

### Excerpt from Drawing the Human Form by William A. Berry

Study 8 takes advantage of your ability to perceive body forms as rounded ovoid units in space. This drawing method might be called stereometric. In order to learn how to make the fine adjustments of drawing associated with draftsmanship, however, it is necessary to practice a method of drawing that is planimetric -- based on measuring the appearance of form in the optical image rather than on three-dimensional form. A visual measurement of an image is the apparent distance between two features, not the actual distance in space. For example, the actual distance between a model's eyes is constant, but when the head is turned, the eyes may appear much closer. It is this apparent distance that is involved in planimetric drawing. For purposes of planimetric measurement the straight line is a more effective tool than the curved (contour) line, with its infinite variations.

The natural configurations of the human body, however, present few instances of truly straight lines. What you see instead is a complex array of curves with varying degrees of shallowness or sharpness. The question then arises as to how the complexities of bodily form can be reduced to shapes defined by the more easily controlled straight lines on a flat surface. One key to such visual generalization lies in the construction of the curves themselves, which as a rule are irregular in shape. The curves of the body bend more sharply in some places than they do in others. The irregularity of their curvature gives many of them an angular quality. By interpreting a contour as an angle it is possible to draw it in terms of two straight lines that intersect at the sharpest point of the contour (Figure 3-22). A method of observing and drawing such intersections is the subject of the following exercise, which is designed to focus on the problems of measurement in planimetric drawing.

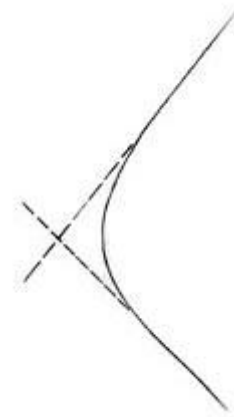


Figure 3-22.

### Study 9. Visual Measurement of Angles

Suggested times: 2 minutes for part 1 and 30 minutes for part 2

In this study two preliminary steps are advisable: (1) a rapid (two-minute) contour drawing of the figure to establish the placement and size of the intended drawing; (2) a vertical and a horizontal line drawn through the center of the figure as a useful reference point for your first visual measurements. These lines should be drawn as lightly as possible, since dark tones might interfere with further development of form. Very light indications can be achieved by holding the crayon on its side (Figure 3-23) and sliding it sideways across the paper. The two reference lines can be drawn by holding the crayon on its side and pulling it lengthwise across the pad. Use the edges of your drawing pad as a guide for proper vertical and horizontal alignment. You should check the alignment of your drawing pad on the easel: make sure that it is not tilting or wobbly. A clamp may help hold the drawing pad in place.

Begin the study by examining the form of the model for large contours that can also be interpreted as angles. At this point it is best to ignore smaller indentations or angles contained within the larger contours. Concentrate on visualizing the larger angles only. Isolate one angular feature and draw it by holding the crayon sideways on the paper so that it parallels the line observed on the model (Figure 3-23). Since your first visual measurement serves as a reference line for the rest of the drawing, take time and care with it. Consider carefully the direction of the line that you observe in the model. Is it vertical or horizontal? If neither, how much does it depart from the vertical or horizontal? After you have answered

these questions, use the vertical and horizontal reference lines in your preliminary drawing as a guide for drawing the line. The crayon itself can be a useful instrument of angular measure. Hold it on its side as before so that its length parallels the line that you wish to draw. Move it across the paper on its side to produce a line with the same direction. The second line of the angle can be drawn in the same way. The sharp, angular intersection of the two lines should represent your estimate of the contour of the model. Its accuracy (or inaccuracy) depends upon how closely the drawn lines parallel the imagined lines in the contours.

After you have drawn the first angular intersection, you can shift to another part of the figure in which an angular effect is apparent. The light preliminary drawing should prove useful in locating the angle. Once you have placed it, repeat the process described above, taking equal care to make the lines parallel to those perceived in life. To place the second angle and all those that follow it, you can refer to the first to determine a more precise relationship among shapes of the body form. Observe their respective positions carefully in the model. Ask yourself the following questions: Does the first angle rest directly under or above the second? Does it lie on a horizontal with the second? If so, the horizontal and vertical reference lines can help you place the second angle accurately. If not, ask yourself how far the second angle departs from the horizontal or vertical standard. It may be helpful to imagine a clockface with the intersection of the first angle as its center. You can estimate the directional position of the second angle by means of the numbers on the clock. By repeating the steps described above to construct additional angular intersections, you can build up linear structures that accurately reflect body forms.

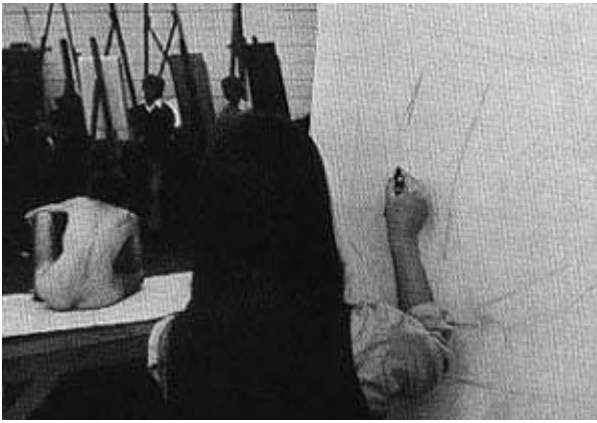


Figure 3-23.



Figure 3-24.

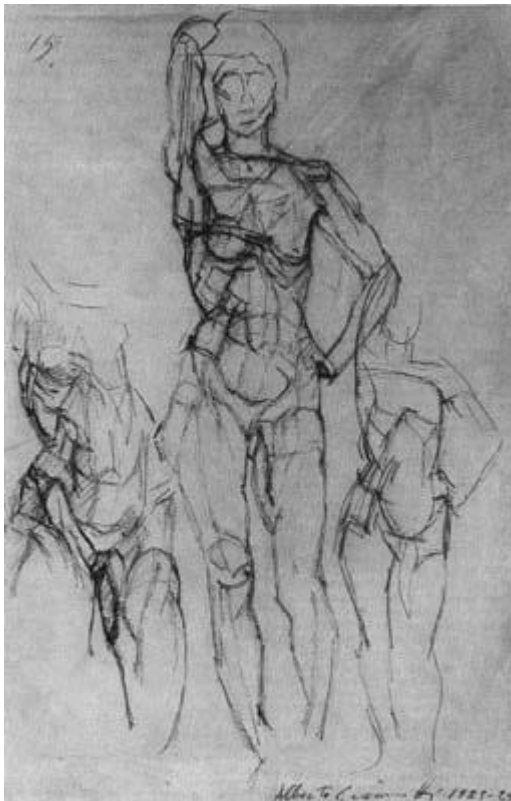
When you have completed the broad angular construction of the figure, you may wish to develop the form further by searching out the smaller angular indentations within the large shapes (Figures 3-23 and 3-24). You can use the same method to place these smaller shapes within the framework of the larger ones. The task is somewhat simplified by the presence of the larger framework: it requires visual measurement only within the local area, since the problem of the larger relationship has already been solved by the more generalized shapes. This kind of visual measure can often be seen in terms of fractions -- for example, one-half the length of the larger shape. Such smaller measurements can be critical in areas with more complex features, however, such as those of the face and extremities, and should be drawn with care. The first stages provide the foundation for the detailed development of form. It follows that the better the foundation, the better your drawing will sustain the burden of detailed rendering.

Although there is no fixed time period for this type of drawing, you will find that 15 minutes should be allowed to complete the most general forms of the body. The additional time depends on the extent to which you wish to develop the drawing. For your first experience with this technique an additional 15 minutes is sufficient.

One of the advantages of this method of drawing is its flexibility: it permits constant reevaluation of visual measurement, since you can simply draw another angular intersection to conform to your new estimate of the original's location. In most cases the original angular intersection need not be erased, as it will not affect the quality of the drawing. Several instances of such reevaluation are visible in Figure 3-25, a drawing in which no erasures were made. The extra lines do not mar the quality of the drawing.



Figure 3-25.



Drawing by Giacometti.