

## From the Editor

## Cover Image Quartet



Several people have asked me why *Microscopy Today* has four images on every cover. The answer is simple. The juxtaposition of several images can be used to show change or tell a story. The relationships among the four images become clear by comparing the images on the cover to the cover caption. Differences among the four images show effects in several areas: imaging technique (different modes of microscopy, various imaging filters, and slices through 3D datasets); analytical aspects (imaging with different wavelengths and compositional maps showing distributions of elements); and specimen characteristics (different organs from the same species, fluorescent images with different fluorophores, maps of material properties, temperature variations, magnetic field strengths, and video frames of dynamic processes). All of the above have appeared on our covers over the last seven years.

This issue's cover shows an enlargement series from a single secondary electron image, acquired in the scanning electron microscope (SEM) of an immature strawberry flower. The low-magnification image was taken with 2,500 scan lines and carefully recorded on film. At the time when this image was acquired, most SEM images were taken at the magnification at which they would be used because SEM images recorded on film then could not stand to be enlarged more than about 3 times. The enlarged images on our cover were all produced from the low magnification frame. The highest magnification image on the cover is an 8× enlargement. This and many other SEM images of living things were published 40 years ago in a book by David Scharf titled *Magnifications: Photography with the Scanning Electron Microscope*. Since then Scharf's SEM images of flora and fauna have appeared in numerous publications including *Time*, *National Geographic*, *Smithsonian*, *Discover*, *Science*, *Nature*, and *The New York Times*. It is remarkable that only a decade after the first commercial SEM appeared Scharf was employing the SEM in fine art photography, in addition to scientific studies.

Charles Lyman  
Editor-in-Chief

**Erratum:** *Microscopy Today* 21(3), May 2013, 36-39. "Handling Cell Culture Monolayers for Transmission Electron Microscopy" by Leona Cohen-Gould, Page 38: *Note on materials:* The amount of NMA used should be 5.9 g (not 0.9 g as printed). Apologies to all who may have been frustrated by this.

**Publication Objective:** to provide information of interest to microscopists.

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## Editorial Staff

Charles E. Lyman, *Editor-in-Chief*  
charles.lyman@lehigh.edu  
(610) 758-4249

Gennifer Levey, *Production Manager*  
glevey@meridianartpro.com  
(212) 780-0315

Ron Anderson, *Executive Editor*  
randerson20@tampabay.rr.com

Phil Oshel, *Technical Editor*  
oshel1pe@cmich.edu

Robert Price, *Associate Editor*  
bob.price@uscmcd.sc.edu

Stephen Carmichael, *Columnist*  
carmichael.stephen@mayo.edu

Eric Clark, *Pioneers Editor*  
eclark@magnet.fsu.edu

Steven Barlow, *Education Editor*  
sbarlow@mail.sdsu.edu

Thomas E. Phillips, *Consulting Editor*  
phillipst@missouri.edu

Paul Webster, *Calendar Editor*  
pwebster@usc.edu

John Shields, *Humor Editor*  
jpsshield@uga.edu

Nikolaus Cordes, *Digital Content Editor*  
ncordes@lanl.gov

Thomas Kelly, *Chief Awards Judge*  
Thomas.kelly@ametec.com

## Advertising Sales

M.J. Mrvica Associates, Inc.  
2 West Taunton Avenue, Berlin, NJ 08009  
mjmrsvica@mrsvica.com  
(856) 768-9360

Kelly Miller, *Account Manager*  
kmiller@mrsvica.com

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