

Did you know that many renaissance artists used the rectangular grid during the creation of their paintings?

The following renaissance artists, surprisingly, used the rectangular grid or something similar:

- Albrecht Dürer (1471-1528): The German Renaissance master documented grid devices in his woodcuts and treatises. His famous illustration of an artist using a gridded frame is one of the most iconic depictions of the technique.
- Leonardo da Vinci (1452-1519): Da Vinci used grid-like systems for transferring preparatory sketches to final compositions. His notebooks contain evidence of proportional grids used to study the human body.
- Michelangelo (1475-1564): To transfer his designs to the Sistine Chapel ceiling, Michelangelo used a grid system to scale small drawings up to the massive fresco surface - a process called "squaring up."
- Diego Velázquez (1599-1660): X-ray analysis of Velázquez's paintings has revealed grid lines beneath the paint layers, showing he used grids to plan complex compositions.
- Johannes Vermeer (1632-1675): While Vermeer is often associated with the Camera Obscura, evidence suggests he also used grid systems to achieve the extraordinary precision in works like "Girl with a Pearl Earring."

Even somewhat modern day artists use(d) the grid method such as:

- Chuck Close (1940-2021): Perhaps the most famous modern grid artist, Close built massive photorealistic portraits square by square. Each grid cell became its own mini-composition of colors and shapes.
- Thomas Eakins (1844-1916): The American realist painter used perspective grids extensively for his complex figure compositions and architectural settings.
- Edgar Degas (1834-1917): Degas used grids and tracing to plan his ballet and horse-racing compositions, combining traditional grid techniques with innovative cropping influenced by photography.
- Other notable grid users include Édouard Manet, Mary Cassatt, Norman Rockwell, Andrew Wyeth, Lucian Freud, David Hockney, and Kehinde Wiley. The technique spans centuries, cultures, and artistic styles.

The rectangular grid is taught as part of Fundamentals of Drawing 1. One downside of the rectangular grid is that the drawing surface must either be the same size as the sketch with the rectangular grid, or must have the exact aspect ratio of the sketch and rectangular grid. Otherwise in order to create the drawing on larger or smaller paper, the number of rows and columns must match, but going to a different size will require math to determine the exact rectangle size. a mistake in measuring the grid and rectangles will result in incorrect proportions.

In Fundamentals of Drawing 2, a more complex grid is utilized. This grid is called a geometric grid and was created by Mark Menendez. Instead of using rectangles. this grid uses triangles. The grid is extremely easy to create, allows for enlargement and shrinking of the image to most drawing surfaces including murals and involves to no math or measurements.

The method for creating the grid is shown in the following figures below:



Figure 1. First Diagonal Lines



Figure 2. First Vertical and Horizontal lines

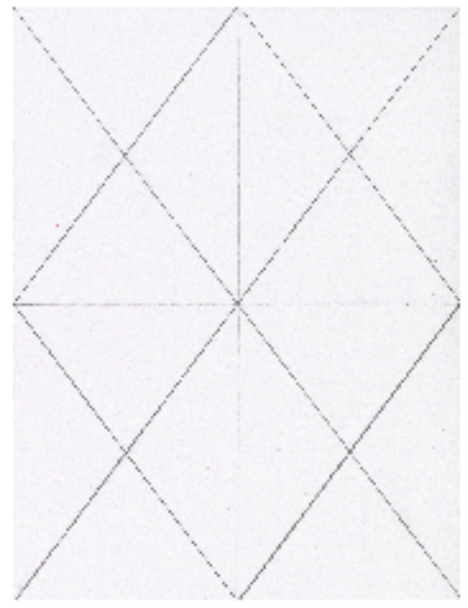


Figure 3. First Set of Cross Diagonals

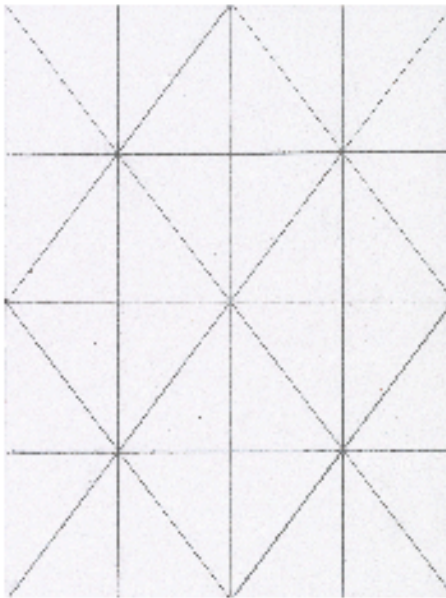


Figure 4. Second Horizontal of Vertical Lines

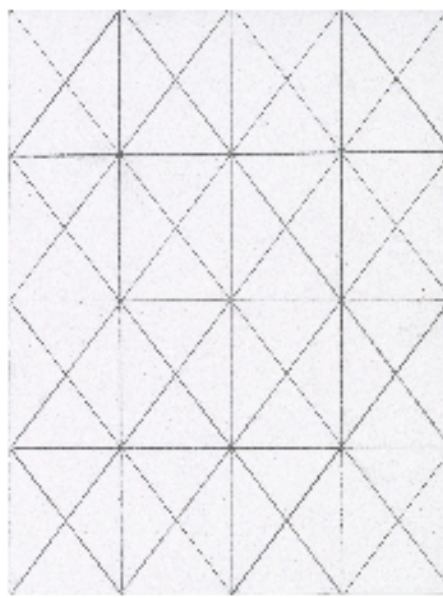


Figure 5. Second Set of Cross Diagonals

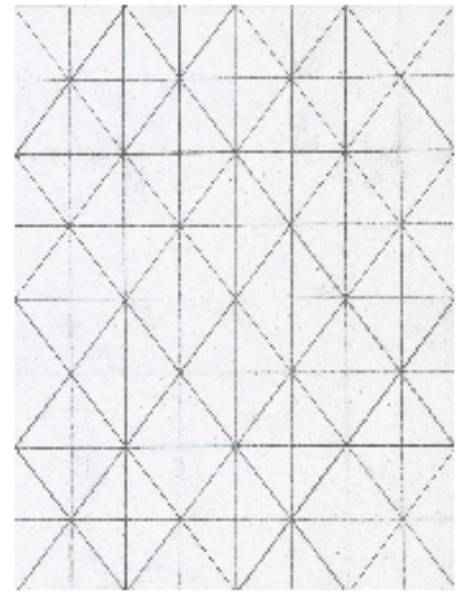


Figure 6. Third set of vertical lines

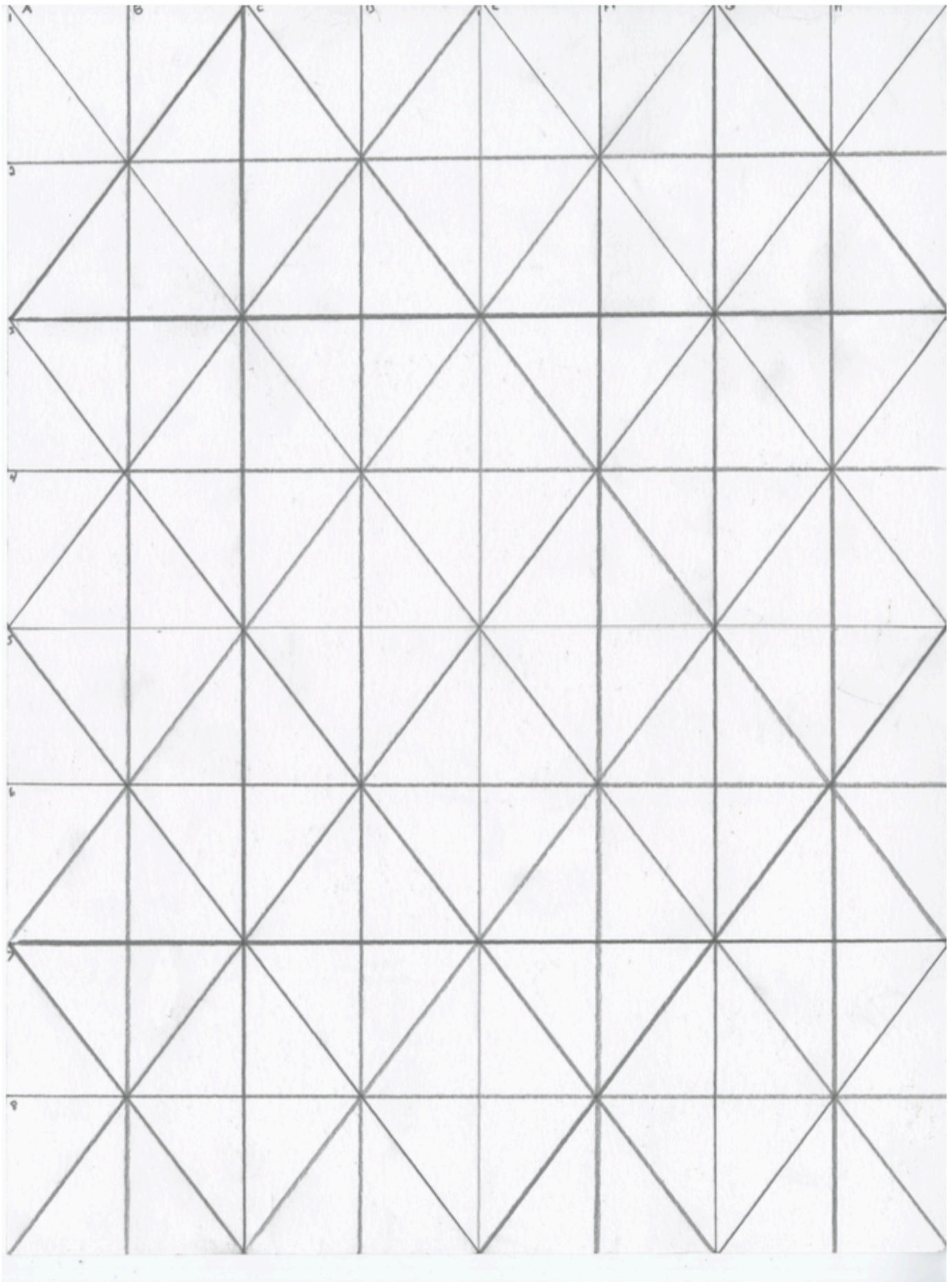


Figure 7. Completed Geometric Grid With Labels:

A good way to utilize a geometric grid is:

- Draw the above grid on a 8.5" x 11" or 9" x 12" plastic page protector using a Sharpie Extreme pen and an 18" see-through ruler or straight edge. Note to avoid smudges, using the Sharpie Extreme, after drawing a line, wait 5-10 seconds before lifting the ruler. Also, have a paper towel handy to clean off the side of the ruler.
- Draw the exact same grid on the desired paper, which can be smaller, the same size, or larger than the plastic page protector.
- Slide the reference photo into the plastic page protector with the grid.
- Copy from the reference photo to the desired paper going triangle by triangle.
- After the drawing is complete, erase the grid and start colorizing.

Although the above steps work, there is a danger that drawing and erasing the grid will result in impressed lines on the drawing paper. In addition, the grid will have to be drawn on each different drawing paper. A good alternative to drawing and redrawing the grid is to get a piece of clear polypropylene the same size as your drawing paper and using a Sharpie Extreme, draw the grid on this non-bending surface. A light box may be used with the polypropylene sheet taped onto the light box, the drawing paper is taped on top of the hard plastic sheet. The sketch may then be created without the need to erase the grid. Likewise, a sunny window or a lanai slider may be used in lieu of the light box,

To avoid having to erase any sketched lines on the good drawing paper, the sketch can be made on very inexpensive paper, erasures and sketchy lines will no longer cause any trouble. Once the sketch is complete on the cheap paper, the sketch can be traced onto good paper using a light box, sunny window or lanai slider.