

Table of Contents

Mathematics, Art and Architecture

Mathematics, Art and Architecture	
<i>Michele Emmer</i>	3
From Tiling the Plane to Paving Town Square	
<i>Judith Flagg Moran and Kim Williams</i>	5
Mathematics in Contemporary Arts – Finite and Infinity	
<i>Dietmar Guderian</i>	23
De Insana Geometria	
<i>Achille Perilli</i>	39
Ovals in Borromini’s Geometry	
<i>Michea Simona</i>	45
Fractals: A Resonance between Art and Nature	
<i>Richard Taylor, Ben Newell, Branka Spehar and Colin Clifford</i>	53
Mathland – From Topology to Virtual Architecture	
<i>Michele Emmer</i>	65

Visual Mathematics and Computer Graphics

Introduction: Visual Mathematics and Computer Graphics	
<i>Michele Emmer</i>	81
Math Awareness Month 2000: An Interactive Experience	
<i>Thomas F. Banchoff and Davide P. Cervone</i>	83
Visual Topology and Variational Problems on Two-Dimensional Surfaces	
<i>Anatoly T. Fomenko, Alexandr O. Ivanov and Alexey A. Tuzhilin</i>	99
Metarealistic Rendering of Real-time Interactive Computer Animations	
<i>George K. Francis</i>	125
Virtual Sculptures	
<i>Herbert W. Franke</i>	145
Publication of Electronic Geometry Models	
<i>Michael Joswig and Konrad Polthier</i>	151
Trees, Roots and a Brain: A Methaphorical Foundation for Mathematical Art	
<i>John Sims</i>	163

Mathematics, Literature and Cinema

Mathematics, Literature and Cinema	
<i>Michele Emmer</i>	173
Euclid's Poetics: An examination of the similarity between narrative and proof	
<i>Apostolos Doxiadis</i>	175
The Rise of Narrative Non-Fiction	
<i>Simon Singh</i>	183
Mathematics Takes Center Stage	
<i>Robert Osserman</i>	187
Mathematics and Raymond Queneau	
<i>Michele Emmer</i>	195
Authors	201



<http://www.springer.com/978-3-540-21368-0>

Mathematics and Culture II

Visual Perfection: Mathematics and Creativity

Emmer, M. (Ed.)

2005, X, 203 p., Hardcover

ISBN: 978-3-540-21368-0