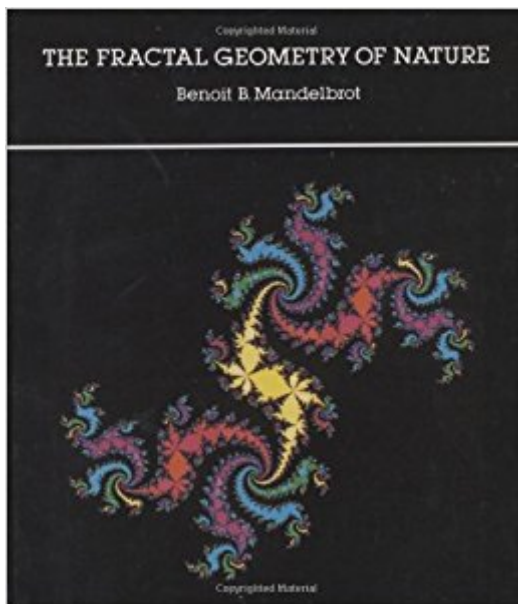The book was found

The Fractal Geometry Of Nature

THE FRACTAL GEOMETRY OF NATURE

Benoit B Mandelbrot

Synopsis

Clouds are not spheres, mountains are not cones, and lightening does not travel in a straight line. The complexity of nature's shapes differs in kind, not merely degree, from that of the shapes of ordinary geometry, the geometry of fractal shapes. Now that the field has expanded greatly with many active researchers, Mandelbrot presents the definitive overview of the origins of his ideas and their new applications. The Fractal Geometry of Nature is based on his highly acclaimed earlier work, but has much broader and deeper coverage and more extensive illustrations.

Book Information

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Customer Reviews

Imagine an equilateral triangle. Now, imagine smaller equilateral triangles perched in the center of each side of the original triangle--you have a Star of David. Now, place still smaller equilateral triangles in the center of each of the star's 12 sides. Repeat this process infinitely and you have a Koch snowflake, a mind-bending geometric figure with an infinitely large perimeter, yet with a finite area. This is an example of the kind of mathematical puzzles that this book addresses. The Fractal Geometry of Nature is a mathematics text. But buried in the deltas and lambdas and integrals, even a layperson can pick out and appreciate Mandelbrot's point: that somewhere in mathematics, there is an explanation for nature. It is not a coincidence that fractal math is so good at generating images of cliffs and shorelines and capillary beds.

â œA rarity: a picture book of sophisticated contemporary research ideas in mathematics.â •
â •Douglas Hofstadter, author of Godel, Escher, Bach

The magnum opus of a true genius. Within this book lies the legacy of a profound academic and perhaps the most rigorous and complete analysis of fractal geometries that has ever been created. It is a balanced look at fractal geometries that fills a niche for all levels of expertise. As a mathematical novice you can enjoy the pictures and narrative and as a master there is a trove of insight. If you are interested in how fractals are rife throughout nature and how these various geometries can be explained using Benoit's mathematics, this is the book for you.

Of course I love this book; I read it for the first time when I was just a young teen; now upon re-reading it, I realize how difficult so much of the mathematical material is. Of course, Mandelbrot wrote it and labeled it as an 'essay', thus intended for a wide variety of disciplines and backgrounds in order to reach a maximum audience, but his coining it as targeted for a 'broad' audience may have been referring to 'peers in similar fields' because despite all the math I took in college, much of the digressions in this book are lost on me. Still, so much of the content is accessible immediately through the written content and the visuals are unmistakably striking, especially for such old computer graphic technology. I would recommend this for anyone interested in the studies of fractal geometry, chaos theory, and turbulent dynamics.

For the general public, this book helped set in motion the concepts of, and the potential to understand natures' geometry. this book also gives the ground work for the potential fin art and illustration more reflective of the geometry of nature - and a new tool for the arts. The graphics are still inspiring. A must for anyone intetrested in the Mandelbrot set, fractal geometry and the forms that evolve from chaotic dynamics.

If you want to know what Benoit Mandelbrot had to say about fractals this is it...if I wanted to learn fractals I would choose another book.

I entered fractals for the first time in the early 90s after a had read about them in a fantastic book called Excursions in Modern Mathematics.I coded and created the Sirpinsky thereafter and have been hooked on the topic since.I bought this book to undestand what the discoverer of fractals thought and have not been dissapointed. I am enjoying every page of it.Buy it!

This book could be regarded as a starting point to investigate fractal geometry. Supporting material

may be required. It is a collection of case studies illustrating the concepts rather than an integrated approach and as such contains evidence of the historical development.

It's a difficult but insightful book. Mandelbrot explores applications of fractals in advanced topics of many disciplines. So don't expect to understand everything. The best way or reading this book is to pick the chapters that are more accessible to you, independent of their order. Fractals are a hard but fascinating topic. It might take some time to develop an intuitive idea of fractal dimension, but once you do it you'll see the world with new eyes.

Read it a long time ago. Intellectually stimulating, mathematically complex, but a good read.

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