

NASA Blueshift - 2012

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Science in a Nutshell, Part 2 of our Interview with “Bad Astronomer,” Dr. Phil Plait

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Maggie Masetti: Welcome to Blueshift, brought to you from NASA's Goddard Space Flight Center. I'm Maggie Masetti.

In our last podcast we shared part one of our interview with the so-called “Bad Astronomer,” Phil Plait, a scientist who used to work at NASA but now spends his time writing and talking about the importance of good science and skepticism. We talked with him about why he started blogging about hoaxes and misconceptions, about the importance of asking “why,” and ended with the start of an intriguing discussion about how the trend today in entertainment is for scientists to actually be the heroes and the good guys. We're following that up in this podcast with part 2 of our interview with Phil, wherein we learn about his experiences with the TV shows The Big Bang Theory and Mythbusters, and why he gets such joy out of teaching people about how great science is.

Sara: We're very excited to see real science in the media. We're really excited to see places want to get it right so I don't know what you do necessarily when a project starts with really good intentions and ends up with horrible science and then says “Phil Plait told me this really wrong thing...”

Phil: It's happened too, it doesn't happen quite so much like that. You make mistakes, it happens. I've gone on television and said things which later turned out to be incorrect and that happens and there's not much you can do about it. Science marches on. But there have been times where I've been just wrong and it's galling when that happens, it's embarrassing. But it happens and you have to, sort of, get past it. Speaking of David Saltzberg, I met him. I happened to be in LA and I got to see a taping of Big Bang Theory which was fantastic. I got to talk to David for a while - he's a really nice guy - and he actually contacted me not long after that saying, “we have this thing going on where Sheldon is going to walk down the steps and he's reciting a little song about the star names, all the closest stars.” And he sent me a list and he said, “we want to make sure he pronounces these correctly.” They're all these Wolf 359 and Gliese whatever and so I got to actually send him a little back - “this is how you pronounce these.” And then weeks later I see Sheldon walking down the stairs pronouncing these names the way I told him to. It was like “Ah! Nerd moment!” and it was so cool.

Sara: I went to a taping last fall and Maggie, who's listening but can't speak because she doesn't have a mic...

(Phil: Hi Maggie!

Maggie: Hi!)

Sara: ... We're going to go to another one in March. But that's one example of a show that we've been really excited to see get it right. Mythbusters is another one that we're excited about. And actually we interviewed Adam Savage and he suggested I interview this Phil Plait guy.

Phil: That guy, Adam, yeah.

Sara: Yeah, I don't know, this Phil Plait guy. And he said it would be a good person and I think we've got this worked out. But we're really excited to see it come together. And, honestly, Adam Savage is a household name and Mythbusters is an even bigger household name and that's just solid "why?" and curiosity and skepticism.

Phil: I've known Adam a long time now. We met at a skeptics conference years ago when he came with I think it was Jamie and Kari Byron to give a talk and it was really interesting meeting him and we hit it off instantly. Besides the fact that we look like we could be brothers he's just really curious and engaged about everything going on around him. The Mythbusters is a fascinating show as far as what it's doing in the public as well as with the science community, the skeptic community. People who think, "how do we engage the public in science?" And, in fact, Big Bang Theory has some similar things going on where the public loves it. The public *loves* Mythbusters but there are some people who complain and say, "They're not really employing rigorous science!" and "They were wrong here therefore they're wrong about all of this." I do believe you all are missing the ***gigantic*** point that they are showing people the scientific method. First of all they're curious. They're simply saying, "Could this be true?" and "Why does this happen once we test it?" Holy cow if that is not the biggest aspect of science that there is - that curiosity that makes you ask a question, testing it, and then going, "Huh, why'd that happen?" That's science in a nutshell! And they're showing that to people. Science is not simply looking up something in a dictionary. It's testing things. They show... they are completely - even Jaime, once you get to see him for a few episodes and you get to know him - they're showing this love of science. And people who complain that mythbusters isn't real science, they are honestly just totally missing the entire point of the show. The good thing is I know a lot of scientists - everybody listening to this probably knows a lot of scientists - and people have different opinions and some of them are right and some of them are wrong. And I still have scientists, not many, and as a matter of fact it's very very few now, and they're still sort of this ivory tower, "I don't see why you bother doing this." And it's like, really? Because you're getting money from NASA and NASA's getting money from the public and if the public doesn't want to give NASA money then you don't get paid. So I think, actually, that talking to the public is a really good idea. If only for motivated self interest. But honestly the reason I do it - you asked me this earlier and maybe I should have taken a step back myself - the reason I do this is because I get profound and supreme joy out of this. To be able to show people the science, the way the universe really works and to be able to share that, to be able to see it in other people's eyes when they get it is just the best thing ever.

Maggie: We'll have part 3 of our interview with Phil Plait for you next time, in which we focus on common misconceptions (and some not so common ones) and how to combat them.

Check out our blog at [universe.nasa.gov/Blueshift](https://universe.nasa.gov/Blueshift) for more information about this podcast, as well as our previous podcasts and blogs. You can also find us on Twitter and Facebook as NASABlueshift (all one word). Tell us what you'd like to hear about, either there, or through our website feedback form!

I'm Maggie Masetti, bringing the Universe closer to you with Blueshift.

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