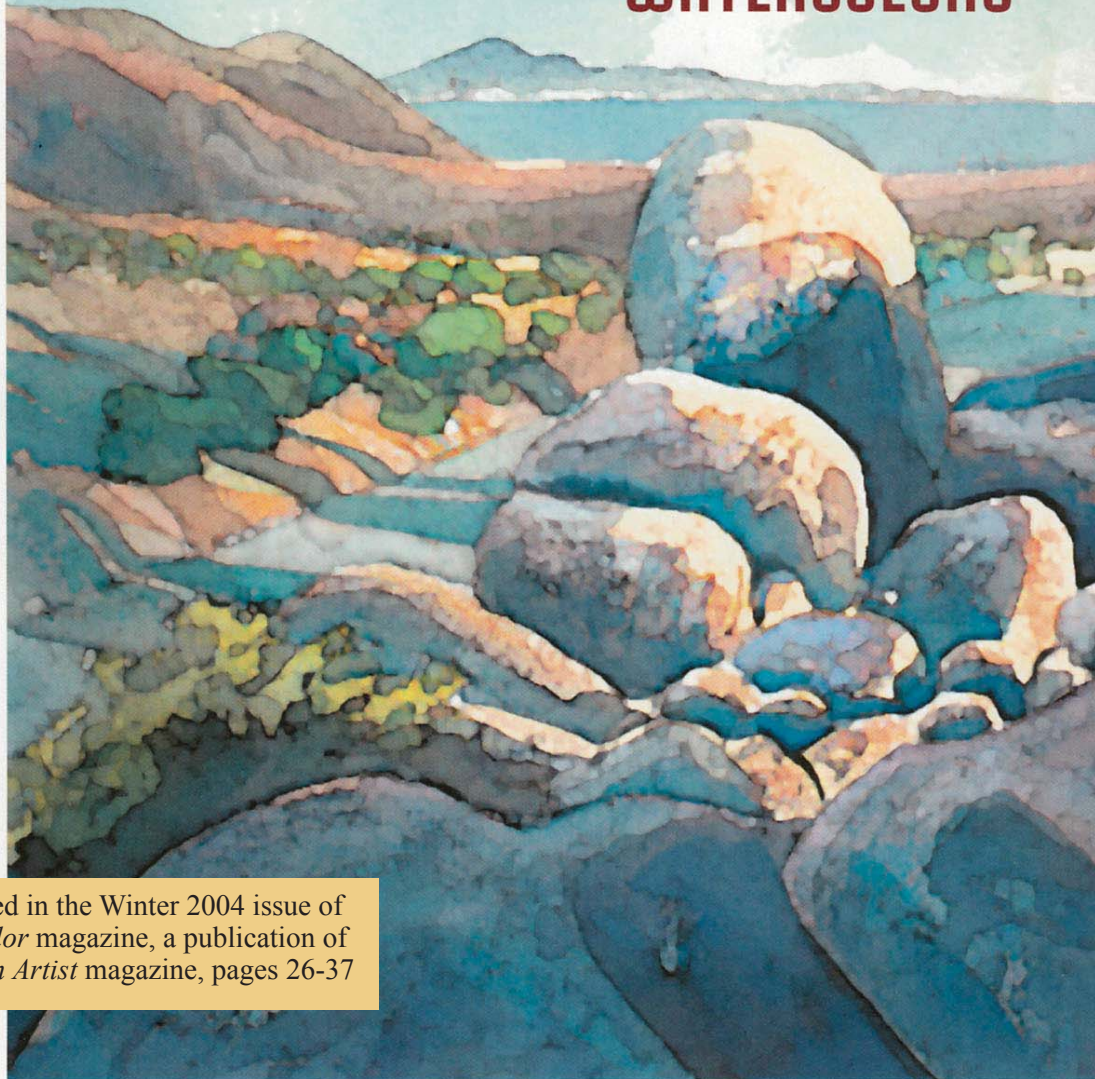


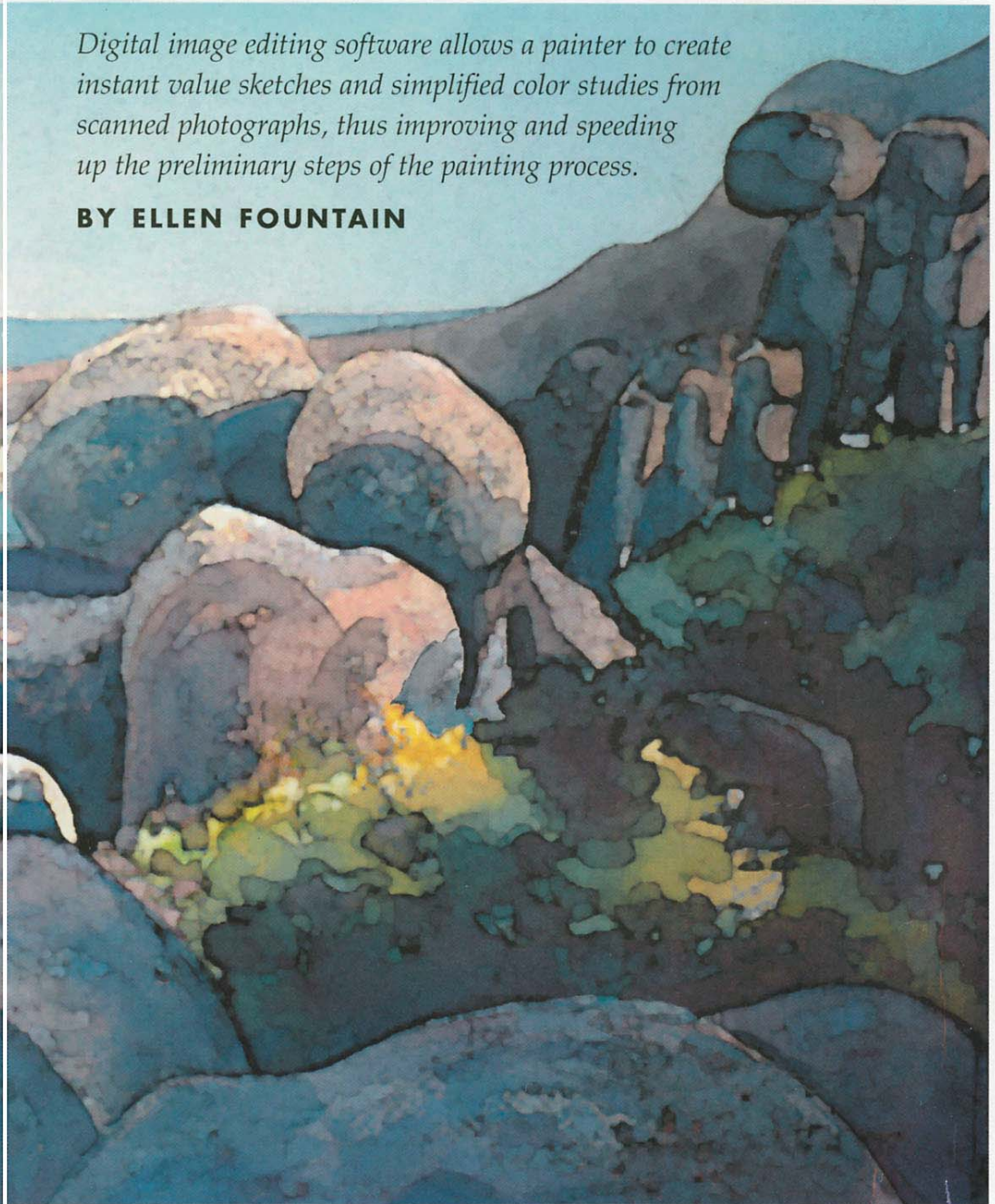
USE YOUR **COMPUTER** TO PAINT BETTER **WATERCOLORS**



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Digital image editing software allows a painter to create instant value sketches and simplified color studies from scanned photographs, thus improving and speeding up the preliminary steps of the painting process.

BY ELLEN FOUNTAIN



Texas Canyon, 2002, digital painting, 11 x 18. Collection the artist.

My computer lets me address two issues that frequently cause trouble for watercolor painters who work from photographs—value contrasts (photos often lose detail and color in dark shadowed areas and extreme highlights) and lack of editing (painters often get too caught up in reproducing everything in the photo, just because it's there).



Like many artists, I was skeptical at first about what a computer could do for me in my studio. When my husband brought home our first computer in the 1980s, I was not impressed. It had a green screen with white text, there were no images, and everything you did—including simply moving from one part of the screen to another—was accomplished through a series of key-strokes. I was convinced this “thing” would never interest me; I dealt in pictures, not words and numbers. My



Left: *Abandoned*, 2000, watercolor, 11 x 15. Private collection.

Below: *The Night Queen's Nemesis*, 1999, watercolor, 15 x 22. Private collection.

Opposite page: *Desert Dwelling*, 2001, watercolor, 12½ x 12. Private collection.



world was color-filled, not monochromatic. My husband used that machine, and the next one, for word processing and accounting. I ignored it.

But when we later bought a machine that used the Windows operating system, the computer was suddenly more approachable and interesting. There was a mouse to replace a bunch of keystrokes. There were colors and pictures, and a "painting" program. It was very limited in its capabilities, to be sure. But it was a start. And there was image editing—and that was what finally got me interested in having a personal computer in my art studio.

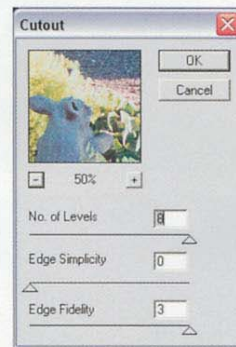
I'm on my third Windows computer now, one that's customized for digital image editing, with a fast graphics card, a fast processor, a lot of RAM, and an 80GB hard drive on which to store images. It has a CD writer and runs three printers and two scanners. I replaced the mouse with a digitizing tablet and pen so that I could "draw and paint" in a more traditional way, with a stylus instead of a bulky mouse. I bought digital image editing software. I learned more about computers than I ever dreamed. And the payoff for all this invested time and money? Among many other things, I use my computer to help me make stronger watercolor paintings. How? It acts as a bridge between my reference photos and my paintings.

I took the photo for *The Morning Bath* very early in the day in our front yard. What enchanted me was the early morning light streaming in beneath the branches of a huge mesquite tree, highlighting the edges of various plants—nurembergia, blue plumbago, Texas ranger—and illuminating the edges of my birdbath. It also touched the rocks that defined the planting areas and the two stoneware rabbits that

DEMONSTRATION: THE MORNING BATH



Step 1. I started with a 35-mm photograph of my front yard in the early morning light. I scanned it into my computer at 200 dpi.



Step 2. In Adobe Photoshop, I opened the scanned image and applied the Cutout filter to it. The dialog box shown at right popped up, giving me a preview of how the image would be simplified by this filter. The same sample area from the original scan is shown beside it for comparison.



Step 3. The resulting simplified image. Details are lost and color values are grouped into broad shapes and masses—the effect is like squinting at your subject. This image served as my color study.



Step 4. Next, I converted the image to grayscale to get a value study.



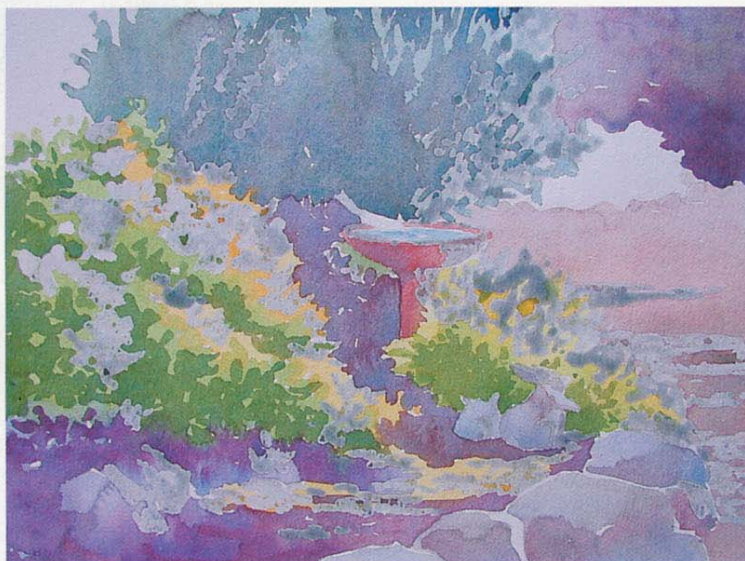
Step 5. Using the burn tool, I adjusted the contrasts where I felt they were too pronounced. The resulting image served as my value study.

inhabit this garden space.

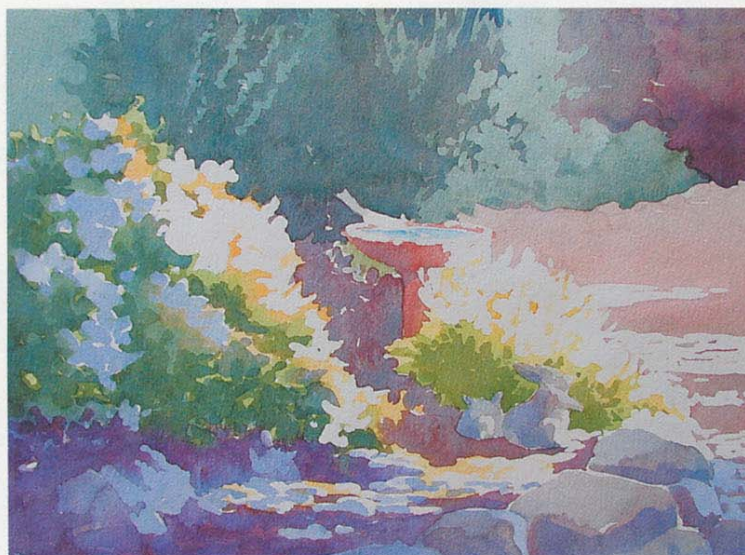
My original photograph was a 4"-x-6" glossy print, taken with a traditional 35-mm camera. Using a flatbed scanner, I scanned this photo at a resolution of 200 dots per inch (dpi), saved it as a TIFF image file, and then opened it in Adobe Photoshop, the image editing software I use. There are many other image editing software programs available—such as Microsoft Picture It!, CorelDRAW, MGI PhotoSuite, and Jasc Paint Shop Pro—and the process I describe in this article is similar in most of them.

Once I had the image open in Photoshop, I immediately saved a copy, renaming it "simplified" so that it wouldn't overwrite the original photo. Then I applied a filter named Cutout, which is found under Photoshop's Filters menu under Artistic (Filters>Artistic>Cutout). If your image editing software program doesn't have this exact filter, try the Blur filter or the Posterize filter. The Cutout filter simplified the image, thus removing the temptation to paint every blade of grass and every flower petal. The details were reduced and grouped together with similar colors and values into simpler shapes and masses of color. The Cutout filter is the digital equivalent of squinting at your subject.

When you select the Cutout filter from the pull-down menu, a dialog box pops up. A sample from the scanned photo appears within this box, along with a few controls. The sample shows what effect the filter will have on your image. You can click on the sample to revert it to the photo's original state for a few seconds' comparison. Experimentation with the settings shows that choosing a lower level further simplifies the image. Adjusting edge simplicity influences how complex or simple the edges of your shapes will be. Edge fidelity determines how



Step 6. After preparing my paper, I lightly sketched the composition with a graphite pencil. I masked out the lightest areas of my painting with gray masking fluid, using my grayscale study as reference. I also used the masking fluid to reserve areas for the blue plumbago blossoms and the cardinal. Then I applied my first washes.



Step 7. About three-quarters of the way through the painting process, after the dark and midvalue washes were dry, I removed the masking fluid. I then began to refine the stark white areas with additional washes of color.



Step 8. The completed painting: *The Morning Bath*, 2002, watercolor, 9 x 12. Collection the artist.



closely the filter will follow the original edges when grouping similar colors or values.

The filter may be run more than once. (You may want to save each resulting image under a different name.) I ran the Cutout filter twice on this particular image, because I wanted to reduce the complex foliage

to much simpler shapes of color and value.

When I'm working on-site or from my imagination, I always do a value drawing to determine where my lightest lights and darkest darks will be, and to help establish the structure of the painting. The corresponding step on the computer is to convert the photo to

grayscale, which reproduces the image in values from white to black—and all the shades of gray in between. I have learned that if I take the time to do a value study and get the value pattern to work successfully, then it doesn't matter what colors I eventually use in the work. So long as the color values in my painting match the

values in my sketch (or printout), the painting will work. In most image editing programs, the option for converting color images to grayscale is found under the Image menu. (In Photoshop, it is found at Image>Mode>Grayscale.) For this painting, I saved the black-and-white image under a new file name

before continuing.

Next, I looked at the printouts of both the grayscale value study and the simplified color version of the photo more critically and thought about how they would translate into watercolor. I loved the effect of the light in the photo, but I needed to create a focal point.

I saw birds bathing in and drinking from the birdbath most mornings, but the moment I stepped outside, they flew away. However, because that image has been filed away in my head from daily observations, I knew I could easily add from memory the touch of complementary, bright color I needed to create my focal point: I placed a cardinal, a frequent feathered visitor, on the edge of the birdbath. I then looked at what else needed editing in the composition. I decided the value contrasts in the large bushes behind the birdbath were too strong. Also, most of the flowers on the blue plumbago were in the upper left corner, and an area of strong value contrast running down the left side of the image was distracting and poorly located.

My solution was the burn tool, which is on the tool palette and in Photoshop looks like a hand holding an invisible pencil. This tool allows me to tone down the value contrasts where needed. With this tool, I can burn either the highlights, mid-tones, or shadows on the image—my choice. Two other tools, the dodge tool and the sponge tool, are related to the burn tool. The dodge tool allows me to brighten an area; the sponge tool saturates a given area with local color. All three are preferable to the painting tools because they don't cover over parts of the image, instead merely changing the values. All three are best used by repeatedly clicking the mouse button rather than applying strokes with them.



Backlit Cholla, 2002, digital painting,
8½ x 11. Private collection.



Armed with an adjusted value image and a simplified color image, I was ready to start painting. (I kept the two printouts in front of me as I worked on the painting; if your computer monitor is positioned so that you can see it clearly from your painting table or easel, you can skip the

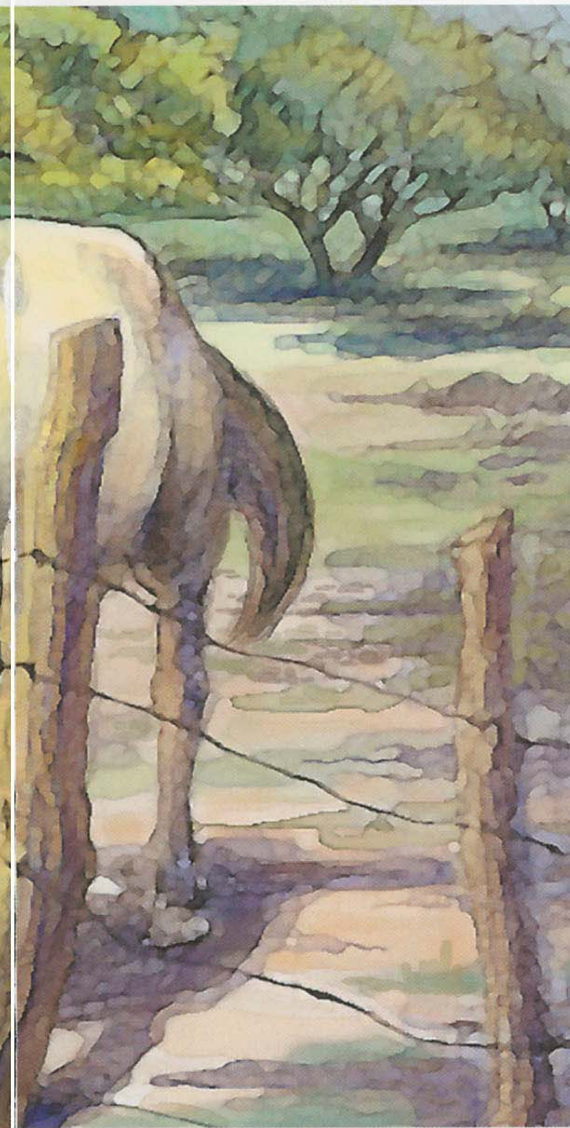
printouts and simply open the image files so you can see them as you paint.) I wetted the top sheet of an Arches watercolor block with clean water, then let it buckle up and dry. This helped keep the paper from buckling when I wetted it a second time. Next, I did a light graphite sketch direct-

ly on the dry paper. I used gray masking fluid to cover the lightest areas as indicated by my grayscale value image. I also masked out all the blue plumbago blossoms because I wanted their color to be very clear and clean when I painted them. I left an unpainted area for the cardinal on the

edge of the birdbath.

I used permanent alizarin crimson, cobalt blue, French ultramarine blue, Winsor green (blue shade), transparent yellow, and scarlet lake for this painting. I began with the lightest values as washes, then I continued to define shapes and build up color by

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Taking Her Lumps, 2001, digital painting, 12 x 18. Collection the artist.

layering additional glazes of watercolor, letting each layer dry before applying the next. When nearly all of the dark and midvalue washes were dry, I removed the masking fluid. I then refined some of those stark white areas with additional washes of clean, clear color. ■

WATERCOLOR

Many artists are using digital image editing software to prepare for a painting and to explore a range of compositional options. Below, we list some other tools and processes available in Photoshop and other programs.

■ With a digital camera, photograph a work in progress at a crucial point, then play with the composition in Photoshop to experiment with fewer or more elements, different backgrounds, or different colors. This is especially handy with watercolor paintings, which are not reversible without sacrificing the white of the paper. The paintbrush tool, airbrush tool, and bucket tool will allow the application of any chosen color. Using separate layers for added elements allows **an object to be added** behind the foreground but in front of the background. Figures or other elements can be sketched into a scene on an added layer using the pencil tool or the paintbrush tool, and then easily moved to the background, foreground, middle, or deleted altogether.

■ **Merge two photos** through simple Cut and Paste commands. The **scale** (select a part of an image, then go to Edit>Transform>Scale) and **orientation** (Edit>Transform>Flip Horizontal/Vertical) of selected images can be easily adjusted. Elements can be **rotated** (Image>Rotate Canvas) and their **perspectives** manipulated (select a part of an image, then go to Edit>Transform>Perspective) with just a few clicks of the mouse.

■ Adjust the overall **contrast** and **brightness** of the image easily (Image>Adjust>Brightness/Contrast).

■ The **cloning** tool, the tool on the palette that looks like a rubber stamp, allows the duplication of a color, texture, or background in another area of the composition. It is applied in as wide a swath as desired, from a pinpoint to three-inch blocks. Thus, a complex background can be repeated in another area, or an object can be removed—with previously hidden background elements re-created with reasonable verisimilitude.

■ The magic wand tool **automatically selects** all contiguous pixels of a given color for easy replacement. This tool allows one to easily change the color of a person's shirt, for example.

■ **Blur** certain areas of an image while leaving the rest of the composition sharp by selecting the area to be blurred using the magic wand, or drawing around it with the lasso tool, then applying the Gaussian Blur filter (Filter>Blur>Gaussian Blur). Conversely, areas of an image—or an entire image—can be **sharpened** with the Sharpen filter.

For an in-depth look at how a computer can help develop drawings and paintings, see Creative Computer Tools for Artists, by Jann Lawrence Pollard and Jerry James Little (Watson-Guipill Publications, New York, New York).