

About the Cover

Painting With Light

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Jeffrey Abouaf has always been an artist. But the path he took to arrive at his current job—in-house artist and QA advisor at Macromedia, working on the upcoming Shockwave 3D product—has been anything but direct.

Born in 1949 in Oakland, California, Abouaf's interest in art was tempered by a fascination with logic. After getting his BA in fine art, he obtained a law degree from Hastings in 1974. But the law wasn't a passion for him, and he went on to earn an MFA from California College of Arts and Crafts in 1977.

Shifting focus

I met Abouaf in 1974, when we shared a loft space in San Francisco. At the time, he was working on canvases as big as 20 feet wide and 4 1/2-feet high, creating abstract visions in oil and acrylic that included hundreds of tiny, meticulously drawn figures. These images seemed to dance on the canvas—foreshadowing his later work in animation. He said, “[Even in] art school my paintings wanted to be moving. And they wanted to be moving in an ethereal space.”

A few years later an Interact computer appeared in the loft. It had 16K of RAM, used a TV for its display, and had a palette of 16 colors on its 80 × 25-pixel display. Abouaf walked in one day to see a program creating random patterns, colors, and sounds, and he realized that

the moving images resembled the work he had been doing. For a couple of years, he and I created “art” on this primitive machine. Most of our projects involved making images dance on the TV screen.

Abouaf got the bug. He also hit a detour.

The cost of his large canvases ran hundreds of 1970's dollars, so Abouaf took a day job practicing law. He hadn't counted on the full-time commitment it required, though. He got a PC—an IBM clone—but it didn't do graphics. He used it to write briefs.

After 10 years he'd had enough of law and decided to return to his passion. He took classes on Painter, PhotoShop, Director, and Illustrator at the local community college in 1993. After getting his feet wet there, he moved to the San Francisco State University Multimedia courses. Around then he got a copy of 3D Studio and did his first 3D graphics, for Web sites.

Creating 3D graphics and animation quickly became an obsession for Abouaf, and he fueled the fire within by becoming a teaching assistant at San Francisco State University. He later started teaching his own courses in 3D Studio Max there and at the San Francisco Academy of Art. He created tutorials that Discreet includes on the 3D Studio Max CD-ROM and Web site. He also contributed to four New Riders Publishing books on 3D Studio Max and worked on a digitally animated TV show. He has written for this magazine, both About the Cover stories and reports for Applications.

This past summer Abouaf started at Macromedia as a 3D artist and consultant. There he works in both testing and advisory roles, helping the Macromedia programmers develop tools that are intuitive for creative people. He also addresses compatibility issues that arise when moving content between 3D Studio and the Shockwave product.

Wide-ranging styles

Abouaf's work ranges from the abstract and painterly to photorealistic. He likes to experiment with materials, textures, shaders, bump and displacement maps, and all the tools that add depth to surfaces. He uses the 3D Max virtual workspace not as a painter, but as a sculptor and photographer, building, warping, coloring, positioning, and lighting objects. His abstract works remind me of Venetian glass, Jackson Pollack's paintings, and iridescent opals (see Figures 1, 2, and 3). When

1 The transparency and textural depth of this image suggest fine-art glass.





2 It looks like a painting, but the depth, texture, and luminosity could only happen on a screen.

necessary, though, he creates meticulously lit photorealistic objects that exhibit fabulous reflections and refraction (see Figure 4).

The cover image illustrates Abouaf's fascination with the borders between the real and imaginary. The image is one frame of a 500-frame animation. In it he contrasts the 2D space of the realistic seascape to the virtual space in which the painting floats. As 2D and 3D spaces interact, so do realistic and abstract imagery—in this case the realistic ocean, the somewhat exaggerated sea birds emerging from the painting (a homage to Hitchcock), and the cartoony, nerdish character fleeing on the Yellow Brick Road, heading for an Oz that may not even exist. The whole scene is surrounded by a beautiful, convoluted solid and a star field, suggesting yet another space, that of dreams.

Abouaf also challenges the esthetics of many virtual worlds, enriching them with texture and detail to replace their typical cold emptiness. He created the animation in 3D Studio Max using the Character Studio plugin, with textures created in PhotoShop. He has a pile of PCs in his home studio, ranging from a dual P2-550 to an 800-MHz P3, that comprise his private render farm.

The cover image is from a model intended to function both as a fantastic virtual world and as a demonstration testbed for rendering techniques. With it, Abouaf shows some of the ways a 3D scene can be rendered for use in postproduction. He said, "None of [these film references were] specific, but all of it combined as sources of inspiration for a teacher and artist thinking about virtual environments, what they mean, and how far away we are from the [Star Trek] holodeck."

Abouaf explained how he feels about the contrast between painting and creating art with a computer:

I find computer art to be both more liberating and intimidating than working in other media because anything you can imagine can be visualized. The computer eliminates the excuse "You can't do that in paint." But this exposes the limits of your visualization and imagination and skill. As a painter I had been trying to stuff the whole story and action into a single frame. When I moved to the computer, I thought it would be easy to spread out the sense of motion and time and complexity over many frames of an animation. This was not easy. It proved to be a whole other skill that had almost nothing to do with what I had been trained to do. The better training would have been TV or film, where you learn to tell a story in sequence.

Abouaf hopes his future builds on what he's doing today. He likes the feeling of accomplishment the work with Macromedia and his writing gives him. He's hooked on seeing a student's eyes light up when he's teaching. Mostly, he's thrilled by the opportunities and people coming his way. "The people are so bright, so good at what they do. Fine art, as I was trained, is a solitary thing. Work today is all collaborative. And it's a lot of fun!" ■

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3 Perhaps someone doing art glass in space could create something like this, but the rest of us will have to produce it in the virtual space of a computer's memory.



4 No, it's not a photo. Abouaf spends days working on light and reflections, and it shows in work like this.