

Fundamentals of Design

For those who have not studied composition or the fundamentals of design, I shall devote this chapter to the rudiments of design. Certain "do's and don't's" must be observed, and one must learn to discover the excitement of design and the reasons why one design is more exciting than another.

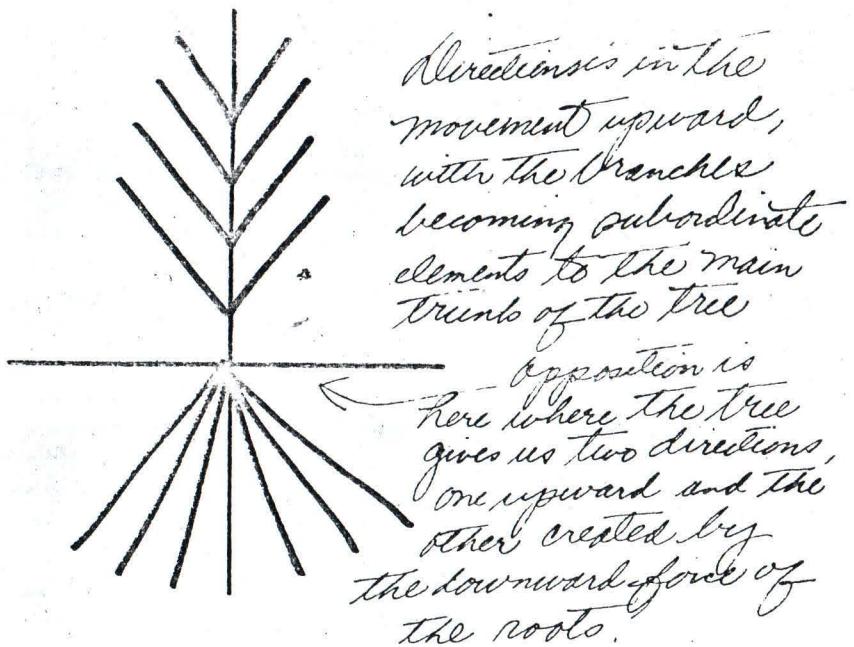
Design in Nature

To study the fundamentals of design, it is easiest to use abstract shapes and forms. Perhaps it would be best if we looked at Nature to learn a little about the definition of design. Design is the unification of elements to create a harmonious whole. To see what goes into the total composition, we must feel what we see. In fact, we must use all five senses to appreciate fully the values in design, for design is everywhere and all around us.

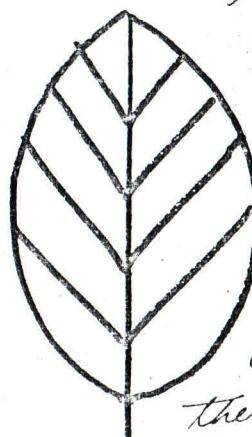
Let us start with a single tree to learn about *direction, repetition, variation, texture, opposition, line, form, color, dominance of a theme, and shape*.

From this single tree, we also learn about the dominance of color. When we examine the leaves, we find that each is distinctly different from every other. In autumn leaves yellow-orange is dominant, with specks of subordinate brown and green. In the leaves of spring the *quantity* of each color is quite the reverse; green is dominant and yellow and brown are the subordinates. As the seasons change, the change is reflected not only in the dominance of color, but in the variation of attitudes or moods.

We can learn about *direction, dominance of a theme, variations, repetition, opposition*, and other elements of design from practically everything in Nature, including the human being. Man has direction physically and intellectually; he has variations in size, form, color, and even attitudes. There is *rhythm* in the way he walks, talks, and plays, and there is



At the tips of a stem or branch we find a leaf.



Direction and patterns are repeated in this leaf. There is texture line and shape. Variation is in the color of a leaf and the shape provides another form of variation.

opposition both in his physical makeup and in his thought processes. Through his thought processes, man creates discord or harmony. He functions in infinite ways, and feels in degrees with each subtle experience. He incorporates every conceivable element that one associates with a well-designed piece of art or functionally designed object. Man is exciting design. If you examine him internally, as you might a machine, you find that every part is designed to fit and function with each different element of the human body, and all the varied parts work in harmony to give power and force to his direction and movement. There is continuity in man.

Continuing to analyze the various areas of Nature, we find an endless number of examples of design. Perhaps in so doing, we will come to the conclusion that nothing in Nature is badly designed. However, we have been looking at Nature from the surface. The dominance of color, for example, is only a superficial quality of Nature. Similarly, observing the dominance of color is only the first step toward comprehending the full meaning of how design can work for us visually or verbally. Seeing must turn to feeling. And feeling, ultimately, must turn to thought, and thought to logic.

Applying Fundamentals

We have seen that the fundamentals of design exist in Nature, and we have seen the dominance of mood or theme shift from one season to the next. But how can we apply these fundamentals on paper? Certain basic rules can be followed to comprehend and experience design. When we have learned these rules, we can begin to put them to work. When we do, the fundamentals of design are then applied to more literal or realistic problems in design for industry, government, or institutions.

To explain how these rules are interpreted, I have used three basic shapes for the sketches that follow: rectangle, triangle, and circle. They are abstract shapes and are used here to explain design in terms of visual balance and harmony.

Later you will see these shapes more realistically. When you do, you will be better able to apply them to your designs with clarity and sophistication for the purpose of communicating with an audience. In other words, you may associate a circle with the earth, an apple, an orange, a yo-yo, a tire, the moon, the letters "O" or "C", or anything else that spells, looks, smells, or feels round or circular. Similar

associations will occur with the triangular and rectangular shapes. The shapes may turn to realistic or recognizable forms, but the basic rules of space breaks and visual balance must be maintained. Of course, you will learn to be more daring with your division of contrast and relationships between elements, and when this happens, your designs will be even more exciting.

When examining the sketches, bear in mind the following rules: Look for dominance of theme, color, shape, or form; evenness of space, even numbers, evenness in quantity are dull and should be avoided. (Later, however, you will be able to make the dullness of evenness work for you, using contrast or opposition through related shape, form, and subject.) Remember, we are seeking not a physical balance, but a visual one. To create a visual balance on paper or canvas, we are individually in command of the tools and elements of design. We can exercise our right of selectivity.

Rules are habit-forming; their principles become part of our way of life. When applying these rules, we will see things differently, more excitingly, because we will see them not only as they are, but graphically as well. A whole new world will be open to us.

Developing Awareness

Recently, a friend of mine, a psychologist, was assigned to hire the staff for a mental hospital. His task was difficult, because working with the mentally retarded or ill person requires more than training in nursing or professional guidance. Although training is essential, what my friend looked for in applicants was compassion. As he explained, "Compassion is an attitude or a quality that one either has or lacks. While you can train a person to function professionally in a hospital, you cannot teach him to be compassionate." In addition to compassion, I think *awareness* is a quality equally important.

Isn't awareness the key to human understanding? To an artist or a designer, to be aware is to crystallize one's experiences in life and work. Awareness is the quality that adds depth to verbal or visual communication, that makes you see things differently, more individually. Can awareness be taught? Or is it a quality one is born with? Although the degree of awareness may vary from one individual to another, awareness can, and for a designer must, be developed.

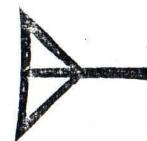
How can we develop awareness? We can start by associating what we see with what we know and feel. If this sounds vague and ambig-



Man



Woman



Man and woman united for procreation.



The woman becomes pregnant,



and bears a child.



The family; man with his wife and children.



Apāti from family life there is friendship between men.



Men quarrel and fight.



The man dies.



The widow and her children.



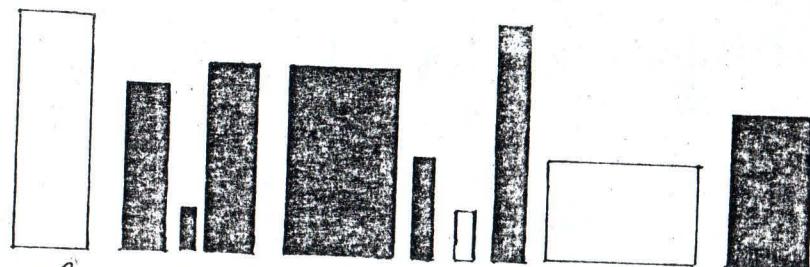
One child dies.



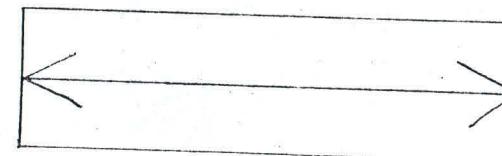
The forlorn mother with her remaining child.



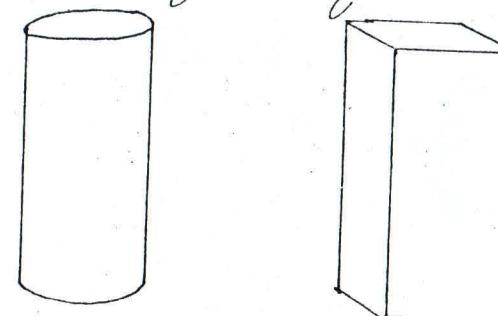
The mother dies, leaving one surviving child, bearing within himself the germ of a new family.



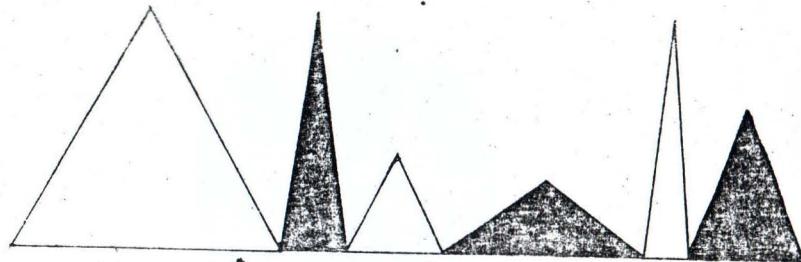
The rectangular shape, one of the basic shapes, comes in all sizes but they all have one basic characteristic... direction. It



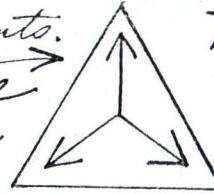
is used either vertically or horizontally. As a form the rectangular shape can be seen through a cylinder or block



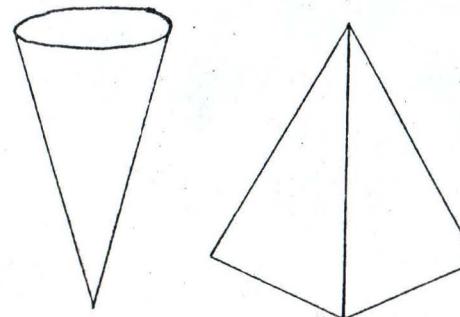
Unlike the square, which doesn't have a definite vertical or horizontal direction, the rectangular shape or form is a more active shape. In advertising it is seen through the use of text. The copy area usually gives you a rectangular



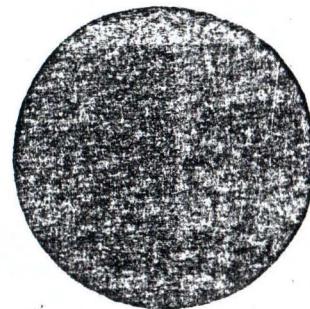
The triangle, another basic shape, also comes in many sizes. It has, basically, three directional accents.

 The accent is more pronounced in one direction if the triangle is drawn taller

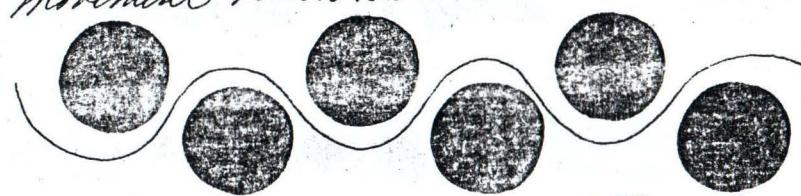
 The form of a triangle is often seen as an ice cream cone or pyramid



In advertising and corporate design the triangle is used in corporate trademarks or frequently seen in photographs as an integral part of a picture through objects such as ice cream cones, pyramids, architecture, space ships and snakes.'



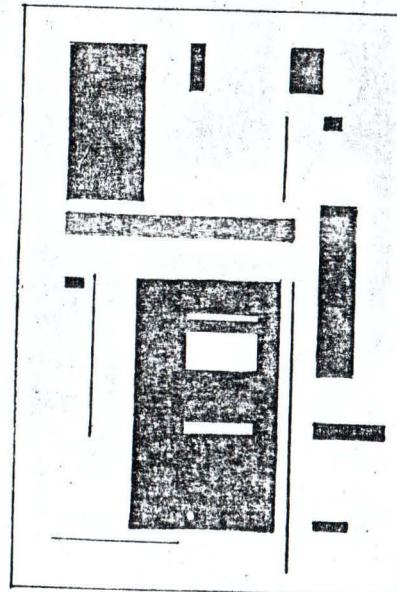
A full circle like a square has no distinct or positive direction. Because they are equal in dimension the directions are contained within the outer boundaries. The circle has direction & movement when its characteristic or



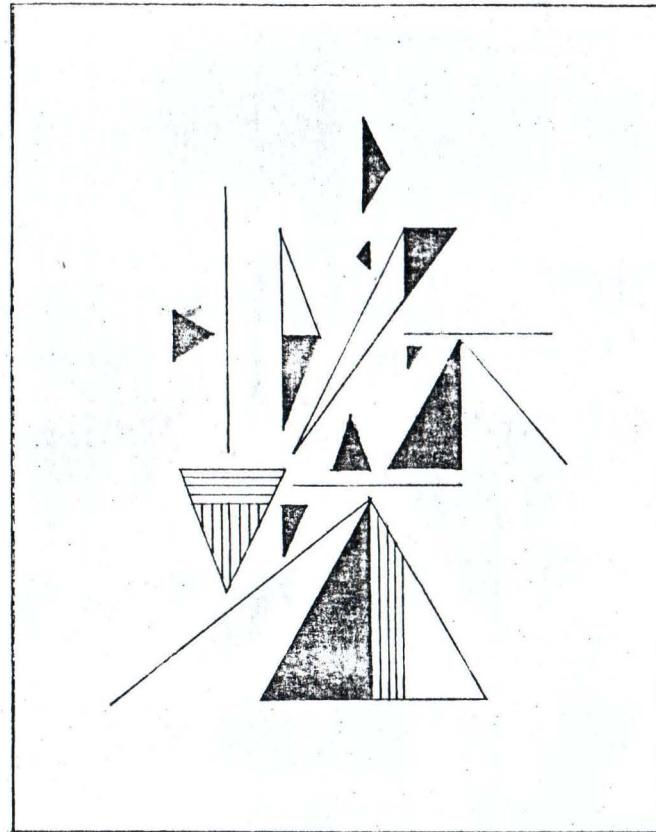
quality is used as in the sketch above. Circles are seen or at least the qualities are seen in many objects: moon, orange, golf balls, marbles, ping pong balls, coins, Earth, door knobs, fish scales, etc. In trademark designs the full circle is often used so is the oval shape. The circle is often understood to be a symbol of the universe or world.

The dominant shape for the design below is rectangular. The subordinate element is line. What is important about this exercise is that I have avoided using color, space breaks and sameness in the size of the positive and negative rectangular shapes. The negative shapes are the background areas of the composition. Contrast is achieved by placing the

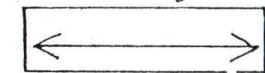
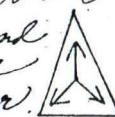
larger shapes against the small or and also against the lines. The greater the contrast between shapes, lines and color, (not used here) the more exciting a design becomes visually.
Repetition is



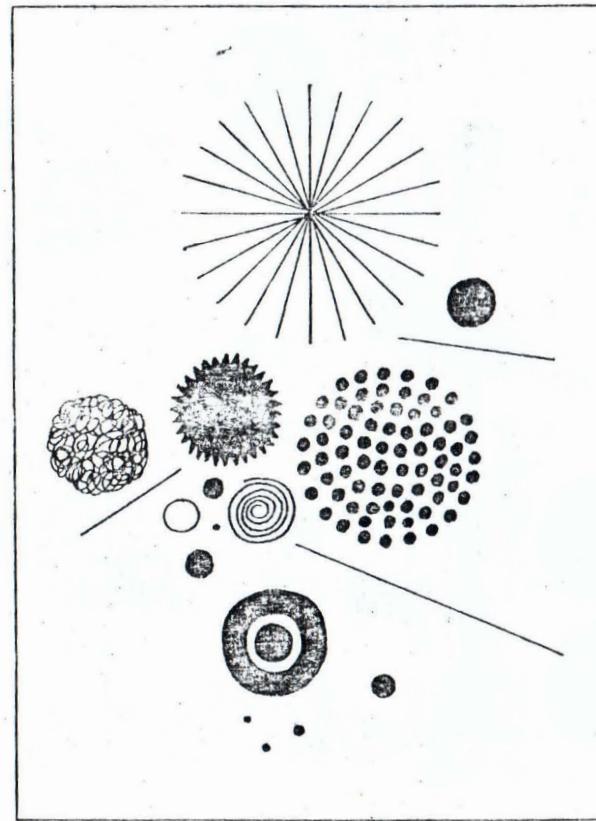
Created through the use of dominant rectangular shapes throughout. There is continuity and opposition as well. Repetition is created by placing one shape against another.



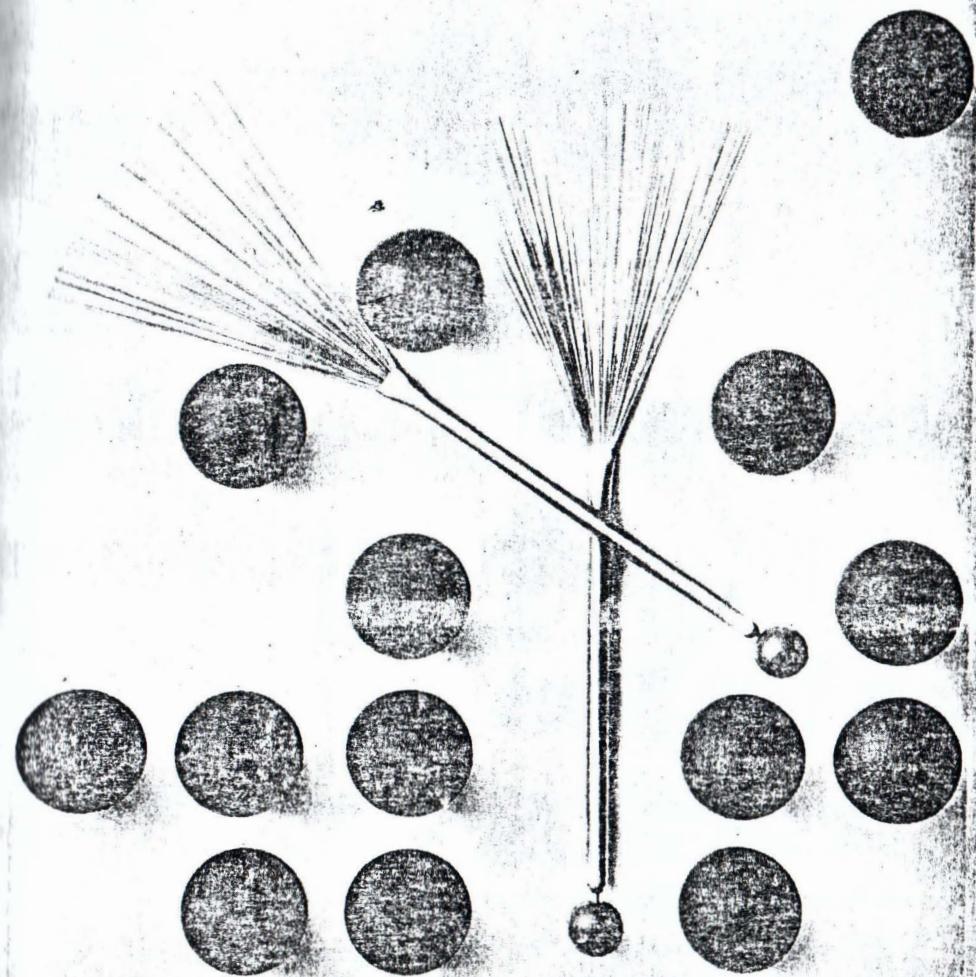
The dominant shape for this design is triangle and line as subordinate. The dominant value is black as it is with the two previous sketches. Triangles and rectangles have definite directions. A circle & square do not. Therefore it would be wise to bear these points in mind when you exercises with these basic shapes. Use these directions to your best advantage through continuity and relationship of one shape with the other.

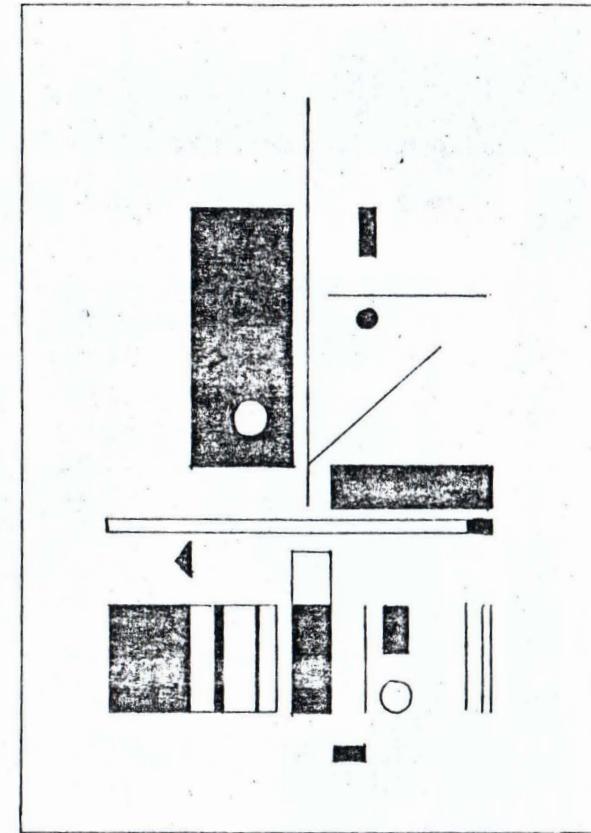


The dominant shape used in this design is circle. The subordinate element is line. I have tried to place as many varied circles in this composition... circles created through the use of textures,

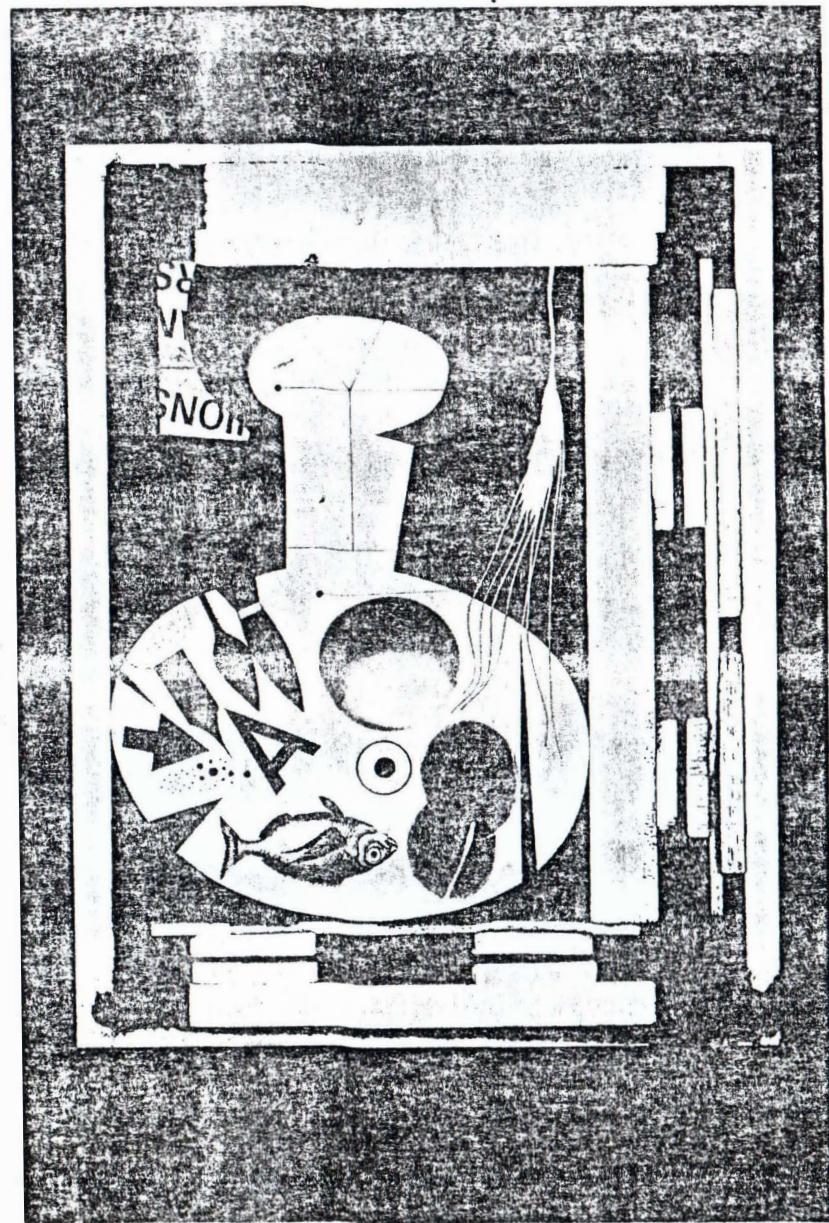


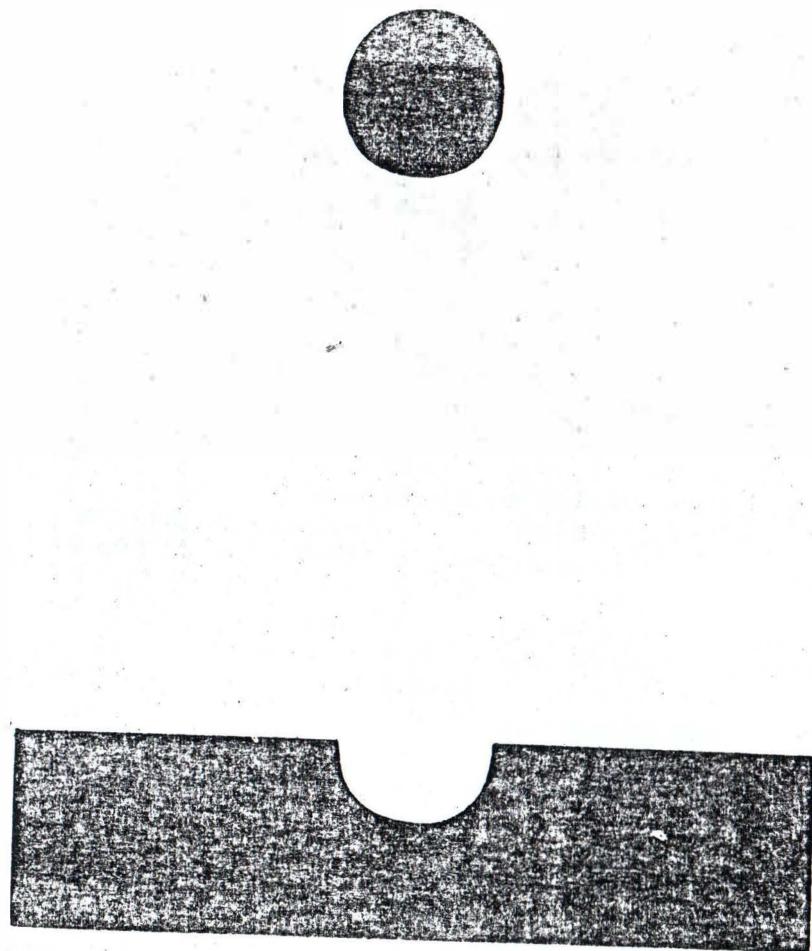
patterns, solid blacks, lines and dots. There is contrast in this design also through the placement of large circles against the small... the solid against the linear.





The dominant shape for this design is rectangle but for the subordinate, I have included the triangle and circle. Proportion of the amount used is extremely important in any design because the large amount of any element gives you your dominant. In your exercise do come with the circle as dominant... and the triangle as well. keep the others always subordinate.





Visual action &
Tension between the
positive area (top) &
the negative half circle
at the bottom. This
kind of inter-play & association is
frequently used by designers.

uous, let us begin by looking at our surroundings. If we were in a classroom, we might see a blackboard, windows, lights, desks, tables, chalk, words or figures on the blackboard, books, pencils, and students seated at their desks. Looking more closely, we see that each is made of varied patterns, textures, and colors. The windows, for example, are made up of rectangular or square panels; the blackboard is a large rectangle. The students can be seen as patterns or textures within the classroom dimension, while their garments provide a variety of colors. The light fixtures may be circular or oval in shape.

We have now begun to develop awareness. We have associated objects with shapes and colors. Now, let us go one step farther and associate these objects with other objects. If windows are square patterns, they can remind us of fish nets, or checkerboards, or other reticulated objects, such as screens or graph charts. We might even think of a building under construction, before the walls have been cemented on to the reinforcements. Each of these objects has distinct characteristics and qualities—the window is made of wood and glass, the fish net, of rope—and the purpose and function of each is different. In our use of association, we have found the common denominator for these seemingly unrelated objects. In design, we will use associations like this to add strength to our composition. We will also seek harmony in our visual composition. For instance, if we were to use a fish net, a screen, and a window, the theme of our composition might be the sea, and these elements might provide the basic story theme.

Association or relationship as it is used in communication applies to words with pictures, pictures with events, events with words, or something taking place in negative space with a situation in a positive. Through association, we can give our message a deceptive simplicity and a greater force. Our audience's imagination and intelligence complete our message by adding greater dimension to our basic conception.

Instructors in design and art schools teach these rules in different ways. Their methods may vary, and their approach to design instruction may be through the use of other materials and words. In this chapter, we have merely touched on the surface of design. Some of you can undoubtedly ignore these design rules and still achieve a beautiful and effective graphic composition. Others may go into politics, music, or education. However, I think you will find that some, if not all, of the basic rules of design, whether observed graphically or intellectually, will apply to most professions.