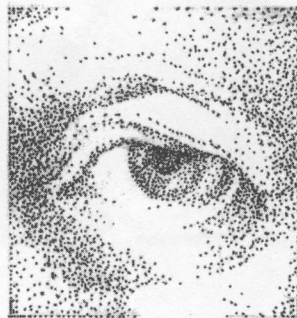
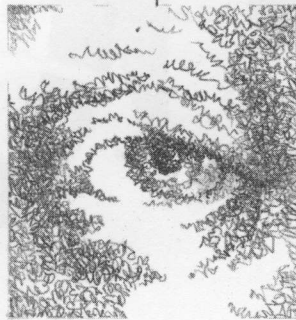


## CREATING VALUES



Using the traditional media of pencil and pen-and-ink to make dark marks on a light surface, there are several basic techniques for creating tonal values.

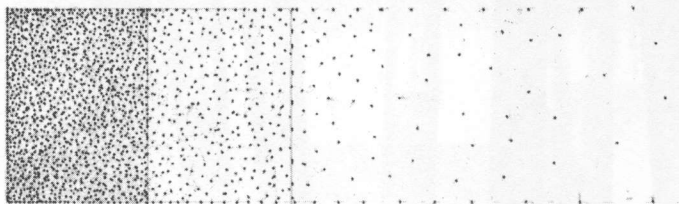
- Hatching
- Crosshatching
- Scribbling
- Stippling

These shading techniques all require a gradual building up or layering of strokes or dots. The visual effect of each technique varies according to the nature of the stroke, the medium, and the texture of the drawing surface. Regardless of the shading technique we use, we must be fully aware of the tonal value being achieved.

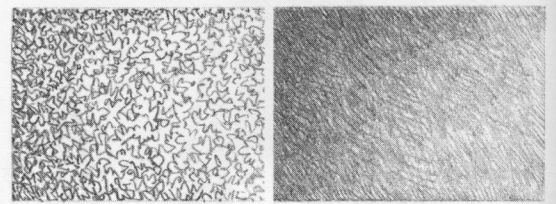
Since tonal value is expressed primarily through the relative proportion of light to dark areas on the drawing surface, the most important characteristic of these techniques is the spacing and density of the strokes or dots. Secondary characteristics include the visual texture, grain, and direction of the strokes. When rendering the darkest values, we should be careful not to lose the white of the paper. Covering the paper surface entirely can cause a drawing to lose depth and vitality.



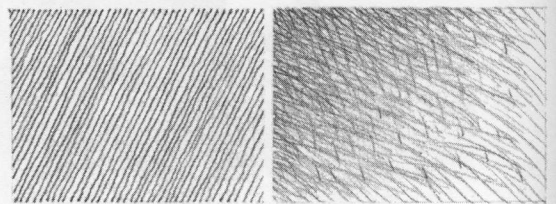
Spacing



Density



Texture



Direction

## Hatching

Hatching consists of a series of more or less parallel lines. The strokes may be long or short, mechanically ruled or drawn freehand, and executed with either a pen or a pencil on smooth or rough paper. When spaced closely, the lines lose their individuality and merge to form a tonal value. Therefore, we rely primarily on the spacing and density of lines to control the lightness or darkness of a value. While thickening the linear strokes can deepen the darkest values, using too thick of a line can result in an unintentional coarseness and heaviness of texture.

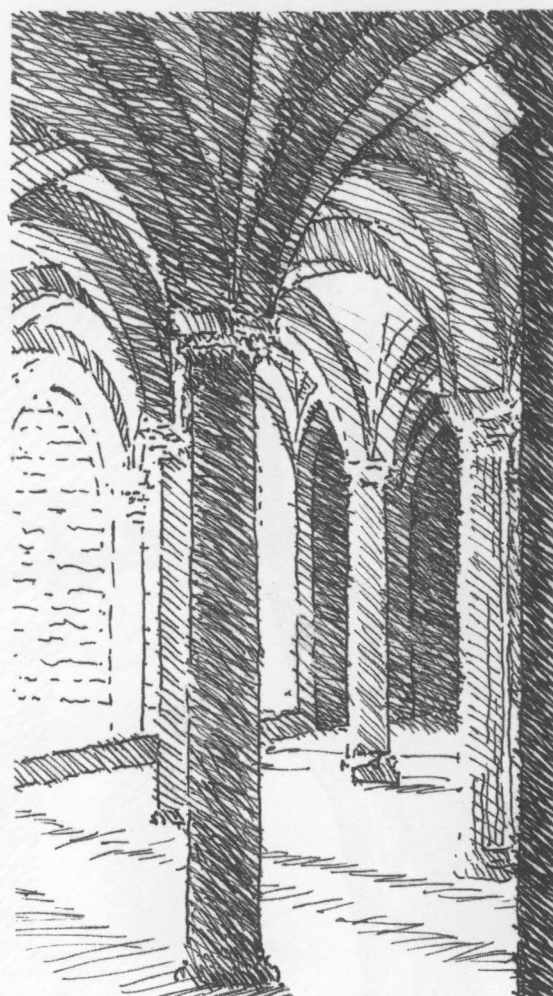
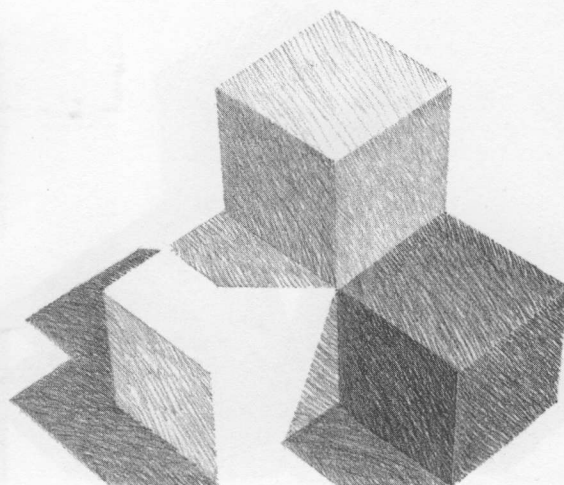
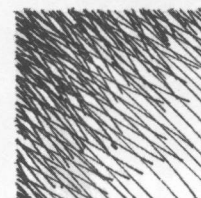
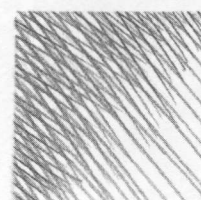
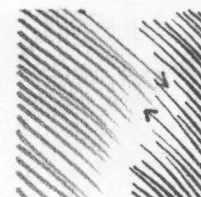
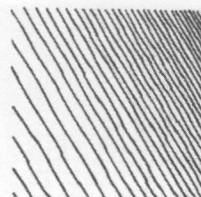
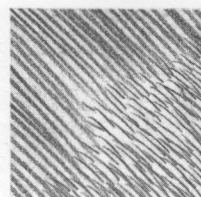
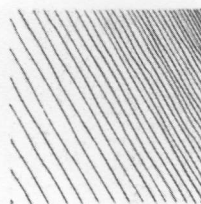
To produce a range of values with a pencil, we can vary the grade of lead as well as the pressure with which we draw. Be careful not to use too dense a grade of lead or press so hard that the pencil point embosses the drawing surface.

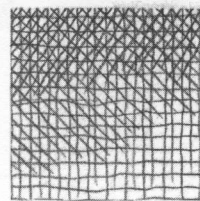
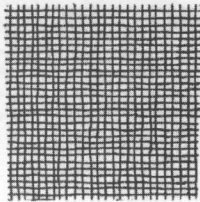
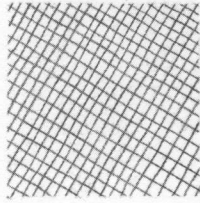
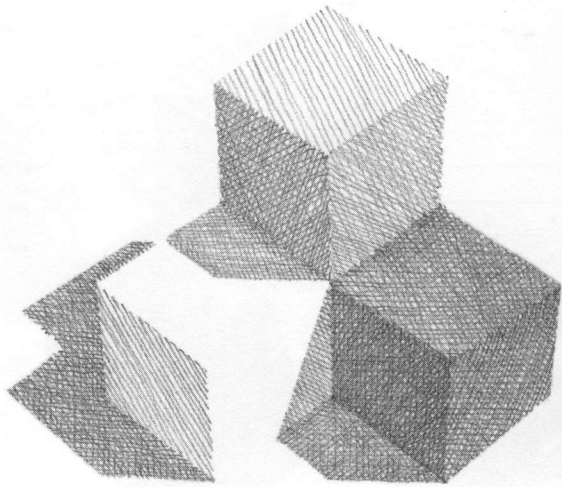
Unlike a pencil line, the tonal value of an ink line remains constant. We can only control the spacing and density of the hatching. When using a pen with a flexible nib, however, we can alter the pressure to subtly alter the thickness of the stroke.

The most flexible freehand technique for hatching utilizes relatively short, rapid, diagonal strokes. To define a precise edge, fix the beginning of each stroke with slight pressure. Feather the ends of the strokes to depict curved surfaces, a texture gradient, or subtleties of light and shade. When extending a tonal value over a large area, avoid the effect of banding by softening the edges and overlapping each set of strokes in a random manner.

By applying additional layers of diagonal strokes at only slightly different angles to the preceding sets, we can build up the density and therefore the tonal value of an area. Maintaining the diagonal direction of the strokes in this manner avoids confusion with the underlying drawing and unifies the various tonal areas of a drawing composition.

The direction of hatching can also follow the contours of a form and emphasize the orientation of its surfaces. Remember that direction alone, however, has no impact on tonal value. With texture and contour, the series of lines can also convey material characteristics, as the grain of wood, the marbling of stone, or the weave of fabric.





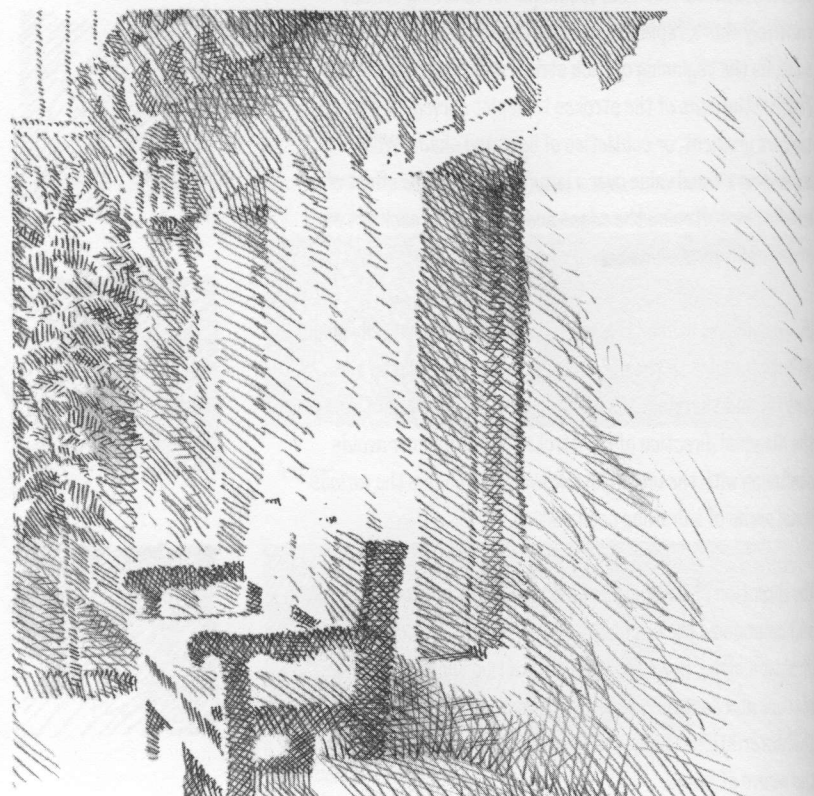
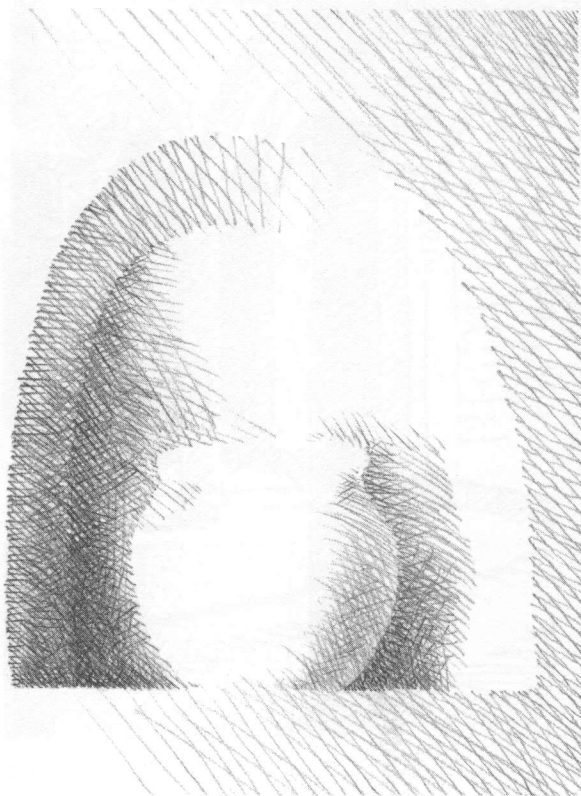
### Crosshatching

Crosshatching utilizes two or more series of parallel lines to create tonal values. As with hatching, the strokes may be long or short, mechanically ruled or drawn freehand, and executed with either a pen or a pencil on smooth or rough paper.

The simplest crosshatching consists of two perpendicular sets of parallel lines. While the resulting weave may be appropriate for describing certain textures and materials, the pattern can also produce a stiff, sterile, and mechanical feeling, especially when the lines are ruled and widely spaced.

Using three or more sets or layers of hatching provides more flexibility in generating a greater range of tonal values and surface textures. The multidirectional nature of the hatching also makes it easier describe the orientation and curvature of surfaces.

In practice, we often combine hatching and crosshatching into a single technique. While simple hatching creates the lighter range of values in a drawing, crosshatching renders the darker range.

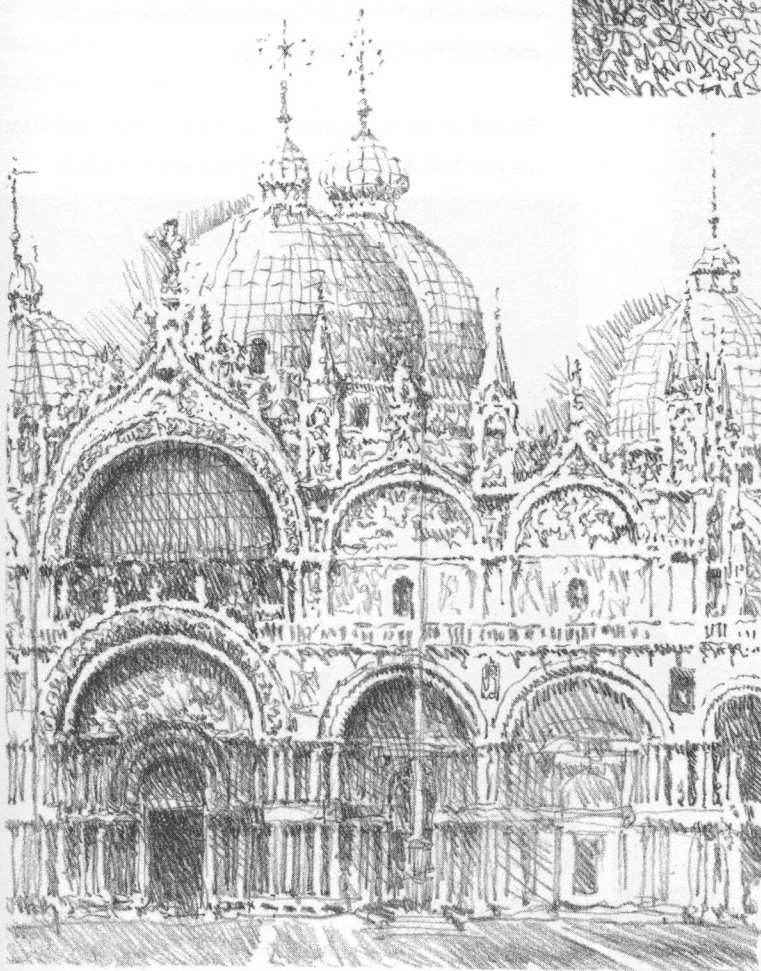
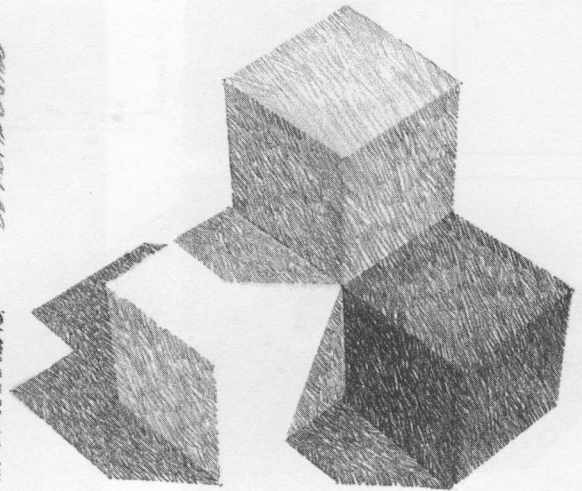
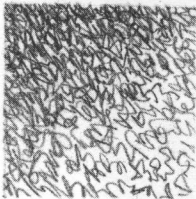
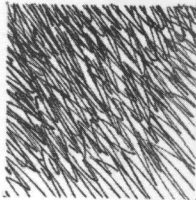
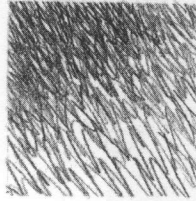


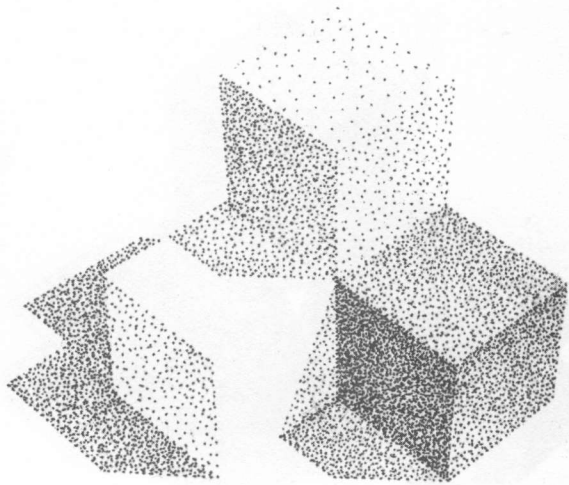
## Scribbling

Scribbling is a shading technique that involves drawing a network of random, multidirectional lines. The freehand nature of scribbling gives us great flexibility in describing tonal values and textures. We can vary the shape, density, and direction of the strokes to achieve a wide range of tonal values, textures, and visual expression.

The strokes may be broken or continuous, relatively straight or curvilinear, jagged or softly undulating. By interweaving the strokes, we create a more cohesive structure of tonal value. By maintaining a dominant direction, we produce a grain that unifies the various areas and shades of value.

As with hatching, we must pay attention to both the scale and density of the strokes, and be aware of the qualities of surface texture, pattern, and material they convey.





### Stippling

Stippling is a technique for shading by means of very fine dots. The best results occur when using a fine-tipped ink pen on a smooth drawing surface.

Applying stippling is a slow and time-consuming procedure that requires the utmost patience and care in controlling the size and spacing of the dots. Rely on density to control tonal value. Resist the temptation to deepen a value by enlarging the dots. If the scale of the dots is too large for the toned area, too coarse a texture will result.

We use stippling to establish tonal values in pure-tone drawings—drawings that rely on value alone to define edges and contours. We apply stippling over faintly drawn shapes of the areas to be toned. We first cover all shaded areas with an even spacing of dots to create the lightest value. Then we establish the next value step with additional stippling. We continue to add stippling in a methodical manner until the darkest tonal values are established.

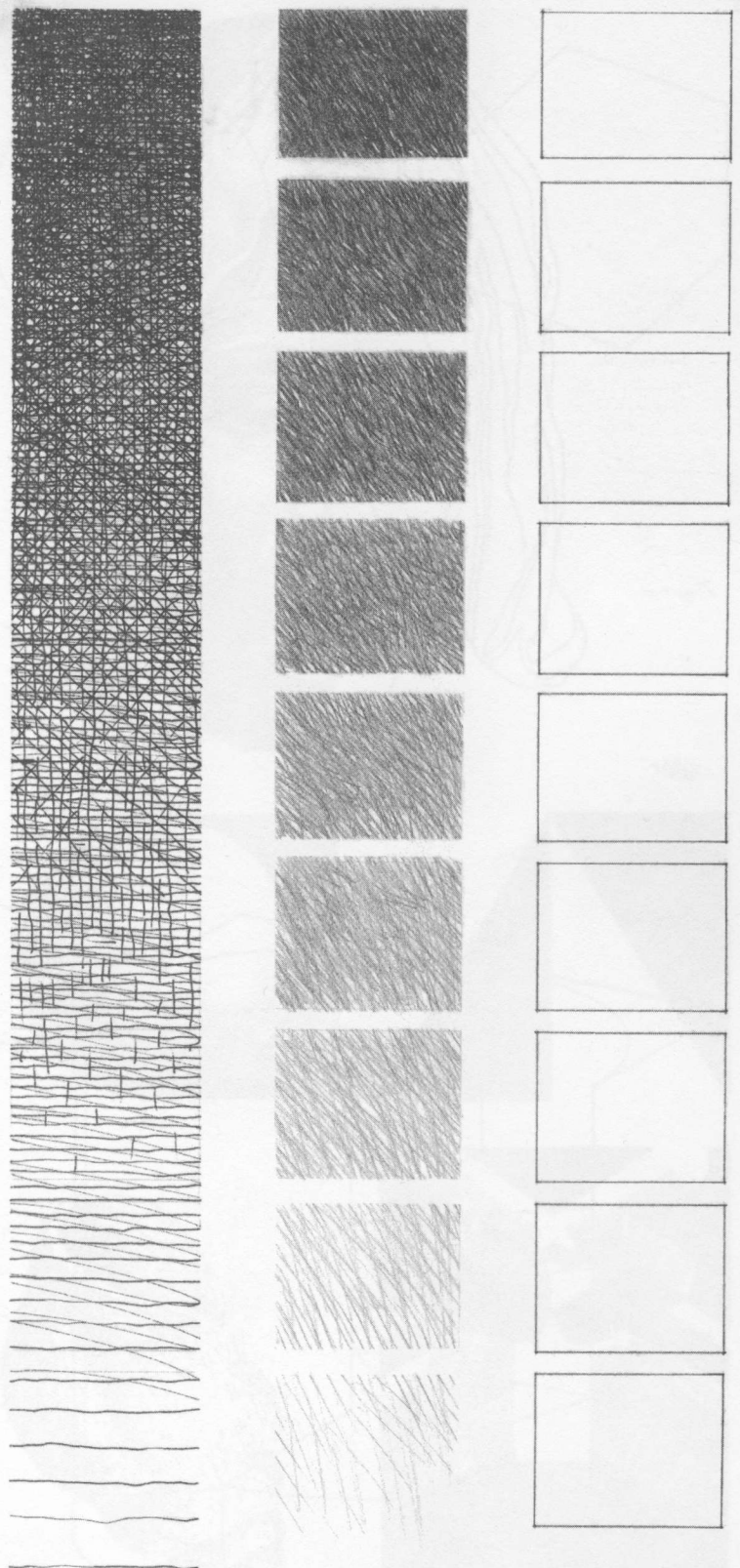
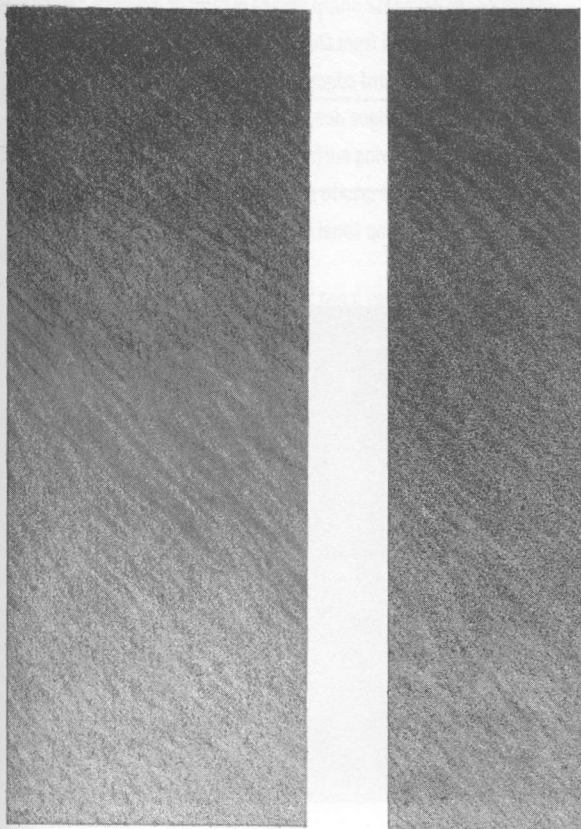
Since there are no objective lines to describe contour and shape in a pure-tone drawing, we must rely on a series of dots to profile spatial edges and define the contours of forms. We use tightly spaced dots to define sharp, distinct edges, and a looser spacing of dots to imply softer, more rounded contours.



White represents the lightest possible value and black the darkest. In between exists an intermediate range of grays. A familiar form of this range is represented by a value or gray scale having ten equal gradations from white to black.

As we begin to see value relationships, we must develop the ability to create corresponding tones using a variety of media and techniques. To this end, producing both a stepped series and a graduated scale of tonal values is beneficial and rewarding. Explore all of the shading techniques described on the preceding pages. Also investigate the possibility of executing a gray scale on a tinted or colored surface, using a black pencil to define values darker than the tone of the surface and a white pencil to establish the lighter values.

After each attempt, carefully evaluate the tonal order from a distance. Check to see if there are any breaks in value and if an even progression of values exists from white to black. With disciplined practice, we should be able to develop the control necessary to replicate any desired tone and maintain the required value contrasts in a drawing.



Chiaroscuro- method of drawing continuous grades of tone to show form

