

Out of the Lab, Into the Studio

Teagan Wall (PhD '15)



Teagan Wall (PhD '15) recalls watching Bill Nye the Science Guy on television as a child growing up in Tempe, Arizona, enthralled by the scientist's fast-paced demonstrations. Fifteen years later, with a doctorate in computational and neural systems from Caltech in hand and a budding career as a science communicator, Wall had what she calls the "strange and exciting experience" of not only meeting Nye, but working as a writer on his new Netflix show, Bill Nye Saves the World, which began airing this spring.

Wall's journey to the writer's room has been circuitous. As an economics undergraduate at the University of Arizona, she became interested in the biological and physical questions explored by neuroeconomists, who study human decision making as part of a field Caltech helped to establish. She eventually found a niche in the Caltech lab of Henry Lester, Bren Professor of Biology, studying nicotine addiction.

It was through her participation in Caltech's theater program, however, that Wall began to connect her passion for science with its performance aspect; in 2014, she and fellow alum Crystal Dilworth (PhD '14) brought those worlds even closer by cofounding the Nerd Brigade, a group of LA-area science communicators who use the tools of "edutainment" to engage the public in scientific storytelling.

Since receiving her Caltech degree, Wall has appeared as an expert on the TV shows How to Build Everything and Xploration Fab Lab. Her work with Nye completed, she is currently writing for PBS's BrainCraft, a video series on YouTube that aims to explain "psychology, neuroscience, and why we act the way we do."

Wall recently reflected on what she calls the "dream come true" of working with her scientific hero.

In person Bill Nye is exactly who you expect him to be. He is a science teacher in every situation. The second time I met him, he brought in a slide rule and spent probably an hour trying to teach me how to use it.

He will be able to tie almost anything you say back to a cool science demonstration that you "just have to see right now." He'll produce a balloon that gets sucked into a bottle out of thin air to show you how the universe works. Everyone in the entire room stops whatever they're doing to watch Bill demonstrate whatever science he's brought in that day.

During one meeting with Bill I made a joke about how my pocket should be in the Navy because of all the knots it knows how to tie in my headphones. Bill immediately went and got some pieces of string and, for the rest of the meeting, any time our show runner was out of the room, he would teach us how to tie different knots. It was both very informative and sort of frustrating because you're actually trying to write a TV show.

This show targets an older age group: the people who watched Bill Nye's show when they were kids and who are now adults and still interested in science, but are maybe interested in more of the political or socioeconomic issues that often collide with science. It's a scientific take on what you'll see in the news, but it's also a political, socioeconomic, and comedic take on what we're seeing in science.

Netflix built a giant, amazing lab set for us. It was like Bill was a kid in a candy store. The show has science demonstrations, things moving, things on fire, and lots of biology happening under a microscope.

The demonstrations were actually one of my favorite parts. I wasn't the only PhD to work on the show, but I



was the only PhD in a lab-science field. The head writer on the science side was Dr. Phil Plait, also known as the Bad Astronomer, whose research is all in astrophysics and astronomy, so a lot of the demonstrations that we did were actually designed by me and Bill. They had to be informative, quick, and look really, really cool. We only had one that didn't work, and we were able to fix that with lighting.

I started on the show as an associate producer and was in the writer's room helping the science team do research. About four weeks in I was pulled aside by one of the other writers and asked to write an actual segment for the show. A few weeks after that I was pulled in to our show runner's office and Bill, who was on Skype, asked me if I would like to be a full writer on the show. It was beyond anything I could have hoped for.

I'm really excited for the show to come out and for people to see it and hopefully love it so that I get to do it all again next year. I also want to continue to find ways to discuss science with the public in a way that's fun for me and productive for the people taking in that content, whether that's doing stuff in front of the camera or continuing to write for other people.

I also plan to continue to take in as much science-communication content as I can, making it clear to people in Hollywood and in positions of power that science is something that people love, that is wonderful and helpful, and that we want more of in our lives. 🍷

— As told to Crystal Dilworth (PhD '14)

