# Light and shade

Lesson **14**

Rube Goldberg

Milton Caniff

Al Capp

Harry Haenigsen

Willard Mullin

Gurney Williams

Dick Cavalli

Whitney Darrow, Jr.

Virgil Partch

Barney Tobey

# Light and Shade

We now come to that part of cartooning that so often throws the average beginner into an inky tailspin. Drawing is fun, and it seems to reach its greatest point of enjoyment when we start to apply shading to the finished outline of our drawing. Even the professional, who should know better, is often caught in the trap of overshading. So you can see how easy it is for a beginner to lose his head and scratch in a thousand lines of shading, where three would have been more than enough. Most cartoon editors say they can immediately tell an amateur's work by the amount of shading.

For some reason the beginner thinks that he or she can improve or cover up the faults of a weak idea or basic drawing by the addition of several miles of pen scratches. Some novices get so pen-happy they cover everything from derby hats to door knobs with a heavy coating of what looks like hair.

There are technical as well as artistic reasons for keeping the shading in a line drawing to a minimum. Today's comic strips and most magazine cartoons are reduced down to the size of a large postage stamp. Years ago, the comic strip was reproduced eight columns in width. It ran across the full width of the newspaper page, but today the average comic strip is reproduced four columns wide or just half the length they used to be. You can readily see what effect this increased reduction has upon the shading. Billy Debeck, creator of the "Barney Google" feature, was considered by many to be one of the greatest penmen in the business. His drawings were filled with delicate shading and special effects. In the late Thirties, however, when papers began to cut the size of their strips, even he, who was a master of the art, found it necessary to eliminate about eighty per cent of his shading. His lines which were so beautiful when reproduced eight columns wide became muddy splotches when reduced down to four columns. Newsprint, the paper that newspapers are printed on, is not a very good grade of paper, and reproduction is not always what it should be. Anything a cartoonist can do to make it easier for his work to be reproduced helps his reputation as a newspaper artist.

Take a look at Harry Haenigsen's strip, "Penny," and you will see how he has succeeded in almost entirely eliminating shading of a scratchy kind. Instead, he uses solid blacks to give his work depth and feeling. Harry's favorite advice to the beginner is: "If you don't know how to shade — don't." He doesn't imply you shouldn't learn to shade, but does mean that until you are ready to apply shading in the right manner and amount, it is better to leave it out of any work you are doing to sell.

The type of shading we have been discussing is the scratchy pen line kind with which most of us love to fill up blank spaces. Crosshatch and stipple are somewhat old hat now, although they turn up occasionally in a good pen drawing. But, there are other types of shading that are very necessary to your work. Among these are the solid blacks, used as shadows on the ground and on the walls of buildings. These solid blacks are often used to aid the composition or to point up the center of interest. Other types of shading or shadow are those all important little touches of black which we put under the lid of a table top or under the toes of a pair of shoes. On one of the following pages, you will see how these little touches of shading help give solidity of form to the objects, and keep them tied to the ground or any other surface.

The type and style of shading you should use will often depend on the immediate job you are doing. If it is to be reproduced in a newspaper on newsprint, keep your shading to a minimum. Later on, we shall take up wash and wash shading, and the halftone method of reproduction.

Shading is fun, but learn how to do it correctly. Practice and play with it until you can dash it off with just the right amount of lines. To save yourself a lot of headaches, always finish your drawing in outline, then put in all the shading with pencil. Study the effect. If you like it and the shading isn't overdone, ink it in. A good shading job, done with a pen, should give the reader the feeling that he is looking at distinct tones, not pen lines at all. This cannot be achieved without the most conscientious practice.

## Light and shade

Cartooning is a visual art — we have to see it to enjoy it. In order to see things, there has to be light. As you read this, it's a safe bet that there's light on the page. That light is coming from a source — and it has a direction that it travels in to hit the page — and everything else in the room. On the side away from the light-source, there is shadow, or shade.

Everything you can *see* is composed of light and shade. Therefore, everything you draw must have some degree of light and shade — so your readers can see it. Cartooning is concerned with simplification — even the thickness of a line can suggest shading. This lesson is made up of tried and true tips on cartoon shading. When you know how to use shading properly, your drawings will really come to life on the page.
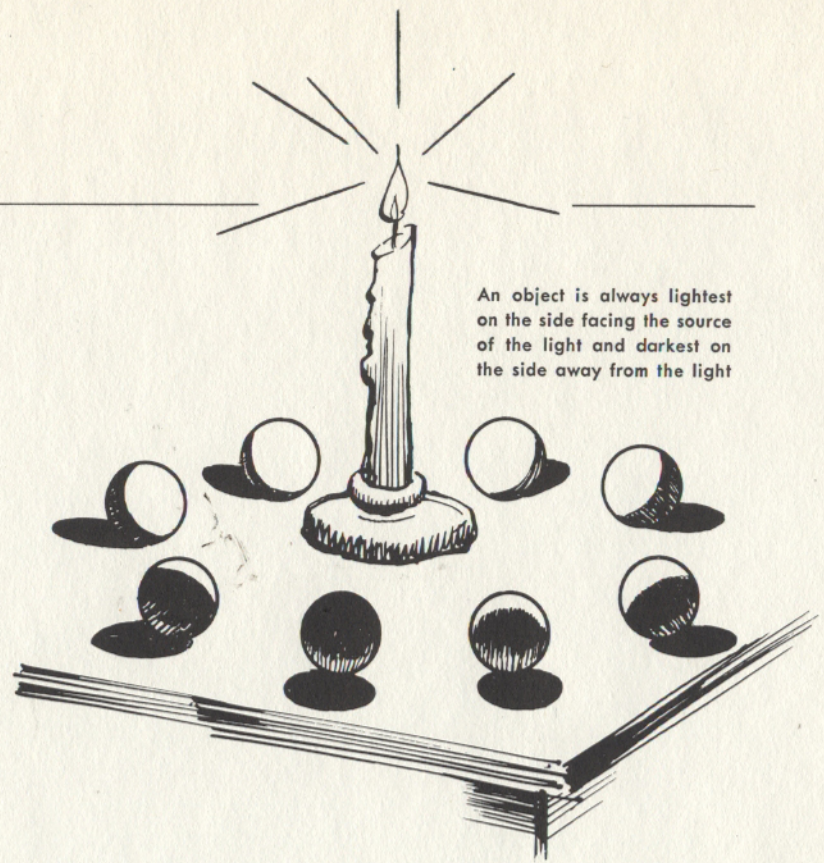
An object is always lightest on the side facing the source of the light and darkest on the side away from the light
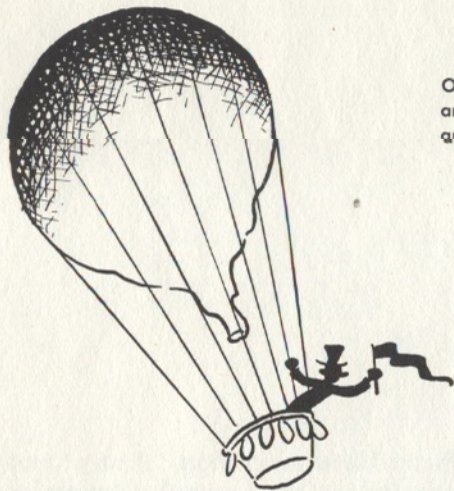
Objects above the source of light are shaded on top, like this balloon and cloud
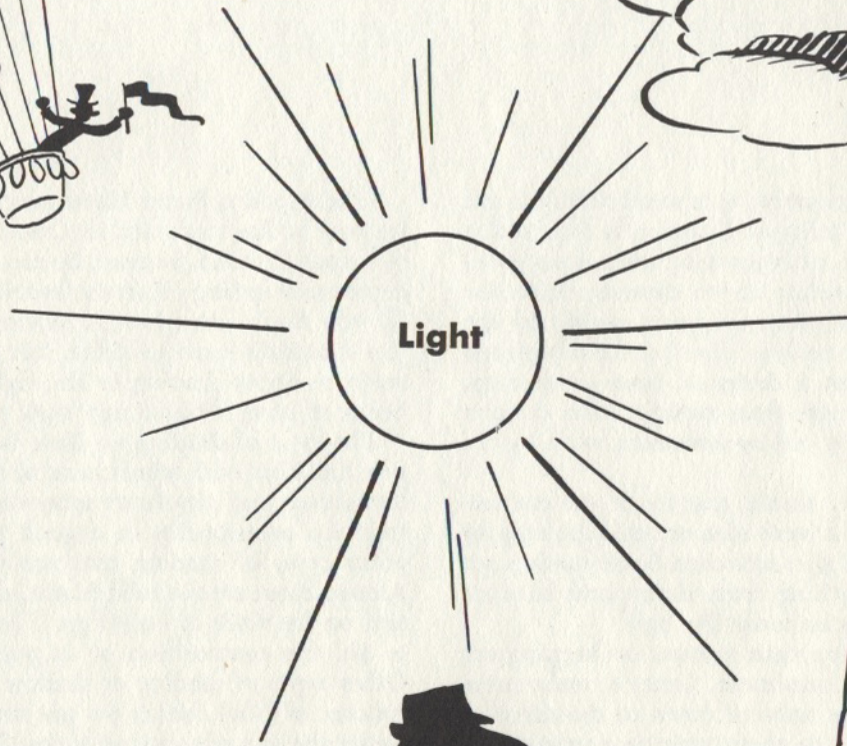
Here is a barrel with the light source to the right. Outside surface of the barrel will be light on the right side and dark on the left. However, because light source strikes on the left inside surface, the right inside surface of barrel would be dark
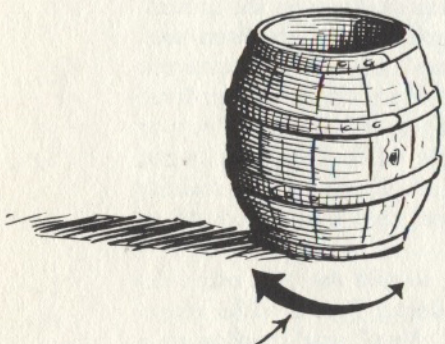
Because the barrel is round, the tone along the shadow side becomes darker on the surface that curves away from the source of light
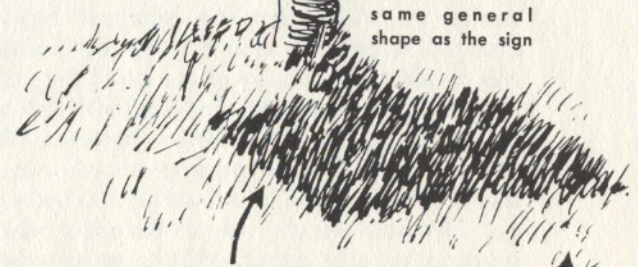
**Light**

When a figure or object is directly between the viewer and the light source it will appear in silhouette

Although this side is in shadow the sign is legible

KEEP OFF THE GRASS
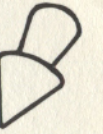
Cast shadow has same general shape as the sign

Shadow area has same texture as light area

**Remember — the shading follows the form of the object. The cast shadow will have the same general shape as the object casting it.**
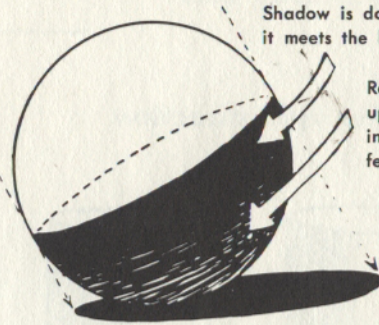
**Three-dimensional arrows indicate the light direction**

Two sides of a cube will be in shadow. The top and the two other sides (not visible here) will be in light
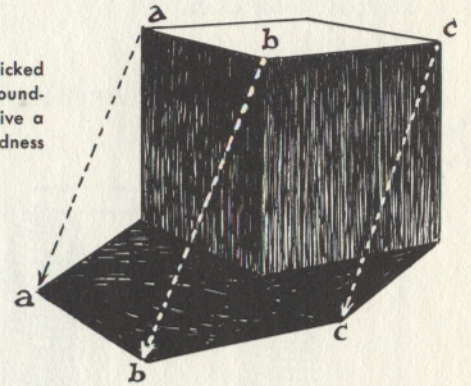
Shadow is darkest where it meets the light area

Reflected light picked up from the surrounding area helps give a feeling of roundness

One half of a globe will be light. The other half will be in shadow

Note that the cast shadow of the cylinder, although very short, has straight sides and a curved top like the cylinder. The shadow of the cone has straight edges converging to a point, like the cone itself
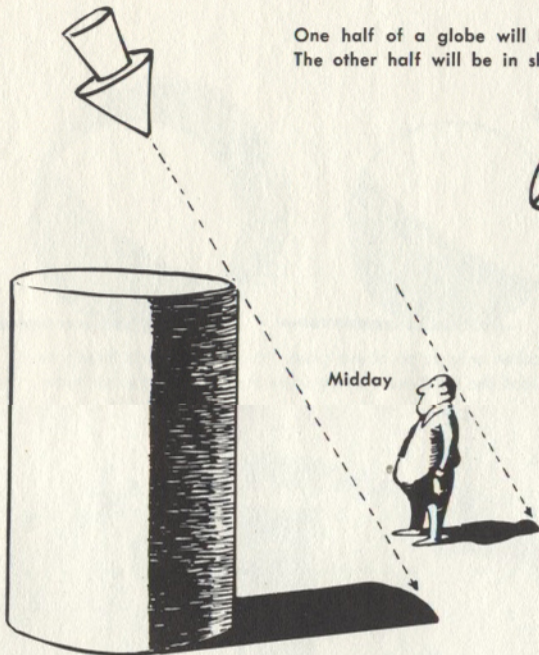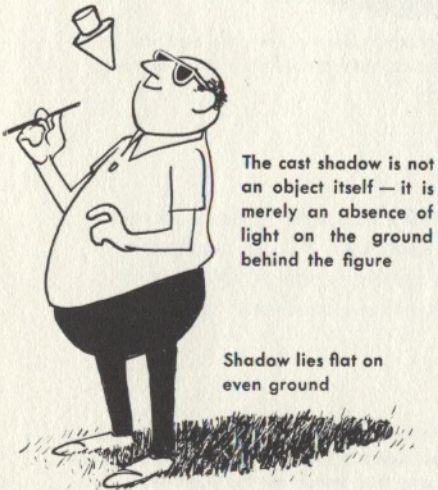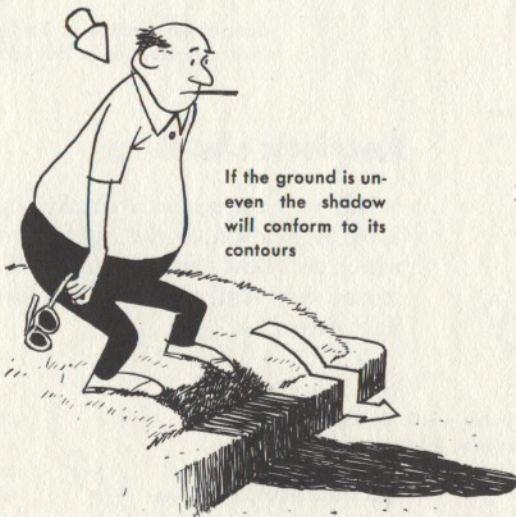
Midday
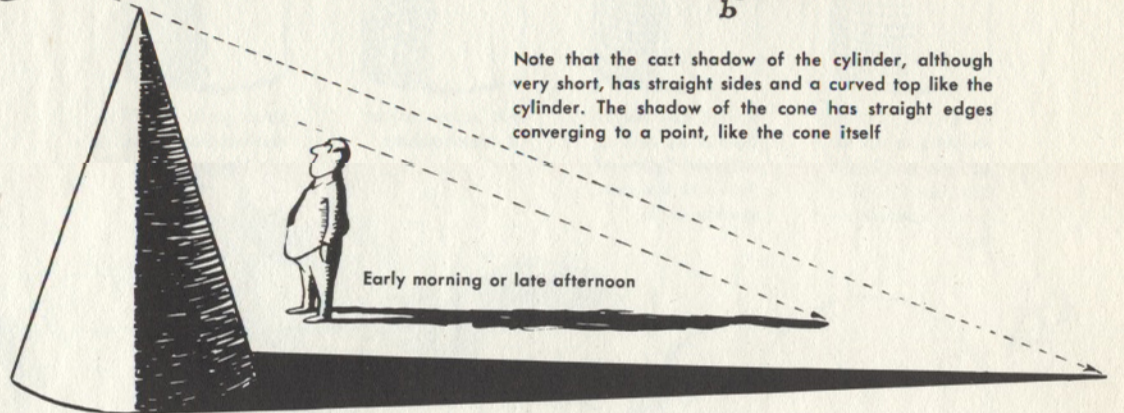
Early morning or late afternoon

The angle of the light rays determines the length of a cast shadow. Compare the length of your shadow at noon with its length at sunrise or sunset

The cast shadow is not an object itself — it is merely an absence of light on the ground behind the figure

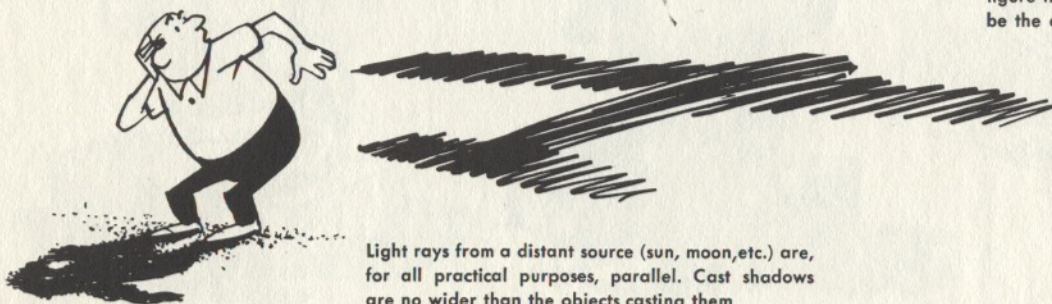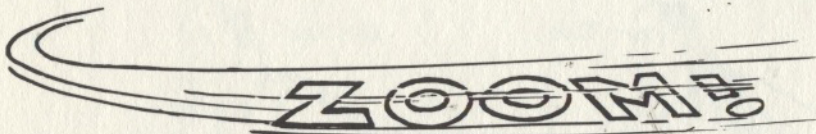Shadow lies flat on even ground

If the ground is uneven the shadow will conform to its contours

If there is a wall the shadow will go up it

Shadow must first reach the wall

ZOOM

Light rays from a distant source (sun, moon, etc.) are, for all practical purposes, parallel. Cast shadows are no wider than the objects casting them

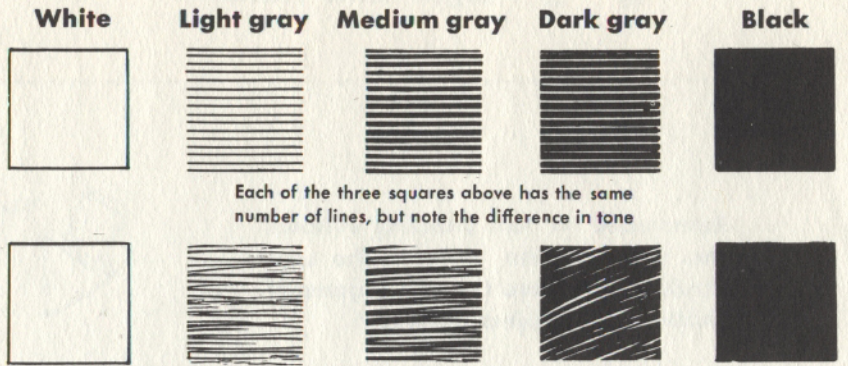The closer the light is to the figure the more enormous will be the cast shadow

Rays from nearby artificial light sources radiate and create cast shadows wider than the object casting them
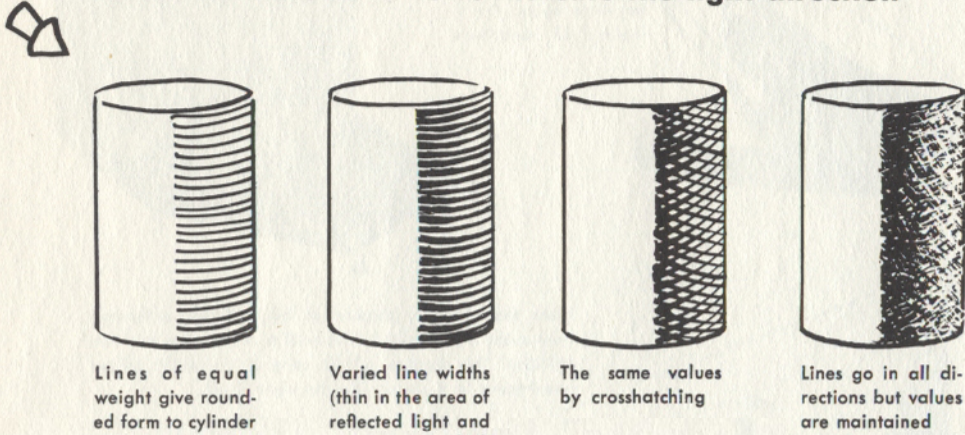
## Line shading

The purpose of line shading is to create varying degrees of gray tone. On page 8 of Lesson 3 we saw how it can create tonal patterns to give "color" and form to otherwise flat outline drawings. It also can show transition from light to dark when you're using light and shadow to give solid form to figures and objects.

Techniques vary — from evenly spaced, hard mechanical lines to nervous, scratchy ones. The thing to remember is that the more white space there is between the pen lines the lighter the tone will be. Heavy lines close together produce darker tones. Here are some examples.

| White | Light gray | Medium gray | Dark gray | Black |
|---|---|---|---|---|

Each of the three squares above has the same number of lines, but note the difference in tone

These squares have the same tonal values as the ones above them (you can determine this by squinting at them) but the pen technique is less mechanical and more interesting

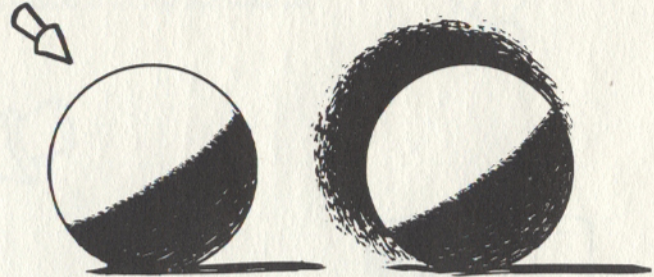## Three-dimensional arrows indicate the light direction

Lines of equal weight give rounded form to cylinder but the shading has a mechanical look
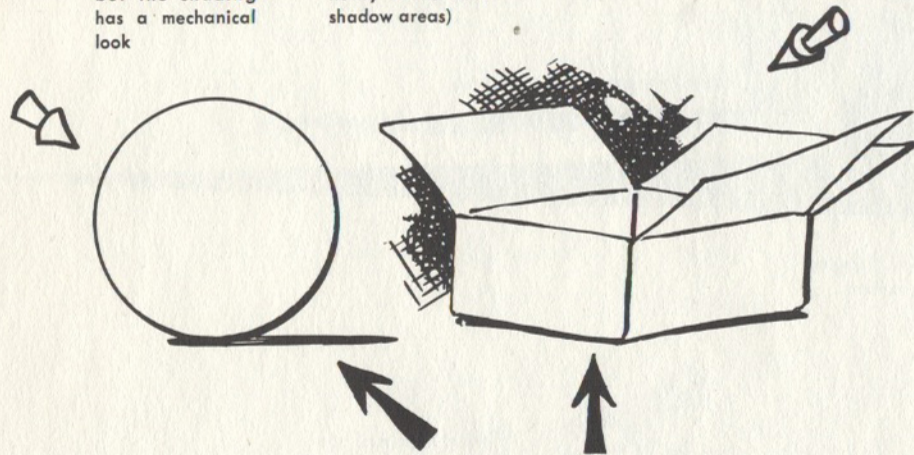
Varied line widths (thin in the area of reflected light and heavy in the dark shadow areas)
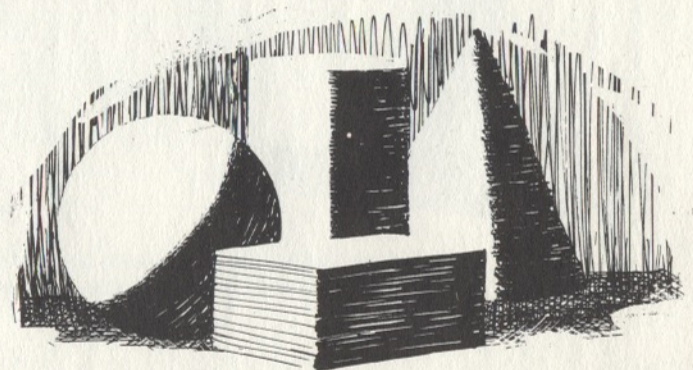
The same values by crosshatching

Lines go in all directions but values are maintained

Shadow area on an object gives it form, but a dark background behind the light area accentuates the solid form even more

In cartooning, the simplest way to suggest bulk and solidity is to accent outlines on the shadow side. Keep in mind that light ordinarily comes from above

Basic forms revealed by light and shadow alone — using no outlines. Try to plan your drawings so that light areas appear against dark and vice versa

## Realistic shading

When you use realistic shading, plan the shadow pattern carefully in relation to the light source. Establish a light direction which will best reveal the form of the figure (usually above and to one side of it) and keep the shadow areas consistent with this light direction.
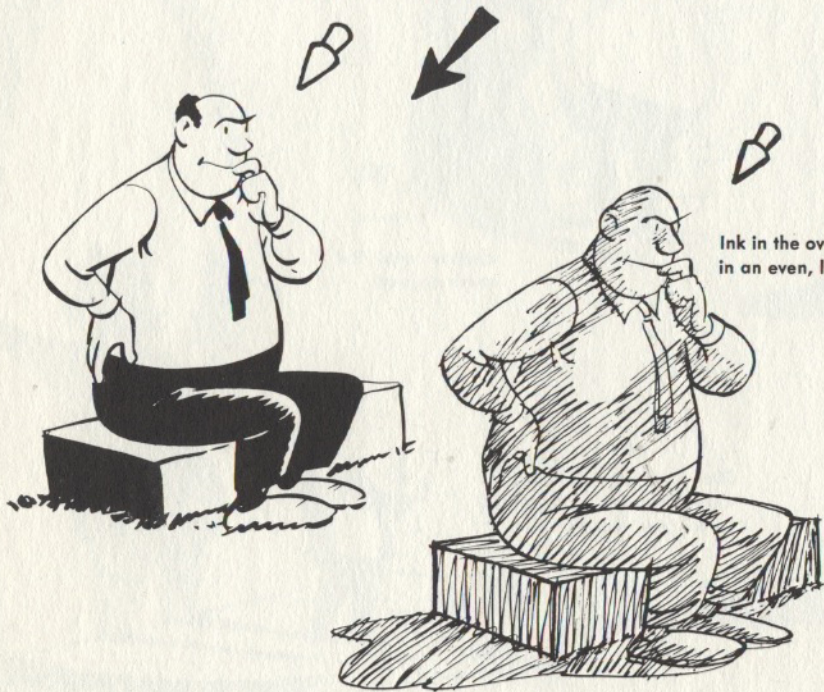
Ink in the overall shadow pattern first in an even, light tone

Then add details and accents
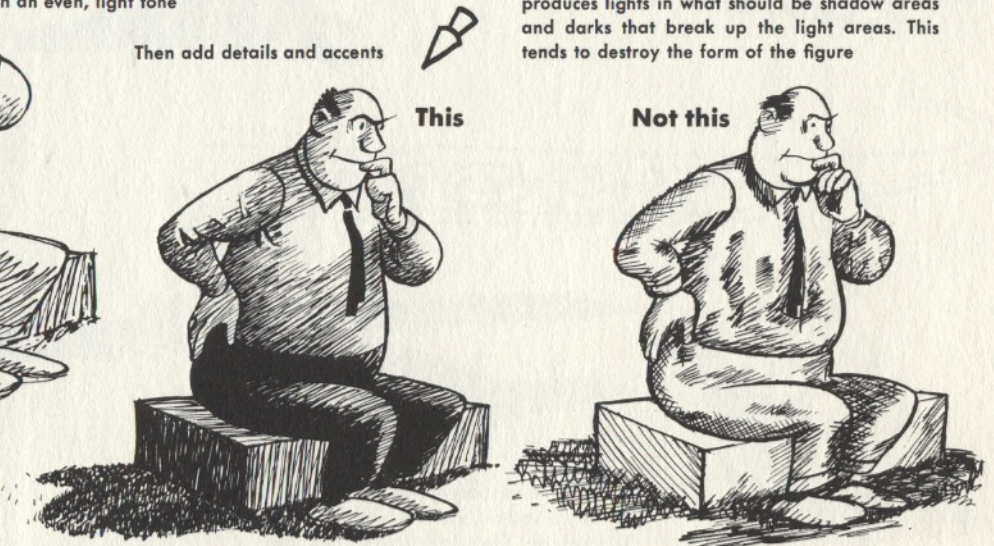
Indiscriminately putting in patches of shading produces lights in what should be shadow areas and darks that break up the light areas. This tends to destroy the form of the figure

This

Not this

## Shadows — with and without

Without shadows objects and figures are just outlines. Note how a bit of simple shading nails them down and relates them properly to their surroundings. For the sake of simplicity have your light in each scene come from one direction only, and keep the shadows consistent with this light direction.
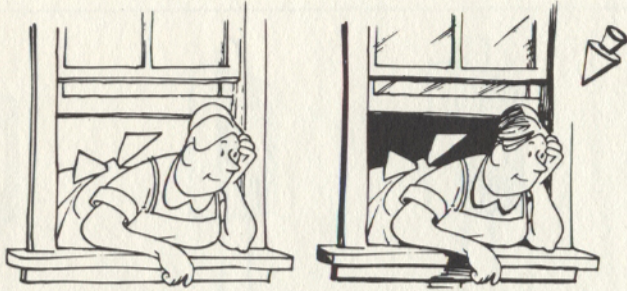
Simple shadows show that the figure leans out of the window with her arms resting on the sill. Dark interior makes figure more prominent and gives a feeling of depth
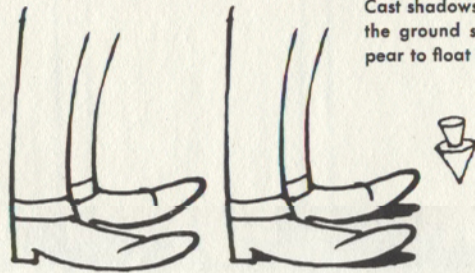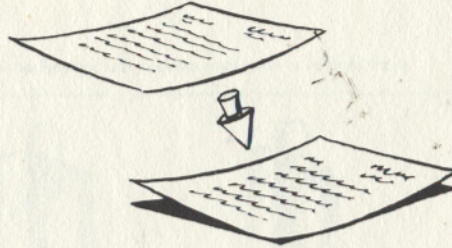
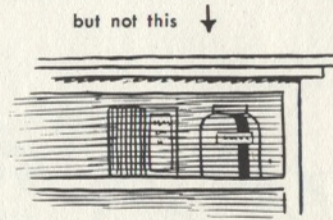Cast shadows anchor things to the ground so they don't appear to float in space
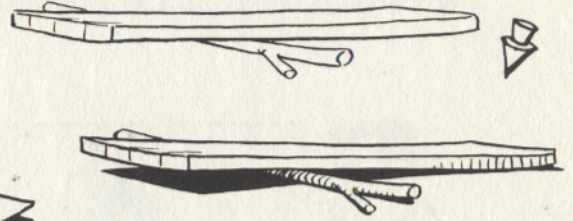
Shadow below the football shows that it's above the ground

## Some useful tips

If you want objects to stand out on a shelf

Do this ↓

or this ↓

but not this ↓

Solid black behind books gives depth to the bookcase
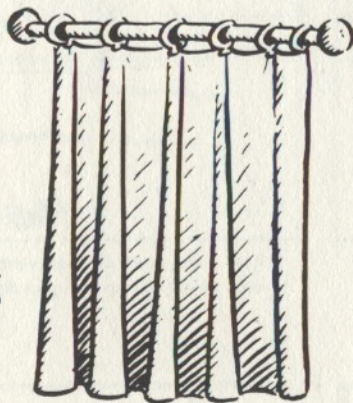
Remember that light areas tend to come forward — toward the reader — dark areas to drop back. Note the folds of the drape
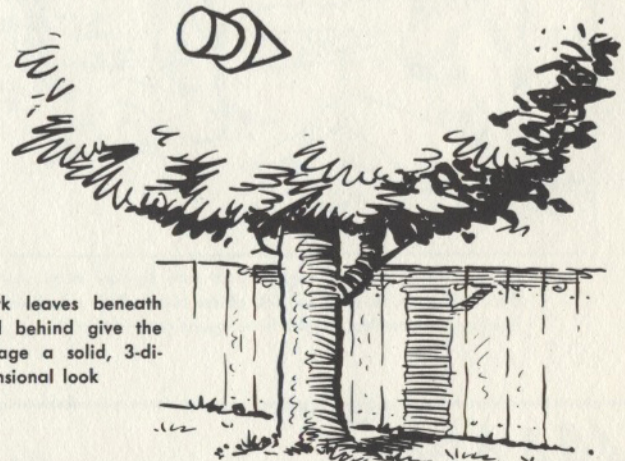
Dark leaves beneath and behind give the foliage a solid, 3-dimensional look

## Light to dark

Here are a few examples of how pen lines can make the transition from light to dark and vice versa

Horizontal line shading fading downward

Crosshatching fading downward

Solid black to white
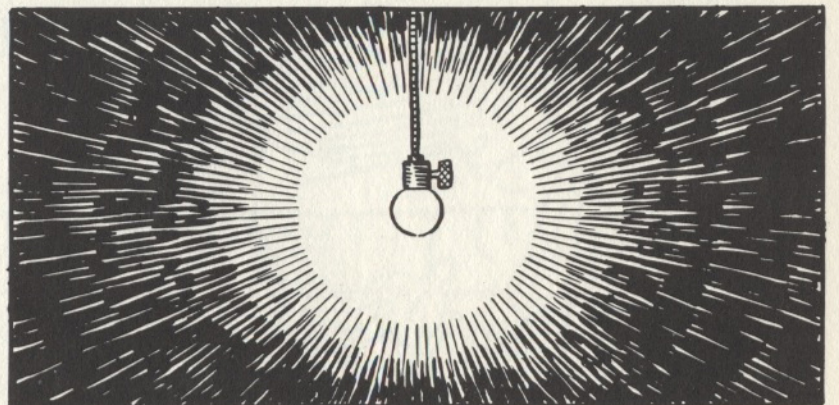
Somebody just turned on the light

## Fading into distance

Our atmosphere is like a filter — the more of it between us and an object, the lighter in tone that object will seem. Here is a man looking at six signs. Each sign is actually the same, but they appear lighter as they get further away from him.

A cushion of atmosphere softens the tone of an object in the distance

Arrows indicate direction and angle of the light rays

Heavier outlines suggest shadow areas

As figure gets further away, blacks become gray and gray tones are lighter

Details and shading disappear

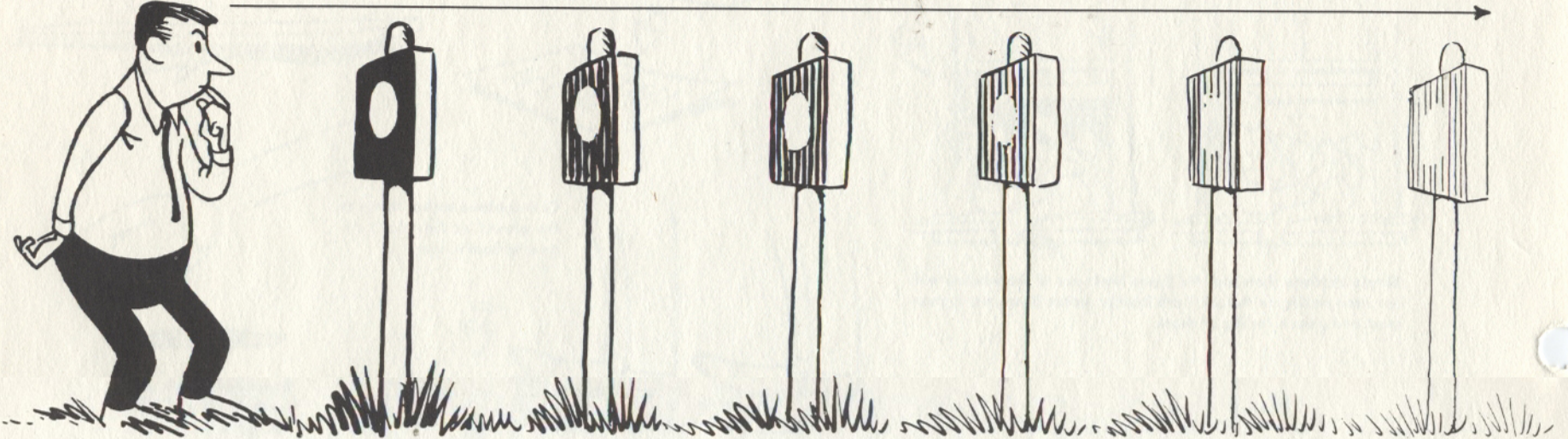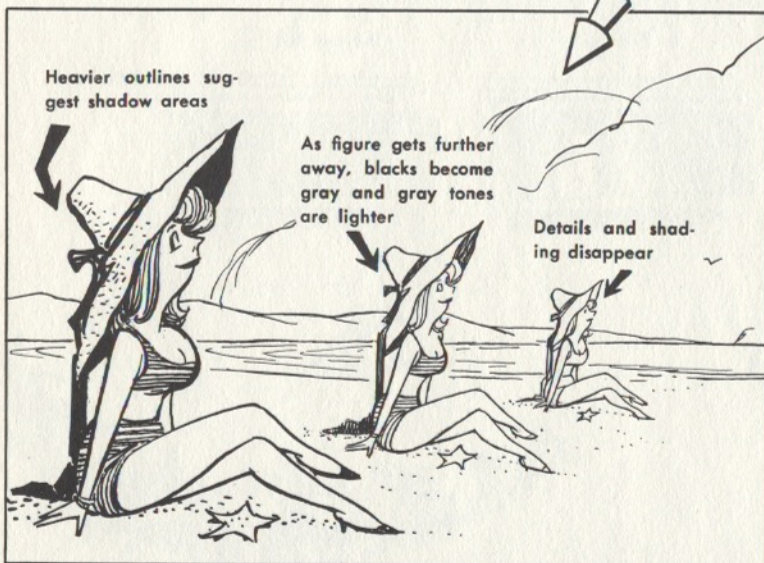Here the emphasis is on light-and-shadow pattern rather than texture

Texture less evident

Strong light and dark contrast. Wood texture clearly visible

In cartooning, you can suggest light and shadow simply by accenting the outlines on the shadow side of the forms. Also note how detail and shading become less emphatic as figure gets further away
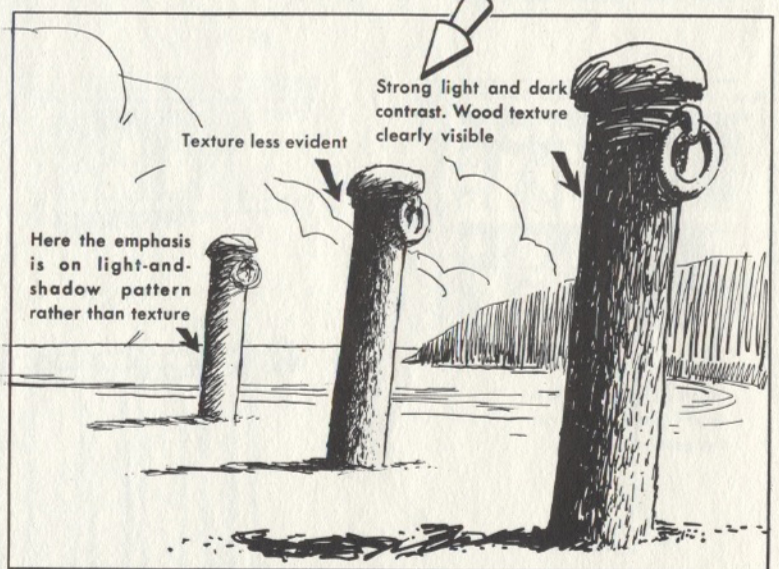
In this more realistic treatment there is a gradual transition from light to dark on each object, giving it a greater feeling of bulk and solidity

**Wrong** — here the elements in the background are drawn in lines of the same weight as those in the foreground. This makes the picture flat — there is no feeling of distance

**Right** — by drawing objects in the background with lighter lines, and objects in the foreground with heavier lines and some solid blacks we get a feeling of distance

## Emphasis, mood and composition

Shading is useful in pointing up what is important in your picture, in establishing the mood of a situation, and in helping to create an interesting composition.

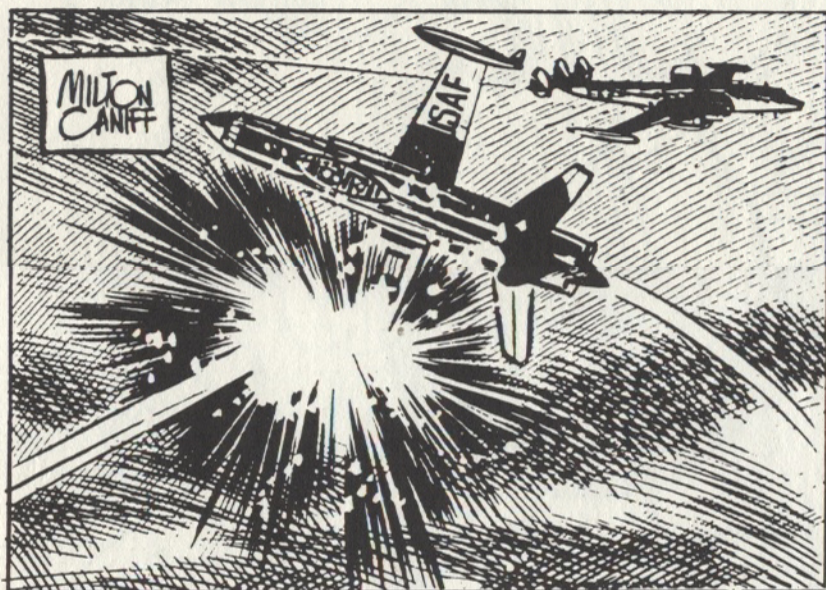Strong contrast of light and dark will grab and hold a reader's attention, directing it to the areas you wish to emphasize. Weird shadows will create a spooky, menacing effect. The judicious use of light and shade will help strengthen and balance the composition of your picture.

### Emphasis



Here Milton Caniff, to dramatize the destruction of the plane, has used strong black-and-white contrast to emphasize the explosion



Here the two figures in the foreground are all-important to the situation. Although they are tiny in the scene, they stand out because they are silhouetted against an area of bright light



In this simple outline cartoon the blacked-in mask and gun immediately establish the character and intentions of the gentleman on the left

### Mood



Even though we don't see the creature that threatens the kid, its looming black shadow gives the cartoon a mood of spookiness and terror

### Composition



Our bird watcher and the interested object of his attention form the center of interest in the panel, but the composition as a whole is out of balance. All the weight is at the right, with empty space in the center, which gives the effect of two separate drawings



By adding shading and detail in the center and some blacks at the left to counterbalance those at the right, we now have a single unified picture

## How to use light and shadow in cartoons

On the preceding pages you have studied the basic rules of light and shade. Here we give you some examples to show that these rules need not always be taken too literally by a cartoonist. In each drawing there is a *reason* for breaking or bending the laws: to point up a gag, to help composition or simply to try and get a new effect. With light and shade, as with all the other elements of cartooning, you start with the real thing and modify or change it in whatever way helps make it a better picture

This decorative type of cartooning tends to *suggest* shading with thick and thin lines. Look at the accordion here: it's a good example of "lost" lines and thick and thin lines. This is not just simplification based on knowledge — the lines are also carefully considered to add excitement and action to the composition
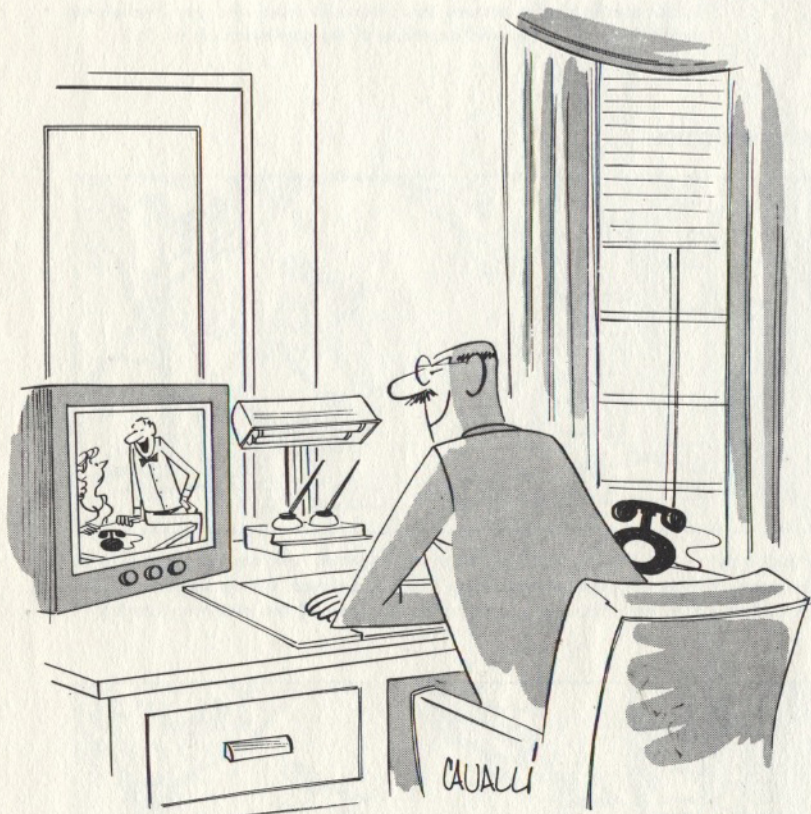




*Whatever became of old Knucklehead's last brain storm — installing inter-office television?*

Look Magazine

See how Dick Cavalli emphasized the main ingredient of this gag — the television set — with shading. Here the shading tone (Ben Day) was indicated on the drawing with a light blue wash, later the mechanical tone was applied by the printer
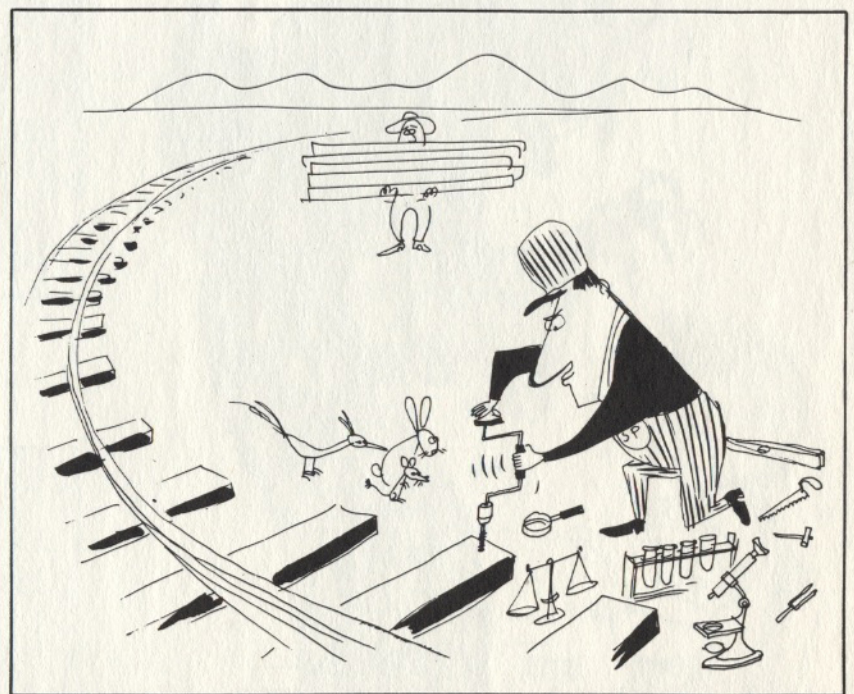


To show strong sunlight on the desert Virgil Partch uses solid blacks. This makes a good perspective design on the railroad ties and calls strong attention to his character. Cross-hatch or small line shading here would weaken the drawing

Light and shadow are used here in a highly decorative way, but notice that this treatment still suggests a real light source

© 1955 by Whitney Darrow, Jr.



*Why don't you get in there and integrate with the group?*

Notice how Mr. Darrow has bent the laws of light and shade to give emphasis to the faces here. The characters' heads stand out as if spotlighted, although the light sources are behind and over them



Whitney Darrow, Jr. thought of these figures in the simplest terms: light on one side, shadow on the other. He created the shadow with one big brush stroke, starting at the top of the head, going straight to the feet and outward for a ground shadow

## Warning!!

We repeat: shading is fun and helps give your drawings that professional look. But — until you master it — take it easy. It is much better to under-shade than to over-shade.
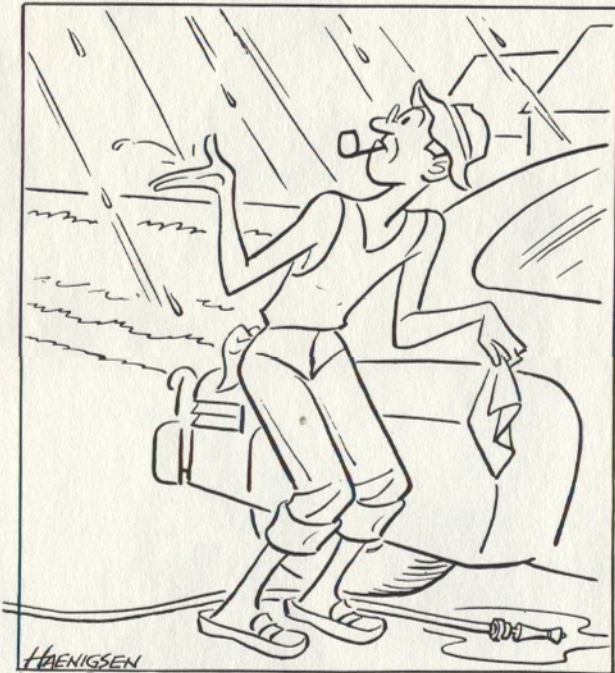


Here we have a drawing finished in ink outline. We are now ready to shade it. Until you have done a lot of shading, you will find it a great help if you first pencil in the shading



If the face is the important part of your gag, these few blacks are all the shading you need to pull your reader's eye straight to the point. More shading would be a distraction. Small, solid blacks in a line drawing place emphasis where you want it



Here the car becomes important and attracts the eye first. We have shaded the important parts of the drawing just enough to give it some form and tone. If we're smart we will stop right now — clean our pen and put it away



See what we get when we aren't smart? We kept adding more and more shading. Sure it was fun — but it looks like a plate of spinach. The first drawing is a hundred times better than this — it's better not to shade at all than to do this

## To study and practice

Our chief aim in this lesson is to teach you the essential principles of light and shade. Good shading gives your work life; bad shading will ruin it. You learn the laws and techniques of shading here, but you must also learn to judge what is the right amount of shading for the job in hand. Always keep in mind the market you are aiming at, the methods of reproduction and quality of paper that will be used in printing your work.

For your practice work, create several cartoons, each with a definite light source, and draw your shading and shadows in proper relationship to it. Then do the same drawings over with the light source at a different point to see how the rules work and if you can improve the looks of things. Try all types of shading and try solid blacks, but remember that simplicity is the best policy for cartooning. When you feel you understand the subject, tackle your assignments.

We will criticize your assignments for this lesson chiefly on your understanding of the principles taught in the text.

## The assignments you are to mail to the School for criticism
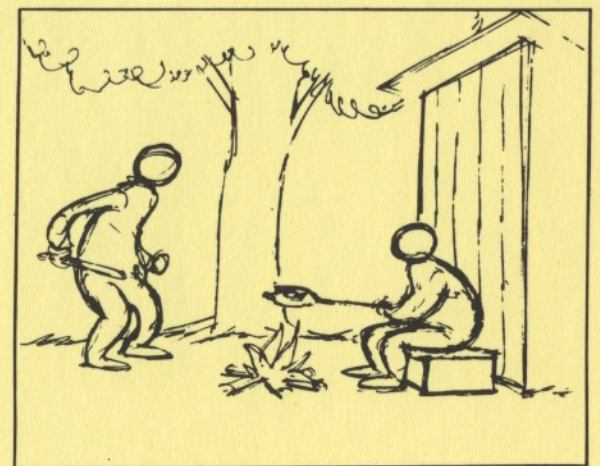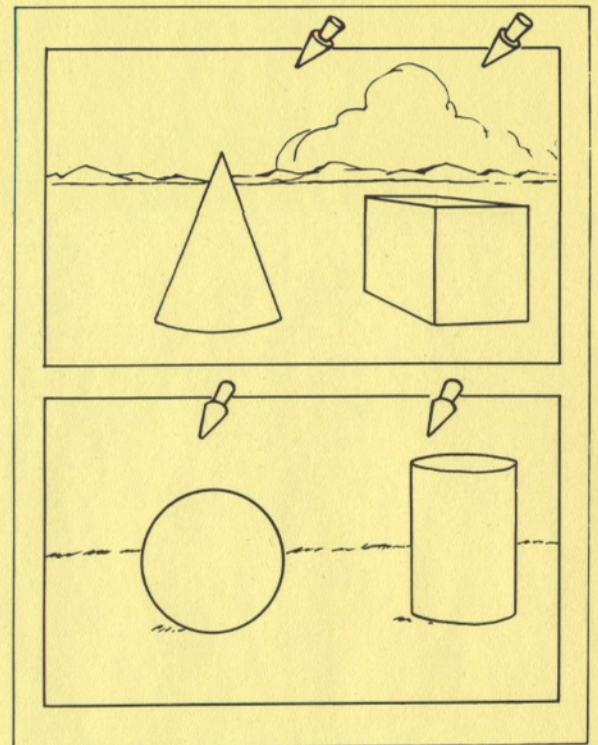
### ASSIGNMENT 1

On an 11 x 14-inch sheet of Bristol board draw two panels, each 10 inches wide and 6 inches high, as in the diagrams at the right. In the upper panel draw an Indian tepee and a flat-roofed Mexican adobe hut standing on a flat level plain in the same placement as their basic forms in the top diagram. They are in strong sunlight, with the light rays coming down in the direction and angle indicated by the three-dimensional arrows. Shade these dwellings and draw the cast shadows to this light direction in ink, using pen or brush.

In the lower panel draw a large beach ball and a garbage can resting on grassy ground and follow the same procedure as in the drawing above -- noting carefully the light direction.

### ASSIGNMENT 2

On another 11 x 14-inch sheet of Bristol board draw a panel 10 inches wide and 8 inches high. In it draw the figure of a tramp seated on a box, his back to the wall of a shack. He is cooking a stolen chicken over a campfire at night. At the other side of the fire draw the figure of the local constable, who has just entered the scene and caught the tramp in the act. The campfire is the only source of light in the scene, so shade your figures and objects accordingly with either brush or pen. Try to give the figures action and facial expression which will make the situation as interesting, dramatic or humorous as you possibly can. You may use the sketch at the right for figure placement or, if you wish, come up with your own composition.

IMPORTANT - Mark this sheet ASSIGNMENT 2.

Present your assignments in the same clean, professional manner you would use if you were submitting them to the cartoon buyer of a publication. Letter your name, address and student number carefully in the lower left-hand corner of each page. In the lower right corner, place the Lesson Number and Assignment Number. Mail to:

FAMOUS ARTISTS CARTOON COURSE
Westport, Connecticut

BE SURE to fill out the return shipping label and enclose it with your assignments. This helps a lot in getting your assignments back quickly.

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