



aviroth:

A JEWEL OF A

Diamonds may be a girl's best friend, but they are a photographer's worst nightmare. That's what I learned from Avi Roth, a photographer who loves his niche (including his specialized equipment) and is especially delighted when he devises his own clever systems to address the complex problems of jewelry photography.

"The reason I got into jewelry photography was simply because it is one of the most challenging aspects of all the types of photography that I have done," says Avi. "The problems that come with jewelry photography are immense. The attraction is to excel at something that is challenging." He says that it is the one branch of photography where one must be acutely aware of the laws of reflection and refraction.

"You can't just take a light and direct it at the jewelry," he says. "That's not what it requires. I use reflectors, perhaps hundreds of different kinds of them. And I use at least half a dozen of them for a single image. I place them carefully to create dimension and preserve the texture."

Avi helped me understand the complexities of the problem. He pointed out that if he were given two supposedly identical rings—

items with the same SKU (Stock Keeping Unit) number—and if he lit the first one beautifully, despite what one might think, he couldn't simply replace the first ring with the second one and expect to get a good photograph of it. Subtle differences in manufacturing such as slight variations in the curvature and the polishing of the metal are enough to require adjustments to the lighting setup. Since the goal is to create interesting highlights, midtones and shadows in just the right places, placing the second ring at an ever-so-slightly different angle is enough to change everything.

Avi gave me a crash course in jewelry lighting. First, he situated me underneath a frosted, hemispherical plastic dome and pointed out that the dome diffused the window light from outside and created a beautiful gradient, which could clearly be seen by looking at the dome's surface itself.

As our jewelry lighting class progressed, he explained that the dome was a way to create even lighting and eliminate unwanted reflections. Under the dome it was easy to turn the ring around and find an orientation that made it look good. But the ring didn't look great yet; it didn't look like the images Avi had on his computer. It was clear that while a diffusion dome was a step in the right



ALL PHOTOS COPYRIGHT © AVI ROTH

PHOTOGRAPHER

By Larry Brownstein

direction, the light could still be a bit too ordinary. Avi emphasized that what distinguishes extraordinary jewelry photography from ordinary jewelry photography is the ability to “selectively segregate each surface” of a ring by lighting each separately.

We were poised and ready for the next lesson: controlling the light. Avi showed me one of his inventions, an inverted diffusion dome, which is also made of frosted glass but small enough that a large softbox easily fit over it. Inside the upside-down dome, Avi placed a ring on a clear acrylic support with a bit of wax to keep it in place. He positioned several pieces of reflective surfaces inside the dome too and began adjusting the reflective sheets until they caught the light from the softbox in such a way that the ring came to life. Then he added a bigger piece of plastic mirror, and when the reflections it cast upon the ring pleased his eye, he anchored it in place.

Avi enjoyed showing me his inventions, including an inexpensive IKEA table he had turned into his shooting stand. He removed the tabletop and made several different tops in varying amounts of diffusion. Avi often angles the table toward the camera so the legs are adjustable, which is especially useful when he is photographing

necklaces as they hang naturally. The adjustable legs also make it easier for him to place lights below the table. Precise camera position is often crucial so he uses a level to determine the angle the table is tilted and then adjusts the camera’s plane to match it.

Since the slightest change in camera position will dramatically change the reflection angles of his precisely placed mirrors, he needs a camera that allows precise adjustment. Avi uses a Sinar p3—a view camera with bellows, swings and tilts that was designed for use with a digital back. He says the swings and tilts also allow him to control depth of field, the only way to get such objects completely sharp from front to back.

He also uses a Foba camera stand that allows him to move the camera up and down with ease as well as rotate around the stand and even extend out. He demonstrated how he could easily take his Sinar p3, mounted with a lens and a digital back, and position it at a shooting hole in a plastic dome in a matter of seconds.

A few other inventions Avi has created include an IKEA lamp with six articulated fixtures on one base. He removed the fixtures and bulbs and instead attached mirrors with putty for precise positioning of reflected light. He turned several small off-camera flash



brackets with short, articulating tripod legs, which he also uses to mount small plastic mirrors.

The glass windows in his studio act like Fresnel lenses—the ridges in the old-style windowpanes focus the light rays in a tight beam just the way a Fresnel lens focuses light. Avi occasionally takes advantage of his glass windows for a shoot when appropriate.

Avi was even nice enough to reveal some of his Photoshop secrets. He showed me a

beautiful shot of a Pave ring—a ring with hundreds of small diamonds encircling it. These rings are among the most challenging to shoot. Since there is no way to light the diamonds separately from the ring, the diamonds don't stand out like they should.

His solution is to use a diamond from his diamond images library, each of which is meticulously lit to reveal all the facets at various depths. "Lighting diamonds is a whole different science than lighting metals," he says.

Avi's library includes diamonds of varying shapes. In Photoshop, he resizes the library image that matches the stones in the Pave ring, places it over one of the ring's diamonds, lightens it with Curves, sharpens it with Unsharp Mask and repeats this until all the diamonds in the ring come to life.

Given his breadth of talent, it's not surprising that Avi has a diverse photographic background. His journey began as a young boy when he spent time in his Uncle Yankel's portrait studio in Transylvania. The studio



Spell of Enchantment
Adornments of first blush feeling.



greatly intrigued him and he says he can still remember its smells. So began a photographic journey through several countries and photographic specialties.

Avi worked as a photojournalist in Jerusalem and studied filmmaking in London. Not surprisingly, this led him to Los Angeles to seek a job in the film industry. Unfortunately, as he says with irony, Hollywood did not roll out the red carpet for him. He found himself in a variety of photo studios doing varied assignments, including architectural interiors and even fashion.

Avi has begun revisiting his archive of black-and-white images from his days as a photojournalist. He enjoys scanning and printing these images and plans to sell them as limited edition prints. Many of these photographs will appear in a new book he is planning to publish, *Helpless and Hopefuls*. For the book, Avi has selected images that depict his interest in the very young—the Hopefuls—and the very old—the Helpless.

It is clear, however, that his current niche matches his temperament. With his attention to detail, mastery of lighting and joy of

inventing clever solutions to the considerable challenges of lighting jewelry, it is no wonder his clients come back for more. To see more of Avi Roth's work, visit his website: www.jewelryphotographyonly.com.



Larry Brownstein is photographer of the books Los Angeles, Where Anything is Possible and The Midnight Mission. He is represented by Getty Images, Alamy and other agencies. He has a growing wedding and portrait photography business and offers stock photography consulting and career coaching for emerging photographers. See his work at www.larrybrownstein.com or contact him at (310) 815-1402.