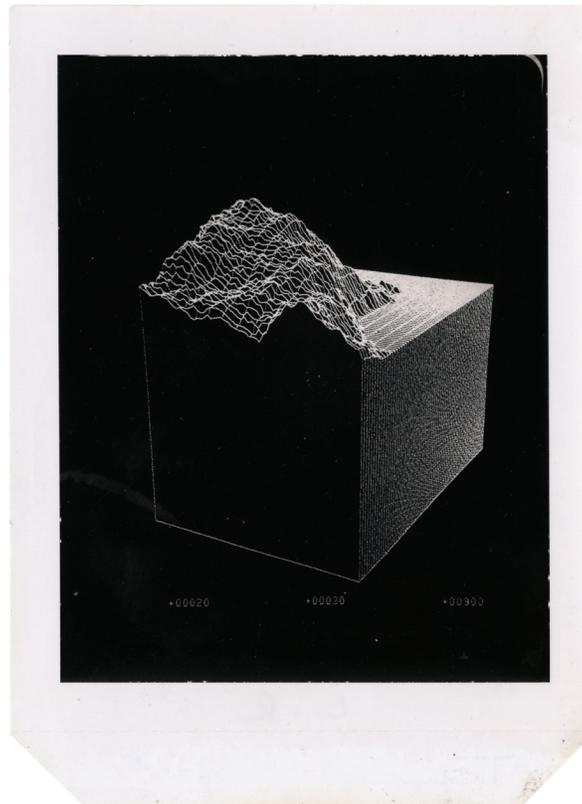


The Islands of Benoît Mandelbrot: Fractals, Chaos, and the Materiality of Thinking



Benoît Mandelbrot and Sigmund Handelman, programmer. *Landscapes and Galaxies*, series of forty-five, 1974-77. Polaroids. Collection Aliette Mandelbrot.

Bard
Graduate
Center: Decorative
Arts, Design
History, Material
Culture

On view

September 21, 2012–
January 27, 2013

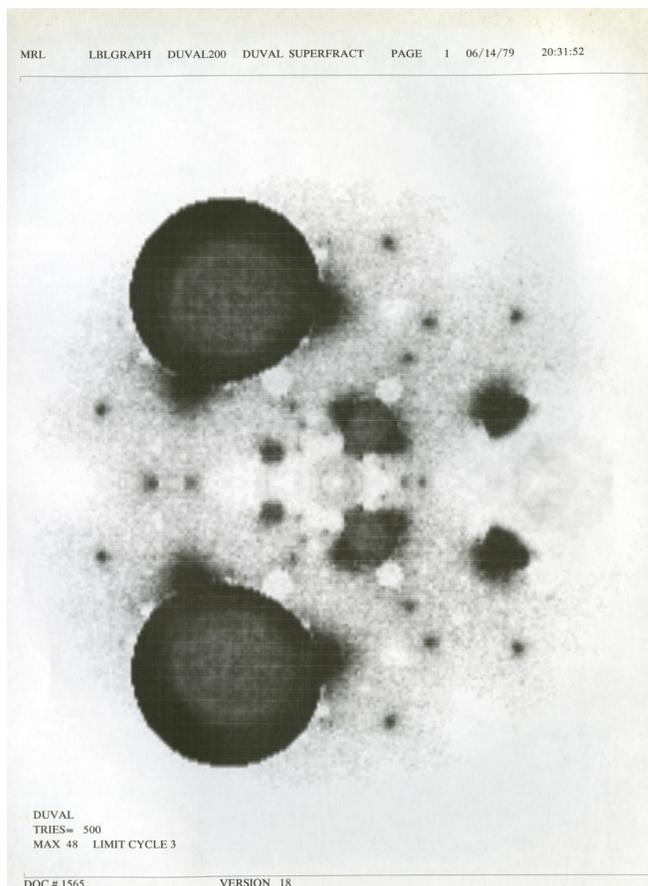
Exhibition Explores the Role of Images in Scientific Thinking

Featuring never before exhibited works on paper and objects including dynamic black and white drawings, computer print-outs, photographs, and computer-generated films

Focusing primarily on the work of one of the most notable mathematicians of the twentieth century, *The Islands of Benoît Mandelbrot: Fractals, Chaos, and the Materiality of Thinking*, on view at the Bard Graduate Center from September 21, 2012 to January 27, 2013, explores the role of images in the development of what has become known as fractal geometry and chaos theory. Nina Samuel, a visiting assistant professor at the BGC, is the curator. Samuel, who received her PhD in art history from the Humboldt University of Berlin, is also an associate member of Das Technische Bild in Germany and a former member of the Swiss national research program *eikones*/NCRR Iconic Criticism.



Benoît Mandelbrot and Sigmund Handelman, programmer. "Carved Fractal Mountain," ca. 1975–76. Metal object. Collection Aliette Mandelbrot. Photo: Bruce M. White.



Benoît Mandelbrot and Mark Laff, programmer. Investigations in the complex plane of cubic polynomials, series of over 150, 1979. IBM. Computer-generated print on photographic paper. Collection Aliette Mandelbrot.

For thousands of years, Western thought assumed that fundamental geometry consisted of regular, ideal forms, such as cubes, spheres, and cones, with straight or evenly curved faces and edges. Benoît Mandelbrot (1924–2010), however, explored mathematics as he saw it—in all its untidiness and irregularity, devoting himself to the study, for example, of the forms of the coastlines of real islands, with all their unpredictable inlets, creeks, and furrows.

Mandelbrot, in other words, looked at the world. In so doing, he flouted what was in effect a prohibition pervading much of mathematical thinking against the use of visual representation. To reintroduce the visual, Mandelbrot took the groundbreaking step of harnessing the potential of computers, thereby transforming mathematics into an experimental science. The result was his invention of fractal geometry, a geometry of actuality rather than of abstraction, as exemplified in his classic work, *The Fractal Geometry of Nature* (1982).

The notion of islands is central to Mandelbrot's work, associated in his thinking with both the inspiring and the seductive role of images. They challenge his own

Focus Gallery

Drawing on the BGC's academic and gallery programs, the Focus Gallery presents small-scale exhibitions primarily curated by faculty that embody ambitious research and teaching. Each exhibition is part of an academically innovative project that also includes graduate seminars, public programming, and publications both in print and online. Graduate students and gallery staff collaborate with faculty throughout the research, planning and presentation stages. Envisaged as a kind of laboratory, the Focus program promotes experimentation in display, interpretation, and the use of digital media, and reflects the BGC's commitment to exhibitions as integral to scholarly activity.

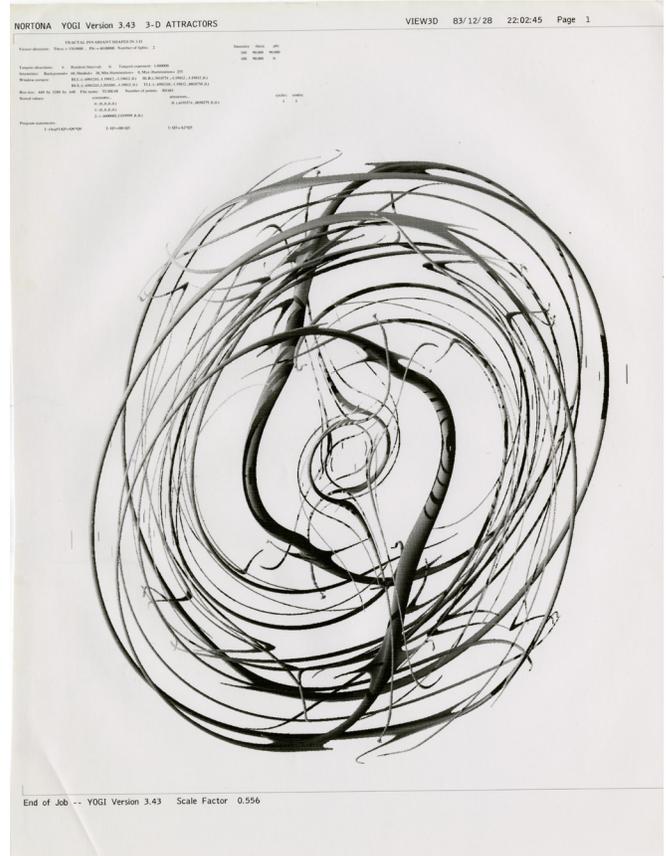
The Islands of Benoît Mandelbrot: Fractals, Chaos, and the Materiality of Thinking is part of a wider collaboration between the BGC and Das Technische Bild, based at the Humboldt University of Berlin. As part of the initiative, an English translation of the text, *Das Technische Bild* (Akademie Verlag, 2008), is being published in "Cultural Histories of the Material World," the BGC's book series with the University of Michigan Press.

Gallery Programs

Lectures, study days, gallery talks, and conversations are offered in conjunction with the exhibition. For more information, please call 212-501-3011 or e-mail programs@bgc.bard.edu.

Exhibition Tours

Guided tours for adult and school groups are offered Tuesday through Friday between 11 a.m. and 4 p.m. and on Thursdays until 7 p.m. Reservations are required for all group visits. To schedule a tour, please call 212-501-3013 or e-mail tours@bgc.bard.edu.



Benoît Mandelbrot and Alan Norton, programmer. *Quaternion*, 1983. Computer-generated prints on photographic paper. Collection Aliette Mandelbrot.

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The Bard Graduate Center Gallery is located in New York City at 18 West 86th Street, between Central Park West and Columbus Avenue. Gallery hours are Tuesday through Sunday from 11 a.m. to 5 p.m. and Thursday from 11 a.m. to 8 p.m. The admission fee is \$7 general, \$5 senior and students (valid ID); admission is free Thursday evenings after 5 p.m. For more information about the Bard Graduate Center and upcoming exhibitions, please visit bgc.bard.edu.

For more press information and images, please e-mail press@bgc.bard.edu or call 212-501-3074.