

# M is for Math, Museum, and Manhattan, Kansas

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**R 66**

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The book is devoted to the natural bonds connecting art and mathematics illustrated by artworks from the collection of the Marianna Kistler Beach Museum of Art at Manhattan, Kansas. The mathematical concepts discussed in the book include properties of polyhedra, combinatorics of dice throwing, symmetry, geometry of circles, Fibonacci sequence, geometric optics, linear perspective, star polygons, and non-orientable surfaces. In many cases, the mathematical insight contributes to a better understanding of the artwork and the artist's methods and intentions. Each chapter contains a study of an art object from the museum's collection followed by a mathematical discussion, a list of mathematical problems, biographical notes on the artists, and creative projects. The material is based on the workshops taught by the author at the math enrichment program Math Circle Seminar at Kansas State University.

The book is addressed to a broad spectrum of readers interested in relations between art and mathematics, including the general public, professional mathematicians, professional artists, math and art educators, parents, and school students.

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