A DRAWING EXERCISE

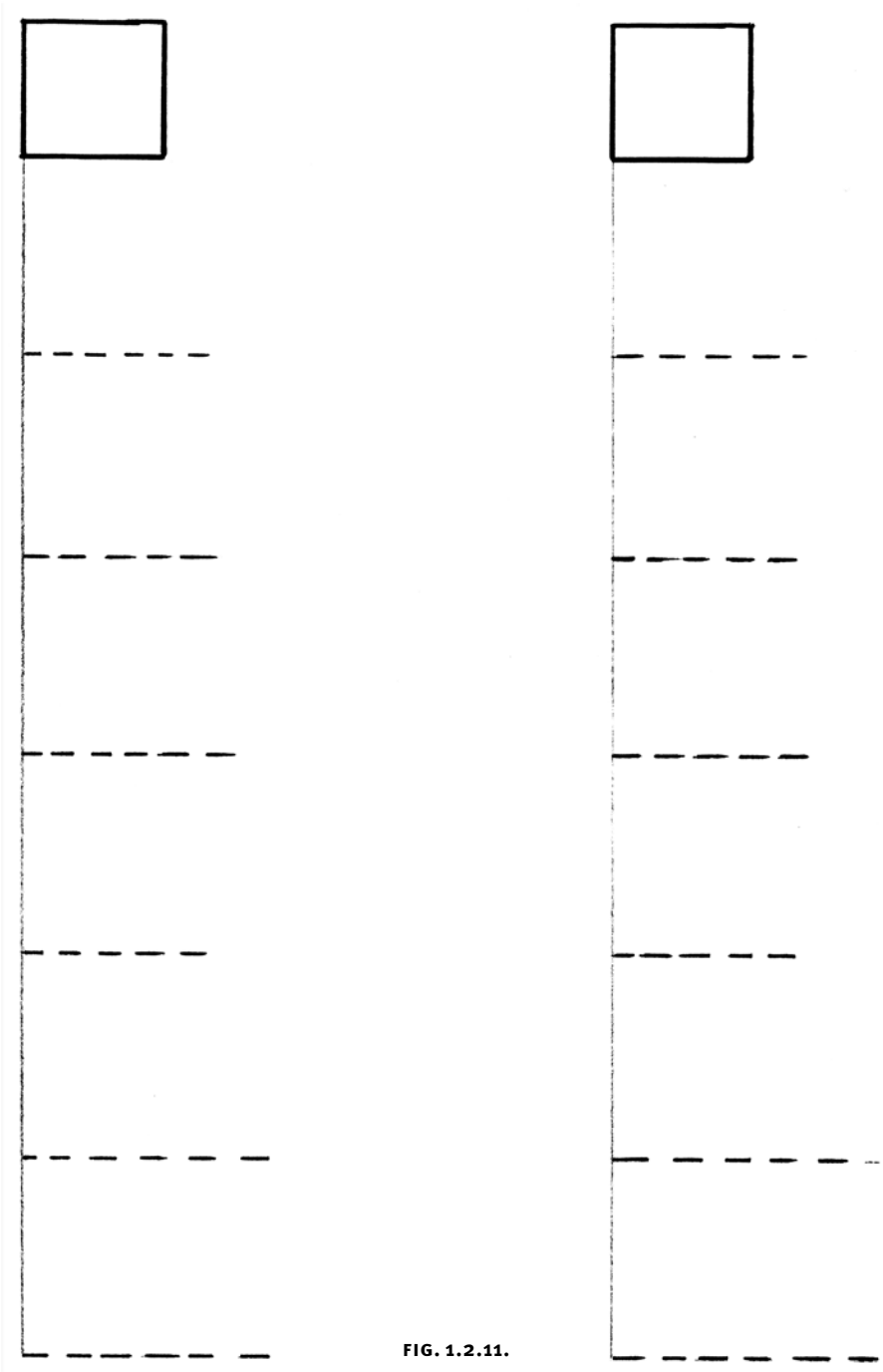

FIG. 1.2.11.

Creating a Visual Scale

You just imagined the two notes that bookend the scale; let's draw the entire sequence. Adjust your compass to draw a circle that will just fit inside the square at the top of the previous page. Leave your compass at the same setting and on the line at the bottom of the page draw two circles side by side but just touching. Encompass them both with a rectangle.

You have just drawn the visual notes at the bottom and top of our visual scale. Pre-industrial artisans had a fancy name for these. They were called a square and a double square. Take a moment again to close your eyes. Can you see the shapes clearly?

Now that you know how to draw a double square, can you think through how you might draw two circles that overlap to create a square and one half square? Draw that and encompass it with a rectangle. If this is confusing you can turn to page 30 for an example drawing (1.2.13), but it's important that you think through this and draw it out.

Using the same logic of overlapping circles, can you draw a square and 1/4 square, a square and 1/3 square, a square and 2/3 square, and, finally, a square and 3/4 square? Encompass each with a simple rectangle.

You have just drawn the basic rectangular building blocks needed to construct forms in your head and at your workbench. You may or may not have drawn them in a sequence that goes from small to large. If not, draw them again in sequence starting at the top right side of the page.

IMPORTANT POINT: We created a set of visual notes that extend horizontally. You can also arrange these so they extend vertically.

You have just tapped into something profound on three levels:

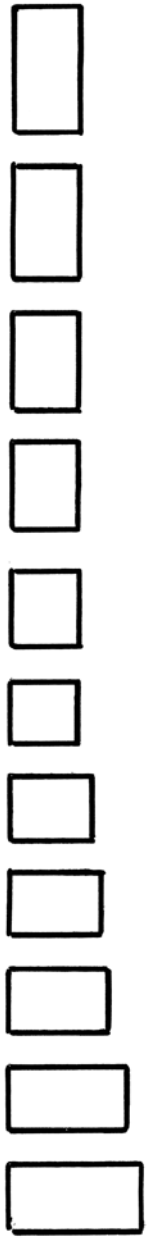

FIG. 1.2.12. The same notes can cover a range of space either horizontally or vertically, with the single square in the center.

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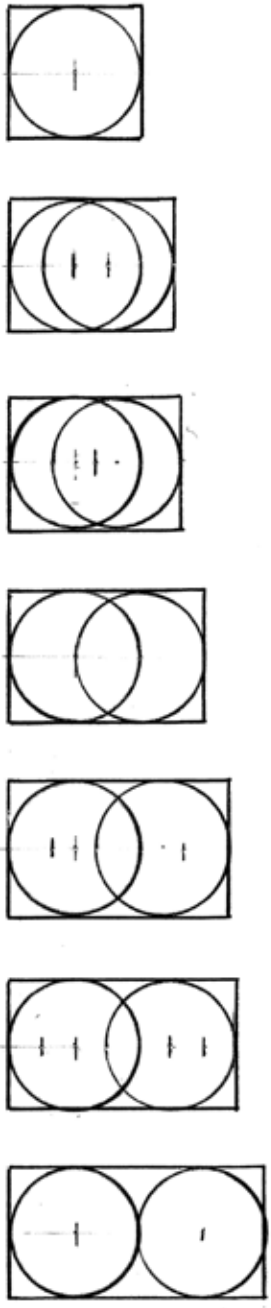

FIG. 1.2.13. In this visual note sequence, the center rectangle is a square and one-half.

1. This is a series of visual notes that can be visualized with clarity. The single and double square are intuitive; those notes in between can, with only a small amount of practice, also become clear.

2. These simple shapes are easy to apply in practice with just a straightedge and compass. Thus, they dovetail perfectly with actual shop layouts at the workbench.

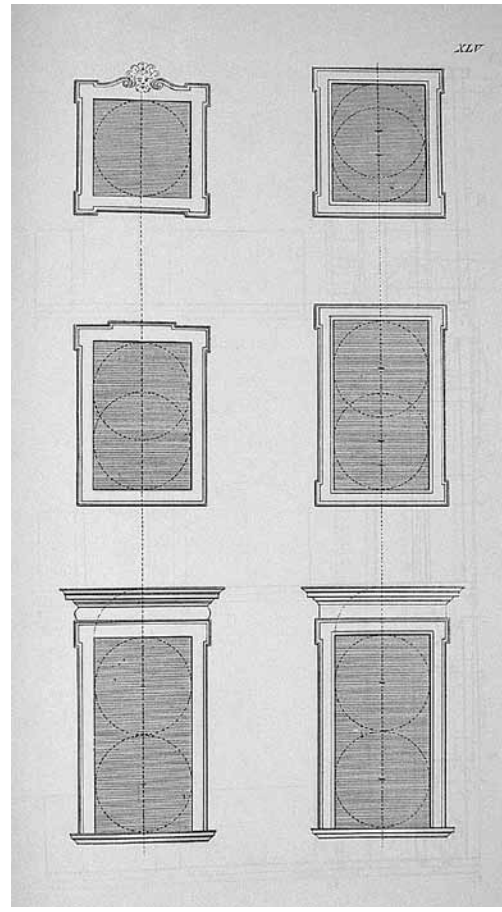

FIG. 1.2.14. Anything look familiar? Gibbs describes these as square, square and one-half, double square, etc.

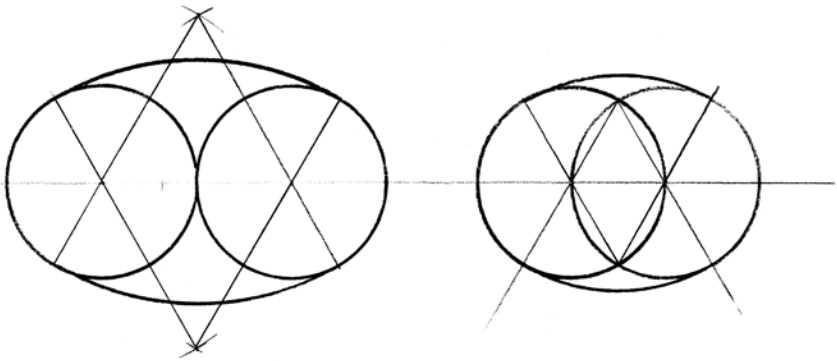

FIG. 1.2.15. Can you plainly see the connection – how these ovoid shapes use the same simple notes as the rectangles? Can you visualize them in your mind also?

3. These notes have deeper connections (more to come on that later). For now it's powerful enough just to know that they are easy to imagine and practical at the workbench.

Perhaps it's so simple we look beyond them for something more complicated.

At left is an engraving from James Gibbs's "Rules for Drawing" (circa 1732) on different window configurations. Throughout historical design books these series of simple visual notes show up in examples of ideal room sizes, fireplace openings and furniture.

We use circles to generate these simple rectilinear shapes. By extension, the same can be applied to ovoid shapes.

Conclusion

Now you have a simple scale to practice and become familiar with. You can begin to combine these just like a songwriter arranges notes in a song. Yet music is more than just notes on a scale or tossed about at random; music employs melody, harmony and rhythm. In the next chapter, we'll take a closer look at how to begin arranging these visual notes to create fresh, lifelike compositions. It begins with understanding forms and the ability to look at the underlying bones in a design.