



STS Careers Podcast – Dr Karen Bultitude speaks to Analyst, Astronomer, and former Natural Sciences HPS stream student, Megan Whewell.

Brian graduated from the MSci Natural Sciences course taking the Astrophysics and History & Philosophy of Science streams in 2011. This interview was recorded in 2013 while Megan worked at the National Space Centre in Leicester. Since then, she has completed a PhD at UCL with the Mullard Space Science Laboratory, and currently works as an analyst for the Department of Digital, Culture, Media and Sport. Due to technical issues the final part of this recording is missing – apologies.

KB Welcome, everybody, to the Science and Technology Studies Careers podcast. Today, we're listening to Megan Whewell who's come down to visit us from the National Space Centre in Leicester. Now, Megan was actually a Natural Sciences student and came to us as an option, so she was doing part of her studies within STS but her main work was with Astrophysics. Is that right, Megan?

MW That is, yes.

KB Excellent. And how long was that degree programme here then?

MW I spent four years here and I got a master's at the end of it.

KB So what sorts of interactions did you have with Science and Technology Studies then?

MW I didn't do anything at all here for the first term of first year and then at Christmas in that first year, we got to finalise our two streams. So as a natural scientist, you get to pick two areas. I knew I wanted to do Astrophysics from the beginning so I picked Astrophysics immediately and then decided that... I think I did History and Philosophy of Science was my stream right out to begin with. I decided that would be quite interesting and I was living with two Philosophy students in halls at the time which probably influenced my decision slightly.

KB I'm sure it did.

MW But I think it was probably the best decision I made here. I think it's helped a lot ever since and I really enjoyed everything I did.

KB I'm going to probe you a bit on that then. What is it that you thought was helpful from having done the History and Philosophy of Science stream?

MW It gave me a lot more perspective on the stuff that I was learning in Astrophysics. So I'd go and I'd be taught about "this is how stars are formed" but because of doing the History and Philosophy side, it meant I could go and find out who figured that one out, and I'd had a bit more context on what they knew, and how all of the developments happened before that.

- KB Sure, yes.
- MW It was just nice to put everything together.
- KB Okay, so you came to us and you were doing the History and Philosophy of Science. How did you progress with that? You said before that you were doing a four-year master's programme.
- MW As a natural scientist, you're supposed to do your first two years roughly equal between your two streams. You're supposed to choose your major in your third year and then in your fourth year, you're supposed to do entirely your major subject. So I was equal between STS and Astrophysics with year one and two, and then in year three, I decided that actually, I was quite enjoying everything I did in STS and I didn't really want to do an extra Astrophysics module.
- So I had a conversation with my personal tutor who happened to be the director of Natural Science at the time, so that was helpful.
- KB Yes, very helpful.
- MW He said, of course, if you want to carry on half and half, you can do that extra module in STS, and then in fourth year, you are supposed to do all of your major stream and I didn't want to just sit and do lots of Physics and equations and not ever have to write an essay again. So I decided that, again, I'd have a conversation, have a chat and say, I really want to do something else in STS.
- By that time, I'd decided that I wanted to go into Science Communication afterwards, so I wanted to be able to talk about stars as a job. So I kind of swapped streams within STS. I went from the History and Philosophy which I finished at the end of year three and I did some Science Communication modules in fourth year, including a master's project, which was quite fun.
- KB What was your project on then?
- MW I designed a museum exhibition on impacts like comets and asteroids hitting the earth and their impact on us and humanity, and generally everything. That was quite fun.
- KB Yes, absolutely. I'm sure that sort of experience is going to help you in your current role. Now that's at the National Space Centre, which is up in Leicester, isn't it?
- MW It is.
- KB So what do you do there?
- MW My official job title is Presenter in the Education Department, but that doesn't really say anything at all. I tend to try and avoid using it. Most of the time, I'm either teaching mostly primary school age kids in hour-long workshops. So we have about a 10-, 15-minute presentation, we get them to do an activity and then we kind of sum it up in some sort of science-related stuff at the end. We do simulated

space missions. So they take two and a half hours and we go into the challenger learning centre. We pretend to send them in space. We go to Mars and search for comets. That's good but they're really intense.

KB Yes, I bet.

MW So for that, I have to wear a full bright blue boiler suit as an astronaut's flight suit with badges that I had to sew all over which is quite a lot of effort, too, and keeping character for two and a half hours, pretending that you are in space and you are on this mission and when the red lights flash - because you pressed a button on the computer - that everything really might go completely wrong in five minutes is exhausting. But when then kids are screaming because they're enjoying it so much, it's brilliant.

KB That sounds amazing. So what is it that you think you got from your degree, and that's not necessarily just in Science and Technology Studies, that helped you in that kind of role now?

MW Well, I always explain it to people who ask what I do, that when I was at university, I learned about stars and space and I learned how to talk about stars and space, and how to write about them, and that's what I do now. So, the Astrophysics stuff taught me the science basis. It taught me the theories behind it and why everything happens and the actual working through the maths and the equations. But if I hadn't done any of the STS stuff, I would be significantly worse at actually explaining it to people. So, when I get a five-year-old looking at me and going, where do stars come from, I've got a much better way of explaining it to them because I had to work out how to explain all those equations when I was writing stuff for the STS stuff.

KB Absolutely. What other sorts of things that are involved in the job then?

MW When I'm not teaching kids at the centre, I've been given responsibility for the planetarium we've got there, so it's 168 seats and I think 17 metres in diameter and it's basically six computers attached to projectors and we can put the night sky up and we can move the software around, so we look at the earth, and we have a look at what we can see in the sky.

So, they've let me design a live presenter-led type of show. So we go out and we talk to 168 people at a time, sometimes, to say what they can see in the sky that night, what's really interesting, fly out a bit and look outside of our galaxy and have a look at what the Milky Way really looks like. And so I spend quite a lot of time when we're shut, because we're shut every Monday, in the planetarium trying to get the code right and trying to make it look fine and writing new scripts and stuff.

KB It sounds like there's quite a lot of technical and practical skills there.

MW There is. I actually didn't do that much computer coding when I was at university which is strange for a physicist because if you do Physics as a university subject,

you'll do at least one or two coding modules, which I missed out because I was doing the STS stuff.

KB Right, I see.

MW So, it's a kind of balance between the two but I feel like I can learn the coding now, and because it's a separate language to anything I would have learned here anyway, I don't feel like I missed out too much.

KB How easy was it for you to find a job having done that double major?

MW I think I was very lucky. I lived in London for the summer after I graduated, so my contract to my house didn't finish until the end of August, and then by the end of August, I had my job in Leicester, so I moved straight up there and started work. But when I was in London, I also volunteered at the Royal Observatory in Greenwich with their education team.

So I got to watch them doing workshops and I got to learn about their planetarium and they let me do some shows and talk to some kids and help with organisational stuff there. I think the combination of having a university degree and having the experience of seeing that kind of department work in Greenwich meant that I had most of the skills, or I could show that I was willing to learn most of the skills, that I would need for the job I've got now.

KB Sure, just from talking to you now, it also sounds like you've been very proactive. So you've asked, can I do this thing that I want to do? I want to do a slightly different variation of the degree programme. Can I do that? And you sort of pushing at, I guess the boundaries a little bit every now and then. So you're pushing at the coding. You're pushing different stuff.

I don't mean that in a bad way. It sounds like you're very proactive. Do you think you would have got your job if you hadn't had that kind of approach?

MW It's probably not necessary. It's probably helped me a lot. So the volunteering I did at Greenwich, they didn't advertise for. I sent an email and said, I want to do this and I walked in, and I met someone in HR and they said, okay, you can talk to them. And so from that, I got to spend time with them over the summer. Since starting my job...

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