UNIT 1:
INTRODUCTION TO DESIGN

After studying the chapter, you will be able to

- Define Design
- Understand the scope of design
- Understand and appreciate the Elements of Design
- Explain the role of Line in design
- Explain the role and terminology related to colour, colour wheel, colour schemes and colour associations
- Explain the role of and terminology related to Texture in design
- Understand and appreciate the role of similarity, proportion, repetition, balance, rhythm, proximity and emphasis as the fundamental Principles of Design
- Understand the role of the croqui and its use in the apparel industry by designers and fashion illustrators
- Develop basic drawing skills to represent apparel designs on the fashion figures of women, men and children

"One should either be a work of art or wear a work of art."

Oscar Wilde

1.1. DEFINITION OF DESIGN

The root of the word 'design' is disegnare (French) which means 'to create' or 'to mark'. This implies that to design is to conceptualize and plan out in the mind; to devise for a specific function or end. Everything man-made is designed, be it apparel, textiles, products, houses, public spaces and so on. The person, who designs in specialized design areas is the designer who is referred to as a fashion designer (designs clothes) costume designer (designs for performing arts - theatre and movies) textile designer (designs textiles), interior designer (designs private and public spaces), graphic designer (designs different forms of visuals for communication) etc. The New Webster's International Encyclopedia 1998 defines Design as the "purposeful arrangement of the elements in a creative work or process. Broadly speaking, the aim of design is to unify function and aesthetics in a harmonious whole".

Design is also creative problem-solving. The focus of design may be a product, a service, communications and the environment. It is necessary that the design should take aesthetic and ethical considerations, usability and marketing into account. This implies that design is not restricted to creative fields but also in the business and social environment.

1.2. ELEMENTS OF DESIGN

When watching or describing the experience of a fashion show, the appreciation of designs is heightened by the ambience created by stage décor, lighting, music and choreography. Similarly the aesthetics of clothing, textiles, accessories and fashion lifestyle products depends on their constituent components. The individual units called elements of design work together and contribute to the way the designs are perceived and appreciated. These are like basic building blocks where each component is part of the whole working in synchronization with each other.

The Elements of Design are Point, Line, Shape, Texture and Colour.

1.2.1. Point

The understanding of design starts with the point; it is simple yet fundamental to the understanding of a form in the context of space. It can be as tiny as a pin prick, the point of a pencil or a faraway star. In terms of punctuation, a full-stop is a dot which gives meaning and completion to a sentence. In mathematics, a point has no dimension i.e. it has no length, width or volume. On a blank page, a point draws attention not only to itself but also to its position on the page. When there are two points, the eye creates a connection between them in the form of a 'line'. When joined, three points make a shape.

In some art forms, drawings are made using a technique called stippling where a series of dotted lines can represent objects.

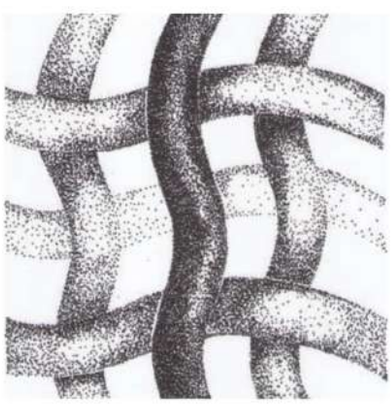


Fig 1.1. Stippling

A group of artists like Georges Seurat applied scientific colour theories using dabs of colour like dots close to each other (rather then blending it) to create paintings with a technique called Pointillism.

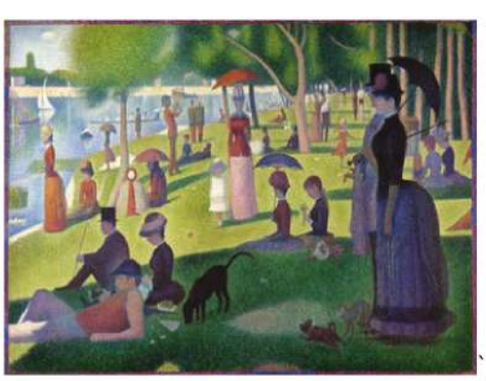


Fig 1.2. A Sunday on La Grande Jatte by Georges Seurat 1884

1.2.2. Line

Line is the most basic of all design elements. The earliest drawings made by children with crayons/ pencils on paper are linear. In children's books or comic books the outlines of pictures are usually even and well-defined in black.

a. b.

Fig 1.3a. Form representation of a flower as a continuous line drawing with pen
Fig 1.3b. Watercolour application for form representation without linear outline

Straight lines are called **linear** and curved lines are called **curvilinear**. Artists often use variation in line quality (thickness and varying pressure) to create visual interest.

Fig 1.4. Varying line quality with charcoal pencil

The cave paintings created by primitive man found at Lascaux, France are linear representations of humans and animals.

Fig 1.5. Cave painting at Lascaux, France c 15,000 – 10,000 BCE

In mathematics a line is the shortest distance between two points. Lines are one-dimensional i.e. they have length and direction but no width. Lines have the ability to represent significantly larger objects and spaces e.g. maps can represent the entire nation or specific geographical areas (states/towns/cities) with roads and other details.

A line can have Formal, Expressive and Symbolic qualities:

I. **Formal qualities** of a line refer to:
i. Type of line
ii. Quality of line
iii. Direction of line

i. **Type of line:** There are two types – Actual and Implied:

An *Actual line* is a line which actually exists in apparel:

- As a print on fabric (visual)
- As seams which join fabric pieces together (technical)
- As vertical/ horizontal/ diagonal pleats or tucks (surface interest)

An *Implied line* is a line that does not actually exist – it is merely an optical illusion. Sometimes while gesturing, we 'draw' a line in the air to explain a point. A series of dots on a paper implies a line because the human eye and mind connects them to 'create' a line. For example, the outline of the human body used in drawing is an implied line since the body actually has no outline.

Fig 1.6a. Vincent Van Gogh. Cypresses 1889. His swirling lines have energy and dynamism indicating the direction and force of wind

Fig 1.6b. Jacket from graduating Design Collection of Namrata Joshipura

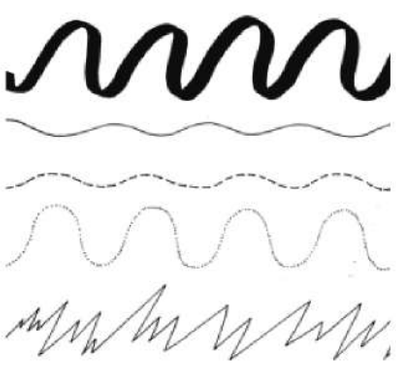


Fig 1.7. Illustrative examples of lines in terms of width (line thickness) and type (unbroken lines are Actual lines while broken/dotted lines are Implied lines)

ii. **Quality of line:** Line quality, which is essential to drawing, is created by the length, width, uniformity of line thickness and direction.

Fig 1.8. Jacket from Antardesi by Manish Tripathi with broad flat band along the collar edge
Fig 1.9. Shirt from Earthen Canvas by Arun Kumar with thin piping along the centre-front

Length is measurable whether it is a long one or 'broken' into smaller parts. Long lines allow the eye to travel smoothly while shorter lines interrupt eye movement and therefore make the garment appear shorter.

Width refers to the thickness or thinness of the line. A single line stitched by a machine on fabric creates a thin line while a flat piping/ band creates a wider line.

Weight refers to the 'visual weight' of the line. A thick, flat, opaque stripe looks visually heavier than a thinner stripe or subtle self-woven stripe on a fabric/ garment.

Uniformity of a line refers to the equal width of the line along the entire length.

iii. **Direction of line** is its movement in a vertical, horizontal or diagonal manner. Moreover the line can be straight (when taking the shortest route to join two points), wavy, zigzag or curvilinear.

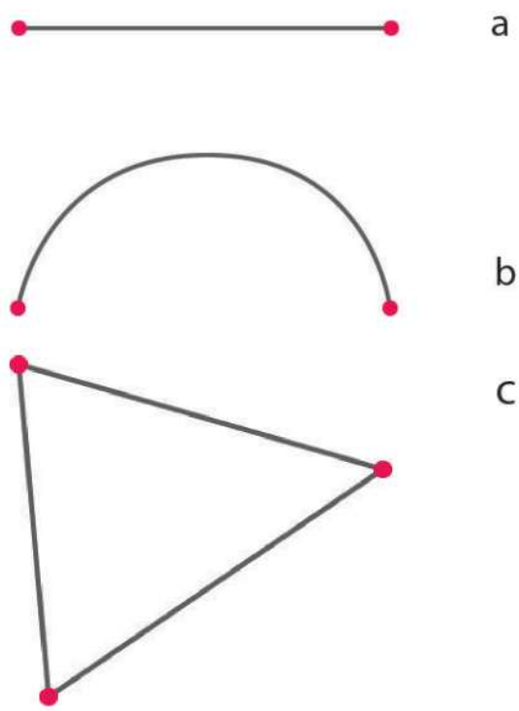


Fig 1.10. Straight line (a), curved line (b) and triangle (c) created by joining dots

II. **Expressive qualities of line** depict movement and energy across a surface. For example a *vertical* line implies steady strength (to be upright). Similarly a *horizontal* line is calm and peaceful. The calm sea seems like a quiet horizontal plane and induces relaxation. A *diagonal* line implies power and vitality. In charts and diagrams, a diagonal line indicates increasing rate of growth.

Movement and energy are aspects indicated by two kinds of lines – static and dynamic:

- A *Static line* is a single, steady, uniform in width and uni-directional. Straight lines whether horizontal or vertical, are static.

- A *Dynamic line* is one that changes direction and width. Both angular and wavy lines are dynamic. In drawings, lightning is depicted as dynamic (zig-zag) line across the sky.

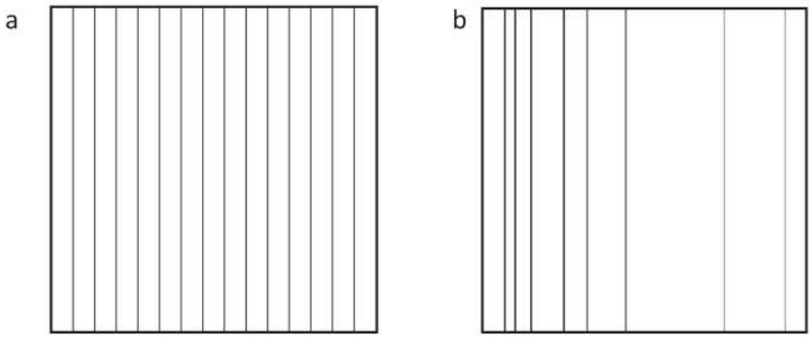


Fig 1.11. Though both lines are vertical, the equidistant lines (a) are more static than the lines with varying widths and spacing (b)

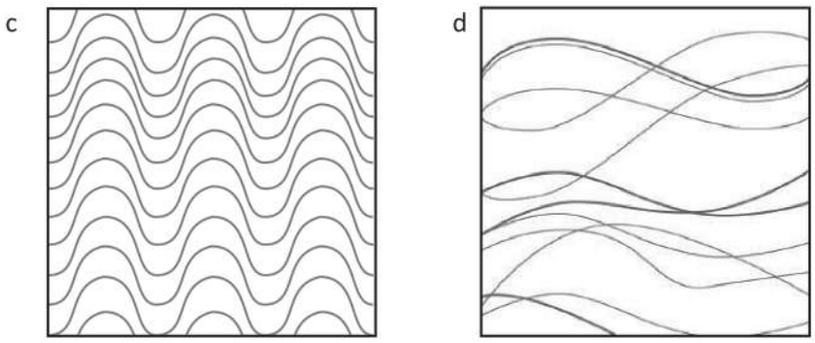


Fig 1.12. Though both lines are curvilinear and dynamic, the equidistant lines (c) induce relaxation while the irregular lines (d) represent turbulence

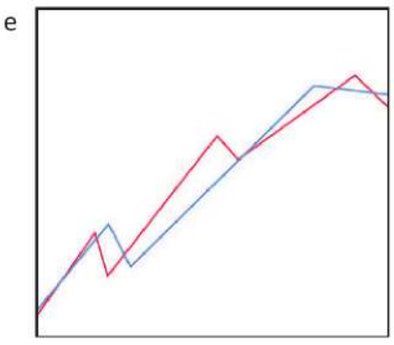


Fig 1.13. Zigzag lines are dynamic and often indicate direction on graph

III. **Symbolic qualities of line** convey meaning without actual depiction of a physical product. For example road signs like Zebra crossings for pedestrian safety have globally recognized meaning.

Lines can be symbols through:

- Representation of a product/ service e.g. vertical and horizontal intersecting red lines of equal length (Red Cross) represents medical aid.
- Alphabets and letters (e.g. language) and pictographs (e.g. ancient Egyptian hieroglyphs) in any written or figurative form convey meaning.
- Calligraphy (hand-lettering) and typography (machine type-set) depict signage on labels, packaging and advertising.

Application of lines on garments

i. **Details:** Lines in apparel are the basis of design whether in the form of a seam joining pattern pieces, by design details, surface embellishment or prints. In terms of garments, details like seams, piping, topstitching, pleats, tucks are linear. Lines are used in creative ways by designers – some use straight seams and pin-tucks to create parallel lines while others use curvilinear lines to create asymmetrical surface interest.

Fig 1.15. Gaurav Gupta at Wills India Fashion week March 2008. The pleats on the dress are draped to create multi-directional linear flow around body contours.

Straight lines bring precision, cleanliness and crispness to structured garments like business suits for men and women. *Curved lines* are energetic and buoyant and are seen extensively in details like curving hemlines on children's garments.

Fig 1.14. Rajesh Pratap Singh shirt with horizontal pintucks

Fig 1.16. Prashant Verma dress at Wills India Fashion Week in Spring Summer 2008. The surface of the dress has sharp precision of straight lines and geometric shapes in black and white. The curved side panel is in colour.

ii. **Optical illusion**: A fabric print can also create optical illusion through the 'division' of the body in different proportions. It can make the wearer look relatively taller or shorter, slimmer or wider, slender or curvaceous to achieve one's ideal body type. Shorter women can look taller and slimmer by wearing clothing with vertical lines. This is achieved by the fact that the eyes travels vertically along the length, making the person seems taller. Broad horizontal stripes tend to make a person look wider.

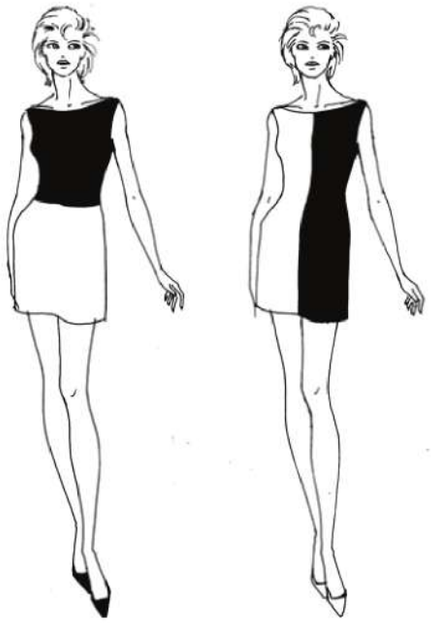


Fig 1.17. The figure on the left appears to be shorter and wider because the length is cut into two sections causing the eye to travel horizontally. In contrast the figure on the right appears to be taller and slimmer because the eye travels vertically

1.2.3. SHAPE

Shapes are forms are created by lines which create closed spaces with length, breadth and depth i.e. they have fixed volume and position in space. Shape is generally based on basic geometric shapes (circle, square, triangle, rectangle, sphere, cylinder, cone and cube) and their variations.

In apparel, the term silhouette is used to describe the garment outline. It is a like a clearly defined and distinct boundary separating the apparel from its surroundings. Fashion history indicates that silhouettes rise and fade out in popularity, recurring through the rhythms of the 'fashion cycle'. Shape or silhouette refers to the outline of the garment without any details. The silhouettes are Hourglass, Tubular, Bell, Wedge, A-line and Cocoon.

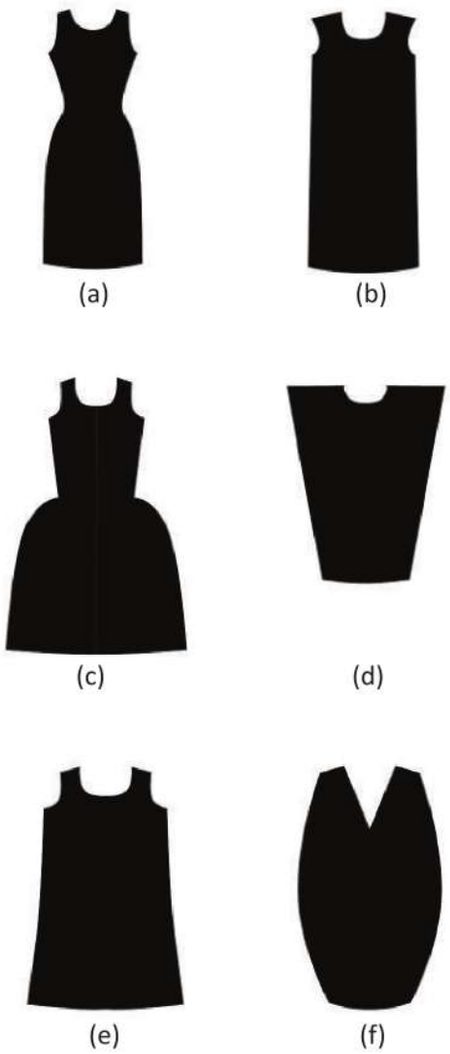


Fig 1.18. Silhouettes - Hourglass (a), Tubular (b), Bell (c), Wedge (d), A-line (e) Cocoon (f)

- An **Hourglass** silhouette is one where the shoulders and hips are almost equal and the waist is narrower.
- A **Tubular** silhouette has a cylindrical shape without emphasis on the shoulders, waist or hips.
- A **Bell** silhouette has a fitted bodice till the waist and flares out with a full skirt.
- A **Wedge** silhouette has a V-shape widest at the shoulder narrowing down to the hem.
- An **A-line** silhouette flares out from the shoulder to the hem without any waist emphasis.
- A **Cocoon** silhouette is narrower at the shoulder and hem widening out around the waist.

Shape as dimensionality

A fashion illustration is two-dimensional but implies that the body is three-dimensional. On the body, a garment actually occupies three-dimensional space i.e. when worn it has length, breadth and volume. Apparel is designed to emphasize or de-emphasize the fullness of the body or select parts of it. This depends on the prevailing concept of the ideal body and the designer's aesthetics. For example the waist may be cinched to emphasize its 'smallness' and thus to create a curvaceous silhouette. Similarly the shoulders may be padded to emphasize width.

Lines demarcate the entire shape of the garment into smaller areas through seams, topstitch, tucks etc. A belt or waist yoke on a dress 'cuts' the body into two almost square pieces. Design details like rectangular panels, round necklines and collars, square pockets, triangular gussets etc. create further shapes.

Textile motifs incorporate shapes which could be represented in different ways:

- **Organic shapes** draw their inspiration from natural forms represented in a Realistic or Stylized manner.
- **Geometric shapes** are those which represent basic forms like circle, rectangle, square and triangle, the combinations of which can create several variations. It is possible for even natural shapes to be represented in a geometric way.

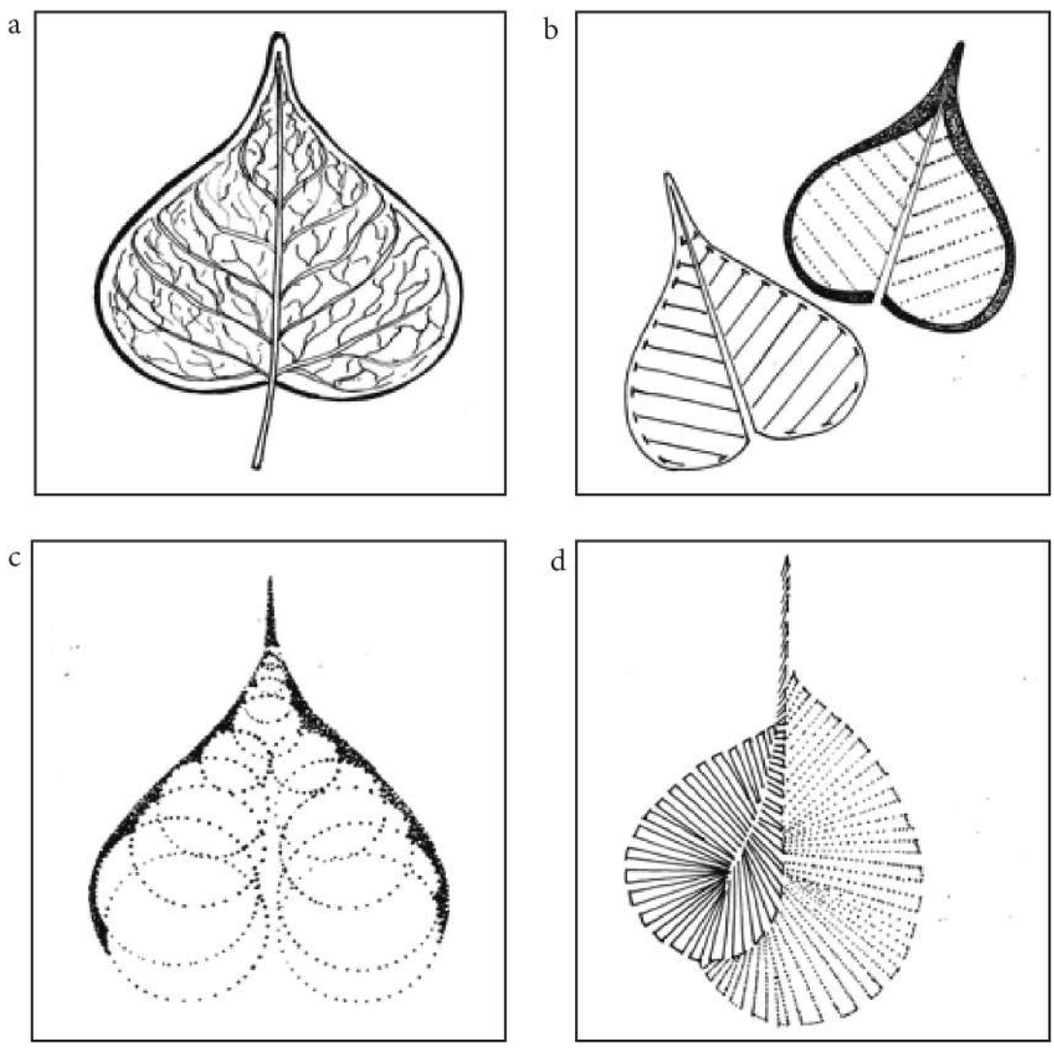


Fig 1.19. Representation of leaf motif – Natural (a); Geometric (b); Abstract (c); Stylized (d)

Shape as Pattern

When shapes are placed at planned intervals it is called **Ordered pattern** e.g. checks or dots. When shapes as prints are placed without a visible order, it is referred as a **Random pattern** e.g. animal print.

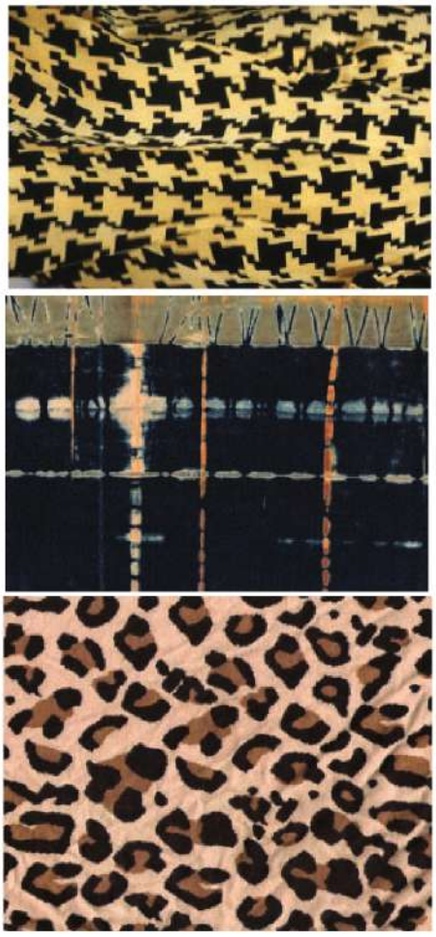


Fig 1.20. Examples of shapes and layouts: Geometric Pattern as Houndstooth checks (a); Tie and dye technique on denim (b); Random pattern as animal print (c)

1.2.4. Texture

The appreciation of apparel designs is also affected by the texture of fabric which contributes to the aesthetic satisfaction of the wearer. For designers and consumers, the physical sense of touch of the fabric against the skin is as important as its visual effect. Some appreciate the smoothness of power loom fabrics like satin while others prefer the feel of hand woven khadi. Fabrics like woolen suiting for menswear have a smooth, firm surface while knitted sweaters have a soft, pliable 'hand feel'.

Textures can be either actual or implied:
Implied texture: Implied texture also called 'visual texture' contributes to the way the eye 'perceives' the fabric surface whether flat or three-dimensional. In other words visual texture is 'seen' to have a tactile quality but not physically felt through touch. When we cannot touch the fabric, our eyes act as substitutes for the skin, thereby 'assuming' the texture. This is why shoppers touch the fabric before buying either for curiosity, pleasure or to avoid disillusion after purchase.

Fig 1.21. Visual texture. Multi-media on paper

Actual texture: Actual texture also called 'tactile texture' refers to the sense of texture on the material on being touched. In other words the fingers, hand, skin have the sensation of the texture e.g. the smoothness of satin, the stiffness of denim or the tickle of wool. To dissuade viewers from instinctively touching objects or clothing artifacts in museums, there are 'Do Not Disturb' signs.

Texture describe the uniformity or variation on the fabric surface. This could be because of the following factors:

- Fibre type – The fibre length (long or short), pliability (smooth or stiff), diameter (determining thickness or thinness) affect the texture
- Yarn structure – Knitting yarn can be smooth or 'slubbed' (e.g. boucle yarn)
- Fabric structure – This could be due to the weave e.g. smooth (plain weave of silk) or rough (twill weave of drill/denim). Even soft knitting yarns can be thin or thick according to the structure.
- Surface finishes – Through a variety of manual, chemical or mechanical finishes, a variety of finishes are created. Denims can be treated with enzyme wash, stone wash or acid washes. Enzyme-wash, stone-wash, acid-wash are seen on denims. Cotton can be mercerized or calendared.
- Surface design – These can be manual techniques

like fabric painting, fabric crinkling, running stitch lines or mechanized techniques like Flocking (e.g. Devore fabric) or Embossing.

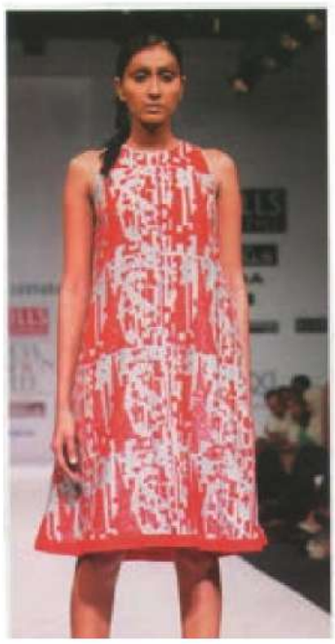


Fig 1.22. Varun Sardana at Wills India Fashion week in Spring Summer 2008 has an abstract all-over surface texture

1.2.5. Colour

Fig 1.23. Mona Lisa by Leonardo da Vinci Sfumato technique used by the artist creates a subtle, gradual transition of tone from light to dark so that the eye does not detect any boundaries in the colour values.

The human eye can see only limited light waves excluding infrared, ultraviolet and x-rays. The visible spectrum of light is refracted into a range of colours from red, orange, yellow, green, blue indigo and violet as seen when white light passes through a prism.

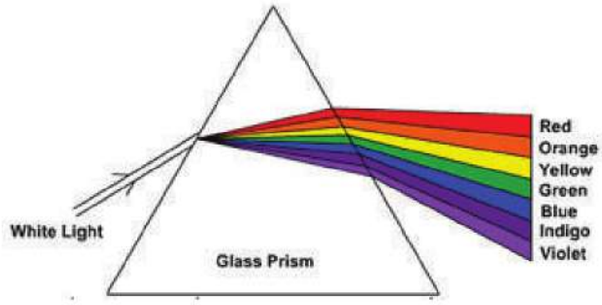


Fig 1.24. Colour refracted through a prism

Colour is integral to the perception and appreciation of apparel and the surroundings in which it is placed. Colour is the first element that initially attracts the customers to the garment/product. It is important to note that lighting plays a very important for colour is 'seen' properly within a store. The purchase made by a customer also depends on his/her self-perception in terms of complexion, colour of the apparel and the surrounding environment.

Since there are multiple tonal degrees of each colour, it is difficult to accurately describe each one. For the reference of design and manufacturing professionals in the apparel industry, international standardization of colour is achieved through colour systems. The Pantone Colour System is widely used in the fashion and textile industry for easy global referencing. Professionals like personal wardrobe advisors and stylists help their clients to make suitable choices in terms of design and colour of clothes to complement their skin tone.

Fig 1.25. Colour Fan

Colour Forecasting in apparel, home furnishings and even wall paint industry is undertaken by colour

forecast associations to predict colour trends for the next season/year e.g. Colour Marketing Group and Colour Association of United States (CAUS).

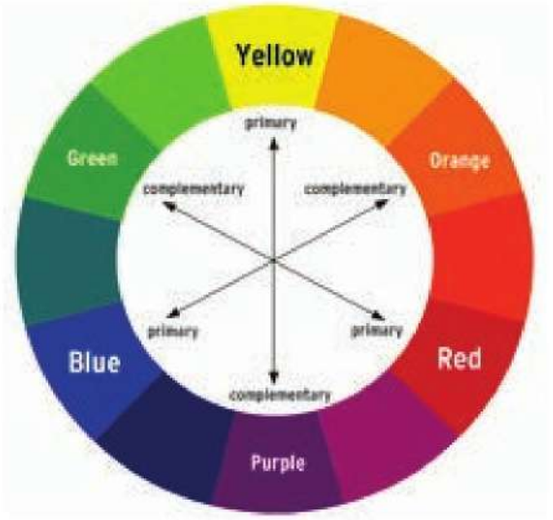


Fig 1.26. Colour Wheel

Primary	Secondary	Tertiary
Yellow	Green	Yellow-green Blue-green
Blue	Purple	Blue-purple Red-purple
Red	Orange	Red-orange Yellow-orange
Primary + Primary = Secondary colour Primary + secondary =Tertiary colour		

On the Colour wheel, colours are divided into Warm and Cool colours:

- **Warm colours** range from red-violet, red, red-orange, orange, orange-yellow to yellow.
- **Cool colours** range from violet, blue-violet, blue, blue-green, green to yellow-green.

Colour has Formal, Expressive and Symbolic qualities:

Formal qualities of colour are Hue, Value and Intensity:

i. **Hue** – Hue refers to the name of a colour on the colour wheel and is based on the pure pigment colours e.g. red, blue, yellow, green, purple, blue-green etc. Colours like apple-red, lemon, aqua etc. are colour names, not hues since they are not precise specifications of colour.

ii. **Value**–Value is the lightness or darkness of a colour in relation to white and black. The value of any colour can be increased by progressively mixing it with white until it becomes undistinguishable from white. Similarly the value of any colour can be decreased by progressively mixing it with black until it becomes undistinguishable from black.

iii. **Intensity** - Intensity is the brightness or saturation of a colour. It can be lowered in two ways:
   - By mixing the hue with its complement hue on the colour wheel e.g. blue and orange.
   - By mixing the hue with grey
   - By mixing the hue with neutral hues of black and white.

A hue mixed with white increases in value and is called a **Tint** of that colour.
A hue mixed with grey decreases in value and is called a **Tone** of that colour.
A hue mixed with black decrease in value and is called a **Shade** of that colour. For example the progressive addition of white to Cobalt Blue results in a tint of blue with increasing value and decreasing intensity.

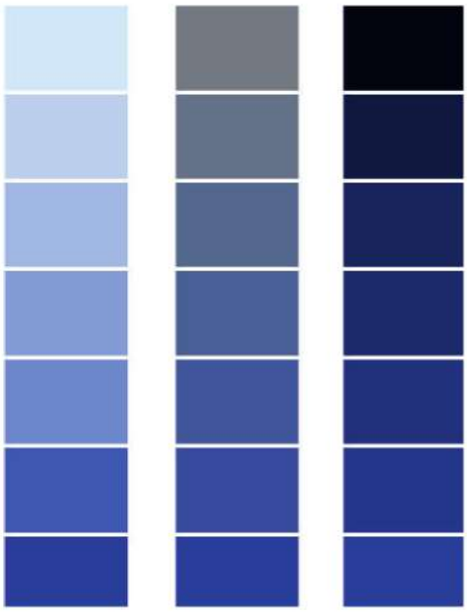


Fig 1.27. Left to Right Tint, Tone, Shades of Blue hue

However it must be remembered that mixing of pure hues in varying proportions can create many tones of the same colour e.g. mixing of blue and yellow in different proportions can create several tones of green ranging from greenish-blue to greenish-yellow.

The other essential colour schemes based on the colour wheel are:

1. **Achromatic colour** scheme does not have any colours. It includes tints and shades of greys on an incremental scale with white on one end of the scale and black on the other.

Fig 1. 28: Achromatic colour scheme

Fig 1.29. Abhishek Gupta and Nandita Basu poncho in Wills India Fashion Week 2008 uses Achromatic colour scheme

2. **Monochromatic colour**s include tints and shades of the same hue.

Fig 1.30. Monochromatic colour scheme

3. **Complementary colours** are those which are directly opposite each other on the colour wheel namely red-green, blue-orange and yellow-purple.

Fig 1.31. Blouse by Pankaj and Nidhi at Wills India Fashion Week show Spring-Summer 2012 in tints of Complementary colours

4. **Analogous colours** are a group of colours which are next to each other on the colour wheel e.g. red-violet, red and red- orange.

Fig 1.32. Rajesh Pratap Singh dress at Wills India Fashion Week 2010 in Analogous colour scheme

5. **Triad colours** refer to three colours placed equidistant from each other on the colour wheel e.g. red-blue-yellow or violet-orange-green.

6. In clothing, **neutral colours** like tints, tones and shades of brown (e.g. beige, tan, sand, camel brown etc.) and grey (e.g. ash grey, storm grey, stone grey etc.) do not draw attention to themselves and are very popular in each fashion season.

Expressive qualities of colour include physiological and psychological aspects:

i. *Physiological response* to colour affects blood pressure, heart rate and even rate of activity of the brain. This is as applicable to interiors as to fashion products/apparel because of the way the brain perceives the value, hue and intensity of warm and cool colours. Cool colours like blue and green lower blood pressure and have a calming effect while a warm colour like red accelerates heart rate and respiration.

ii. *Psychological response* to colour affects emotions of pleasure, excitement, calmness etc. There are differences in the association of pure hues and tint/ shade of the same e.g. Red (pure hue) is associated with the heart and blood stimulating emotions as diverse as passion and excitement/ anger/ pain/ danger. Pink (tint of red) is associated with femininity and romance. Carmine (shade of red) is often associated with aristocracy.

Symbolic qualities

Colour symbolism develops from culture and social convention. Often infant girls are seen dressed in pink, while young boys are clothed in blue. Western brides wear white while most Indian brides wear red. The Western convention is to wear black during mourning, while in India white is worn during occasions of bereavement. Colour symbolism is used by manufacturers to create mental associations e.g. skin foundation make-up with a name like 'warm peach' conjures association with the colour of the fruit and also the complexion of the customer.

A few examples of colour psychology related to clothing are given:

- Blue is quiet and induces a sense of relaxation. Often swimming pools are tiled in blue. Navy blue is a versatile colour seen in uniforms (e.g. schools, navy), office wear as well as casualwear. Denim jeans in tones of blue ranging from light blue to dark blue are always in demand.
- Green is relaxing and is associated with nature. Hospitals interiors and wellness centres /spas are often in green. Different values of green from leaf green, mint to dark green express interest in nature. Camouflage prints in moss green, olive and khaki are seen in uniforms of army and other security forces.
- Purple is associated with wealth and royalty. It is particularly popular for formal, festive or glamour occasions.
- Yellow is a bright, cheerful colour that lifts the spirit. Due to its high visibility, it is often seen in rainwear or on the roads by those engaged in road repair or traffic control. In fashion the popularity of yellow is affected by the fact that it does not flatter all skin tones. The versatility and popularity of yellow is also dependent on its value e.g. lemon yellow is more acceptable for both men and women than canary yellow. In India, mango yellow is a popular festive colour.
- Orange is often associated with youth and energy. Ranging from peach (tint of orange) to tangerine (orange mixed with red), orange is often used in active wear.

Colour symbolism in language

Sometimes we use colour references to describe emotions. A few examples ate given below:

Only one who of **blue** blood may ascend the throne
When provoked, she saw **red**.
She was **green** with envy.
He was too **yellow** to stand up to the bully.
She told him a **white** lie.

Exercise 1.1

Fill in the blanks

1. The root of the word 'design' means _____.
2. _____is a technique where a series of dots collectively represent objects.
3. The 19th century painting technique using dabs of colour close to each other instead of blending them was called _____.
4. Straight lines are called linear and curved/ undulating lines are called _____.
5. A line that does not actually exist as an object outline is called an _____ line.
6. _____ is a word used to describe a garment outline.
7. Prints placed without a visible order is referred as a _____ pattern.
8. The two kinds of texture on fabric are Actual and _____.
9. Actual texture also called _____ texture.
10. _____ refers to the name of a colour on the colour wheel and is based on the pure pigment colours.
11. When mixed with white a colour_____ in value.
12. _____ colour scheme include tints and shades of the same hue.

Match the following in terms of colour associations

Red	Energy
Yellow	Optimism
Orange	Passion
Blue	Versatility
Green	Royalty
Purple	Relaxation

Activity

Line has expressive qualities. Imagine how the following emotions can be expressed through lines:

- Happiness
- Sadness
- Ambition
- Chaos

1.3. PRINCIPLES OF DESIGN

A garment is made up of design details referred to as units. A single unit can be adequate to create a design while other designs may use multiples of units. In apparel, units may be collars, pockets, belts etc. The design of apparel is successful when it is appeals to the aesthetics of customers and results in business. In the constant search for novelty, designers introduce new arrangements and combinations of various units of the garment which are visually pleasing. These are planned to be in harmony with each other and provide a balance between extremes of simplicity and complexity. If it is too simple or too complex, there is a risk of rejection by consumers. In apparel design, the Principles of Design are Similarity, Proportion, Repetition, Balance, Rhythm, Proximity and Emphasis.

1.3.1. Similarity

Similarity refers to the clusters of units grouped together because of their visual cohesion. It is this clustering that makes us perceive groups rather than scattered units. Attributes like colour, shape, size or texture seem to create relationships between units thereby grouping them. Dissimilar qualities tend to create segregation. In other words, opposites repel and similarity attracts.

In a fashion show, designers create ensembles which look like they 'belong' together in a group in terms of colour palette, silhouette, fabric or texture as an integrated trend for the next season.

Fig 1.33. Alpana Neeraj for Spring Summer 2013

1.3.2. Proportion

This refers to the relative scale and size of prints or details of an ensemble comprising different items of clothing. These separate elements are considered to be proportionate when they are similar in size. Too much of variation in length or width of a garment may lead to a disproportionate look. Equal or balanced proportions please the eye.

The *'Golden Ratio'* propounded by classical artists refers to the ideal proportions which are visually the most pleasing. In terms of garments, an example is that of a line (seam) placed in a way that it is divided into 2 parts; one part is two segments out of five and the other is three segments out of five. Incorrect proportions can cause the body to look shorter or wider than desired.

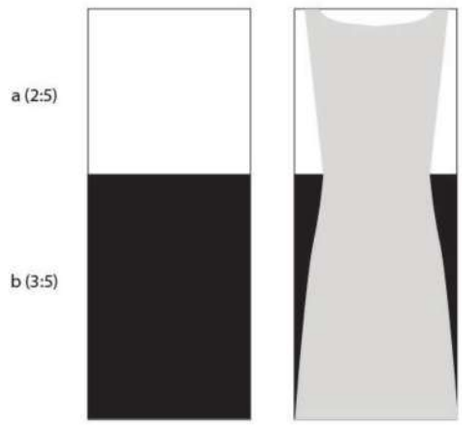


Fig 1.34. Example of the 'Golden ratio' proportional relationship

In apparel design, proportion could be in terms of two aspects:

i. Unit size: The size of the unit (ie. collar, pocket, belt, button etc) must be considered according to the total 'space' of the garment (ie. silhouette and shape) e.g. a voluminous overcoat requires proportionately large collar and pockets. Children's dresses often have small Peter Pan collars.
ii. Print size: Similarly, prints should be in proportion to the garment size. On plus-size garments, large prints heighten awareness of the body shape and size. Small prints look more proportionate on children.

1.3.3. Repetition

This refers to the multiple placement of a single unit/ motif in close proximity. On textiles, the placement of a unit with one or more elements in a planned, repetitive manner to fill the entire surface is called a 'repeat'. The repetitive arrangement of units can be directional (simple) or multi-directional (complex). In an all-over pattern, the units which are similar in size or colour are distributed all over the surface of the fabric. The print repeat could be all-over or in vertical/ horizontal/ diagonal rows. These are often found in textiles because of their versatility and economic optimization while cutting.

Fig 1.35. All-over hand printed fabric

1.3.4. Balance

Balance refers to the way the 'weight' is distributed in order to make the body seem stable. The vertical axis at the centre front of the body and the horizontal axis are perceived most clearly at the bust, waist and hips, as well as balance the 'weight' (i.e. details/ panels) of units. It is not necessary for a garment to be symmetrical on the left and right sides. If one side has a visually heavier detail, it can be balanced by other smaller units. Balance can be achieved by symmetry, asymmetry, radial balance and all-over pattern.

i. Symmetrical balance

When units are placed equally on both side of the axis line they are symmetrically balanced i.e. both sides mirror each other. Most basic and classic styles of apparel like jeans, shirts, jackets are symmetrical i.e. left and right sides are identical.

ii. Asymmetrical balance

When units, though dissimilar, have equal visual weight, the balance is said to be asymmetrical. This may be achieved in two ways:

a. *Balance with elements like shape, colour or texture:* A large simple shape may be balanced by a cluster of smaller intricate shapes. Similarly a large expanse of a dark or neutral colour may be balanced by a cluster of brighter colours.

b. *Balance with the cut of the garment:* Wrap skirts/sarongs with off-centre openings, off-one-shoulder tops or evening gowns with asymmetrical details are technically very intricate and command more visual attention by drawing the eye to the asymmetry.

iii. Radial balance

This refers to the arrangement of circles radiating out from a central core. So the weight of the unit is equally distributed in a circular manner. Similarly a dot at the centre could have radiating concentric circles of increasing size. It has greater complexity than simple symmetrical balance.

Fig 1.36. Manish Arora shirt with radial print

iv. All-over pattern

The placement of an all-over print or embellishment on an item of clothing makes the surface look evenly balanced.

Fig 1.37. Dress with all-over print by Ashima Leena 2008

1.3.5. Rhythm

Rhythm is in man and nature – in the process of breathing, ebb and flow of tides, waning and waxing of the moon. Rhythm is found in knitting (knit and purl) and weaving techniques of fabrics or baskets.

The movement of the eye is smooth when it 'sees' repeating units in a specific manner or pattern. In apparel, the regularity of repetition of lines, colours, shapes and textures on the surface are called rhythm. For example the repetitive use of tucks or pleats (lines), buttons (dots), circle, squares or rectangles (shapes) etc create visual rhythm. More the number of units, more are the complexity, which increases the challenge for a designer to hold the viewer's interest without becoming too chaotic.

Pace in rhythm refers to the *number* of units and the space between them. For example thin stripes with less space between them give the impression of 'high pace' i.e. faster speed as compared to thicker stripes with more space between them which visually have a 'slower pace'.

Pattern refers to the *sequence* of units which may be of two kinds – alternative and progressive.

- *Alternative units* have similar units of occurrence i.e. they vary in regular, predictable sequence. Lines or rows may vary alternately in terms of colour or print. This means that a unit (e.g. textile) will be repeated until the entire surface is filled.

- *Progressive units* are also about repetition but there is a change in the size of units. It is possible for colours or textures to change gradually, creating rhythmic patterns. For example a gradual change in colour may progress/ increase to intense colors. In case of stripes, the spacing may increase or decrease progressively. Generally progressive rhythms are more complex than alternate rhythms.

Fig 1.38. Ombre-dyed dress by Drashta Sarvaiya 2008

1.3.6. Proximity

This refers to the grouping of units in terms of their closeness and similarity within a specific 'space' (garment, ramp). When different units are close to each other the human eye tends to group them thereby creating visual togetherness and order. This is particularly evident in floral designs. Since too much similarity can cause monotony, dissimilar shapes or textures are used to add interest.

1.3.7. Emphasis

Emphasis draws attention to the focal point of a design. A design without a 'key' detail becomes weak. A good design is one where the viewer's attention is directed to one focal point while all other details are secondary since two or more equally important points of interest would compete with each other. Emphasis is achieved through the use of colour, shape, surface or texture. It may be a single element or a cluster where one element is predominant creating a focal point of visual interest. Accentuating a unit can be subtle (e.g. logo) or exaggerated (e.g. a large 3D flower motif) on an outfit.

Fig 1.40. Shirt with piping detail from Earthen Canvas by Arun Kumar has subtle emphasis

Fig 1.39. Manish Arora Spring Summer 2012 show. Proximity in terms of visual continuity among ensembles and also between designs and graffiti-background.

Emphasis through Contrast

Contrast can be in terms of colour, size, shape, print etc. A dark colour can be contrasted with a lighter colour. A large basic shape can be balanced by a cluster of smaller, complex shapes.

Fig 1.41. Emphasis through Contrast

Emphasis through Isolation

Isolation is the opposite of proximity. It is created when a detail is placed at a distance from other units making it the centre of attention. A small logo or motif on a T-shirt or bag without any other detail draws attention to itself through its isolated position.

Emphasis through Placement

Placement of a unit emphasizes its qualities. For example if a bow-tie is placed around the neck, it will draw attention to the upper half of the body i.e. face, neck and upper torso. A belt will emphasize the horizontal line of the waist at the centre of the body

Fig 1.42. Emphasis through Placement

The development of design aesthetics and skills takes training and time. A well-conceptualized theme is interpreted through fabrics, patterns, surface designs, trimmings etc. in a balanced manner. Initially design students need guidance and feedback on their creations as well as objective analysis of designs where all elements and principles work in harmony with each other.

Exercise 1.2

Fill in the blanks:

1. The Principles of Design are Similarity, Proportion, Repetition, Balance, _____, Proximity and Emphasis.

2. Similarity refers to the clusters of units grouped together because of their visual _____ while dissimilar qualities tend to create _____.

3. The _____ propounded by classical artists refers to the ideal proportions which are visually the most pleasing.

4. In apparel design, proportion could be in terms of two aspects – unit size and _____ size.

5. The multiple placement of a single unit/motif in close proximity is called _____.

6. _____ refers to the way the 'weight' is distributed in order to make the body seem stable.

7. Symmetrical, asymmetrical and radial are kinds of _____.

8. _____ refers to the sequence and regularity of repetition of lines, colours, shapes and textures of units.

9. The grouping of units in terms of their closeness and similarity on the garment is called _____.

10. Contrast, isolation and placement are ways of showing _____.

1.4. Illustrating Apparel on Fashion Figure

The ability to draw the human body of women, men and children is often considered to be fundamental to the profession of a fashion designer. However more often than not, the ability to design is considered to be synonymous with the ability to draw. Generally students of fashion design like to draw figures to showcase their designs. In this context, it is important to understand the role of the fashion figure and why it is used by designers and fashion illustrators.

Clothes are designed according to gender (men, women), age (infant to adult) and occasion (Formalwear, casualwear, active sportswear, sleepwear, innerwear, holiday and resort wear). The diversity in a wide range of body types needs to be taken into account when designing clothes since body proportions are related to size and fit of clothes. Moreover there is a large variety of categories of clothing illustrated in Chapter IV.

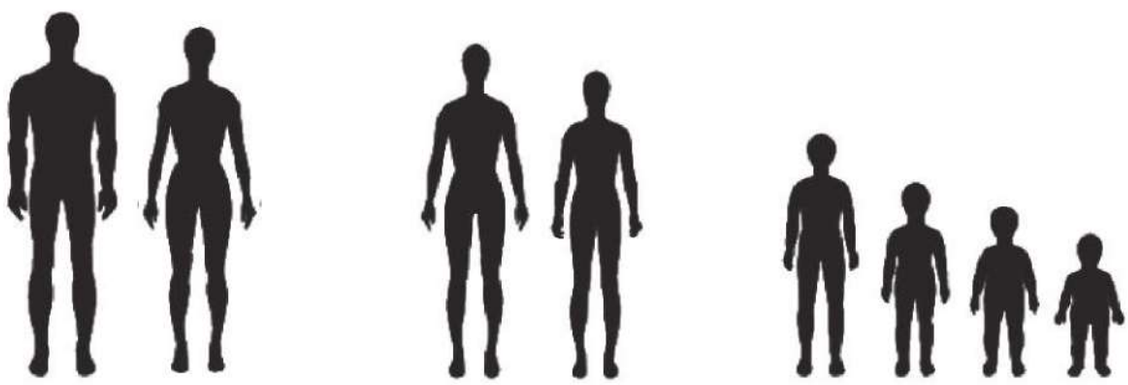


Fig 1.43. Silhouettes of body types (men, women and children)

The concept of the ideal body changes from time to time – sometimes it is more curvaceous and at other times it is lean. Fashion is about change and therefore the mode of presenting it changes also. Though photography is also a way to style and present fashion, its limitation is that the clothes must physically exist before they can be photographed. With fashion illustration however, the advantage is that design concepts can be presented on paper to represent the designer's vision incorporating elements and principles of design.

Each design has a 'mood' which requires to be modeled in a way to enhance the special features. In most cases, the designer uses specific poses to conceptualize and illustrate the design. Generally a ramp model is taller than average and has a slender, toned body. Her height helps to showcase the design to its advantage, either on the runway or for illustration purposes. The mannequin used for display of clothes also has the same proportions as the idealized body.

In terms of womens wear, an illustration of a fashion model is called croqui (French). It is a stylized way of representing idealized body proportions.

For those who are interested in drawing, references can be drawn from fashion illustration books or from life drawing of models as professionals do. As seen in the figure below, the 'mood' and styling of the design in the photograph has been used as inspiration to develop the illustration. With adequate practice, this will take less time and can be done with ease.

Fig 1.44. Sources of reference for illustration practice - Photographs (a) 12" mannequin and Dress form (b)

1.4.1. The Block figure

A simple way to begin to understand proportions and movement is with the Block figure. The body is represented as geometric blocks, which helps us to see it in terms of basic shapes. The head is oval, shoulder is triangular, torso blocks are variations of trapezium, arms and legs are cylindrical. The ball joints are placed where the body can turn, twist, bend or swivel i.e. armhole, elbows, waist, leg-hip point, knees, wrist and ankles. Notice how the arms can move from the same point.

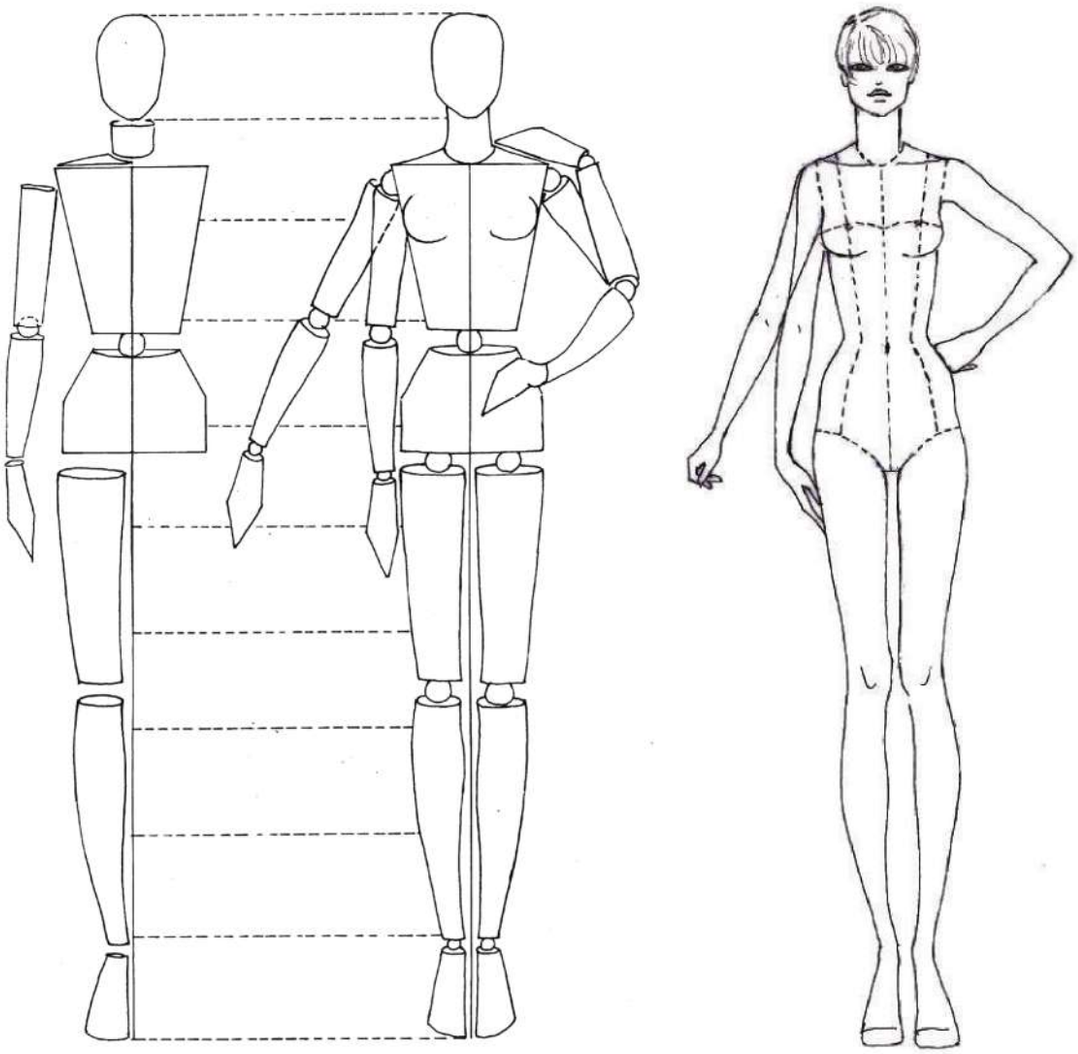


Fig 1.45. The Block figure

1.4.2. Relative proportions of normal and fashion figures

The fashion, the height of the croqui is measured in terms of 'heads' i.e. how many times would the length of the head be repeated to determine the height.

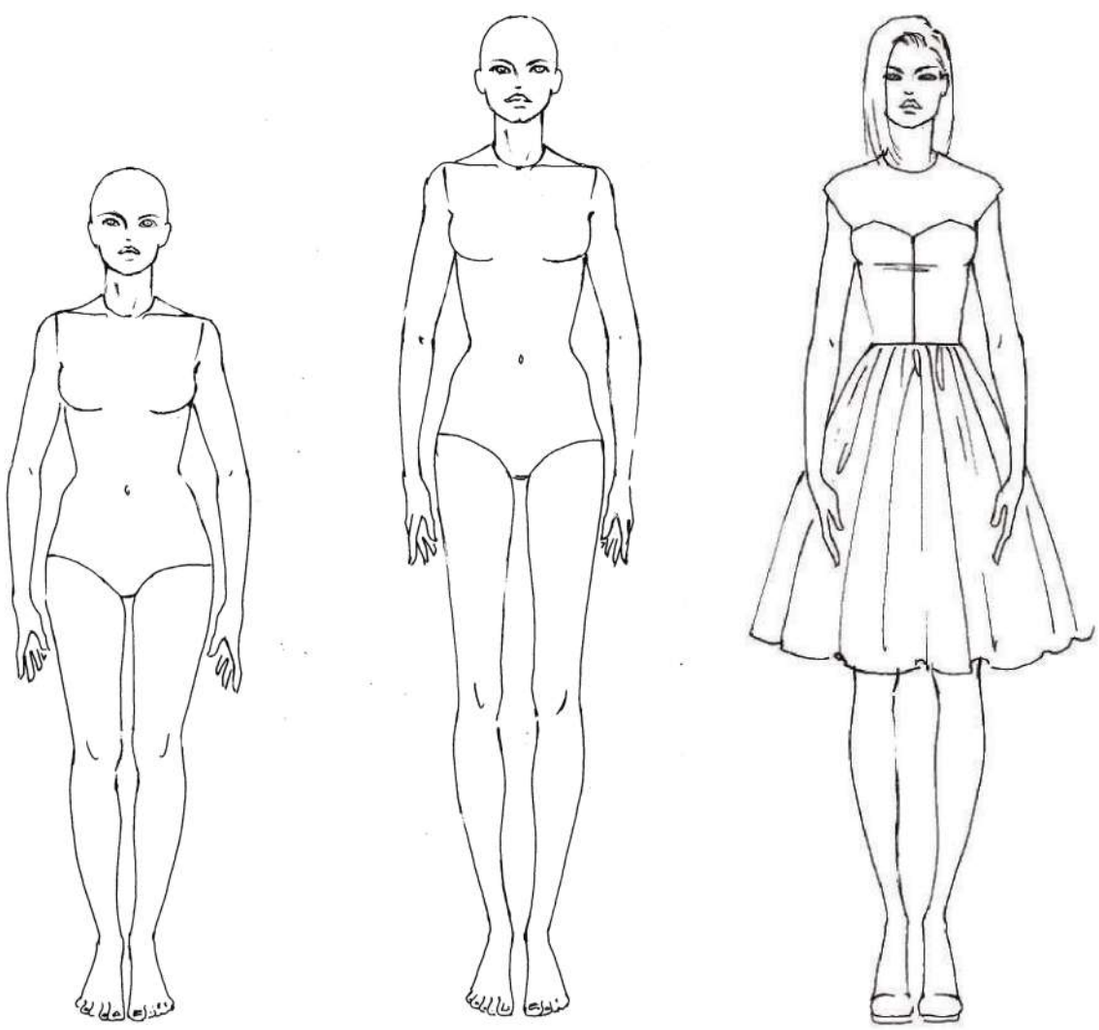
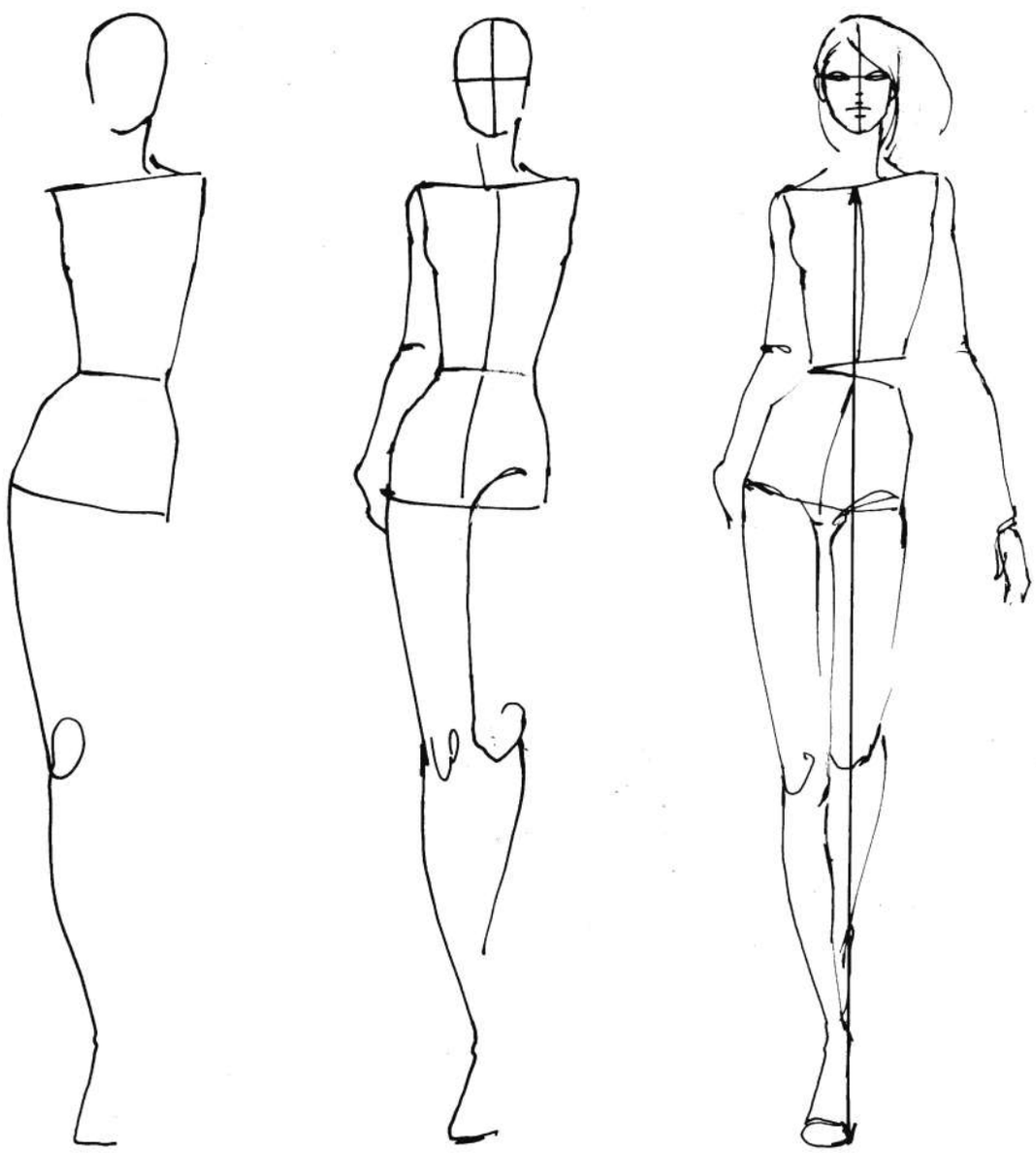


Fig 1.46. The normal body is about 8 heads tall. The fashion croqui could be 'stretched' to 9-10 heads which makes her look slimmer

1.4.3. Steps to develop a pose: from line drawing to the croqui



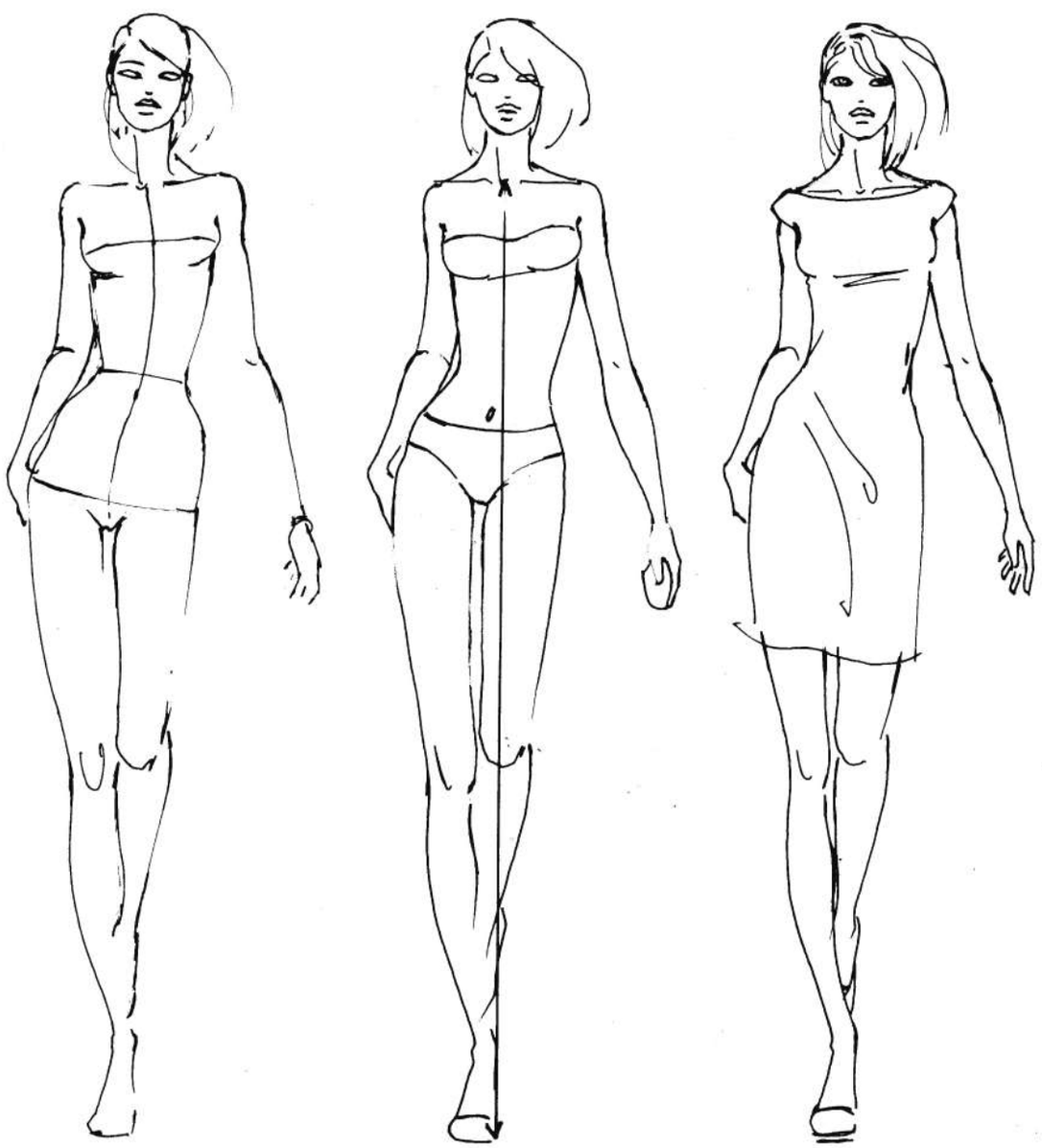


Fig 1.47. Drawing a pose in stages

1.4.4. Determining postures

It is interesting to draw croquis because it is possible to make them stand straight, to twist and turn the body and head; to indicate different hairstyles' to accessorize them etc. An illustrator would tend to focus on the illustration itself – the pose, attitude of the croqui and not as much on the garment. However, for a designer the design details of the garment like silhouette, cut, colour, texture etc. are most important.

The focus of a fashion illustration is to draw attention to the design which in turn, implies that even in a black and white line drawing, the key details must be highlighted. Therefore the posture of the croqui must be pre-determined in a manner that the design and illustration are synchronized.

The most basic postures are I, X, T and S as shown below.

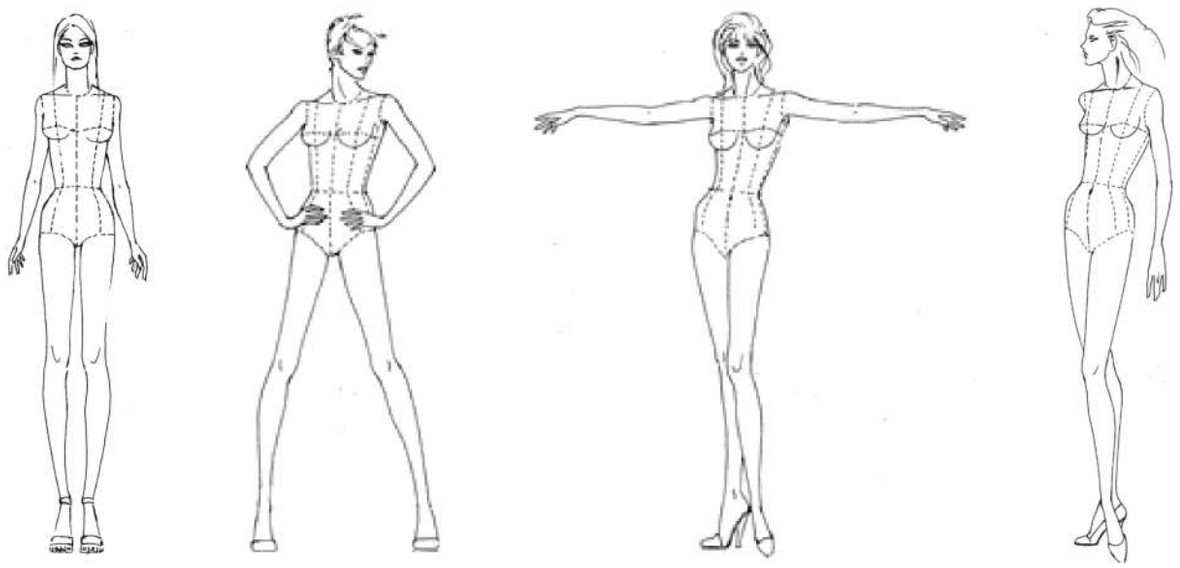


Fig 1.48a. Basic postures

The determination of postures should be related to the garment details:

i. The I - posture is best suited for garments where the silhouette is clean and straight as in Tubular (Sheath) and Tent shaped dresses and the focus is on the design details and fabric qualities.

ii. The X - posture lends itself best to bifurcated garments (trousers, jumpsuits etc.) and for garments with interesting details at the sides (on sleeves, underarm gussets, side seam panels etc.)

iii. The T- posture is used when the stretch of the arms can create the space needed for Wedge shaped garments to emphasize details on the upper body like width of the shoulders and volume of sleeves.

iv. The S- posture is best for body-hugging silhouettes like the Hourglass, A-line and Cocoon.

Some more templates of croquis with style-lines are provided for reference and practice.

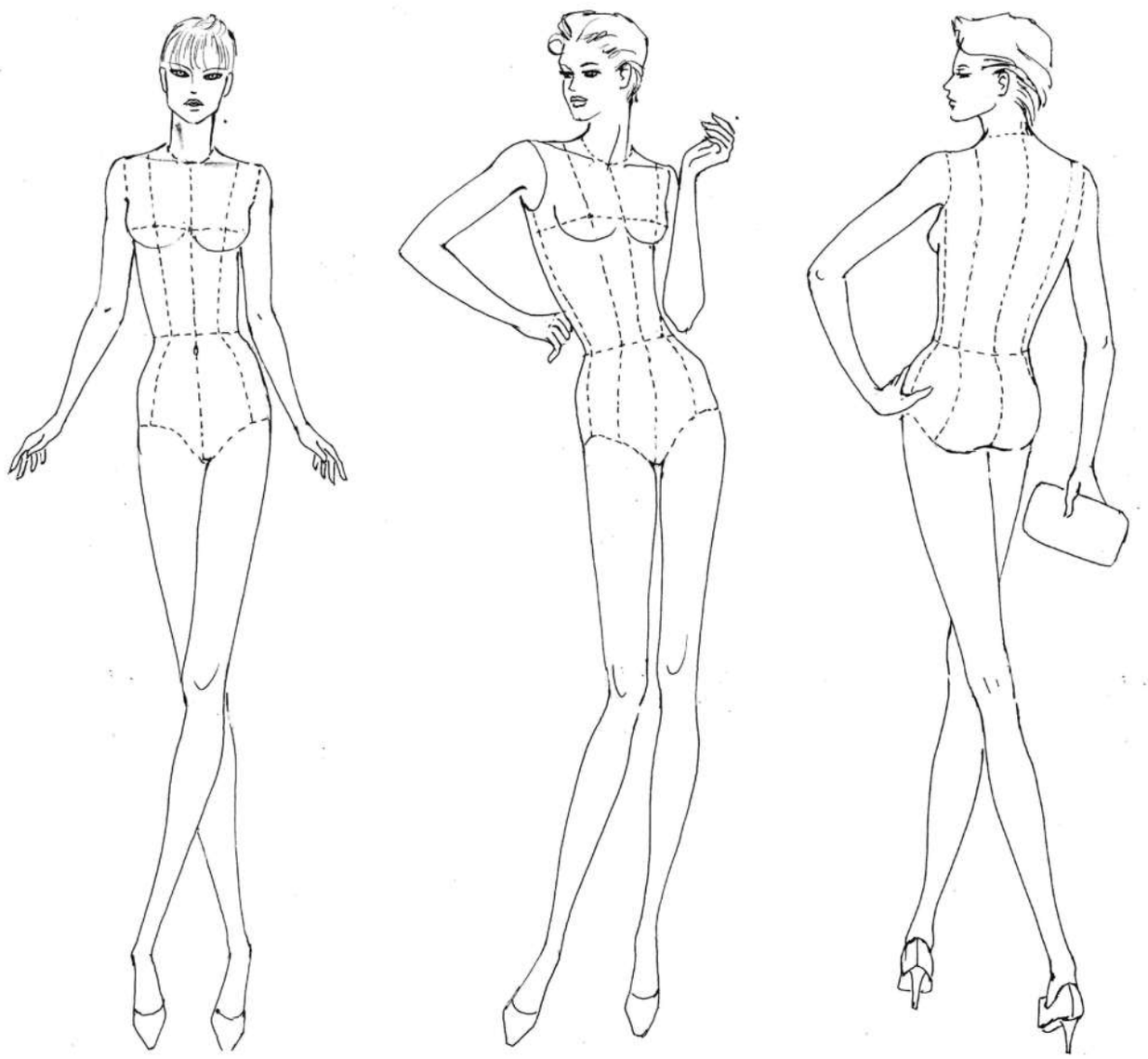


Fig 1.49. Croqui templates

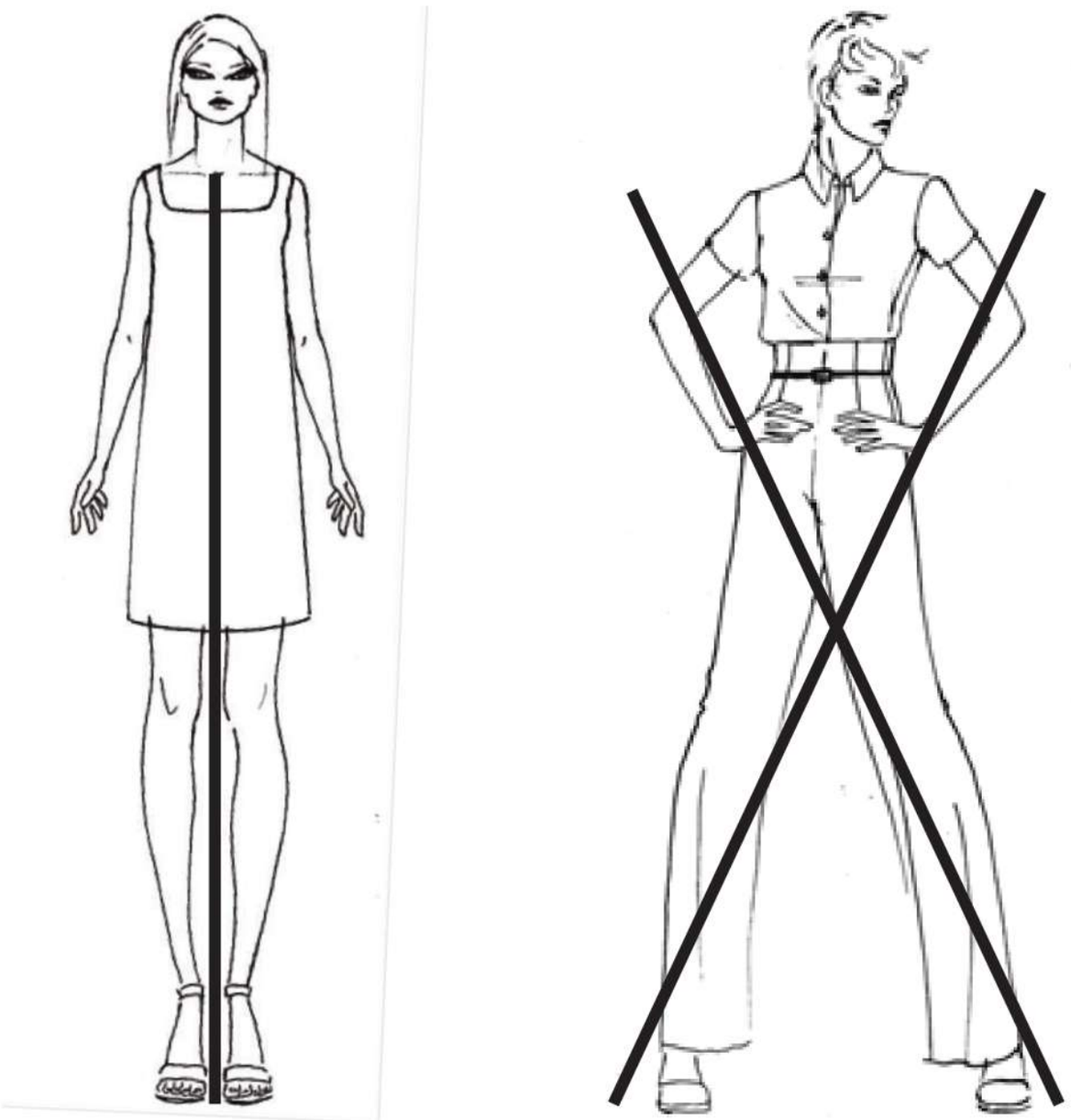
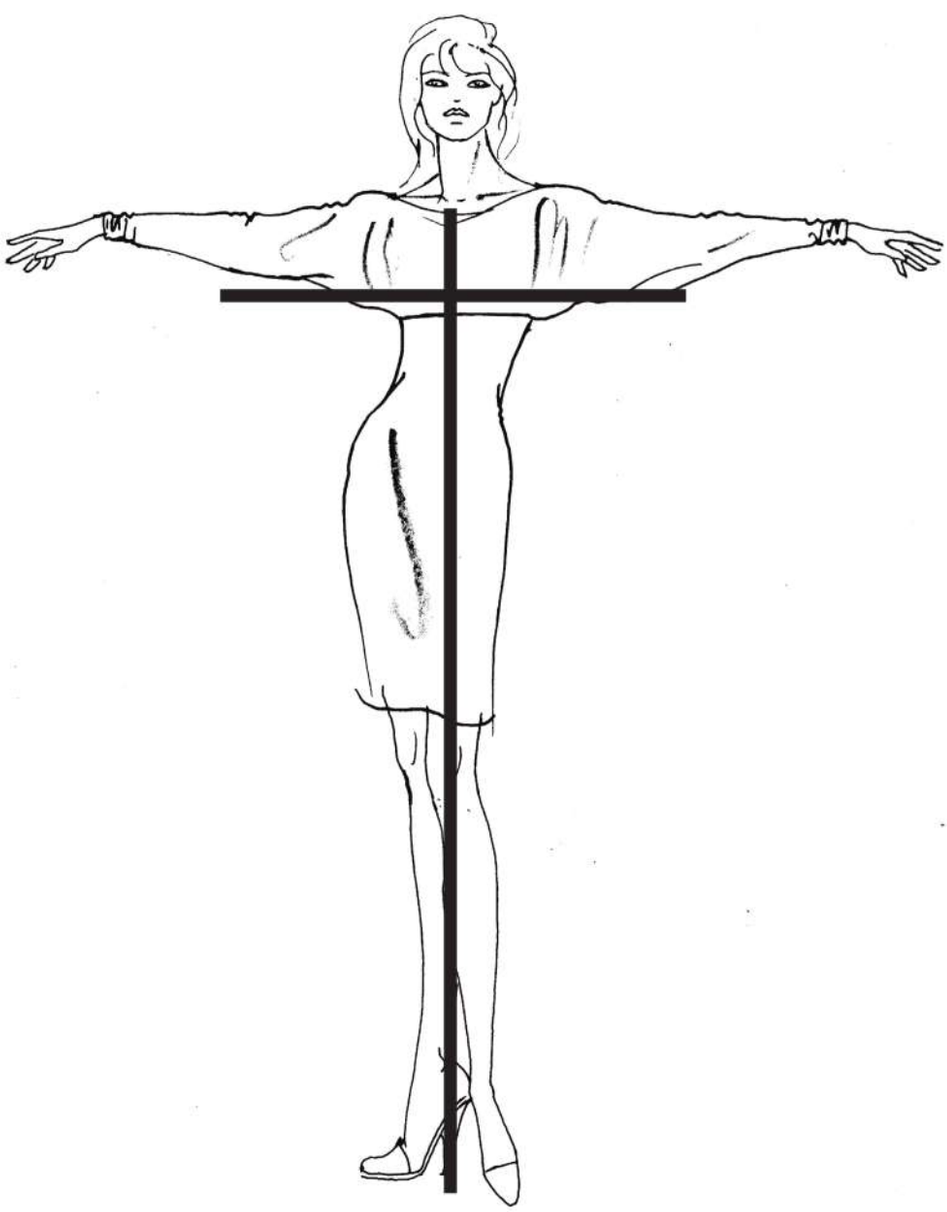


Fig 1.48b. Correlating croqui poses with clothes



1.4.5. Drawing faces (women)

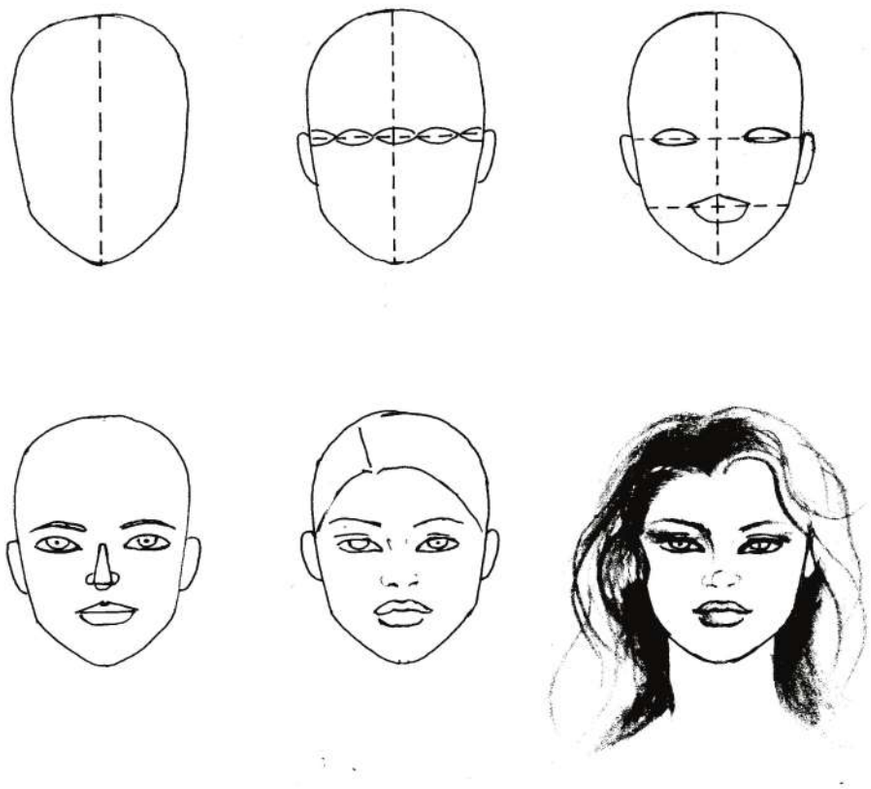


Fig 1.50. Drawing the frontal view of the face

The face is drawn in steps:

1. Step 1: The basic shape of the face is like an egg –shaped oval. Draw half the oval on one side of the vertical line and then reverse it to ensure symmetry.
2. Step 2: Divide the face horizontally in half to determine the eye level. 2. Remember that the face width is approximately four eyes.
3. Step 3: Place the eyes accordingly. Place the mouth
4. Step 4: Draw the basic shape of the nose and the mouth

i. From the bridge to its tip, the nose is approximately the same length as the eye.
ii. The upper lip is triangular in shape. The lower lip is saucer-shaped.
iii. Draw the arch of the eyebrows.

5. Step 5: Flesh out the nose and mouth. Plan the placement of the hairline.
6. Step 6: Draw the hair in a modern style which is not very fussy.

Based on the same steps, now draw the face from different angles based on the examples below. Change the hairstyles for practice but keep it neat and minimal.

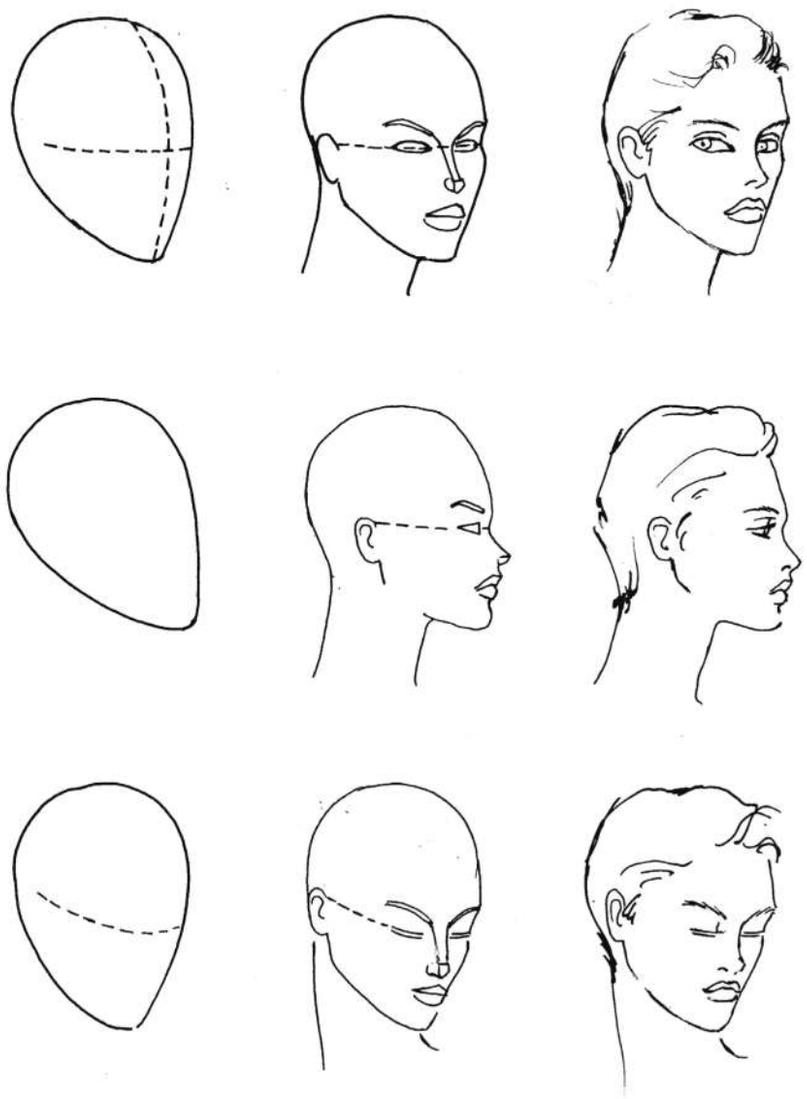


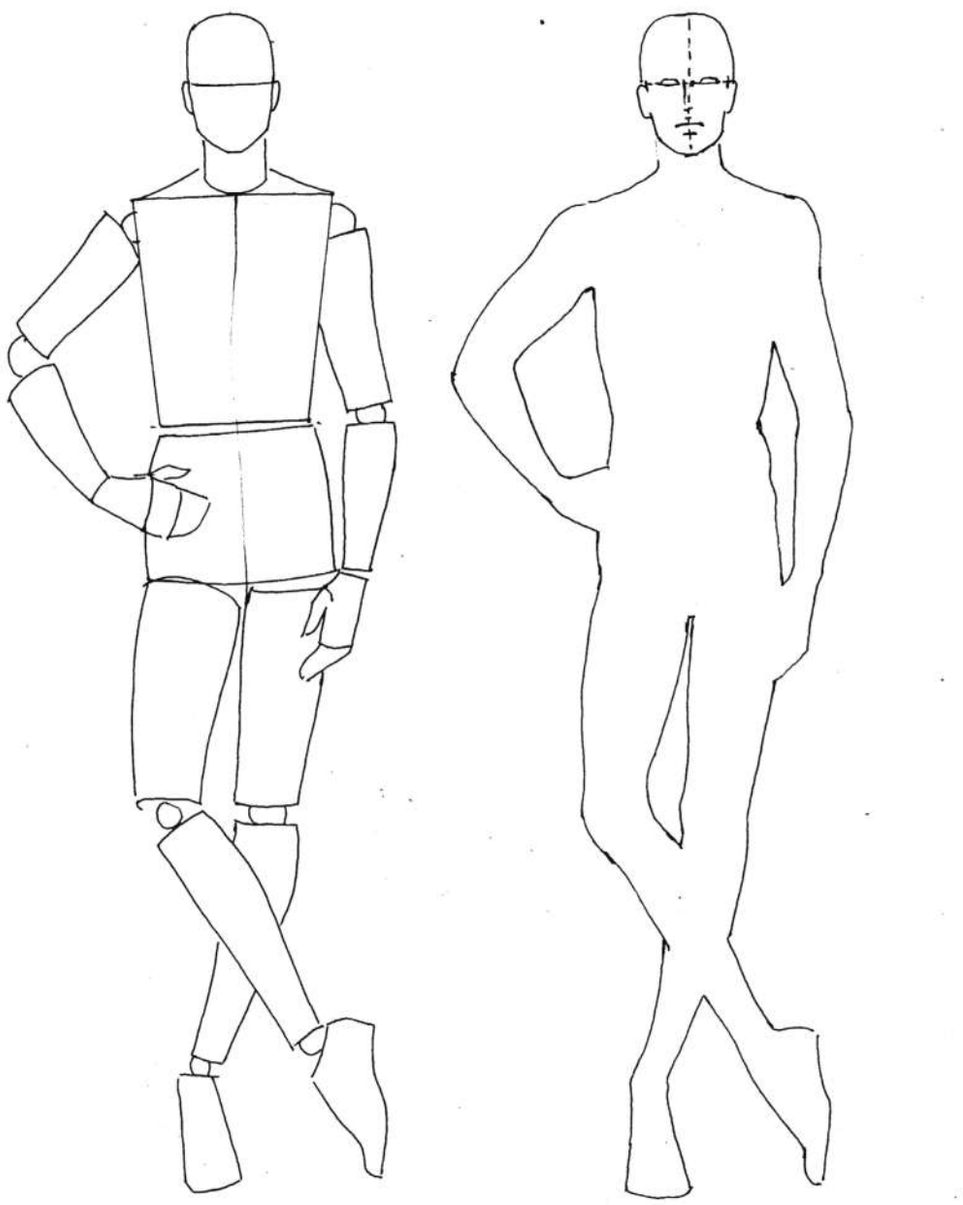
Fig 1. 51. Drawing the face from different angles

1.4.6. Drawing Men

As in the case of drawing women's croquis, the male fashion figure also imitates and exaggerates the idealized body. It is important to note the main differences in the face and body proportions of the male and female fashion figure even when the height of both are the same. Generally the male figure is wider/ thicker than the female body.

The fashion male has the following characteristics:

- Overall the upper and lower male body are almost equal.
- The head is more rectangular with a strong, well-defined jawline.
- The column of the neck is wider and shorter than that of a female.
- The torso is rectangular unlike the female body where the shape is that of an hourglass.



- The shoulders are the the widest part of the body.
- The male arms are noticeably more muscular than that of the female.
- The waist is the same width as the hips. For a female, the waist is distinctly the narrowest part of the torso.
- The male hip is rectangular while the female hip is rounded.
- The male legs are more muscular and therefore tend to look shorter than the female legs which are longer and slender.
- The male foot is wider than the female foot particularly since the latter is often shown wearing heels.

The basic drawing is explained in steps so that with practice, new versions of the male model figure can be created.

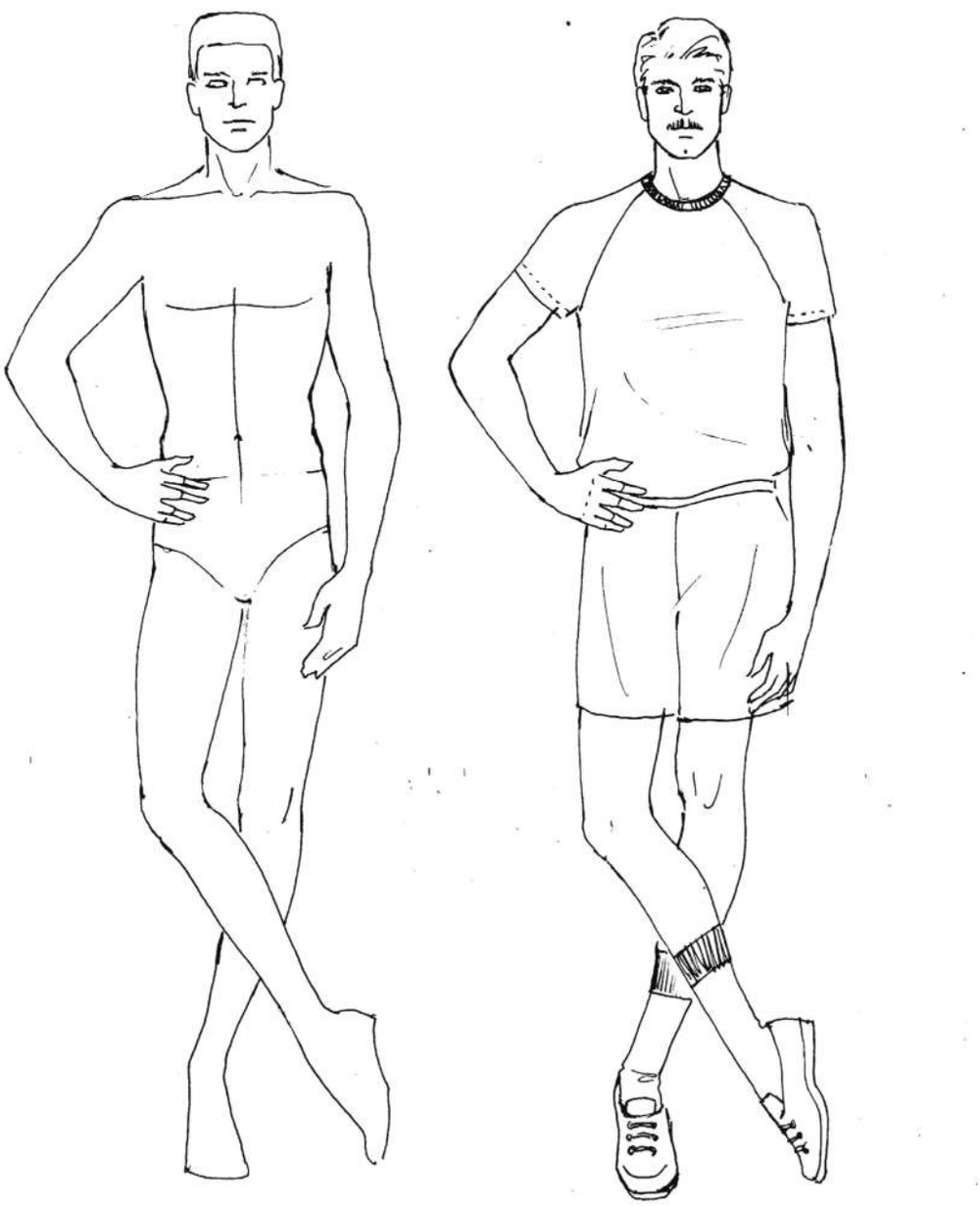
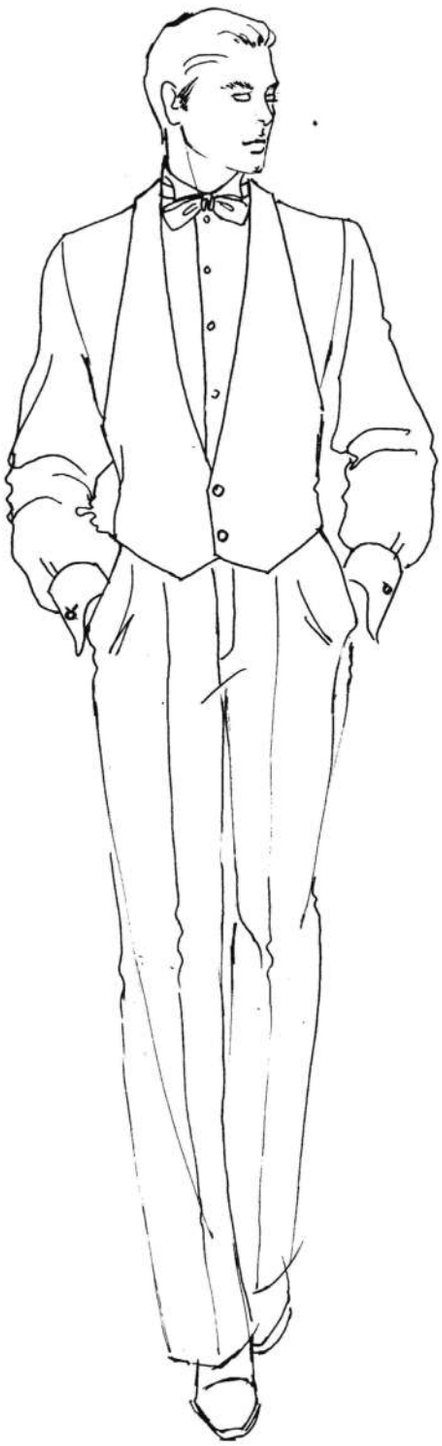


Fig 1.52. Steps to drawing the male model



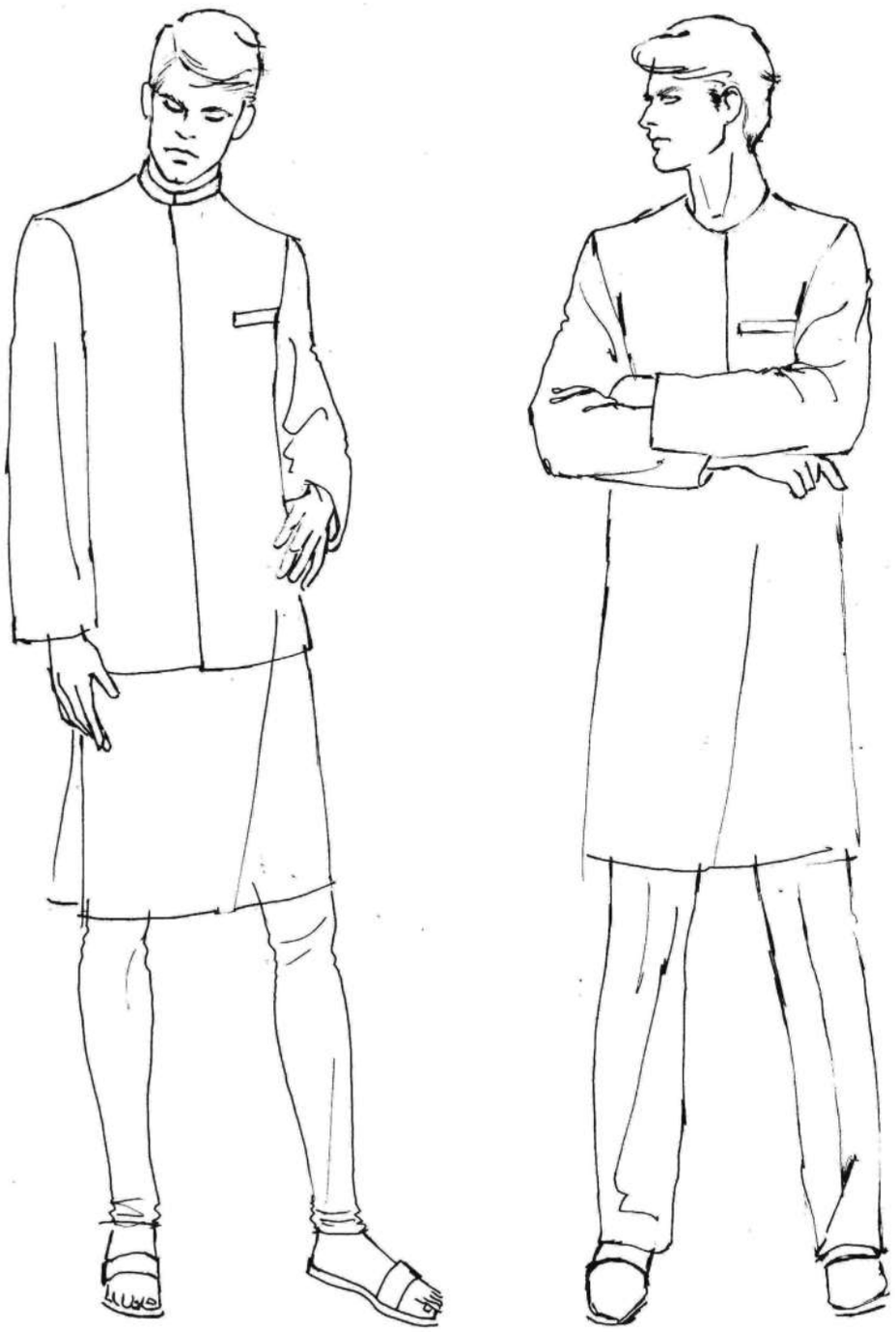


Fig 1.53. Male fashion figures in Western and Indian clothing

1.4.7. Drawing Children

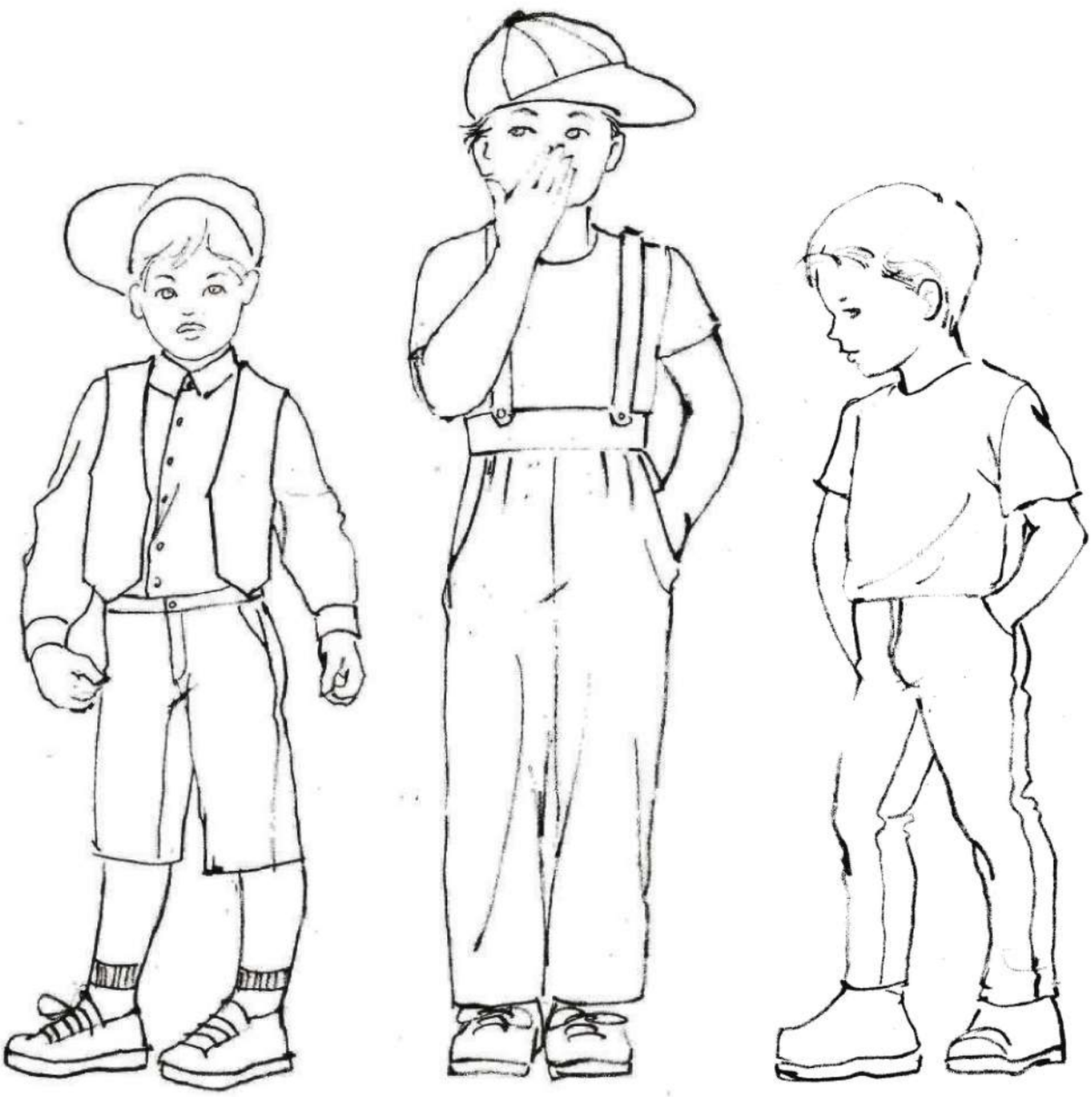
Since children are hardly ever still except when they are asleep, most of the visual reference for poses comes from photographs.

However it must be kept in mind that unlike adults, the height and proportions of children change significantly over the years. This is the reason why kids clothing are categorized according to age groups as follows:

1. Newborn and infant
2. Toddlers
3. Child (boys and girls)
4. Pre-teen

When drawing children the system of estimating height according to number of 'heads' is not used. The main reason is that in terms of proportion, the head is larger in comparison to the body. In fact a one-year old baby's head id 2/3rd the size of an adult. Their shoulder, waist and hip widths are almost the same. The arch of the back is well-defined and they have rotund, protruding stomachs.

The face has an innocent look. The poses are spontaneous and often awkward. A sitting baby tends to slump which makes the body shorten. With a toddler who is beginning to learn to walk, the balance line occasionally goes off-balance causing the baby to fall down. Once the child is older and steady on his/her feet, the pose is balanced.



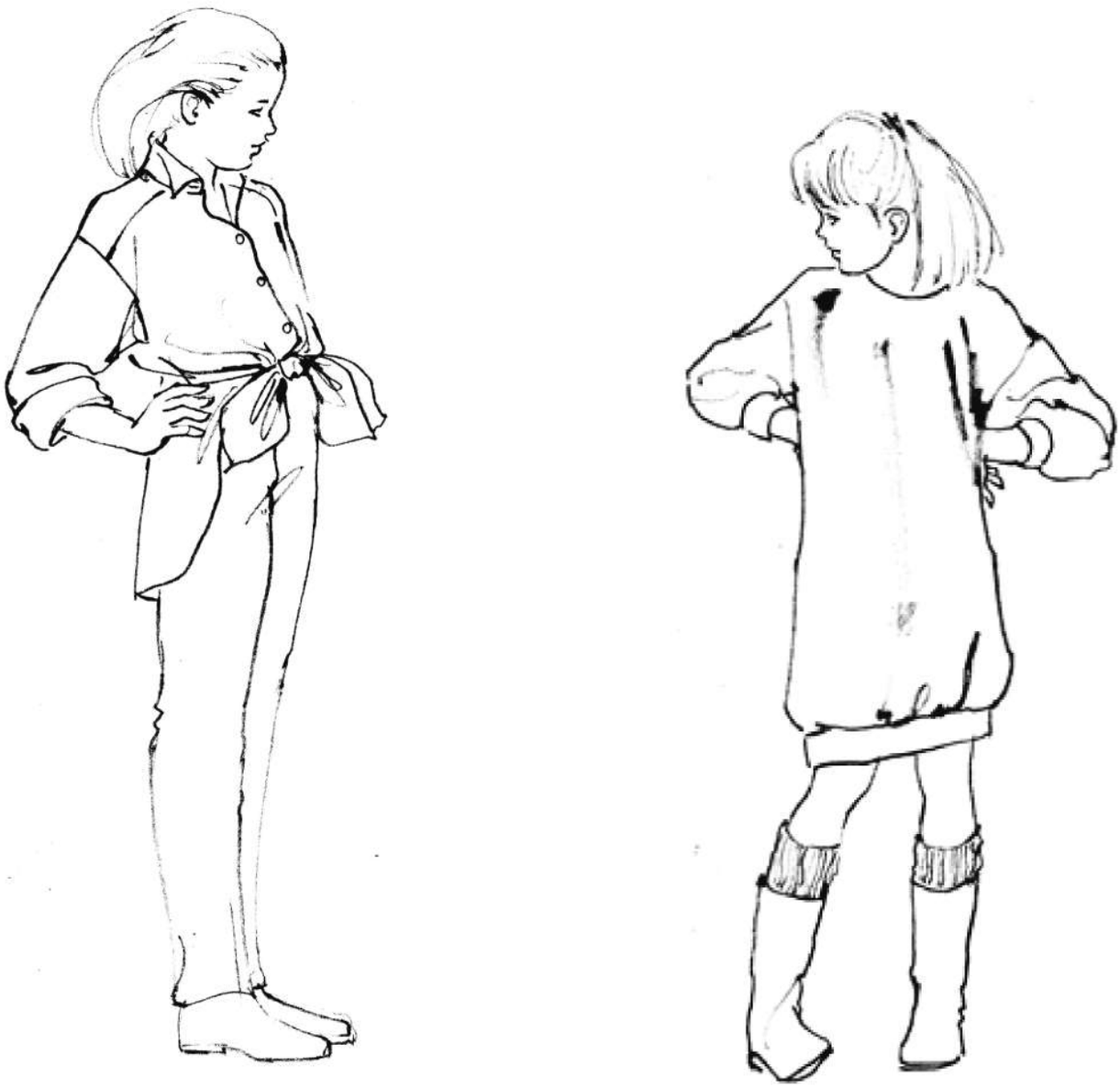


Fig 1.54. Children croquis

SUMMARY

1. Design encompasses the entire process from concept to creation in a well-planned, purposeful manner. The focus of design may be a product, a service, communications and the environment with the aim of unifying function and aesthetics

2. Design is creative problem-solving. It is necessary that the design should take aesthetic and ethical considerations, usability and marketing into account. This implies that design is not restricted to creative fields but also in the business and social environment.

3. Each garment, textile, accessory and fashion lifestyle product depends on the individual units called Elements of Design which are like basic building blocks where each component is part of the whole working in synchronization with each other. The Elements of Design are Point, Line, Shape, Texture and Colour used both by designers and artists.

4. A garment is made up of design details called units. Designers introduce new arrangements and combinations of various units in harmony with each other. In fashion design, the Principles of Design are Similarity, Proportion, Repetition, Balance, Rhythm, Proximity and Emphasis.

5. Fashion designers often illustrate designs of clothes on the stylized fashion figure called croqui. Fashion illustration has an advantage of enabling the representation of the designer's creative vision and concepts for women, men and children incorporating elements and principles of design.

Activity 1.2

Fashion illustration enables concepts to be presented on paper to represent the designer's vision incorporating elements and principles of design. The designer uses specific poses of the croqui to conceptualize, illustrate and present the design.

This activity will enable the students to draw or use existing croqui templates for application of creative design ability and illustration skills.

1. Study the given croqui with style-lines.
2. Notice how the design of the garment has been illustrated for aesthetics and technical accuracy. Ensure that the garment centre front, centre back and princess seams are aligned to the style-lines of the croqui.
3. Use either any given template or draw your own fashion figure. Design an ensemble using this croqui choosing any womenswear apparel from Unit III.
4. Do certain garments require fashion figures in specific poses and angles?