



**ARIZONA DESERT  
HAIRY SCORPION**

*Hadrurus arizonensis*  
is the largest scorpion  
in the United States.  
Its size allows it to feed  
easily on a variety of prey,  
including other scorpions,  
lizards, and snakes.  
The hairs help it to detect  
vibration in the soil.

**THE  
BIG PICTURE**

*Macro-photographer  
Robert Marcos reveals  
a new layer of the  
desert's natural history.*

*By Carolyn Horwitz*

*a.*

**WITH ITS CACOPHONY OF COLOR,** texture, and shape; exceptional play of light and shadow; and wide sweep of land and sky, the desert has long been a source of inspiration for painters, photographers, and other visual artists.

Robert Marcos, too, was drawn to what he describes as the desert's "massive sense of expansion." But unlike many of his peers, this La Quinta-based photographer, a native Californian, depicts the broad-ranging natural elements of the Colorado Desert in extreme close-up. His macro photography of the flora, fauna, and geology around the Coachella Valley is the desert in microcosm.

A commercial photographer of cosmetics by trade and a hobbyist historian and documentarian, Marcos, 59, is new to this type of creative expression. He is loath to refer to his survey of the desert as "art," but there's no doubt that his highly detailed, jewel-like photographs imbue the specimens he collects with an abstract beauty and affecting power.

We turned our lens to Marcos to find out more about his desert photography.

**Have you always been interested in the natural history of California?**

Yes. It was a deep curiosity. When I was 8, I was spending Saturdays and Sundays on a sandstone hill behind our apartment in San Diego with a brush, climbing up and down. And about every three hours, you'd find this tooth sticking out or another fossil... At that point I was definitely hooked on it. Although

*FLOWER  
BUD FROM A  
HEDGEHOG  
CACTUS*

*Echinocereus  
engelmannii is  
found in desert  
areas of the  
Southwest and  
adjacent areas  
of Mexico.*

*b.*

I have very little accreditation — I'm not a historian or anything like that.

**How about once you moved to the desert?**

I went to junior high here. I was climbing all the hills in Cathedral City. One of the things I remember was calling the police because I found this shot-up camp. At the time, the Manson murders had just happened, so there was a general hysteria about that stuff. So, yeah — every week I'd be out climbing. I have as an adult climbed all of the mountains in the Santa Rosas a couple of times.

**What do you love about this desert?**

The massive sense of expansion. It's like a psychic expansion, because there are these giant vistas and distances that are usually really clear. You could see a mountain range that might be 100 miles away. I also feel kind of a spiritual clarity.

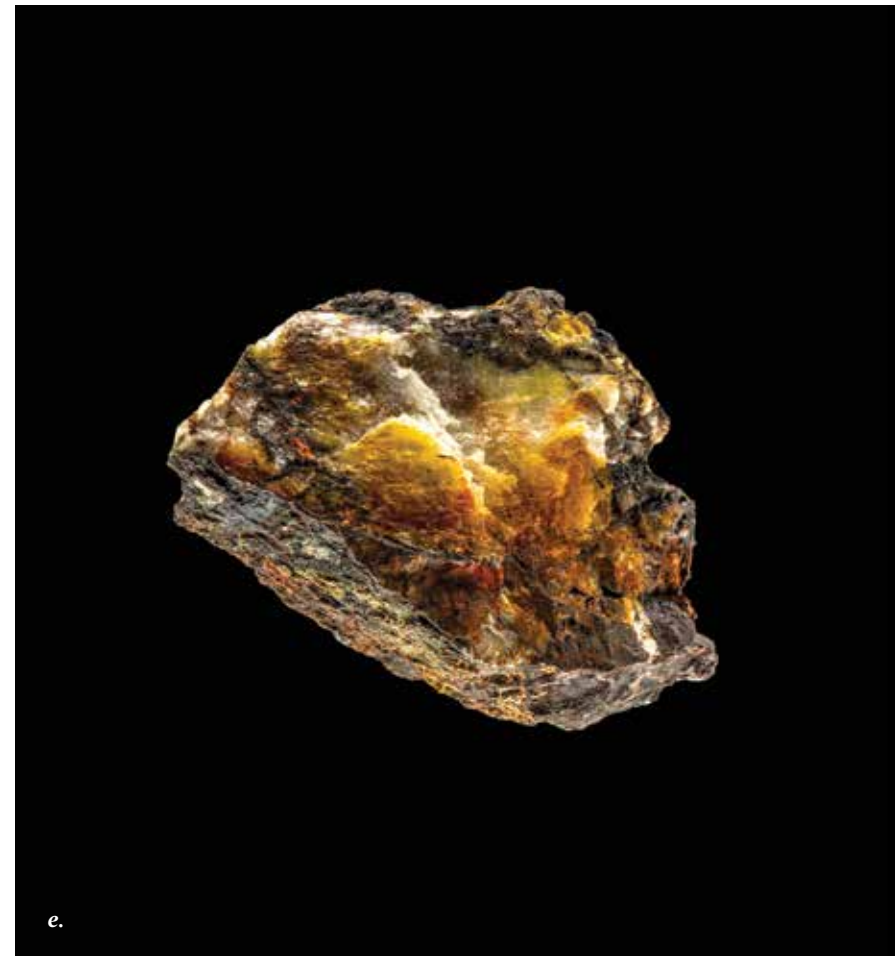
**It's interesting that you are drawn to this expansiveness yet choose to isolate the subjects of your photos.**

I have to say that I'm a minimalist to begin with. And so the black background was simply a way to have "no" background. There's no shadow, and there's no Photoshop or layering of any type. It honestly is just the object, which is, in my opinion, one of the ingredients of our desert ecosystem.

**How did you get started with this series?**

I was filming off-road Jeep-ers [for a

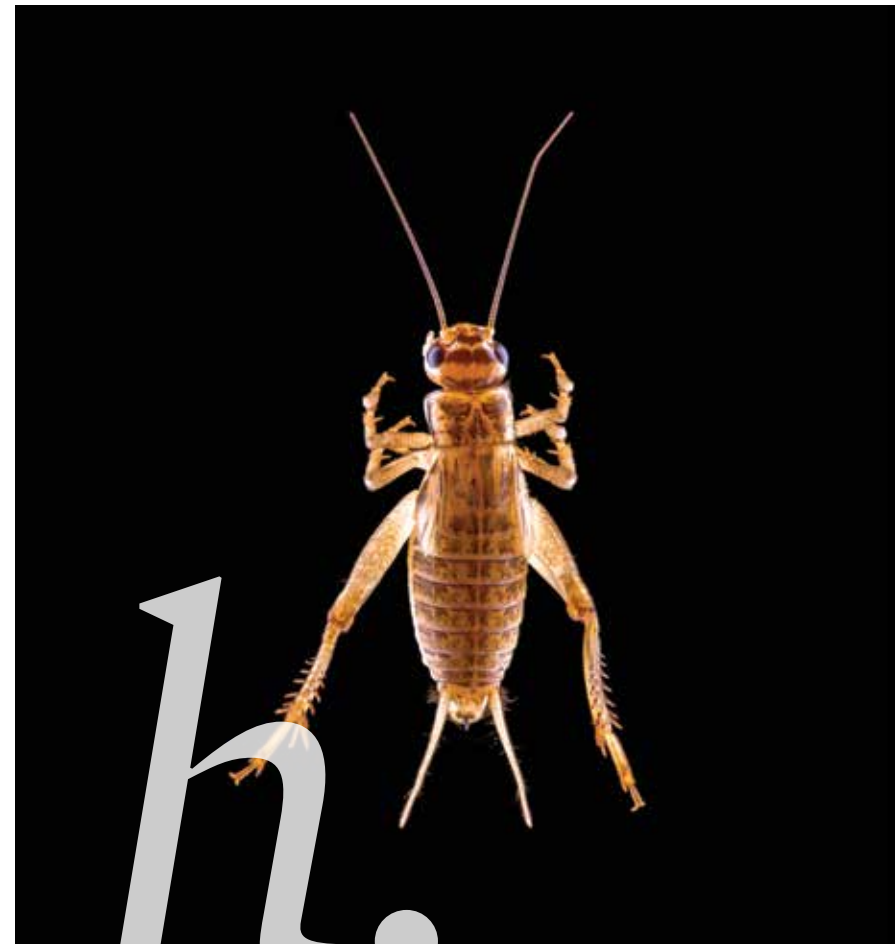




c. **CONCRETION**  
Looking more like a dinosaur egg than a rock, this concretion, found west of the Salton Sea, includes feldspar and hematite.

d. **WESTERN DIAMONDBACK RATTLESNAKE**  
Crotalus atrox is likely responsible for the greatest number of snakebites in the United States.

e. **GOLD ORE**  
This specimen was found at the Red Cloud Mine in the Chuckwalla Mountains.



f. **WHITE-LINED SPHINX MOTH**  
Hyles lineata is sometimes referred to as a hummingbird moth due to its similar size.

g. **SANDSTONE CONCRETION**  
This specimen was found west of the Salton Sea.

h. **HOUSE CRICKET**  
Acheta domestica, native to Southwest Asia, became the standard feeder insect for pets and researchers starting in the 1950s and has since spread worldwide.



i.

SEED POD  
FROM A CENTURY  
PLANT

*Agave americana produces a flowering stalk once in its life; this uses a massive amount of resources, and the plant usually dies afterward.*

*Though commonly called a century plant, its lifespan is 20–30 years.*

documentary], and I pick up some gold ore and take it home and think, “What am I gonna do with this?” Well, I had cosmetics that were waiting to be photographed. I had my glass top fluorescently lit. And it was just a matter of taking the lipstick off the glass and putting the gold ore on it.

**And you were pleased with the effect?**

Yes. It was a default lighting setup, meaning I didn’t even have to experiment. I didn’t really have to make any creative choices. I have a camera vertically mounted, with a big, long macro lens. And there’s this gold ore, and it was like, “Wow, there’s a hell of a lot of detail in this rock that my eyeball didn’t really pick up.” It was that revelation of these tinier fragments in the gold, the components of it. That’s what really hooked me.

**How have you found your specimens since then?**

At some point, the total geek in me bought a Geiger counter and a rare-earth magnet to test for meteorites and iron content. So I started becoming this pop geologist.

I hike in the Santa Rosa Mountains, and I picked up a century-plant seedpod there and several other [plants]. There’s a 150-year-old vertebra from a coyote — a vet called it an atlas vertebra. I found that along with other items near Fish Traps in Thermal.

**What about the animals?**

The scorpion was alive when I captured it and alive when I released it.

There’s a car wash at Washington Street and Fred Waring Drive. I parked there at 9 at night. I had a regular flashlight, a shovel, a plastic bucket, and a black-light flashlight. It was windy, about 85 degrees, and I felt totally ill at ease. I walked into this vacant lot with a black light in my teeth, and there are these bright, glowing, neon-green creepy things all over the place. I picked up the very first one I found and put it in the bucket, and it was pretty hopelessly small. And I looked for about another eight minutes, and here’s this monster. You want to just drop it and run.

I got home and left him in the garage all night. In the morning, when I was ready to take pictures, I put him into a margarita glass and put it in the refrigerator, and that wasn’t good enough. I moved it into the freezer, and

he finally stopped responding to stimuli. I dumped the glass on my lighting table and was taking pictures, and one of his grabbers started to work, and I’m like, “Ah, he’s come back.” So I had three pictures. I only needed one — it’s perfectly clear; I knew it was good. And I put him back in the glass and drove him back.

**What kind of equipment do you use for these?**

I use a Canon 6D, which is a full-sensor camera. It’s about 3 years old. And I have a \$1,500 Sigma 150 mm macro lens, which is a fantastic lens for shooting cosmetics and small things. And then I have an extension tube set that separates the lens from the camera body in 1-inch increments and allows you to focus to about 2 inches from something. So you’re literally right on top of it.

There are a couple of minor technical challenges. One is that when you’re photographing things that closely, the depth of field is extremely short, so [one part] might be in focus, but [another] is out of focus. And that becomes a problem because I like these photos to be completely sharp.

**How do you address that?**

By shooting at the smallest aperture, which is f-32. When you close the lens down, it makes an extremely tiny opening and makes everything sharp.

**Is your primary goal with these photographs to document the objects scientifically, or is it more about their intrinsic beauty?**

The overall feeling for me when I look at the pictures is one of connection. The most important thing to me and my life is a feeling of connection with the universe. Which some people would say is God, but it’s not a feeling of exclusion or isolation. It is inclusive, and I think that in all aspects of my life, I’m looking for more of that.

So that’s maybe where the science interest comes in. We share atoms with everything in the world. We have in our bodies of course mostly water, but then all the elements — we have phosphorus and calcium and magnesium and all these things that are in the soil. So we really are a living and breathing microcosm of the planet as a whole. And I think in a deep way that these photos really parallel my belief in that sort of perspective. ■