Book Review: Fractals for the Classroom

Fractals for the Classroom, Parts I and II. H. O. Peitgen, H. Jurgens, D. Saupe, E. M. Maletsky, T. Perciante, and L. E. Yunker, Springer-Verlag, New York, 1991/1992.

These booklets appear to be well thought out and useful for formal or informal teaching in schools, or in university extension programs for schoolchildren. The slides included with Volume I are very well selected.

The study of fractals is a topic that seems to be developing an important role as a way to motivate students to become interested in mathematics or physics. The material presented in these booklets is ideal for informal teaching in that while it motivates students and touches on topics taught in formal classes, students exposed to this material will gain breadth, but will not be bored later in their regular classes.

My only criticism is in the presentation of programs only suited to graphical calculators rather than also giving programs (or references to programs) in a usual language (Basic, Tru-Basic, or Pascal commonly being used by school children) on pc or Mackintosh computers. Perhaps I am biased by the local situation here in Israel, but I do not think it is very different from other countries. Here, most school students could access a pc clone in a university extension project or in the school computer classroom, but they do not, in general, own personal graphical calculators. Nor do I see that there is any need for them to learn such a complex and old-fashioned language when they probably know some Basic or Pascal; if not, then the time invested in learning Basic or Pascal will be well spent.

I recommend these books for those who wish to present topics of fractals to schoolchildren, but suggest that in future editions some programs (or references to programs) for microcomputers be additionally presented.

Joan Adler Department of Physics Technion-Israel Institute of Technology Haifa, Israel

809