Martin Pepper: Explorer, Tinkerer, Photographer

University Communications
August 2019

Martin Pepper is a tinkerer, world explorer and photographer. He also has been an All-American athlete and a TV show host and contestant. At the University of Arizona, Pepper has taught courses in undergraduate geology, assists a geochronology research lab; and pitches in as a videographer for University Marketing and Communications [1].

Most recently, Pepper was featured in Facebook Watch’s "Curse of Akakor" as an Indiana Jones-style geologist on a team that delves into the mysterious deaths of three explorers searching for an ancient civilization in the Amazon rainforest. There, he worked alongside the survival consultant for "Man vs. Wild" starring Bear Grylls. His TV castings began in 2012 when he was chosen to host the Discovery Channel's "How the Earth Works." He has since starred in seven more shows, one in which he competed to be the next host of "MythBusters."

Lo Que Pasa spoke with Pepper about his lifetime of adventures.

What do you do at the UA?

Besides producing content for University Marketing and Communications, I work in the Laserchon geochronology lab. Our lab uses the mineral zircon, the gold standard in determining geologic ages. Zircon grows like rings on a tree: The middle could be something like 3.5 billion years old and layers are added as the mineral goes through cycles of mountain building, erosion and subduction. People send us samples from all over the world ? usually rocks ? to determine the ages. Our lab can get these ages and determine where samples originated. Probably the most unique object our lab dated was clay pottery. We were able to look at the zircon and determine the beach that the sediment was sourced from in Polynesia to reconstruct the pottery trade routes.

Tell us about your adventures and how you got into this work.

I came to the UA to swim in ’92 and won the 100-yard butterfly [2] at the 1996 NCAA championships. My brother won it in ’92. We’re the only brothers to do that. I majored in psychology and minored in ecology. I came back seven years later ? after swimming towards Olympic trials and running a shop where I fixed and built everything from armored trucks to boats ? to get another bachelor's degree, this time in ecology and evolutionary biology, and a master's in applied ecology.

After my master's degree is when I really started traveling. I took a job in the Turks and Caicos Islands, where I was a site manager for the School for Field Studies. I was told to get a hobby, or I'd lose my mind. I bought a digital camera and hiked around the islands, going way off the beaten path. I was snapping pictures in places nobody else could. I sent those photos in to magazine publishers and started getting checks in the mail. That's when I realized I like photography. Eventually, I packed up and literally swam off that island, hiked across the next
and so on across the archipelago. I turned that into a two-part article and sold it. That's when I thought, "I can travel all over the world, write and take photos." Word got out that if you got me to your project, you'd have amazing photos and all your mechanical stuff would run smoothly, so people started flying me all over the world. That's how I ended up in Australia, Papua New Guinea and Mexico.

Meanwhile, when I was in the States, (UA geosciences professor) George Gehrels would have me guide his oceanography field trips to Mexico. After a few years of this, Gehrels suggested I get a Ph.D. so I could teach at a university, and he had the perfect project. For my dissertation, I rebuilt an old motorcycle that took me 30,000 miles across South America to collect sand from every river I crossed. The results of the project supported current ideas on the evolution of South America through Earth's history and looked deeper into the geologic evolution of the Andean mountains. On that trip there were many times I shouldn't have lived. I had a machete held to my throat, was run off the road and nearly froze to death in a blizzard as temperatures reached 18 below zero.

**Where does "How the Earth Works" fit in?**

When I returned from South America, I thought that I could do lab research while shooting TV shows on the side that would hopefully get me that that big multiseason show, and then retire. When I was really attacking it, I was doing at least 12 castings a semester. In 2012, I got my big show on the Science and Discovery channels. Everyone was like, "You're so good on camera,[3] you're going to get big." But, after a while, I realized it's like winning the lottery and have since looked at other career paths. I finished my dissertation in 2014 and began teaching in 2017.

**What motivates you to create and to explore?**

I'm just a weird generalist that gets super passionate about something, and then after I've mastered it, I put it down and pick up something new. I don't get rid of my old projects or hobbies, especially tools. Many of these things are still around just waiting for a new inspiration.

I was always a tinkerer, as far back as I can remember. My dad taught me how to take things apart and put them back together, then I started tinkering with go-carts, airplanes and boats. It's like learning a language. Once you understand how words are broken down and fit together, you can quickly learn new languages. Construction is the same way: The materials and functions don't matter as much as how things get put together. That's what you're learning.

I think, when I was younger, I learned to push boundaries to see how far I could go. To an outsider it looks crazy, but to me it's just like climbing up to the next branch in the tree. If someone just sees me at the top of the tree, they wonder how I got up there. Probably the craziest thing I've done was to rebuild an ultralight airplane and then fly it underneath a thundercloud that sucked me in. It really threw me around. But luckily, I recovered before hitting the ground and said, "That's it" and sold it. Now that I have kids it's different. I play it much safer. To me these extreme trips or careers I undertook and going through hardships are what life's about. That's my mantra through all of this. Life is about experiences. If you're not experiencing something new, then you're not living.

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[1] https://marcomm.arizona.edu/