

*Part/alia*

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*Portfolio*

# PRINCIPLES OF DESIGN

The Principles of Design describe the ways that artists use the elements of art in a work of art.

## Balance

The principle of balance refers to the ordered distribution of elements of equal visual weight to achieve a visual equilibrium. Balance can be achieved by three popular ways namely Symmetrical, Asymmetrical and Radial.



## Rhythm

The principles of rhythm essentially suggest a connected movement between different elements of interior design.



## Emphasis

It is the part of the design that catches the viewer's attention. Elements like colour, pattern and texture must be used to emphasize a particular focal point.



## Unity

Unity is the feeling of harmony between all parts of the work of art, which creates a sense of completeness.

## Contrast

Contrast refers to the difference in the luminance or colour of objects that differentiates them from one another.



## Scale and proportion

Scale and proportion ensure that objects placed in a space look like they belong to each other.



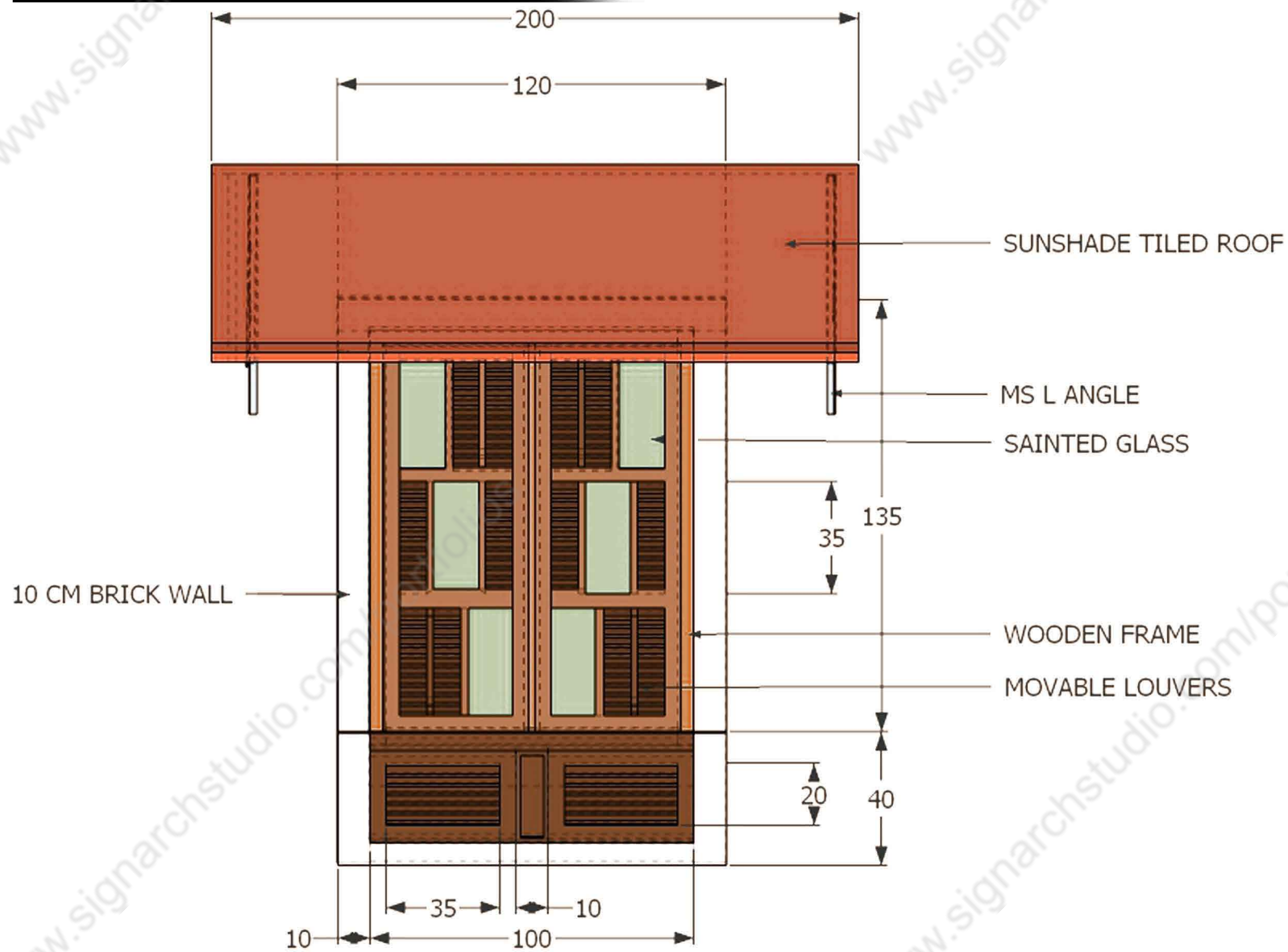
# Window DESIGN

The window is designed for a reader who living in the colonial streets like Fort Kochi.

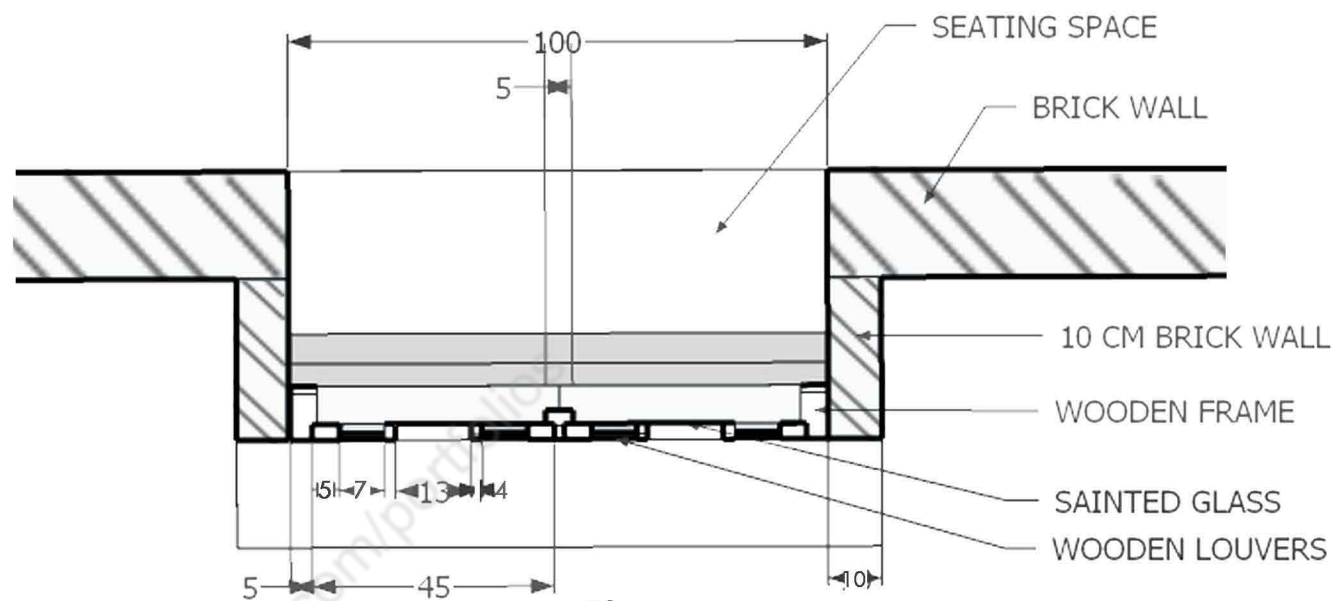
The context of the window is the clam colonial street. The reader likes to sit near the window while reading. so that she can enjoy the views outside. the window is placed in the first floor of the building.



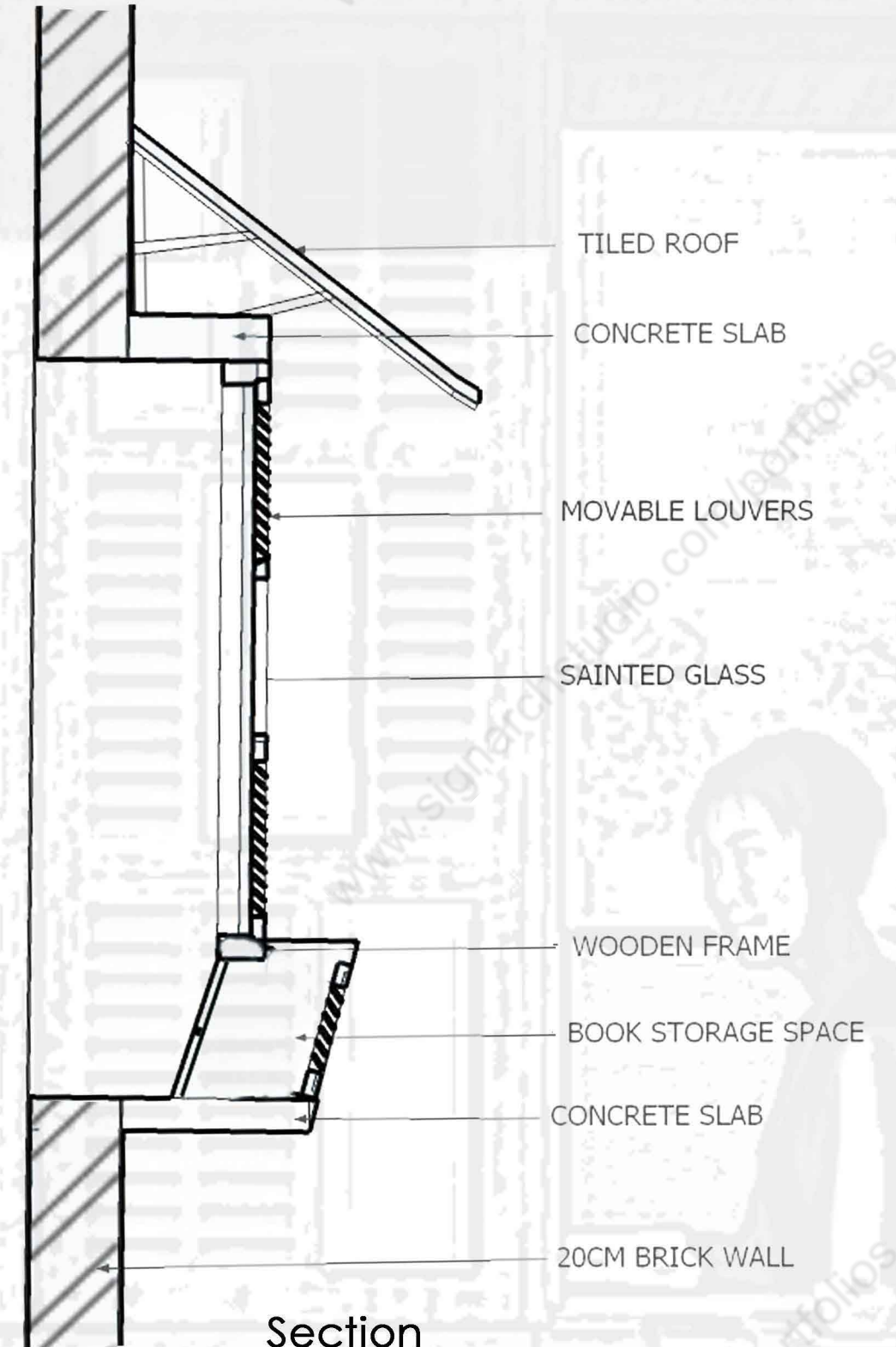
# Window DESIGN



Elevation



Plan



Section

All Dimensions are in centimeters

# Window DESIGN

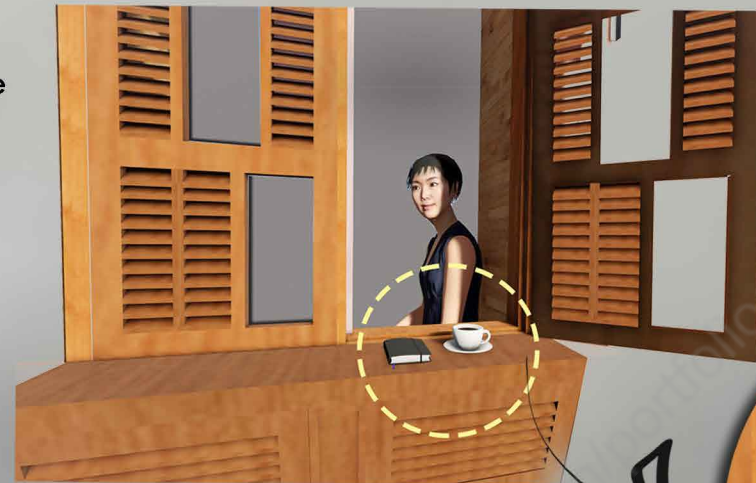
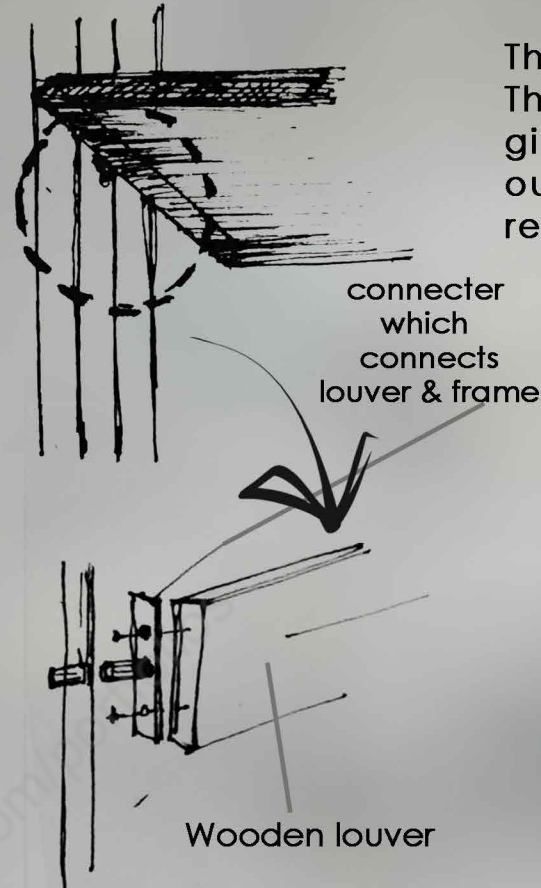
## Material used

Wood, roof tile, M S L- angle, stained glasses.

The wooden louvers are adjustable. The wooden louvers and stained glasses are given, so that the reader can see everything outside and it also provides privacy to the reader if needed.



Louver Details



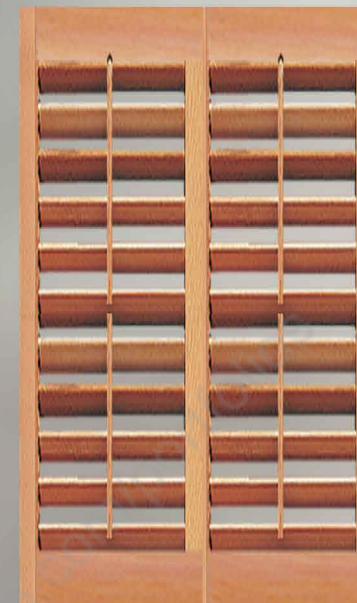
The projection facing towards the street act as a handrest and tea cup holder to the reader.

There is bay space arranged in the window, there she can sit comfortably and enjoy reading with a nice street view.

Each louvers in the window can be adjustable to the reader's choice. If she need privacy from the street she can close the shutters and open the louvers for a better view.

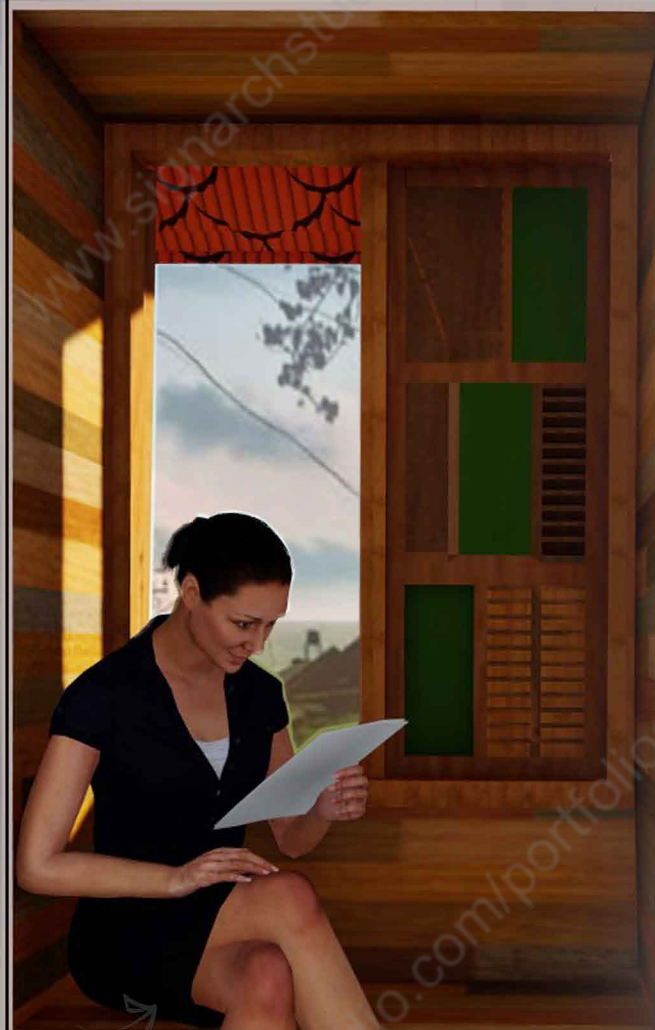
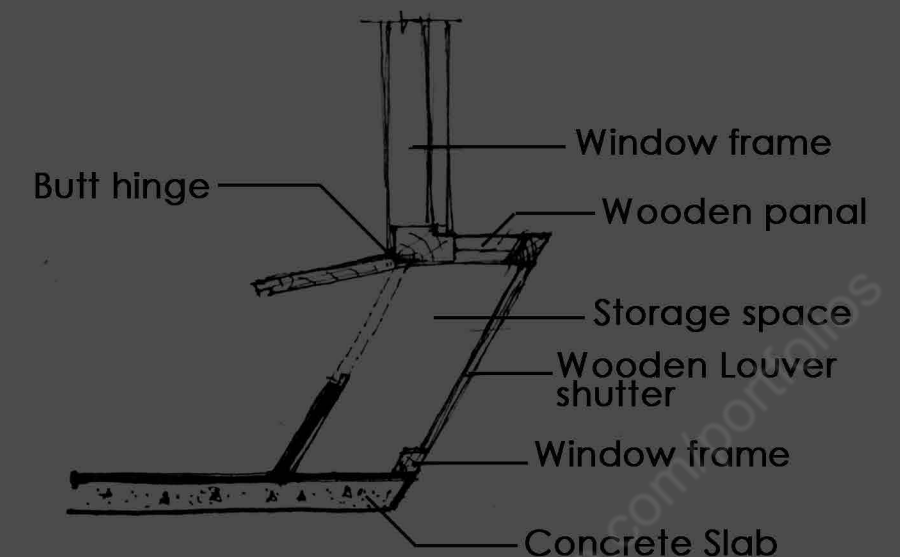
## Louver Details

Each louvers are connected with a vertical wooden rode, through which the louvers can be adjust as our vision. It also provide better ventilation to the room.

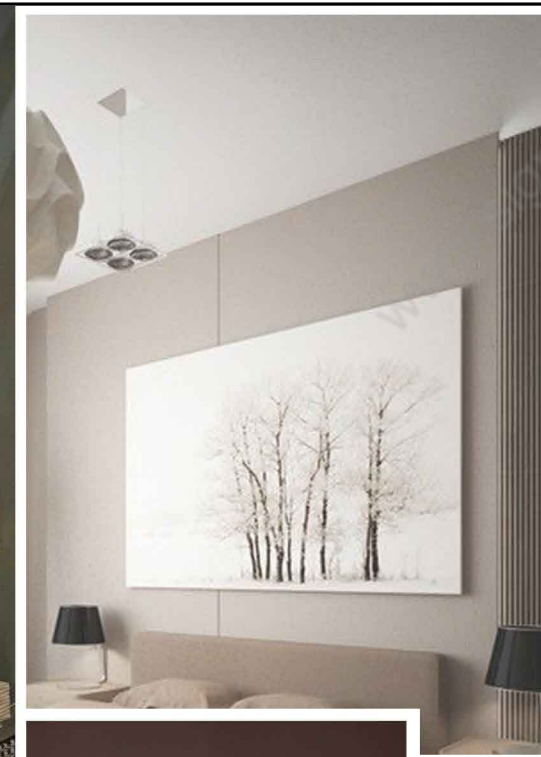


There is a shelf arranged in the window, it will act as a book storage space and if it is closed it will become a small slope there the reader can sit comfortably.

## Storage Space Details



# CLASSICAL CALM

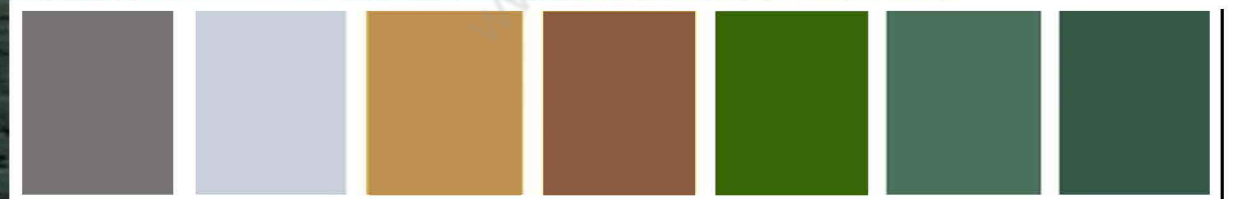


id  
INTERIOR DESIGN



Mood Board

# Chirping Green





# Interior Design

## Bedroom Design

Classical calm defines the interior of the bedroom.

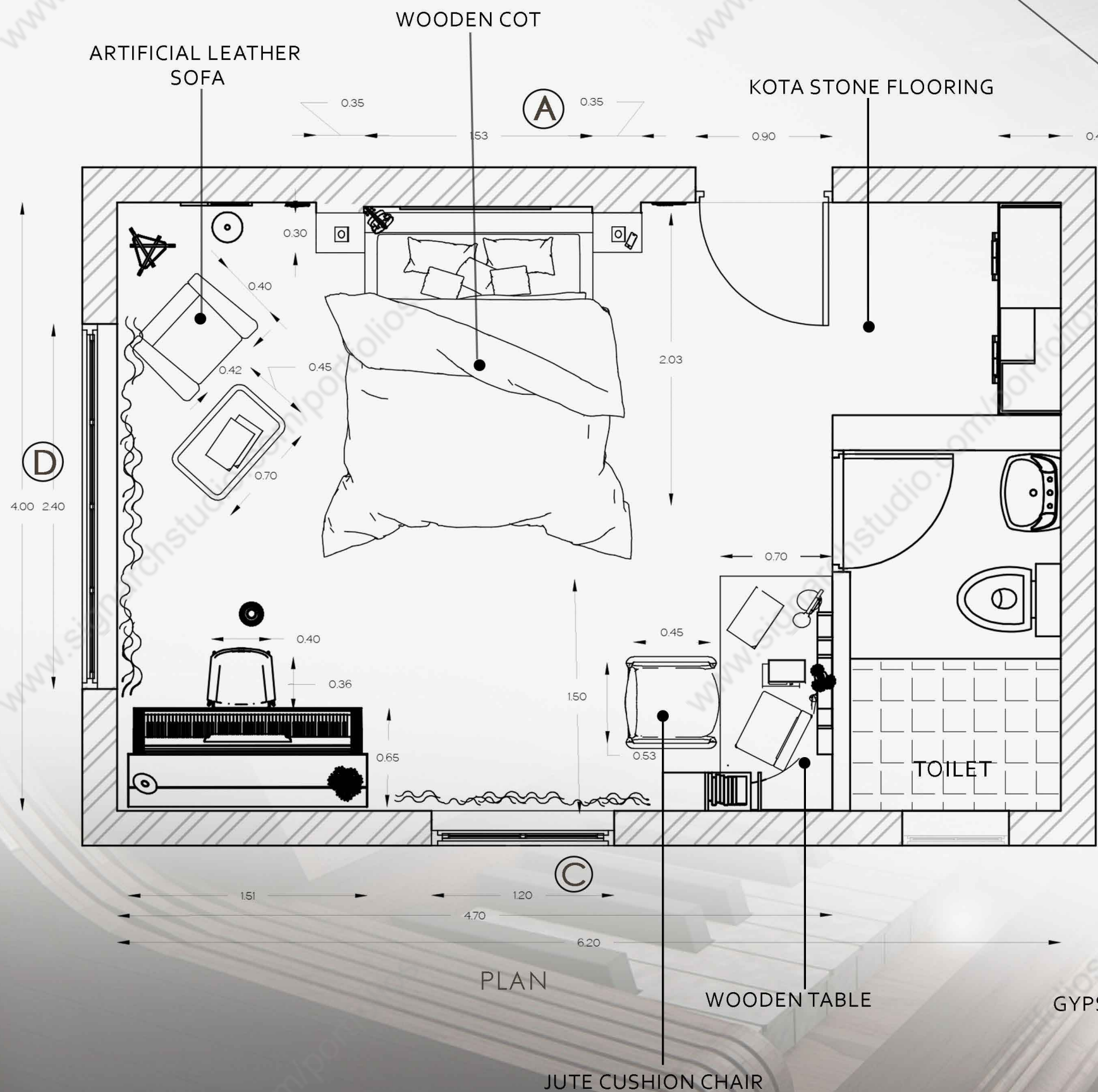
This theme has been specially designed to provide a classy tone, which enhances the mood of the resider.

The bedroom is designed for a music composer.

CLASSICAL CALM

# Interior Design

## Bedroom Design



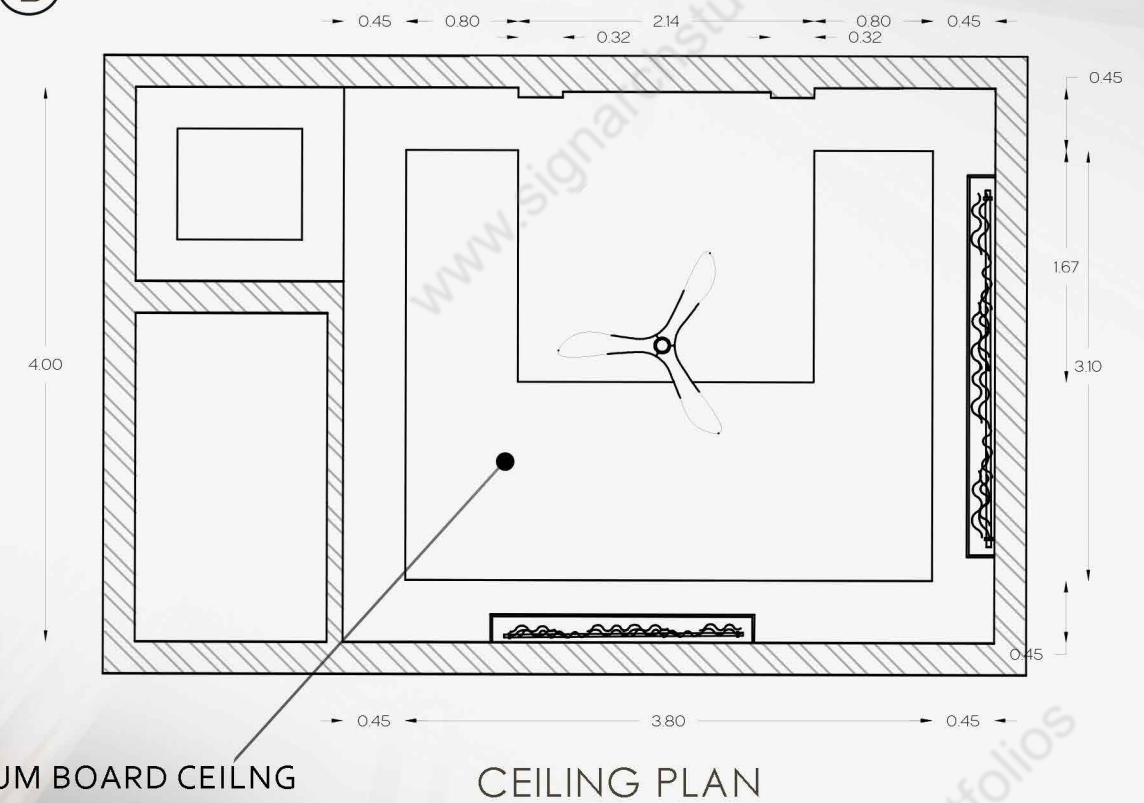
MATTE FINISH WALL

JUTE CURTAINS

WOODEN CEILING FAN



(B)



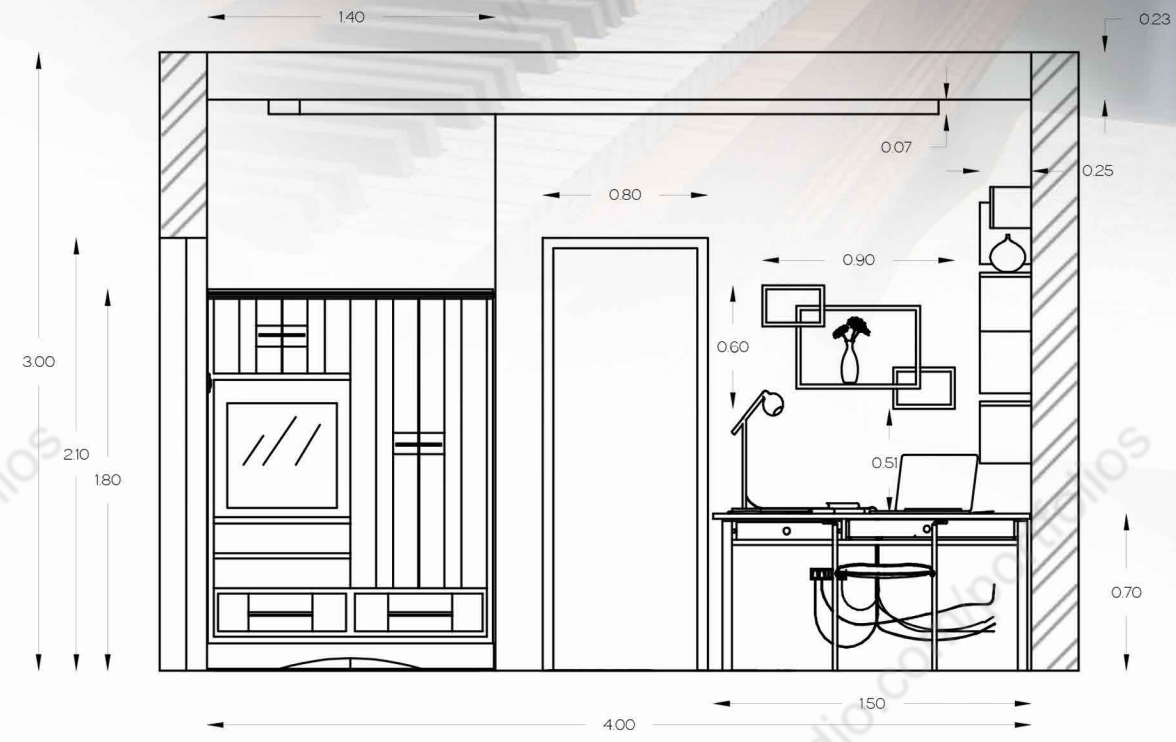
# Classical calm

# Interior Design

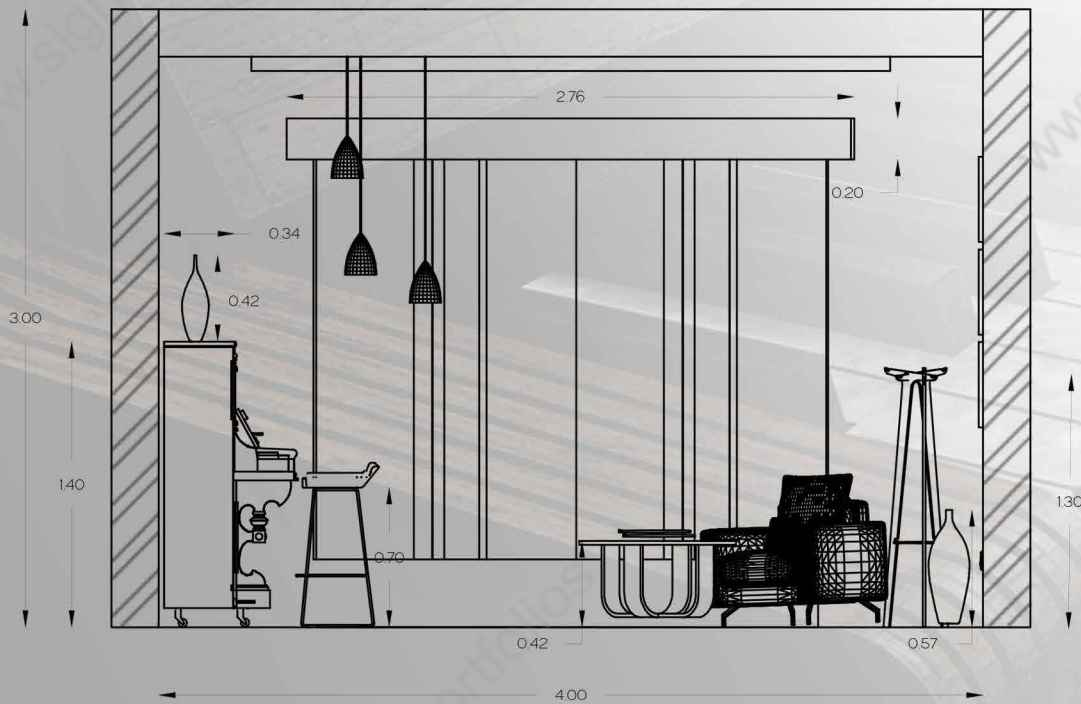
## Bedroom Design



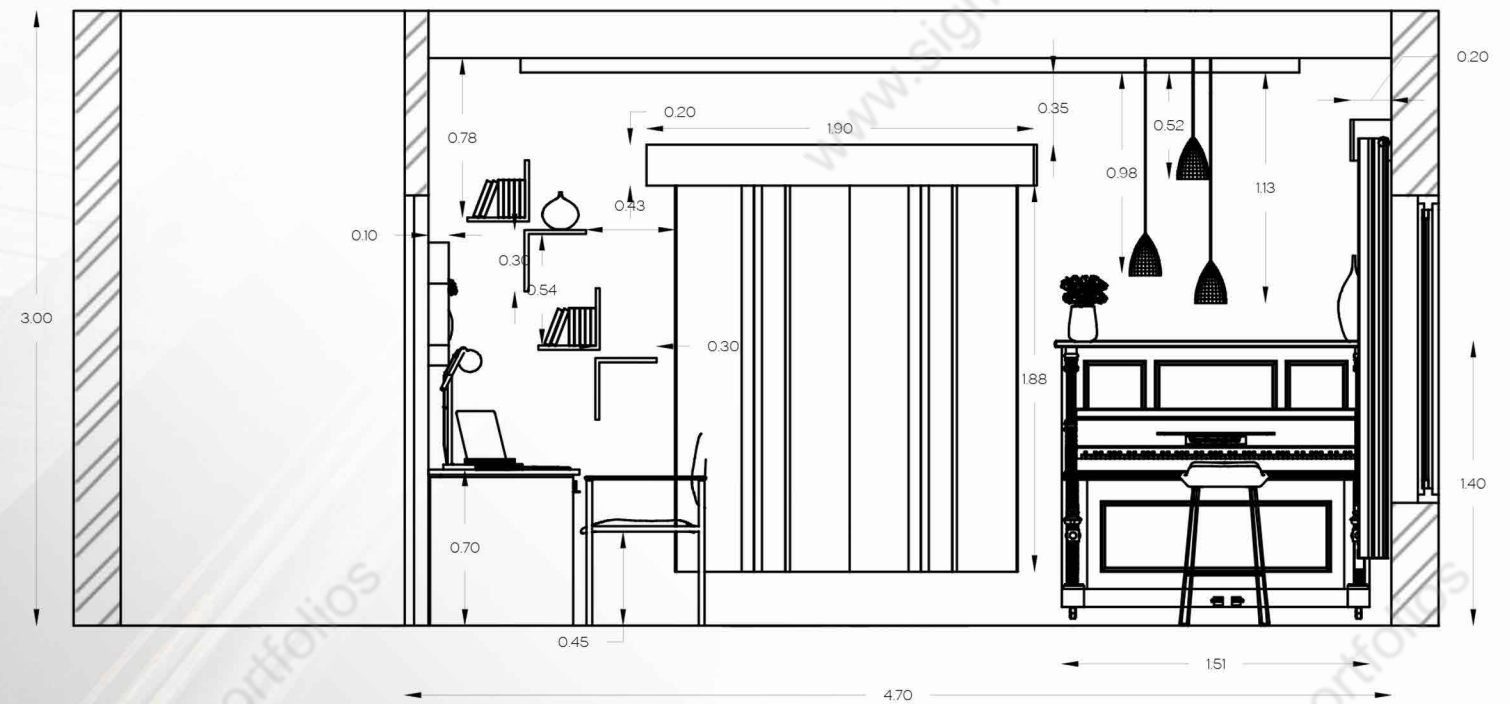
ELEVATION A



ELEVATION B



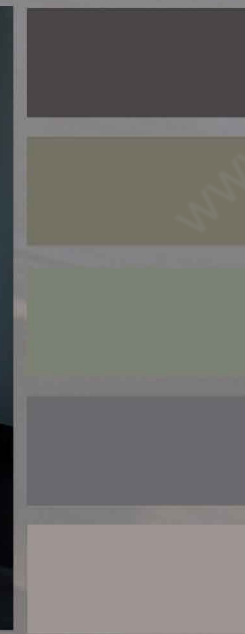
ELEVATION D



ELEVATION C

# Interior Design

## Bedroom Design



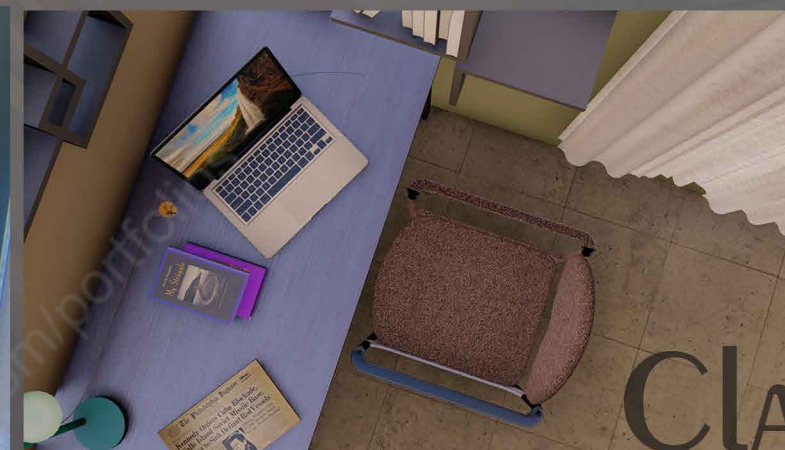
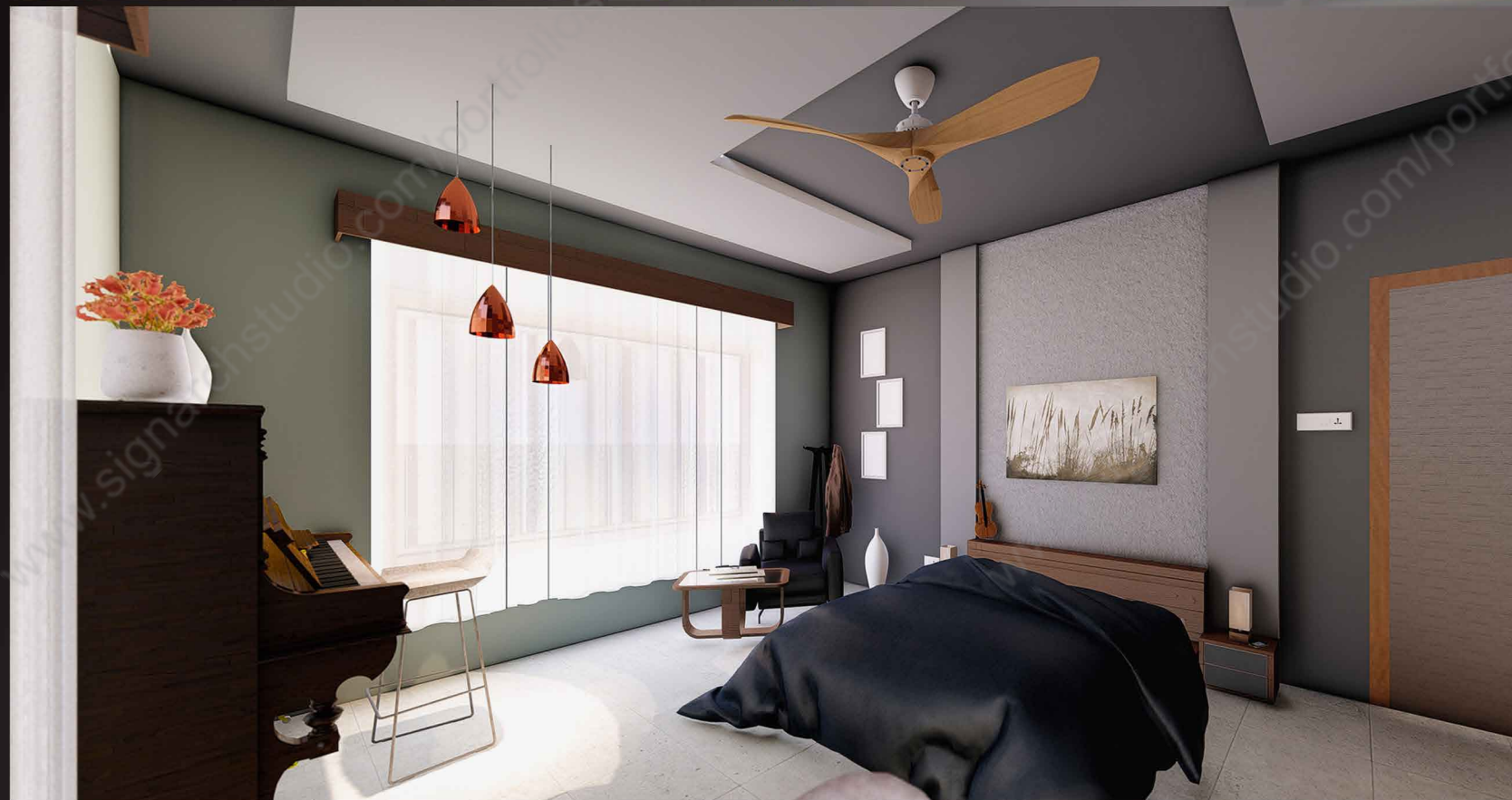
Daring England  
40yy20/081  
(Dulux PAints)

Tender England  
30yy51/098  
(Dulux PAints)

Tender Switzerland  
90bg63/043  
(Dulux PAints)

Aluminum 416  
(British paints)

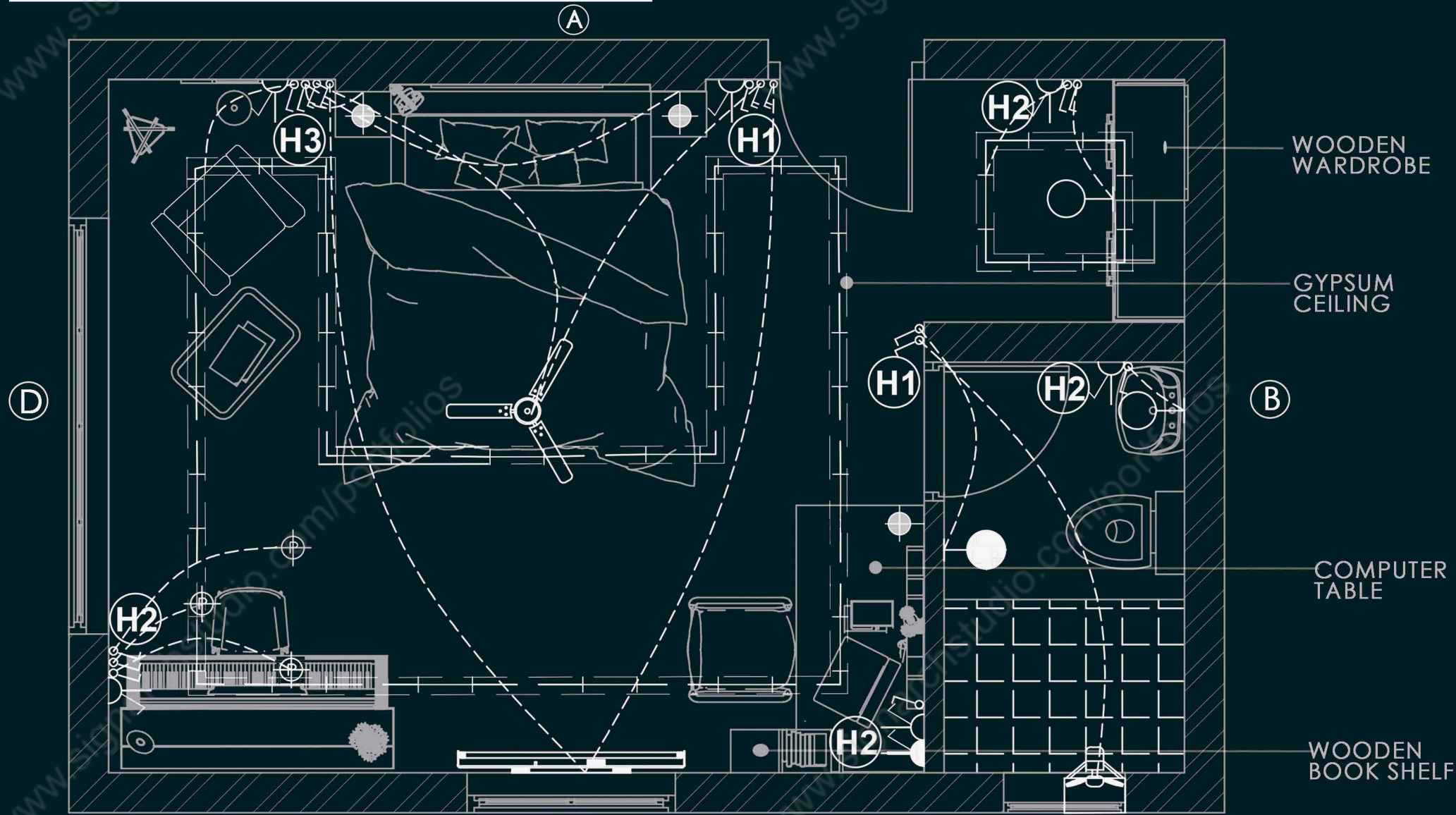
Beige - N 222  
(British paints)



CLASSICAL CALM

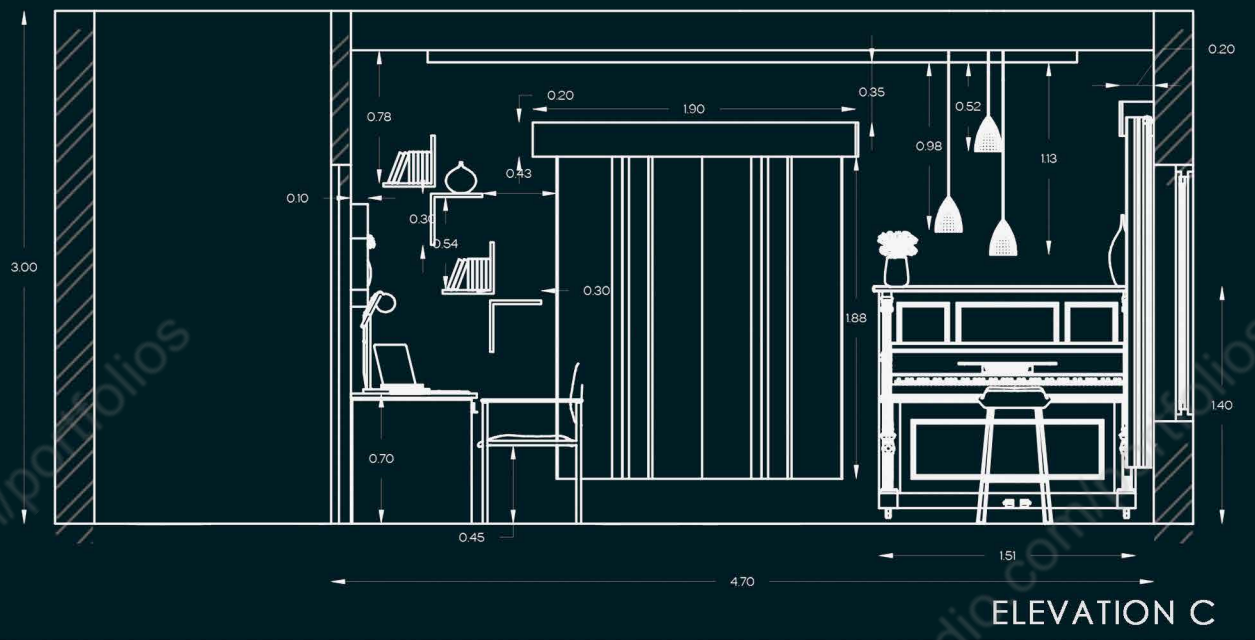
# ELECTRICAL DRAWING

## ELECTRICAL DRAWING OF A BEDROOM



**LEGEND**

SYMBOL	PARTICULAR	LEVEL FROM FFL
	5A SWITCH	
	5A SWITCH - TWO WAY	
	5A SOCKET WITH SWITCH	
	EXHAUST FAN	
	COMPUTER POINT	
	CEILING FAN-1200 mm	
	WARM TUBE LIGHT	
	MIRROR LAMP	
	WALL LAMP	
	PENDANT LIGHT	
	TABLE LAMP	
	LED STRIP LIGHT	
		1.5 M
		1 M
		0.5 M



# Sheesh

## Pendant Lamp Design

The basic idea of the lamp was inspired from Turkish lamps which is highly ornamented in mosaic or mirror works and is also circular in shape.

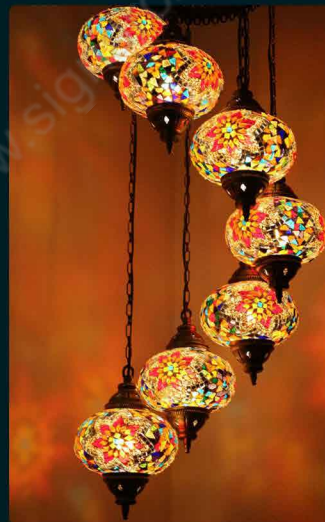
The spiral form of the lamp is derived from the twisted half circle. The name sheesh is given for the lamp since sheesh means mirror in Hindi.

By the appearance of the mirror work in lamp we can say that sheesh is the perfect name for the lamp.

## Concept Evolution



One of the most wonderful works with sheesh [mirrors] in Amer Fort, Jaipur.



The ever beauty Turkish lamp.



Sheesh also creates a play of light and shadows in the room. It creates magical effects, casting shadows in the form of asymmetric shapes. This is created when light flows through the broken glass pieces.

## PROCESS

While making the lamp we had gone through a lot of process

First thing we did was the casting of the metal frame in the spiral shape which was the most difficult step.



Later we pasted broken mirror pieces on to the casted shape



To prevent the sharp edges from hurting we covered the remaining areas with plaster of paris.

It also produce a wonderful shadow effect during lighting. It will create a wonderful mood to the user.



Decorating with shadows may not be popular but they create the most unique atmosphere.



# FERROUS METALS

## Special Topic

Ferrous metals are defined as those in which the element iron predominates. It includes iron (cast, pig, wrought) and steel. Differences between cast iron and steel is the amount of carbon in the constituency of the metal.



### Pig iron

Pig iron is composed of about 93 % iron , from 3 % to 5 % carbon and various amounts of other elements.

Pig iron is comparatively weak and brittle

### Wrought Iron

Contains 0, 15% carbon

wrought iron resist corrosion and oxidation.

It's ductility is less than steel

It is used as rivets, chains, water and steam pipes, bolts and nuts , hand rails, straps for timber roof trusses, roofing sheets.



### Cast Iron

Cast iron any greater than 2% carbon alloy. It has a high compressive strength good resistance and lacks ductility and malleability.

It is used For making cisterns, water and gas pipes, manhole covers, sanitary fittings, hand rails, etc



### Steel

Contains up to 1. 5% of Carbon (Specific Gravity 7.7)

It is used as Roofing sheets, Pedestrian Bridges, SS facades, Steel Finishes, Furnitures, Doors and windows etc..



## Several welding processes are used when welding ferrous metals



### Arc welding

Arc welding is a welding process that is used to join metal to metal by using electricity to create enough heat to melt metal, and the melted metals when cool result in a binding of the metals.

### Induction welding

Induction welding is a form of welding that uses electromagnetic induction to heat the workpiece. The welding apparatus contains an induction coil that is energized with a



### Oxyacetylene gas welding

Oxy-fuel welding (commonly called oxyacetylene welding, oxy welding, or gas welding )and oxy-fuel cutting are processes that use fuel gases and oxygen to weld and cut metals, respectively.

### Resistance welding

Electric resistance welding (ERW) refers to a group of welding processes such as spot and seam welding that produce coalescence of faying surfaces where heat to form the weld is generated by the electrical resistance of material combined with the time and the force used to hold the materials together during welding



### Spot welding

Spot welding is one form of resistance welding, which is a method of welding two or more metal sheets together without using any filler material by applying pressure and heat to the area to be welded.



## Market Prices



Pain rode : 55Rs/kg



Angler : 57 Rs/kg



Pain bar : 55 Rs/kg



Mesh(1ftx1ft) : 25 Rs/kg



GI pipes : 76.5 Rs/kg



GI pipes : 85 Rs/kg

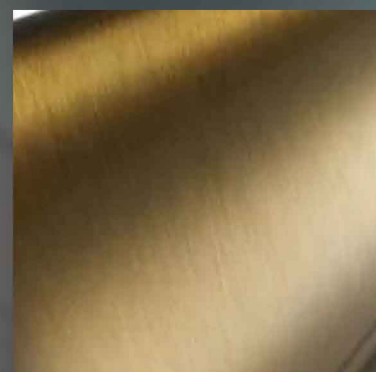


Coil sheet : 110 Rs/kg



Square rad: 58 Rs/kg

## Ferrous Finishes



### Antiqued

This finish makes the metals appear to have stood the test of time, often by darkening or tarnishing it.



### Hammered

It's as simple as it sounds. Metal with a hammered finish appears to have been pounded and has many small indents adding texture to the surface.



### Satin

Similar to brushed metals, however this type of finishes is smoother and oftentimes without brushstroke marks. The sheen is between matte and polished.

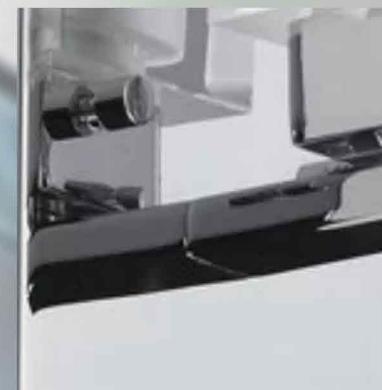
### Brushed

A matte finish looks as if it has been smoothed with a paintbrush, leaving faint brushstroke marks in the metal.



### Polished

This finish creates a reflective, mirror-like surface on metals. A polished surface shows smudges and fingerprints more readily than other finishes.





# SPECIAL TASK

## BOOK SHELF

THE SPECIAL TASK ASSIGNED WAS WELDING OF FERROUS METALS.

THE TYPE OF WELDING OPTED IS ARC WELDING  
 TYPE OF IRON : 10MM SQUARE RAD  
 TYPE OF PLYWOOD : 6 MM PLYWOOD

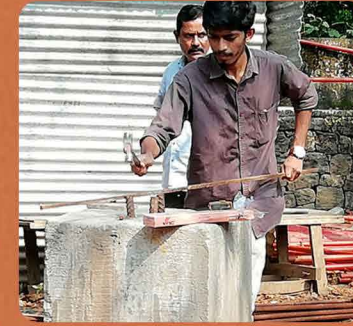
THE EDGES OF THE PLYWOOD WERE CLOSED WITH PVC BEEDINGS.

METAL PRIMER WAS APPLIED BEFORE PAINTING THE FRAME.  
 THE ENTRIE SHELF WAS COATED WITH A MATTE FINISH PAINT.

THE BASIC CONCEPT WAS ARRIVED FROM THE SHAPE OF AN OPEN BOOK.



WELDING PROCESS



LEVELING PROCESS



CUTTING PROCESS



10MM IRON SQUARE RAD



THE ENTIRE FRAME WAS COATED WITH METAL PRIMER

### CONCEPT



OPEN BOOK

ARRIVE THE SHAPE





*Portfolio*  
BY AJITH CHANDRAN