A Note from the Editor

Dear *TME* readers,

Along with the editorial team, I present the first of two issues to be produced during my brief tenure as editor of Volume 14 of *The Mathematics Educator*. This issue showcases the work of both veteran and budding scholars in mathematics education. The articles range in topic and thus invite all those vested in mathematics education to read on.

Both David Stinson and Amy Hackenberg direct our attention toward equity and social justice in mathematics education. Stinson discusses the "gatekeeping" status of mathematics, offers theoretical perspectives he believes can change this, and motivates mathematics educators at all levels to rethink their roles in *empowering* students. Hackenberg's review of Burton's edited book, *Which Way Social Justice in Mathematics Education?* is both critical and engaging. She artfully draws connections across chapters and applauds the picture of social justice painted by the diversity of voices therein.

Two invited pieces, one by Chandra Orrill and the other by Sybilla Beckmann, ask mathematics educators to step outside themselves and reexamine features of PhD programs and elementary textbooks. Orrill's title question invites mathematics educators to consider what we value in classroom teaching, how we engage in and write about research on or with teachers, and what features of a PhD program can inform teacher education. Beckmann looks abroad to highlight simple diagrams used in Singapore elementary texts—that facilitate the development of students' algebraic reasoning and problem solving skills—and suggests that such representations are worthy of attention in the U. S.

Finally, Bharath Sriraman and Melissa Freiberg offer insights into the creativity of mathematicians and the organization of rich experiences for preservice elementary teachers, respectively. Sriraman builds on creativity theory in his research to characterize the creative practices of five well-published mathematicians in the production of mathematics. Freiberg reminds us of the daily challenge of mathematics educators—providing preservice teachers rich classroom experiences—and details the organization, coordination, and evaluation of *Family Math Fun Nights* in elementary schools.

It has been my goal thus far to entice you to read what follows, but I now want to focus your attention on the work of TME. I invite and encourage TME readers to support our journal by getting involved. Please consider submitting manuscripts, reviewing articles, and writing abstracts for previously published articles. It is through the efforts put forth by us all that TME continues to thrive.

Last I would like to comment that publication of Volume 14 Number 1 has been a rewarding process—at times challenging—but always worthwhile. I have grown as an editor, writer, and scholar. I appreciate the opportunity to work with authors and editors and look forward to continued work this Fall. I extend my thanks to all of the people who make TME possible: reviewers, authors, peers, faculty, and especially, the editors.

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About the cover

Cover artwork by Thomas E. Ricks. *Fractal Worms I of the Seahorse Valley in the Mandelbrot Set, 2004.*
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Benoit Mandelbrot was the pioneer of fractal mathematics, and the famous Mandelbrot set is his namesake. Based on a simple iterative equation applied to the complex number plane, the Mandelbrot set provides an infinitely intricate and varied landscape for exploration. Visual images of the set and surrounding points are made by assigning a color to each point in the complex plane based on how fast the iterative equation's value "escapes" toward infinity. The points that constitute the actual Mandelbrot set, customarily colored black, are points producing a finite value. The Mandelbrot set is a fractal structure, and one can see self-similar forms within the larger set.

Using computing software, anyone can delve within this intricate world and discover views never seen before. Modern computing power acts as a microscope allowing extraordinary magnification of the set's detail.

The fanciful drawing *Fractal Worms I* is based on the structure of spirals residing in the commonly called "Seahorse Valley" of the Mandelbrot Set. Using a lightboard, Thomas Ricks drew the fractal worms on a sheet of art paper laid over a computer printout of the Seahorse spirals. With the light shining through both sheets of paper, he drew the various fractal worms following the general curve of the spirals. The printout was produced by a Mandelbrot set explorer software package called "Xaos", developed by Jan Hubicka and Thomas Marsh and available at: http://xaos.theory.org/

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