The Figure in Action: The Rhythmic Relationship of Lines

by Jon deMartin

"When you draw, take care to set up a principle line which you must observe all throughout the object you are drawing: every thing should bear relation to the direction of this principle line." — Leonardo Da Vinci

The previous article in this series began our study of drawing the figure in action with an exploration of ways to draw the human body so that it appears three-dimensional and alive. We discussed the importance of finding the inner axis, the most expressive line of action. We also looked at how the figure's surface centerlines help to convey the illusion of the figure's masses in space. In this article, we'll look at the variety of ways lines can enhance rhythmic action from both the inside and outside the human figure.

These principles are not necessarily the way to draw—no one method is appropriate for every artist—but they are a sound approach. Hopefully, this advice has something to offer both beginning draftsmen and experienced artists looking for a refresher course in some of the basic principles of figure drawing. The following strategies can be thought of as "behind-the-scenes thinking" to help make our drawing process more intuitive.

Line: The Foundation of a Figure Drawing

There are many different line types, and it's important to explore what they are. Before looking at the specific types, it's helpful to recall what a line is—a path between
two points, or anchors. It's not necessary to draw every single anchor point on every line, but paying attention to where your lines start and end will help you draw with more purpose. Think of it as “aiming” your lines.

A line is the quickest way to convey a direction, length, or angle. Illustration 1 shows the different basic lines, beginning with a vertical, horizontal, and diagonal line. In the upper-right and lower-left of the illustration is a series of simple curved lines. We see an arch, a sag, and two curves that resemble a “C”—one that bows to the right and one that bows to the left. In the bottom-center of the illustration are two circles stacked on top of each other touching at only one point, creating a tangent.

In the lower-right, we see two circles grayed down, revealing the structure of an S-curve. The S-curve is the result of two opposing C-curves meeting at one tangent point. Notice that the tangent point—also called the point of inflection—is where the curve changes direction. It should be noted that unlike the geometric curves in this example, the C-curves found in nature are organic and irregular.

In his book The Analysis of Beauty, 18th-century British satirical artist William Hogarth described the S-curve as lines of “beauty and grace.” He wrote that these graceful curves are essential to art because of their “varied play... twisting together in a flamelike manner.” Hogarth, like many of his contemporaries, became remarkably skilled at catching the momentary actions and expressions of the figure, and he developed a form of shorthand by retaining objects lineally in his mind (this was not uncommon in the days before photography). To do so, he would reduce his objects to C-curves, S-curves, and straight lines and angles.

Hogarth also likened this aspect of learning to draw to developing the facility of writing letters in the alphabet. When we expand our vocabulary of line usage, our self-expression will increase, much in the way that expanding our vocabulary helps us become more articulate in our speech and writing. The different combinations and variations of straight lines and circular lines produce an endless variety of forms. Taking advantage of this variety can lead to work that is realistic and visually appealing.

Using Anatomy as a Guide
Earlier, I mentioned the importance of “aiming” our lines. But when we draw the human figure, what exactly are we aiming for? In life drawing we can’t just accept what we see; we also have to draw what we know and what we want. From as far back as the Renaissance, artists have relied on their understanding of
anatomy, particularly the human skeleton, as the basis for the figure's action and proportion. The Italian sculptor and painter Benvenuto Cellini wrote, "Since the important thing in these arts is to draw a nude man and woman well, and remembering them securely, one must go to the foundation of such nudes, which is their bones, so that when you will have memorized a skeleton you can never make a mistake when drawing a figure, either nude or clothed; and this is saying a lot." More recently, the artist Michael Aviano explained, "The points are at the joints ... and that's where the action is."

In his *Treatise on the Art of Painting*, the 17th-century artist Gerard de Lairesse, a contemporary of Rembrandt, demonstrates how effective and efficient a stick figure can be in translating a figure's action. (See Illustration 2.) The anchor points of his lines are located at the most essential skeletal joints. The wiggly line represents the flexible spine. Through this attention to the basics of anatomy, De Lairesse is able to capture the figure's movements with great vibrancy for such simple sketches.

Illustration 3a shows a simple armature, based on the De Lairesse engraving, that relates the key joints on the stick figure to the human skeleton in Illustration 3b. (Illustration 3c adds several additional important points.) To know the skeleton is not to copy every nook and cranny but to learn the most significant points (the joints) that impact the figure's movement and shape. Anatomy is a subject that requires continuous study; in fact, I encourage you to label the skeletal features shown in illustration 3b. This knowledge will increase your ability to identify these features when constructing your figure.

**Capturing the Exterior Form of the Figure**

So far we've been looking at the interior framework of the human figure. Now let's study how these features affect the exterior (the outline) of the figure. Illustration 3c shows how the skeleton (which is "ghosted" underneath the main outline) affects the basic outside shape of the human form.
Illustration 4
Constellation: Michele by Jon deMartin, 2008, white chalk on blue paper, 25 x 19.
This drawing—done from a live model—demonstrates the "behind-the-scenes" principles we've discussed here and in previous articles.

Skeletal / Boney Landmarks
Line of Contrast
Surface Center
Active side
Passive side
Line of Contrast
Interrelationship of Lines
At this early stage, the figure resembles a gingerbread man, and it doesn’t look quite human. This simple abstracted image demonstrates that any shape we draw is the result of lines that meet at their extremities, and in this case the extremities are the joints of the skeleton.

Our first priority in drawing an outline is to use the fewest amount of lines that will most effectively and emphatically characterize the outside shape. Our lines should have minimal detail because it’s easier to adjust a simple line than one with many curves.

Another advantage of a simple outline drawing is that it provides a good opportunity to appraise the figure’s big linear relationships and its interrelationships. Interrelationships occur when, while drawing our outlines, we mentally or physically project a line beyond its end point and find that it relates to another key point or line on the figure. For example, in Illustration 3c, the lines documenting the sides of the neck continue down and relate to the outside of the hip. Also, you’ll notice how the sides of the upper torso converge at the pubis, the base of the torso. These interrelationships give figure drawings great rhythmic unity and flow, and you’ll be amazed at how often they occur once you start looking for them.

Most poses we draw are not static, especially those that have a decisive action. Generally speaking, the poses that have the most action and movement are the short poses. In order to bring the energy of a short pose to an extended session, a shorthand way of efficiently and economically seizing the figure’s action is necessary. One key way of identifying the figure’s action is to look for the lines of contrast—the alignment of the shoulder skeleton in relationship to the orientation of the pelvis. (See the dashed lines in Illustration 4.)

As a result of this contrast, we can locate the figure’s active and passive sides (which can also be termed tension and relaxation). The active side is where the rib cage is compressed against the pelvis, which bears the weight of the standing leg. The lines tend to be straighter and have shorter bursts, or segments. On the passive side, the leg is relaxed, and as a result our lines can be longer sweeping curves that give “flow” to our drawing. Remember that straight and curved lines have graphic power. We should let our eyes be pulled to the bigger points that
reveal the most characteristic shapes and not just zigzag our way down a line. Regardless of the perspective from which we are viewing the model, surface centers must be correct, or the exterior outlines will be off as well.

The 18th-century engraving shown in Illustration 5 demonstrates a figure drawing broken down into steps. In the first step, the artist uses the concept of the "stick figure" for the figure’s action and proportional relationships. The second stage is the figure’s basic outline for the simple appraisal of the figure’s shapes, both outside and inside. The third stage is a more developed contour, indicating the figure’s spatial qualities as a result of overlapping lines with various line densities. In this stage we can also see more developed indications of the interior forms that establish a road map for the eventual modeling of form.

The engraving in Illustration 5 provides an interesting view into the mind of its artist because it reveals how important structural knowledge was in the artist’s thinking process. In the middle frame, we can see how the artist visualizes the model’s far-right hip bone despite it being obstructed by the left leg. Without this reference, the artist would have to copy where the leg first appears rather than know where it originates anatomically.

In my drawing of Gilda (Illustration 6), I found it very helpful to find the opposite pelvic point behind the model’s right leg so that I could understand and appreciate the dynamic contrast of the pelvis’ relationship to the rib cage, which shows a dynamic contrapposto pose. The artist Gustav Rehberger once noted, “The artist begins where the model ends.” We’re more likely to copy when we only observe the figure’s outside shape because we’re at the mercy of the model staying absolutely still. This is the difference between drawing what the model is and drawing what the model is doing. Bringing knowledge to our drawing enables us to penetrate beyond the appearance of the outside shape; it empowers the artist to draw action poses, or any pose, with confidence and accuracy.
Making Your Figure Move in Space

The illusion of a solid entity moving through space can make a drawing powerful, beautiful, and magical. Understanding how lines twist and undulate through space in three dimensions makes our drawn lines alive and organic.

Illustration 7 shows a straight, vertical cylinder with a line inscribed on its surface, which is also running straight and vertical (the plane curve). The four points along the cross sections are resting on the same plane because the line is unchanging. If we were to bend or twist the cylinder, the line would change and appear three-dimensional. All of the four points are no longer resting on a flat plane but on a plane that curves in space. This line is called a space curve because it moves three-dimensionally, and no two consecutive points are on the same plane. This phenomenon happens all the time when we look for the structural points that appear on the surface center of the figure. Some poses are more dramatic and reveal this more than others, but lines on the figure are always moving in space—they're never flat. We can also see how effective cross sections are in conveying the illusion of volumes.

Studying lines may seem boring, elementary, or unnecessary, but it is no different than a ballet dancer practicing at the barre, learning all the elementary steps that precede the bigger choreography that is performed on stage. The practice of sketching from sculpture in the museum can be a great resource and training ground for our studio or classroom work. It's not only instructive but also fun to discover exciting action poses that models cannot hold for an extended period of time. Our appreciation of great masterworks deepens when we try to understand what makes them so exceptional. As our knowledge of the dynamics and construction of the figure increases, so too will our skill when rendering nature's most beautiful creation, the human figure.
Compilation of One-Minute Gesture Drawings