

ELEMENTS OF DESIGN

These are primarily the visual components used in creating a design or a composition. The elements that are basic to all visual design are line, form, color and texture. These additional element; pattern, light, and space help to complete it. Each of these basic elements is a well – defined and dissimilar feature of every design. However the effect of each element is considered only in connection with the other elements and the unit is judged as a whole. These elements, if used according to the principle of design, can ensure a certain degree of beauty in the final product.

LINE

This is a very important element in planning and furnishing. It is the most basic design element. Before the artist begins to paint, he or she must establish the direction of the lines of a painting on the canvas or paper. The artist combines horizontal, vertical, diagonals, and curved lines until the affect is pleasing to the eye. Likewise, the architect and the interior decorator must organize and combine lines before they can create beauty in a building or in an interior design. Lines have positive emotional significance depending upon their direction and their quality. In any interior, a combination of four types of lines listed above is generally seen, each having their own influences. Certain associations may be made between man and the lines based on the position his body takes in different actions.

Vertical lines when standing, a human being is perceived as attentive and ready in act. Hence, vertical lines suggest steadfastness, sturdiness, or an upward aim. These are masculine in effect – severe, strong, direct, disciplined, and militaristic. They create a feeling of height. In hotels, the vertical lines of doorways, pillars, columns, draperies, furniture give the necessary strength and height to rooms.

The use of elements such as line, form, texture, color, pattern, light, and space



According to the principles of proportion, balance, emphasis, rhythm, repetition



Leads to the goal of beauty, expressiveness, and functionalism

Horizontal lines when human being lies down, he or she is perceived as resting or sleeping. Therefore, the horizontal line naturally suggests rest, repose, or steadiness. These lines give solidity and a down – to – earth feeling. They suggest tranquility, serenity, relaxation. They help to break the effect of the vertical lines carrying one’s eyes upward. In hotels, the horizontal lines of tables, sofas, and other furniture complements the severely vertical lines in other parts of an area.

Diagonal lines when running or moving things, the human body is often in a diagonal position and therefore diagonal lines suggest movement and activity. These are lines of action disturbing the discipline of straight line and the solidity of horizontal lines. Forward – slanting lines (sloped rightward at the top) suggest ‘push’ and backward – slanting lines (tops leaning of lift) ‘pull’ diagonal lines are also suggestive of sophistication and refinement, and hence arouse interest. In hotels diagonal lines appear in staircase and sometime in curtains, draperies, and wallpaper.

Curved lines in relaxation, the body takes the curved position. Hence, curved lines indicate flexibility and grace. These lines are feminine in effect,

graceful, subtle, carefree, youthful, and joyous. In hotels, curved lines may form a transition between the abrupt joining of vertical and horizontal lines, such as those formed by tied back curtains arches, and the graceful curve of furniture.

The term 'form' is applied to three – dimensional area and the objects, whereas 'shape' may refer to a two – dimensional one. Hence we have a triangular shape and a pyramidal form or a cuboidal form with a square shape without the beauty of good texture, color or decoration can be of no use. However, a particular chair is not well designed unless it accommodates itself to the human form of an object should thus will suit its function.

The word texture refers to the tactile quality of the surface of any object or area it refers to the surface quality - how something when we touch it and how it behaves when light strike it. Two basic categories of are tactile and visual.

Tactile or actual texture can be felt by hand – be it rough like unglazed brick or smooth like velvet. Visual or 'illusionary' texture may be absolutely smooth to touch, but gives the impression of texture. Texture plays a very important part in interiors because it affects the quality and quantity of light reflected by the surface. Some terms used to describe textures are listed below:

Blistered, Bubbly, Corrugated, Crepe, Crinkly, Course, Crystalline, Delicate, Dull, Feathery, Filmy, Fine, Firm, Flexible, Foamy, Frilly, Glassy, Glossy, Granular, grooved, hairy, lacy, leathery, marble, mesh, metallic, mossy, perforated, pitted, polished, porous, powdery, prickly, reticulated, ribbed, rocky, rough, rubbery, sandy, satiny, scaly, shirred, silky, smooth, solid, spongy, striated, stiff, stratified, thorny, uneven, velvety, wavy, waxy, woody, wooly etc.

COLOR

The appeal of color is universal. Color is the impression received by the brain from certain stimulations of the retina in the eye. Its perception occurs because objects reflect or transmit light that enters the eye. Light rays that vary in wavelength and rates of vibration produce different colors. Daylight, although it appears as 'white' light is actually composed of violet, indigo, blue, green, yellow, orange, and red colors of light.

PATTERN

This refers to any sort of surface enriched and applies to both two – dimensional and three – dimensional objects. A large room can support more patterns than a small one pattern used may be naturalistic, stylized, geometric, or abstract. Generally, pattern should cover just above a quarter of the total surface area. If walls and carpets are plain, then draperies and upholstery may be patterned.

Light

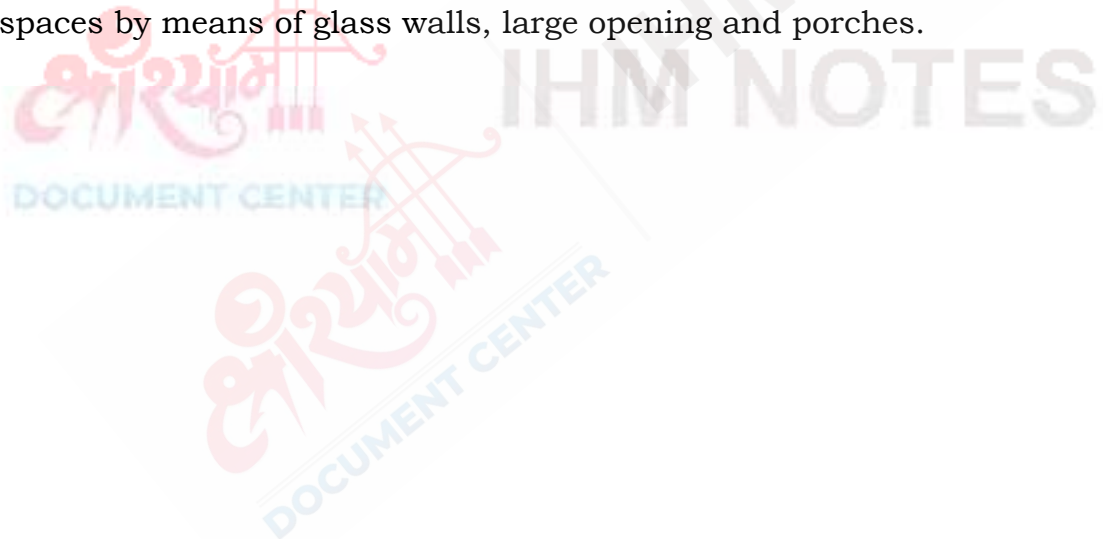
When light strikes an object, it may be reflected, absorbed, or allowed to pass through light has a functional as well as an aesthetic effect. Light may be dull or sharp, bright or diffused. The way light is used in interiors has a definite emotional effect on the minds of the occupants of a space.

- Bright light energizes us and tends to foster either hard work or energetic play.
- Subdued light makes feel relaxed, but if too subdued, may put us to sleep.
- Too brilliant light often causes us to look away in physical and emotional distress.
- A bright focused light can make one feel 'in the spot light'
- Flickering light as from a fire place nearly always draws people towards it.
- Strong contrast of bright and dark seem dramatic, but if they are to extreme can be tiring.
- Warmed colored light seems to be cheerful and welcoming.

- Cooled colored lights are more rest full.

SPACE

This is among the most important elements of interior design. The organization of space is basic to architecture and interior decoration. Unless a space is thoughtfully planned nothing else will seem quite right. Almost any space if sensitively handled can be made effective, livable, and even dramatic. A scene of beauty of a space makes us want large undecorated walls and floors can be bound together by other elements without disturbing the effect. The appreciation of good spacing is the reason we may use the minimum amount of furniture and concentrate them in groups so that we can have empty, silent spaces in the room. Today, the trend is for space to become freer and less obstructed. Indoor spaces can be opened up by means of fewer partition and large openings between rooms. Indoor spaces can also be connecting with the limitless outdoor spaces by means of glass walls, large opening and porches.



COLOUR

The study of colours may be approached from any of the five angles, that of physiologists, chemists, physicists, psychologists, or people who work with pigments. Of the many theories of Colour (in pigment form), two are in common use. These are generally known as prang system and the Munsell system. Of the two, the Prang colors more frequently followed in interior decoration. These systems are discussed later in the chapter

DIMENSIONS OF COLOUR

There are three properties or qualities that may be called dimension of colours these are just as distinct as the length, breadth, and thickness of an object.

HUE This term indicates the name of the color such as red, blue, green etc. the colour of an object is determined by the wavelengths of the light it reflects. An object appears black when all the wavelengths are absorbed and white when all are reflected. Although the words 'colour' and 'hue' are used interchangeably color in the general term and hue is a specific term referring to definite identifiable colors.

VALUE This describes the lightness or darkness of a colour. There is a total of nine values, ranging all the way from white to black. White is the highest value and no hue can be as light as white. Black is the lowest value and no hue can be darker than black. Halfway between black and white come middle values.

Values can be changed by adding white (or water to lighten a pigment or by adding more pigment or black to darken them. A value that is lighter than the normal base colour of the pigment is called a tint and one that is darker is called a shade. Lighter values seem to increase the size of an object. Black and dark values seem to decrease the size of an object.

: **INTENSITY/CHROMA** This refers to the brightness or dullness of a colour A very bright colour is said to be of full intensity. Colours at full intensity

are very striking and brilliant. If its intensity is so high as to be offensive, it may be considered gaudy, garish, or flashy. A colour that is not bright is said to have been toned down, and if disagreeably so, may be characterized as dull, weak, or drab.

WARM AND COOL COLOURS One of the most important factors of colour to be considered in interior decoration is their relative warmth or coolness. Colours that contain greater proportions of yellow or red are considered to be warm; those that contain blue are regarded as cool. Red and orange are thus the warmest of all colours. Blue is the coolest of colours.

The colours to the left represent the warm colours. The colours to the right represent cool colours. Warm colours tend to excite, cool colours have a tranquilizing effect. Green is one of the most tranquil or restful colours, as it is the colour of fields and trees in nature. Warm colours are often used in rooms that are difficult to heat and they are good in rooms that admit little or no natural light. In rooms exposed to bright sunlight, a cool atmosphere is desirable. In any color scheme, either the warm or cool colors should dominate, equal amounts of each being an unpleasant result.

or no natural light. In rooms exposed to bright sunlight, a cool atmosphere is desirable. In any colour scheme, either the warm or the cool colours should dominate, equal amounts of each being an unpleasant result.

Advancing and Receding Colours

Warm hues seem to advance and cool ones to recede, or go back or further away from you. A cool, light colour on the walls thus helps to make a small room look larger. A warm colour visually draws the walls in, lowers a high ceiling or makes a room that is too large look more compact.

Prang's Colour System

As shown in Figure 25.2, Prang's colour system uses 12 colours represented on a colour wheel (see Plate 9 in DVD).

Colour wheel

The colours in the colour wheel can be classified as primary, secondary, and tertiary colours.

Primary colours These are the basic pigments which form all colours. They cannot be obtained by mixing other hues. Red, yellow, and blue are the fundamental or primary colours, which can be mixed so as to form all the other colours, but which cannot themselves be made by mixing any other colours.

Secondary/binary colours Secondary colours result when two primary colours are mixed in equal amounts. There are three secondary colours.

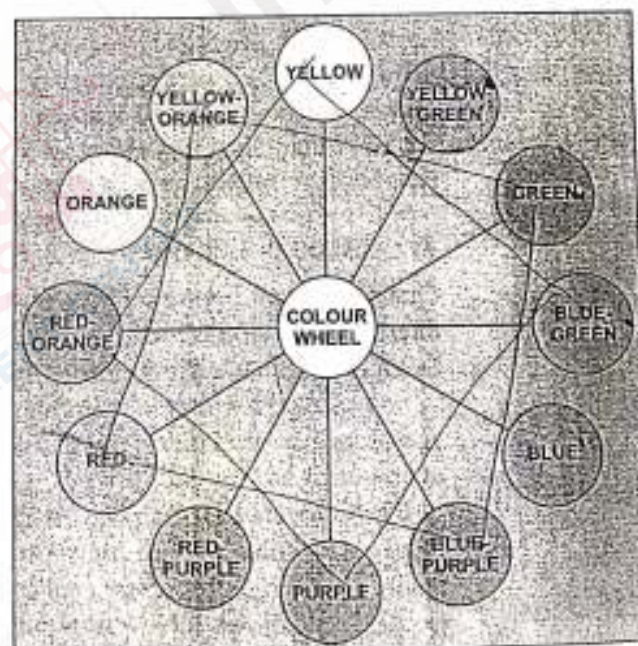


Fig. 25.2 Prang's colour wheel
(See also Plate 9 in DVD)

Purple → Red + Blue
 Orange → Yellow + Red
 Green → Yellow + Blue

The primary and secondary colours are together called the six standard colours.

Tertiary/intermediate colours When a primary colour and a neighbouring secondary are mixed in equal amounts, an intermediate hue results. In appearance, the intermediate is halfway between its adjacent colours. There are thus six intermediate hues: yellow-green; red-purple; blue-green; red-orange; blue-purple; and yellow-orange.

Munsell Colour System

In this system, the dimensions are shown upon a sphere. Values, in neutral grey, are shown upon a vertical pole, representing the axis of the sphere. The north pole is thus white and the south pole is black. The colours are represented by paths or arms along the radii, running from neutral grey to the circumference or beyond. According to this system, there are five principal hues: red, yellow, green, blue, and purple. The intermediate hues are yellow-red, green-yellow, blue-green, purple-blue, and red-purple.

Instead of the 12-hue circuit of the Prang system, we now have 10 major hues, divided into five principal hues and five intermediate hues.

Colour Schemes and Harmonies

A colour scheme is the combination of colours used for decorating—whether doing up interiors, or for designing a dress, or another purpose. There are two main types of colour schemes—related and contrasting. The classification of colour schemes is outlined in Figure 25.3.

Related colour schemes

Let us first discuss the related colour schemes.

Monochromatic colour schemes This is also called a one-hue or one-mode harmony. It evolves from a single hue, which can be varied from highlight to low-dark and from full saturation to almost neutral. White, grey, black, and brown add variety, as do applied and natural textures and decorative patterns. Thus, even with one basic hue, the possibilities are many. With this scheme, some degree of success is almost assured because unity and harmony are firmly established. Spaciousness and continuity are emphasized and the effect is quiet and peaceful. A major danger is monotony. This can be avoided by diversifying values and intensities. Such colour schemes are most effective when pale, medium, and dark values of a colour below full intensity are used along with accents of the colour at full intensity.

Analogous colour schemes These are based on hues that lie next to each other on the colour wheel. This scheme can have a minimum of two colours and a maximum of three. The hues should differ in their intensities and values. Analogous colour schemes, although basically harmonious, have more variety and interest than monochromatic schemes. An analogous colour scheme is always either predominantly warm or predominantly cool. When using three colours, one should dominate and other two should be used in smaller areas.

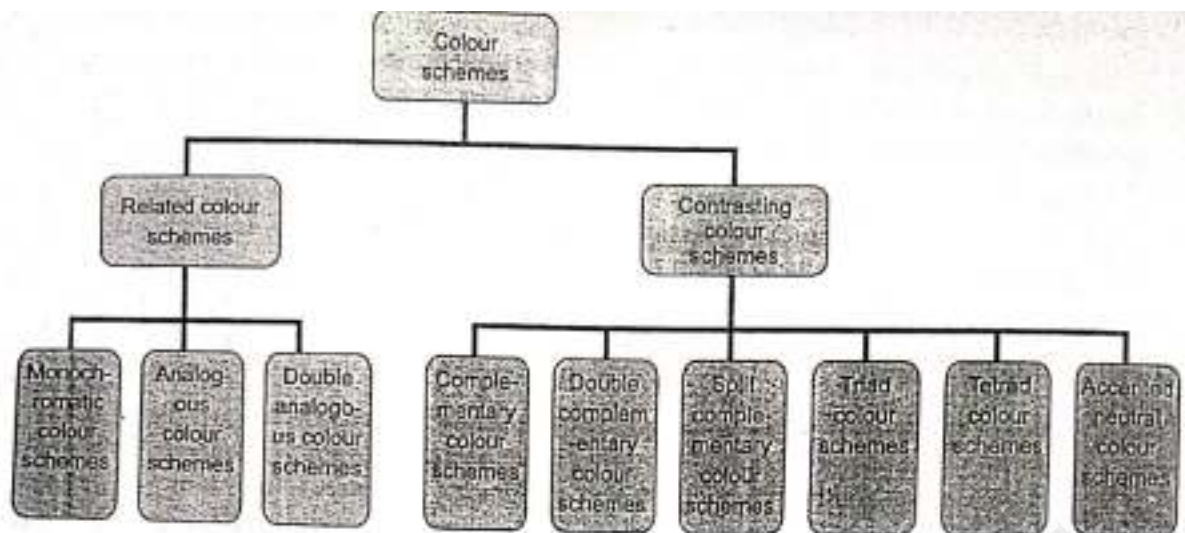


Fig. 25.3 Classification of colour schemes

Double analogous colour schemes Any four adjacent hues on the colour wheel make up a double analogous colour scheme. There should be a harmony of hues used in such a scheme, avoiding too many contrasts.

Contrasting colour schemes

The colours chosen in these harmonies lie opposite or nearly opposite to each other on a colour wheel, and hence usually share no similarities.

Complementary colour schemes These are built on any two hues directly opposite each other on the colour wheel. They offer a great range of possibilities. Depending on how the colours are used, such schemes can be most pleasing or least satisfying. When complementary colours are used in a colour scheme, one of the two colours should be used at full intensity and limited to small areas while the larger areas in the opposite colour should be subdued in intensity.

Double complementary colour schemes Two adjacent colours and their complements used together form a double complementary colour scheme. Double complementary schemes combine the harmonious aspects of analogous colours with the contrast found in complementary combinations. In this scheme, the best effect is obtained when there is one outstanding hue used in the largest amount at subdued intensity.

Split complementary colour schemes Another variation of the complementary theme, the split complementary is composed of any hue together with the two hues on either side of its complement (or opposite). One of the three is selected to be the main colour and the other two are used to accentuate it. This makes the contrast less violent than in the simple complementary type of scheme, and adds interest and variety.

Triad colour schemes A triadic or triangular colour scheme is made up of any three colours that are equidistant from each other on the colour wheel. It should be remembered that full intensity hues are seldom used in decorating interiors, and this is particularly true here. Care must be taken to ensure that large areas of colours are

subdued and that only small areas of one or two of the three colours are kept at full intensity.

Tetrad colour schemes Any four hues that are equidistant from one another on the colour wheel produce a tetrad colour scheme. Such combinations lead to rich, varied, yet unified and well-balanced compositions.

Accented neutral colour schemes This is the type of scheme in which most of the areas of the room are in expanses of neutral colours, with small areas of a bright colour used for accent.

Planning Colour Schemes

There are certain factors that must be taken into consideration when planning a colour scheme for a room.

Purpose of the room

This is the most important consideration when planning a colour scheme. The colours in a room must suit the purpose of the room and create the mood or atmosphere that needs to be conveyed. At the same time, the colours used must express the interests and personalities of those who will use the room.

In a guestroom, the guest would be invited to relax; therefore cool, restful colours such as blue and green would be appropriate. It would be just as improper to use pale, dull, or sophisticated colours in the recreation room as to use intensely greyed colours in the bedrooms.

Delicate pastel colours that are popular and appropriate in a nursery, but are not suitable for a room occupied by an active adolescent. Also, for a child's room, the décor of the room should be based on the child's own colour preferences as well as reflect the age and interests of the child. As boys and girls grow older, the strong colours they liked as children will often be replaced by more subdued, sophisticated colours.

In the living room, the colours used should induce a feeling of comfort in order to create a welcoming atmosphere for guests. Very bright or very warm colours as well as very cold or depressing ones should especially be avoided. To create an atmosphere of dignity and refinement, sophisticated colours should be used. Sophisticated colours are often toned-down or greyed hues, that may range to the almost-neutral.

A dining room should have appetizing colours. The colours most stimulating to thoughts of food and the enjoyment of eating are peach, pink, and other tints in red and orange. Most unappetizing are tints and shades of yellow-green, blues, and purples. A pale tint of yellow can be appetizing, but darker yellow is often distasteful in this context.

In a kitchen, the colour scheme should be cheerful, light, and bright. Cool colours are thought to counteract the heat of cooking. White or light walls are usually best for visibility. Natural wood is also desirable. The colours used in a kitchen should, however, be stimulating enough to make the cook feel creative. One vital colour, either a primary or secondary, may be used in the interior or woodwork, furniture, and so on. Other colours can be supplied by pots and pans, crockery or plants.

Bathroom walls and fixtures are usually white, for hygiene as well as aesthetic reasons. However, bathrooms are often decorated in colours that are suggestive of water as well, such as green, blue, violet, or grey.

Size and proportions of the room

A small room can be made to appear larger if light, cool colours are used on the walls. A long, narrow room will appear to have better proportions if the smaller end walls are painted a warmer colour, or a darker shade of the same colour is used on the long walls. A square room looks more elongated if two opposite walls are painted a dark colour and the other two a light one. Dark and warm colours make walls move in towards you, light and cool colours make them move out away from you. A ceiling that is too high can be made to appear lower if it is painted darker or warmer than the walls, or if the colour used on the ceiling is extended several inches down the walls.

Sharp colour contrasts also affect the apparent size of rooms. It is usually desirable to make the walls lighter than the floor and the ceiling lighter than the walls; but if the differences are too great, the room will seem to shrink in size. Three or four colours are enough in any room. Black, white, grey, silver, gold, and natural wood are considered neutrals and can be used in addition to these three or four colours in the colour scheme.

Relationship to other rooms

A room should not only be in harmony with itself but should also harmonize with other rooms in the property. A hallway should harmonize with all the rooms that open onto it and the colours in one room should harmonize with the colours in other rooms that can be seen from it. There should be a feeling of unity or harmony as you pass from one room to another.

Amount of light received by an area

If the area receives a lot of natural light, the colours used should be cool to provide relief from strong daylight and natural heating. An area that receives very little light should be done up in warm colours such as red, orange, and yellow.

Type of surface

A rough surface casts small shadows and so appears darker than a smooth one.

Law of chromatic distribution

This is a general rule to be applied to the various areas in a room. The law states that larger areas in a room must be covered with the most neutral hues in the colour scheme. As the areas reduce in size, chromatic intensity may be proportionately increased. It is usual also to make the walls lighter than the floor and the ceiling lighter than the walls. For this purpose, a room can be subdivided into component areas of colour distribution as follows:

Dominant areas walls, floors, and ceilings.

Medium areas draperies, bed covers, and so on.

Smaller areas sofa sets, small pieces of upholstered furniture, and so on.

Accents ashtrays, paintings, flowers, and so on.

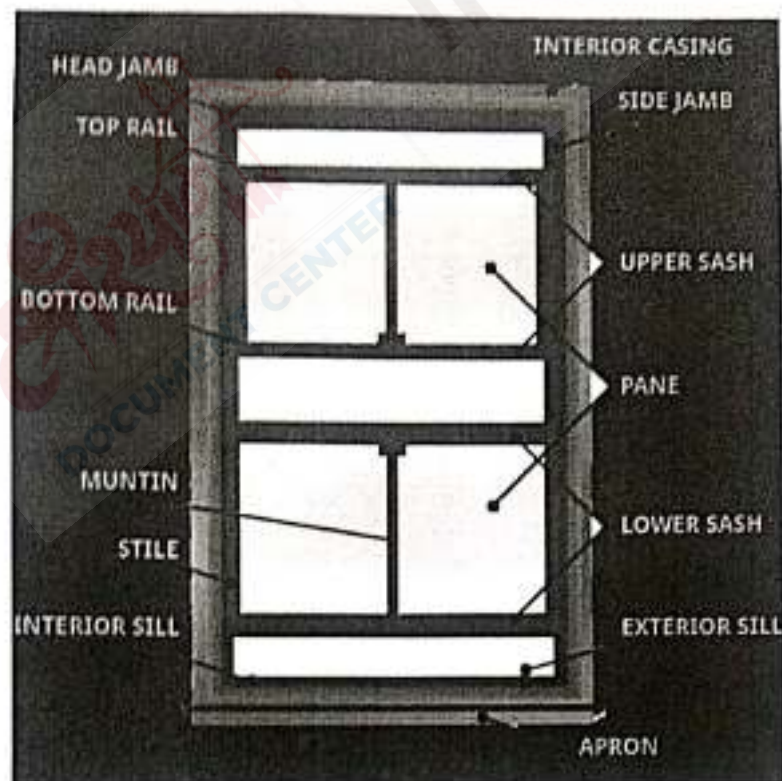
WINDOW AND WINDOW TREATMENT

Window has four practical functions. They admit air, light, vision and people to varying degrees. Their design may hide, improved, or accentuated by treatment such as curtains, draperies shades and so on.

STRUCTURE OF A WINDOW

The component part of a typical window is shown in figure. Window consist of a wooden frame around the type and top edges and this fixed part of window is called a casement or frame. it is designed to hold the sash which is a wood or metal frame that hold the glass and is usually movable. the sills form the base of the window on which the casement rest. The strip of wood sometimes placed underneath the sill for support is called the apron.

Structure of Window



1. Head

- The main horizontal member which forms the top of the window frame.

2. Grids

- You can make standard windows and doors extraordinary with the creative use of window grids. Grid patterns placed inside the glazing unit include 5/8" wide flat grids and 1-1/16" wide sculptured pattern grids. Available for both our vinyl and fiberglass windows, these internal grids make cleaning a breeze both inside and out.
- Additional grid options are available within our fiberglass Ultra™ and WoodClad™ Series to produce the effect of simulated divided lites:

Vintage Grids: Create the look of individual panes of glass on both the exterior and interior of your fiberglass windows. This option provides the best simulated divided lite look.

Craftsman Grids: Create the look of individual panes of glass on the interior of your fiberglass windows, leaving the exterior easier to clean.

Legacy Grids: Create the look of individual panes of glass on the exterior of your fiberglass windows, leave the interior easier to clean.

3. Hardware

Depending on the type of window you purchase, you have multiple options for the type of hardware you can install. Whether you select our patent pending Positive Action Lock™ for your horizontal slider or single hung window, or select the optional fiberglass window cam locks, you will be secure in the knowledge that our window hardware meets or exceeds the toughest forced entry codes in the nation.

4. Weather Stripping

Milgard offers weather stripping to ensure the most efficient, weather-tight seals for your windows.

5. Insulated Glass

A combination of two or more panes of glass with a hermetically sealed air space between them. Milgard windows come standard with SunCoat[®] Low E coating for added energy efficiency and all around comfort, all year long. Optional argon gas may be used between panes, further improving thermal performance and energy savings.

6. Upper Sash

A single assembly of stiles (sides) and rails (top and bottom) made into a frame for holding insulated glass. Single and double-hung windows have two sashes. The top sash is known as the "Upper Sash."

7. Jamb - a board that forms the side of a door or window.

The window frame members forming the top, sides, and bottom of a window frame.

8. LOWER SASH- A single assembly of stiles(sides) and rails (top and bottom) made into the frame for holding insulated glass. Single and double-hung windows have two sashes. The bottom sash is known as the "lower sash".

9. Sill: The main horizontal member forming the bottom of the window frame.

TYPES OF WINDOWS

FIXED WINDOWS these are meant for providing light and a view.

MOVABLE WINDOW these combine the function of providing light and a view with ventilation.

Today we often find a combination of the two type in one unit. The basic window designs are as follows.

SINGLE WINDOW a single window is a window with a single frame, it open either inside or outside.

DOUBLE SASHED WINDOW this type of window has a sash that can be pushed up and down. Since the part with the glass pane is only half the size of the window frame half of the window will always be left open. This window must be placed such that robbers do not have easy access to it.

MULLION WINDOW these really consist of a series of window. Each window can be treated as a separate unit or unified into a single design.

CASEMENT WINDOW these are most common type of windows. These window panes are two in halves that open out ward of the frame. They are very good for illuminating a room naturally as they offer least obstruction to light.

PIVOT WINDOW they are made up of several glass panes set in a wood work or metal frame. They are typically used for cross ventilation purpose. Such a window may have one pane that pivots to the side or they may all be fixed. They provide very good light and ventilation.

SASH WINDOW they are also called double hung window. they consist of two glass panes both of which may be opened independently.

GROOVE TOP WINDOWS these are really made of two window panes that can slide across each other.

SEMI CIRCULAR RIBBED WINDOW these are typically found on top of a doorway or a large rectangular window. They are used for decorations and cross ventilation.

FRENCH WINDOW they are also called French doors. They open out into balconies or patios. For a softer touch, a traditional drapery treatment may be given to these windows but the rods must extend beyond the frame so that the draperies can be drawn out of the way of the opening.

CORNER WINDOWS two identical windows on two adjacent walls meet at a corner in this type. Corner windows can be treated as one unit or function

separately. Drapes or vertical blinds should preferably be drawn toward the outside to let maximum light whenever needed.

BAY WINDOW these are three dimensional windows made by placing windows on three walls that meet to form an alcove protruding outwards. These are usually large and gives walls an illusion of spaciousness.

PICTURE WINDOW these are large paned fixed windows facing a pictures view.

RANCH WINDOWS these are high windows set above eye level. They are providing basically to let light in.

AWNING these are windows that are hinged at the top and open upwards at an angle.

PALLADIAN WINDOWS these are windows with an arched tops. To treat such shapely windows flow with the curve or bend with the angle or best of all leave them untreated.

Different DALHOUSIES these are windows provided with plantation style shutters.

DORMER WINDOWS they are provided in attics under slanting gabled roof mainly to illuminate the rooms towards the middle of the building.

SKYLIGHTS these are windows in the ceiling. They are basically there to allow in sunlight. They are left untreated. In cases some treatment is required, custom made, remote controlled, shades are best.

TYPES OF WINDOW TREATMENT

Stiff window treatment	soft window treatments
•	BLINDS - CURTAINS
•	SHADES - DRAPERY
•	SHUTTERS - VALANCE
•	SCREENS - SWAGS

STIFF WINDOW TREATMENTS

There are many type of covering apart from curtain that can be used on windows to ensure privacy and block out light.

A) BLINDS: blinds are of following types:

ROLLER BLINDS: these let in plenty of lights when drawn up. rollers blinds are made up of thick fabric used in conjunction with rollers.

ROMAN BLINDS: these are made of fabrics attached to chords. When the cords are pull the blind rises up in accordion pleats to form a pelmet. They are heavier and warmer than roller blinds.

VENETIAN BLINDS: these actually originated in china contrary to the name. They are made up of parallel slats of wood metal or plastic aligned horizontally or vertically. They are usually low in price and some custom designed blinds come in different colour and pattern. The version with very thin slats can have different colours on each side. The thin slatted and vertical versions do better in this respect.

PINOLEUM BLINDS: these are an inexpensive covering for large windows. They work on the same principal as the venetian blinds except that they close across the window rather than down. They may be mounted on a spring operated roller or moved up and down by cords.

BALASTORE BLINDS: these are inexpensive blinds made of strong paper fibre. It is accordion pleated to act like a folding blind. Balusters are perforated with small holes to let light through without glare.

PLEATEX BLINDS: they are made from stronger paper than balusters and have smaller pleats. The paper gives privacy but let sunlight through which is filtered and tinted the colour of the paper. The four most common colour are orange green blue and parchment (natural).

AUSTRIAN BLINDS: these are ruffled fabric. They may be used partially raised and when fully raised they form a decorative pelmet. They are used in banquet halls and large lobbies for a sumptuous effect.

B) **SHADES**

Shades may be of following type:

BAMBOO AND WOOD WOVEN SHADES: these were once considered rustic and informal. They are available in different weaves now a day. Slatted shades have an advantage in that they let through some light and air and allows outward only visibility in the day time. They block the inward view at the same time depending upon the tightness of weave or the size of slats. It should be remembered that this one way vision is reversed at night when indoor lights are on

FABRIC ROLLER SHADES: these are inexpensive and can be flexibly adjusted to cover as much of window as required at a particular time. These shades are available in many shades colour, texture, pattern although neutral white or off white fairly smooth fabric are the standards.

Provenance roman shades- this is a broad list of hard window treatment. There are new styles coming out all the time. Hard treatments are available as stock items found in home improvement stores, or can be custom made to order. Stock merchandise comes in standard sizes, and custom made treatments can be made in any size.

Window shades- shades are a piece of fabric which rolls, stacks or folds, opening to a view only when the shade is rolled up. Though there are now certain shades that do allow you to see out to the view. Below are two examples of window shades, the first is a cellular shade which stacks up in

a small pleats, and the second example is of some Provenance woven roman shades from Hunger Douglas that I did for a client home.

3) SHUTTERS – A window shutter is a solid and stable window covering usually consisting of a frame of vertical stiles and horizontal rails. Set within this frame can be louvers, solid panels, fabric, glass and almost any other item that can be

mounted within a frame. Shutters may be employed for a variety of reasons, including controlling the amount of sunlight that enters a room, to provide privacy, security etc.

4) SCREENS

These are in the form of hard board panels with cut out panels of fabric stretched across the wooden frame. These are now tracks that allow screens to be moved to one side one when an unrestricted view is desired. The most popular screens now a days are shoji screens.

SHOJI screens are traditional Japanese screens for which modern interior have a natural affinity. They were originally made of rice paper mounted on a wooden frame coated with black lacquer but they are now available in translucent plastic material.

SOFT WINDOW TREATMENT

Soft window treatment comprises curtain, valence, swags etc. curtain often contribute more to the atmosphere to the room than any other item of furnishing. Plain heavy curtain falling down on the floor can be used to create formal setting. Apart from creating desired atmosphere curtain gives flexible control over privacy, heat, light, and to some extent noise.

- Curtain fulfil several important functions:
- They give flexible control over privacy, heat and light.
- They soak up noise in proportion to the area they cover the thickness of the fabric and the depths of the fold.
- They can add colour and pattern to décor.

- They cover bareness and furnish a room even without furniture.
- They can change the apparent size of a room or conceal architectural flaws.

TYPES OF CURTAINS

GLASS CURTAINS: these are also called sheer or net curtains and are usually made up of cotton or polyester. They are appealing in light pastel shade.

DRAPES/ OVER CURTAINS: draperies refer to loosely hung soft furnishing. These are made of heavier fabrics and may be lined. The heading is usually

pleated. Draperies can be decorative, as well as providing privacy, darkening a room and insulating it against the cold. They may be used in following ways:

PANEL DRAPES: These cover only the side of a window area.

Draw drapes: these span the entire width of the window and can be drawn aside by mean of a cord attached to the runner or by remote control.

STRAIGHT HUNG DRAPES: these can used with a valence or a cornice but the window will seems taller without a decorative heading.

SASH CURTAINS: these are a type of glass curtains hung on the window sash. They can be stretched taut between rods along the tops and bottom of window sashes or hung in loose folds.

DRAW CURTAINS: they are made up of translucent or opaque fabric and are mounted on transverse rods. In earlier days they were used between glass curtain and draperies but these days they are more often used alone.

CASEMENT CURTAIN: these cover the entire window and have a casing at both top and bottom.

TIE BACKS- either one panel can be tied back to one side or both the panels can be tied back to the two sides.

FRENCH CAFÉ CURTAIN: these cover only the lower part of the window with the casing slipped over a tension rod mounted in the window frame. They provide privacy at one level and light at another. These are ideal for informal settings.

COTTAGE CURTAINS: these are a combination of the café curtain and tie back styles.

TIER CURTAINS: these are double decker café curtains.

ROLL UPS: these are shades made up of sturdy fabrics and lined with contrasting fabrics. The shades can be rolled and unrolled to the desired position and held in place by means of a sash. When rolled up the contrast coloured lighting and top fabric are shown off together.

FOLD BACKS: these are made up of set of two double sided shades hung across the entire width of the window on double curtain rods. They are then folded back to expose the contrasting under panels and panel is tied back.

CURTAINS HEADINGS AND ACCESSORIES-

1. PELMETS AND CORNICES: cornices are box like shapes used at the top horizontal portion of the drapery treatment to hide the poles and other hard ware. They are generally 4 to 7 inches deep. The width of cornice of a cornice should be a little less than one eighth of the overall length drapery. They may be of wood plastic or mirrored glass. Wooden cornices may be finished in their natural colour painted in some other colour or covered with cloth, cork, leather. Sometimes the covering is covered in brass nails.

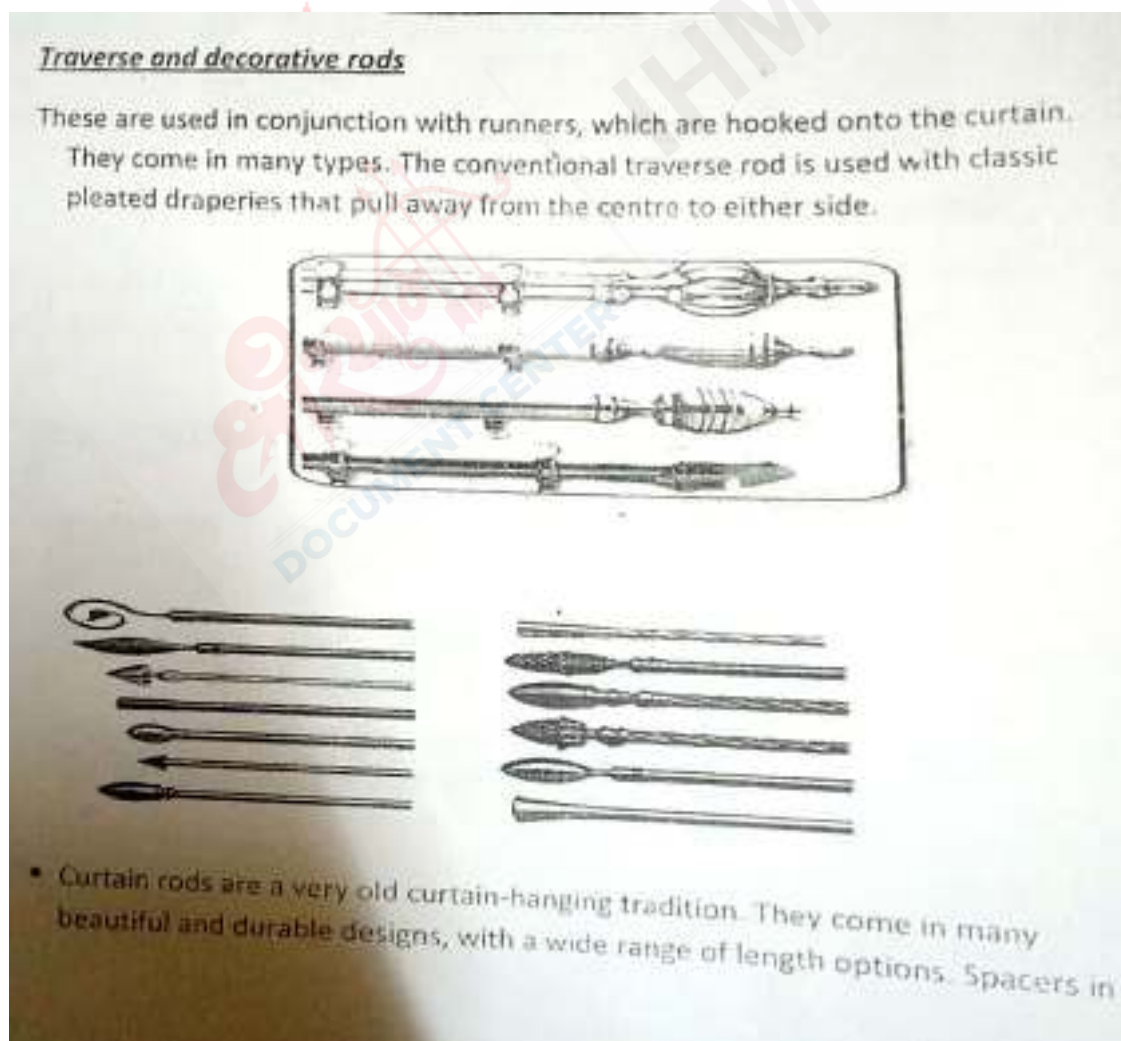
2. VALENCE: these are made of fabrics that have been pleated, scalloped, or ruffled. They should never exceed one sixth of the windows height and should be about 8 to 12 in inches in depth. The width of lambrequins should about a seventh of the length of floor length drapery.

3. SWAGS AND CASCADES: swags are decorative drapery treatment meant to hide the curtains headings and usually taper to a cascade. These loop and fall luxuriously over a curtain pole ending in elaborate tale. Headings of these types are appropriate for large formal room with high ceilings. They tend to look so heavy in small or average sized room. The depth of the swag at the center after it has been draped should be about one seventh of the drapery length or one seventh of the drapery length or one seventh of the distance between the top of the frame and the floor. The width of the cascade at the top should coincide with the width of the drapery when hung. The length of the cascade should 2 to 3 inches its finished width.

4. DRAPERY CRANES: these are appropriate hard ware to use where installation have to be flexible. On French windows or swinging casement windows this type of drapery rods with its hinged bracket allow the free edge to swing away from the door or window with the casement.

5. TRAVERSE AND DECORATIVE RODS; they are used in conjunctions with runners which are hooked onto the curtain. They come in many types. The

conventional traverse rod used with classic pleated draperies that pull away from the center to either side of the window. Ideal for corner windows one-way traverse let one pull the drapery back to either side of the windows double traverse rods let one hang two pair of drawn draperies and open and close each pair independent of the other. A triple may be used to hang two pair of drapes topped with valences. Traverse and plain rods allow one layer to other drawn draperies over a shirred curtain as well.



making it easier to open and close your drapes. Curtain rings are available in many sizes, shapes and qualities, so shop around for the style that best meets your design needs.



- **Tiebacks** are soft loops of fabric, cord, chain or other material that holds back drapes. They tie around the drape itself, either centering it or pulling it off to the side and tying it to a vertical rod. This allows a bigger view outside and more natural light to enter the room. Tiebacks are extremely common in curtains and drapes that do not use rings, since those are hard to open.

MEASUREMENTS AND INSTALLATION OF DRAPES: install all hardware before measuring for furnishing. Drapes should fit the supporting rather than the window. Use a steel measuring tape for accurate rates. Two basic measurement are necessary to estimate the drapery yardage finished length and finished width. To measure the yardage requirement multiply the finished length with the number of panels.

FINISHED LENGTH: standard choices for finished length are sash sill apron and floor length. Measure from the top of the rod to place where hem will fall for a floor length style reduce this by half an inch to clear the floor

length style reduce this by half an inch to clear the floor neatly. Then add hem and heading allowances.

FINISHED WIDTH: measure the entire span of the rod. Add allowance for return and overlap. Double the width of tab tops and triple it for sheers. add a side hem allowance. To achieve the finished width it may be necessary to join one or more fabrics width it may be necessary to join one or more fabric width. To arrive at the number of such panels required divide the total width. To arrive at the no of total panels required divide the total width by the width of the fabric.

If the fabric design is large and has to be matched add one extra motif for each length required .it is better to be generous than too exact.

- 1) Window consists of a wooden frame around the side and top edge, and this part of the window is called, a casement or frame.
- 2) It is designed to hold 'sash'- which is a wood or metal frame that holds the glass panes and is usually movable.
- 3) The 'sill' forms the base of the window, on which casement rests.
- 4) The strip of wood sometime placed underneath the sill for support is called the apron'.

MOTORIZED CURTAINS



- Motorized curtains bring a touch of elegance to any space. Shades by Design motorized curtains are remotely controlled to run along a track or rod and deliver simplicity and convenience to window treatments with a robust curtain mechanism. We accommodate every window's technical and design spec, from heavy blackout curtains for privacy and sun protection, to translucent sheer fabrics that create atmosphere while minimizing glare. Shades by Design carries motorized tracks and components to ensure full integration with the industry's leading home automation systems, such as Lutron, Somfy, Crestron, ATX, Control 4 and more.

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LIGHTING & LIGHT FIXTURES

Lighting has become an important element of interior designing. Worldwide interest in illumination, a gathered momentum in early 20th century. Today, there is a vast range of light in myriad colors, which are used both aesthetically and innovatively in any interior.

A key role in creating bright atmosphere within an area. It should be decorative as well as functional. It should contribute to character and atmosphere of a room. To achieve the right lighting in an area the direction and quantity of light in any area, the direction and quantity of light must be chosen for the right effect and function. The unit of illumination is **LUX**.

Types of Lighting

- **Natural Lighting** – It is freely available and not involving any expenditure, without much power consumption. The disadvantage is that it does not light up the room uniformly and is not constant. There are 3 types of light- sunlight, candlelight and fire.

- **Artificial Lighting** – this is done with the help of incandescent or fluorescent bulbs:

- 1) **Incandescent lighting**- a tungsten filament is sealed in a glass bulb, which when heated to a point begins to glow. The filament is in the form of a coiled wire that is very thin and stretched tight. The glass used is made of standard lime glass or heat resistant, borosilicate glass, which permits high voltage to be used. Some bulbs are flushed in acid solution inside of the bulb to make it frosted.

- 2) **Fluorescent lighting**- it consists of a sealed glass tube that contains a small amount of mercury and argon gas and electrified at each end. The inside of the tube is coated with a fluorescent material like phosphorous. When an electric current is sent through the tube the mercury vapor gives out ultra violet light that is converted into visible light by phosphorous.

Depending on the manner in which the light rays are divided, it can be classified as:

- **Direct Lighting** – Rays of light fall directly from the source onto the work surface. This effect is obtained by pointing the light downward. Work surfaces and decorative elements such as art, plants, and precious artifacts need direct lighting. Mural appliances, work or reading lamps and rail spotlight lighting are examples.
- **Indirect Lighting** – The rays of light are first directed towards the ceiling or wall and the reflected onto the area where light is required, eg- lights in bedroom. Direct lighting must be combined with indirect sources of light that produce broader lighting such as chandeliers, ceiling lamps and in-built lamps. Since the light is projected towards the ceiling, color will have an effect on the lighting intensity. On a white ceiling, the reflection will be stronger than on a ceiling painted on a darker color.
- **Diffused Lighting** – The light source is concealed or covered and the rays of light are scattered throughout the area.
- **Semi-Direct Lighting** – Part of light falls directly on the area while part is directed upwards and then reflected back. It allows one to create a particular ambience. Secondary, lamps, side table lamps and all lamps with shades that project 40% of their light towards the ceiling and 60% towards the floor. E.g.- side lamps are sources of semi- direct lighting

Difference between Incandescent Lighting and Fluorescent Lighting

Incandescent Lighting	Fluorescent Lighting	
<ul style="list-style-type: none"> • Can produce glaze and shadows. • Produce more heat • Can soil the wall and ceilings. • Installment cost is low. • Efficiency is low • Consumes more electricity • Produces less light • Intensity of bulbs can be changed by changing the voltage of bulb • Is used for decorative purpose • Used with decorative lampshades. 	<ul style="list-style-type: none"> • Does not give much shadow • Produces one fifth less heat • Does not soil much • Installment cost is higher • Efficiency is high • Consumption is less • Produces more light • Very few varieties available • Is used for task lighting and lighting general area. 	<ul style="list-style-type: none"> •

CHOICE OF LIGHTS

- **FUNCTION-** The type of work to be performed. E.g.- cleaning, etc., determines the type of light to be used.
- **SAFETY-** A light source is important in stairways, lifts and elevators in order to avoid accidents
- **IDENTIFICATION-** It is used to focus on pipes carrying hot water and steam.
- **BEAUTY AND DECORATION-** Lights are used for decorative purpose to improve the eye appeal of objects especially when the light is focused on sculptures, paintings, etc.
- **WARMTH-** A light source is used in kitchen above the counter in order to keep plates and dishes warm.

CLASSIFICATION OF LIGHTS

- **EMERGENCY LIGHTING-** A few lights get switched on automatically when there is a power failure so that accidents are avoided.
- **SAFETY LIGHTING-** The lighting system on staircases so that people do not trip when moving from one level to another. Light is focused on each step and in crowded areas.
- **EXTERIOR LIGHTING-** This is used to light up the outside of a building so that it is visible from far. It is used in heritage buildings and for advertising.
- **GENERAL LIGHTING-** The sufficient light for someone to watch TV or walk safely through a room or public areas like a lobby or corridor. This is done through ceiling or wall fixtures or track lighting. This light tends to distribute itself throughout the entire space creating very little shadow. It is not good enough to see details or for reading. One may or may not be aware of the light source as it is usually along eye level. General lighting is switch operated and is used to illuminate a room. Ceiling fixtures installed in common rooms and bedrooms fall in this category. It is of 4 types:

A. PENDANT LIGHTING- Hanging lamp, fixtures used to illuminate a certain task or area. They are adjustable light fixtures used in reading rooms, kitchen and computer rooms.

B. TASK LIGHTING- A direct beam of light that illuminates a particular area used for specific task. It includes high quality lighting fixtures including wall sources, bathroom track lighting and ceiling pendants.

E.g.- task lighting can be a beam of light directed towards the reading area, sewing area, desktop, ranges, play tables, kitchen sink, and computer area. Adjustability is important to this lighting. Good task lighting entrances, clarity and allows one to see clearly.

C. ACCENT OR SPOT LIGHTING- It accents curtain art pieces, major furniture or other objects and area that provide a sense of drama. The spread, intensity and color of the beam are often crucial consideration for accent lights. Anything that is a focal point or should be noticed should have a accent lighting. It is used mainly for decorative purposes. It is used to highlight painting and sculptures and recessed areas.

D. SKY LIGHTING- These lights can be adjusted according to the time and climate. They have a centrally located control panel, switches, knobs and dimmers and are very popular. The control panel is generally located in a small hidden area and the lighting for the entire area can be controlled from there.

METHODS OF LIGHTENING

ARCHITECTURAL LIGHTING

a) Valence – horizontal fluorescent tube placed behind a plant pelmet casting light upwards the ceiling or to a wall which then falls on the drapery.

b) Cornice – These installed in a ceiling or were (in the ceiling) so that the light is directed downwards.

- c) Core – a series of fluorescent lights placed in the groove of the wall. 30 cm below the ceiling
- d) Soffit – this is a lamp built onto the ceiling, most commonly in use on stairways, it refer to a built in light sources.

NON - ARCHITECTURAL LIGHTING

- Ceiling and wall fixtures
- Portable lamps

TYPES OF LIGHT FIXTURES

1. PENDANT LIGHTS
2. FLOURSCENT TUBE – used mainly for a general task lighting eg. Dining rooms, staff cafeterias
3. SWIREL LIGHT – adjustable lamps fixed on water they are good for bedside lamps.
4. DESK LIGHTS or ANGLE POISE – used for task lighting. It is portable and the angle is adjustable. Used for desktop or table lighting
5. FLOOR LAMP or STANDING LAMP or COLUMN LAMP – it is placed near the seating arrangement for reading purpose.

FACTORS IN SELECTING/PLANNING THE LIGHTING:

Whether you're planning your own lighting scheme or employing a lighting engineer, familiarizing yourself with the sorts of things that are likely to affect your lighting is a great idea. Being informed about how lighting works will also help with the most fundamental parts of the way your area is designed.

Below is a list of some of the things that need to be taken into account when planning your lighting design:

Considerations

- Purpose – The activities that are carried out in specific areas of the house will determine what sort of lighting should be implemented.

- Size – The size of the room dictates how many fittings will be required (or how much daylight is required) to light the room sufficiently for the purposes it's required for.
- Positioning – Where lights are placed, whether they're directional or diffuse, how they're arranged and how they're spaced all makes a difference to the light in your home.
- Type – Different types of light globes perform very differently, and not all globes are ideal for all situations.
- Surfaces – Walls, furniture, carpet, ceilings and mirrors all reflect light in different ways.
- Decoration – Lighting is pivotal to the way objects and aspects of an area are emphasized and portrayed.
- Efficiency – A carefully planned and efficient lighting system can save you a small fortune in the long run - and is more or less a necessity with the new lighting restrictions in place! LED globes and CFLs are far more efficient than the halogens and incandescent globes of yesteryear - but it's important to understand that they don't always give off the same light either.

While it's tempting, simply choosing to put halogen downlights everywhere isn't the answer anymore. A proper lighting plan can be a critical feature of your area, and doesn't need to be expensive – you just need to be aware of your options.

DIFFERENT LIGHTS USED IN DIFFERENT AREAS of HOTEL

GUEST ROOM:

- Entrance lighting
- Bedside lighting
- Dressing table, fluorescent light, bathroom light, top of sink, table lamp, valence, pendant lighting.
- Chandeliers for dining table

RESTAURANT:

- Tube lights are not used as they have a very strong lights

- Lighting used should be planned on décor and theme of the restaurant. Pendant lights should be used.
- There has to be general lighting, which could be ceiling lights or chandeliers.
- A spotlight should be used to direct light on the food and buffet table or on a floral display.
- Semi – indirect lighting could be employed with the use of translucent lampshades.
- Light may be directed on a painting or statues.

Lighting has become an important element of interior designing. Worldwide interest in illumination gathered momentum in early 20th century. Today, there is a vast range of light in myriad colours, which are used both aesthetically and innovatively in restaurant.

In restaurants, artificial lighting is more utilized than natural lighting. Lighting in restaurant should be functional as well as decorative and it should contribute to the theme of restaurant. Good lighting should be used keeping in mind the glare aspect. Lighting has a definite emotional and psychological effect as light is stimulating whereas darkness is depressing.

The shadow element should not be ignored. Shadows are an important decorative factor in restaurants, and can be utilized effectively for emphasis in front of the door, under porch roofs, under sliding boards, and on uneven surfaces of stone and brick. Shadows assist decoratively, serving as a foil for light.

Natural lighting should be utilized as far as possible contributing to eco friendliness. While designing a restaurant, the following factors should be considered for effective lighting requirements.

- The amount of light required for a specific area should be decided. It is best such professional expertise restaurant tables require 100 lux of illumination.
- If artificially lighting an area, the amount of heat given off should be checked. Tungsten bulb gives off more heat than fluorescent lights. If the heat is high the light fitting can be designed to extract the hot air and either serve it or dispose of it.

- Design and durability are high factor that cannot be ignored. One must decide whether the lighting scheme should be general or specific only to certain areas. The various types of lighting that are normally used are direct indirect, semi direct or differenced. Lamps play fittings should be chosen keeping in mind the decorative and functional aspect, cost, cleaning, and maintenance and illumination aspects.

The cost of lighting ranges from a low 10% of total energy consumption for a specialty, fine dining restaurant to 25% - 30% for a fast food operation.

Good lighting in a restaurant serves four basic purposes:

- Help to set the mood of guests and staff members.
- Makes food, drink and customers look good.
- Creates a favorable work environment.
- Provides safety and security for guest and staff.
- Other factors that influence the lighting in a restaurant are:
 -
 - 1. TIME – the type of lighting should be in accordance with the amount of time a guest takes to enjoy a meal. Low lighting makes it difficult for a guest to read the menu card. Very high lighting level causes guest to leave the restaurant. The lighting should be moderated in order to increase seating capacity.
 - 2. SIZE – the selection of the lighting system affects a customer perception of the physical facility. Eg. A low ceiling brightly lit will appear higher. A room will appear narrower if long walls are lit bright light gives an impression of speed thereby increasing guest turnover.
 - 3. CONTRACT – it is the perceived difference between the detail of an object and its background. Use can be made of direct indirect or spot lighting. Direct lighting is stronger, indirect lighting is softer and spot lighting should be used to focus attention on a particular feature or an object.
 - 4. BRIGHTNESS – incandescent lamps & fluorescent lamps are extensively used. In incandescent lamps, brightness can be controlled.

Lighting changes the colour of food and drink. Eg. Green florescent makes purple appear greenish grey.

CLASSIFICATION OF FLOOR FINISHES

The following points should be kept in mind while selecting floorings are:

1. APPEARANCE: Floorings have more visual impact than the furniture and should go well with the interiors. Patterned surfaces hide soiling and spillages and tend to make small room look smaller. Blues & greens give a cool appearance and reds give a warm appearance

2. COMFORT: Warmth, softness & quietness are the factors to be considered. Harder floor are colder & noisier. Slipperiness to be avoided.

3. DURABILITY: Resistance to wear needs to be considered. Areas with considerable wear need consideration. Hard floorings like stone and clay last longer. Marble has indefinite life but is subjected to staining.

4. LIFE EXPECTANCY: Time period for which flooring lasts. In Kitchens the décor

doesn't change often, so life expectancy is for many years.

5. SAFETY: Surfaces to be non-slippery.

6. EASE OF CLEANING: Important consideration. The extra initial cost of flooring that is easier to clean should be preferred.

7. COST: The true cost of flooring is initial cost including laying of the flooring plus the estimated maintenance cost.

HARD FLOORINGS/FINISHES: are:

i. Durable, but noisy except for some wooden flooring,

ii. Cold in feel,

iii. Vermin proof, Insect Proof

iv. Fire retardant and

v. Easily cleaned as compared to other floorings.

TYPES OF HARD FLOORINGS:

A. STONE FLOORINGS: Is a good choice of flooring for natural appearance and

indefinite life. Are resistant to wear, water and most cleaning chemicals. Are very heavy & must be laid on solid concrete sub floor. The most commonly used are:

1) MARBLE:

- Available in wide range of patterns & colors including white, grey, pink, green, brown and black. Are durable, but lighter colors yellow with age.
- Some marbles like TAVERTINE are cheaper and characterized by small cavities which offer greater slip resistance, but also allow dust to settle.
- Used in foyers, lobbies, luxury rooms & bathrooms.

2) Other stone floorings can be: Slate, Quartzite, Sandstone, limestone and granite.

B. CONCRETE FLOORING:

This material is good for areas that take hard wear as resistant to chipping & cracking, heat, insects and rot.

• Concrete is a mixture of CEMENT & various FILLERS like sand, gravel & crushed

stones. First mixed in dry form & then water is added to form stone like material.

Suitable for exteriors like patios but some like concrete tiles and terrazzo are also suitable for indoor use.

Various types of concrete floorings are:

1. GRANOLITHIC CONCRETE:

- Consists of GRANITE CHIPS set in cement.
- Heavy duty flooring.
- It is laid in plastic state on solid sub floor.

Appearance can be improved by polishing.

Used for basements corridors, storerooms, stairways and laundry areas.

For staircases abrasive material is set into the edges of each step to prevent slipping.

2. TERRAZZO:

Consists of MARBLE or other decorative chips set in cement. Can be machine ground to produce smooth surfaces. Is laid in situ or as pre-cast tiles where marble pieces may be larger. When floor area is large the surface is often divided into sections with brass or ebonite strips to improve appearance.

- Can be attractive flooring if well maintained, available in variety of colors and patterns.
- Is hard wearing but sometimes slippery when wet.
- Needs to be sealed for durability.
- Used for entrance, cloakrooms, staircases etc.

C. VITREOUS/CERAMIC FLOORINGS:

- Made from clay product and fired in furnace to produce hard, stone like quality
- Resist chipping, scratching, heat, acids, water, oils and insects.
- Various types are:

i. GLAZED TILES/CLAY FLOOR TILES:

Made from natural clay, fired at high temperature and glazed.

- Not affected by water, acids, grease but grouting between them may be.
- May crack or break under heavy weights.

Available in various shapes, sizes, colors and patterns.

Tessellated tiles are small ceramic tiles used as mosaics and are highly decorative.

used in luxurious bathrooms and patios.

ii. QUARRY TILES:

Made from blend of clays, compressed & baked at very high temperature.

Hard wearing, less absorbent but more slippery.

. Non porous, abrasion resistant & resistant to oil & grease.

- Used in cloakrooms, kitchens, canteens & any place for storage & preparation of food.

iii. TERRACOTTA TILES:

. Unglazed, hard baked tiles, made from hand formed clay.

Available in range of shapes & sizes.

- Porous, so lined with linseed oil sealant.

iv. BRICK:

- Different from terracotta only in shape and thickness, material is same.

- Used in walkways and patios.

D. RESIN FLOORING:

I. Composed of synthetic resins, usually epoxy, polyester or polyurethane with appropriate hardeners.

II. Unaffected by spillages of water, food, alcohol & chemicals.

III. Fairly hard, abrasion resistant, slip resistant & non porous.

IV. Are nonskid, thus suitable for kitchens, canteens, bathrooms, corridors & laundries.

E. BITUMASTIC FLOORING:

I. i. Jointless, low cost & consist of asphalt rolled onto a solid sub floor in liquid plastic state.

i. Normally black, brown or red in color.

ii. Completely impermeable to water.

iii. Damaged by heat & heavy weights and harmed by acids & oils.

iv. Used in public restrooms & hospital corridors.

F. MAGNESITE/OXYCHLORIDE FLOORING:

i. Consists of Magnesium Chloride + Magnesium Oxide + saw dust, laid in situ or in form of small blocks.

ii. Extremely porous, hence washing should be avoided.

iii. Initial cost is low.

iv. May be sealed or polished to prevent penetration of water & dirt.

v. Harmed by water, chemicals & coarse abrasives.

vi. Used in linen rooms.

G. WOOD FLOORINGS:

- i. Most beautiful floorings.
- ii. Made from hard woods like oak, teak, maple, walnut etc.
- iii. Good appearance, poor conductors of heat & good insulators.
- iv. Scratched & get splinter with dragging of heavy articles.

1. Various types of wood floorings are:

1. STRIPWOOD FLOORING:

Consists of length of hardwood strips less than 10cm wide.

Has resilience.

Strips are fixed with adhesive in concrete.

Used in rooms

2. WOOD BLOCK FLOORING:

Rectangular block of hardwood of various dimensions are laid in herringbone pattern or square basket pattern.

- Are laid in adhesive on a level of concrete.
- Used in bedrooms, offices and banquet halls.

3. PARQUET FLOORINGS:

- Decorative floor and expensive.
- Consist of rectangular pieces of wood.
- Specially selected hardwoods are used like oak, walnut and teak.
- Pieces are glued to wooden subfloor in various beautiful manners.
- Used in prestigious areas like lounges, suite rooms, lobby etc.
- Sizes vary from 125 sq. inches to 2 sq. ft.

4. WOOD MOSAIC:

Used in prestige areas.

- Consists of very small pieces of wood organized in basket weave pattern.
- Size in 18 sq. inches.

SEMI-HARD FLOORINGS/FINISHES: are:

- . Durable but less permanent than hard floorings.

- Resilient except thermoplastic tiles.
- Resistant to pests.
- Easy to clean.

TYPES OF SEMI- HARD FLOORINGS

A. LINOLEUM:

. From Latin words linum meaning flax and oleum meaning oil.

- Mixture of powdered cork, resin, linseed oil and pigments.
- Harmed by coarse abrasives, strong acids and alkalis.
- Damaged by extreme temperatures (low: cracks: high: softens)
- Prone to denting and scratching.
- Sealed & polished linoleum is used in linen rooms, corridors, bathrooms & canteens

B. RUBBER:

Available in sheets & tiles.

- Made from synthetic rubber.
- Maintain a good luster, resistant to chemicals and moisture.
- Harmed by alkalis, grease, sunlight and coarse abrasives.
- Comfortable to walk as resilient.
- Used in entrance halls, canteens and places where noise level should be minimum

C. CORK:

- Comes from bark of oak tree.
- Bark is ground, mixed with synthetic resin and pressed into sheets at high temperature.
- Warm & restful.
- Dents, burns and stains easily.
- Absorbs neither dust nor moisture.
- Used in offices, bathrooms and corridors.

D. PLASTIC

Available in wide range of colours, designs and textures.

- Hard wearing, resistant to wear, water and most cleaning chemicals.
- Of two types: - Thermoplastic tiles and vinyl.

- . Most durable semi hard floorings.
- Used in hospitals, bathrooms, corridors, offices etc.

DFT FLOORINGS/FINISHES are:

- Resilient and include all types of carpets, rugs and mats.
- Quiet, warm & slip resistant

A carpet has three parts: a) Underlay (Padding): which acts as shock absorber and prevents unevenness in the floor. b) Backing: is the one in which the pile of carpet is anchored. c) Pile: Also called face of carpet, this part is one which is seen on the surface and walked upon.

CARE & MAINTENANCE

a) ROUTINE MAINTENANCE:

Daily removal of dirt with vacuum cleaner or box sweeper.

b) PERIODIC MAINTENANCE:

Involves deep cleaning of carpets.

- Involves shampooing, hot water extraction and dry powdering.
- **SHAMPOOING:** carpet shampoo machine is used to dispense shampoo, brushed work! into the piles to clean.
- **DRY POWDERING:** A powder containing absorbents of dirt and grease are sprinkled on carpet; it absorbs dirt and grease and is removed by suction cleaners. Not effective method.

* **SUB FLOOR:** The effective life of most flooring will depend on how they were laid initially and subsequent care & cleaning. Many properties of the floorings may be enhanced or ruined by the BASE i.e. the sub floor on which the flooring is laid. The sub floor can be of concrete or wood.

Floor type & Method----

ASPHALT COMPOSITION, Sweep and damp-mop daily Occasionally apply self-shine polish

BITUMASTIC. Never use wax polishes, as the spirit in them will damage the surface

Thermoplastic Remove marks by rubbing lightly with wire wool then wipe over with a sponge wrung out in warm water and proceed to polish

CEMENT/CONCRETE/CLAY OR QUARRY TILES, STONE AND BRICK

OIL Sweep or dry-mop daily Periodically wash or scrub with detergent suds. May be sealed to make the floor non-slip and resistant to dust, , water, and grease Polish quarry tiles with liquid tile polish or self-shine tile polish

GLAZED TILES, TERRAZZO Sweep or dry-mop daily, or wipe down with mild detergent solution Avoid all abrasive cleaners.

CORK Sweep or damp-mop daily Wax polish periodically. If sealed, use self-shine polish occasionally

LINOLEUM Sweep or dry-mop daily, or wipe with cloth wrung out in warm water

and detergent. Polish with wax or self-shine polish, or use a combination cleaner-cum-polisher

MARBLE Sweep or dry-mop daily. Wash with soft cloth wrung out in warm water

and detergent. Rinse well and dry. Remove light stains with a mild abrasive. lemon juice, or vinegar, rinse off and dry.

RUBBER Sweep and damp-mop daily. Apply self-shine polish weekly until pores

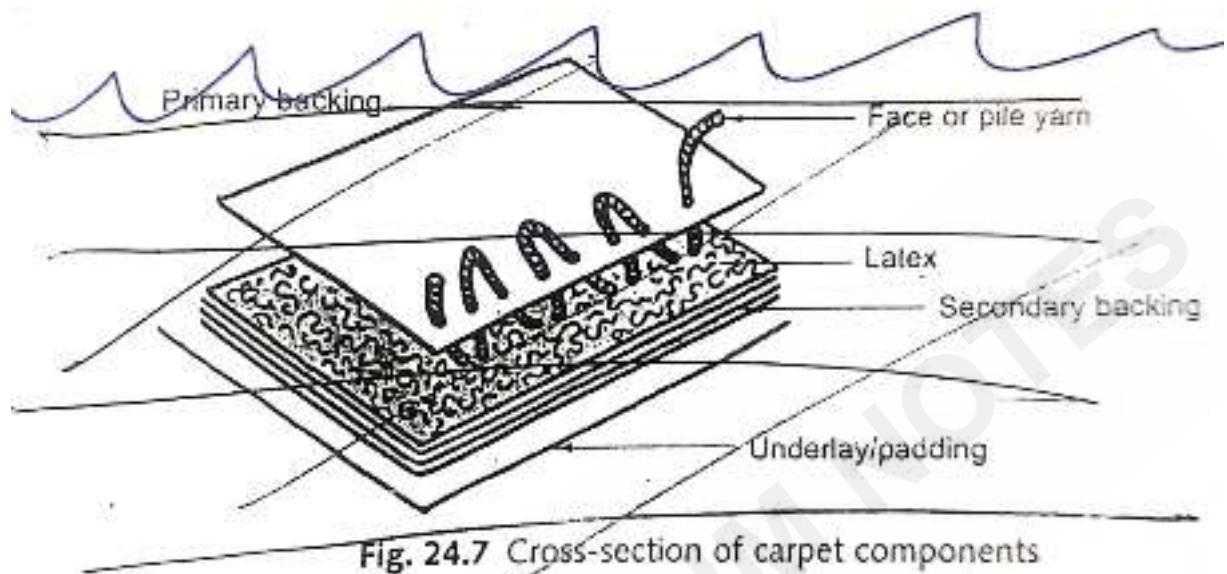
are filled and non-absorbent. Wash only when very dirty, and do not over-wet. Avoid oil or spirit-based sealants and wax polishes.

VINYL, VINYL ASBESTOS, MATT PVC, FELT BACKED VINYL Sweep or damp-mop daily, Wash when needed with cloth wrung out in warm soapy water. Polish with self-shine finisher or combination cleaner-cum-polisher. Avoid oil-based sealants, spirit-based cleaners and solvents. To remove marks, rub gently with wire wool.

WOOD, WOOD BLOCKS WOOD MOSAIC HARDWOOD STRIPS PLYWOOD PARQUET

Sweep daily and occasionally mop or wash. If unsealed, apply wax, polish periodically. If sealed, damp-mop and buff with dry mop. Use self-shine polish periodically.

CARPETS



The general carpets have three components,

The face

The primary backing

The secondary backing

1. **THE FACE/PILE:** the face may be of synthetic fibers or yarns such as polyester or nylon., natural fiber wool or cotton. The carpet face fibers as well as its density height twist weave will affect the carpet durability. Dense carpet retains their shape longer and resist matting and crushing. They also keep stains and dirt at top of fibers.

Hard-twist pile This is a cut pile with a heavy twist built into the yarn, giving it a pebbly look. It is used mainly in plain carpets, but it can be combined with other types of pile to give a textured effect. Hard-twist pile does not show shading and tracking like a velvet pile does. (Shading is the

twisting of pile, caused by footfalls or the moving of heavy furniture, and shows up as dark patches. Tracking is the smoothing down of the carpet in heavily used areas.)

Looped pile The pile is uncut and is made up of a continuous series of loops. It active various textures, from a thick and knobby pile to the closely curled low-loop pile that is like an irregular cord carpet. Looped pile is used in Wilton and tufted carpets.

Cut pile The loops of the pile are cut in such carpets. Tufted and woven carpets are produced in cut pile; in Axminster carpets, it is the only type of pile produced

Shag pile This can be produced on a tufting machine or on a Wilton or Axminster loom. The pile is long and shaggy and has a luxurious look

Woven cord piles This type is produced on a Wilton loom. The pile is left uncut, giving a tight, corded effect. Most cord carpets are made of sisal or man-made fibers. If the fiber is of good quality, cord offers better resistance to wear than velvet pile.

Velvet pile Sometimes called velour's, this is a close-cut pile that has a smooth, velvet appearance. It is used mainly for plain and two-tone carpets.

Sculptured pile A combination of cut and looped pile gives a carved or sculptured effect. Different lengths of cut pile and of straight and twisted pile can also be combined.

These combinations are used mainly in Wilton and tufted carpets

2. **PRIMARY BACKING:** pile fibers are attached to a primary backing which hold the fiber in place. A back size is a bonding of material such as plastic rubber latex or other adhesive that hold the fiber in place.

3. SECONDARY BACKING/UNDERLAY: some carpet have a secondary backing that is laminated to the primary backing to provide additional stability and more secure installation.

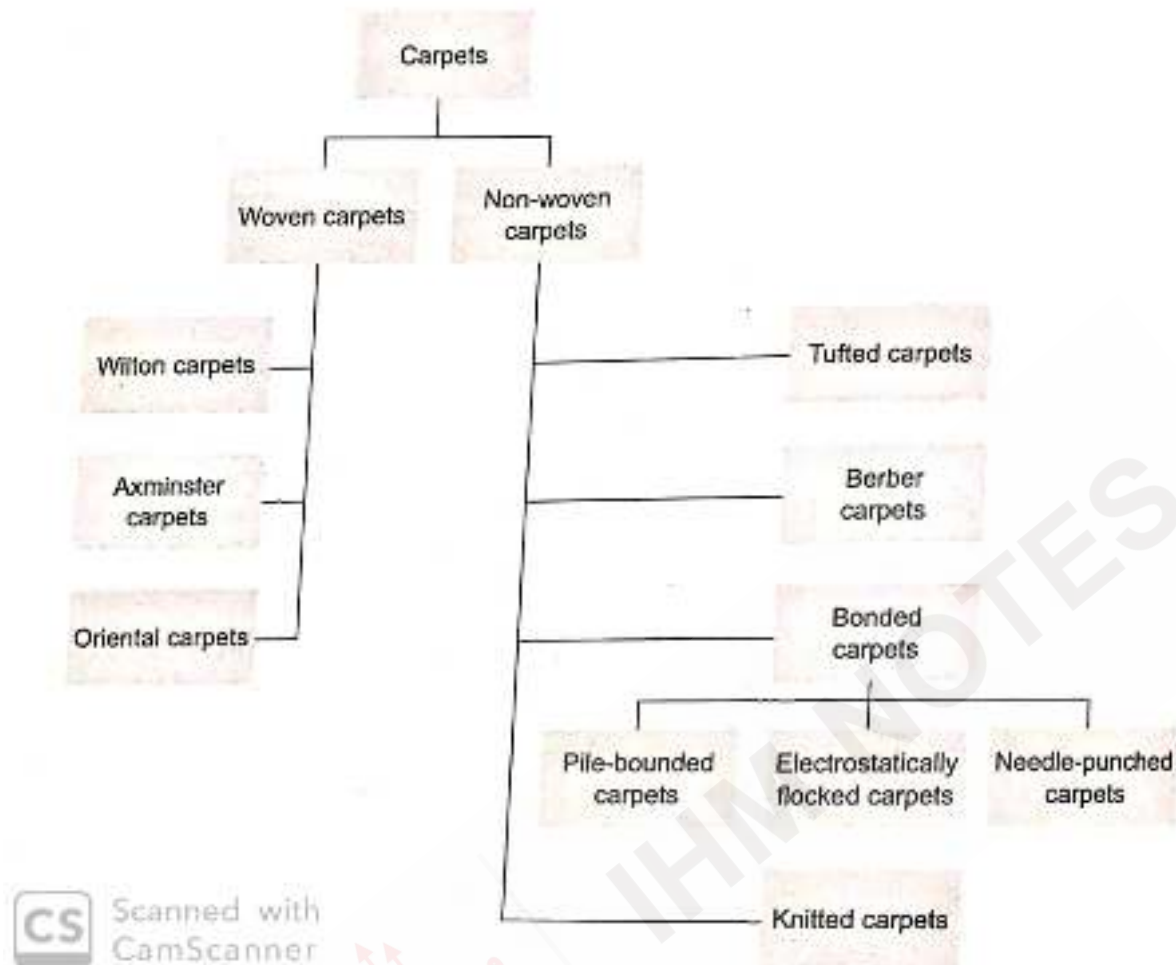
UNDERLAY

Underlay or underfelt act as a shock absorber between the carpets backing and an any unevenness in the sub floor, which could the cause the carpet pile to wear unevenly. It tends to make the carpet feel softer and more luxurious, helps it to absorb pressure from furniture, provide increased sound and heat insulation and protect the carpet from rising dust and dirt.

There are 4 reasons for using underlay:

1. It act as a shock absorber between the carpet backing and any unevenness in the sub carpet floor which cause carpet pile to wear evenly.
2. It trends to make the carpet feel softer and more luxurious and help it to absorb pressure from furniture.
3. It provides increased sound and heat insulation.
4. It helps carpet to protect from dirt.

Classification of carpet:



Woven carpets A machine or looms weave the face fiber and backing together as carpet is being made. Woven carpets do not have secondary backing. The weave consists of warp and weft yarn are inter woven to form the face pile and backing at the same time. The pile may be either cut or

uncut. Woven carpets are more expensive than non-woven ones, but worth their cost since they are more durable. These carpets are used in reception areas, corridors, dining rooms, and bedrooms.

Wilton carpets These may be produced as patterned, cord, Brussels, or plain.

Patterned Wilton These carpets are woven on a type of loom known as a Jacquard loom. This is an apparatus that produces patterns from colored yarns. The pattern information is contained on perforated cards. The holes

in the cards activate the mechanism that selects the colours to be raised to the pile surface. The Jacquard draws up one colored thread at a time (corresponding to a set pattern of perforations to be drawn up to form the pile while the remaining threads are hidden in the backing of the carpet giving added warmth, resilience, and strength to the carpet. Once the carpet is done, the pile is cut and closed. A textured effect is often created in such carpets by varying the height of the pile. No more than five colours are used, since the incorporation of more colours will result in a very bulky carpet.

Plain Wilton These carpets are made without adding the Jacquard apparatus to the loom. They have extra jute threads called 'stuffers' added to the backing to compensate for the lack of the spare colored yarns as filling.

Cord These carpets are plain Wilton carpets with an uncut pile

Brussels These carpets are patterned Wilton carpets that have an uncut pile.

Axminster carpets These carpets are woven in such a way that the pile is almost entirely on the surface. Each pile tuft is individually inserted into the dead threads to reinforce it. The pile is longer and less close than the pile is longer and less close than in Wilton carpets. It has a distinct ribbed effect. There are three types of

Axminster carpets:

- **Spool Axminster** This is the most popular Axminster carpet and a single piece has an unlimited number of colours in the pattern. The carpet is woven in such a way that the pattern is visible on the reverse side too.
- **Gripper Axminster** This carpet is like the spool Axminster carpet, the only one reference being the use of a maximum of eight colours, due to its method of creation.
- **Chenille Axminster** In French, chenille refers to a caterpillar'. The carpet is named thus since the pile surface is first produced as a long strip

and then, during the weaving process, the catcher threads attach the strips of furry pile to the backing. The catcher threads are distinctly visible in the finished carpet, giving the pile a segmented look like a caterpillar.

Chenille carpets are soft and thick, and are made in many colours and patterns.

Oriental carpets These hand-woven carpets from the Middle East, Indian subcontinent, and the Far East are available in a variety of sizes, patterns, and colours. Based on the country of origin, they are called Chinese, Indian, Afghan, Persian, Caucasian, or Turkish carpets or rugs. Pakistan and Nepal also produce oriental carpets. With their rich history and colour, oriental carpets are often called the aristocrat of carpets. Carpet weaving areas can be divided into those using floral designs and those using geometric shapes and patterns.

Floral patterns dominate in Persia and India. Persian carpets use dyes of vegetable origin. Many Persian carpets are made as wall coverings and prayer mats.

Caucasian and Turkoman carpets almost always employ geometric designs and when the rare floral pattern is used in these carpets, the design tends to be stylized and rectilinear.

In Turkey, both floral and geometric designs are used, although the latter are more common.

Non-woven carpets

These carpets are produced by attaching the surface pile to a pre-fabricated backing

Tufted carpets These are available plain or patterned and are usually made of synthetic fiber blended with wool. The tufts are needled into a backing usually made of poly propylene in sheet form, but sometimes made of hessian. The tufts are locked into place with a skim of latex along the back. Then either a foam layer or a secondary back in of woven jute or

polypropylene is added. If a foam backing is used, a underlay is not required.

The pile is either looped or cut (high or low, or perhaps a mixture of both

Tufted carpets do not fray and may be cut to any shape. To the untrained eye, a tufted carpet may be indistinguishable from a woven carpet, however

Shag pile carpets are usually single-coloured tufted carpets with a long, luxurious pile. The pile can, however, look tangled and matted if it gets heavy wear. They are hard to maintain, too, since the long pile hides a lot of dust.

Berber carpets These carpets have short, nubby tufts. The pile is dense and looped. characteristically made from natural, undyed sheep's wool. They are available in natural neutrals such as white, off-white, fawn, beige, grey, and dark brown.

Bonded carpets These carpets are neither woven nor tufted. The one feature that distinguishes bonded carpets is that the materials used are glued, heat-fused, or in some other way 'bonded together. They are all, therefore, typically manufactured from man-made fibers. A well-made bonded carpet is hard-wearing and makes an economical floor covering with good pile. Bonding can produce almost any effect, from completely flat to a corded or velvet pile.

- **Bonded pile carpets** These generally have a pile of nylon or polypropylene, which is stuck to a PVC backing. Bonded pile carpets are also available as tiles. The dense pile has a firm anchorage and the carpets do not fray, seams can be bonded, and the carpets may be stuck to the floor.

- **Electrostatically** flocked carpets Bonding is also used for flocked carpets, which have thousands of small fibers electrostatically bonded to an adhesive-coated backing.

- **Needle-punched carpets** Another method of bonding is the needle punch or needle loom. In these carpets, a mixture of fibers is punched by

needles and entangled through a backing fabric. This fabric is then impregnated with an acrylic resin to hold the fibers securely in the backing.

Knitted carpets These carpets are produced by interlacing yarns in a series of connected loops. As in woven carpets, the pile and backing are produced simultaneously. Multiple sets of needles interlace the pile, backing, and stitching yarns together in one operation.

Importance / Functioning of carpet

DECORATIVE VALUES

- Colours, textures effects designs available.
- Transforms a cold lifeless room into a cheerful and warm room.
- Gives personality to a room.
- Gives a feeling of luxury and richness.
- Helps you to appreciate the finer things in life and add to the charm of gracious living.
- Creates the illusion of spaciousness.
- Also give a furnished appearance to a room.

FUNCTIONAL VALUES

- Sound insulation
- Heat insulation
- Comfort
- Safety
- Ease of care

CARPET LAYING

Laying a fitted carpet is a skilled job and is best done by the contractors. The underlay must fit and be laid smoothly and the carpet should be

stretched slightly in the laying so that it will not buckle with wear. The methods of laying are:

1. Turn and tack
 2. Tackles gripper
 3. Velcro
 4. Rings and pin
 5. Press studs.
- **TACKLESS GRIPPER:** The carpet is stretched on to narrow strips of metal with protruding tacks. The strips line the perimeter of the area to be carpeted and are dangerous when exposed.

 - **TURN AND TUCK:** The edge of the carpet is turned under like a hem and then tacked into position. Unless well fitted this method can create unevenness which traps dust. It is usually only used with woven carpets.
 - **SUNKEN:** The method may be used when there is a change in floor level. The carpet is placed into a “Well” and edged with wood strips /metal.
 - **GLUED:** This is more permanent than the other methods. It is usually used with rubber or foam backed carpets and can cause early wear unless the sub floor is very even.
 - **TEMPORARY METHODS:** These usually involve the addition of tape sewn round the edge of the carpet. This tape may contain pegs, hooks, press-studs or “touch and close” loops “Velcro” which will attach themselves to corresponding sockets, loops or hooks attached to the floor surface immediately beneath the carpets. sometimes the carpet is edged with rubber so that it will lay firmly in place without any additional anchorage.

CARPET PROBLEMS

1. PILE DISTORTION: Fibers can become twisted, piled, crushed or flared and matted. Piled distortion occurs when the carpet receives heavy foot or equipment traffic. Improper cleaning methods can also cause piled distortion.

2. SHADING :Shading occurs when the pile in a carpet is brushed in two different directions so that dark and light areas occur .Vacuuming or pile lifting the carpet in one direction can help to reduce a shading problem, but will probably not eliminate it.

3. FADING: Every carpet will fade with time. Sunlight, wear, cleaning and natural ageing can combine to accelerate color loss. Premature fading may occur if the carpet is improperly cleaned.

4. MILDEW: It forms when moisture allows molds in the carpet to grow. Mildew can cause staining, odor, and rotting. Natural fibers are especially prone to mildew, but all carpets should be kept dry and treated with an antibacterial to prevent the problems.

5. SHEDDING/PILLING: Short position of face fibers is often trapped in the carpet when it is not manufactured. As new carpet is walked upon these position works themselves to the surface of the carpet and can make a new carpet.

CARING OF CARPETS

1. suitable underlay
2. proper fixing
3. using jute or coconut fiber mats at the front door
4. covering the carpet with length of canvas and plastic
5. having a movable furniture arrangement
6. spraying the carpet to protect them from moths and other insects.
7. Repairing frayed edges and worn parts immediately
8. Cutting and pulling the pile when it comes out from the side
9. Protecting a damp carpet from metal castor on the legs of furniture
10. Regular cleaning and maintenance checks should be carried out
11. Training all the staff regarding care of carpets
12. Promptly reporting spots, spills, and tears so that immediate action can be taken.
13. Proper temperature and humidity control
14. Carpet must dried immediately after shampooing

ADVANTAGE OF USING CARPET

1. Add to the décor
2. Gives a luxurious appearance
3. Gives sound insulation
4. Add warmth
5. Have a non- slip surface
6. Carpet squares and rugs break up a floor surface and can be turned around
7. Fitted carpet make a room look larger
8. Patterned carpet don't show stains.

DISADVANTAGE OF USING CARPETS

1. Surface holds dirt so carpet cleaning essential
2. They are cut by sharp edges and can be burnt by cigarette butts.
3. They can be attacked by moths and other insects.
4. Plain carpets show stains which can be difficult to remove
5. The initial cost is high.

CARPET MAINTENANCE

1. Routine maintenance

- The housekeeping department must inspect the carpet in all areas.
- Other employee must help in preserving the carpets.
- Housekeeping must supervise review the cleaning procedure of hotel carpets and ensured that they are followed.
- Cleaning equipment should be inspected for safe and efficient functioning.

2. PREVENTIVE MAINTENANCE

- Putting runners or mats over carpet that are in high traffic areas can prevent soiling.

- Proper furniture glides should be placed under chair and tables to reduce pile distortion and tearing.
- A water proof plastic carpet can be used for protection.

- **3.DAILY MAINTENANCE**

- Carpet should be vacuumed once a day and periodic spot cleaning carried out more frequently if necessary.

METHODS OF CLEANING CARPETS

1.VACCUMING

Different kind of vacuum cleaner can be used but they all follow the same principle of working up the dirt and removing it by suction. The different kinds of vacuum cleaner are given below.

- Beater bar vacuum: uses a bar to agitate and lessen the dirt.
- Brush vacuum: agitate the carpet with the brush. This is best use for carpet glued to the floor.
- Upright sweeper: has a large agitator suction head that pull dirt into a bag attached to the handle of the machine.
- Upright tank vacuum: used to clean upholstery and drapery.

2. DRY POWDER CLEANING

Dry powder crystals are duster on the carpet and worked into the pile with the hand brush or a machine. The powder absorbs oil stain and soil which can be removed by vacuuming. Since no drying time is required this method can be used in higher traffic areas.

3. DRY FOAM CLEANING

Dry foam is sprayed on the carpet and a rotary floor machine is used to brush the foam into the carpet. The foam is then removed with a wet vacuum.

FURNITURE

An important part of interior, which will not only help to create an ambience but also enables housekeeper to select a design of room and public area and function.



IHM NOTES

DOCUMENT CENTER

POINTS FOR SELECTING FURNITURE

Style

When choosing furniture several different requirements must be kept in mind. All the furniture need not necessarily be of similar design, but it should be in keeping with the style of the room. E.g.; the dining room chair should with chosen with a particular table in mind. Similarly tables and chairs that are suitable for canteen will not normally be suitable for first class restaurants.

Comfort

Design of the furniture may interfere with comfort. E.g.; the width of the seat and shape of the back of a chair are important to its comfort. The height of the table and chair has to be in relation of each other. The height and depth of the wardrobe and length and width of bed are other examples

Size

The size of the furniture must be in keeping with the size of the room as well as be proportionate to the other furniture in the room.

Serviceability

this depend on the purpose for which the furniture is intended, e.g.; shelves or drawers in the bed room will be different from open shelves in the kitchen or living room.

Quality

This will determine the durability of furniture. The appearance and durability of the furniture will depend on the material from which it is made and the method of construction.

Mobility and Flexibility

Versatility

Ease of maintenance

Cost

Construction

Practicality in design and size

Points to be kept in mind while choosing furniture

- There should not be rough surfaces.
- The backs and insides should be well made and relatively smooth.
- There should be no unfinished edges.
- The edges of plywood and laminated tops should be smoothed off so that they are not liable to damage.
- Joint should be of right type, light and well finished.
- There should be excess give around the joints.
- Furniture glides when carpet is in use.
- Has efficient hinges, bolts, latches, locks and handles.

TYPES OF FURNITURE

1. FREE STANDING FURNITURE (can be rearranged whenever necessary)

Furniture such as dressing tables, wardrobes, tables, chairs etc. may stand on the floor, and hence are called free standing furniture. They should be well balanced and firm.

2. CANTILEVERED FURNITURE (fixed on brackets, fitted to the wall and no legs are there)

Dressing table, luggage racks etc. should be firmly fixed to the wall to withstand the weight that they have to bear. Similarly drawers and shelves should be strong enough to hold the necessary articles. Draws should run smoothly on channels and should be fixed with stoppers.

3. DOORS(built in)

Doors should be well balanced, should fit properly and have stoppers or stays to prevent the doors swinging open too fast. Sliding doors should run smoothly. All fastening like hinges should work efficiently. Handles should

be attached in a position convenient for their use, they should be comfortable to hold and free from sharp edges.

4. FURNITURE ON CASTOR(essentially a standalone item)

Castors should not have sharp edges and should enable the furniture to move easily and not damage carpets or floors.

5. BUILT IN FURNITURE

This furniture is a part of the wall and cannot be moved without breaking the wall.

TYPES OF MATERIALS FOR FURNITURE

- **WOODEN FURNITURE**

This is the traditional and oldest material used for furniture. Today with demand for lighter and more easily moved furniture there is a wide choice of woods. Woods can be used for decorative purpose. Solid wood is not always a most suitable material for a piece or part so the piece of the furniture.

TYPES OF WOOD

- **PLYWOOD**

This is made by bonding together an odd number of slices or plies of wood which are 1 to 2 cm thick, so that the grain of one ply is at right angle to that on either side of it. Since there are an odd number of plies the grains of the two outside pieces will run in the same direction. Plywood does not warp or twist to the same extent as solid wood and is equally strong in both direction. Plywood is frequently used for table tops where stability is required.

- **LAMINATED WOOD**

This is also built in layers but in this case the grains of the wood all run in the same direction. As the strength will be in the direction of the grain, laminated wood is more suitable than plywood for the legs and arm of furniture, where the greatest strain is in one direction.

- **HARD WOODS**

- MAHOGANY: fine grained reddish brown in colour. Very durable and resists swelling, shrinking, and warping. Used for quality furniture such as cabinets, boats, wood facings and veneers
- WALNUTS: fine texture, strong, easy to work with and resist shrinking and warping and finishes well. Best use for gun stocks, solid and veneered furniture, novelties, cabinets and wall paneling.
- OAKS: strong, with good bending qualities. Is durable and finishes well and resist moisture absorption. Used for furniture, trimming, boat frames, desks, and flooring.
- MAPPLE: fine textured, but strong and hard. Has moderate shrinkage and machine well. Best used in flooring, fine furniture and woodenware such as bowling alleys.
- CHERRY: close – grained and resist warping and shrinking. It will redden when exposed to sunlight and ages well. Used in making cabinets, boats trims, novelties, solid furniture handles and turned projects.
- ROSEWOOD: very hard and has a dark, reddish brown colour. It is fragrant and close grained. It is hard to work and takes high polish. Used in musical instrument, piano cases, tool handles, art project, furniture.
- TEAK: hard and durable and resistant to moisture and rot. It resists warping, cracking and decay. Best used in fine furniture, paneling, shipbuilding, doors, window frames, flooring and general construction.

D) Soft woods

- **Pine:** it has a uniform texture, works easily and finishes well. It resists shrinkage, swelling and warping. Used in construction of houses, paneling and trims. Also used for furniture, sub – flooring and crates.
- **HEMLOCK:** light in weight, uniformly textured. It machines well but is prone to decay. Used in outdoor furniture, doors, frames, windows, plywood, veneer, general mill work and interior trims.
- **FIR:** works easily and finishes well. It is uniform in texture and non-resinous. Has low resistance to decay.
- **REDWOOD:** light in weight, durable, and easy to work. Has a natural resistance to decay. Used in outdoor furniture, fencing, house sidings, interior finishing and paneling.
- **SPRUCE:** strong and hard. Finishes well and has low resistance to decay. Has moderate shrinkage and is light in weight. Used for masts and spars for ships, aircraft, crates, boxes, general, mill work and ladders.
- **CEDAR:** has a fresh sweet odor and is reddish in colour. Easy to work and uniform in texture and resistant to decay. Used in making chest, closet lining, shingles, posts, dock plants, novelties and venetian blinds.
- **VENEER:** a thin surface layer as of finely grained wood glued to a base of inferior material. A thin layer of fine quality wood may be glued to the surface of cheaper wood. Wood veneer may be stuck to paper giving the effect of wood at a much lesser cost in another method thin decorative slices of wood cut or sliced from a log may be applied to a core material of solid wood or particleboard. This technique allows the application of especially attractive grains to furniture surfaces even when the wood from which the veneer is taken is too rare expensive or hard to work to be used structurally. The initial cost of veneer is quiet high. It is usually found in conference rooms, board rooms and restaurants.

- All wood should be properly seasoned as wood extremely absorbent. When used for furniture it requires treatment to prevent the absorption of moisture, grease and dirt. In order to make cleaning easier there are several protected finishes which may be given to complete the treatment of wood. These determine the texture of the wood. Its resistance to abrasion and the ease with which it can be cleaned.

CARE AND CLEANING OF WOODEN FURNITURE

- One should avoid banging and scratching the furniture.
- Spill should be wiped up immediately.
- Stain must be treated as soon as possible.
- The top of dressing tables, coffee tables etc. should be protected with glass.
- The wood should be regularly examined for wood worm and treated accordingly.
- Glossy surface should be polished regularly but polish should not be applied to matte surface as they lose the matte finish and become grey.

2. METAL FURNITURE

Metal in form of iron or steel has been used for many years for bedsprings or for sofas. But these materials are being used in modern furniture due to their strength and ease of shaping. Other material being used are aluminum, copper and brass.

CLEANING: wiping with a wet cloth easily cleans it.

3. PLASTIC FURNITURE

This material rarely used in hotels. It is often used in canteens and sometimes in offices.

CLEANING: it is easily cleaned with a solution of soap and water.

4. UPHOLESTERED FURNITURE

This type of furniture is much lighter in weight. Only the frame will be of wood. The stuffing is made from cotton fibers. The upholstery fabric used will depend upon individual state.

5. CANE, WICKER AND BAMBOO FURNITURE

Cane and wicker furniture is most commonly used in low or medium budget hotels. Unless well maintained it is liable to become out of shape and pieces of wicker can protrude and catch on to clothes.

TYPES OF FURNITURE JOINTS

DOVETAIL- These joints are often found at drawer corners. Dovetail should fit together smoothly. Desks, luggage racks, chest of drawers, and pieces that provide stage are primarily constructed using dovetail joints. Furniture pieces, in which the dovetail joints are too small or cracked should not be purchased.

DOUBLE DOWEL: these joints are two dowel to peg the joints together. They are sturdy joints use to create the frame for the case goods or to attach legs to the side rails of chairs.

BUTT: These are joints in which two pieces are simply joined together end to end. They are weak joints and should not be used in places subject to stress or weight.

MITRE: These are used at the corners of the tables where two angled surfaces meet up a right angle, and are reinforced with dowels, nails, screws or splints.

TOUNGE AND GROOVE: These joints are used to joint to boards together, side by side as in a table top such that they slide into each other and hold together.

MORTISE AND TENON: These joints are the strongest of all when joining pieces of wood at right angles. The end of one piece of wood is shaped to fit into a hole in the order. This type of joint construction distributes stress over a wide area.

CORNER: They are used at a corner joints as screwed reinforcement, to provide extra support in quality furniture.

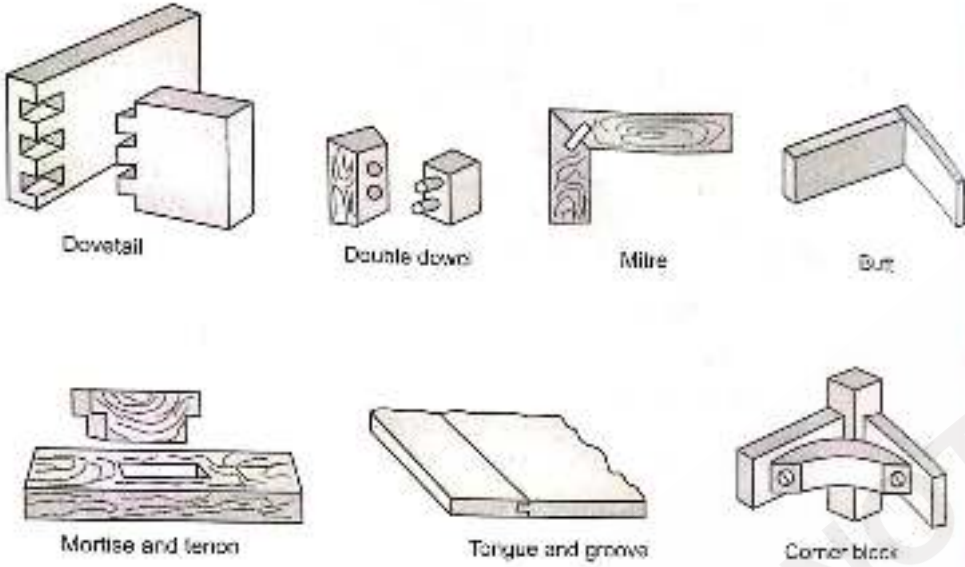


Fig. 10.1 Types of joints



ACCESSORIES

Accessories are elements that bring charm, individuality and vitality to a room. A room without accessories would be uninteresting. They do not only add meaning but they lend personality and individuality to a room. They may be defined as the punctuation marks of decorations.

Accessories are not chosen for their beauty alone but for what they can do to promote the appearance of the room as a unit.

Accessories are said to be punctuation marks in any design and their selection is often a matter of individual choice .accessories are not only add a touch of interest to the décor they also make it more meaningful. They are therefore chosen not for their beauty alone but for wat they can do to promote the appearance of the room. Accessories that are put into a room might often be more expensive than the furniture itself.

In the average hotel guest room accessories are limited to pictures or paintings, lampshades, toss pillows ashtray and the like.

In suite rooms that are more expensive in décor, there is a greater scope for the use of accessories. These may range from decorative candles and planters to bookshelves screens and decorative mirrors. They may also include sculptures, artefacts, and elaborate carvings.

KINDS OF ACCESSORIES

The most personal phase of décor is the choice of accessories.

A . FUNCTIONAL

LAMPS: They should provide adequate lightning where it is needed. Well-chosen lamps and lighting fixtures are extremely important in determining the characteristics of a room because they play a major role in lighting a room. Lamp assumes special importance as accessories.

LAMP SHADES: should be tried out in the room for which they are intended at the same time ensuring that the shade matches the décor of the room.

MIRRORS: mirrors produce a feeling of spaciousness in a room. In some areas such as bed rooms and dressing rooms. Mirrors are essentials. They also extremely useful in most entrance halls.

CLOCKS: must keep time and have faces that are easy to read.

BOOKS: although books in open shelves are among the most interesting and decorative of all accessories. Built in book shelves are preferable as they conform better to the lines of the room.

ASHTRAYS: adds considerably to the décor scheme of the room.

CUSHIONS: a collection of colorful cushions and bolsters often add to the interest only if they blend with the color and textures in the room.

B. NON FUNCTIONAL AND DECORATIVE

PICTURES: pictures give a room life and interest. In luxury hotels an artist is sometimes commissioned to paint a set of paintings. Paintings should be hung on plain background which does not compete for attention. The frame should suit the picture and the style of the room. The texture and color of both frames and materials should also be in harmony with all elements in the room. An original work of art is a joy to have and may increase in value over the years, but if it cannot be afforded, a reproduction is a good buy.

SMALL SCULPTURES: Small figures in stone, wood, metals, ivory (white stone), pottery (anything made from sand or clay) , porcelain or glassware suitable for room decoration, and can be placed in pairs. It must be compact in design.

FLOWER ARRANGEMENT: Plants, leaves, flowers provide effective and economical accessories for any type of decorative scheme, when used with taste and discretion they add a warm livable quality to almost any room.

ACCESSORIES FOR LIVING ROOM

Lamps, cushions, walls, decorating, paintings, ashtrays, boxes for storage of cigar. Sculptures, plants and flowers, books, magazines and collection of every kind.

DINING ROOM

IN display your best china silver or pewter. On a side table or side board, a tea or coffee service, crystal ware and decanters.

BED ROOM

Lamps, mirrors, telephone, a clock waste paper basket, boxes to hold, bed spread can contribute greatly to the character of the room. Family photographs, pictures and flowers.

CONSEDERATION FOR ACCESSORIES

- Good art does not have to be expensive. Primitive and folk art are interesting. To appreciate art frequent visit the exhibition and galleries build up familiarity and an ability to evaluate art.
- Good taste is based on good quality and good workmanship. Follow the old tenet *less is more*.
- Small objects like collections of objects of art or sentimental objects of interest should be arranged in groups rather than in rows.
- In traditional rooms accessories should suit the period décor. In contemporary rooms the accessories should suit the atmosphere aimed for whether formal or informal.
- Try to convey the taste and personality of the owner through his interest like display of books his collections of books, favorite pictures colors etc.
- Picture should be placed either single if they are large, where there is plenty of walls space over a piece of furniture. If they are small arrange them in group according to subject, style of painting, frames or some unifying factors. Keep pictures at eyes level. Try to have the top or bottom line uniform. Never arrange pictures in step except the staircases.

PLACEMENT OF ACCESSORIES

In any room the accessories should be placed judiciously in relation to existing grouping of furniture and they should not disrupt the emphasis already there. The most important accessories in any room should be at the Centre of interest.

Accessories should be arranged in interestingly new ways, articles that are placed together should be made of material that is pleasantly associated e.g. Silver and crystal, jade and teak wood.

1. proportion must be right. A piece of sculpture or a lamp should not dwarf the table it stands on. A picture should not seem insignificant in comparison to the sofa over which it is hung.
2. The textures and shapes of accessories as well as their color should be taken into account and satisfying contrast and harmonies worked out.
3. Line and form of the accessories should confirm to the general design of room.

There are no rigid rules to follow in choosing accessories.

2. Select things that reflect your own tastes and interests.
3. Keep your color scheme in mind.
4. Combine old with the new but make sure they share the same mood-formal, informal simple and classic.