direction to the how carvings has been used both decoratively and functionally purposes served. The same with natural materials which resist 100 years without any special maintenance, which shows the foresight of traditional construction.

Finally, this study objective is to encourage the architects and decision makers to connect the bridge between Morden and traditional, Design as a product of saving indigenous ancient knowledge and goes towards sustainability.

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