Transcript of "Sheila Steinberg, Professor of Social and Environmental Sciences and Faculty President at Brandman University"

Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond

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Kelly Savoie:

Welcome to the American Meteorological Society's podcast series on careers in the atmospheric and related sciences. I'm Kelly Savoie and I'm here with Rex Horner and we will be your hosts. Our podcast series will give you the opportunity to step into the shoes of an expert working in weather, water, and climate sciences.

Rex Horner:

We are excited to introduce today's guest, Sheila Lakshmi Steinberg, a professor of social and environmental sciences and faculty president at Brandman University in Irvine, California. Welcome, Sheila, thanks so much for joining us.

Sheila Steinberg:

Thank you.

Kelly:

Sheila, could you tell us a bit about your educational background and what sparked your interest in science?

Sheila:

Sure. So, my educational background is quite interdisciplinary. I began at UC Santa Barbara as a communication studies and environmental studies major and started out as just a communication studies major, wanted to go into television and radio broadcasting. Then I worked at a camp in Colorado one summer and got really interested in the outdoors and outdoor education and added on the environmental studies major. I was fortunate that UCSB had a lot of really great professors who took us in the field to study the connection between ancient cultures and society. So I had a canyon land seminar once that took us into the Colorado River and we actually rafted and studied the history of Native Americans and then had a chance to study the geology as well.

Sheila:

I then went on to a master's degree at University of California Berkeley where I got a masters of science and wild land resource science where my focus was on natural resource sociology. And there I studied the effect of protests—offshore oil protests—and Redwood summer protests that were happening while I did my field work up in Mendocino County. I then went into the Peace Corps, took a break from academia, went into the Peace Corps for two and a half years into Guatemala where I did forestry. I taught at a university and I planted trees with women's groups and farmers in two different locations in Guatemala. And then I applied to grad school, went to

Penn State University and got a PhD in rural sociology. And that's where I really got introduced into geographic information systems in the 1990s before a lot of people were using it and that helped put my career on a neat scientific trajectory.

Rex:

And let us know where you are now and how that relates to where you started out.

Sheila:

Yeah. So, where I'm at now is at an interesting university called Brandman University. We're part of the Chapman University System. We have 27 campuses and we serve adult learners. We offer education using different pedagogies sometimes in the classroom, sometimes part in the classroom part online and sometimes fully online. We also do something called competency based education. And I love working there because we don't have departments, we're very interdisciplinary, we have schools. So I'm in the school of arts and sciences but I work cross collaboratively with my colleagues in the school of business and professional studies, in nursing and in the school of education. So, I lead all of the geographic information system effort for my university and we're working towards becoming the first spatial university in the world. So I've brought that to them, I'm an Esri press author, I do a lot with GIS. And so it's neat to have that creative freedom. So I really quite enjoyed being there, been there for about seven years so far.

Kelly:

So you mentioned that you were in the Peace Corps, that's pretty cool. I've always been interested in that. So, how do you go about becoming part of the Peace Corps? Is it an application process and then you just get to choose from certain locations or how does that work?

Sheila:

Yeah, it's a pretty long and involved application process actually, it's at least a year if not more. So, at the time when I was going in which was, I was applying in 1990 and I entered in January of 1991. It actually started that process a whole year before. So, they actually try to really connect you closely to pair your skills and to place you in the best place possible. So, it's a long and involved process but I think they do a great job of placing people with their skills, language skills, and technical skills in whatever country they think you'd be the best fit in.

Kelly:

Did you enjoy it? Would you recommend it to others or were you like, "Oh my, what did I do?"

Sheila:

No, I fully enjoyed it. And surprisingly, it's quite competitive to get in. I have Peace Corps recruiters come into my class all the time and try to talk to students and recruit students and it's quite competitive to get in. But actually I loved it. I loved it, I got to really meet some great villagers and to work with a community. I have a passion for community development, community engagement. And I think the most interesting thing about it is this culture of trust. So, I had to spend a year in my village drinking Cokes with people, watching the weather, just visiting with them before they'd work with me. And so then, that gave me another year to do some work.

Sheila:

But people really want to know you culturally, they want to know who you are and why they should work with you and why you left the United States to come to their village. They don't really understand that, they think it's weird. They're like, "Why aren't you there?" So, but it was great. I had a horse, I used to get around by horseback to go up on the volcano to meet with villagers and I did forestry and I worked with women's groups. And I taught at a university later on. But it was quite empowering to work with local people and help them out.

Kelly:

That sounds awesome. So throughout your career did you have any mentors that provided you with guidance?

Sheila:

Oh yeah, I think everybody does. The whole reason I went into the Peace Corps was my major professor at UC Berkeley I had talked to her and I was burntout because I had worked really hard through college and then worked really hard through my graduate degree. And I said, "I think I need a break. I want to go do something in the field." But I wasn't sure what it was. And I go, "Why don't I take a year?" She goes, "Why don't you take two years and go in the Peace Corps?" So I did and that was Dr. Louise Fortman.

Sheila:

And that was really the best thing I think I ever did was to go get that field experience because it brings application and real-life action and how communities work to bear and I think influenced a lot. Then when I took science and when I went on and was trying to work and apply scientific principles to work with communities, those don't work if you don't understand the culture and the social aspects of the community. So, that's where my career trajectory was really influenced by my field work in the Peace Corps.

Rex:

So, it sounds like a lot of your valuable experience came not in school but from these experiences you had outside of the classroom. I'm still interested however if there was any particular classes that you took that were especially valuable to you, that resonated with you, that taught you valuable lessons, that maybe another student following in your footsteps would think, "Okay, that's the class I'm going to pay extra special attention to or I'm going to search out that in whatever college I attend."

Sheila:

Yeah. So, I think when I was in graduate school at the Pennsylvania State University and I was majoring in the department of agricultural economics and rural sociology. And so, I took some economics classes, I took some rural sociology, and I think the course that probably impacted me the most were some multiple research methods courses. So, I'm really quite a methodologist and when I write about using GIS it's in the context of always mixed methods research. Because what I learned working with Dr. Rex Wharlon there who's a very well-known methodologist in the field of rural sociology I learned that when you're trying to model and understand the interactions that go on between society and the environment you need to come at it in multiple

ways. You can't just say I'm going to do a survey or I'm just going to do Landsat or I'm just going to do GIS.

Sheila:

So my dissertation, I really brought together interviews, historic ethnographic research. So in this class, this mixed methods research class we learned the value of mixed methods research. And I think many universities have methods classes. So, I would encourage students to definitely take methods classes. Qualitative methods are very important equal to quantitative methods. I mean, when I was at Penn State I had to take five statistics classes. And I'm not really that good at statistics but I kept taking it to get better. For me naturally I'm quite good at qualitative and engaging with people but the quantitative, the statistics took a little more work and then the GIS brought all that together. So I think yeah, focusing on learning different kinds of research methods is really central and that scientific method learning how to think about problems in the rural world and in society is a necessary skill for everybody.

Rex:

That's great to hear.

Kelly:

For our listeners could you walk us through a typical day on the job?

Sheila:

So, a typical day on the job for me now is quite varied and different every single day and that's why I love my work. So, because I lead all of the geographic information work at Brandman I have lots of meetings with the company Esri, E-S-R-I, that we partner with. We're silver partners with them. I help lead curriculum development with people from business, with people from the social sciences. Because I'm faculty president, I have meetings every day. And I'm talking right now during the COVID crisis this is my schedule. I have meetings every day with my leadership team, with other faculty and we figure out, "How are we going to do graduation? How are we going to honor our faculty? How are we going to engage with our faculty most importantly and create a sense of community during the time of COVID-19?" And I think we've been really successful at doing that because at my university we're masters of engagement online.

Sheila:

And just because you're a school and you say, "We're going online," doesn't mean you're going to be good at it but we are good at it and we're very good at creating—this is my passion—creating community amongst different groups online. So, I spend a lot of time focused on that. And then I'm a mom as well so my son will be punching the punching bag in the backyard so I'm watching him or he's 16 or he'll do a virtual workout with his coach every day. So, that's going on in the background while I'm doing these meetings from basically 8:00 AM to 5:00 PM.

Sheila:

And then sometimes I teach at night too so I may have a synchronous class where I meet with my students from 7:00 to 10:00. That's not every day but some days. So busy, but really enjoying the passion projects. And one of my passions is also getting people who are

underserved to give them a forum to talk about the work that they do especially when it's using science. And so, we've created some speaker series with women and GIS and Brandman University where we highlight different speakers who talk about, "Hey, how are you using GIS? What was your career path? And what can you tell all these young and upcoming women and men and allies of women how you can use science to solve problems using GIS?" So, it's been a creative time for me, this COVID-19 time.

Rex:

If you could say one of those things that you maybe liked the most, you sounded pretty enthusiastic about everything, maybe pick out one and maybe talk about a moment that you like most about a seminar meeting or a question or an engagement that you had.

Sheila:

Sure. So I mentor people not just at my university but in my career field and one of them is named Ms. Sophia Garcia. She's a young and upcoming GIS expert and she lives up in Bakersfield and she works with Dolores Huerta. Dolores Huerta is an icon—a civil rights icon. She's won the Congressional Medal of Honor [correction of fact: Presidential Medal of Freedom] from President Obama. She was Cesar Chavez's right arm and she actually coined the phrase "Sí, se puede" although he gets credit for it. So, Sophia does the GIS for them and I mentor her. And so we did this talk about social justice and GIS which are two of my passions, trying to focus on inequality, trying to say what can GIS bring to the table to help us improve society for the underserved people and to make better, more scientifically informed decisions than just political decisions.

Sheila:

So we did a talk with Sophia. It was attended by 400 people, some internationally. And we also did one with Dr. Este Geraghty who's the Chief Medical Officer for Esri. But in both of those talks I think I was very excited because it's like bringing the science to the masses. So I think that people, regular people, can get excited about science, and I consider GIS to be a methodology and a science, they can get excited about it when they see the application and how can this help us solve a problem.

Sheila:

And so this series we've started with women and GIS which is a nonprofit group and Brandman University highlighting how do you take the science and what kind of problems are you looking at and how do you understand them better and how do you ultimately create better policy? It's a whole process but you can't be all tight and too jargon filled. You have to be able to talk to people. You have to be able to show pictures. You have to be able to show maps. You have to be able to show passion for, "Hey, we have this problem and hey this is how we're solving it." And we're going to come up with better decisions as an outcome.

Sheila:

So to me, that's been the most exciting thing I've done all year has been I write all kinds of books too and that's fun, it's a lot of work. But I love when we can bring things to the masses, just to regular people internationally as well and just say, "Hey, this is so cool. What do you

think about this? And maybe you could do this in your community and get people excited about it. Let's use multiple methods including spatial analysis and remote sensing, etc. to solve problems and what's the outcome?" And it's better for everybody when you make a science-based decision versus a, "I just feel like doing this. I just woke up, I had a dream I'm going to do it because I want to." And so, teaching people to think critically, teaching students to think critically about data and information, data literacy, spatial literacy those are themes I really like to focus on and what I'm excited about.

Kelly:

So, on the flip side what's the most challenging thing about your job?

Sheila:

I think the most challenging thing about my job is that trying to, again the thing I work on the most is probably the most challenging thing, is trying to create a sense of community when we can't all see each other. So I have colleagues, I have faculty colleagues who run from California through the Midwest all the way into Florida, all the way into New Jersey. And so, I think the challenge for me in collaborating with the faculties is, for one, setting up meetings across time zones. But then also I mentor a lot of faculty like how do we enable our new faculty and how do we create a sense of trust, a sense of community amongst each other when we can't see each other.

Sheila:

And it's the same challenge we have with our students but I've figured out that challenge with the students because I do multiple points of engagement with them. I do phone calls, I do Zoom meetings. And so, I get to know them even though I'm teaching them online. So I try to do the same with faculty and just groups to say, "Hey, if we're going to work together..." This is an age old lesson I learned from the Peace Corps, remember I told you I had to drink Cokes with everybody for a year so I learned "no, don't just jump in and get to business," which is very much an American way. Although that's my tendency because I like to get stuff done. But I find you're not going to be that successful when you do it. You first have to recognize people, know about them, honor them as people, show that you're interested in them as people first and then you can get down to business and it'll be much more effective. So again, that social component becomes very important to do things with science.

Rex:

How's the work life balance for you, Sheila? How would you describe that? And if the balance is off is that okay or if the balance is just perfect how did you make it perfect?

Sheila:

Yeah, I don't think the balance is perfect. I think that is something that I just was thinking today when I went on my three mile walk I was like, "This is really good." I would say probably the first four or five weeks that we've been in quarantine here in Southern California I was just working, working, working, working, walking the dogs but not really focusing on exercise. And then I finally hit this point two weeks ago where I'm like, "Forget it. For me to feel good for the whole day when I'm on my computer for eight or nine or 10 hours a day I need to go exercise."

And so I started this, "I'm going to make myself walk three miles a day in the morning and maybe two more at night if I can." And so I become aware I need to have the work-life balance with that.

Sheila:

And then also I think it's also really hard for people during the quarantine, especially if you're a social person to not have that social engagement so trying to make sure I make phone calls to some of my old friends, see my parents who are older people who live in the town who are in quarantine. But trying to make time for my community. I'm also president of the Irvine Rotary Club, just finishing that up. So, I've had a heavy workload this year but I'm seeing light at the end of the tunnel. And I think we all could work better on work-life balance but making time to do some fun stuff whether it's listening to music—my husband and I did a virtual beer festival the other day for Orange County and it was wonderful.

Kelly:

How fun.

Sheila:

Yeah. They ship you the beer a day ahead and then you watch a Zoom meeting which is not a meeting. They have a concert with music and then the brewers are there telling you about the particular beer and what it's like and then you taste it. So, trying out different things to do. We like to go to concerts a lot but there are no concerts right now that we can go to so we're just trying to figure out different ways to have fun.

Rex:

Do you think there's anything you wish you had done differently in your career hypothetically or an actual opportunity that you maybe just didn't have time for that you also wished you could have done?

Sheila:

Yeah, that's a great question. And I think when you think about your career and the choices that you make it's interesting because you're like, "Well, why did I make that decision at that point?" So, why when I was at Berkeley did I suddenly decide, when I was set to probably just stay there and get my PhD, why did I decide that I was going to give it up and go do something else? Or why did I decide when I was at Humboldt State University and I was a full professor why did I decide to give that up and go do something else? And I think that for me it's all about the challenge. And so, I like to pursue new challenges and sometimes if I get too complacent I get antsy and I want to go do something else. And so, it's like been there, done that.

Sheila:

So, I really don't think there's anything that I would say I wish I did differently. I mean, I didn't get married until I was later in life so I had a full adventuresome life in terms of being able to be mobile and go to different places. I also did research as an undergrad in Nepal. I also spent a summer in Alaska studying the history and the environment of McCarthy. So I've done a lot, I

don't think there's anything that I would do different honestly because I really enjoyed everything that I've done.

Kelly:

What professional development opportunities do you pursue now to keep current? I know you've done so many different field projects and traveled. Has that died down a little bit in your job now and do you do more workshops and courses and things like that?

Sheila:

I think it's just changed a bit. So now as I'm becoming a more mature and well-known individual in my field I get asked to be on different boards like I'm on the AMS Board on Environment and Health and that's fun to help plan for those different sessions. I just got appointed to the board for applied geography so I'm helping them to plan and they are a smaller group that's part of AAG [Association of American Geographers]. I'm helping this applied geography group to plan their virtual conference and we're going to be bringing in a former governor who used GIS to talk about that. I'm at this conference. So I think my work has shifted now more, a lot of things that can be done to networking, to helping to coordinate conferences. I do a lot of curriculum development and I do a lot of high level thinking about strategy and then steering the course of my university although I'm not an administrator.

Sheila:

Before I came to Brandman University there was no geographic information systems. I brought it and now I work very closely with the provost and we've infused it across all of our majors and we're designing new graduate programs. So, I feel like my work has shifted from straight up research so when I was at Humboldt State I used to run something called the California Center for Rural Policy. So there I was very passionate and did a lot of applied research projects, we'd go after research grants.

Sheila:

How it's different now at Brandman University is we're very innovative in our pedagogy and our teaching and in our programming. And so, so much of my work every day is geared towards creating new and innovative programs that involve mixed methods, that infuse mixed methods. And I help my colleagues to understand what is this GIS and how can you use it to solve business problems and how can you use it to solve social problems or health problems. And so, that's really exciting, it's just different because it's not straight up research per se but it's still very creative and exciting and there's an applied focus. So for me, it's all about the application. Can you take science, can you take social science, can you do something good with it and can you apply it for a positive outcome?

Rex:

That almost sounds like the answer to my next question but I'll ask it anyways. What advice would you have for a brand new student that says to you, "I'm interested in social and environmental science. Help steer me in the right direction. Give me some piece of advice that's going to last me up until my early career."

Sheila:

Yeah. So what I would say is really try to take in as much as you can from your coursework and really try to listen to your teachers and really try to follow up with your professors to find out what kind of cool research projects do they have going on. Have conversations with them, find out about what the opportunities are in this field. I feel like the beauty of this field is that it's interdisciplinary and there are so many different career paths that you could potentially take but you don't often know what they are until you start doing them. And I think doing internships is great. So getting out, getting in the field where you can actually try out what you're learning and see do you like it.

Sheila:

So I remember one of the best internships I ever did was I got to work with a group called the Island Packers tours out of Ventura, California. And when I was an environmental studies major at UCSB my job was to go out on this boat to the Channel Islands which was about a two hour boat ride away with school kids and then I would give them tours on the islands. The islands are undeveloped, they're just natural in their natural state. We'd do tide pool walks, we'd see the wildlife, we'd talk about it. And I was like, "This is great. If I could do a job like this I would just love it to be outside and be talking to people about the history of the islands and the Native Americans." And I'm like, "This is great," but I did get seasick a little bit on the boat so that wasn't so great. But I learned like, "Wow, I love that." I love what I got to do as a student.

Sheila:

And then another one when I was a communication studies major, I did an internship with a radio station in Santa Barbara, would get up at five in the morning, go down to the radio station and I would do the weather interestingly enough as a young person. I'd have to read the AP reports on the weather and they'd be like, "Well, go look out the window too and see what you see." So I'd have to write up the weather. I remember looking out, it was in the Santa Barbara courthouse and looking out the window, "What's it look like? I don't know." And they got on my case because they're like, "You always write the weather in a very positive way and you need to be a little more negative about it, Sheila."

Kelly:

You're like, "It's California, I can't be negative."

Sheila:

I know, right. So, I didn't do so great with the weather because I was being too positive about it. But the lesson I learned from both those internships, because I remember one time an airplane was about to crash at a local airport, Santa Barbara airport, and the emergency vehicles were there and they had me listening to the scanner. They're like, "Okay you're an intern, listen to the scanner and if a plane crashes go out there and interview people." And I'm like, "What?" So I'm listening to this conversation between the pilot and the ground and if it was going to crash or not and ultimately it didn't crash.

Sheila:

But through my mind the whole time what was running through my mind was like, "I don't want to go do this. I don't want to go interview these people if there's a crash. I don't even want to go see it." And then I'm like, "Wait, maybe I don't want to be a reporter." But I love interviewing people so I'm like, "What else could I do with that?" And then got into sociology later. So, I'm very good at interviewing people and I love it. And so, I still get to use that skill but I'm not a reporter.

Kelly:

Well, that's what's so good about internships you can decide, "I thought I would like this but no not so much." So that's some really good advice for students. So Sheila, we always ask our guests one last fun question at the end of each podcast. If you could meet one famous person alive or dead who would it be?

Sheila:

So yeah, that's a tough one because there's so many great historic individuals who are out there. I think if I could meet anybody alive or dead, well there's actually two people. One would be Chief Joseph, who I remember. I learned about Chief Joseph and the Trail of Tears and Chief Joseph who was such a great leader of his people. And he seemed to have such fortitude leading them in spite of all the oppression that the Native Americans were facing and the environmental destruction and the social marginalization. I would love to meet him just to talk to him as a leader.

Sheila:

And then another person is Florence Kelley from Chicago and she used to run the Hull House. And she's an early pioneer of GIS. There was no GIS back then but she did a mapping of where the immigrants lived and the health conditions they faced and she actually drew maps and she actually impacted a lot of policy based on her innovative methodologies. So, I would love to meet her too and just say, "Hey, what made you decide to do this and what was your experience?" And so I think I've written about her a bit in some of my books but so those are the people I think I'd like to meet.

Rex:

That's great. Thank you so much for joining us Sheila and sharing your work experiences with us.

Sheila:

Thank you. It was my pleasure.

Rex:

Well, that's our show for today. Please join us next time rain or shine.