

Julie Ann Miller: A Picture and a Thousand Words

After nearly 3 decades of working with words to present engaging science stories, Julie Ann Miller, then editor-in-chief of *Science News*, decided to express her creativity through photographs. It took a trip to Alaska and a digital camera for Miller to discover her deep interest in photography. That was 6 years ago. Today Miller continues to pursue her interest with passion and flair . . . and she adds her touch to the pictures she takes.

For Miller, photography is about not only taking the best shot but working on it later with digital tools to infuse it with her vision. "Digital tools allow you to take the picture and then work on them in the quiet of your office or home," she says. "It's much like polishing one's writing," she observes, "but the first step is to capture the scene as well as you can."

Miller started her journey with the camera in picturesque Alaska, which offers ample scope for nature photography, but she has since shifted her focus to cities. "That is where I am from," she says. "Cities are places I know and understand. Cities are always changing and they always have something new to offer." Washington, DC, New York, San Diego, Chicago, St Louis, Padua, Venice, and more recently Los Angeles, Seattle, and Baltimore are the cities she has explored with her lens.

Within these cities, Miller looks for subjects that surprise and amuse her. She trains her camera on the urban setting and captures familiar images with a twist—by adding an element of surprise. "I choose subjects that are colorful and have strong geometric lines," she says. "And I don't want to take pictures that you would find on a postcard," she adds, laughing.

Urban Reflections

The projects Miller has worked on reflect her unique vision. Commenting on her work, Mark Power, a professor of photography whose workshops Miller attends, says, "Julie is becoming well known for seeing the world in an innovative way that makes us rethink how we see the

world." Some of her work appears on her Web site (www.juliemillerphoto.com).

Miller's quest to capture the surprise in familiar settings has led her to photograph reflections. Reflections, she says, are "something that intrigue her" because they "add unexpected juxtapositions of familiar elements". Discussing the use of reflections in her project *How Buildings See Buildings*, Miller says, "Buildings see buildings through compound eyes in which each pane of glass mirrors a fragment of the scene." The reflections, she explains, "create an interplay of recognizable, abstract, and graphic components".

Why the focus on buildings? "There are always surprises in buildings," Miller says. During her travels to various cities, she looks for "views within views that add up to a mesmerizing architecture that intrigues both mind and eye". To shoot these mesmerizing images of buildings, Miller walks along the street, or someplace higher when available, and looks at the reflections in buildings that have walls of windows. "Just a little difference in position can make a big difference in the reflection visible," she says. And as she pursued this project, her interest in abstract shapes that appear in the reflections deepened.

Learning the Pixels

Abstractionism was an element Miller had already explored in her *Kaleidoscopes* project, which was an idea that she thought of when on a trip to Paris with a friend who designed quilts. The friend "wanted to incorporate the photographs I took in her quilt designs. I thought, well, why not prepare kaleidoscope images that can be sewn directly onto the quilts!" she recalls. Power says the kaleidoscopes that Miller has created from scenes she photographed in New York and New Mexico are "sparkling". "She is adept at mastering processes which help her vision," he says. To create the kaleidoscopes, "I select a section of a photograph," she says. "Then using Photoshop or another program [designed for quilt-makers], I reflect and reproduce the shape to build a circle or

Other Than Editing

continued

square. [I] then print the circle or square. Sometimes, I combine them.”

How does Miller, an editor who holds a PhD in neuroscience and a master’s degree in journalism, master the latest photographic technologies and processes? “I have taken classes to work with Photoshop,” Miller says, “and I keep attending workshops on photography.” For example, she took her series of New Mexico photographs during a week-long workshop there led by photographer Harvey Stein and sponsored by the International Center for Photography in New York. Each participant put together a collection of images on a specific topic. “Mine was a humorous view of road signs as they appear in nature,” Miller says. Commenting on the importance of such workshops, Miller says, “There is always something new to learn.”

Power sees some of the themes that Miller has explored as a part of a tradition that began with the cubist experiments of Picasso and Braque. Emphasizing the uniqueness of her works, he comments, “I think Julie’s work more than holds its own with other photography done in that vein, and I will be very interested to see where her vision goes from here.” As for Miller, she is working on the project *How Buildings See Buildings* and on pictures she took in Padua and Venice. In the Italian photos, she says, “I’m most interested in contrasts between old and new.”

About 2 years ago, Miller put together the Web site Julie Miller Photography, where she showcases her works. She has also participated in juried exhibitions, where she has won some awards. “It’s fun to have many people see your work and get their comments. . . . Otherwise, it’s



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only family and friends,” she jokes. Has the photographer’s discerning eye picked a favorite among her own photographs? She laughs, “Oh! That’s a tough one!” Then, after a pause, she says that she loves one of her brightly colored photos of Times Square that she has surrounded with kaleidoscopes made from parts of the photo.

The World of Words

Always on the lookout for creative channels, Miller chose to write about science after obtaining a bachelor’s degree in biochemical sciences and molecular biology from Harvard University and a PhD in neuroscience from the University of Wisconsin-Madison. She obtained a master’s degree in journalism, also from Wisconsin-Madison, and started her career as a writer. “I trained to be a scientist but then saw that I like writing about science better than doing experiments,” she says.

Miller began her science-communication career as the life-science writer for *Science News* in 1976. After 10 years of writing for *Science News*, she became the editor of *BioScience*. Did she come to view writing differently as an editor? “Oh yes!” she exclaims. “As an editor, one always has a view of the end product. And when writing as an editor, one always tailors the writing with that end product in view,” she says.

In 1995, after a 9-year stint with

BioScience, Miller joined *Science News* again, this time as the editor-in-chief. Overseeing publication of a magazine geared to a nonspecialist but scientifically attuned audience was something that she enjoyed. Under Miller's creative eye, the 86-year-old publication saw some changes that helped to bring it into today's electronic age.

Keith Haglund, former managing editor at *Science News*, says, "[I] saw her guide *Science News* into the electronic-media era by directing development of a sophisticated magazine Web site." In addition to *Science News Online* (www.science-news.org), Miller and her staff started the Web site *Science News for Kids* (www.sciencenewsforkids.org), which attracts nearly 4000 visitors per day. "You have to be more creative when presenting science to children. It has to be more to the point and jargon-free," Miller says.

Miller managed the redesign of the print magazine, and Haglund says that the "elaborate and striking redesign" made the publication look better than it had in decades. But Miller's contribution as the editor-in-chief went much deeper than the magazine covers. "Julie's most

notable input was her insistence on high-quality reporting, writing, editing, and design," says Haglund. He says that the magazine was elevated to a higher level than ever before because of her insistence on, and training others in, better writing and editing. "Julie is one of the best science editors working today," he says. "She has excellent technical understanding of the material and yet an extraordinary ability to translate it into copy that is engaging for anyone, from [a] scientist to [a] middle-school kid."

As for the future, Miller is all set to explore the worlds of words and pictures even further. "I enjoy doing both," she says of editing and photography. "I hope to continue doing both . . . and learn new things while keeping the old skills."

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