Q&A with Mary Roach

Interviewed by Susan Straight

The *Washington Post* has called Mary Roach "America's funniest science writer." She is the best-selling author of six books: *Grunt, Packing for Mars, Bonk, Spook, Gulp,* and *Stiff.* She has received numerous awards, appeared on national media such as the *Daily Show* and the *Colbert Report,* and written countless articles for publications such as *Outside, Wired, National Geographic,* and the *New York Times Magazine*. She also reviews books for the *New York Times.* She's currently working on her next book, which will be published in 2020.

Mary, it's so nice to speak with you today.

So nice to speak with you, Susan.

Your first job, as a part-time public relations specialist for the San Francisco Zoo was in a trailer next to the gorilla exhibit. How did that experience influence your career?

Any time your place of employment is right next to something called "Gorilla World" and people knock on the door of your trailer and say, "Is this Gorilla World?" and you're like, "Not quite," it puts a sense of the absurd and the surreal in your head. I also developed a taste for reporting the behind-the-scenes goings-on that I found fascinating. For example, one day the veterinary staff was doing a laser plantar wart removal on an elephant. That's the kind of thing I get really excited about—picking a wart off an elephant's foot. I developed a taste for that kind of reporting and that ability to step into these otherwise unknown worlds. And that's where I stayed.

That leads into my next question. You really are an extremely effective science communicator. What are some of the most important things you do to translate complex topics to a general audience?

Any time you've got an opportunity, paint a picture. Wart surgery is a great example. This is a big wart. There's not only the visuals but there's also the (this is kind of gross) the smell. Using a laser on anybody's skin creates a very specific smell. You've got the character of the elephant, the veterinarian, the challenges of anesthesia—all these things come to life when you can provide the detail and paint the picture. Saying "removing a plantar wart from an elephant is a delicate procedure" doesn't stay with anybody. But when you start to tell the details—what does the wart look like, how much does it weigh, how long did it take to get it off, what was the

veterinarian like—all of a sudden, particularly with kids, you've brought them into a world they didn't know existed, just by showing them something interesting and strange.

We're talking about elephants which is kind of ironic because the topic of this issue is the "power of small." In what ways do you think small can be powerful?
I was recently reporting something that had to do with elephants in India. The fact that they are so big makes them dangerous in certain ways. They don't even have to be intending to hurt anyone, but they are so big. People have a very cautious approach to elephants. I wasn't raised with elephants so it was very hard for me to think of them as scary. Instead, when I was in India, I feared bacteria, viruses that I might not have been inoculated for. So my fear is all about the very, very small—bacteria, viruses—partly because my reporting has covered some of that. I am way more afraid of the very small than the very large.

You write about science but you don't have a formal science degree. In what ways have the lack of formal credentials helped your science writing career?
Because I don't have the background and the big picture, I feel at peril of getting it wrong or missing something. But on the plus side, my sense of wonder remains intact because when I start a topic, I don't know anything about it. When I was writing *Gulp,* for example, which has to do with everything between the mouth and the butt—the alimentary canal) I learned about stretch receptors. When the stomach fills up it activates these stretch receptors, which tell the brain, "you're full," or "there's a lot of gas in your stomach and it's in peril of bursting." Just that concept of a stretch receptor, I was like, "whoa, that's how it works!" And there's also the rectum, [the stretch receptors] work in the rectum and they work in the bowel. I didn't know how it worked! And so I get very excited when I learn [something] and when I'm able to communicate that sense of wonder to somebody else who has a stomach and a rectum and an intestine. And they can go, "Oh, I understand how that works."

Not to say that somebody whose career revolves around the digestive tract wouldn't still have that sense of wonder, but they become fascinated by things on a much more micro level. They start to lose some of the audience because they're very excited about cutting edge science that I don't have the background to understand and a lot of readers might not either. So in that sense, communicating the wonder of science—I have the built-in ability to do that just by gift of my own ignorance.

Which science center is your favorite?
The Exploratorium in San Francisco. I took my granddaughter there recently. It's a little over her head, but just the cacophony and the rainbows bouncing off things and that weird giant mirror they use for simulations of docking the space station in which everything is turned upside down and you can reach out and touch your hand in the air.

I've always enjoyed the Exploratorium because you can make it as complicated as you want to, like "here's how an electric motor works" or "here's how a lightbulb works" or momentum or surface tension. They are sort of basic concepts in science. I wish a month in the Exploratorium had been my introduction to science as a kid because I think I would have gone into science. Their ability to make things visual, combine art and science—it's fun, it's a very fun place. There's a chair you sit in that times how long it takes a nerve impulse in your foot to reach your brain. It actually calculates how long it takes the impulse to travel through your body. The creativity that goes into that place is amazing. And it's huge and sprawling and there's something for everyone.

Mary, thank you so much for talking with us today.

Oh, you're welcome. It was fun.

This interview appeared in the March/April 2019 issue of *Dimensions* magazine, published by the Association of Science-Technology Centers, *astc.org/publications/dimensions.*