Squaring the Circles: Creating Art in Graphite™

Artist and designer Al Plyley uses Graphite CAD software to create the precision geometry needed for designing complex, thought provoking mandalas and labyrinths.

When the engineering company that Al worked for in the late 1980’s went to computers, Al was not impressed. In watching his colleagues work with AutoCAD he found too many drafting errors and didn’t like how they had to memorize all the commands. Then one day a video crossed his desk showing Burt Rutan using Vellum® to design experimental aircraft. He loved the program’s intuitive interface and ease of use. Now in retirement, Al has been using Vellum and now Graphite ever since.

After some work with Jungian analysis, Al started exploring the creation of mandalas, the circular designs that according to Dr. Carl Jung psychologically express “the totality of the self,” or “the central point within the psyche.” As Dr. Carl Jung put it, “Mandalas are based on the squaring of a circle.”

Later, Al started making labyrinths, a traditional tool of meditation. In both cases he starts with a vague idea of what he wants to accomplish and an idea of how to start. He describes the creative process as a conversation, where what he’s done speaks back to him, telling him whether or not what he’s designed is successful.

Al works the design in Graphite until he’s satisfied with the geometry. Graphite’s accessible user interface make creating the geometry easy. He tells us:

“Quite often in a design I would have a couple of circles to which I need to draw another circle of unknown radius that would be tangent to the first two circles. In Graphite all I had to do was pick the tangent tool and do it. I wouldn’t want to attempt it in AutoCAD.”

When he’s satisfied with the pattern he uses a translation program to convert Graphite’s vector file to a raster image. He then uses Corel PaintShop to fill in the colors, producing the finished product.

Al, like artists everywhere, designs because of his own deep inner need. “There’s a satisfaction” in creating art, he says. “There’s a void if I don’t create.”