

Young Global Travel Influenced LEED Fellow Jeff Ross-Bain Transcript

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Introduction: Welcome to Green Building Matters, the original and most popular podcast focused on the Green Building Movement. Your host is Charlie Cichetti, one of the most credentialed experts in the green building industry and one of the few to be honored as a LEED Fellow . Each week, Charlie welcomes a green building professional from around the globe to share their war stories, career advice and unique insight into how sustainability is shaping the built environment. So settle in. Grab a fresh cup of coffee and get ready to find out why green building matters.

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Charlie: Hi everybody. Welcome to the next episode of the Green Building Matters podcast. I love doing this. Once a week I get an interview, a green building professional somewhere in the world, but today we've got Jeff Ross-Bain with us and he's here in Atlanta where I'm based. I can't wait to learn more about his origin story, learn more about Ross-Bein Green Building, his company, and see what's next. Jeff, how are you doing today?

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Jeff: I'm doing well, Charlie. Thank you.

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Charlie: I know we've crossed paths a lot here in the Atlanta Green Building community, and it's going to be special to learn a little more about you. With all of our podcast guests, I like to say, "Hey, take us back. Where did you grow up and where did you go to school?"

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Jeff: My origin story is probably a little a little different than most. My mother's French, my father's English. They met in Spain. They were

married in Canada. My two sisters were born in London, and I was born in Sydney, Australia.

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Charlie: Globetrotting, that's the name and no kidding.

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Jeff: Shortly after I was born, my parents drove across Australia from Sydney to Perth. We went on the Queen Mary through the Panama Canal and to Europe to visit the family there and then came to the United States on a ship into New York Harbor. I did all of that before I was three years old.

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Charlie: That's great. I've had over 200 podcast guests, and you're the first to have done that. That might lead to some early influences, but if you came to the States when you were pretty young, I guess, did you end up in Georgia or where did the family land?

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Jeff: We did travel. The first place we went again was across the country to San Francisco and then Texas. My father, he was also an engineer and he was in Texas. He's actually working on NASCAR when they were building NASCAR. Came to South Carolina and then eventually Atlanta. After all that traveling here, we ended up in the southeast and I've been in Atlanta pretty much since the third grade, although I've done some traveling myself.

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Charlie: That's a really cool origin story in the ships and those other countries. Tell us about where you went to school. You've got a couple of degrees with a couple of great Atlanta engineering schools. What made you want to get into mechanical engineering?

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Jeff: I realized when I looked in some other areas picking a career and I found the physics of things seemed to appeal to me. Once my dad actually got me a job working as a blueprint boy back when they made blueprints. I started going to school in Southern Tech at the time, allowing you to have like Knight Schools and I did that. Eventually I went full time and got my degree in mechanical engineering and started doing some commercial HVAC. Design is pretty much what I've always done with a few departures because in the late eighties I actually went back to Australia because where I was born and stayed there for a year and ended up driving the entire perimeter of the country and then came back to England. Once in England I worked on the Channel Tunnel Project, which was the big tunnel that goes between England and France, and we were on the commissioning team for that. I came back from Europe in the nineties and then kind of from the Channel Tunnel Project to going back to commercial and energy, commercial HVAC design. It was still interesting but wasn't quite the same. Jumping ahead a little bit here, but in the late nineties I started seeing this word called LEED popping up in the literature. So that made me quite interested and I found that that was something that I can really be drawn to. I actually quit my job and went and worked for four years at South Face here in Atlanta. If you've heard of South Face, I'm sure it's a non-energy efficient, sustainable non-profit. Cutting my teeth in being able to learn not only the LEED writing system, but I do lots of energy modeling and energy efficiency studies. We've been doing commissioning for a long time, too. I worked for an architecture firm as their sustainability person, and then 14 years ago decided to start my own firm and we're still here.

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Charlie: I love this story. You kind of retrace some of your roots there in Australia and then back up to Europe and then the tunnel. Before we jump to LEED, what a better place than South Face to really learn those early days of LEED the nineties with some of your engineering work, was there any energy efficiency or was it really more design work in the

commissioning. Let's make sure this is running the right way, not even yet the most energy efficient way. Give us a quick peek into the nineties. Was there any energy efficiency there?

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Jeff: What I wish I had kept but I didn't was the original version of Ashrae 90.1 the only available in a PDF now. It was a completely different animal back then and it was still being formulated. It looks nothing like it does today. There were hints of that coming forward because what had happened was the states had adopted the energy code. The problem is nobody really knew how to implement and there was not really a big push towards energy efficiency or a member of the air conditioning manufacturer to come out with some systems that were beginning to have variable frequency drives maybe a little bit before then and that was something that you were beginning to see. I would say that for my world, the energy efficiency prior to the nineties was probably more on. You can save a lot of money on your air conditioning system.

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Charlie: LEED, out in the year 2000. You're at South Face Later going architecture in Atlanta. Tell us about the 2000s there and your green building work. I think the 2000s were probably personally my most formative years as far as gaining knowledge of sustainability and energy efficiency and LEED and that whole world. Being able to understand what's happening in the world. My four years at South Face was pretty much like four years in college because being a non profit you're allowed to sort of do your own thing in many ways. I dove into these issues full steam and I got the chance to really study energy modeling, make lots of mistakes and study LEED. We all thought we knew everything at the time and worked on some of the first LEED projects here in Atlanta. It was all kind of happening and at some point there's an ending to everything. My friend at the architecture firm here in town wanted to start adopting sustainability measures within their practice. I became their sustainability director. One of the great

achievements from there was the World of Coca-Cola Museum. That was one of our projects, the LEED Gold Project, a very interesting energy story there, but we don't need to get into that. Finally after another spell, I decided that I'd like to call my own shots and go out and do my own work. I went ahead and formed Ross-Bain Green Building in 2009 January 1, 2009, and since then have done probably well over 100 LEED projects, energy audits and energy models, LEED platinum, certified silver, gold and platinum buildings. Really, 100% of what I do is related to sustainable, high performance green buildings.

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Charlie: I love it. I started my first business in May 2009, Green buildings are here to stay. There's a recession set in and let's go. I love it. Still looking back a little bit, did you have any mentors or anyone you looked up to along the way that had some influence?

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Jeff: Looking back even further, one of the things that I feel is helpful is I love to read and I've always kind of explored things in a way. When I was thinking of that, I realized I don't think there's any one individual that stands out because there have been so many influences and there are so many people out there that have provided such important guidance and information. I sit on a committee and have done in the past and those folks, the knowledge that you're surrounded with in those situations is invaluable.

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Charlie: I've heard that from others I've interviewed that sometimes it's just the peers together because we are figuring this out together. I've heard that it was kind of a kind of community mentorship. You said you like to read there's probably some things you had to go out and learn along the way, of course.

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Jeff: When you do energy audits of buildings, you tend to go into a building and you look at its condition and you look at its past history of energy use and you sort of decide what does this building need to, number one, improve its energy efficiency? Number two, as far as capital purchasing of the equipment when it's age and everything. I ended up doing an energy audit of a multiple building campus. As I was going through building after building after building, I realized all of the problems here are the same in all of these buildings. It dawned on me that buying all new equipment and supplying this whole campus with new fancy equipment is not really fixing the problem. And that's where it dawned on me or the penny dropped what have you, that operations and maintenance and ongoing performance evaluation and checking of buildings is key to having a building truly perform as it as it's intended. Luckily I'm a six minute bike ride from Georgia Tech and I did a little research and found out that they actually have graduate school courses in facility management. You can get a PhD in facility management today and I have a master's now in facility management. And it wasn't so much that I wanted to be a facility manager, but it opened up. It completely changed how I see facility management taking place. It's actually a very professional, multi-skilled endeavor to be able to correctly and efficiently operate a building in today's world and you have to have lots of skill sets. One of the things I'm working towards is that's also changed my commissioning scope slightly in the sense that now when I look at a commissioning for a building all, not all, but most of what I'm thinking about is how is this building going to be operated? How is it going to function? What can we do to make sure that whoever is doing that has proper documentation in place to be able to do that? So that was a little bit of a change for me, but I love going back to school. It was like getting all current with everything again.

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Charlie: I've heard great things about that program at Georgia Tech and it's my alma mater, so it's close to my heart and I love it, man.

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Jeff: I'm actually an adjunct professor there now.

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Charlie: It's amazing. I know Georgia Tech teaches a lot of great courses and some theory and your time at Southern even, even more hands on. What we find between those two good schools here in Atlanta. So one more look back and then we'll get back to the present day. But just looking back, what are you really proud of in your green building career and personally looking back?

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Jeff: Again, I would say probably on a grand scale, I think shifting from mechanical design engineer to green building consultant was a big shift because it involved at the start a complete lifestyle change to bring that on. As far as projects go, I've had some pretty interesting projects with the world of Coca Cola. It was a great project. A lot of reasons in the world of Coca Cola were so great is because the owner is really dedicated to doing the sustainability part rather than just the plaque. That was encouraging and I've done a wide array of LEED projects. We had the tree. Atlanta headquarters was our first LEED platinum project, and was great because of doing some of the daylight studies for that. But as far as main personal achievements go, it's almost like the mentors. I don't have one that stands out particularly. I guess one achievement I guess I could say is I think that I'm pretty passionate about what I do. And I think that shows through with clients and at meetings and things like that. I think that's an attribute that is helpful to have. I feel that's an achievement.

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Charlie: The resilience and being an entrepreneur, growing your business and LEED Fellow and so many more things we could add. Take us to the present day. Tell us a little more of what's keeping you busy today.

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Jeff: I'm to the point now where I'm just about at my limit of bandwidth for a small firm. I could surely use some help, but it's very difficult to find people who know how to do this. I have some interesting projects. One just starting is a pharmaceutical company where their LEED and it's a European firm and the I'm doing the energy model and the LEED part of it and it's going to be a challenging energy model with all those systems and stuff that go into pharmaceutical labs and clean rooms and fume hoods and things like that. An interesting project in Savannah, a multifamily to multifamily side by side that is using cross laminated timber construction. These big massive Lego pieces. They're all FSC wood, but they're from Europe so we don't get the location credit, but we get the FSC and it's a six story structure, all wood and it's going to be beautiful. It's a beautiful building. So that was kind of neat to be studying that aspect of it. Just finished a large LEED group project total of about 450,000 square feet, five buildings. That was a challenge and a lot of fun. It has a 6.2 megawatt PV system on site and so that was kind of fun to work with through all the what's required to put the PV on the building and and I have some other projects, I'm helping one company prepare their sustainable design guidelines and that's kind of fun because they want to kind of push the envelope. We're talking about net zero carbon net zero energy buildings and seeing if that's possible. And these buildings are actually rather low energy use. So net zero is not as big a challenge as the Candida building here was. I have my teaching that I'm doing at Georgia Tech. In fact, this fall I'm teaching a course in green building construction. And it's pretty much going to be a course in LEED, but it's going to have some other aspects to it as far as that. In the spring quarter I teach a course on operations and maintenance. It's kind of fun being back in the academic world.

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Charlie: I really enjoy teaching. Plenty busy, always needing some extra help, but those are some really cool projects Jeff you're working on and we've got to have the timber focus on embodied carbon, got to have

renewables, got to keep going with LEED. I see a good mix there. My next question is, what's next then? What are you reading up on or what are you excited about that might be coming a little bit down the road in this green building movement?

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Jeff: If it was up to me, I know it's not realistic, but I would just say we need to just stop using fossil fuel and then just see what happens. I think the ingenuity of humans is enough to be able to overcome those challenges but that won't happen. I realize that. I think the direction that it's going in now, quite frankly, in the decarbonization of buildings, not only in their operation, but in their building and their construction, the life cycle analysis that's going on now, trying to work on one of those now. And that's also kind of an interesting concept to apply. The other reason why I went back to school is that the operations of the building are critically important. How the buildings are operated is where the rubber hits the road. We were just discussing that yesterday with the high performance building that has all the capability of doing everything for energy efficiency. It's very easy once the owner gets a hold of it because it's too complicated and everything gets reverted back to manual operations and assisted. But it's still considered a high performance building. How we actually operate the buildings is important. And getting rid of fossil fuels, I think we're kind of reaching the tipping points now.

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Charlie: Yeah, it's going to happen. Let's speed it up. Absolutely. Some rapid fire questions here. What would you say is your specialty or gift?

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Jeff: I would say being passionate about my work and being detailed and getting into like on the work side with clients. Once we go through the negotiation and the fee establishment, I'm all in until it all gets done. That can be good and bad, by the way. Pretty much that's how that is how I

operate. I take great interest in my projects and they become personal for me. I don't see them as just a production line activity.

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Charlie: Yeah, 100%. I love that. Do you have any good habits or routines, rituals you can share?

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Jeff: Boy, on the side of time management, kind of struggling with that to some degree. There's a million guides to managing your time. Do this, do that, have this little piece of paper here and draw here. Over the last year, I've compiled that into a system that's usable for me. It's difficult with LEED projects, for example, it's not sort of like a task starts and a task ends and you're done. It's something that takes place over six months to two years or more. And over that period of time, you have certain activities and milestones and things that have to be done and trying to put those into a to do list, I found to be very difficult. I've finally managed to look at my full scope of work and allocate weekly and monthly blocks of time to sort of zero in and focus on those and that seems to be helpful for me. I'm an early riser and I don't have the standard ritual, but I do try to get in as much exercise as I can and eat well and try to keep a good balance between everything. There's no one thing. Not every plan you make is going to have hiccups and changes along the way.

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Charlie: You adapt a little bit. No. Thanks for giving us a peek into your world and how to stay productive. A couple more quick questions here as we get to know each other even more. I'm a fan of Bucket List. What are one or two things maybe on your bucket list, maybe some adventure, some travel, maybe you won't write a book. What are a couple of things on the bucket list?

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Jeff: My bucket list items pretty much include epic adventures, and I think you can maybe see why. Before South Face, I rode a bike across the country from Seattle, Washington to Washington, DC. When I finished the Channel Tunnel Project, I took a one way flight from London to Zurich, and the only baggage was my bike and I rode all the way back. So things like that, I would love to start doing more often. I'd love to do the Great Divide Mountain Bike Trail from Canada to Mexico. That's getting difficult now because of increased temperatures and having to deal with smoke all the time on that ride. So that's kind of a little discouraging. There's a couple of rides in Europe I like to do. It's not all bike riding, but one thing I'd love to do is hike across the Greenland ice cap. I'd like to go see that firsthand. Most of my bucket list items are getting out there and seeing the world.

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Charlie: I love these expeditions and they've already done some pretty cool ones. Not many we'll ever do. You probably thank your parents for those global journeys when you were young. You said you like to read. Is there a book you'd recommend to our podcast? Doesn't even have to be about green building.

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Jeff: I've been reading some history books. I find history to be amazing. It's nothing like what you took in high school. I read just a short while back a history of pre-World War Two Germany. It was actually the seven or eight years before World War Two. What happened in Germany? And I'm reading a book now, it's actually about the Civil War, and it's all the things that happened prior to the Civil War. It's amazing what took place in the first half of the 1800s, because with all of the tension now on critical race theory and The New York Times recommended, they said these are the books you need to read if you want to learn about the Civil War. It's kind of interesting and probably not the thing, but in the early 1800s, shipping material from Europe to the United States was the same cost of shipping. That same shipment 30 miles inland for everybody in the country, for the

most part, got everything they needed from a 20 mile radius. Food, clothing, furniture, what have you. Then the mid 1800s came up to the Civil War. All of the train tracks were built and they were just just massive building of train tracks. So what happened was this artisan furniture maker realized that now he can sell his furniture in New York, and then what that brought on was demand. The factory system came on where you could have multiple unskilled folks doing the one part of the furniture making, you see. It was all become and you can just see how it all happens in that scope of time. And it's similar now. I think it's very interesting to look at history now. I think it's a book called Battle Cry of Freedom.

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Charlie: Perfect. We'll put a link to that book in the podcast show notes. I love that. I didn't know that fun fact.

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Jeff: I have offices in Charleston, we live in Charleston, too. When you're reading that book, you realize that half of the prelude to this, you drive by on the drive to Charleston. So there's all kinds of pulls out. I'm not like a Civil War buff, but I do think the history aspect of it is quite interesting.

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Charlie: It's very interesting. We'll put a link there. I love it. Two final questions as we start to come to a close now. Looking back on your career, any career advice you wish you'd have known a little earlier?

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Jeff: I should be prepared for this, I guess, but I kind of stumbled in preparing for it. I think I would say that find out what you love to do and do that. I think for me it would be difficult because I can't be a professional adventurer, but maybe I could have. It's like and then also I think one quote from Ghandi is it really doesn't matter what you do, but just do it well. And I think that's good advice. As far as career advice, I would say, especially for someone who's just beginning in the field and maybe recently graduated

from school, is to sort of understand that your next several years of work are going to be formative years of learning your trade. You don't come out of school fully experienced in your trade. It's only after those few years that you begin to realize that you're speaking with some authority about what you do.

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Charlie: That's good.

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Jeff: Like said, I got a little stuck. I got a little stuck on career advice.

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Charlie: You just gave three real nuggets of wisdom there. I'm taking notes and I love the Gandhi quotes. There are all of these different things that a lot of our guests have learned, sometimes learned the hard way. And it's like, Gosh, I wish I would have known that a little earlier. My closing question is, let's say there's someone listening and they're just now getting into the green building movement. Maybe it's a young professional getting in. Maybe it's someone that's had a whole other career and they're like, Gosh, I want to come over here and do this work. Any words of encouragement for them?

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Jeff: Number one, I would say I have a passion for the subject. It's important. In other words, it's not a 9 to 5 job. You have to take it home and study and see what's happening. But another important bit of advice would be, especially from a LEED scorecard perspective, is to kind of know the why behind environmental and sustainability measures, because it's not uncommon on a LEED project. Someone said, "why do I need to submit my water? Or Why do I need to have a view to the outside and all of those or even energy efficiency? All of those subjects have beneath them a pile of research data." With the LEED project, sometimes it looks like you're in the weeds and you're doing this little thing here and this little thing there and

this little thing there. Sometimes even you'll be. This is reinforced by some clients, what's the purpose of doing this? But what I find is that all those little pieces coming together in aggregate produces a fantastic building. A lot of times you may find yourself having to answer tough questions and I think understanding why there's a reason for doing that. For instance, the Green Power credits, which in 4.1, they don't have that really, but what they do. But by purchasing the green power, some people sort of say, "Oh, it's just you have to just write a check to get your points right. And there's a whole big reason below that of why that's the case and why it would be important to invest in that. Instead of just sort of learning the mechanics of the reference guide, it would do anyone very well to do a little deeper dive into each one of those categories and be able to discuss those with some authority. I think that would be very helpful to a career.

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Charlie: Absolutely. Now, what good encouragement, what great wisdom today to all of our listeners. We'll put some links even to Jeff and his LinkedIn profile, shoot a message, let them know what you thought of the interview. I really appreciate your time. I mean, Jeff, you're one of the originals here in green buildings in the southeast and allowing us to get to know you more, your story, all those expeditions that started when you were young and and I just love the passion. You still have to do this really cool work project projects. I really appreciate your time today.

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Jeff: Well, thank you. I really appreciate you letting me have this opportunity.

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Charlie: I just want to say thank you to our loyal listeners. We actually are celebrating over one year here on the Green Building Matters podcast. Me and the entire team, we're stoked and just so glad you continue to listen every Wednesday morning to a new interview with a green building

professional here in this industry or just some. Tips that we want to make sure that you are getting straight from us, straight to you. Thank you for listening to this episode of the Green Building Matters podcast at GBES.com. Our mission is to advance the Green Building movement through best in class education and encouragement. Remember, you can go to GBES.com/podcast for any notes and links that we mentioned in today's episode. And you can actually see the other episodes that have already been recorded with our amazing guests. Please tell your friends about this podcast. Tell your colleagues and if you really enjoyed it, leave a positive review on iTunes. Thank you so much. And we'll see you in next week's episode.