



# UNIT-4

## Principles of Design

### Learning Outcomes

**By the end of this unit the learner will be able to:**

- ✓ Understand the key principles of design
- ✓ Explain how these principles are applied when designing a garment
- ✓ Evaluate the importance of design principles in designing

## Unit 4

### Principles of Design

The principles of design are guidelines that can help designers understand and use the elements of design in effective ways. Principles of design are the processes used to examine, create and evaluate garment designs, on and off the wearer. It is essential to apply the principles of balance, proportion, emphasis and unity/harmony. These are not theoretical art terms; they are indeed detailed guides which help designers create garments that are both attractive and appealing.

In order to create and express in an artistic manner, it is important to use design principles which are pleasing to the eye. The designing principles are:

1. Balance
2. Emphasis
3. Harmony
4. Proportion
5. Rhythm

#### Balance

Balance is an element that shows poise and stability, and for this reason it is very important. The human body is visually symmetrical, that is, it is the same on both sides of a central line. For this reason, it is preferable that any important features or decorations are assembled in such a way that equal interest or 'weight' is shown on both sides of the centre, when designing a garment. This centre does not necessarily have to be an *actual* centre, line but can be an imaginary centre. When this happens, an attractive sense of harmony is created. Balance can be achieved through the use of structural elements and/or any added decoration where suitable.



Fig 4.1

### Formal Balance

Formal balance, also known as symmetrical balance, is easier to produce than informal balance. Formal balance may not be as interesting, however. Formal balance will be achieved when objects are exact mirror images of each other, on either side of a garment. In order to bring a sense of dignity and/or formality to a dress, it is necessary to have formal balance. Both upper and lower areas of a design must be carefully organised to create a balanced effect. Too much 'weight' at the top or bottom will give it a heavy look in that area and will not be appealing or attractive. Wearing a dark coloured shirt over a light coloured skirt (or pants) for example would make the wearer look shorter.



**Fig 4.2**

This design (Fig 4.2) is an example of achieving good balance by ensuring both sides of the dress are exactly the same, including the plaiting on either side being the same width and amount, and placed at the same distance from the centre line. The jacket also has the same decorative ornamentation on either side, which again keeps the sense of balance. Equally well-balanced is the dress, which is placed at the right spot at the waistline and the jacket worn above, which balances the plaiting below.



**Fig 4.3**

The above design is an example of formal balance, which could be improved upon by moving the monogram to the centre of the dress. As it is at the moment, the dress seems out of balance.

### Informal balance

Informal balance is created when objects appear to equalise each other, however, this is not done through arrangement or through any repetition. Instead, it is created when it occurs in an arbitrary manner. With informal balance, the design of sizes, shapes and attractions are placed accordingly. Designs that are larger and attractive should be away from the centre. When arranged properly, informal designs can be not only effective, but attractive too.



**Fig 4.4**

A good example of informal balance may be seen in Fig 4.4 above. Each side of the dress is different. There is a big sash near the centre lines, which is balanced out by the small adornment placed on the shoulder. This adornment is as far as it can possibly be placed from the centre line.

Below is an example of bad informal design (Fig 4.5). As all the weight falls on one side of the dress it make it look one-sided, perhaps even lop-sided.



**Fig 4.5**

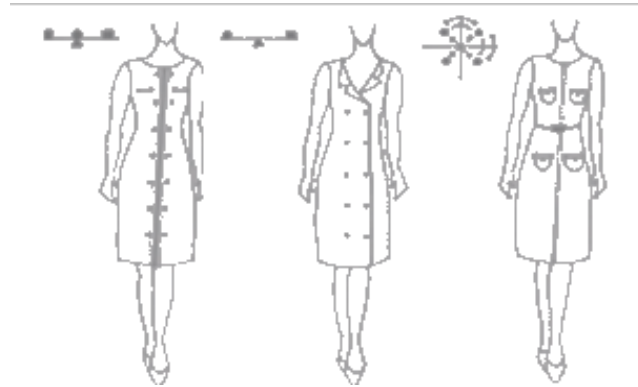
Showing equal distribution of weight on both sides of the centre line will make the dress appear balanced. It is less likely that mistakes will be made in formal balance, because line decorations are repeated on each side of the centre line.

For some occasions, however, formal balance is not appropriate as it can be too severe. It is appropriate for sports clothes or street dresses, whereas afternoon and evening gowns are best-suited to informal balance.

To correct any appearance of body irregularities, it is better to use informal balance as people will not usually compare one side of the body with the other. Making the body appear symmetrical is what informal balance will create, because both sides of the garment will be cut and arranged in a different way. This type of design is more time-consuming and therefore has a higher manufacturing cost.

### Radial Balance

Radial balance is created through the major parts of the design emanating from a central point. Things like seams, pleats or motifs emanating from a focal point produce a 'sunburst' effect. Radial balance is often seen on necklines. This type of design is usually found on more expensive clothing, because of the intricate features of radial balance.



a. Formal Balance   b. Informal Balance   c. Radial Balance

**Fig 4.6**

## Emphasis

When referring to emphasis, it represents the concentration of attention (or the centre of attention) on one particular area of a design. This area will act as a primary eye-catching area, more so than any other area on the garment. All areas will not have equal strength of interest, even though they may still be interesting. In order to achieve this, certain parts must be placed in subordination to others. Without a carefully planned centre of attention, a garment will usually look either monotonous or chaotic. Having said that, it is important not to have more than one centre of interest, as two (or more) would compete for attention and create a sense of confusion. Using spotty designs for details such as pockets would create distraction. It would generally be better to remove these distractions, as this would then strengthen the design feature.

It is important to be careful that the design does not emphasise awkward parts of the body, always ensuring that the wearer is the main centre of interest. In order to make this aspect more effective, a designer could use a line leading to the face, or lighter colours around the face. This is one of the reasons why contrasting collars are used. On a black garment with a white collar and cuffs, the observer's eyes will be directed towards the wearer's face in particular, and also the hands.

**Fig.4.7**



**Fig.4.8**



Figure 4.7 above shows an example of emphasis. On the neckline, it is the bow that emphasises that part of the dress. In this case, the observer's attention is drawn to the centre of attraction - the wearer's face and head.

Figure 4.8 is the opposite of emphasis. The dress is large and curved with a design that doesn't match or complement the V-shaped neckline. In this case, the best thing to do would be to modify this design to ensure it does not emphasise the centre area of the dress to such a large extent, changing it so that the observer's interest is directed to the wearer's head.

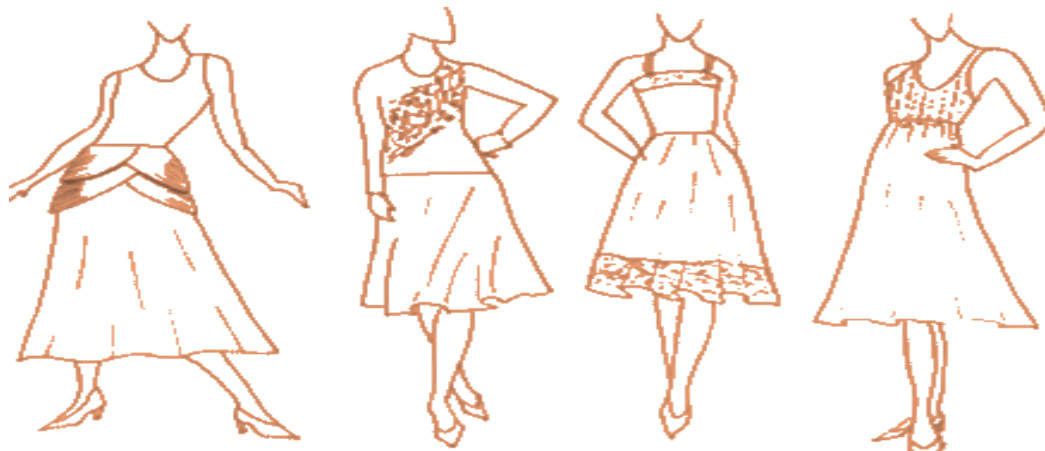
Emphasis must not be placed in an area that the individual wearer wishes to minimise. It is most often the head, or personality area, that should be emphasized, as it is the most important. In order to do this,

it is important to use appropriate colour and texture contrasts, necklines, scarves, hats and jewellery etc. As mentioned earlier, it is important to ensure that only one area is emphasised and no more. If a designer wants to place emphasis on the legs, for example, the design should use unusual hem lengths or designs at the hem, coloured or textured hosiery, or fancy footwear. When this occurs, the other parts of the body such as the torso, hips or waist become areas of lesser interest and focus.

### Creating Emphasis in Garments

1. Emphasis can be created through the grouping of ruffles, gathers, rows of stripes, tucks, buttons or trim in one specific area. Another way to do this would be with a concentration of jewellery, rows of beads, chains, or pins, for example. See Fig: 4.9d.
2. Simply by virtue of their individuality, unusual lines and shapes are eye-catching. Oddly-shaped collars, sleeves, jewellery pockets, belts, trims and oversized buttons can all be used to create local interest. Any textures or fabric designs that are unusual and different from the ordinary may attract attention and bring focus to an area. When using any elaborate, complex or eye-catching fabric, it is best displayed by using simple garment designs. This is so that the fabric and the garment design do not compete with each other for attention – one should be focused on over the other.
3. Using decoration placed appropriately on a plain, contrasting background allows the decoration to be the dominant feature (Fig: 4.9b). When adding embroidery, jewellery, trims, buttons, belts or buckles on a contrasting background, they will be emphasized and become the area of interest.
4. In order to create emphasis, it is necessary to use contrasts of colour, line, shape and texture. (Fig: 4.9 c). Certain related factors must be employed to connect these contrasts. If not, the result will be confusion. It is important to note here that if a designer uses contrasts too many times, the impact of the design will be lost.
5. When the intensity, value and hue differ from the background, contrasts of shape in designs will be more powerfully emphasized. In these cases, collars, cuffs, yokes and shapes will become more noticeable, as their edges are outlined in a contrasting trim.
6. Another way to create emphasis is by using texture contrasts. If all the textures on a garment are shiny, dull or heavy, it will create monotony.
7. Emphasis can also be created by the use of progressive ruffles, buttons, contrasting band, and other trims (Fig: 4.9a).

Fig 4.9



a. Repetition of shapes b. Placement of decoration c. Unusual textures d. Grouping tucks

## Harmony / Unity

In design terms, harmony and unity are linked in meaning in the sense that harmony can be described as attractive visual unity. It is the relationship between all parts of a whole, and is achieved when all design elements are related and arranged in an orderly manner. Unity on a garment will build a sense of appeal and will capture/hold the attention of the observer. It will also provide a sense of belonging to the garment. This is achieved when the elements of design are effectively used and consistent with the principles of design.

### Unity in Clothing Design

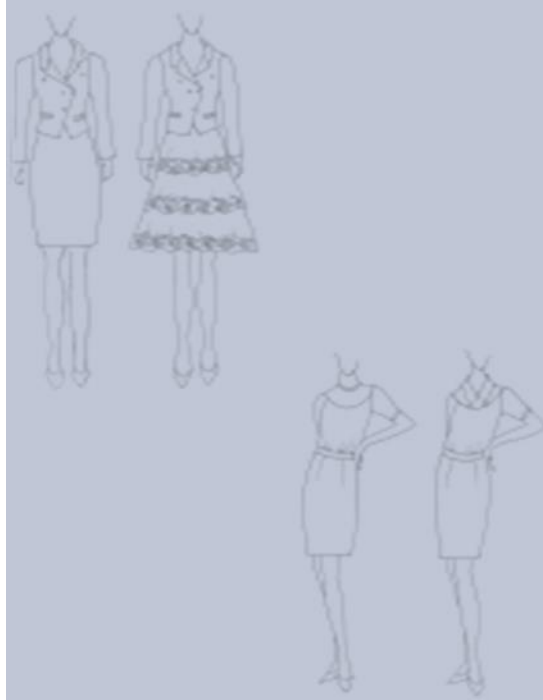
Good design needs harmony between shape and form. In order for a garment to be comfortable and move/breathe with the body or perform any specialised duties, it requires harmony. Fitting the wearer well is also a requirement for creating harmony

When creating the physical effects of harmony, it means that the parts are in-scale and their combined proportions look like they belong together – not to mention with the figure the garment is covering. To give an overall look of harmony, each part of the design, including any accessories, should express a single theme that is reliant on the personality of the wearer *and* the place the garment is to be worn.

In order to harmonise shapes and spaces, it is necessary for collars, cuffs, sleeves etc. to be in accordance with the main forms of the garment. For example, they should both either be straight, curved or angular. In order to achieve colour harmony, it is necessary to use monochromatic or

corresponding colour schemes on a garment. Harmony of texture is achieved when textures move from clinging to fluid folds, for example. In order to avoid creating a sense of boredom, it is necessary to avoid identicalness in garments. A small area in a contrasting colour or a different cut or texture can break any monotony, adding an interesting element to the design.

The three aspects of design - these being function, structure and decoration - must all correspond with each other, in order to achieve harmony with any garment. All aspects must be taken into consideration such as age, size, gender, occasion, personal colouring and lifestyle, when designing garments.



**Fig 4 .10**

Harmonious and disharmonious designs

## Proportion or Scale

When designing garments, proportion must be considered – this being the attractive interrelationship of the size of *all* parts of the garment. As a general rule, uneven proportion is more interesting. When looking at an outfit, the eye automatically compares the smaller part to the larger one. This is what we refer to as proportion - the actual comparison. A garment will seem to be shorter and wider when all parts are divided equally. The Chanel suit is a good example of even proportion, with its hip-length jacket and knee-length skirt. An uneven proportion will keep the eye moving and give it something interesting to look at.

The observer's eye will compare both the height and width of all parts of a design. All parts must relate to each other in size and this includes sleeves, pockets and collars. They must also all relate to the complete silhouette.

A style with two-thirds to one-third proportion will make the wearer seem taller and slimmer. An example of this would be the fingertip-length jacket over a short skirt, or a knee-length tunic over a pair of pants. A proportion based on one-third to two-thirds is also visually appealing, an example being the empire-waisted dress or a jacket which is waist-length with a flaring skirt. This type of skirt will make the hips seem smaller. A jacket with shoulder pads or extended shoulders will make the lower part of the body look narrower in comparison.



**Fig 4.11**

The uneven proportion shown in the garment above makes the wearer look slimmer and taller. It is the combination of the long jacket and shorter skirt, the uneven proportions.

If using any other decorative features such as trimmings, tucks or pleats, the spacing should have some meaning in relation to the whole design. Trimmings that are either too big or too small, too light or too heavy may not harmonise with the space around them, not be pleasing to the eye and will make the garment look strange.

## Body Conformation and Proportion

When discussing body size, there are three categories that are used: small, medium and large. These body sizes are necessary in order to be used as a guide when choosing clothes and accessories. It is better for smaller body sizes to use small to medium-scaled clothing and accessories. The medium body type is best-suited to any one of the three. The larger-sized person is best-suited to wearing medium or large-scale.

Certain parts of apparel like the collars, pockets and also any trimmings or buttons, should be the correct size for the wearer *and* for the total design of the garment. A big, heavy overcoat would look strange with small pockets, for example.

When clothing, textures, fabric design or accessories are too large for the wearer, the size relationship is out of proportion. Medium-build people have more freedom in their selection of clothing and accessories. When selecting an outfit, it is important to use the wearer's actual body as a guide. The most appealing way to divide a garment is at natural body divisions, like the waist, hips or chest.

**Fig 4.12**

VARIOUS PROPORTIONS IN CLOTHING DESIGN



## Rhythm (Repetition)

The term 'rhythm' in designing refers to organised movement. The rhythm of a garment is the pleasing arrangement of design elements, which allows the eye to easily move over the piece of clothing. A regular or gradual change which gives a sense of continuity throughout a design is what will create rhythm. When a pattern is repeated, it makes the effect stronger. However, this repetition is not always necessary. In order to create rhythm effectively, it should be used with shape, line and space, as well as by changing the hue, the value or the colour intensity.

### Rhythm in Clothing Design

As mentioned above, rhythm is achieved by repetition. It is also created by gradation, opposition, transition or by the radial assembly of certain parts of the design and fabric. In garment design, it is achieved by using combinations of lines, colours, shapes and textures.

### Rhythm through Repetition

Achieving rhythm is created by repetition or regular repeats of shapes, buttons, pleats, laces, colour, motifs of design or pleats. Rhythm can be created by having all parts use the same shaped edges, such as keeping them all rounded, squared or scalloped. Using colours in a repetitious manner can achieve a pleasing effect, particularly if the colours are allocated in an interesting manner, see Fig 4.15.

To create a gentle wave rhythm which gives the sense of peace and calm, smooth and undulating lines can be used. Repetitious use of lines with sharp or jagged points creates an exciting rhythm and is best-suited to dramatic evening wear. It is, however, necessary to take care with this type of design, as it can also create a disturbing or subduing design on a garment. For an abrupt rhythm creation, use tucks, pleats and stitching folds. Trimmings such as buttons, laces and beads will also create rhythmic effects, therefore can be used to achieve variety in a rhythmic manner.

### Rhythm through Progression

Rhythm can also be created by progression or by gradation - this being a gradual increase or decrease of similar design elements. Colours may move from light to dark or textures from fine to coarse, for example. Shapes can range from small to large, or vice-versa. Lines can range from thin to thick. The gradual changes give a sense of continuity, while providing a feeling of movement. Another way to create rhythm is through systematic sequences of gradually increasing or decreasing changes in the sizes of motifs, trims, buttons, intensity, flowers, ruffles and fabric design, etc. See Fig: 4.15 d.

### Rhythm through Transition

When a curved line guides the eye over an angle, transition is created, this being a fluid rhythm. It is the curved lines of transition which result in the eye changing direction gradually, not abruptly. Transitional shapes and lines arc and glide over the figure in a rolling rhythm, directing the eye easily and elegantly from one area or direction to another. The absence of abruptness (like that of jagged lines) is created. Transition can be seen and created through dropped shoulder designs, puffed sleeves and cap sleeves. It can also be created through the use of shawls, scarves, ruffles and gathers. See Fig: 4.15 b.

### Rhythm through Radiation

Rhythm created through radiation (waves or rays) produces a feeling of movement in different directions. This is an organised movement and it commences at a central point of folds, darts, tucks, pleats, a gather or a line. The directions of radiation could be in a similar direction or only in one direction. Direction could be opposing or moving in both directions, several directions and all directions, as displayed in Figure 4.15c.

### Rhythm by Continuous Line Movement

Rhythm by continuous line movement is produced by lines of trims, bands of colour, fabric designs and so on which are flowy. These make the eye move in a continuous line. The movement also merges the garment design and creates harmony. Rhythm will be broken when lines, trimmings or fabric designs are not matched at the seams (or at other construction points).

Using designs on fabric that are widely placed can create a lack of rhythm, as these types of designs create strange effects when actually worn on the body. It is, therefore, necessary to be very careful when using this particular fabric design on a garment.

**Fig 4.15**



a) Repetition of flares b) Transition of line c) Radiation of shape d) Progression of shape

### Other Uses of Repetition

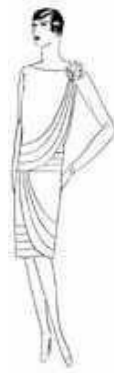
One of the most useful guidelines in designing is the use of repetition. In order to help carry a theme throughout the entire design, a line, shape or detail should be repeated in another area of a garment. An example of this would be a dress that has a V-neck repeated on the bodice, perhaps upside down, or in an inverted pleat in a skirt. Using soft gathers around the neck may be repeated around the hip, for example, to unify the design.

The following aspects of designing can be used through combinations of shape, lines, colour or texture, in order to create rhythm:

1. The use of regular repeats or trims, such as buttons, texture, fabric design and prints.
2. The progression or radiation in sizes of trims, colours textures and fabric designs.
3. Radiation or movement from the central point and occurring within structural details, like the garment's gathers, folds, tucks, darts etc.
4. Continuous flowing lines such as those in bonds of colours, textures and fabric designs.



**Fig. 4.16**



**Fig. 4.17**

In Fig 4.16, good rhythm of line is displayed as the eye can easily glide over the curved lines of the skirt. This attracts the interest upwards to the upper part of the dress. The lines are not in conflict, causing the eye to be uncertain whether to go around the dress or up/down.

In Fig. 4.17, poor rhythm of line is displayed. The curved lines of the upper and lower parts of the dress cut across the lines running around the dress.

Design elements that work successfully rely on their relationships with one another on a garment. The principles of design are there as a guide for combining the elements successfully. When designing or initially creating a garment, designers are not necessarily consciously working with the principles. However, if something appears to be wrong with a design, they can then analyse what it could be through awareness of proportion, balance, emphasis, harmony and repetition. The principles, of course, are flexible and are always understood within the context of current fashion.

### Further Reading:

- ✓ *Fashion Design Course: Principles, practice and Techniques 2018 (By Caroline Tatham, Julian Seaman, Thames and Hudson)*
- ✓ *Fashion: A Very Short Introduction ( By Rebecca Arnold) 2019*