## Spesh Ep: Drawdown Design Project with C. Andrew Hall Ologies Podcast September 1, 2021

Oh heeey, it's technically expired yogurt that's probably still fine, and maybe even more alive, Alie Ward, back with a promised special episode of *Ologies*. Ah! What a couple of weeks it's been. My god. If you're a patron at Patreon.com/Ologies, you know that I was in the ER and why, but if you're not and you're like, "WHAT? Did you die?" I did not. But I will one day, just not today. At the end of the episode during the secret portion, I'll tell you why I found myself in the ER for seven hours during a pandemic. But I thought I deserved some weekend loafing. I said to myself, "Fuck all. Let's make this intended bonus episode a full-blown Tuesday one, shall we?" We shall. We did. Here we are.

So, this is a really great conversation with my old pal C. Andrew Hall. He is an Emmy Awardnominated editor, my first friend I ever made in LA decades ago, and the person who really helped me pave my path to being a science communicator by introducing me to the fine folks at *Innovation Nation* on CBS, which we're now shooting in our eighth season. I'm recording this in a hotel room outside of Detroit, shooting actually, to be honest. *Innovation Nation*, check your local listings. It's on Saturdays, CBS.

But first I want to say thank you to all the folks supporting via Patreon.com/Ologies. Thank you to everyone who recommends *Ologies* to friends and family, and who rates, and of course to everyone who leaves reviews, such as this fresh one. It was written by Sev!!!12345; I have a feeling it's not their real name. But they said:

# I have severe depression and listening to this podcast makes me feel so much better. Thank you, Alie.

Sev!!!12345, thank you for taking the time to write that and I really appreciate you back. I hope this episode helps with some of the existential gloom we all feel. Actually, I know it will. So let's get into it.

Okay, so Andy first told me about the Drawdown Design Project two years ago. He was vexed by climate change and he was inspired by the Drawdown Project discussed in the *How to Save a Planet* episode that we aired last week. So, drawdown is the point at which greenhouse gasses start to decline, which is the goal of folks aiming to reverse human-caused climate change. So, you will hear how Andy has always had environmentalism in mind, and the power of art to start conversations and movements, how to approach climate change feeling less terrified and more empowered, how optimism helps scientists find solutions, and the social and cultural aspects of eco concerns, how sexism is not healthy for anyone really, plus solar panels, babies, steak, Zeus, voting, comic books, movie posters, snack tables, what choices you make matter most, and how commissioning the world's best artists and illustrators to make climate gig posters is his calling in life.

So I went over to his house one night after his kiddos were in bed, we were sippin' whiskey, and we were talking solutions and shootin' the shit, with my old, old friend who is also the guy who now has to edit me on *Innovation Nation* every week, and the Founder and Creative Director of the nonprofit Drawdown Design Project, Andy Hall.

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Andy: I made notes. Is that okay?

Alie: Did you? Nerd!

Andy: I know... Sorry.

Alie: Do you know who the fucking editor is?

Andy: Who?

Alie: Me! [laughs] The tables have turned!

Andy: Oh, I'm sorry.

Alie: I know! How many hours of my stupid face have you had to edit? [laughs]

Andy: A lot.

Alie: I know!

Okay, first thing I make you do is if you can say your first and last name and your pronouns.

Andy: Oh, are we on?

Alie: Yeah, we're on.

- Andy: My name is C. Andrew Hall. Everyone calls me Andy. My pronouns are his/him.
- Alie: Yep. Correct. How long have we known each other, C. Andrew Hall?
- Andy: My god... Um, 1999? So, that is 22 years.

Alie: That's crazy.

- **Andy:** Do people want to hear our, like, meeting story? Is that the kind of Alie Ward content people want?
- **Alie:** Well, I think it's relevant. You were one of my first non, like, came-here-moved-with-roommates. You were one of my first friends that I made in LA.

Andy: Me too.

- Alie: And at the time, you had a ponytail and Birkenstocks.
- **Andy:** I never wore Birkenstocks. I realize how you could add that to the image based on what I looked like, but I definitely never wore Birkenstocks.

Alie: Did you wear Tevas?

Andy: I probably wore Tevas, yeah.

Alie: Potay-to, potah-to.

Andy: Well... I disagree, but...

Alie: Okay, they're a different vibe.

Andy: They're a different vibe, yeah.

Alie: So, I met you... You were a PA or you were a DGA trainee.

Andy: I was a production assistant on a Barbie commercial.

Alie: And I was working craft service. Was it Taco Bell or Jack in the Box?

Andy: It was Taco Bell. Before we move on, I think people should know about your craft service table.

Alie: Okay, yeah. We can talk about it.

Andy: Okay.

Alie: I still stand by it. I stand by standing by that craft service table.

**Andy:** So when I was this production assistant on the Barbie commercial, I was stuck in this hallway, and also in the hallway... same hallway, but from the stage next door and the Taco Bell commercial was Alie Ward and her craft service table. And I've seen a lot of craft service tables in my day, and I'm pretty sure this is the cutest, quirkiest, funnest craft service table ever, right?

Alie: You need levels.

Andy: Levels! You had the risers.

Alie: I had risers, mm-hmm.

- **Andy:** Right, and with the tablecloth over it. So each item was on its own little pedestal, and then you had a little placard for each item.
  - Alie: Oh yeah. You gotta label it! People need to know, "Are these peanut butter pretzels? Are these Sour Patches? What am I about to eat here?"

Andy: Right. "Is this hummus? Is this a Clif Bar?"

Alie: Yes! "What is it?"

- **Andy:** And you know, when Alie posts on her Instagram she has that blackboard with that, like, Alie font that tells you what the ologist is. That is the exact handwriting... That's Alie's handwriting. I assume everyone knows that. That's the exact handwriting that was on each placard. And the funny thing is that that's not, like... she doesn't try to do that. That's how Alie writes. Like, if it's a grocery list, that's what it looks like.
  - Alie: You're not wrong. But I remember, you were stuck by this Barbie door for so long, and I was like, [*whispering conspiratorially*] "Your craft service sucks. If you want to eat some of ours, come get some cheese, man!" And then we struck up a conversation and we've been friends forever. It's a good thing I had a good craft service table.

Andy: Yes, and now I'm on your podcast. What the fuck?

Alie: [laughs] I didn't realize that you had studied environmental engineering.

Andy: Yes.

Alie: So what did your... Is that what your bachelor's is in?

Andy: Yes.

Alie: In environmental engineering?

Andy: Yes.

Alie: How did you get into film?!

**Andy:** I worked on a set when I was a senior in college and I got the bug, and I moved to LA, and then I ended up on a Barbie commercial next to Alie Ward.

Alie: [laughs]

Andy: [laughs]

**Aside:** The rest, as they say, is history. It's just slowly warming seawater, rising under a bridge.

So in the interim, we both got married, Andy is now the dad to two adorable kiddos with his wife, Dr. Erika Hall. And a few years ago, Andy bought the 2017 book *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming* by environmental scientist Paul Hawken and Katharine Wilkinson, who was on last week's guest episode *How to Save A Planet*. And Katharine and Dr. Ayana Elizabeth Johnson co-edited the book *All We Can Save* about climate solutions too.

But - sorry - we're getting ahead of ourselves here.

- Alie: Tell me about drawdown. Tell me what captivated you about that research and about the book that you read.
- **Andy:** It's just, basically, a list of solutions to global warming, both sinks that suck greenhouse gasses out of the atmosphere and ways to reduce putting more greenhouse gasses into the atmosphere. And it's very nerdy and just, like, math. They got statistics, a bunch of scientists, they modeled all these solutions, and they just made a list of which are the different ones which are maybe the best and what we should focus on. And it's like, I really responded to how pragmatic it is.

It's super apolitical. It's just like, "Here's what we need to do." And it's so inspiring because, A, when you read it, you learn we have the solutions. Like, this is something that is completely doable. And you realize how practical the problem is. It's just this practical problem that we have to solve. It's not this pie-in-the-sky thing.

And the way the media covers climate change, the way climate anxiety kind of spreads online, there's sort of this fog around what to do about it. And this really cuts through that. It's just like, "Here's what we need to do. Here's a list." I just found that really inspiring because I don't encounter that a lot, right? When you're doomscrolling on your phone, it's not, like, this really pragmatic list of the things you just need to do. That's partially my personality. Like, I just respond to that kind of thing.

- Alie: Yeah, I think a lot of us are like, "Do I use paper straws?? Will things get better then??" And then all of us are very confused about our individual responsibility versus how can we move a needle politically or socially so that this can, kind of, reverse itself?
- **Andy:** 100%
- Alie: Yeah. I remember, we were... We met up for coffee when you found this book, and you were like, "What do you think some of the biggest contributors to global warming are? What are some of the biggest changes we need to make?" And yeah, I was like, "Uh, we gotta stop toasting bagels..." [*laughs*] Like, I didn't know.
- **Andy:** It's a fun game with this book, to ask that question.
  - Alie: Do you ever do that? Like, "Hey, Cocktail Party, anyone want to guess what's number three on the list?"
- **Andy:** I mean, I've tried. That's not the best cocktail party... It's hard to do that. You have to pick your moments with that game. But it's... Yeah, it's really fun because when you look at the book, it's not always the things you think it's going to be.

**Aside:** Which is the whole point. We don't have these conversations enough, and everyone runs around in their own little anxiety bubble about how it's their individual responsibility to reverse climate change. No one wants to be the bummer at a dinner party, and the problem seems so enormous so we don't talk about it in casual, positive, proactive ways.

But when Andy showed me this drawdown list, my verbatim reaction was, like, "Wait... wait. Whaaaat? I did not know about this! What?!" If I recall correctly. Probably I said the F word more times, but whatever.

Alie: How many can you list off from memory in order? Probably at least the first...

Andy: In order?

Alie: At least the first couple, I'm sure.

- **Andy:** Well, it keeps changing because they keep updating it. But the number one thing... I think it's no longer number one, but the number one thing when the book first came out was properly recycling your refrigerants.
  - **Alie:** Shocking. I'm like, "Refrigerant? What?" I feel like I had never heard that refrigerants were even a problem in terms of global warming until we were sitting in that coffee shop.
- **Andy:** It's a huge problem, and what's great about that one is it's not... It's something I think we can all agree on. Like, let's just recycle our refrigerants properly. It doesn't require a revolution in the energy sector. It doesn't require everyone to stop flying to see their grandmother. It's like the kind of thing that we can just do. And since the book came out, there has been a lot of movement on that and there's a lot of that happening. And those are the kinds of things that are easy, low-hanging-fruit solutions.

**Aside:** Okay, what is up with refrigerants? It is *not* a chill situation. So, hydrofluorocarbons are organic compounds; they're made of carbon, fluorine, and hydrogen atoms, but they're made by humans. They can warm the atmosphere 1,000-9,000 times *more* than carbon dioxide. Oopsie! We made this stuff.

So, a lot of the leakage, about 90%, happens at the disposal phase. So, can't we just use something else? We can. There are natural things like propane and ammonium that are less hard on the planet. So hydrofluorocarbons are starting to get phased out now. There was even legislation about winding down their production that was kind of just tucked in, just crammed in there, into the Covid-19 relief bill that was passed in December 2020, which is why voting in local elections and congressional ones has more impact than the paper bag that you had to use at Trader Joe's because you stopped on the way home from work and you forgot your usual tote. Stop beating yourself up about it. Forgive yourself. I forgive you.

Alie: What are some of the other big ones?

- **Andy:** I mean, the big one is really electrifying everything. The big ones in the energy sector are if you're trying to electrify your sources of energy, that's obviously solar farms, onshore and offshore wind, rooftop solar, nuclear (which is controversial). There's other funky ones like burning biomass and, like, converting waste to energy. But the big ones are all kinds of solar and wind power, really. That's the main thing that really needs to happen.
- Alie: Stop combusting a bunch of coal and barfing carbon into the atmosphere.
- **Andy:** Yeah, exactly. And let's start using all of this solar radiation that is bombarding the planet anyway.
- **Andy:** Absolutely. And I am not a climate scientist, nor am I an energy expert, but I'm just inspired by how doable it really is. Like, all this technology exists. It doesn't need to be invented. It exists; it's way ahead of where anyone thought it was going to be ten years ago. And we... by 'we' I mean politicians and people who run big companies; they, if we get them to, could just do it. It would be easy. Easy is maybe the wrong word, but it's doable.

- Alie: It's not completely unfeasible. We're not just on a crash course toward an incinerating planet where everyone's children and babies are just crackling toast because it's too hot.
- **Andy:** Correct. It's worth noting that no one really thinks that's going to happen, even under the worst circumstances, despite the fact that the media makes it seem like that's what's going to happen. But there are really terrible outcomes that we can still avoid.
- Alie: Right. I feel like when you started looking into this, you seemed like you were very motivated by the fact that you had a daughter, a very cute, smart, wonderful daughter, and you thought, "Oh fuck. I gotta leave this place better than I found it, I suppose." So, is that what motivated good old DDP? The Drawdown Design Project?
- **Andy:** Yeah, it's certainly part of it. And the other thing that happens when you have kids is, it's like instant ego death and you just, sort of, reevaluate what matters. It's such a cliché but it's completely true. You just realize all the bullshit that you've been spending your time on in your 20s, like, maybe doesn't really matter. And you see the clock ticking and you think, like, "Yeah, what can I work on? What can I do?"

Alie: I feel the same way about Gremmie.

Andy: [laughs]

Alie: She's going to die before me, but I'm still like, "How can the planet be better for her?"

But had you ever taken on a design project like this before? I mean, you've directed, and you've produced, and you've edited, and you've been nominated for Emmys and all this stuff.

- **Andy:** I mean, no. In the sense of illustration, definitely not. But I didn't initially come to illustration. Like, I was initially, after I read this book, just inspired by it and frustrated by how this approach to climate change, I didn't see that reflected in, at least, the media, and art, and conversations that I was having. So I wanted this way of seeing... that we have the solutions, positive mindset, I wanted to see more of that in the world. And when I didn't, then I started thinking, like, "How can I get it into the world?"
  - Alie: Yeah, we were talking about how it's not necessarily something you would bring up at a cocktail party at this stage in, like, where we're at with culture. But I remember you saying, "I want something you can hang on the wall that would be a beautiful art piece that you could talk about with people," so that climate change and what we needed to do as people wasn't just, "Welp, we're fucked," but actually, "Okay, this is a conversation I'm having."

I also think it should be noted that you're a big fan of Phish and gig posters, is that kind of what led you to do something so visual?

- **Andy:** Yeah, of course. I mean, there is an aspect of it where I'm a comic book fan, and I love gig posters, and I love alternative movie posters. And because I knew that world and I knew those illustrators, it just seems like an obvious way to tap into that kind of talent and just to make cool climate art, you know? I mean...
  - Alie: You rolled your eyes.
- **Andy:** I'm trying to think of a nice way to say this. You know, there's just a lot of really lame climate art out there, right? Like, we don't need any more crying Earths. We don't need any more sad polar bears on an ice floe. We don't need another "There's no Planet B" poster. I just want to see some cool climate art that's positive and reflects the excitement that there is going on in the climate solution community.

**Aside:** So in the "Is Your Carbon Footprint BS?" episode of *How to Save a Planet* that we ran last week, Dr. Johnson and Alex Blumberg talked about how the term 'carbon footprint' was pushed by fossil fuel companies to kind of shift the environmental burden onto consumers; sort of a "why are you hitting yourself?" move, but involving mass extinctions.

And then they crunched some numbers to reveal that the average American's pretty big carbon footprint, 16 tons of emissions yearly, is 0.000000003% of global emissions. They said that is a decimal point and then nine zeros, and then a 3. So yes, pitching in to lower ours matters, but then there are big systemic things that are at work here. The Drawdown team of over 200 scientists and policymakers made a list of technically viable, existing solutions and found that refrigerants were a big deal. Food waste is another big one. Family planning, tropical forest restoration for carbon sinks, and onshore wind turbines we also biggies. So, big solutions to big problems.

Andy read this and was inspired to help communicate these strategies in a very visually arresting way. He also loves concerts. So think of a gig poster, or a movie poster, or comic book art. He commissioned four, each with one theme. We're going to describe them each. Also, just so you know, I really believed in this project from its very inception. I make no money from this, obviously. This is a nonprofit endeavor. I'm actually buying some and we're doing a giveaway on Instagram this week via *Ologies* Instagram and the Drawdown Design Project Instagram. So, follow @DrawdownDesignProject on Instagram.

But yes, the designs:

Alie: How did you come to the four that you decided on?

**Andy:** Well, to be honest, with your help, I got together a room full of interesting people and we just talked about it.

Alie: Way smarter than us.

**Andy:** They're way smarter than us. There were some scientists, and people in marketing, and just some smart people we know, and yeah, we just looked through the book and all the different solutions, and just kind of talked it through, and kind of narrowed it down to four climate change solution themes.

So, the first one that I really wanted to present was political engagement. When people list the things that anyone can do for climate change, they list that you should stop flying, and you should drive an electric car, and you should eat a plant-based diet. And yes, those are great if you want to reflect your values in your everyday life. But really, to me, you should vote for climate candidates and you should send money to climate organizations. There are a lot of studies that show that, you know, if you send money to organizations that are lobbying for climate change solutions, that impact dwarfs anything else you can do. So, our first print is called *Engage* and it's about political engagement.

That one is by this gig poster artist named Brian Steely, and I knew his work because I'm a Phish fan and I've seen his work at Phish shows. And he has this really cool monoline style, and it depicts three figures, their arms are joined, and they're all presenting themselves as being engaged in the climate fight. One has a ballot and she's, maybe, pushing it into a ballot box that's shaped like the Earth. There's a fun fisherman-looking guy who has a megaphone who is, you know, shouting for his rights. And there's another guy with a placard who's probably marching. And I didn't prescribe these images to the illustrators. Like, I gave them the solutions that their print was going to be inspired by, and they just went with it. Alie: Oh, that's great. What was it like for *Engage* when you got some of the first art back?

**Andy:** It was pretty exciting, [*laughs*] you know, because it definitely... It's fun when you have this idea in your head of what you want something to be, and then you collaborate with someone else who's really talented, and they do a better job than you could ever imagine, and then you get to see it. And it was just really fun learning about the printing process. So, these are all screen printed, which is a really analog process, which is traditional to gig posters, so it's not like a digital inkjet printer.

If you haven't seen it before, it's like a press, and the printer makes a screen for each color layer, and then they individually press each layer of ink onto the paper. So it's a very analog process, and the prints themselves have, like, a ton of texture. The paper on this one is this really cool, blue cover stock, so when you see the blue on that one, that's just the raw paper. So when you touch the blue part, it's just raw paper; there's no ink there. And then the rest of it is the inked colors. It's just a combination of a super fun image that is inspired by climate change solutions. And the idea is you hang something like this on your wall, and when you first see it, the text that tells you what the solutions are doesn't dominate the image.

So, the idea is that it's kind of an art piece first and then it allows people to ask, hopefully, what it is. And then if you are familiar with the solutions that it's inspired by, then you can have fun conversations about what those solutions are. And all the solutions are things that you *can* do. None of these prints depict things you *shouldn't* do, right? Because a lot of environmental language, and press, and propaganda around environmentalism is really negative focused. It's really, like, about austerity and the things you shouldn't do. And that is important; there is a place for that. But I really wanted these to be positive about things that you can do affirmatively.

- Alie: Right, rather than "things you're doing wrong, you should be ashamed of yourself."
- **Andy:** Yeah, I think we've got plenty of shame. People who believe in climate change and believe in climate science and are scared about it, they feel bad enough. I don't think... I think there was a place for that initially, but I think now we need to start getting excited about what the world can look like if we do these things.
- **Alie:** So the aim is to galvanize people and to, essentially, get them excited about making some change and being more involved.
- Andy: Yeah, and just be fun. It should be fun.

Alie: And pretty.

- **Andy:** And pretty. Yeah, the point is to do something fun, and exciting, and positive. I want people to feel good.
- Alie: Right. Tell me about *Cultivate*.
- **Andy:** *Cultivate* is inspired by plant-based solutions to climate change, and it is by a UK-based artist. Her pen name is Tula Lotay; her real name is Lisa Wood. I've been a fan of hers forever. She's a comic book artist; she's done some really cool stuff for Marvel and a bunch of other comic companies. She also has done a bunch of alternative movie posters for Mondo, which is how I know her. She has this incredible Mulholland Drive poster. And yeah, she was on my short shortlist and she said yes.

- **Alie:** Was it bananas getting emails back from people that you really liked their work and they were like, "Yeah, sure. I'm down."?
- Andy: Yes, it was bananas.

**Aside:** Cut bangs. Text your art crushes. Eat more plants. Because your body and mind will thank you, to be honest. Your guts and forehead are going to be like, "Finally, bitch!"

**Andy:** So for her, it was plant-based solutions. The background is all pink and the main figure is a woman in a blue dress. She's probably a farmer. You know, she's carrying a big bundle of wheat that is just gorgeously drawn. The detail in it is so, so beautiful. And she's got a bamboo pole over her shoulder, and she's kind of looking off into the distance. I kind of go back and forth; I don't know if she's sad or determined. It's just a beautiful image. Like a lot of great illustrations, it's hard to pin down exactly what it means. It just... It's evocative when you see it.

Every single one of these artists, when they sent me their initial idea, they would send the idea and they would invariably say, "But I'll tone it down a little," because I think they were reacting to what they have normally seen in, like, climate art; this NPR tote bag sort of toned-down, let's-not-be-too-crazy sensibility. And I would always email back and be like, "Do not, under any circumstances, tone it down. Go as crazy as you possibly can." The whole point is for this to be as expressive as possible.

- Alie: And then what about *Empower*? I feel like *Empower* is one of the most colorful of the bunch.
- **Andy:** Yeah, so *Empower* is about... *Empower* is inspired by solutions to climate change based around health and education, primarily for women and girls.

This one was... It took a long time to decide whether or not to include this one in the set because this is a controversial set of solutions to climate change. If you're interested, I encourage you to go to the Project Drawdown site and read more about it there. They have a great way of talking about it. But these solutions, which are basically education equity, educating girls, giving girls access to family planning, and I included climate justice on this one because that seemed to fit in the theme of *Empowerment*. But those first two solutions, education equity and giving girls access to family planning, are controversial because the basis of that solution is there will be less people.

**Aside:** Okay, let's get into this. This is the Drawdown's Health and Education solution, and there are a few components to it. First is universal education. The Drawdown website reports that 62 million girls around the world are kept from their right to education, but that making school affordable, helping girls overcome health barriers, reducing the time and distance to get to school, and making schools more girl-friendly would help. And they say:

Educated girls realize higher wages and greater upward mobility, contributing to economic growth. Their rates of maternal mortality drop as do mortality rates of their babies. And education also equips girls and women to face the impacts of climate change. They can be more effective stewards of food, soil, trees, and water even as nature's cycles change.

Which, this brings up the family planning issue. According to Drawdown research, women with more years of education have fewer and healthier children and are better prepared to actively manage their reproductive health. I'm just going to quote the Drawdown project directly here:

Some 225 million women in lower-income countries say they want the ability to choose whether and when to become pregnant, but lack the necessary access to contraception. And the need persists in some high-income countries as well, including the United States, where 45% of pregnancies are unintended. Currently, the world faces a \$5.3 billion funding shortfall for providing the access to reproductive healthcare that women say they want to have.

Obviously, that gender language was binary, but nonbinary and trans folks, I see you too. And the Drawdown continues:

Honoring the dignity of women and children through family planning is not about governments forcing the birth rate down or up through natalist policies, nor is it about those in rich countries where emissions are highest, telling people elsewhere to stop having children. When family planning focuses on healthcare provision and meeting women's expressed needs, empowerment, equality, and well-being are the result. The benefits to the planet are side effects.

So, what's the numerical bottom line here? How much do health and education really impact the planet? By centering human rights issues at reproductive health and universal education over the next 30 years, it would reduce or sequester 85.4 gigatons (gigatons!) of carbon dioxide, which is great if you weren't already sold on the "more people having access to education and control of their own reproductive planning" stuff. Personally, I am all for people of all genders getting the school they want and getting to make their own reproductive choices. Bonus: just a lot less loose carbon boiling the oceans.

- **Andy:** But this is one of those things that, as you're researching solutions to climate change, you discover that even if there was no global warming, all these things are worth doing. All these solutions to climate change have all these incredible co-benefits. So, even if educating girls and giving them access to family planning made climate change worse, it would still be worth doing. But it just so happens that in the modeling in Project Drawdown, it reduces greenhouse gasses over time. So, it's a controversial one. I decided to include it because I have a daughter and I just believe in these things for women all over the world regardless of climate change. I'll leave it at that.
  - **Alie:** Also, some of our biggest voices, I feel like, in climate advocacy, are women who had access to education and were empowered to use their voices.
- **Andy:** Absolutely, yes. If you look at the review of this in Project Drawdown, they describe how when women get access to education and we're primarily talking about women in countries other than Western countries they tend to rise into leadership roles and they just... They tend to be leaders in a way that's climate friendly, right, in the businesses they run and the leadership positions they take. There's just a lot of knock-on and co-benefits to making sure women and girls have a fair shake all over the world.
  - Alie: And just in general, gender equity, across the spectrum, I feel like when there's more recognition of that, that tends to apply toward LGBT and trans folks in general where we're just trying to, across the board, get more equity for people, which is a good thing no matter what. Which is great.

#### Andy: Yes.

**Aside:** And wrote me a note afterward just to reiterate how passionate he is about the cobenefits of these solutions. He says:

Climate justice also lifts people out of poverty. Access to family planning also lets girls choose their own path. Electrification also frees people from the silent epidemic of killer air pollution. Wildland protection also saves us humans places to enjoy. Regenerative agriculture also makes produce more nutritious and saves farmers money. Plant-rich diets also have personal health benefits. Nearly all climate change solutions are worth doing even if global warming was a non-issue.

Now, I also love that he's made these posters and these visuals that can spark conversations *and*, as they're doing it, remind us to get more involved in the things that do move the needle. So if you can help reverse climate change, you can also clean out the garage. You can write a novel. You can adopt a bunny like you've always wanted to. Live your life! You can do it!

Alie: So the next poster is called *Empower*. Can you describe that one?

**Andy:** Yes, so that's by a Brooklyn-based comic book artist named Khary Randolph. He's worked for a ton of different comic book companies, and he wanted to do a print that was inspired by Jack Kirby. Jack Kirby is one of the godfathers of comic book illustration. A lot of the images that everyone has, sort of, internalized from the '60s and '70s, he drew. He's a huge influence, especially on Marvel stuff.

So, the main figure in this one, the girl in this print, her costume is a very Kirby costume, and the background in this one, all the, sort of, intergalactic swirls and circles, that is very typical of a Jack Kirby illustration and it's nicknamed Kirby Krackle. So, it's a real Kirby homage. It's a real comic booky one, which is great. And she's just an awesome figure. I love her expression. I love her attitude. I love that her hijab turns into a cape. Yeah, it's great.

- Alie: And the last one is *Electrify*.
- **Andy:** So, *Electrify* is by an Italian collective of illustrators who are pretty well known in the gig poster world.

Aside: They're called Malleus and their style is kind of trippy and flowy.

**Andy:** They do these sort of vintage look, San Francisco, Bay Area, gig poster-inspired illustrations. And yeah, I gave them the climate change solutions that their print was going to be inspired by, which is building, retrofitting, solar voltaics, and electric vehicles, and this is what they came up with. This one is really cool because it's hand-pulled by them in Italy in their own studio. The other three, it's a screenprinting machine. It's still operated by a human, it's still analog, but it allows for more precision. Whereas theirs is hand-pulled. It's literally, like, the artist is pulling a glob of ink over the screen on this wooden frame. So the ink just kind of gets denser. It's a little messier at the edges, in a great way. It gives it that really classic gig poster look.

It's sort of a Zeus-like figure with crazy red hair, and he's got one arm pointed up to the sun and I think he's sucking energy out of it like a solar panel, and his other hand is coming into the foreground, and he's got some lightning bolts coming out of it, and there's a bunch of hungry electric plugs that look like snakes in the foreground ready to get some juice. I love that they're European plugs. They're the 220V plugs. And there's an awesome moon with this cool grid in it in the background, and clouds. And the orange and blue inks in this one are metallic inks so it has a little shimmer. It's just a great illustration.

Alie: So people can get them as a set or can they get them individually?

**Andy:** Yeah, so if you go to our website DrawdownDesignProject.org, then yeah, you can buy one, you can buy two, you can buy three, you can buy four. They're for sale by donation.

**Aside:** Andy's Drawdown Design Project is a nonprofit and each print is \$75 and 100% of the proceeds go to the Coalition for Rainforest Nations. And the Coalition for Rainforest Nations develops policy and tools to achieve sustainability for forested and adjacent agricultural lands. They manage tropical rainforest areas in support of climate stability, biodiversity, sustainable development, and poverty alleviation. And they create financial tools in partnership with governments, and communities, and businesses, and stakeholders. They improve living standards for forest-dependent communities, and they're setting a precedent that enables similar outcomes in other tropically forested countries.

So, I really encourage you to think about the messages that you want to keep top of mind, the art that inspires you. Think about getting a Drawdown Design Project poster as a gift for someone and you can contribute to talking about climate change solutions and galvanize some others.

We are buying two sets of Drawdown Design Project posters and we're giving away eight posters this week via their Instagram, @DrawndownDesignProject. Follow them and you can enter there. We'll be giving away eight. You can also just buy one yourself at DrawdownDesignProject.org. Those proceeds will go to the Coalition for Rainforest Nations. Thanks to the following sponsors for making that possible.

#### [Ad Break]

Okay, the format and content of this episode, obviously not like other *Ologies* episodes, so instead of Patreon questions, I just shouted a bunch at Andy at the end that I thought you might want to ask him.

Alie: Can I rapid fire questions?

#### Andy: Yeah.

- Alie: Forming a nonprofit: How big of a pain in the ass was that?
- Andy: It's a giant pain in the ass.
- Alie: Okay. Any tips for someone who's like, "I want to be a nonprofit but I don't know what to do about red tape"?
- **Andy:** You gotta find... So, we're based in California and I found a website that, basically, laid it out for me what I needed to do. Every state's going to be a little different.

**Aside:** I put some links on my website, AlieWard.com/Ologies/DrawdownDesignProject. Those are 501c3.org, CouncilForNonprofits.org, etc.

- **Andy:** So find the one in your state. And you just kind of gotta barrel through it. There's this one form I had to file that got returned three times because I didn't... I mean, the reasons were insane.
  - Alie: [laughs] That's my nightmare.
- **Andy:** I did this at the height of covid, so the IRS and the Secretary of State were, like, really slow. Anyway, it was a pain in the ass. But it was fine. It was worth it.
- Alie: What is your, like, dream scenario? Like, global outlook for you? Tell me...

Andy: For the human race or for these posters?

#### Alie: For these posters.

**Andy:** Well, my dream outlook is that we sell them all and raise a bunch of money for our charity and then make more. I just want to make more of them. I have this list of my dream illustrators and artists that I want to make posters. But my other big thing is, I just... I don't know how I'm going to find out if it happens, but I just want someone to hang one of these on their walls, and I want someone in their life to ask them about it, and I want that to create a fun, non-judgy conversation about climate change solutions between those two people. So, if that happens to anybody, please let me know somehow. [*laughs*]

Alie: Makin' dreams come true.

#### Andy: Yeah.

- Alie: Who do you look to on, like, a day-to-day or week-to-week basis for climate information? Who are some of your climate activist, climate scientist heroes?
- **Andy:** I really like the *Volts* Substack by David Roberts. Just google it if you want to subscribe to it. That's really great information. I really like reading Rebecca Solnit's pieces in *The Guardian*. She seems to absorb a lot of information that she then, kind of, digests for the reader. But she also has a pragmatic and positive outlook like I do. Definitely *How to Save a Planet*, which is a great podcast. Those are the main ones. There's a ton of other resources out there, and a lot of them, it kind of depends on your personality, what you're looking for.

But I would, kind of, caution people from overloading themselves on this kind of stuff. Like, I'm interested in it, and since I started working on this project I really wanted to be up to date on the science, just because I wanted to make sure I was being as accurate as possible. But part of my goal in doing this is to, kind of, focus people on the things they can be doing without driving themselves crazy. I have a lot of friends who suffer a lot of climate anxiety, and they have a tendency to go too deep and make themselves crazy. There's a lot of amazing, wonky people out there figuring out the details. I don't think an everyday person needs to know every nuance of how we need to upgrade the electric grid. You need to vote for people who are going to take care of that.

- Alie: Right. Any changes that you have made in your life since starting this project? Like, any infrastructure changes, or personal changes, or if you had to give advice to someone of things that could help them sleep a little bit better if they've got kids, or if they are just concerned about all the fish out there and...?
- **Andy:** Yeah. It really depends on your life and your level of privilege, right? I'm fortunate in that I have time and the means to invest in some things that could improve my individual footprint. But you know, there's a lot of people in this world who are just trying to get through the day, and that's part of why I think it's so important to vote for people and invest in leadership in this issue.

But if you are the kind of person who has the ability to devote some of your free time to this, as long as... After you voted for climate candidates and you've sent money to organizations that are doing a lot of great work... Those are the number one things you should do. After that, it's really about electrification. Get nerdy about electrifying your house. My old natural gas stove died and I was like, "I'm getting an electric stove." So, I had to dive into a whole pain-in-the-ass situation of upgrading my panel. Like, I didn't have a high enough amp panel to have an electric stove, so I had to get an electrician out to do that work, and then I could finally get the electric stove so I could eliminate fossil fuels from my house. As much as a

pain in the ass that was, doing that work is great because I... Like, that electrician now knows how to do that job. It's just a way of refocusing everyone. Yeah.

- Alie: Any changes you've made diet-wise? Do you eat more plants?
- **Andy:** Yeah, more plants. It's really about beef. That's the... You know. Just don't eat beef. That's where it's at. If you look at the charts, it's beef and farmed shrimp.
  - Alie: Farmed shrimp??
- **Andy:** Farmed shrimp. People should really... There's all kinds of reasons to eat less meat, but it's really beef and farmed shrimp.

**Aside:** We also talked about shrimp in the Oceanology episode with Dr. Johnson. I previously thought they were the cockroaches of the sea; just plentiful to gobble. I had no idea about the bycatch issues and the mangrove destruction. The Monterey Bay Aquarium's SeafoodWatch.org has more info on what the better-farmed shrimp species and sources are. Some farms out there are doing it more safely. More power to 'em. But now you know.

Alie: Damn! Surf and Turf is out!

**Andy:** It's worth noting that one of our solutions on our *Cultivate* poster is regenerative agriculture. So if there's any regenerative farmers out there, now they're mad at me because they're going to tell me that their farm, with their pastureland, and their grazing, grass-fed beef is actually a good thing, which is true. So, regenerative agriculture is amazing and there's a ton of really fun opportunities to make farming better. But again, I think that kind of narrative is distracting people from what's more important, which is the big system changes that need to happen and it can only be made possible by politicians, and corporate leaders. Those people need to be pressured, whether it's through voting or other ways, to make the big changes. If you're obsessing about your lightbulbs, I think your energy is being put in the wrong place.

Alie: No pun intended.

**Andy:** Right. Even though... Listen, I changed all my lightbulbs because I want to live my values, but I know that that's why I'm doing it.

Alie: I just got solar in my house.

- **Andy:** That's awesome. I have panels also. It's so fun. That's part of it. It's just so fun. I go up there on the roof, and I look at them, and I look on my phone, and I see all the volts coming into my panels. It's just fun, and a lot of these climate change solutions are just so cool. They're just worth doing even if we didn't have this problem.
  - **Alie:** Yeah, they're just on the cutting edge of technology anyway that, you know, the notion that we are still digging into the earth to burn oil when we have all of this sun coming at us is bananas.
- **Andy:** I'm trained as an environmental engineer, that's where I got my bachelor's degree... That was in the '90s, right? And at that time there was no consensus around climate change. I remember being shown the data as a student and the professor being like, "What's going on here?" and it not really being that clear. So, I've watched the issue evolve since then into where we are now, where everyone knows it's happening, everyone knows it's human-caused, and everyone knows we have a limited amount of time to do something about it.

And that's not that long. That was only 25 years ago. This is moving fast, so yes we should stop digging up fossil fuels, but we're not being punished for doing that. It made sense at the

time and a lot of people's lives were made better because of fossil fuels. They're not evil, it's just an inert substance, right? So, we need to stop using them, but practically speaking, it's... It's a practical problem. It's not a moral one. Fossil fuels aren't evil, they're just bad for us.

Alie: That's a good way to put it.

**Aside:** So when it comes to choices like solar, there are a lot of co-benefits there too. The technology there is progressing pretty fast; and depending on whether you lease or buy the panels, and your roof, and your house, the reduction in your electric bill can offset the cost in just a number of years. There are also tax benefits to it too. So if you're at all in a position to, like, remodel a bathroom or look into solar, check out the solar panels. We finally got them a few months ago even though our kitchen cabinets are from the '80s and they don't really close. But we'll get to that.

- Andy: The next thing that really needs to happen is the grid needs to be modernized to be able to take in all this solar. And there needs to be storage installations so that we're storing all this solar so we can use it at night. But whatever. You should just do it. It's fun. It's so fun. [laughs]
  - Alie: We have the app too, and my dad is like, "Ah! Send me some screencaps. I want to see how much you're generating down there!" And it also does ease the "I'm going to use the AC, but I know it's coming from solar. I don't feel as bad," which is nice.
- **Andy:** Yeah, don't feel bad, though. It's hot. People die in heat waves from heatstroke. You need the AC. Don't feel bad.

**Aside:** Just a side note. There was a great piece in *The New York Times* by Christopher Flavelle and Kalen Goodluck about how Indigenous communities are affected by things like rising tides, melting ice, dried-up wells, and rising temperatures; threatening not just subsistence or cultural practices, but basic safety and survival as infrastructures on reserved lands tend to be underfunded. So, it's a lasting impact of being forced onto small tracts of, sometimes, the least desirable lands and another example of how climate justice intersects with a lot of human rights issues.

- **Andy:** We can't all go back to living off the land. That's just not where modern society is at. And also, our standard of living makes us healthier and saves lives; we live longer lives. We need to get excited about the fact that we can, to a certain extent, have everything we have if we make these changes.
  - Alie: The fact that it is feasible, that we can make sweeping progress on this without everyone having to go back to pre-industrial times is exciting.
- **Andy:** Yes. It's true. There's another great resource, this guy Saul Griffith, he's an Australian inventor and engineer. He has this organization called Rewiring America, and he wants to focus everyone on how electrifying everything is the way to go. Like, let's get excited about this awesome world where everything's electrified and there's no more air pollution. I mean, climate change aside, it's just going to be better if we can do it.
- Alie: I love that you've taken the excitement of a gig poster, and a show you want to see, and gathering with friends, and something that's cool, and applying it toward cool shit that we can do to make the planet better and make it better for people. I guess that's how things get done: No matter what the problem is, I feel like if you're acting from a place of optimism and hope, you're going to get more done than if you're acting from a place of, like, doom and shame.

**Andy:** Right. And I don't know if that's true, to be honest. We've had a lot of doom and shame when it comes to climate change, so let's see if this works too. And maybe different things work for different people. That's part of it, right? Some people are going to get motivated by fear, but a lot of other people are going to get motivated by getting excited about it and all the awesome things that are just co-benefits to climate change solutions.

There's this Kurt Vonnegut quote that is, like, a huge inspiration for me. The quote is, "We are what we pretend to be, so we must be very careful what we pretend to be." It's just really the inspiration for this whole thing because I think we need to tell stories that depict the future we want, not the future we're afraid of.

Alie: [mind blown] Oh jeez... That's a life lesson.

**Andy:** Yeah. I mean, if we're telling stories about how terrible everything's going to be, I think everything's going to be terrible. But if we tell stories about how awesome it's going to be, maybe it'll be awesome.

Alie: That's really good advice, Andy. And I have to say, it's unlike you. [laughs]

Andy: It is weird, right? It is weird. It is so unlike me. That's funny.

Alie: I like it.

**Andy:** But it's not... You know, that should give you confidence because I'm not coming from someplace of pie-in-the-sky optimism. I've just read the articles, and done the research, and read this amazing book that everyone should read, *Project Drawdown*, and it's impossible not to come to the conclusion that, like, this can be done.

Alie: Augh! That's really good advice.

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So ask good friends for great advice, and ask smart climate scientists basic questions, and then make something good out of it. Thank you so much to Founder and Creative Director Andy Hall of the Drawdown Design Project for letting me hang out and chat with him about it. You can find out more at <u>DrawdownDesignProject.org</u>. Follow them immediately on Instagram <a href="mailto:@DrawdownDesignProject">@DrawdownDesignProject.org</a>. Follow them immediately on Instagram <a href="mailto:@DrawdownDesignProject">@DrawdownDesignProject</a>. We will be giving away eight posters this week! You've got to follow them.

We are @Ologies on <u>Twitter</u> and <u>Instagram</u>. I'm <u>@AlieWard</u> on <u>social media</u>. Do say hi. Special thanks to friends, Drs. Christine Corbett and Casey Handmer for hanging out in the initial meetings and giving some great feedback and ideas to Andy. Thank you to Erin Talbert for adminning the *Ologies* Podcast <u>Facebook group</u>. Thank you, Shannon Feltus and Boni Dutch of the podcast *You Are That*, for handling all the merch at <u>OlogiesMerch.com</u>. Thank you, Susan Hale and Noel Dilworth for all of the behind-the-scenes *Ologies* business. Thank you to Emily White of The Wordary for transcribing episodes, and Caleb Patton for bleeping them. Those are available for free at the <u>link in the show notes</u>.

Thank you, Kelly Dwyer, who made my website, <u>AlieWard.com</u>. If you need a website, her website is <u>KellyRDwyer.com</u>, and that's linked in the show notes. She's great. Thank you, hunk-o-rama and, honestly, the best husband I have ever had, editor Jarrett Sleeper of Mindjam Media. And of course, thank you to Steven Ray Morris, who is also helping on our edited down, short, kid-friendly *Smologies* episodes that come out every two weeks, alongside Zeke Rodrigues Thomas who also works on those. Nick Thorburn made the music.

And if you stick around, I'll tell you a secret. And as promised, here's why I was in the hospital, okay? Whew! Get comfortable. I'll try and make it quick.

So, over the pandemic, some of my regular scheduled doctor's appointments got pushed back, right? If you've heard other episodes, you may know that I am in this slim percentage, very exclusive, of uterine people whose ovaries just decided to fuck off decades early. So my ovaries peaced out, literally shriveled up and stopped working, sometime in my 30s. So, I'm on a cocktail of estrogen patches and testosterone creams and such. But for the first few years, they were giving me progesterone so that I would bleed like a normal person, but they didn't mention that progesterone pills – heads up, y'all – can make some people just straight-up not want to exist anymore and can be reduced to a weeping pile of hair and tears, which was what happened to me. Not everyone. Again, slim percentage. It happened to me.

So the doctors gave me a new kind to try at the start of covid. Once again, it was not good for my brain. And I stopped, and I hadn't been able to see my OBGYN again. Unopposed estrogen means maybe some endometrial cancer risks. So I went to my OBGYN last week and she was like, "Oh shit, you stopped taking the progesterone?" I was like, "Eugh... I did but I couldn't come in here. Everything was so busy." And she was like, "Well, let's check you for cancer. So what we'll do is we'll scrape your insides out like a pumpkin and then we'll send some chunks off to the lab." Also, I should note there was a new resident doctor in the room and they were like, "Can he practice on you?" And I was like, "Sure, man. You gotta learn to be a doctor somewhere, right? That somewhere starts right now in my crotch," which I'm fairly certain was the first one this particular doctor had ever used a speculum on. Bless his heart.

Did it hurt? The whole thing? Of course it hurt. They scraped my insides! But yeah, I chewed on my tongue, I got through it, the newbie doc got some chunks for pathology. Thumbs up. Way to go.

The next day, however, I had the worst, weirdest pain of my whole life. So much pain! Freakish spasm or something. Jarrett had to call my doctor. They were like, "Bring that lady into the ER, stat." And then later I saw on my medical notes that the nurse on the phone had typed in "Patient can be heard in the background audibly moaning," which was accurate.

Anyway, went to the ER, people barfing everywhere, people bleeding, hallways filled with beds. I had a bunch of ultrasounds, a bunch of pelvic exams; I had a covid brain tickler for good measure. And they were like, "Well, that was weird but you're fine. Get outta here." So I was like, "Will do." So I was woozy for a few days, and then your PodMom, Jarrett, shredded his meniscus (that's part of your knee) in jujitsu and can barely walk. So we spent the rest of the week in and out of MRI places, and physical therapists, and urgent care for him.

What's my point? Point is, cut me a li'l slack that this bonus episode is out a little late. And this is also just a super aside. I'm hiding this at the end, but every once in a while I'll have someone leave a comment or a tweet about how politics and science don't belong together, but literally, policy is, like, based on information and information is science, and I just... big sigh. Anyway, everything's fine. I'm in a hotel room outside of Detroit. I'm going to go get a salad. I'm feeling better. Thank you for your patience. Aren't you glad you will never scrape a pumpkin the same?

Also, you gotta let doctors practice on you. He didn't do the scraping. It was actually my OBGYN. He was fine. He was just a little nervous. But he was great. Thank you for being doctors. I appreciate it so much.

Okay, berbye.

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