

"Highly informative...[shows] Schneider's particular gift of transforming everyday experience into something magical... Highly recommended."—*New Frontier*

# A Beginner's Guide to Constructing the Universe

THE MATHEMATICAL  
ARCHETYPES OF NATURE,  
ART, AND SCIENCE

A VOYAGE FROM 1 TO 10

MICHAEL S. SCHNEIDER



# The Universe May Be a Mystery, But It's No Secret



Michael Schneider leads us on a spectacular, lavishly illustrated journey along the numbers one through ten to explore the mathematical principles made visible in flowers, shells, crystals, plants, and the human body, expressed in the symbolic language of folk sayings and fairy tales, myth and religion, art and architecture. This is a new view of mathematics, not the one we learned at school but a comprehensive guide to the patterns that recur through the universe and underlie human affairs. *A Beginner's Guide to Constructing the Universe* shows you:

- \* Why cans, pizza, and manhole covers are round.
- \* Why one and two weren't considered numbers by the ancient Greeks.
- \* Why squares show up so often in goddess art and board games.
- \* What property makes the spiral the most widespread shape in nature, from embryos and hair curls to hurricanes and galaxies.
- \* How the human body shares the design of a bean plant and the solar system.
- \* How a snowflake is like Stonehenge, and a beehive like a calendar.
- \* How our ten fingers hold the secrets of both a lobster and a cathedral.
- \* And much more.

**"In this book you will find something that cannot be obtained elsewhere, a complete introduction to the geometric code of nature, written and illustrated by the most perceptive of its modern investigators."**

**—from the Preface by John Michell**



**MICHAEL S. SCHNEIDER** is an educator developing new perceptions of nature, science, art, and mathematics, holding workshops for teachers, artists, architects, and children concerning nature's numerical language. He has a Bachelor of Science degree in Mathematics from the Polytechnic Institute of Brooklyn and a Master's Degree in Math Education from the University of Florida. He was a Fulbright-Hayes Scholar in India and taught in public schools for eleven years. An education writer and computer consultant, he designed the geometry harmonizing the statues at the entrance to the Cathedral of St. John the Divine in New York City, where he lives.

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An Imprint of HarperCollins Publishers

Cover design © 1994 by Andrew Newman  
Cover painting: *Ancient of Days*, by William Blake  
Author photograph © 1994 by B. Cooley Crane

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ISBN 978-0-06-092671-7



EAN



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USA \$18.99 / \$23.99 CAN