

## The Five Elements of Shading

To draw realistically, you must understand how lighting affects form. There are five elements of shading that are essential to realistically depicting an object's form. If any of these elements are missing, your work will appear flat. However, with the correct placement of light and dark tones, you can draw just about anything.

But how do you know how dark is dark and light is light? Using a simple five-box scale of values can help you decide on the depth of tone. Each tone on the scale represents one of the five elements of shading.

### 1 Cast Shadow

This is the darkest tone on your drawing. It is always opposite the light source. In the case of the sphere, it is underneath, where the sphere meets the surface. This area is void of light because, as the sphere protrudes, it blocks light and casts a shadow.

### 2 Shadow Edge

This dark gray is not at the very edge of the object. It is opposite the light source where the sphere curves away from you.

### 3 Halftone

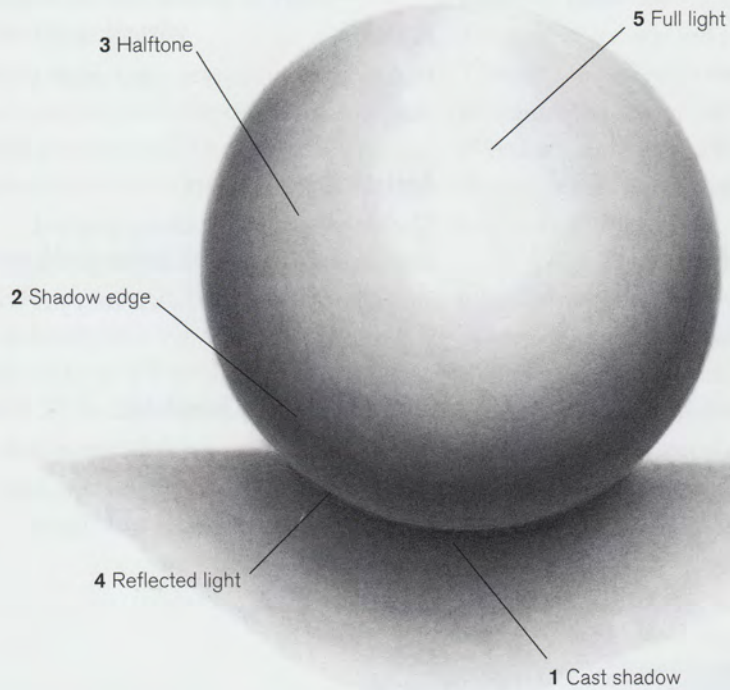
This is a medium gray. It's the area of the sphere that's in neither direct light nor shadows.

### 4 Reflected Light

This is a light gray. Reflected light is always found along the edge of an object and separates the darkness of the shadow edge from the darkness of the cast shadow.

### 5 Full Light

This is the white area, where the light source is hitting the sphere at full strength.



1 Black      2 Dark gray      3 Medium gray      4 Light gray      5 White



### Compare the Tones in the Value Scale to the Tones in the Sphere

Notice how the five elements of shading on the sphere correspond to the tones on the value scale. Look for the five elements of shading in everything you draw.

## Create Smooth Blending

**P**roper shading requires smooth blending. To create smooth blending, you must first learn to use your tools and apply the pencil lines properly. If the pencil lines are rough and uneven, no amount of blending will smooth them out.

Apply your pencil lines softly and always in the same direction. Build your

tones slowly and evenly. Lighten your touch gradually as you make the transition into lighter areas. Smooth everything out with a blending tortillion, moving in the same direction you used to place your pencil tone. Begin with the darks and blend out to light.



### Incorrect Blending

This sample shows poor pencil application. The scribbled lines look sloppy, and a tortillion wasn't used for blending.



### Correct Blending

Apply the lines closely, then, in an up-and-down fashion, fill them in. Add tone until you build up a deep black, then lighten your touch and gradually get lighter as you move to the right.

Blend your values with a tortillion using the same up-and-down motion you used with the pencil. You do not want to see clear distinctions between where one tone ends and the next begins. Lighten your touch as you move right and gently blend the light area into the white of the paper until you can no longer tell where it ends.

## Lee's

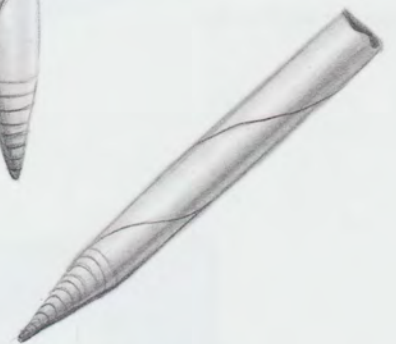
## lessons

Do not throw your tortillions away as they become dirty! Save them and divide them into groups according to how much graphite they have on them. A very black tortillion will be just what you need to blend out a dark area later, or even add graphite.



### Keep Lots of Tortillions on Hand

Always use a fresh tortillion for the light areas. Don't be tempted to use the same ones over and over again to conserve. They are nothing more than paper wrapped into a cone shape and are inexpensive. I buy them by the gross so I never have to search for a clean one when I need it.



### Hold Your Tortillion at an Angle

For even blending and to keep the end of your tortillion sharp, always hold it at an angle. If the end becomes blunt, poke a straightened paper clip through the top to straighten it out.

# blending

## Practice Blending for Actual Objects

**B**efore you begin drawing actual objects, you should get a good feel for your tools and materials. First draw some correct blended-tone swatches, as shown on page 19, to help you learn to control your blending. Start with your darkest tone on one side and gradually lighten the tone as you continue to the other side. Do as many as you need to until you feel proficient at it.

Once you begin to draw actual objects, use the following guidelines to help you.

### 1 Soft Edge

This is where the object gently curves and creates a shadow edge. It is not harsh, but a gradual change of tone.

### 2 Hard Edge

This is where two surfaces touch or overlap, creating a harder-edged, more defined appearance. Note: This does not mean outlined! Let the difference in tones create the edge.

### 3 Application of Tone

Always apply your tones, whether with your pencil or tortillion, with the contours of the object. Follow the curves of the object with the shading parallel to the edges so you can blend into the edge and out toward the light. It is impossible to control blending if you are cross-blending and not following the natural edges and curves.

### 4 Contrast

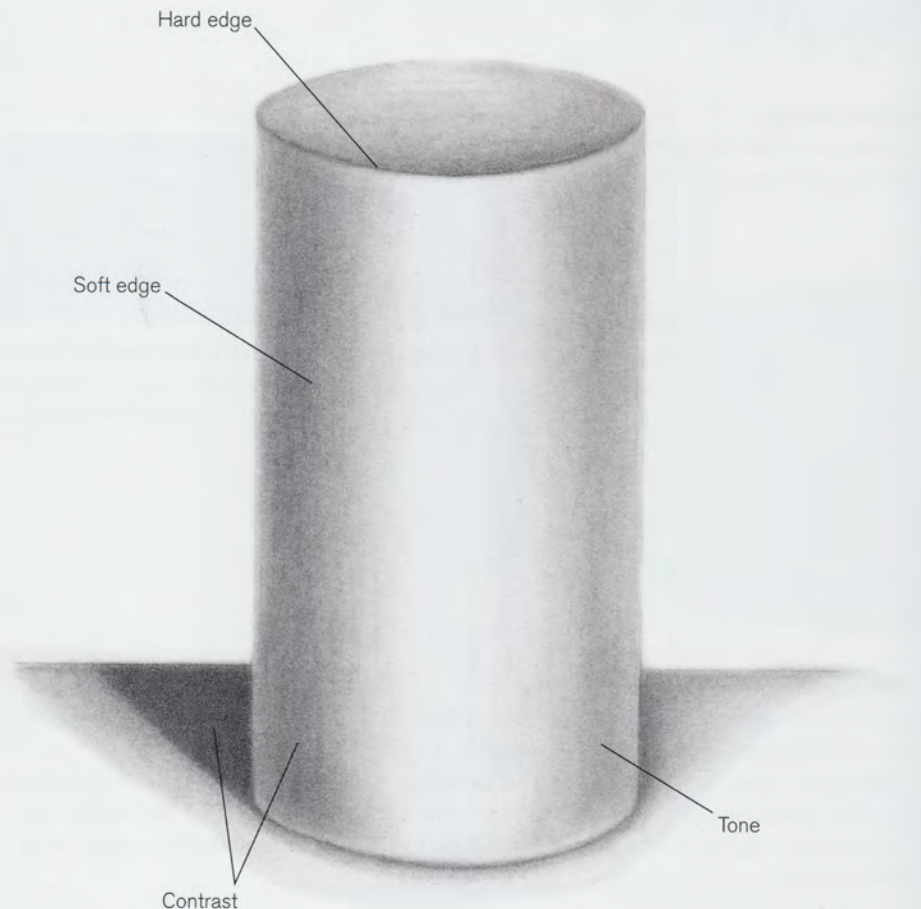
Don't be afraid of good, solid contrasts of tone. Always compare everything to black or white. Use the five-box value scale to see where the gray tones fit in. Squinting your eyes while looking at

your subject matter obscures details and helps you see the contrasts better.

The sphere, the egg and the cylinder are all important shapes to understand. If you can master the five elements of shading on these simple objects first, drawing other things will be much easier.

## Lee's lessons

Correct uneven tone by forming a point with your kneaded eraser and drawing in reverse. With a light touch, gently remove any areas that stand out darker than others. Use light strokes with your pencil to fill in light spots.



### Practice Blending

Hone your blending skills on basic objects, like this cylinder, before moving on to more complicated forms. We'll talk more about cylinders in the next chapter.

# shape

## Learn to See Basic Shapes

No matter how complex the subject, everything we draw is made up of basic underlying shapes. If you imagine a snowman, you immediately think of three spheres, one on top of the other. A table resembles a box or cube.

Before you learn to draw complex subjects, it's a good idea to learn to rec-

ognize their basic shapes. The basic shapes shown on this page—a sphere, a cylinder, a cone and a cube—are the basis of anything you draw, from trees to cars to people. Practice seeing these shapes in your surroundings. Visualizing these as you draw will help you accurately render your subject matter.

Lee's

### lessons

Use your typewriter eraser to crisp up edges and remove any overblending.

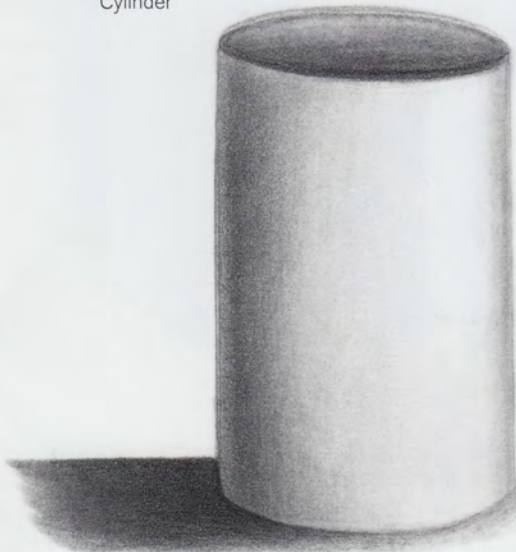
Sphere



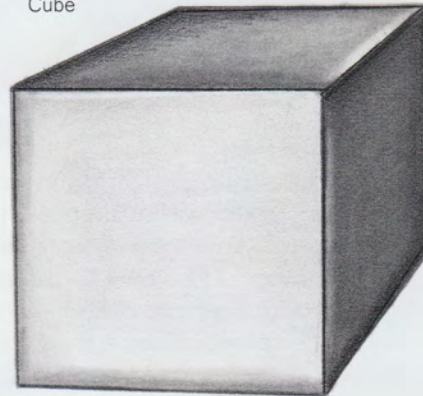
Cone



Cylinder



Cube



## Creating Lights

**H**ave you ever noticed how, as children, we are taught to draw everything with a hard outline on white paper with no background? I used to actually get in trouble because I wanted to fill in the backgrounds.

Background tone is crucial to realistic drawing. It took me a long time as an adult to break the outlining habit. I did it, though, and so can you. Study the sphere shown on this page. The dark tone of the background makes the lights stand out. Let the darks create the lights. This rule applies whether you are creating a simple shape like the pictured sphere or something more complicated.

### Realistic Drawing Shows Reflected Light

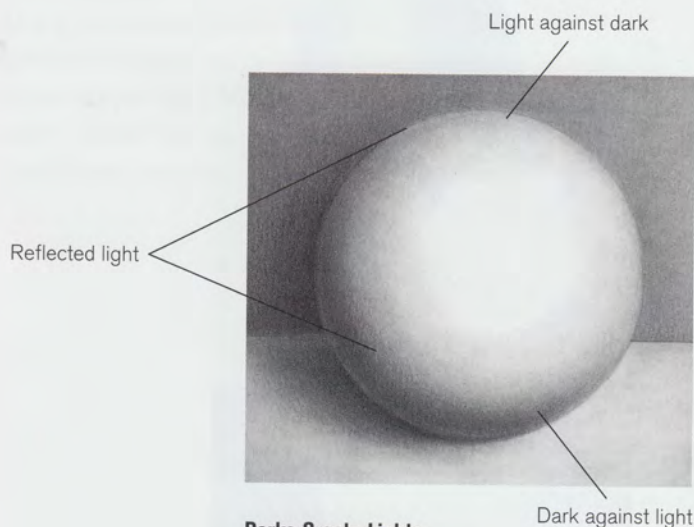
Reflected light is light captured on an edge, a rim or lip of an object. Look at any object near you right now, especially if it is in bright light. Look for the edges along the sides, the top or on raised surfaces. Can you see the light along those edges?

Now examine the drawing of the hat. The top of the hat shows the full light source reflecting along the edges. The brim of the hat also shows reflected light along the edges. If you look closely, even the hat band has some reflected light

because it is slightly raised off of the surface of the hat.

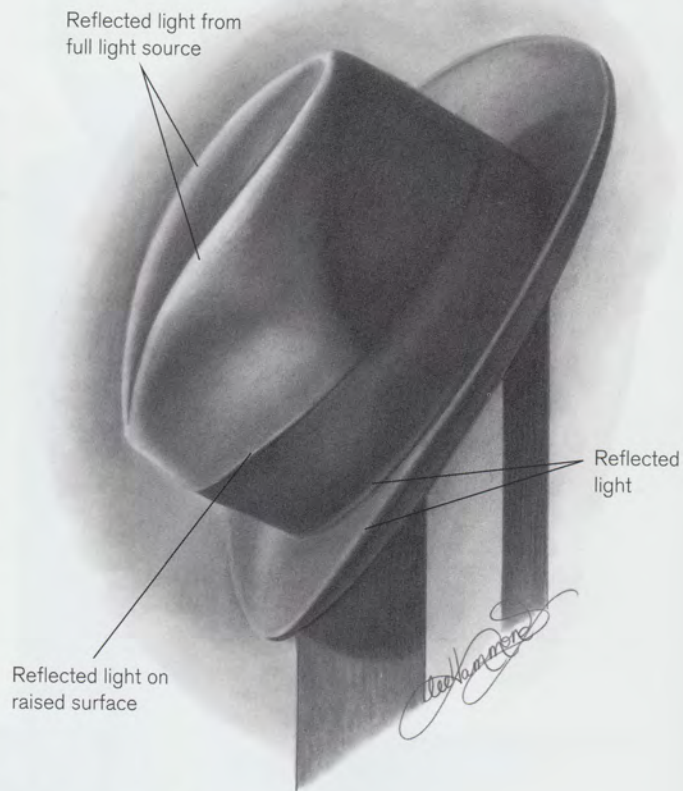
### How to Lift the Light

We'll talk over and over in this book about lifting light areas. Do not think of it as erasing. Lifting the light is the process of drawing light back into the drawing. You can form the end of your kneaded eraser into a point to do this or sharpen the end of a typewriter eraser for an even finer line. Always think of lifting as drawing in reverse.



### Darks Create Lights

It is the gradual change of light against dark turning into dark against light that creates realistic drawings. The background shading helps create the shape of the sphere. The dark background surrounding the top side of the sphere creates the light edges. There is no hard outline to define it. The dark edge of the sphere contrasts against the light of the table at the lower right edge.



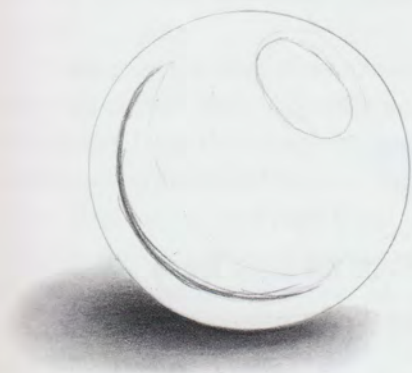
### Add Realism to Your Drawings With Reflected Light

Look for all the areas of reflected light along the edges and raised surfaces of this hat. Areas such as these can be lifted out with your kneaded eraser.

# Three Steps to Draw Any Shape

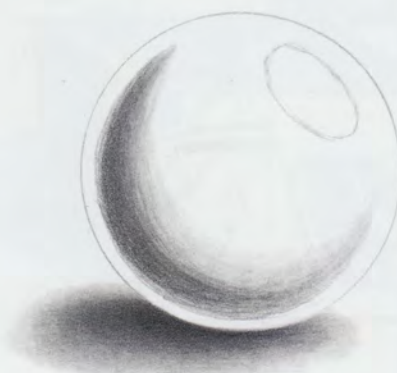
All realistic drawing requires three basic steps. First is an *accurate line drawing*, which is basically a light outline of your subject matter as well as interior details. Second is the identification and placement of the *tones*, or lights and darks, followed by smooth and gradual *blending* for the final step.

Follow this demonstration closely and refer back to the value scale on page 18 to review a gradual blend. You may want to practice this demonstration two or three times. This may seem repetitious, but practice is the key to successful drawing. Everything you want to draw in the future will be directly related to this exercise.



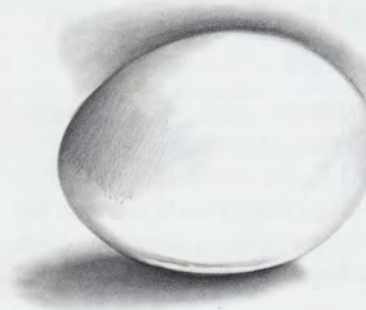
## 1 Create the Line Drawing and Place the Cast Shadow

Once you've accurately drawn the object's shape, identify the light source. Lightly outline the area on the object where the light shines the brightest. You'll erase those lines later. Place your cast shadow opposite your light source. You now have your lightest light and darkest dark.



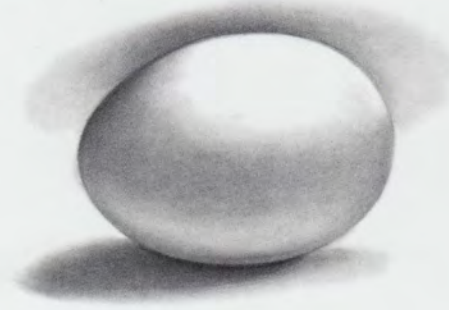
## 2 Place the Tones

Place the shadow edge carefully. Apply your pencil lines smoothly, going with the shape of the object. Be sure to leave room for reflected light. Keep the shadow low, where it belongs. It can't be in the light area.



## 3 Blend the Tones

Use your tortillions to blend and create the halftones. Smoothly blend with the object's form from dark to light. Allow the tone to create the edge of the object and remove any outline that may be showing. Anything with an outline around it appears flat. Correct any uneven spots in your blending. Gently fill in light spots with your pencil and lift dark spots with a pointy piece of your kneaded eraser.



## Draw a Pumpkin

This drawing contains all the elements you practiced in the sphere exercise, with the addition of some surface textures and indentations. The indentations in the pumpkin are caused by two surfaces coming in contact and creating a crease. Whenever two surfaces touch or overlap, they create a hard edge (see page 20). You will always see reflected light above a hard edge. A soft edge is created where the raised area gently curves and creates a smooth tone.



### 1 Create the Line Drawing

Lightly draw the outline of the pumpkin, along with the lines that divide the surface. Indicate the grooves in the pumpkin's surface with lines.



### 2 Add Some Darks

Start adding tone to the outside edges, remembering that the dark areas help create the shapes of the light areas. Place the dark tones to create all of the recessed areas of the pumpkin's surface, making the light areas seem to protrude. The shape and edge of the pumpkin will take form along the outside.



### 3 Fill In and Blend the Tones, Then Lift the Lights

Fill in the tones over all of the pumpkin. Make the tones at the band of light that encompasses the pumpkin at its roundest point, as well as reflected light against each ridge, the absolute lightest.

Blend the tones, then deepen the dark areas for more contrast and use the kneaded eraser to lift out areas of reflected light. Use the same process for the stem of the pumpkin. Remember, there's a smaller band of light on the stem.

## Practice Hard and Soft Edges

The bell pepper is a rounded object like the sphere, but it contains irregular surface shapes like a pumpkin. The indentions and creases create hard and soft edges and alter the way the light reflects. You must include the five elements of shading in each raised area.



### 1 Create the Line Drawing

Use a grid to draw a pepper from a grocery advertisement in your newspaper or graph this drawing to create an accurate line drawing.



### 2 Create the Dark Tones

Add dark tones with the pencil to create form. Leave areas along the edges of each raised surface for reflected light. Consider each of the five elements of shading as you draw.



### 3 Blend and Lift the Tones

First, blend the tones, then lift the high-light areas with the kneaded eraser. Reapply more pencil if you need to darken some areas. Reblend your tones each time you add shading.



### 4 Finish the Pepper

Keep adding tone, blending and lifting light until you're satisfied with your drawing.



## Practice Drawing Rounded Objects

**N**ow that you've completed a few step-by-step demonstrations, try some drawings on your own using your acetate grid. These illustrations combine many of the drawing elements we reviewed on the previous pages. The overall shape is still the sphere. Follow the shapes of light and shadow to re-create the tomatoes and the teapot. Have fun!



### Graph and Draw the Tomatoes

These tomatoes are basic spheres. A hard edge is created where they overlap and highlight areas exist over their indentations.



### Graph and Draw the Teapot

Sometimes objects have protruding elements, such as this teapot. The overall shape is clearly that of a sphere, but the handle, top and spout add new dimensions. Study these areas closely. Find the reflected light and shadow edges that indicate the light source.