

SHADE & SHAPE

MAKING SENSE OF COLOR, LIGHT, AND FORM

Interview with Michael Raphael



Shade & Shape. What is the Art Monument Foundation, and how did they find you?

Michael Raphael. It's a nonprofit organization devoted to seeing America's monument heritage preserved and documented. They do that by seeking grants and donations, and then using the money to fund various projects. While we are lucky enough to be in the region anyway - just 45 minutes or so from Arlington National Cemetery - there simply aren't a lot of companies that do what we do, and we have a very good reputation. It wasn't hard for them to find us. We started 10 years ago, and we've been very successful.

S&S. Did they know about the 3D digitizing process?

M.R. Neither the Foundation, nor the National Park Service, which has jurisdiction over Arlington, had much of a clue as to what the process was all about. We simply told them that we could laser scan it, make a computer model, send the model to the marble millers, and have them produce an exact duplicate of the monument. Our biggest challenge at the beginning was to make them understand the process so that they could give us the go-ahead to begin. And certainly the best way to do that was to actually show them, instead of just telling them. So we went down there and did a test scan. They saw the results - and gave us the go-ahead.

S&S. Did you ultimately capture the entire monument, or just pieces of it?

M.R. The entire monument - both the geometric elements and the sculpted figures. We started last December. There are three main pieces to it: the four-sided main tomb, a cap, and a base, and each piece is a solid, marble block.

S&S. Were there any particular challenges along the way?

M.R. It takes quite some time to put the scanned data together into one accurate 3D computer model, especially since the original monument was completely handmade with some minor variations in geometry and design. But this effort to re-mill the Tomb has been going on for at least five years. So the challenge was doing it as quickly as we can without sacrificing quality. Also, marble isn't the easiest surface to scan, but on the other hand, between our experience and the integrity of the Konica Minolta products, I really don't think there's a material we can't accurately scan these days for computer modeling.

S&S. So the Konica Minolta technology was put to good use?

M.R. Very good use. There is really nothing else out there quite at that level of ease of use and sophistication. We're very comfortable with it because it's right up our alley. We not only use the products for many important projects, but we're a distributor, as well. We feel we know it as well as anyone.



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