

Jinny Nathans: This is Jinny Nathans on June 6th, 2018. I am at the WAF/NWP conference in Denver and I'm interviewing Brian Etherton. He is going to start off about how he became a meteorologist.

Brian Etherton: Certainly. I began as a youth, I was probably about twelve years old. I grew up very near Seattle, Washington, which is an exceptionally rainy location, such that I always wanted to know "is it going to be nice enough that I can play outside today?" So I had an interest in the weather, but the thing that really did it was that winter, 1982-1983, was an amazingly strong El Niño where my typical dreary February was suddenly sunny and 60° every day. That was very different, and in a way that, "why was this different, what's going on here?" That's really what got it going, was that year was so different than normal, that I wanted to know a bit more about why that was the case. Now I played into the strengths, I was always pretty okay at math and physics, those were the classes in high school that I seemed to do better at than others. So eventually it just all came together, the interest in meteorology from when I was a kid, and then the, "well you know, Brian, you're not so bad at this sort of thing," that headed me off to Penn State to get my meteorology degree.

JN: Thank you. While you were at Penn State, did you have a particular teacher, advisor, or mentor who pushed you in one direction or another?

BE: I was fortunate to have a number of mentors while I was there. Certainly my PhD advisor Craig Bishop was absolutely front and center, but he also had a postdoc working with him at the time, Sharan Majumdar. He's a dean now at University of Miami, he happened to be the best man at my wife and I's wedding as well. He was also instrumental because the advisor at the PhD level is a big name, it's a little tough to see how I get from me to that. But the postdoc, he was one step ahead of me. Sharan Majumdar was certainly someone that was like, "here's how it goes, here's a path forward, here's how to take what you know and move along," that I could do so with a good sense of humor as well, not just all work and no play.

Prior to going to Penn State there was actually someone who was really quite instrumental, her name is Alison Bridger, she's the chair of the meteorology program at San Jose State University. I took a few classes there while working as a software engineer at Lockheed Martin, weather satellites. She was the one that said "you ought to go to Penn State." I mean, there was more to it than that, but there was an element of "I see what you could be," which was basically a PhD level scientist, and was the one which absolutely lit the spark which then led to these other events. That was a watershed moment. And she and I and Sharan and Craig Bishop still keep in touch, it's a community that's still with me, I still bounce ideas off of them, "hey, maybe should I do that, maybe should I do that?" decisions. So yes, a few good mentors along the way.

JN: That's wonderful. How long have you been an AMS member?

BE: That's where my memory needs to be a little bit more improved. I was most likely a student member in the late 1990s and have been an AMS member probably from the moment I finished my PhD at Penn State, that would have been 2002, up until the present day, with ever-growing involvement. You know, when you start out it's like "ok, I will come to the conferences" but since then I've been on the Probability and Statistics group, started the High-Performance

Computing one, and then there's AMOC, the Annual Meeting Oversight Committee that I'm on. I don't exactly remember when I started, but I'll say it was about twenty years ago, and I've tried to do a little bit more and more as the years have gone by.

JN: You've sort of already answered my next question, because what I was going to ask you was, what volunteer things have you done for AMS? And the reverse is how has AMS paid you back for that?

BE: There's a number of ways. The primary way that AMS has paid me back is with continued mentorship. What I mean by that is when I spoke earlier of Alison Bridger at San Jose State and Craig Bishop and Sharan Majumdar at Penn State, that was all when I was getting going. But conversations with Marshall Shepherd, Matt Parker at AMS meetings, because AMOC does get together with the AMS president, and it was an opportunity to keep going. The advice you give to someone in their twenties isn't the same as what you give to someone in their forties. I remember Matt Parker very well being kind of, "You know, Brian, I think you're ready for the next step, the next leap."

I don't know exactly what that is, but anyway, that's the big payback, the continued mentoring and absolutely the growth of what I would call a community. You know, you do your PhD, in my case data simulation using ensembles, there's maybe a dozen people in that circle. But then you do these other things, like Probability and Statistics, and it grows, High-Performance Computing, it grows, and then AMOC, that's touching almost every sector of the enterprise. And so it's been, yeah, it's been the additional mentoring, it's been not letting me stay in a rut, but finding new things and new people and new ideas to say, "hey, what could we do there?"

JN: Have you worked on the journals at all?

BE: Oh, yes, yes, editor of the Bulletin of the American Meteorological Society, which I actually would immediately attribute to AMS, Gary Lackmann had the duty of being the focal point in BAMS for numerical weather prediction. And when his term came up, he said "hey, Brian, maybe you should be next." That's the primary one. I've also obviously reviewed papers for other journals, Weather and Forecasting, Monthly Weather Review. I got the Editors' Award this past AMS annual meeting.

JN: Congratulations!

BE: Thank you, thank you. That was really quite something because admittedly I'm the editor of BAMS, to have a different journal say, "you know what, you did a really good job for us too," that was a very nice thing to have happen.

JN: That's very good. Are you anticipating having BAMS available to you, completely digital back to 1920?

BE: Boy, would that be something.

JN: We're in the middle of this project.

BE: You do run into these things where you hear of these papers that were done a good while ago that are extremely insightful. What I mean by that is I don't mean to make it sound like older papers wouldn't be, but in the digital age there's all this data, to look at these papers which were done in the 20s and 30s with limited amounts of data but have tremendous insights, things that are still true today, things that are true that maybe have been lost a bit. That will be really good, because I hear about these, and I try and dig them up, and it's not very easy to dig them up in some cases, so I wholeheartedly approve of that decision to get those online.

JN: It's an interesting project. It's not as easy as you would think, but it will be completely online by the end of the year. At the moment, just in case you need to know, I think it's online on the Journals website back to 1973 or '72. If you're in that era you can see the whole--

BE: I think I actually have done that. I think I did once, I was looking for something from the '70s, it was like, "oh, look at that! It's there!"

JN: It's very surprising to put something into the search box now and actually find...

BE: It's there.

JN: Find it, yes. So it's coming, and that's for the hundredth anniversary. Let's go a little bit backward. What was the most significant thing about the first job that you had?

BE: The thing that really caught me the most on the first job that I had, and I'm going to label that as a postdoc position I got after my PhD, I postdocced at the University of Miami. The thing that really stood out was the independence. You go to school, right, there's a class, and the professor is like, "we're going to do these things, and if you do them well then you will be rewarded with a good grade." And then you go to graduate school and your advisor has a pretty strong, you know, "this is the direction we're going," and they obviously know it, because they're established in the field. But I came to Miami, and becoming a postdoc, and having a sort of "what should I do?" That bit, reaching the moment where it went from "here's what you should do" to "well, now it's up to you to think of what you should do." That was a thing that I would say really stood out from my first job, that conversion from being someone learning about meteorology, to someone actually doing it.

JN: That's very cool. Is there any other topic you'd like to talk about?

BE: Oh, I mean, there's certainly plenty. I don't want to dominate the airwaves, so whatever. There's ones that I can see, significant milestones, but this is an oral history, so I'd say what is it that we're really trying to capture the most here?

JN: In the short interviews we're trying to commemorate the fact that we are approaching our hundred anniversary and talk a little bit about where you've been and where AMS has been with you, and then if you would like to look forward into the next hundred years, please feel free.

BE: Well, okay, then I'll make that my final sentiment, because I know we're getting close to the time of the next one. 20 years ago was about when I got into meteorology, and there are things

that we currently do, now, specifically here at the WAF/NWP meeting, running a model that covers the entire globe, at three-kilometer spacing in the horizontal--not even possible 20 years ago. And so the thing about thinking about the future is, it's clearly going to be something different than what it is today. I remember I actually posed this in the "Ask Me Anything" that we did, I guess it was just yesterday--

JN: Yesterday with Keith [Seitter], yes.

BE: That we don't know what it is, but we really ought to stay on top of it in terms of what should we tell the students that are coming up and if you've just done a big PhD thesis in one area but things are changing, how do we help the mid-career folks. Then of course how do we not lose the knowledge base of the more senior generation that has this wealth of knowledge, that if you just change much too fast you get lost when it really shouldn't. So the future, I know it will be different, there will be much more out there in terms of information than there is today, and the notion of AMS, how are we going to handle this change, how is our community going to move through this as opposed to having change happen to us, to have a little bit more of "these are the ways we should be going." Because the future is where we will spend the rest of our lives.

JN: It's true, it's true. As we prepare for the centennial, we're looking back a little, but we're also very much looking forward, so I appreciate that, and I will I say thank you.

BE: Oh, well, thanks for the opportunity.