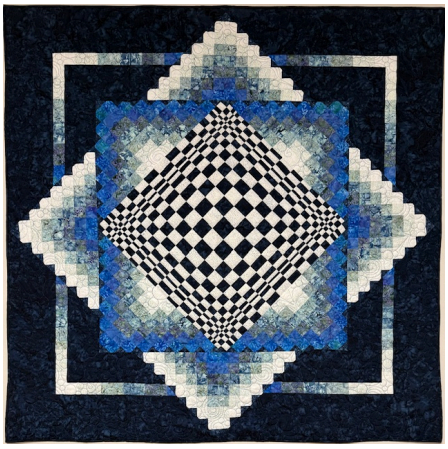
CROSSTOWN QUILTERS GUILD · QUILT HISTORY

The Bulging Checkerboard



The quilt on our homepage

The blue and cream quilt on our homepage has a navy and cream checkerboard set on point in the center, and it seems to swell toward you. Quilters often call this a bulging or warped checkerboard.

How the bulge is made

In this quilt the squares really do change size. Strips are cut in gradually changing widths, so the squares are widest in the middle and get thinner toward the edges, the way a grid looks when it's wrapped over a ball.

The stepped blue and white borders around the center are in the Bargello style, where strips of graduated color are stepped up and down to create movement.

A quilter's version of the illusion

Around 2012 quilter Krista Zaleski designed a version called *Beyond the Squares*. In hers every square is the same size. Tiny contrasting dots in the corners of the squares trick the eye into seeing a bulge, even though every line is straight.

Escher's swelling print

In his 1945 lithograph *Balcony*, M.C. Escher magnified the middle of a drawing of a hillside town about four times, as if a balloon were pushing up behind the paper. It's an early example of making a flat picture seem to bulge.

Op Art and Vasarely

The closer ancestor of quilts like ours is Op Art. Starting in 1968, Victor Vasarely's *Vega* series used checkerboard-like grids that balloon out of the canvas. He called them "breathing surfaces." Bridget Riley worked in the same Op Art vein. Today Japanese psychologist Akiyoshi Kitaoka is known for optical illusions, including bulging checkerboards.

In short

The idea of a swelling grid runs from Escher's experiments and Vasarely's Op Art to modern quilters, who took it up as a striking optical-illusion design built on the classic checkerboard.

Sources (click to open):

Museum Escher in The Palace, “Balcony”: escherinhetpaleis.nl/en/about-escher/escher-today/balcony

Fondation Vasarely, “Universal expansive regressive structures period”: fondationvasarely.org/universal-expansive-regressive-structures-period

Michèle Vasarely Foundation, “Vasarely’s Periods: Vega”: vasarely.com/artist/vasarely/periods

Tate, “Bridget Riley”: tate.org.uk/art/artists/bridget-riley-1845

Akiyoshi Kitaoka, “Akiyoshi’s illusion pages”: ritsumei.ac.jp/~akitaoka/index-e.html

Krista Zaleski, “Bulging Checkerboard Complete!” (2013): kristaquilts.blogspot.com/2013/08/bulging-checkerboard-complete.html

Krista Zaleski, “Bulging Checkerboard” (design story): kristaquilts.blogspot.com/2017/10/bulging-checkerboard.html

“The Vasarely Playhouse” (discusses Vasarely, Escher’s Balcony, Riley and Kitaoka): academia.edu/91189780

The exact published pattern used for the pictured quilt is not known.