

1135-F1-2937      **Phil Webster\*** ([phil@philwebsterdesign.com](mailto:phil@philwebsterdesign.com)), 950 Bethany Drive, Scotts Valley, CA 95066. *A Methodology for Creating Fractal Islamic Patterns*. Preliminary report.

Historically, a small proportion of Islamic geometric patterns were created that had various sorts of self-similarity, but only at two different levels at most. This paper presents a methodology for systematically creating truly fractal Islamic patterns with self-similarity at infinite levels. Centers of local symmetry are established using fractal trees, and patterns are then constructed using the traditional polygon technique. The adaptations required to accommodate the fractal arrangement of the polygons, as well as decoration options specific to fractal Islamic patterns, will also be discussed. (Received September 26, 2017)