

A Tiling Trompe l'Oeil

Here is a periodic tiling by two quadrilaterals and a triangle. Is it the refinement of a tiling by regular polygons (hexagons, squares, or equilateral triangles)?



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Judging by the high contrast area near the center, it seems impossible to decompose this figure into regular polygons. But the pastel region on the right reveals a tiling of equilateral triangles. And on the left, a tiling of squares! Apparently neither, yet in fact both.

Martin Gardner was big on both tilings and illusions, so this would have been great grist for his column.

--Bill Gosper