BASIC DESIGN

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This learning element was developed by the UNIDO Leather Unit's staff, its experts and the consultants of the Clothing and Footwear Institute (UK) for the project US/PHI/85/109 and is a part of a complete Footwear Industry Certificate course. The material is made available to other UNIDO projects and may be used by UNIDO experts as training aid and given, fully or partly, as handout for students and trainees.

The complete Certificate Course includes the following learning elements:

Certificate course

- Feet and last
- Basic design
- Pattern cutting
- Upper clicking
- Closing
- Making
- Textiles and synthetic materials
- Elastomers and plastosmers
- Purchasing and storing
- Quality determination and control
- Elements of physics
- General management
- Production management
- Industrial Law
- Industrial accountancy
- Electricity and applied mechanics
- Economics
- SI metric system of measurement
- Marketing
- Mathematics
- Elements of chemistry
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**BASIC DESIGN**

**DEFINITION**

Design, as a word, can be interpreted as both a noun and a verb. As noun, it means organization, arrangement, creation or preparatory sketches. As a verb, it means planning, composing, organizing creativity in art and art activities.

Some people define design as composing or arranging lines, masses, colors and other elements into a harmonious whole.

Design, without any qualifying adjective is the result of idea-ensembles, of the organization of elements into a unified plan, and of their adjustment to secure the best use of it. The aim is to achieve dramatic power as well as utility and to give aesthetic pleasure through the senses of sight and touch.

**The Three Fundamental Ideas in the Life of Man**

There are three things that give delactation to the spirit of man: the beauty, the good and the true.

For the first, man has always appreciates anything that is beautiful. He feels delighted and happy for the things around him that pleases his eyes, touch or his five senses, so to say. He looks at the meadow, the forest, the sky, the sea or anything that is moving, each on different colors and contours. Man is the Appreciator, Observer/Looker. Man is the Artist.

For the other two, these relate to his ability to reason, presence of wisdom and nature of his moral value and faith.

From these three fundamental ideas man as the Appreciator of the beautiful is manifested by his capability as Designer.

Man as an Artist and as Appreciator always go hand in hand through the help of his five senses (hearing like listening to music, seeing, e.g. at a flower, feeling, e.g. smooth surface, smelling, e.g. fragrance, and taste, e.g. delicious food.

$$\text{5S} = \text{five senses}$$
Nature is the best designer and needs no copywights. Beauty is God-made. His Creation is a Natural Beauty. When it is man-made, it is Artistic Beauty. Anything that man produces is the product of Arts.

Art is the expression of the beautiful in man's work. It is anything made or done by man that affects us so that we see or feel beauty in it.

**ART - Definition and Identification**

Art as stated above is the expression of the beautiful in man's work.

There are many classifications of Arts and they are listed comparatively.

**Classification according to the sphere of the art activity:**

The BBB:

1. Body - fashion design, jewelry, textile
2. Book - drawing, painting, printing (graphics, engraving)
3. Building - architecture, sculpture, interior design

**The Fine Art and Practical Art Classification**

1. **Fine arts** are those arts which primary function is for satisfying our sense of beauty (for aesthetic delactation of the spirit)

   Examples: painting
              music
              dance
              literature

2. **Practical arts** are those which give beauty to objects that are use for human comfort and convenience

   Examples: architecture
              journalism
              industrial arts
              civic arts
              fashion design
              sartorial art
Others
Visual arts - painting, sculpture, prints
Audio - music
Audio/Visual - opera
Performing arts - drama, dance, music
Graphic - to draw, to print
Photographic

The 20th Century Classification
1. Architecture - interior design
   landscaping architecture
2. Sculpture
3. Graphic Arts - drawing, engraving
4. Music
5. Literature - poetry, prose, fiction
6. Theater - stage drama, film, dance, opera

SPACE
There are two kinds of space in the work of an artist:
1. Negative space - that which is containing; background
2. Positive space - that which is contained; figure

FUNDAMENTAL ELEMENTS OF DESIGN:

1. Line
2. Form
3. Value
4. Color
5. Texture

Line - is the prolongation of dot

Kinds of Line
1. Straight
2. Curved

Straight lines
1. vertical
2. horizontal
3. scattered
4. broken
5. jagged
6. diagonal

Curved Lines
1. restrained
2. full curved
3. compound curve
4. infinite curve

Functions of Lines
1. to enclose areas or spaces
2. to convey emotional or psychological significance or meaning
3. to carry eye movement
**Straight Line's Suggestions:**
1. firmness  
2. masculinity  
3. severity  
4. directness  
5. simplicity

**Vertical Line Suggests:**
1. solemnity  
2. dignity  
3. majesty  
4. exaltation  
5. emotional uplift  
6. aspiration  
7. life  
8. business like

**Scattered Line Suggests:**
1. conflict  
2. struggle

**Curved Line's Suggestions:**
1. softness  
2. grace  
3. deliberation  
4. femininity  
5. variety  
6. subtlety

**Horizontal Line Suggests:**
1. calmness  
2. stability  
3. restfulness

**Diagonal Line Suggests:**
1. action  
2. motion

**Broken Line Suggests:**
1. staccato movement

**Jagged Line Suggests:**
1. violent action

**Observation:**
1. Horizontal line appears shorter than vertical lines of the same length

**FORMS**

1. **Through Straight Lines**
   - Square
   - Triangle
   - Rectangle

2. **Through Curved Lines**
   - Circle
   - Oval
   - Ellipse
   - Oblong

3. **Combinations of Straight and Curved Lines**
   - Cylinder
   - Cone
   - Cube/Prism/Rectangular
VALUE

Value means tone, lightness or darkness

The Gray Scale:

| White          | High Light
| Highlight      | Light     |
| Light          | Low Light |
| Lowlight       | Middle    |
| Middle         | High Dark |
| High Dark      | Dark      |
| Dark           | Low Dark  |
| Low Dark       | Black     |

Scale of Color

Functions of Value

1. suggests solidity
2. suggests distance or depth
3. suggests mood
   suggests emotional or psychological significance

Light value suggests lightness and informality
Dark value suggests gravity, serenity, seriousness, gloom
Related values suggest quietness
Strong Contrasting value suggests clarity and decision

Value is the dimension or quality of a color which describes its lightness or darkness, ranging from white to black.

Tint - this is produced when white is added to a hue or color, in the case of water color, it is produced when water is added. It is lighter or higher in value. Example, pink is a tint of red, orchid is a tint of purple.

Shade - this is produced when black, gray, or its complement is added to any of the hues of the color wheel. It is darker or lower in value than a hue. Rust or brown is a shade of orange.

Chroma or Intensity - quality of the color governing its strength or brightness in its distance from neutral gray, and it is secured by adding black or white to it as in the case of gray-red sunset. It is the quality that distinguishes a strong color from a weak one, such as a strong or vivid red from a weak or dull red.

Shades and Shadows - shades and shadows are employed to express form but not color and texture. The use of shades and shadows give to the craft articles illustrated a truthful and realistic representation.

When a body is subjected to rays of light, the portion of it which is turned away from the source of light and therefore does not receive any of the rays is said to be in shade.
When a surface is in light and the object is placed between it and the source of light, thereby intercepting some of the rays, the portion of the surface from which light is excluded is said to be in shadow.

COLOR

Color is the sensation we perceive or feel when optic nerves are stimulated by rays of light from an infinitely thin medium known as white ray.

Qualities and Dimensions of Color:
1. Hue - is the basic color identity of an object such as red or green or any of the 12 colors of the Prang Color Wheel
2. Value - lightness or darkness
3. Chroma or Intensity - brightness or dullness

THE COLOR WHEEL

Phenomena of Colors:
1. Big objects seem to reduce in size on cool colors
2. Object of warm color like red seems larger or bigger than its nature size

Classification of Colors:
1. Primary Colors - red, yellow, blue
2. Secondary Colors - mixture of two primary colors - orange, green, violet
3. Tertiary Colors - mixture of two secondary colors - russet, citrine, olive
4. Intermediate - mixture of primary and secondary colors
adjascent at the Color Wheel
red-violet    yellow-green
red-orange    blue-green
yellow-orange blue-violet

4. Quaternary Color - mixture of tertiaries

Color Harmonies:
1. **Monochromatic** - different tones of the same color
   
   light blue - blue - dark blue

2. **Analogous** - colors adjacent in the Color Wheel
   
   yellow orange - yellow - yellow green

3. **True Complimentary** - two colors which are directly opposite each other in the color wheel
   
   red - green
   yellow - orange
   blue - violet

4. **Split Complimentary** - expansion of the true complement
   
   red
   yellow green
   blue green

5. **Double Complimentary** - four colors treatment obtained by splitting both ends of the complement line of the color wheel
   
   orange    green
   red       blue

6. **Triad** - three colors which are equidistant
   
   red - yellow - blue

7. **Perfected** - harmony of a set of analogous colors together with its complementary colors

8. **Contrasting** - harmony of positive and neutral colors

Significance of Colors:
1. **Red** signifies:
   - fire, blood, bravery, war, catastrophe,
   - passion, violence, energy, danger
   - it has the longest wavelength
   - most advancing
   - most aggressive and dominant
2. **Yellow** signifies life, sunshine, cheerfulness, warm, magnificence, splendor, hospitality
   - it is a color of life, gay, brilliant, inspiring, stimulating

3. **Blue** - color of sky and the deep, vastness and infinity, tranquility, calmness, peace, royalty, true blue blooded
   - it has the shortest wavelength

4. **Orange** - warm color, has the power of both yellow and red, striking and stimulating like red, symbolizes warm and deliciousness

5. **Green** - product of cool and warm colors, color of vegetation and still waters, cool and refreshing, symbol of growth, freshness and youth

6. **Violet** - warm and cool colors, has short wavelength, suggests shadows and mourning, pump and royalty, associated with mystery

7. **White** - presence of all colors, not considered as color when taken independently, lightest of all colors, symbolizes simplicity, cleanliness, purity, suggests coolness and peace

8. **Black** - absence of colors, considered color only when combined with other colors, suggests despair, impossibility, gloom and death

9. **Gray** - product of black and white, mixture of primary colors, suggests weight and solidity

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**TEXTURE**

Texture is the surface quality of an object. It is the surface treatment of a work of art.

Tactile texture:
silk = smooth
dull = rough
glossy = smooth, glass

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**PRINCIPLES OF DESIGN:**

1. Balance
2. Proportion
3. Repetition
4. Rhythm
5. Emphasis
Balance
Two Kinds:

Formal

Informal

Proportion - harmonious relation of parts to one another

Methods Of Application:

Central Motiff

Corner Motiff

Border Motiff

All-Over Pattern

Rhythm - regular recurrence of units in a composition

Ways of Establishing Rhythm:

Sequence

Parallelism

Radiation

Transition

Opposition
Repetition - re-occurrence of units in various sizes and repetitions

Emphasis - visual weight critical revision

KINDS OF DESIGN

Naturalistic

Conventional

Geometric

Abstract

Non-objective

PERSPECTIVES
1. One Point Perspective

Ex.
2. Two Point Perspective

3. Three Point Perspective

4. Perspective of Squares and Circles

5. Perspective of Arches

6. Perspective of Samples

LETTERINGS

In the field of arts and crafts as related or tied up to industry the graphic language of shape would be incomplete and of little worth without the lettered language of notes, titles and specifications. The lettered language supplies the information necessary to make drawing understandable and the execution into its purpose possible. The ability to good lettering is one of the most valuable assets a craftsman or designer can possess.

Lettering may be divided into 2 general classes:

1) Two-dimensional, or letters that are drawn on surfaces such as notes, titles, specifications, etc.

2) Three-dimensional, or letters that are carved or cut out in wood inscribed in stones, cast in metal, etc.
Origin of Letterings:

1. Babylonians - cumbersome cuneiform writing (wedge-shaped stroke)

2. Egyptian and Phoenicians - hieroglyphics (picture writing)

3. Gothic - composed of uniform width elements and sometimes referred to as the letters in the basic alphabet

4. Script - long hand style of writing - combination of the old English style

5. Text

6. Roman

7. Italic

Classification of Letters:

1. According to Width - condensed
   - normal
   - expanded

2. According to thickness - thin
   - medium
   - bold

STYLES OF SKETCHING/DRAWING

1. Figure Drawing
2. Still Life Landscape
3. Genre (pictures of daily life)
4. Myths
5. Historical
6. Abstraction
7. Non-objective

GENERAL PRINCIPLES TO FOLLOW WHEN DESIGNING:

1. Look for nature for topics on designing. Keep objects simple.
   Let function guides the shapes of such objects.

2. Use decoration moderately.

3. Let materials show natural decorations. Don't hide them with paint. Avoid using too many materials in one object.
Functional design - an advance glimpse of tomorrow's seller

Creation - using things imaginatively in a new way

Simplicity - clear in design and should be easy to clean. Goods are to be used and not merely to be admired, they should meet the needs of any sensible buyer.

Style - one style for one object

Shape - simple, orderly, interesting

Function - one function for the product

QUALITIES OF A GOOD DESIGN:

1. It is fitted to the purpose for which it was planned. Otherwise it would be better if the design has not been made at all. Satisfaction in planning is directly proportional to the degree to which their quality is present.

2. It is suitable to the material of which it is made. A good design discreetly emphasizes the intrinsic or peculiar qualities of a material. Then, too, it recognizes a limiting range for each material. There should be no imitation if it is desired to attain this quality. New materials are welcomed by the designer when they help him solve new problems or to meet old problems with improved results.

3. It is fitted to the process by which it is produced. An article acquires character and distinction when it is designed to show frankly and without exaggeration the methods by which it is produced. Fakes in production that are intended to give a false idea of value are evidences of dishonesty, and as such, are unworthy of the able craftsman. The skilled designer uses his knowledge of tools and machines to permit or secure, correct and economic manufacture.

Those three qualities demand that the designer be a person of high integrity with a knowledge of human needs and of the function of human living. He must be acquainted not only with materials but with the techniques of production is well.