The Tessellation Project

In the early 1990s two Ohio State mathematics professors, Henry Glover and J. Philip Huneke, created designs for the slate floors in each of the seven elevator lobbies of The Ohio State University Mathematics Tower. The patterns depict tessellations of the plane, increasing in complexity as the floor numbers go up.

HILBERT'S SPACE-FILLING CURVE
Fourth Floor

This tile pattern is a loop formed by joining two copies of the third stage of the Hilbert curve, a space-filling curve discovered by David Hilbert in the early 1900s. The loop is the grout line between the two different colors of slate.

The two colors also illustrate the Jordan Curve Theorem, stating that every simple closed curve in the plane divides that plane into interior and exterior regions bounded by the curve. Any continuous path connecting a point from the interior region to a point in the exterior region intersects the curve.
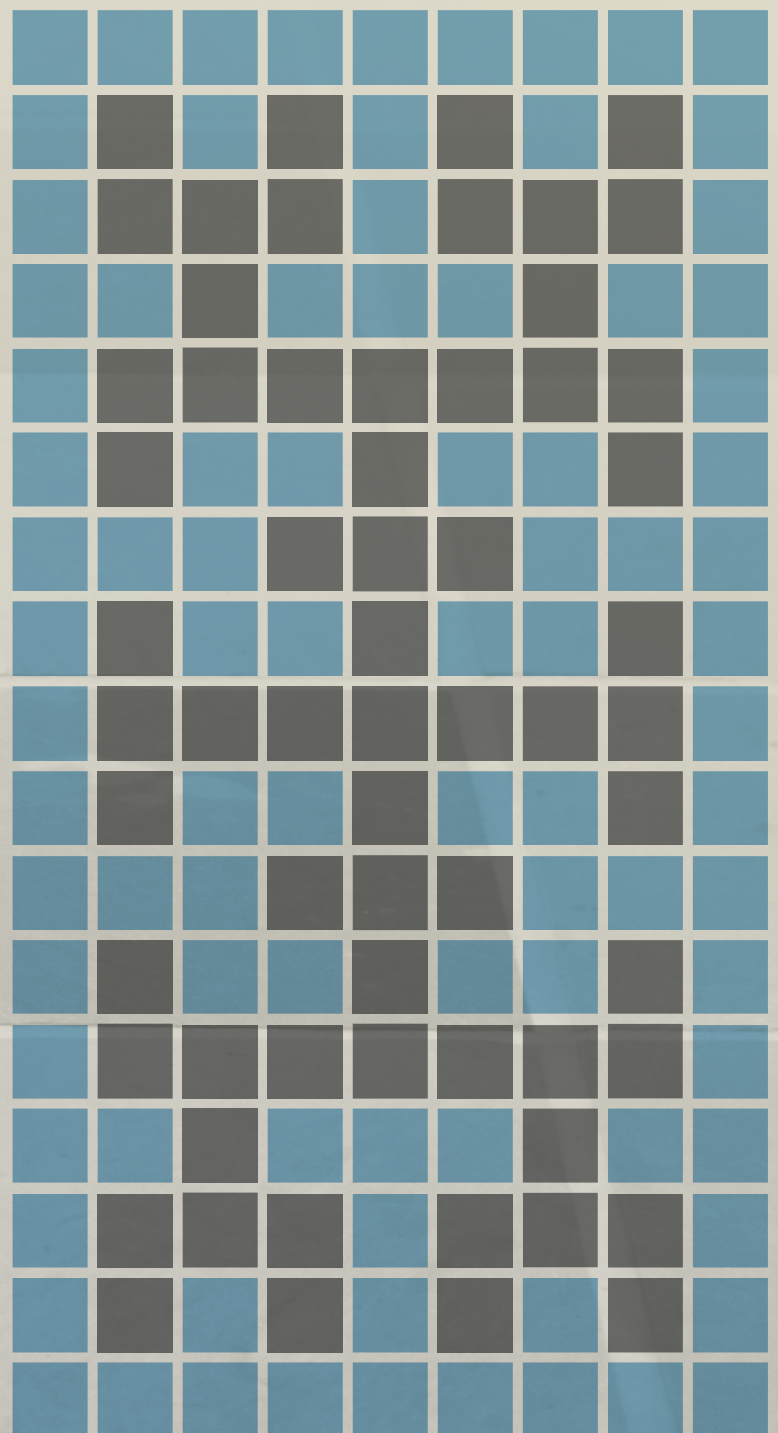
About the Designers

Henry H. Glover joined the Ohio State mathematics faculty in 1968. With a diverse group of collaborators, he tackled problems in fixed-point theory, geometric group theory, and graph theory. In the early 1970s he used the newly developed tool of localization in topology to obtain interesting results about vector fields on manifolds. Glover died on May 31, 2011.

J. Philip Huneke was a member of the mathematics department for 35 years. Huneke solved concrete mathematical problems that required both insight and careful attention to detail. His best-known work (in collaboration with Glover) is the determination of the complete list of 103 graphs that are obstructions to embedding a graph in the projective plane. Huneke died on October 1, 2004.