MATYCONN
MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES OF CONNECTICUT

NEWS

Spring 2002

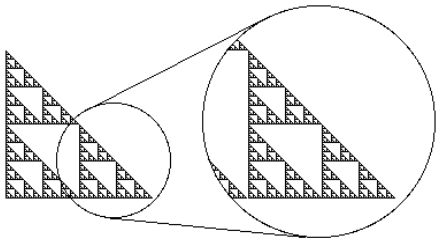
Framing our Fall 2001 Meeting

As the story goes, a young professor at Union College presents a talk on his work in fractal geometry.

Upon beginning his discussion to the group, he looked down, and behold! Who, but Benoit Mandelbrot, was in one of the first rows! According to Michael, this was incredible... how could he stand there and talk on this topic with the guru and discoverer of fractals in front of him! Obviously impressed with Michael's talk, Benoit Mandelbrot approached him afterward and asked if he would like to come to Yale and work with him.

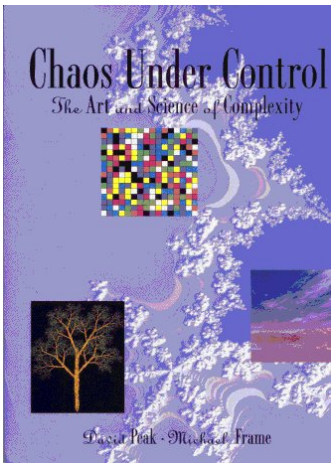
Dr. Michael Frame is an incredibly approachable, brilliant mathematician who has created an intricate, dynamic website (http://classes.yale.edu/math190a/Fractals/Welcome.html) that coincides with a fractals course he teaches at Yale. According to Michael, the course is geared to those who are not to become mathematicians or scientists, but to those who will (one day) probably be in positions of importance in business, politics, or such. The course addresses fractals in areas such as the arts, humanities, and social sciences and intends to give students new ways of looking at the world through fractal geometry and instances of finding patterns. This personable man shares very touching and powerful stories during his

teaching. In addition to teaching, research, and writing, Dr. Frame does outreach activities to include Fractals Workshops for high school and college educators. Matyconn members had the privilege of experiencing his teaching techniques at the November 2, 2001 Dinner Meeting. Dr. Frame simulated his computer classroom environment where participants worked with the material on his website and manipulatives to see first-hand how



reflection, rotation, and translations worked to create complicated fractals from simple shapes.

Dr. Frame has met and worked with many fine mathematicians and scientists. These collaborations culminated in the writing of numerous articles and two books. He co-authored "*Chaos Under Control, The Art and Science of Complexity*," (WH Freeman, 1994) with David Peak. His latest book, "*Fractals, Graphics and Mathematics Education*," co-authored with Benoit Mandelbrot (Cambridge University Press, 2002), is designed to provide mathematical tools which may help readers to uncover connections between the arts and sciences. In the forward, two statements seem of interest and applicable to the studies of Benoit Mandelbrot and Michael Frame. "Rarely do the protagonists in these 'math wars' stop to ask whether different mathematics might yield increased learning." "Simply put, fractals enable everyone to enjoy mathematics."



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