

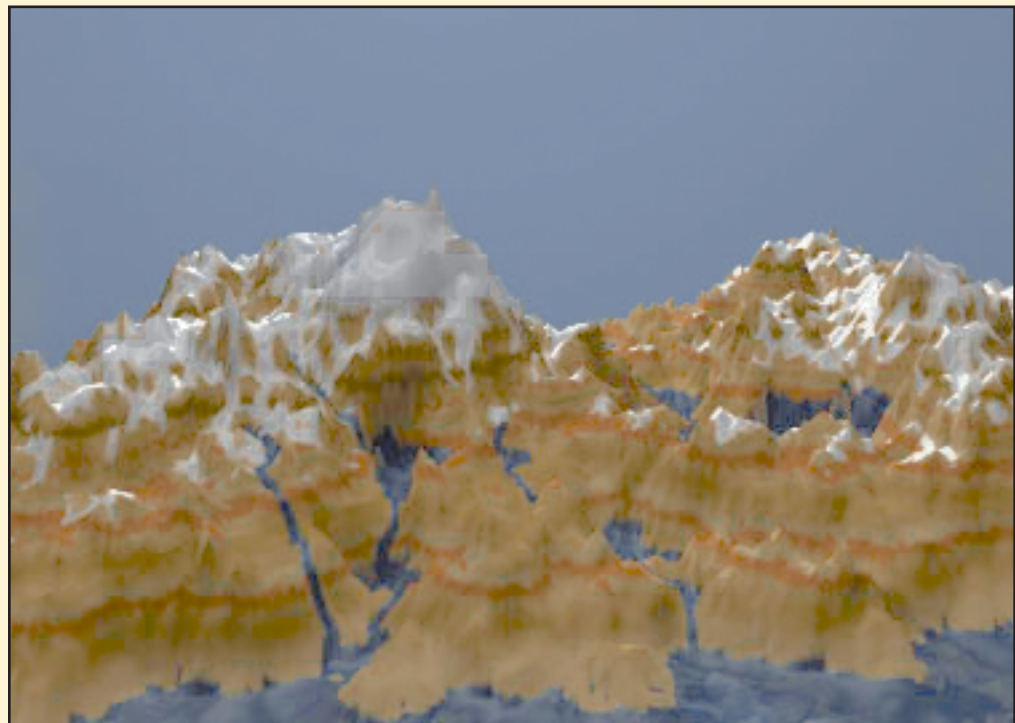
Seeing the World through Fractals

Fractals are self-similar mathematical objects that make computer graphics and simulations more realistic. The self-similarity of fractals is like that of a fern or a country's coast: successive magnifications yield images, each one resembling the original.

Because they involve iterations of simple processes, fractals often arise in the study of chaos. Like a fractal, a chaotic system has hidden complexity. Small changes at the start of a process that feeds back into itself can produce dramatic changes later. One example is the butterfly effect, referring to the effect a flap of a butterfly's wings may have on global weather several weeks later.

For More Information:

Chaos and Fractals, H. Peitgen, H. Jurgens, and D. Saupe, 2004.



Photograph courtesy of Seth Green.



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