Elements of Design

ACTIVITY: For each of the Elements, find a timber product design and draw and write on it to show how it uses each Element.

The elements are parts that can be isolated and defined in any visual design. The elements are line, direction & style; shape & size; colour; and texture.

Line

Line can be considered in two ways. The linear marks made with a writing or drawing tool, or the edge created when two shapes meet.

Line is not necessarily an artificial creation of the designer; it exists in nature as a structural feature such as branches, or as surface design, such as striping on a tiger.

Lines can be combined with other lines to create textures and patterns.

Line in the form of maps is readily recognized as a symbolic representation of a place. Graphs are another readily recognizable linear device. They are widely used to communicate quantitative information and relationships in a visual way.

Working Drawings are a specialised kind of map that describes a product. In a two dimensional drawing such as a working drawing, diagonal lines are used to indicate depth and represent a three dimensional object.

Direction
All lines have direction - horizontal, vertical or diagonal. Horizontal lines suggest calmness, stability and tranquillity. Vertical lines give a feeling of balance, formality and alertness. Diagonal lines suggest movement and action.

Shape
A shape is a self contained area. Organic shapes such as trees are typically are irregular in outline, and often asymmetrical. Organic forms are generally thought of as naturally occurring. Geometric forms are those which correspond to regular shapes, such as squares, rectangles, circles, cubes, and spheres. These are generally considered to be man-made shapes.

Shape can be thought of as either two dimensional or three dimensional. Two dimensional shape has width and height. Three dimensional shape has depth as well as width and height.

Three dimensional shape and space is the basis of most product design. There are added design considerations in that the object will be experienced from more than one side. In the case of cabinets**,** the design of the shape may be almost secondary to the design of the space it contains, since the end use mainly involves the space which will be occupied. Other designed objects such as furniture, tools, and appliances must be conceived in relation to function and, often, the contours of the human body that will use the object (ergonomics).

Size
Size is simply the relationship of the area occupied by one shape to that of another.

Colour
Colour and Value
Colour is one of the most powerful elements. It has tremendous expressive qualities. Understanding the uses of colour is crucial to effective composition in design.

The word colour is the general term which applies to the whole subject - red, orange, yellow, green, blue, violet, black and white and combinations of these.

Value is defined as the relative lightness or darkness of a colour. It is an important tool for the designer in the way that it defines form and creates spatial illusions. Contrast of value separates objects in space, while gradation of value suggests mass and contour of a surface.

Generally, if values are close, shapes will seem to flatten out, and seem closely connected in space; none will stand out from the others. If values contrast, shapes will appear to separate in space and some will stand out from the others. This works whether the colours are just black, white and gray, or whether other colours are involved.

Complements are colours that are opposite one another on the colour circle. When complements are mixed with one another in paint, the resulting muted tones dull the colours. Such opposite pairs can also be compared in terms of their relative warmth and coolness. Warm-cool contrast of colour can cause images to appear to advance or recede.

Colour Proportion refers to the impact of the relative quantity of a given colour or value used in colour compositions. In order to achieve over-all

unity, and/or create emphasis, one should make a clear decision as to which colours should be assigned the largest and least areas.

Psychological Implications of Color
Market researchers have done extensive studies exploring the emotional responses of people to colour. Some of these responses seem to be powerful and fairly universal. However, much of this information is culturally biased. We know that cultural traditions endow colours with powerful meanings that can differ greatly from place to place. For example, in Western society, black is the colour of mourning. In many Asian countries white is the colour of death. On the other hand, white is the colour worn by Western brides, while brides in much of Asia wear red. Based on Western research, the following associations are generally found to hold in Western societies:

Red is associated with blood, and with feelings that are energetic, exciting, and passionate. Most colours carry both positive and negative implications. The downside of red evokes aggressive feelings, suggesting anger or violence.

Orange is the colour of flesh, or the friendly warmth of the hearth fire. The positive implications of this colour suggest approachability, informality. The negative side might imply accessibility to the point of suggesting that anyone can approach - a lack of discrimination or quality.

Yellow is the colour of sunshine. This colour is optimistic, upbeat, modern. The energy of yellow can become overwhelming. Therefore yellow is not a colour that tends to dominate fashion for long periods of time.

Green, in its positive mode suggests nature (plant life, forests), life, stability, restfulness, naturalness. On the other hand, green in some tones or certain contexts (such as green skin) might instead suggest decay (fungus, mould), toxicity, and artificiality.

Blue suggests coolness, distance and spirituality. In its negative mode, we can think of the "blues" - the implication being one of sadness, passivity, alienation, or depression.

Violet is the colour of fantasy, playfulness and impulsiveness. In its negative mode, it can suggest nightmares or madness.

ACTIVITY: Find examples that demonstrate the six (6) colours described above.

Texture

Texture is the quality of an object that we sense through touch. It exists as a literal surface we can feel, but also as a surface we can see, and imagine the sensation we might have if we felt it.

Textures are of many kinds:

Bristly, rough, and hard -- this is what we usually think of as texture, but texture can also be smooth, cold and hard, too. Smooth, soft, and/or warm and wet or dry are also textures; in fact, any tactile sensation we can imagine is a texture.

All surfaces can be described in terms of texture. Many designers make use of texture as a dominant element in their work. This is particularly evident in practical works involving the use of fibres, metal, wood and glass, where the tactile qualities of the material are a major feature.

ACTIVITY: Find examples of timber product designs that demonstrate the different textures of Rough, Smooth, Wet and Dry.