Creating Values

The placement of values is of prime importance in the composition of a picture. It is possible to create all the values in a drawing by using just one pencil. To do this, you must use a pencil that will make a dark value. Try using a 2B. By varying the pressure on the paper with a 2B pencil, you can render all values between white and black.

Another way of creating values is by using different grade pencils for different values. You can make all the values between white and black with seven pencils as follows:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>6B</td>
<td>4B</td>
<td>2B</td>
<td>HB</td>
<td>2H</td>
<td>4H</td>
<td>6H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before you start any drawing, make a chart of all ten values using the pencils suggested here. Make each square 1-inch (2.5 cm) and create the tones with vertical lines, horizontal lines, and cross-hatching. Do each value as carefully and accurately as you can (see above).

There are two other exercises you should do in order to understand values and how to achieve them: 1. Using the seven pencils of grades 6B, 4B, 2B, HB, 2H, 4H, and 6H, make a chart of a graded tone from value 0 (black) to 10 (white). Be sure as you change pencils that there is a gradual blending of the tones. Notice how you can create a very smooth blending from one value to the next by simply changing the pencils. 2. The second exercise is the same graded value chart you did (above) with seven pencils, but now you will use only one pencil that will make a dark enough tone to create a solid black. With a 4B pencil you are able to create all the values from 0 to 9 by changing the pressure. When you grade the values with one pencil, the texture of the paper becomes an important element, since with less pressure the roughness of the paper becomes more apparent (opposite page, bottom).

To create all the values between white and black, use the following pencils: 6B pencil for 0 and 1; 4B for values 2 and 3; 2B for the 4th value; HB for the 5th value; 2H for the 6th value; 4H for values 7 and 8; and 6H for the 9th value. The 10th value is the white paper.

This chart was created by using the same pencils as above for the values; however, the strokes were drawn on a slant. Use different directions for the strokes, but keep the values the same.

Only a 2B pencil created the values for this chart. The values were made by cross-hatching and varying the pressure on the paper.
This chart is a graded value scale from 0 to 10. The same pencils were used as in the Creating Values Chart (above), but the strokes were blended together to create an even graded tone. This scale was drawn with a 4B pencil using only vertical strokes. You can see that as the tones become lighter, you need to put less pressure on the paper. Notice how the texture of the paper becomes apparent with the lighter tones.
Creating Forms

One of the most difficult problems of drawing is creating a three-dimensional form on a flat piece of paper. The best demonstration of producing three-dimensions is with a drawing of a cube that has height, width, and depth. If there is a flat overall light on a cube, it is difficult to see the light side, the middle tone side, and the shadow side. When a single light is directed on the cube you will be able to see the height, width, and depth. Each surface of the cube will have a value, and the difference between these values will reflect the amount of light. For example, if the lightest side of the cube is a 9th value and the shadow side is a 1st value, there is a stronger light effect than if the difference were a 7th value for the light and a 5th value for the shadow.

You can create the values you’ll use to produce the form with the same methods that were used to make the value charts. Use either one pencil and change the pressure to make the values, or use all seven grade pencils (see below). With a 2H pencil (A), indicate the light value, the middle value, and the dark value. It is difficult to achieve a strong light effect since the darkest tone you can obtain with a 2H pencil is the 6th value. When you use an HB pencil (B) you can achieve a much stronger light on the cube, since the HB pencil can make a 4th or 5th value. However, by reducing the pressure on the pencil you can create more texture in the middle tone side. A stronger light effect is obtained with a 2B pencil (C) because the shadow side now becomes a 3rd value. Since the pencils are softer, the texture in the paper becomes more noticeable. By using a HB pencil for the lightest tone, a 2H for the middle tone, and an HB for the shadow (D), you’ll have more control in creating the values. The value relationship between the middle tone and the shadow is only one value difference, which gives a very weak light effect. You can obtain a stronger light by using an HB pencil for the middle tone and a 2B for the darks (E).

There is still only a one value difference between these two sides, which does not enhance the form. As in (F) leave the lightest side white. By doing so you’ll make that side as light as possible. In effect, this is the same as using a darker value in the shadow. By keeping the values on each side close together (G), you can achieve the effect of a very dim light. In a landscape, for example, this could give you a very hazy or foggy atmosphere. The value relationship in this cube is 9, 6, 6. You can achieve the strongest contrast in values (H) by keeping the light side white, the middle tone a 6th value with a 2H pencil, and the dark side a 3rd value by using a HB pencil. You may want to try keeping this value relationship in most of your drawings. In order to create the strongest effect of light possible (I), leave the light side white and the middle tone a 4th value with a 2B pencil and the darks a 3rd value with a 4B pencil. This has the effect of a strong spotlight on a subject.
Fundamental Strokes

There are a few basic strokes that will be helpful when drawing on location if you apply them! You will discover many more strokes on your own as you practice and sketch.

Three pencils, 2H, HB, and 2B, were used here, but do try each exercise with different grade pencils. Keep in mind that strokes of all kinds and combinations should be drawn without trying to create a picture, although some of the exercises may take on the appearance of actual objects (see below).

Here are some of the many strokes and patterns that are created by using the 2H, HB, and 2B pencils:

- Short vertical strokes (A) with a 2H pencil, varying the direction, even pressure.
- Short strokes (B) at an angle, even pressure, 2H pencil.
- Short horizontal strokes (C), even pressure, overlapping, 2H pencil.
- Long vertical strokes (D), irregular lines, even pressure, 2H pencil.
- Short, curved lines (E) in different directions, 2H pencil.
- Short, curved strokes (F) in one direction, leaving white spaces, with HB pencil.
- Short, curved strokes (G) with HB pencil.
- Vertical background with 2H pencil, using vertical strokes.
- Short, vertical strokes (H) with 2B pencil, varying the pressure and direction.
- Short, vertical strokes (I), even pressure, varying the direction with HB pencil.
- Short, angle strokes (J), varying pressure and direction, with 2B pencil.
- Combination of 2H, HB, and 2B pencils to vary short angular strokes (K) in various directions.
- Small, curved lines (L) with 2B pencil, varying the pressure from left to right.
- Short, vertical strokes (M) with 2B pencil, varying the pressure, and direction.
- Vertical strokes (N), varying the pressure, leaving white areas.
- Combination of 2H, HB and 2B pencils with short strokes (O) going in various directions.