

## What you need to get started

A frightening thing awaits you. It has made strong men cry and sent women fleeing from its very presence. It is a blank piece of paper. What are you going to do with it? What threat lies beyond its snowy white innocence? You are going to have to make a mark on it—you are about to violate its purity. Can you do it? Of course you can.

First you will need materials. You can play the game that some illustrators/designers play, which is to buy the “very best” special made guaranteed for 40 years or 40,000 miles writing pen; or you can buy a simple felt tip pen. I recommend the simple pen that’s cheap, easy to use, and always there when you need it. For now get any pen or pencil you can find. We’ll have none of this “I can’t go on with the work because my special order pen has not arrived from Walla Walla.”

Use whatever you want as long as it’s simple, cheap, and you can carry it in your pocket or purse at all times. Don’t be one of those designers who is crippled without special drawing tools.

The kind of pen I prefer is a simple felt tip pen with a flexible point. Flair, EG, and Pentel (to name a few) make the inexpensive pens that I like. The only really important thing to me is that the point be able to draw thick lines when I press down firmly or thin lines when I use a light touch. Ball point pens don’t allow this flexibility.

You may decide upon a pencil. I like drawing with pencils but prefer that *you* begin with a pen. With a pencil you can easily erase and *fix up* rapid drawings. You should be learning to do rapid drawings correctly the first time, not learning to *fix up* drawings. A pencil causes many people to become “fix up” artists. You need to be committed—once the pen makes a mark the deed is done. So, for now, use a pen; save the pencil for later.

When it comes time for the pencil, what pencil should you buy? Pencils are rated 6H (hard) to 6B (soft). If you like to scratch your message in the surface with a nail, then 6H is your pencil. If you are a real soft touch, then 6B is the one for you. For me, 2H feels right—not too hard, not too soft.

### And Everyone Makes Mistakes

Also, you may want an eraser, in spite of my earlier remarks about erasing. To erase pen lines drawn with a felt tip pen, I wet the end of a pencil eraser. To erase pencil lines I use a kneaded eraser.

You may want to keep a ruler handy as well as a variety of colors of felt tip pens. I find it fun to draw in black then use some other color to add emphasis. The second color is my way of doodling with a drawing. You won’t need other colors or a straight edge, but then again you may find them fun.

**Many people have the tendency to load themselves down with tools they cannot afford, cannot easily use, and don’t really need.**



Going back to that blank sheet referred to earlier, you will need paper to write on. First of all, use the paper in this book. If I request an exercise be done in the book, do it! Don't be afraid of ruining the book; it is a workbook. It's not a book to look pretty on your library shelf. If you do not intend to do the exercises in the book, it is best not to buy it.

You'll need two other kinds of drawing paper. A good basic paper is regular bond paper, the kind you write and type on. Most drawings will be done on cheap bond paper.

You'll also need tracing paper. In one part of the book we cover how to evolve drawings. To evolve a drawing you will need to trace and refine your initial sketches. I prefer a 14" x 17" pad of tracing paper that is easy to see through but strong enough not to tear when you write on it. The least expensive paper you can buy that will do those things is the kind you should buy.

You need to get to know your pen so that it becomes an extension of your hand. Your pen becomes part of you. You need to become so familiar with it that you don't think about it. This comes from drawing or doodling a lot.

A tennis player's racket becomes an extension of the player's arm and hand. He automatically knows how far it will reach to hit the ball. Until a tennis player becomes familiar with the racket, he can't play tennis well. And the way a player learns to control that racket is to hit tennis balls. He doesn't jump right in and plan a championship game first time out. He just hits the ball around—at walls, fences, other players, or over the fence.

You are like the beginning tennis player. You are trying to fuse your hand permanently to the pen. The way you do this is by drawing. Scribble or doodle often. Practice every chance you get.

6. Line is easy to reproduce on copy and blueprint machines.

Now you have the necessary tools. You are ready. It's time to begin. The next page has the first exercise.

The first few exercises are really easy. Maybe even a little too easy. The important thing is for you to begin to do *something*. Get familiar with your pen and paper.

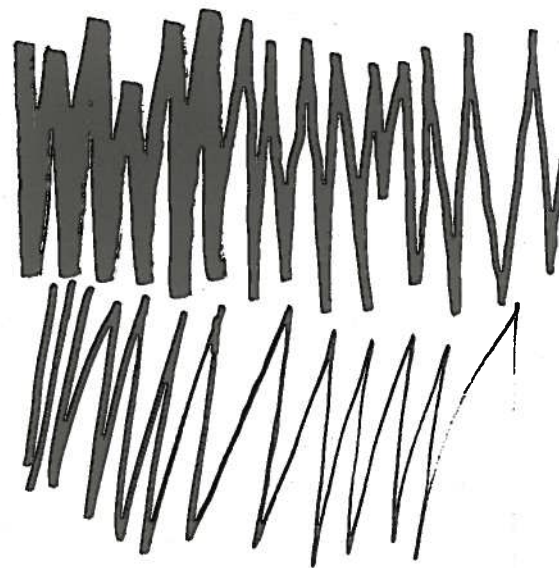
Start with lines. Make some lines with your pen—thick lines and thin lines. Try different pressures on the pen point. Lay the pen down on the paper; use the side of the pen tip to draw a line.

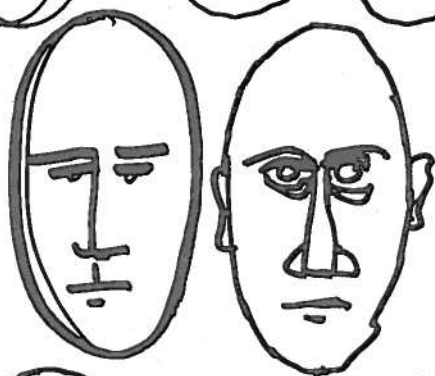
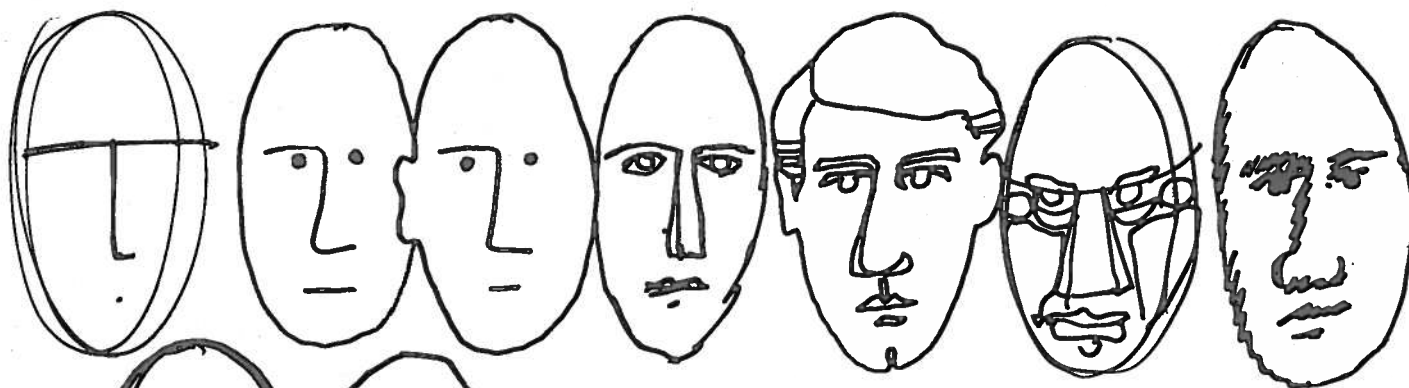
**The ultimate goal is to have the tools fuse with yourself.**

### **A Critical Drawing Tool—The Line**

Lines are the first drawing technique you will learn. And there's good reason for learning lines:

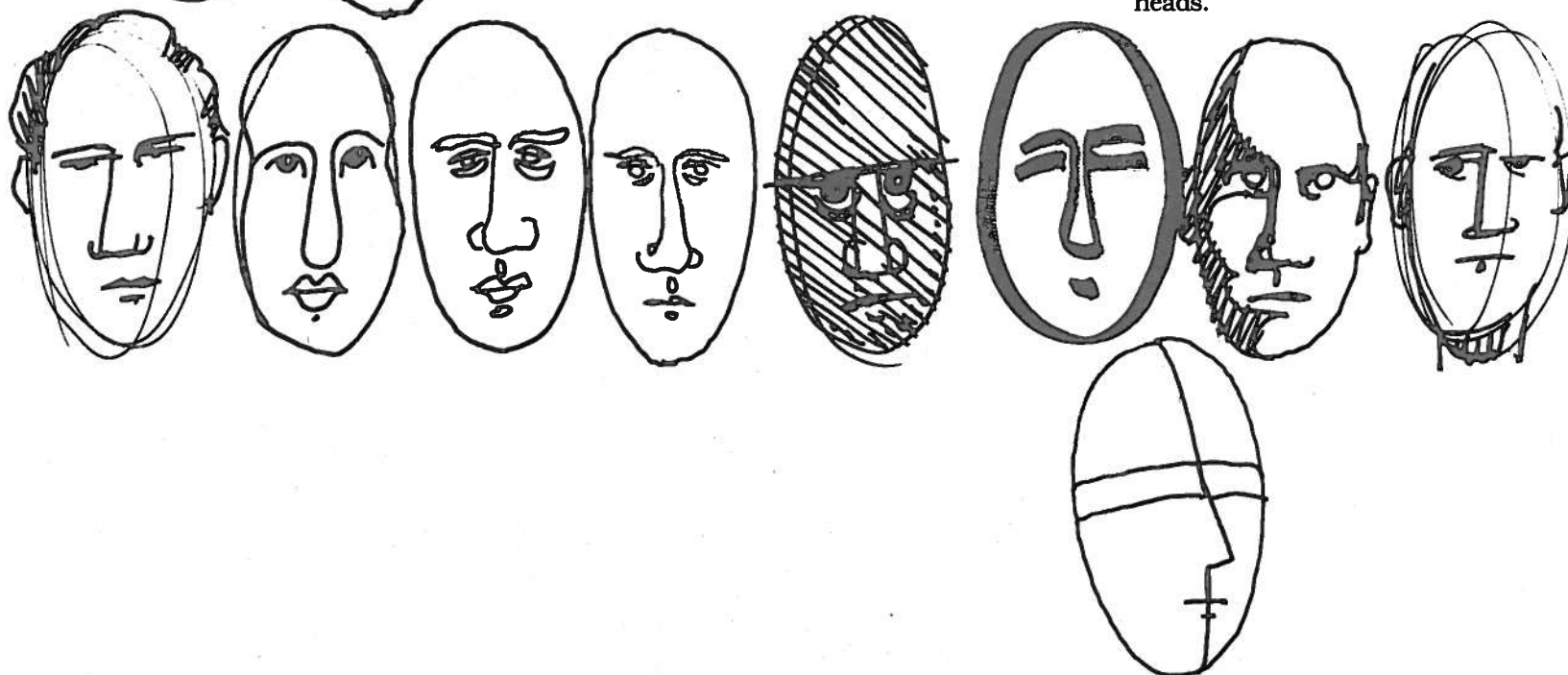
1. Line drawing is a quick way to visualize ideas with a minimum use of time and materials.
2. Line drawing tools and materials are usually the easiest to use and least expensive.
3. Line drawing is the natural way to draw—children begin with line and adults usually continue with it as they doodle throughout life.
4. Line emphasizes the basic structure and composition of a drawing which ensures more probable success and a more effective sketch.
5. Line provides a framework on which to hang other drawing techniques such as shading and color.





### Look Close

All of the drawings on this page were done with a single pen. Thick lines, thin lines, dark lines, light lines, crisp lines, and fuzzy lines are all a product of one single pen. You need to learn to control your pen to be able to extract the variety of lines shown here. Finish filling the page with heads.



## Visual Thinking

Like any kind of thinking, visual thinking becomes easier and more productive the more you do it. The mind has been compared to a muscle in that it performs better the more it is used.

## Visual Thinking Games

In an attempt to get your mind in the groove of thinking visually, try the following visual games. First, draw any doodle. Ask a partner to make something from the doodle. Here's an example of how it's done.

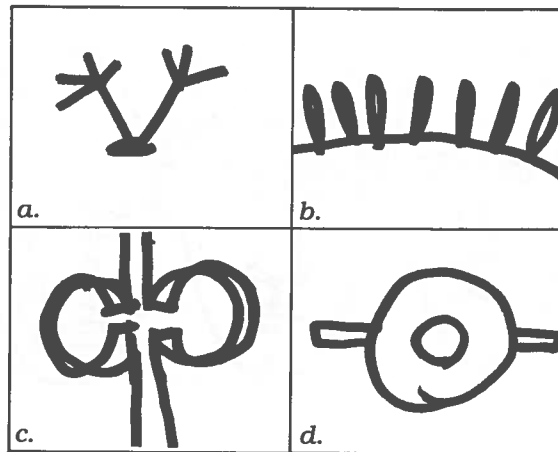


☐ Now you make something from your doodles. Quality of drawing is not an important consideration. The exercise is to teach visual thinking. Just be sure that your drawings are recognizable.

☒ Check the box as you complete each exercise.

## What Is It?

Another fun game is to try to guess what the objects are when an incomplete view is shown. Your mind is forced to imagine what the drawing would be if seen from a more complete view or if the rest of the drawing were visible.

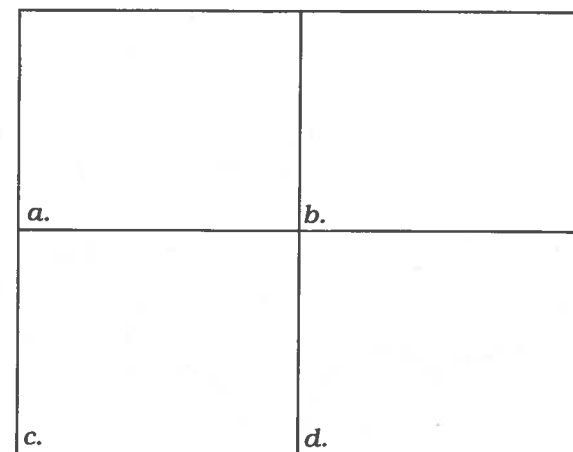
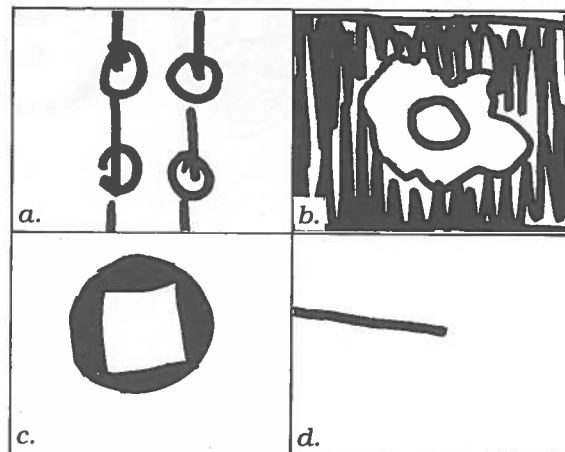


☐ Look at the squares above. I'll tell you what the drawings represent so that you get the feel of how the exercise works.

- a. early bird getting the worm
- b. just before Custer's last stand
- c. a flamingo swallowing a barbell
- d. a Mexican wearing a sombrero riding a bicycle

☐ Below are some other drawings. You imagine what you think the drawings represent. The answers are shown on the next page.

☐ Using incomplete pictures as in the previous examples, you draw the following things

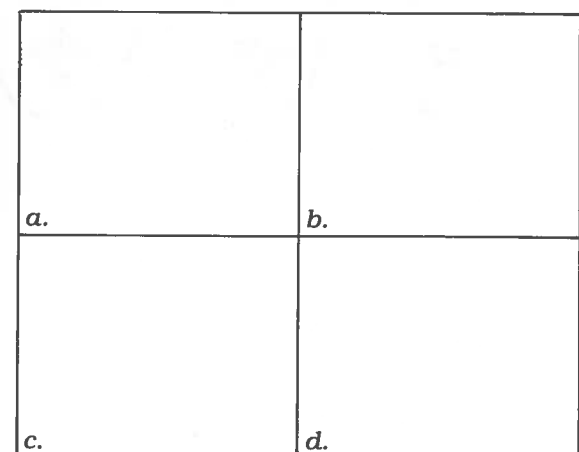


in the squares above:

- a. a porcupine's pillow
- b. Abraham Lincoln taking a bath
- c. a spider doing a handstand
- d. the other side of the argument

☐ In the last two sets of squares make up your own visuals. (If you are tempted not to do this exercise, reconsider. Learning to think in visual patterns is accomplished by practicing. It is an easy, fun exercise, so try it.)

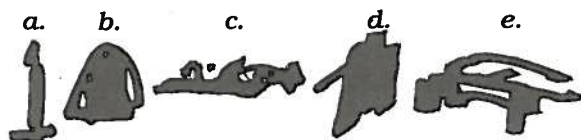
- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_



## Getting the Picture

Most all of us have, at one time or another, played the game of guessing what we see in cloud formations. The puffy clouds indicate images to our mind. This next visual game is very similar to that.

□ *Shown are a bunch of squiggly lines. A series of sentences describe the lines. You match the sentence with the squiggle. Note: in some instances it isn't necessary that you see a distinct image in the lines, you might just get a certain "feel" that says to your visual mind what the sentence says.*



- He had learned the amazing ability from his brother's dog.
- After laboring for weeks she was ready for the unveiling.
- The wierd Gopile stomped down main street consuming everything in its path.
- How long it had been there was impossible to determine.
- 61-year-old Maude hadn't ever been married; indeed, it was doubtful she ever had a suitor.

□ *Make up your own squiggles and sentences to describe what they mean. Remember, there is no single right answer. It is an intuitive exercise.*

## Key Principles

A number of key statements will help you understand what this book intends to accomplish. Some of the exercises may seem

strange, but every exercise has been calculated and tested to be effective in accomplishing a specific purpose. Listed are the goals for the book and the methods that it uses to reach them.

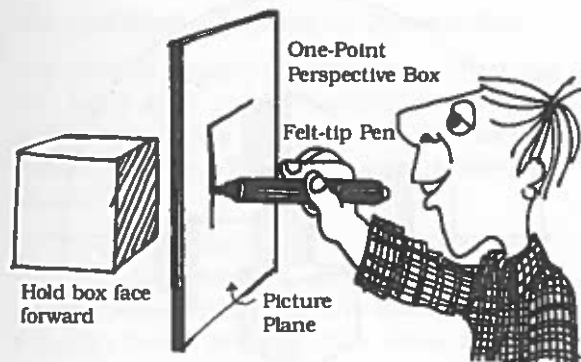
1. The intent of the book is to help you develop your own unique style of visual expression. It is not trying to help you become a master illustrator, just a visual thinker. The exercises take you from copying someone else's visuals to making your own. As the book progresses, you should develop a style that is comfortable for you.
2. You must push yourself. Becoming better at drawing is similar to other skills in that you must push beyond current capabilities in order to improve. A weight lifter improves by trying to lift heavier pieces. A runner improves by running faster or for longer periods of time. Push your abilities—strive for better work in shorter periods of time.
3. Defer judgment. One of the biggest pitfalls to learning visual skills is the tendency to judge. "My drawings look silly compared to those in the book," you might say. That's judging. Don't judge. Just do the exercises.
4. Humor helps defer judgment. Many artists criticize the cartoons and nonsense drawings in a book like this. The purpose of the humor is to get the student to laugh. If you can laugh at your drawings, it's easier to defer judgment. Taking things too seriously too early in the learning process discourages some would-be visual thinkers.
5. Set tight parameters. The exercises attempt to restrict your freedom at least for now. Tight restrictions as to what is to be drawn, how long to take, and so forth make drawing easier at first. Do the

same for yourself. Set tight goals. Too many choices breed confusion and non-performance. Decide specifically what to do and then do it.

6. Rapid viz is a progressive process. You will learn a little at a time. Go back over things to determine your own improvement. Progress in small steps rather than trying to become proficient in one big step.
7. Learn in sequence. Some things are more easily learned after first learning preparatory skills. Such is the case with many of the rapid viz techniques. Take things in order as much as possible.
8. As you proceed through the book you will be asked to draw things that may not interest you. "Why draw interiors of buildings if I am a landscape architect?" you may ask yourself. The answer is that the techniques you learn are the same no matter what you draw. What you learn by drawing objects different from your area of work or study will be beneficial to you.
9. Keep records of your progress. Check each exercise. Save the drawings that you do. Record the date or sequence you did things in. As you look back over previous work you will be surprised to note the progress.
10. This book is not the ideal teaching medium. A live teacher would be better, but this is a good alternative. The techniques have been tested with live students. Although learning will take effort on your part, the effort expended will be worth the rewards. Learning rapid viz will not only change your drawing habits, it will expand your thinking abilities.

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- a. a bear climbing a telephone pole
  - b. the view of the sun through a chuck hole
  - c. a square peg in a round hole
  - d. the end of the line





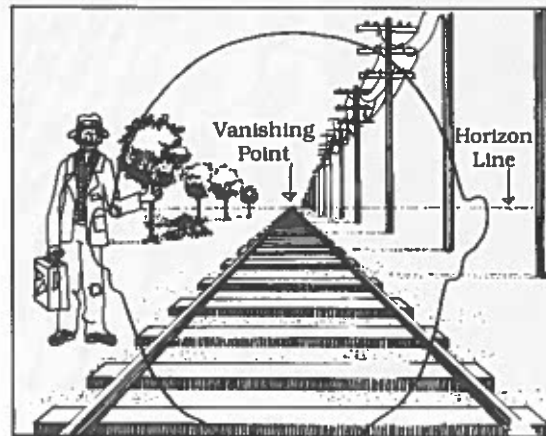
### One-Point Perspective Box

If you hold the box directly in front of your eye, you will see one-point perspective. What this means is that all lines appear to converge at one point on the horizon. If you have ever looked down a railroad track, as you stand in the middle of the track, you will notice that the tracks seem to disappear in the distance. They seem to converge at one point far in the distance. This is called one-point perspective. One-point perspective means that parallel lines disappear at one single point on the horizon line in the distance.

There are three different kinds of lines in perspective drawing. One-point perspective has all three of these lines. It has vertical lines, horizontal lines, and perspective lines. Some of

the lines are exactly vertical; they go straight up or straight down and are parallel one to another. Some of the lines are exactly horizontal; they are parallel across the page. Some lines are perspective lines; they converge at a point on the horizon line.

As you draw the box, the surface that you



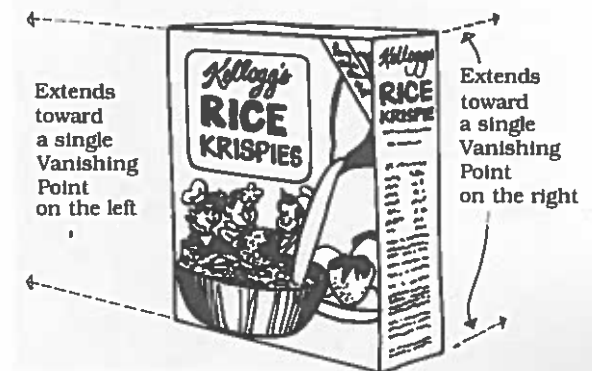
draw it on is called a picture plane. It is the transparent glass surface. The picture plane is your paper if you are drawing the box on a piece of paper. You draw on paper the same as you trace through glass, but instead of looking through the glass (the picture plane) to draw the box, you hold your paper (the picture plane) in front of you and trace that box.

### Two-Point Perspective

A second kind of perspective is called two-point perspective. Turn your cube so that you are looking at an edge of that cube. From that edge the sides of the cube seem to get smaller as they go away from your eye. Both sides get smaller. Both sides seem to vanish at two different points on the horizon line. For this reason, it is called two-point perspective. Two-point perspective means that from a given edge, parallel lines, like the sides of the cube,



converge at two single points on the horizon line at opposite sides of your paper. Notice how the edges on the Rice Krispie box and the newspaper vending machine seem to get slightly smaller as they go away from you.



## Three-Point Perspective

The third kind of perspective drawing is three-point perspective. What happens here is that lines appear to converge at three given points either to the sides of the picture plane or at the top or bottom of the page, depending upon where your eye level line is. Look at the corner of the building. As the sides of the building go away from you, the two parallel edges create lines that will disappear at a point on the horizon line. As you look up at the building you will notice that the vertical lines that go up appear to get closer and closer at the top so that they would eventually disappear at a point high above the building. This is three-point perspective.

The photo below is a three-point perspective view of a box of cereal.



## The Three Kinds of Perspective

### One-Point Perspective

Side of box against glass

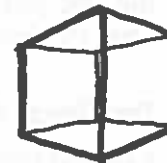
3 kinds of lines—  
vertical lines,  
horizontal lines,  
perspective lines



### Two-Point Perspective

Edge of box against glass

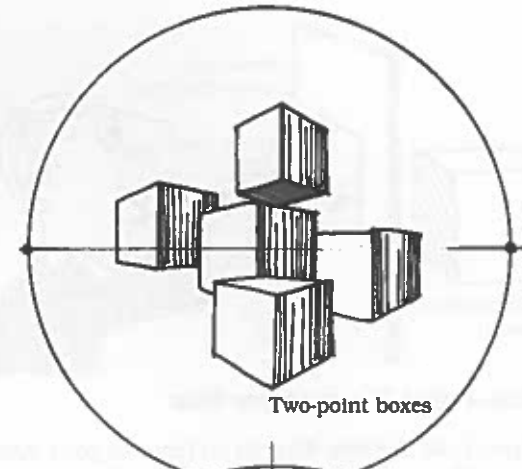
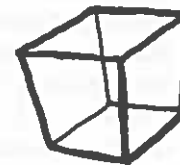
2 kinds of lines—  
vertical lines,  
perspective lines



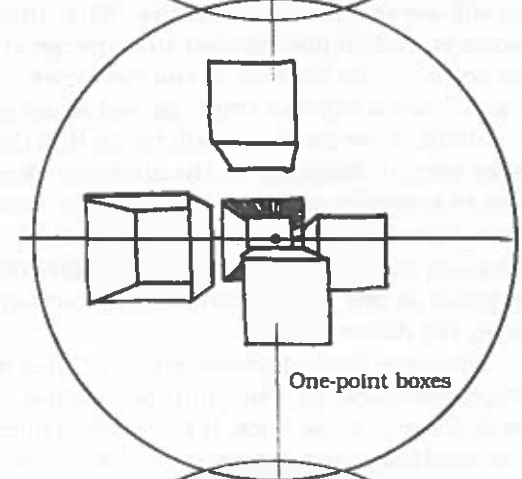
### Three-Point Perspective

Corner of box against glass

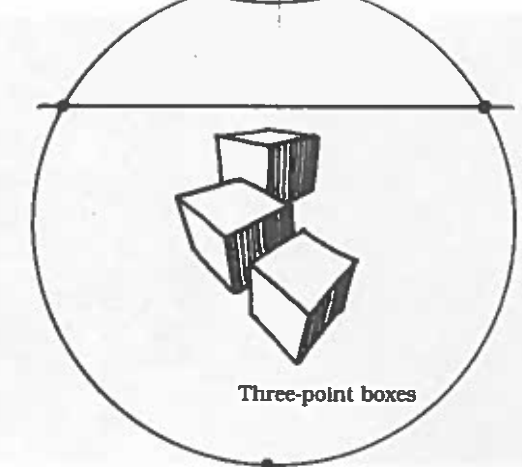
1 kind of line—  
perspective lines



Two-point boxes



One-point boxes

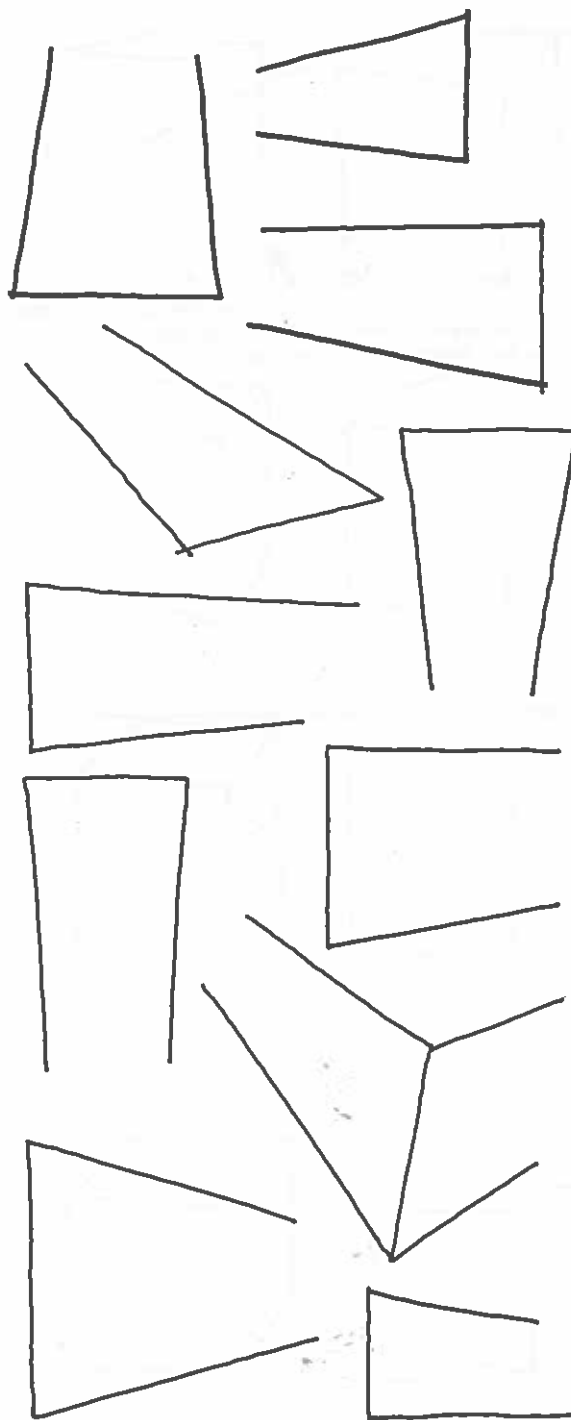
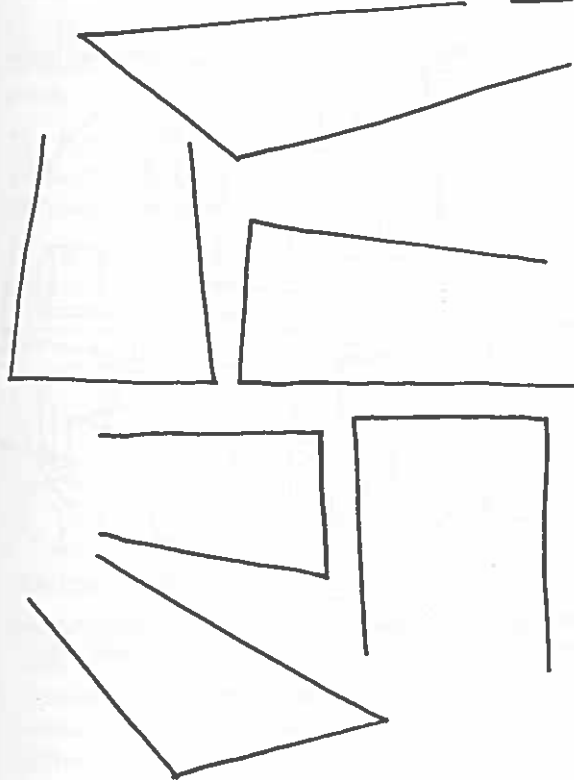
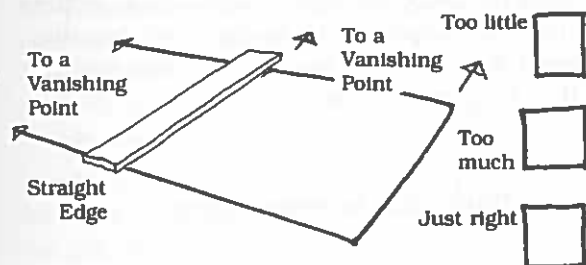


Three-point boxes

## Recognizing a Square in Perspective

You need to develop a critical eye so that you can easily see if a cube is drawn in correct perspective. Below are some lines that are three sides of a square. The fourth side has not been drawn in.

□ You draw the fourth side so that these squares show accurate perspective. Slide a straight edge along until the square appears visually correct to you. Then, draw the line.

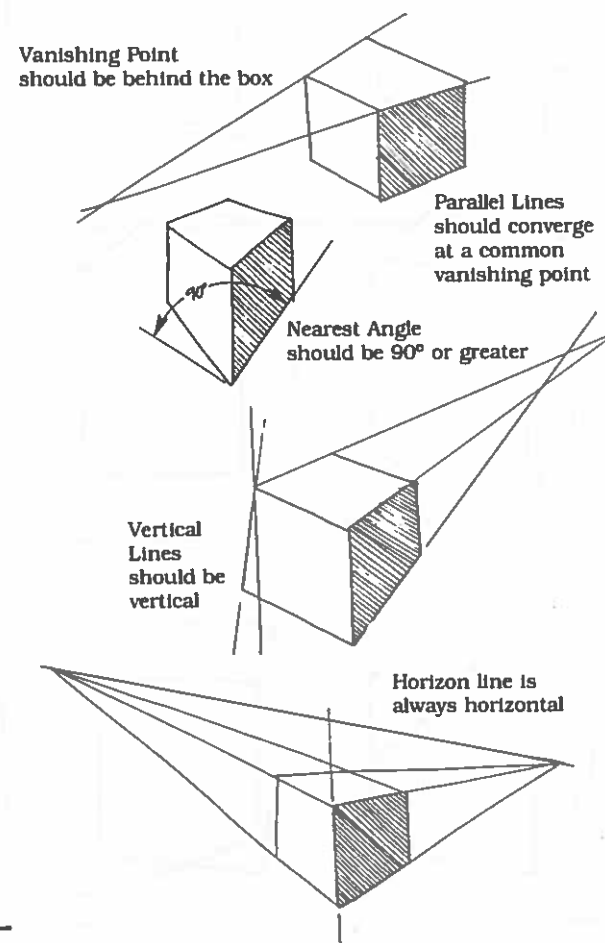


## Key Principles of Perspective

Here are some of the key principles to remember when drawing boxes in perspective:

1. Perspective lines converge at a vanishing point.
2. The horizon line is always horizontal.
3. The nearest angle is  $90^\circ$  or greater.
4. The sides of a cube are proportional to a square.

Some common errors happen when you learn to draw cubes. Let me tell you just a few of them to watch for.

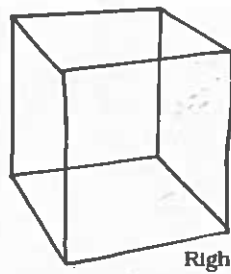
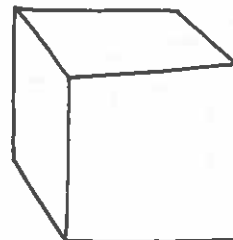
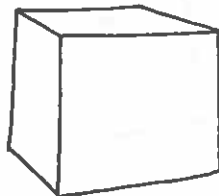
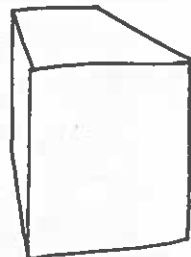
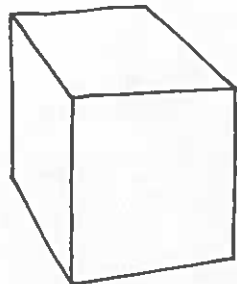
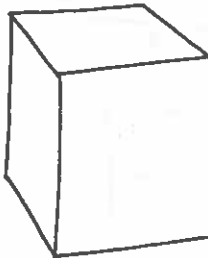
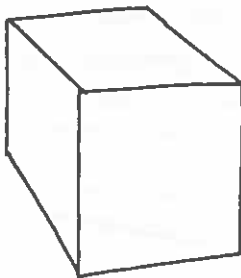
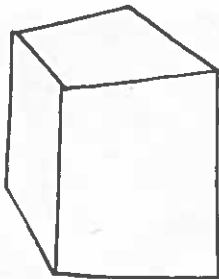
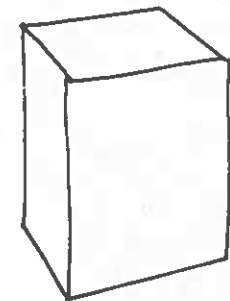
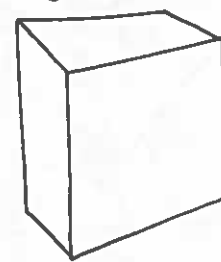
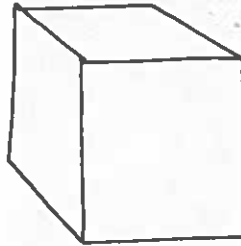
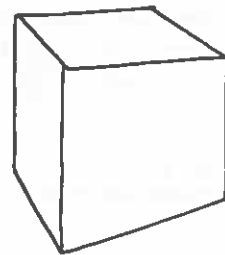
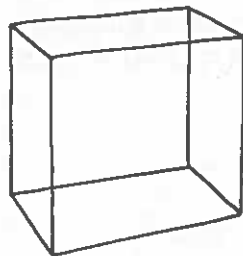




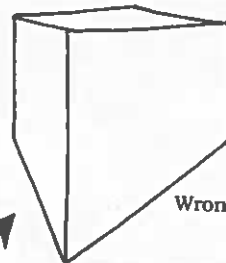
## Recognizing a Cube

Some of the cubes below are drawn incorrectly. What is wrong with them?

□ Draw over the cubes so that you fix what is wrong. (The cubes have at least one of four things wrong: (1) convergence (2) horizon line, (3) nearest angle, (4) incorrect proportion. Each cube may have more than one thing wrong with it.)



Right



Wrong

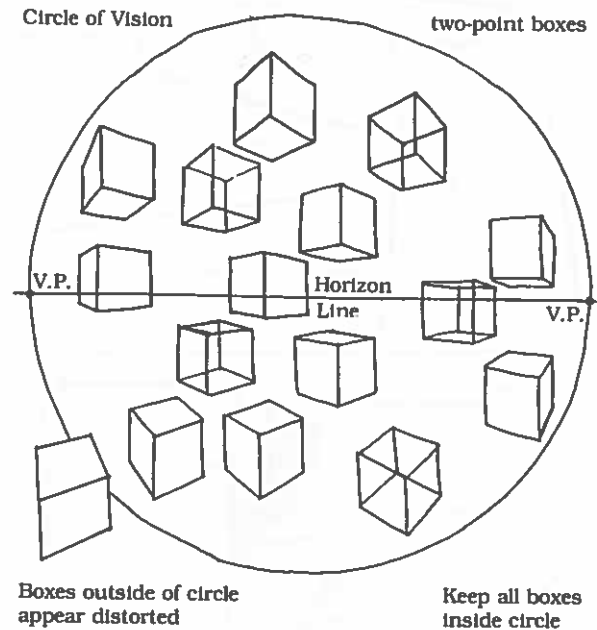
This one has all the mistakes.

You may want to draw the hidden edge lines of the cube to help you determine what is wrong.

## An Explanation

Below is a circle with a lot of different cubes drawn in that circle. The line going straight across is your horizon line. Above or below the horizon line the cubes begin to distort because of the perspective drawing. All of these cubes are drawn in two-point perspective. Whenever you draw things in perspective, you will find it helpful to imagine that you are drawing within the limits of a circle. If you draw things beyond that imaginary circle, then the cubes appear to be so distorted that they don't seem real. So you need to draw within that imaginary circle.

## Two-Point Box in Perspective



## Drawing Two-Point Boxes

Drawing in two-point perspective is the easiest of all perspective drawing for most people. You have only two kinds of lines—perspective lines or vertical lines. If you seem to have trouble drawing things correctly, draw the box as though it were transparent so that you can see the hidden sides, edges, and corners. Then erase the hidden lines once you have everything drawn correctly.

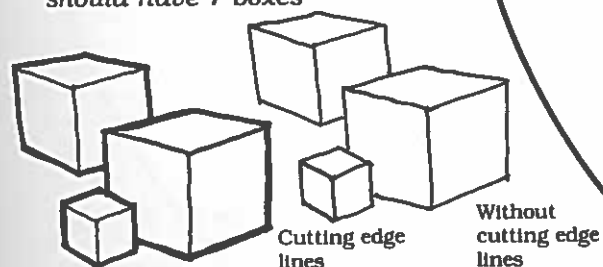
☐ In the circle I have started an exercise for you to complete. Study the one box that is already finished. Then do the following:

☐ Finish drawing the other box that is started but not yet complete.

☐ Draw 3 more boxes anywhere within the circle.

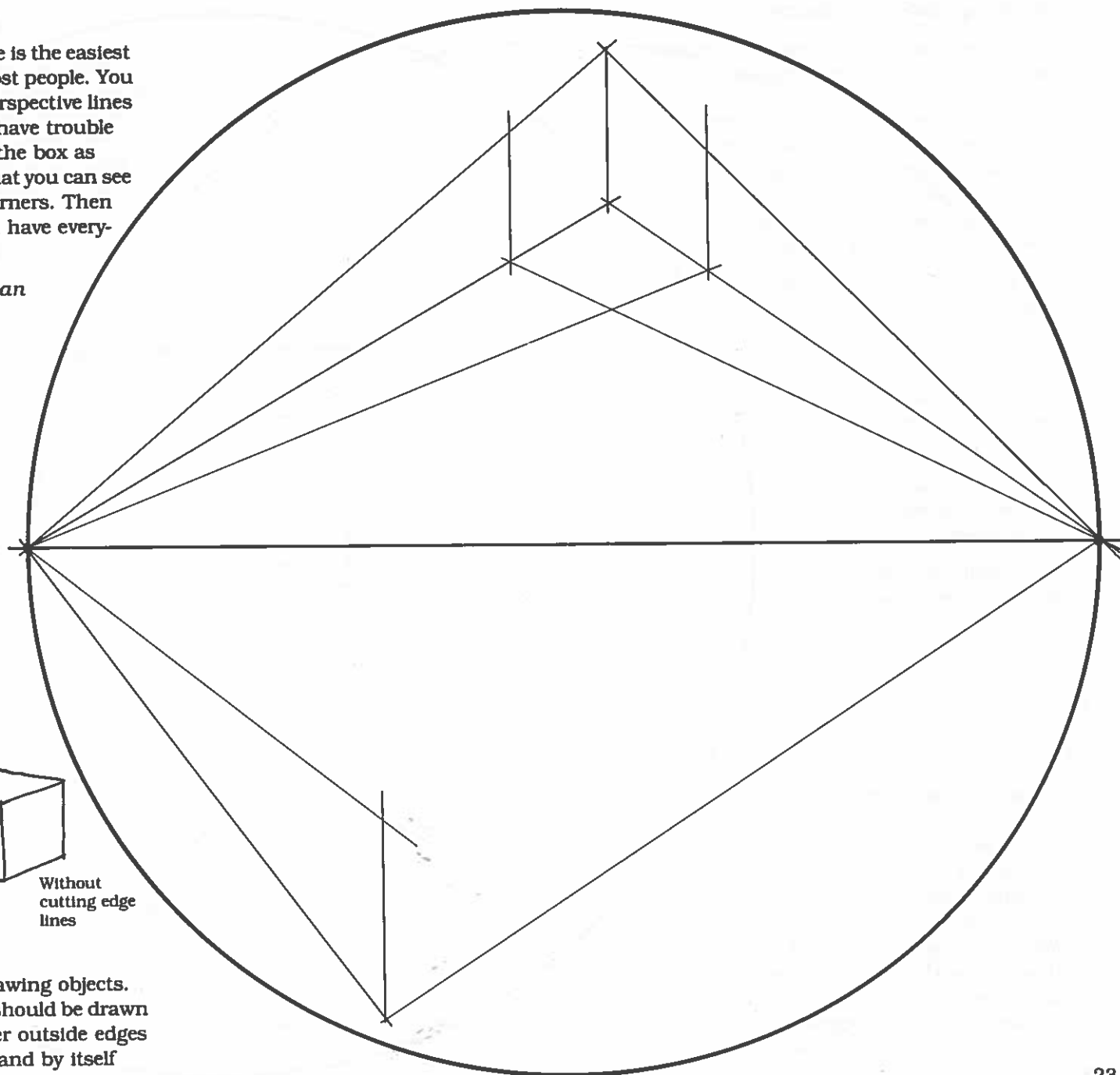
☐ Draw 2 boxes that sit in front of or behind other boxes.

☐ When finished you should have 7 boxes



### Cutting Edge

Here is a hint to use when drawing objects. The outside lines of the object should be drawn darker and heavier. The darker outside edges make each object appear to stand by itself either in front of or behind another object.



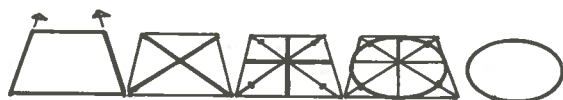
cups, coins, saucers, discs and so on—appear as an ellipse because you see them in perspective most of the time.

## Drawing An Ellipse

To draw an ellipse is an easy process. First, draw a circle inside a square. Draw diagonal lines from the corners. Draw lines from the midpoint of the sides of the square. Plot a point 1/3 in from the corner on the diagonal. Now draw a gentle curve that passes through the points 1/3 in on the diagonals and touches all four midpoints of the sides of the square. You have drawn a perfect circle.

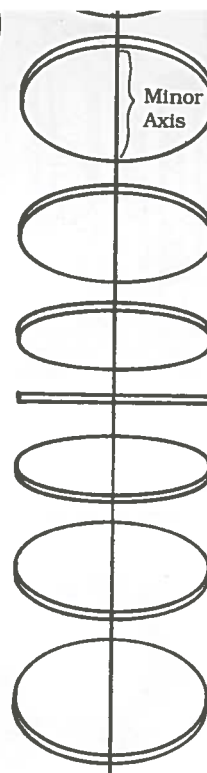
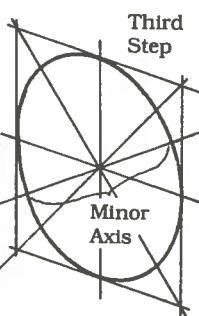
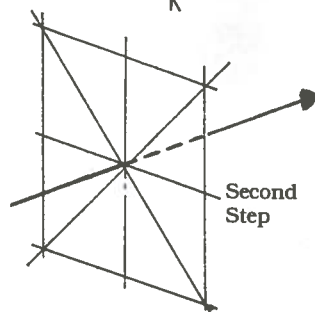
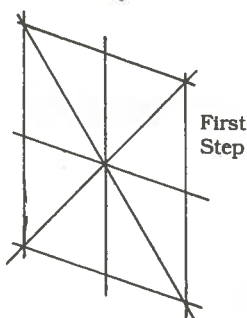
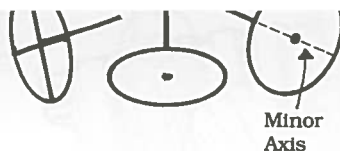


The process for drawing an ellipse is exactly the same as for the circle. But this time you will draw the square in perspective. The circle in the square, when drawn in perspective, is an ellipse.



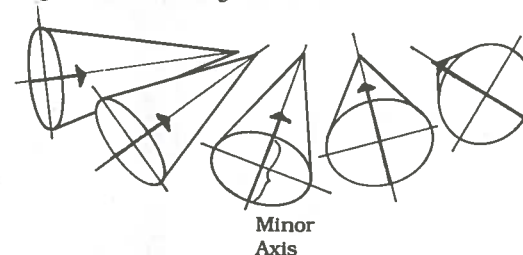
## The Minor Axis

The minor axis is the narrowest diameter of an ellipse. It is always in the direction of a pin if it is pushed through the center. Also it is the direction of the axle of a wheel or the shaft on a cylinder or the center of a cone. Keep that in mind and it will eliminate a lot of distortion problems.



is exactly flat—it's a straight line. As you raise the object up you see different views of that object. You see elongated circles. Those elongated circles are ellipses, circles seen in perspective. Raise it up above your eye or down below your eye and look at it—look at the visual changes that occur.

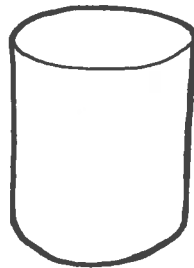
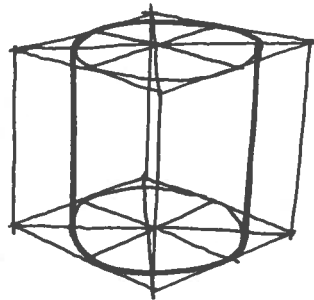
□ Remember that cube you cut out and assembled previously? Find it. The cube has a circle drawn on one side. Cut out the circle. (If you can't find the cube, draw a circle on a piece of paper and cut it out.) Through the center point of the circle draw two perpendicular lines to form an X. Push a straight pin through the center of the circle. Hold the pin between your fingers. Rotate your circle to the different positions as shown. Observe what happens to the circle and the lines. As you move the circle, one line appears to shorten—this is the minor axis. The major axis is the long line; the minor axis is the short line. Take note that the minor axis line always lines up with the pin that you have put through the center of the circle.



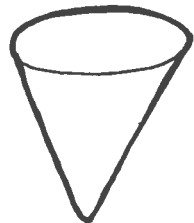
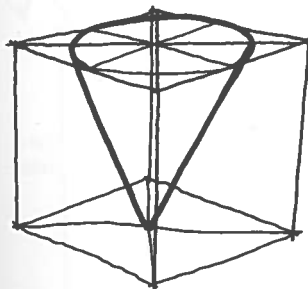
□ Draw a page of squares in perspective and draw ellipses in them.

## Cylinders and Cones in Perspective

□ Draw a cylinder by first drawing a box in perspective. Then draw ellipses (circles in perspective) on opposite sides of the box. Connect these circles with straight lines to form a cylinder.



□ Draw a cone much the same way as a cylinder. But this time draw a circle on only one side of the box. On the opposite side of the box find the midpoint. Draw lines from the midpoint to edges of the circle. You have a cone.

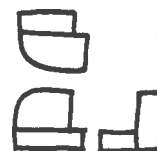
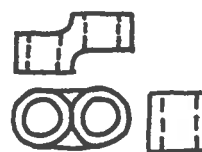
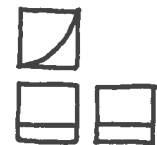
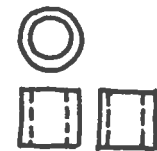
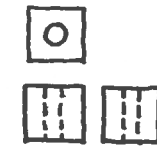
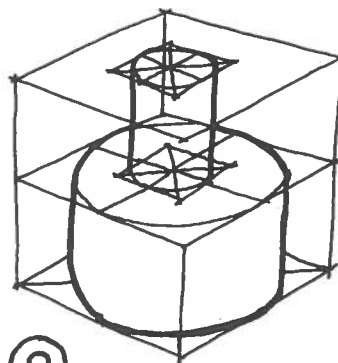


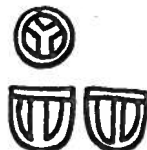
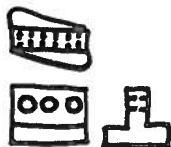
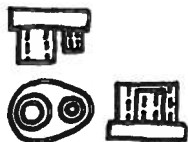
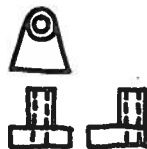
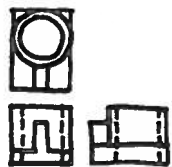
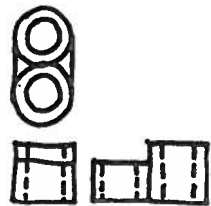
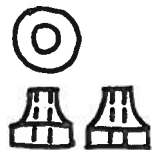
## Your Goal

Eventually you should become so familiar with how circles appear when drawn in perspective that you can draw an accurate ellipse freehand. Use the square in perspective to aid you at first. Observe what happens to the circle with a pin through it. Soon you will become so familiar with ellipses that you will not need to draw the diagonals and midpoint lines through the square in order to accurately draw a circle in perspective.

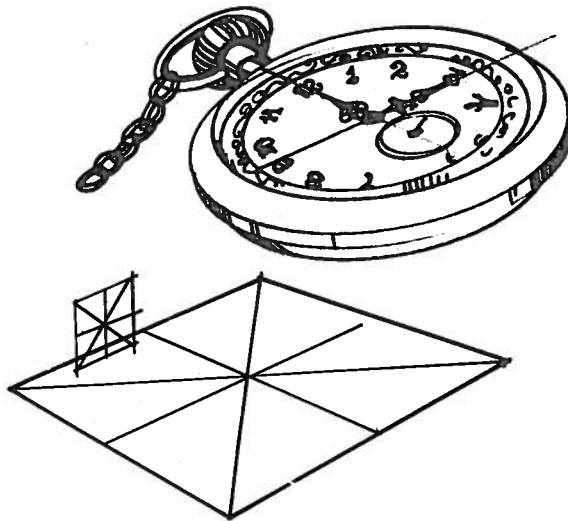


□ Remember before when you were to draw the three-dimensional view of an object after seeing the top view and two side views of the object? Do the same thing here that you did before. But this time the objects have circles or circular shapes in them. You will need to know how to draw ellipses in order to draw the right shape for the circle part of that object.

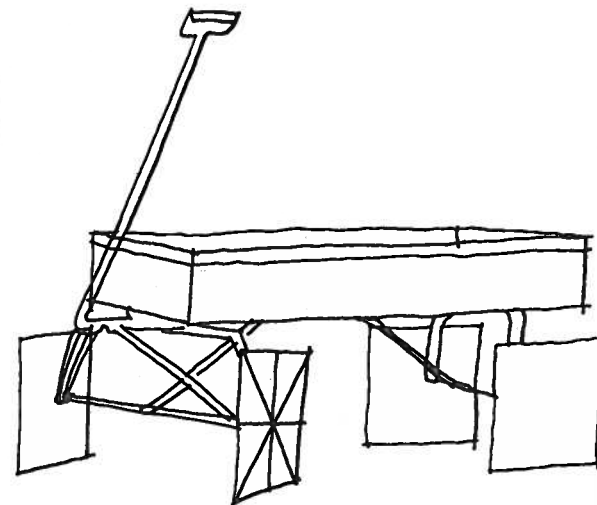




☐ Draw a pocketwatch.

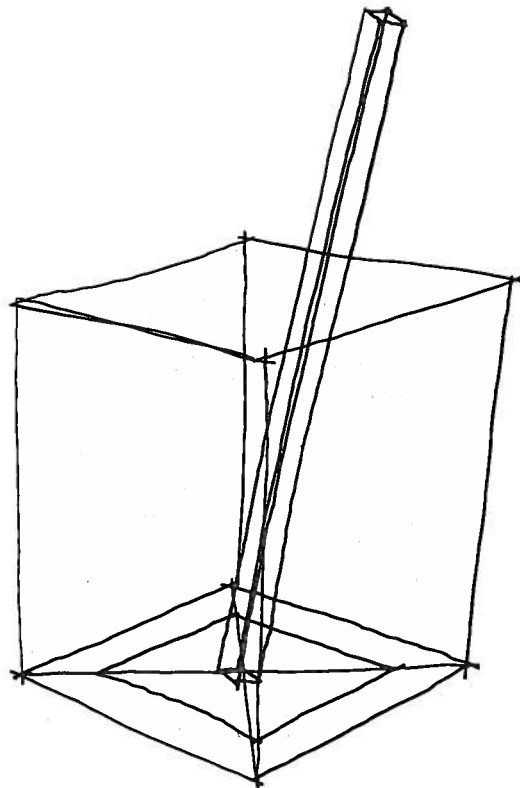


☐ Draw a wagon.



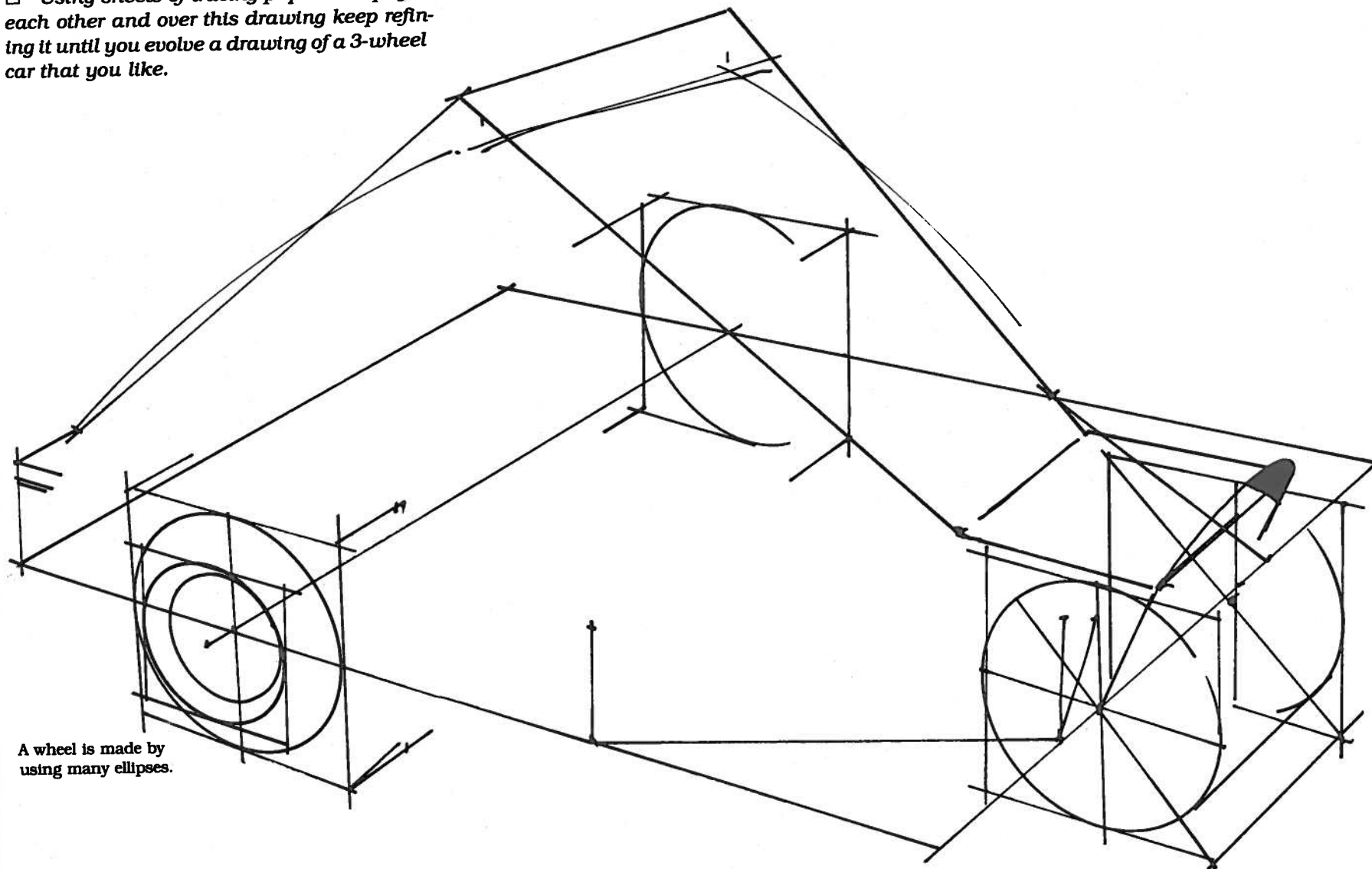
☐ Draw a drinking glass with a straw in it.

☐ Draw a planter.





□ Using sheets of tracing paper on top of each other and over this drawing keep refining it until you evolve a drawing of a 3-wheel car that you like.



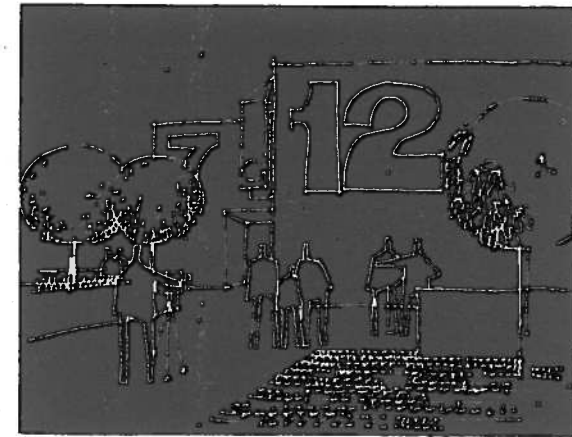
A wheel is made by using many ellipses.

The car on this page has many circular shapes. Most of these circular shapes will appear as ellipses because they will be circles drawn in perspective. The wheels and tires are examples.

## Rapid Indication

What is rapid indication and why is it important? Well, many drawings require subordinate elements that need to be there in order to set up what is happening. These other elements, other objects, are not important except that they set up an environment in which you can view the most important element in the drawing. The secondary parts of the drawing need not be very complex, exact, or detailed, but need to be there so that the total drawing can be understood. They may be people, plants, hands, automobiles, mountains, or just about anything that can be used to complement the key elements in your drawings.

Let me give you an example. I had one student in a class who, right before your eyes, could quickly make a drawing with all of the elements in place. The rest of the students in the class were quite astounded that he could so quickly and so easily put total drawings together. It took the other students awhile to understand what was happening, but they finally caught on. What he was doing was quickly drawing some elements and other elements he was making more detailed. He had visually memorized the secondary elements that were needed for most drawings, making it easy for him to draw their respective forms. This left him time to concentrate on the more important parts of his drawing.

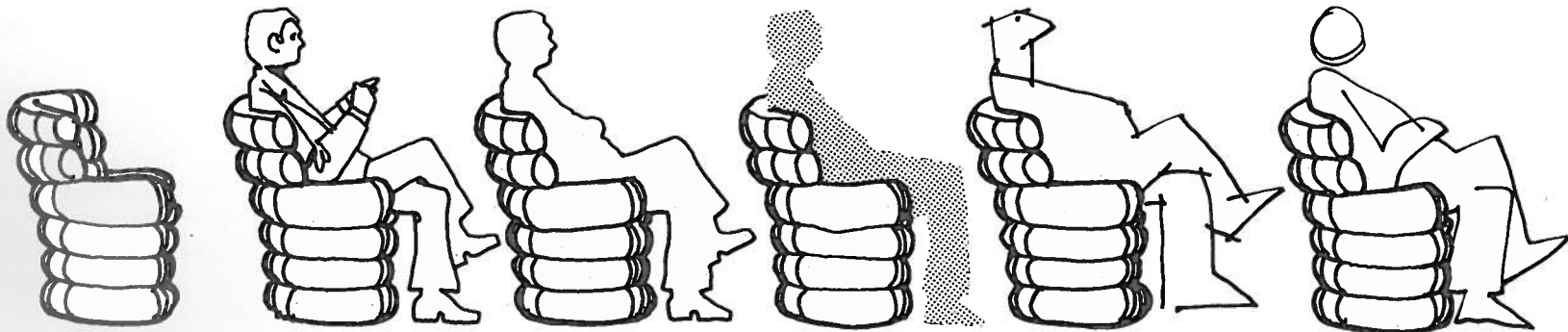


Rapid indication, then, is learning to draw the sketchy subordinate elements in the drawing, and learning to draw those elements quickly and easily. The subordinate elements must help to emphasize the main object in the drawing—they should not detract from or compete with the main object.

### Mental Rubber Stamps

Think of indicated objects in a drawing as rubber stamp images. It is as though you become so familiar with certain things that you draw them almost as quickly as you could rubber stamp them. As if rubber stamped, the objects you draw look almost identical. The

There are many ways to indicate a figure. You choose the method that best fits and complements your drawing.



drawing process becomes so automatic for drawing the subordinate objects that you have more time to concentrate on making the important parts of your drawing better.

## The Completed Picture

Why do you need these subordinate indicated elements? Most main elements in a drawing—buildings or products that you are drawing—are usually seen in their final context. If it is a building, for example, it will have trees around it and people going into the building after the building is built. If it is a product, it will be seen in a room or in an office or on the shelves of a store. You need to learn how to draw these surroundings in which the final product will be seen. By including the natural surroundings in your drawings you give a greater visual understanding of the actual object that you are showing.

Once again, the things that we are talking about *indicating* are subordinate objects in a drawing. They are never primary objects; they are always subordinate.

One of the steps in learning how to do rapid indication is to first determine what is most important in the drawing. Is it the building? If it is, then don't draw the building too

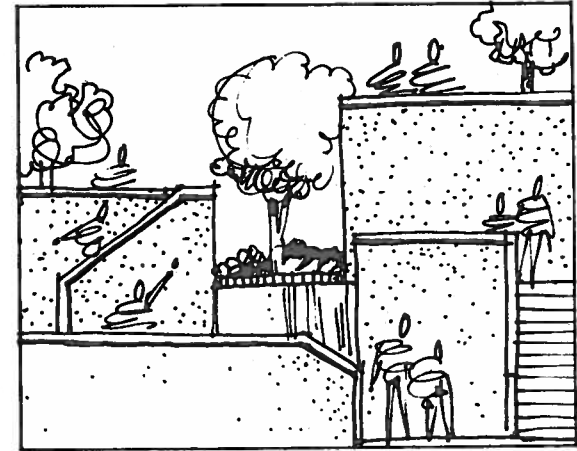
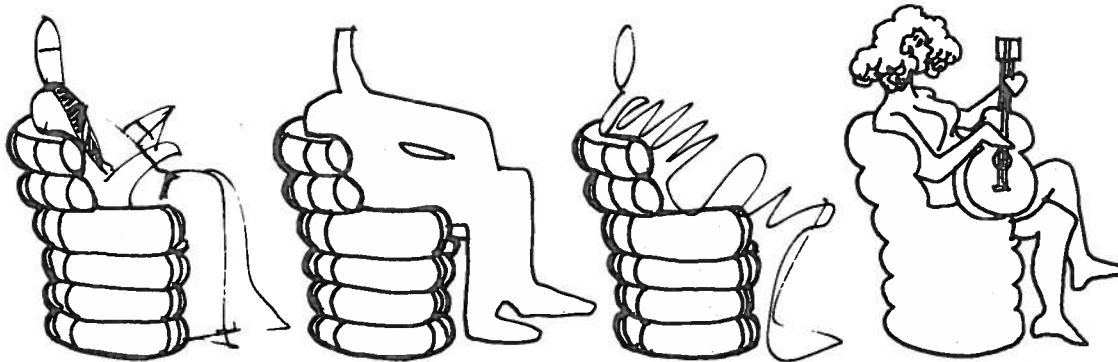
sketchy and loose. Draw it more detailed and draw the surroundings very sketchy and loose. Don't put so much detail in the people and in the foliage surrounding the building that you lose sight of the building. It is important to have the building be your most detailed and most accurate item in the drawing. Have the people and the foliage be very sketchy and very loose.

I want to show you how to draw the sketchy, loose surroundings. Remember, using these surrounding elements will create involvement between the viewer and the drawing. If you can put people in a drawing, the drawing seems more real, more inviting.

## An Inflated Example

Shown across the bottom of these two pages is an inflatable chair. We have indicated an individual sitting in that chair. The most important element is the chair. Therefore, all of the drawings of individuals should be subordinate to the chair. There are, as you can see, many different ways of indicating the person sitting in the chair. They all work well if used in the correct setting. You need to be the one to determine how detailed you want to draw the person sitting in the chair.

Be careful not to allow your indication to overpower the main element in the drawing. The girl here overpowers the chair, yet the chair should be the main element.



The drawing of the woman playing the guitar in the last chair is an exception. This figure is overdone. A major tendency of beginners is to overdo indicated figures. Beware not to do it. An indication is just that—it is an *indication* of an object. It is not a detailed rendering. You are emphasizing the chair. Don't overdo the rapid indication.

## Key Points of Rapid Indication

1. Keep indicated objects simple. Emphasize the critical points necessary to communicate the main element in the drawing. All other surrounding elements can be simplified even to the point of mere outline or silhouette in some drawings.
2. Subordinate all indicated objects. Put your emphasis on the major things you are trying to communicate. Have things such as plants, people, hands, buildings, and the like compliment the main element in the drawing.
3. Economize on indicated objects. Do indicated objects by using the fewest lines, shapes, and parts necessary. Spend your time on the important dominant elements in the drawing. Make the indicated parts as quickly as possible.

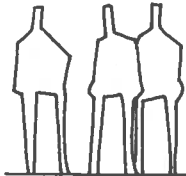
## Figure Indication

Bear in mind that most objects you will be drawing are going to be ridden in, sat upon, looked at, talked into, activated, operated, or in some other way used by people.

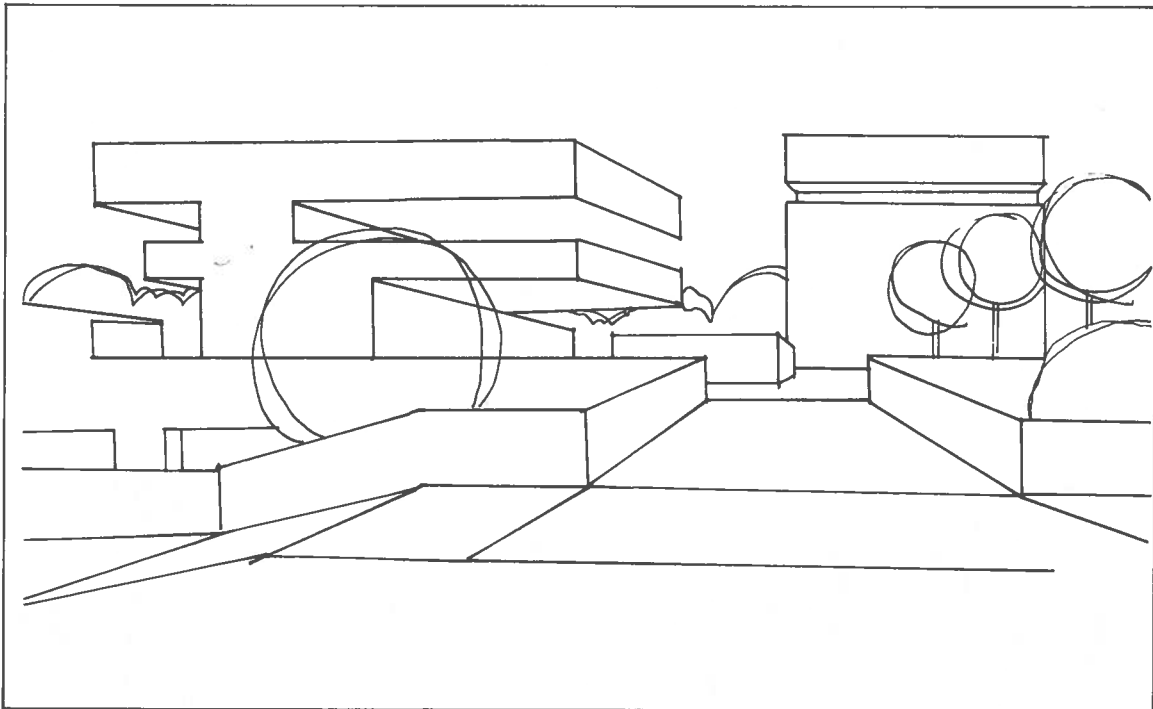
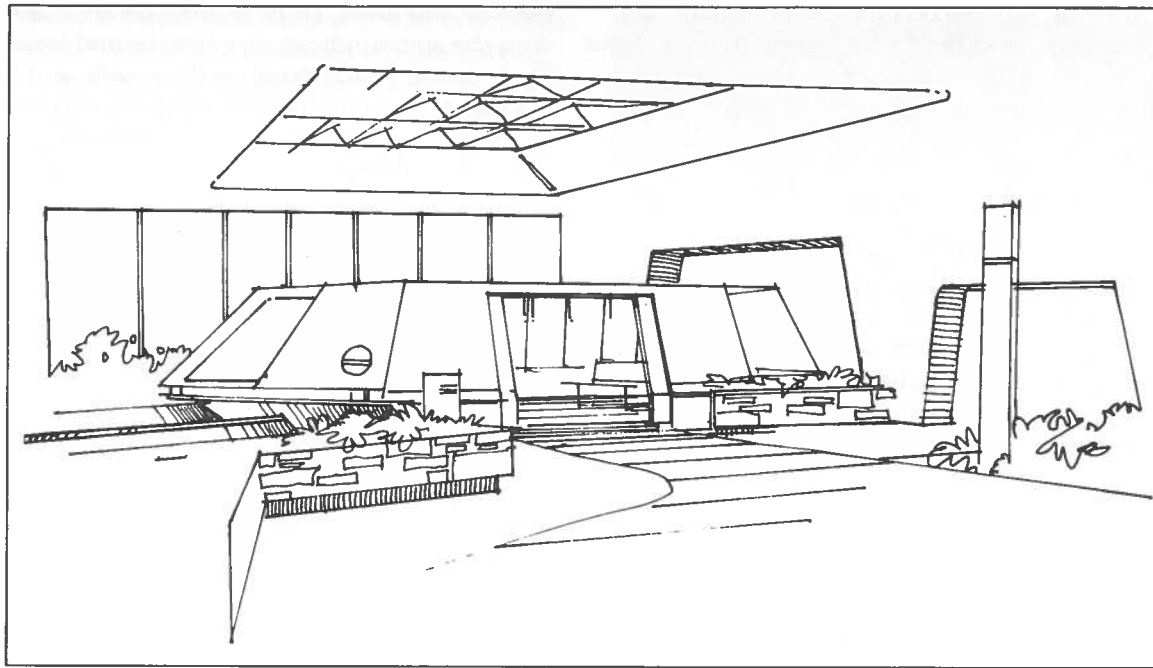
The drawings shown on the right look austere and empty because there are no people shown. They are drawings showing human environments and so people are critical to the visual description shown.

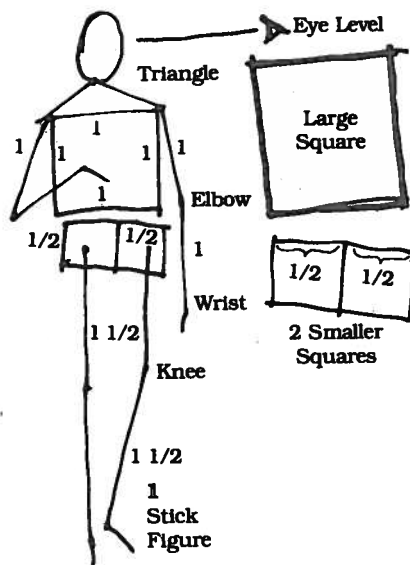
Most beginners have the tendency to overdraw the figure making it look awkward. The figures shown below are typical examples of the kind often used by designers and architects.

☐ Draw 5 more figures in the style started on each line.



☐ On tracing paper, quickly redraw the two environments shown on this page but include figures of people. Try different arrangements and styles until you feel that your solution looks good.

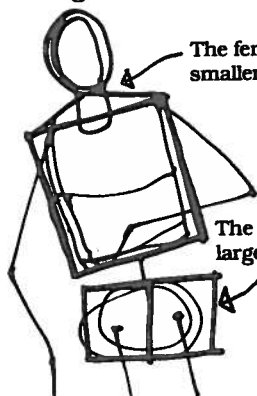




5, 6  
Different  
figures  
from the  
same  
structure

### Figure Indication

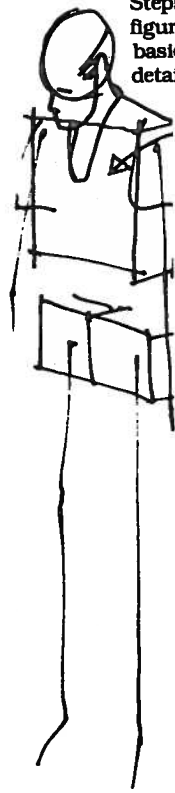
Through practice, I have developed an easy method to quickly draw a person. First draw a square. This square is the torso of the person. On top of this square draw a flattened triangle with an oval above it. Below the square draw two more squares that are equal in size. The sides of the smaller squares are about one-half the length of the side of the larger square. The length from the shoulder to the elbow and the elbow to the wrist is equal to a side of the larger square. The length of the thigh to the knee and the knee to the ankle is one and one-half the length of a side of the large square.



The female figure is more rounded, has smaller chest and larger hips.

The male figure is more angular, has a larger chest and smaller hips.

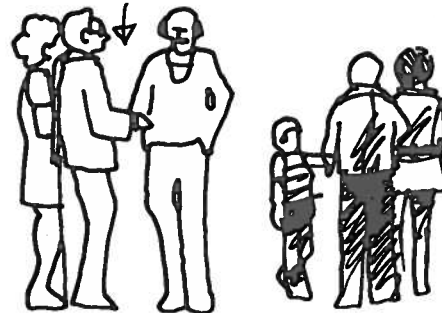
Steps one through six above show the evolution of a figure. Put your cylindrical shaped legs and arms onto the basic figure. Make the outer shape define the figure—add detail to finish the figure as you desire.



Remember the figure has depth.

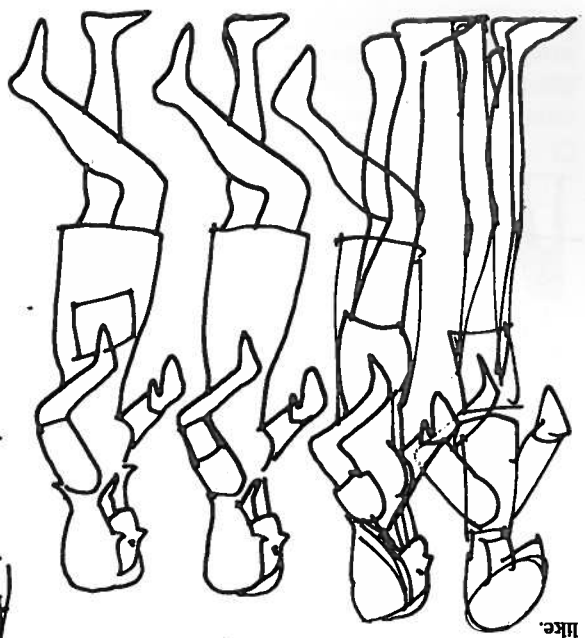
Tilt the boxes at different angles. That is the way people stand. Rather than being stiff and straight, people stand at an angle, leaning, or with weight shifted to one leg.

When drawing people in a finished drawing draw groups of people—an odd number of people in the group is better. A single person in a drawing attracts attention. You want the figure to compliment the main element in the drawing, not to attract attention.

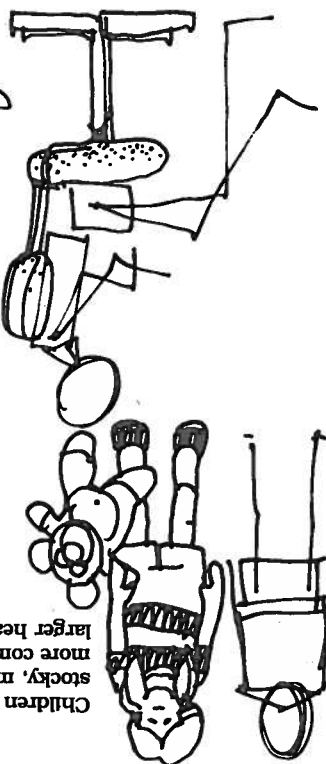


Tilt the figure for more realism.

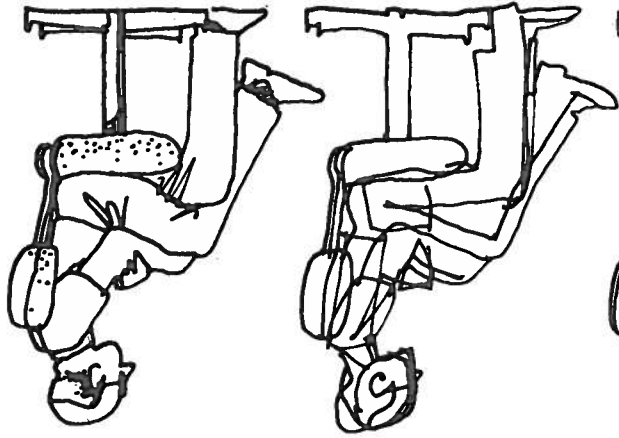
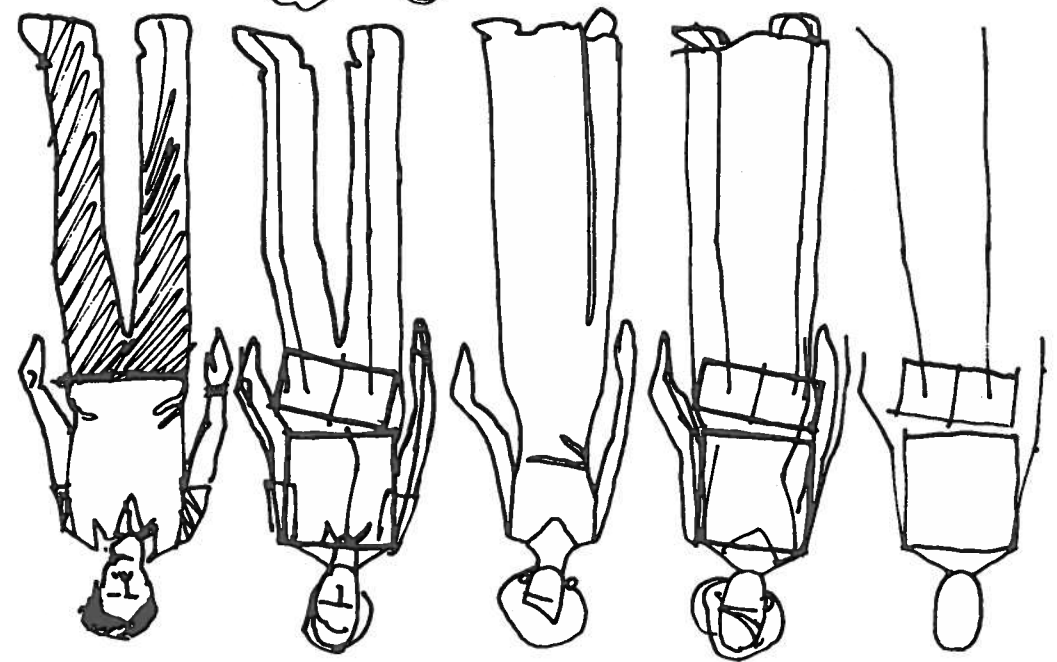




The figures are drawn on sheets of tracing paper overlays. Stop drawing when you reach the final figure that you like.



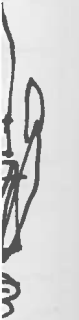
Children are drawn more stocky, more squatly, more compact and with larger heads.



The same evolution of the figure applies to different positions and different sizes.

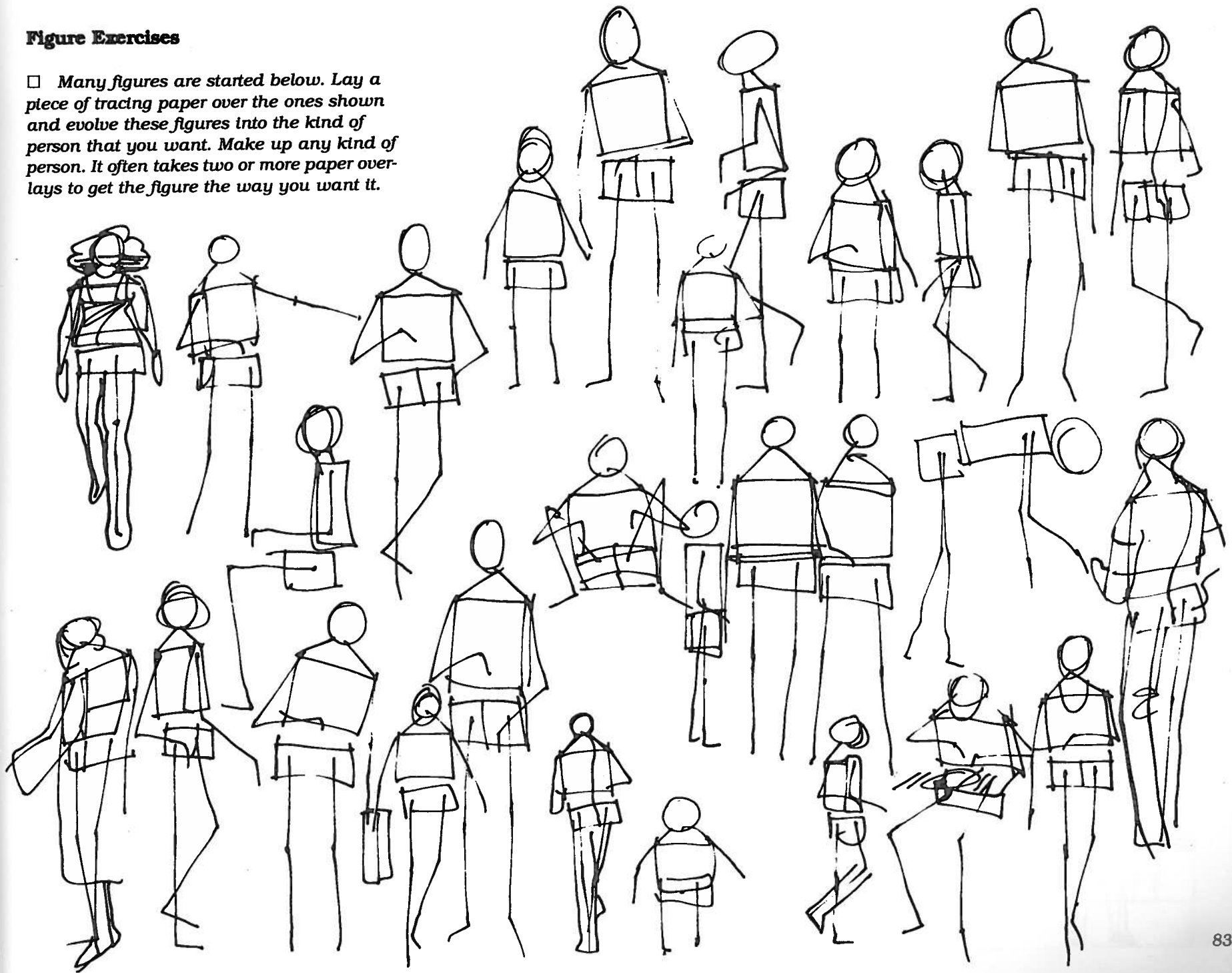


By putting a different face, head, hands, clothing, etc., on the same basic figure you can create many different kinds of people.



## Figure Exercises

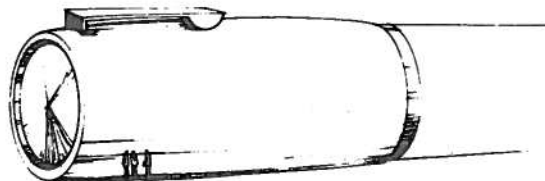
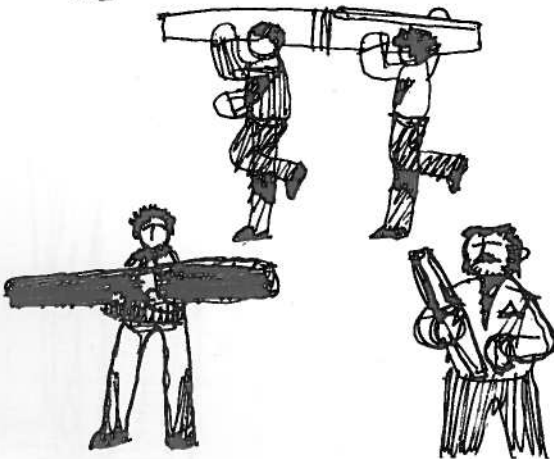
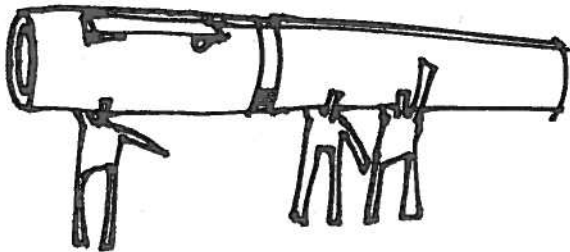
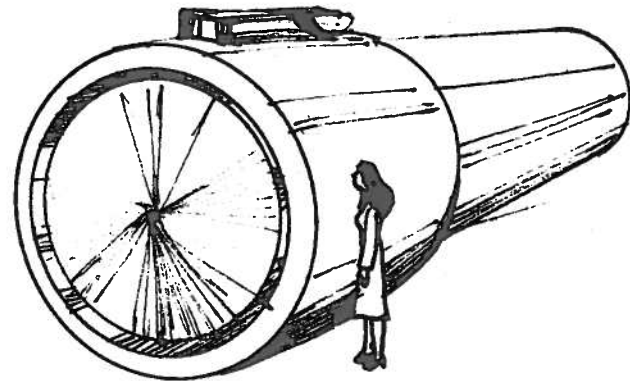
□ Many figures are started below. Lay a piece of tracing paper over the ones shown and evolve these figures into the kind of person that you want. Make up any kind of person. It often takes two or more paper overlays to get the figure the way you want it.

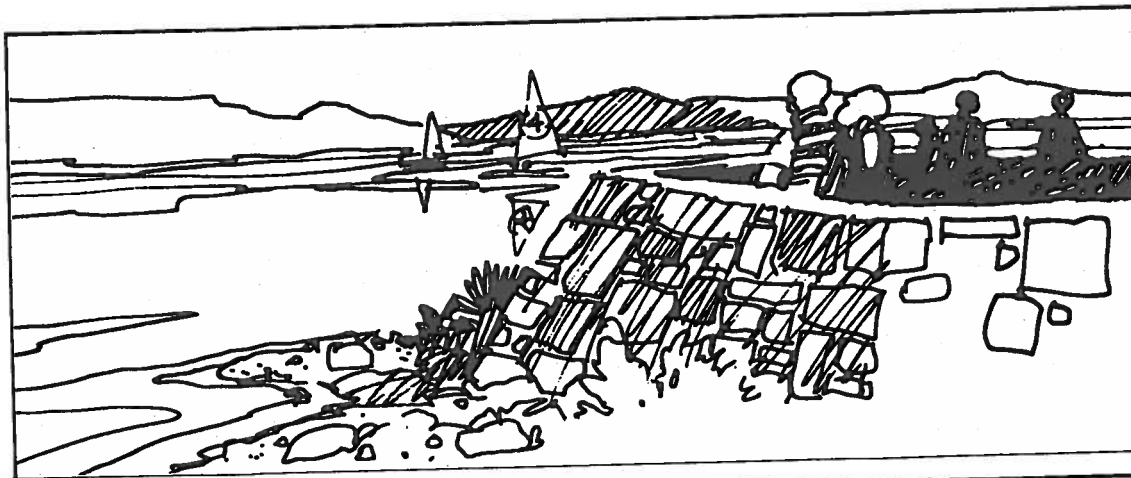


## Figures Establish Scale

Human figures establish scale in drawings. A person next to an object in a drawing tells the viewer the size of the object.

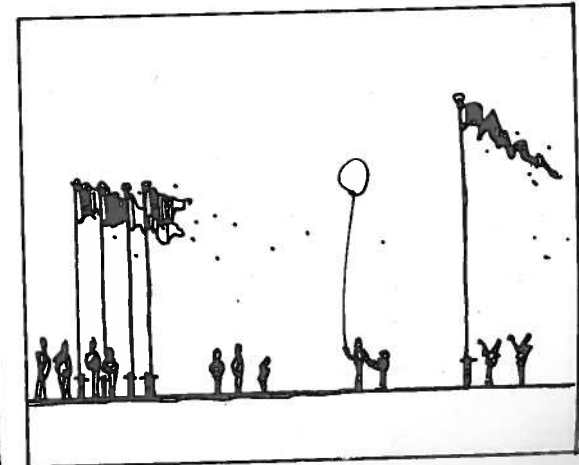
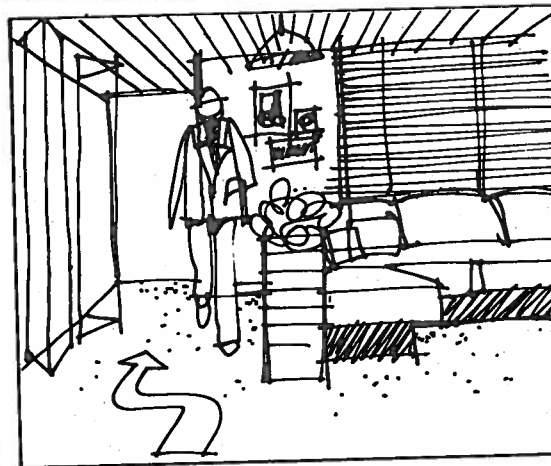
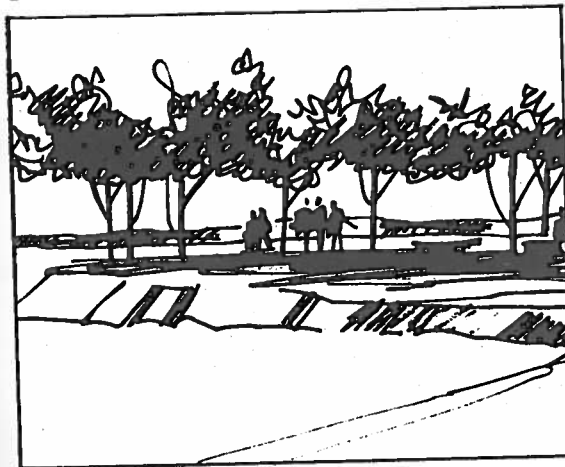
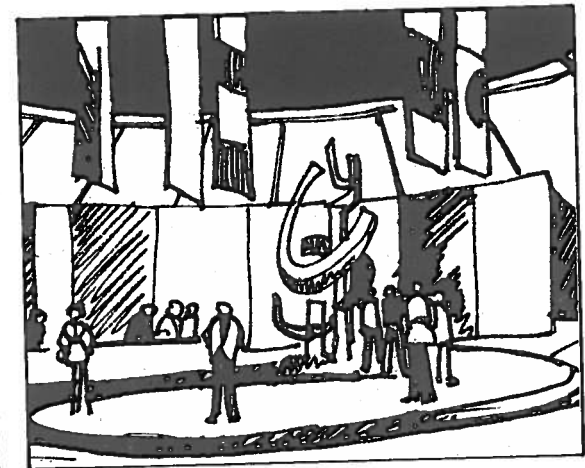
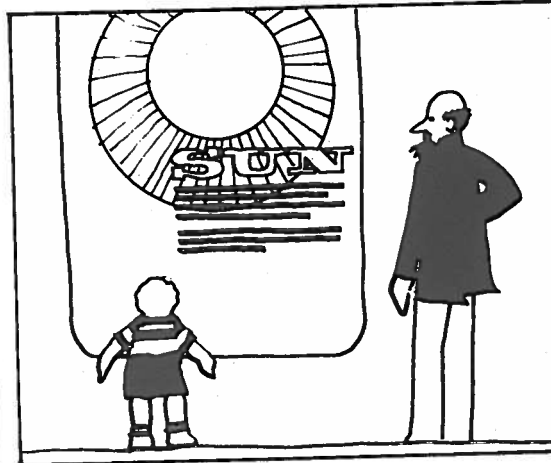
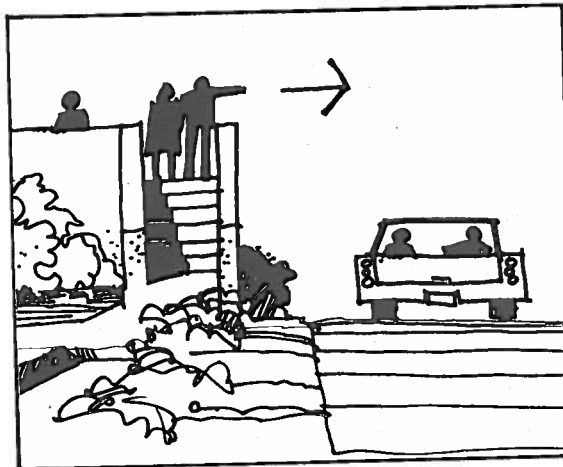
□ Use this page to draw people next to pens of varying size scales similar to the way it is done in the drawings below.





## People in Drawings

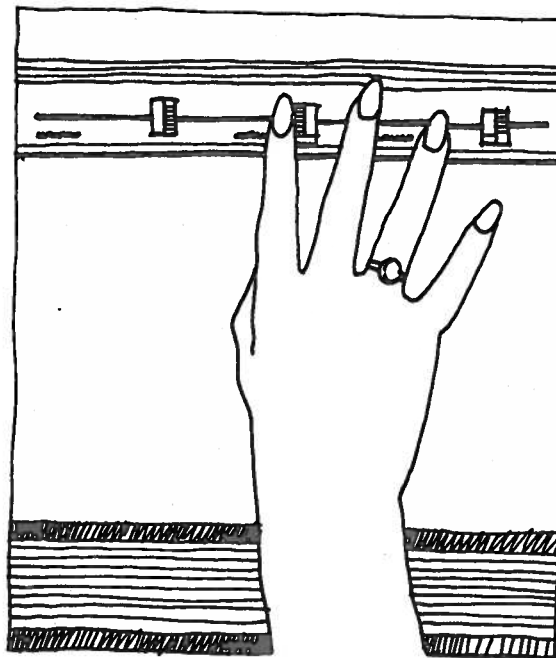
The different drawings on this page contain indicated people. As you can see, the people shown are very simple and are done in many different drawing styles. There is no one set kind of figure indication that will work for all drawings. The process used to draw the figures is similar for all the drawings, but the detail varies. Thus, the people appear different in each example. The purpose of your drawing, your abilities, your time, and your interests will determine the kind of indicated figures you draw.



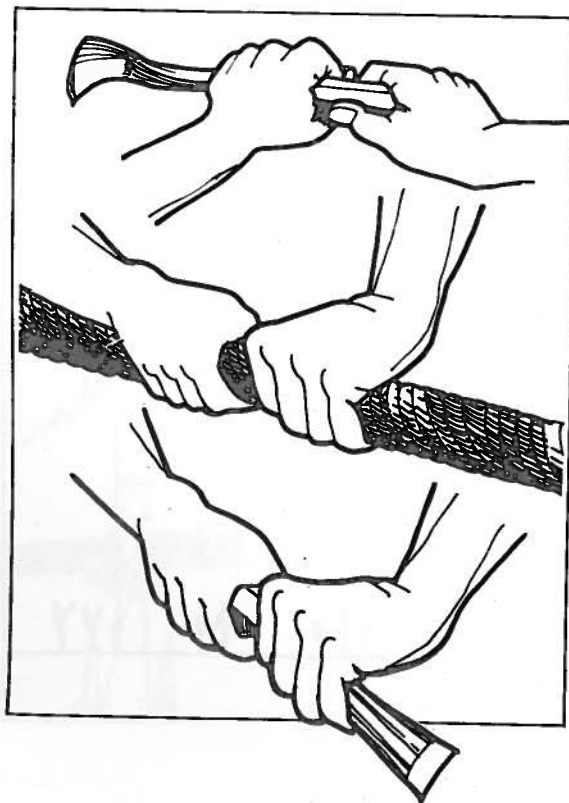
## Hands

Human hands are one of the most difficult parts of the body to draw correctly. It is tedious, difficult, and time consuming to carefully draw a hand as it really looks. But to rapidly indicate hands is not difficult. Three "tricks" will help you draw hands:

1. Don't draw everything. Just the outer edge and a few key lines make a hand. Details must be drawn correctly if they are included. Only draw the essential lines and no more. You can stylize the hand to further simplify the hand.
2. What the hand does is the reason for the hand. Keep the emphasis on the actions the hand is doing.
3. Draw from life. Make Polaroids or have someone pose in the position you want to draw. If you don't draw from life, chances



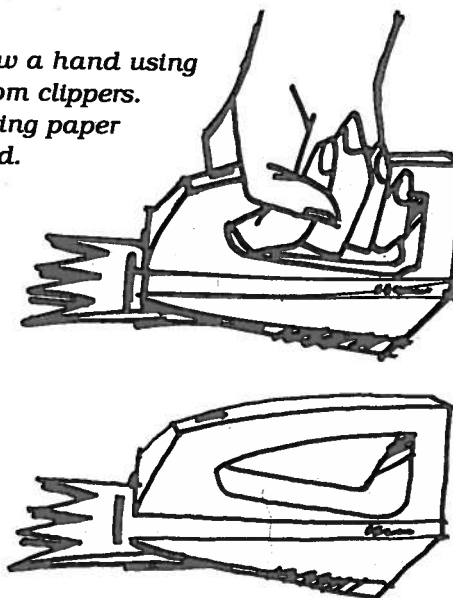
☐ Draw two hands holding a rod.



are that it won't look correct. Everyone that will view your drawing has seen many hands in real life, so your hands in the drawing need to be correct.

☐ Draw a hand pushing a button.

☐ Draw a hand using the bottom clippers. Use tracing paper if needed.





### Insert People

This drawing lacks pizzaz. The absence of people makes everything look sterile and uninviting. The indicated presence of people in drawings makes the drawings more inviting.

□ Lay a piece of tracing paper over the drawing. Redraw it with people indicated. Be sure to stylize and simplify the people so that the people do not demand too much viewer attention—the building is the main element in the drawing. The drawing might also need other indicated objects such as cars or foliage. You decide.

