

Ohio State University Inspire Podcast

Cutting edge: Changing ideas about sustainable fashion

The clothing we buy is putting a strain on the environment. Can innovators restyle an industry to remake and redo, rather than do more harm? A researcher and a forward-thinking designer share their vision.

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Robin Chenoweth: If you haven't done so lately, it might be time to take a hard look at the contents of your closet. Scan the labels. Maybe a lot of your clothing is made of synthetic fibers that never biodegrade. Maybe you have purchased some fast fashion — ultra cheap garments that you wear a few times and then discard. Maybe, if you are a millennial or are like my thrift-loving mom, your closet is stuffed with recycled clothing from second-hand stores and online consignment services. Regardless of what's in your wardrobe, it's worth bearing in mind that 11.3 million tons of textiles ended up in U.S. municipal landfills in 2018. Fashion is the [third highest-polluting](#) industry in the world, with 20% of industrial water pollution coming from treating and dyeing textiles. That favorite pair of jeans you love to wear? It took up to 2,000 gallons of water to manufacture them. And nearly [2,000](#) chemicals — most of them outlawed in the United States — are used to process textiles worldwide. Workers are forced to handle these chemicals at every stage of the manufacturing process. Fashion's social and environmental impacts are not lost on consumers—especially younger buyers. But sustainable fashion designer Mimi Prober says the onus largely falls onto the fashion industry.

Mimi Prober: Just from an environmental impact, we can't continue to consume in the way that we've been consuming. If we are, we're not going to have a planet for future generations. I mean, actual people make the clothes; I don't think a lot of people are aware of that. And, everything has this environmental and social people-and-planet impact. And I think we just really need to be mindful of how we're creating, and I think that does not necessarily mean stopping to create at all, but in a way that is more conscious of how we create.

Robin Chenoweth: Most of us have to wear clothes. And many of us really like to express our identities in the ways we dress. How can we do all that without putting the planet in peril? In this episode of the Ohio State University Inspire Podcast, we talk to an Ohio State researcher who has studied how to remake garments — making new clothes from old materials — and to one of her favorite designers, who takes innovative approaches to breathing new life into heirloom textiles, and custom creates new apparel without punishing the Earth. Inspire is a production of the College of Education and Human Ecology. I'm Robin Chenoweth. Carol Delgrosso is our audio engineer.

The phrase “sustainable fashion” gets bandied around a lot these days. TikTok influencers offer lots of advice on embracing “slow fashion” as a way to contravene the wasteful, fast consumption of clothing:

@maggie_zhou: Gorgeous, gorgeous girls love slow fashion. They love celebrating the clothes they already own, lending, mending, swapping, upcycling, thrifting, renting, re-wearing, remembering who made them and just buying less.

Robin Chenoweth: Fashion brands love the phrase.

H&M advertisement: Already more than half of our materials are recycled, organic or sustainably sourced. By 2030, it will be 100%. Let's change for tomorrow.

Robin Chenoweth: Alumna Tasha Lewis, who is Ohio State's new Nina Mae Mattus Clinical Associate Professor of Fashion and Retail Studies, has been studying sustainable fashion for years. I chatted with Lewis and designer Mimi Prober about where fashion has fouled up the environment and how that affects people. In case you can't tell from their banter, the two collaborators have become good friends over the years.

Robin Chenoweth: But I'm wondering, Tasha, if either one of you might want to weigh in on just what the environmental impact is, about some of the processes that happen in fashion manufacturing that are causing some of the worst problems for our environment, and what social justice issues are happening because of the way the clothing is being manufactured now?

Tasha Lewis: Looking at the data from where we see the biggest environmental impact, and it's really coming from the textile production and finished finishing phase. So, this very early phase where consumers don't really have an involvement, but where we're cultivating natural fibers or synthetic fibers out of petroleum base, the water we use, the energy we use, the processes to finish it, the dye products that are used. These are where we're seeing the most greenhouse gas emissions and energy use On the other side of that, my other part of the research is the disposal part, where the increasing low utilization of clothing — we buy more, but we wear it less and throw it away more — is leading to more landfilling.

Robin Chenoweth: This is what critics call “fast fashion,” fueled by cheap production, low prices, poor pay and factory conditions for workers and quick turnaround with internet sales. It's what you hear many Gen-Zers and millennials pushing back against.

Tasha Lewis: So, the increased level of landfilling of textiles. And we know from data from the EPA, that it's around 85% disposal and 15% diversion where it doesn't end up in landfill. So, we're still not keeping up with the pace of being able to divert most of this waste.... So, those are the big issues that I see. And the ones that we should probably start to try to tackle the most and really making things from the beginning that are sustainable, so that as they move down in a supply chain, they're not harmful, even when we get to the stage where they're disposed of.

Robin Chenoweth: Mimi Prober.

Mimi Prober: Going back to Tasha's comment on the textile production, it's definitely one of the largest polluters that we have in the industry And then, synthetic dyes, this is a notorious thing known wherever it's produced: You'll know what the color of the season is, based on what their waterways look like. Trillions of gallons each season are dumped into waterways, which contaminate and pollute the ecosystem that surrounds it, and those that also work directly with these synthetic dye properties. Though that is both an environmental as well as a social. It's affecting both people and planet.

Robin Chenoweth: What are the industry standards like, when you're looking at some of these sweatshops? Are they working like more than an eight- or 10-hour day in order to fill those orders?

Mimi Prober: I mean, I would say definitely. I don't have much experience with that. I just know of the industry and the conditions and the way that things are priced out. It's not a sustainable way for the actual people that are making the clothing. Going back to the Rana Plaza disaster, that was definitely a terrible tragedy where many, many workers died. And a lot of things shifted, Fashion Revolution and all of those things. That was a big wake up call. But we're still not doing enough, I think, to assure the safety and the health and as well as the fair wages of the majority of the people working in the fashion industry for lower priced and larger corporations.

Robin Chenoweth: And this is where the concept of sustainable fashion comes in. But even that term is loaded. New York Times fashion columnist Vanessa Friedman finds the phrase problematic.

Robin Chenoweth: She wanted to call it responsible fashion, because she felt like sustainable was such a big word that it's almost impossible to live up to.

Tasha Lewis: I think sustainable has been used so much that sometimes, like Mimi said, it's a big word We can talk about what we call conscious fashion. We can talk about social responsibility. So, there are a lot of things that we can, I think, attach to sustainable. But at the core of sustainable is, can we keep doing what we're doing right now in 50 years and not have done any damage, which I think is always the question. But I think we've used sustainability so much in fashion, that people don't really know specifically what we're referring to.

Mimi Prober: I think sustainability, the word, is necessary. But there's just so many layers and levels to that word. I think the word is being overused. And I definitely think there needs to be more clarification on how we use that word so there is a deeper understanding of the ramifications of creating in the industry.

Robin Chenoweth: I'm reading a lot about greenwashing. I'm wondering if you all might be able to define that for me and clarify what that word means.

Tasha Lewis: Mimi?

Mimi Prober: Oh, gosh, you're going to put that one on me! (laughter)

Tasha Lewis: We just talked about that, and she did such great expression of it to me when we were chatting before, and I like your explanation.

Mimi Prober: So, I mean, yes, the idea of greenwashing. I think, in a lot of ways, the concept of sustainability has turned into this kind of like marketing ploy. So there really are no regulations, for the industry and anybody can say anything. And as this idea of sustainable fashion becomes a trend, I think we really need to check ourselves and check the brands and understand really the real transparency of how things are made to hopefully avoid greenwashing. Long story short, yes, greenwashing is a huge problem in the fashion industry. And I think as, as consumers, we just need to be aware of that and ask questions, because I don't think it's going to really change unless there are regulations, yes. But also, the consumer at the end of the day is the one that's buying into the product and they should be the ones asking the questions and not taking everything at face value.

Tasha Lewis: So, I agree. And I think what Mimi does — and that's one of the reasons why I've interviewed her and seen her work — every step she does you see sustainability. So, it's this idea of transparency, but being thoughtful along every step of when you're making something.

And I think greenwashing can be tricky because a brand can say, we use organic cotton. But are you using a dye that's maybe toxic or something that's not healthy? So, some of these trade-offs are not really specified. As Mimi said, we don't have clear standards. We don't really know what the pinnacle of sustainability should be yet. So, it's easy to get caught in this. And this is why I think some brands may not even divulge what they're doing, because they don't want to get caught in this. Even though they may be doing good things it's kind of tricky slope to say you're doing enough. And I think that's where greenwashing comes in, because you take one thing and kind of market that as you're being sustainable. If you're using, like bamboo, which is sustainable, you know, in general, but when you turn it into a fiber and a fabric, there's a toxic process that goes along with that. So that can be very tricky.

Robin Chenoweth: All these considerations make it exceedingly difficult for a conscientious consumer to make fashion purchases that they can feel good about. There's a lot of confusion surrounding how sustainable fashion should work. Which might be why a fair number of consumers want to buy responsibly, but often don't.

Robin Chenoweth: Young shoppers say they prefer eco-friendly products and socially conscious companies and, surely, they're not going to support some of these noxious, you know, industry practices with their dollars. But, yet, they have.

Tasha Lewis: This is one of our sustainable fashion research paradoxes. Because people often will report that they'll go buy this sustainable product when you ask them in research, but when you actually get to their behavior, that's not what they do. And so we've seen this in sustainable fashion research before. So that is really, it's not that surprising, because a lot of things come into play when it comes to fashionability and price. It's sustainable, but is it cute? And I think that still has a factor. And they may not be as much into quality because some of this can be tied to quality.

Mimi Prober: You know, I think that there's obviously different types of purchasing power and different people that buy into different things. And then of course, as a young person, you have that need for immediate gratification, and you are living in kind of like that Instagram world. So, you know, you want to take a cute photo of yourself. And maybe you're not thinking about the longevity of your piece. You're just thinking about how quickly you can turn that around. But I think we do need to teach about investing in quality pieces. And I definitely think that there is great young generation of a community that as Tasha had mentioned is into kind of that resale, recycling, Depop, ThredUp, all of those things. I have hope for the future.

Tasha Lewis: And I also like to point out that our move into like ultra-fast fashion or even fast fashion has been evolving, like for the last 20 years. And it started with something that was called quick response, like in the late 90s, early 2000s, where companies, retailers are like, we need to be faster. And I think we never really thought about when do we not need to be that fast, because we just kept getting more agile, more quick, speed to market. The customer can see it now on a bunch of digital platforms; they want to buy it. And, so, I think we've kind of lost track of, of why we're doing it this fast? But I know that younger consumers, even the students that I teach, I find that they're more eco-conscious. As I teach them each year, I see that they're more aware; they're more into thrifting. So, I do see this awareness.

Robin Chenoweth: In fact, secondhand fashion buying has skyrocketed in recent years. Online resale retailer ThredUp estimates the global market for secondhand apparel will grow by 127% by 2026, three times faster than the clothing market overall. And more influencers than ever are evangelizing about how to dress sustainably.

@devanondeck: When you do buy new go with a brand that's more ethical And make sure to check for quality. The right piece, even from affordable brands, can you last months or even years.

Robin Chenoweth: Tasha Lewis

Tasha Lewis: It's also this idea of local. And that's one of the other environmental issues around fashion because it's so fragmented globally. You get the textile in one country, ship it to another country, sew it and then finally, ship it somewhere else to be sold. And that's an environmental footprint. And, so, we often don't talk too much about local production, domestic production. We don't have a lot of it in the United States. But this idea of what Mimi is doing to work with artisans and farms that are producing fibers. And that was amazing to me how many fiber farms we have this idea of a fiber shed and in places where we can still cultivate fiber and make things. But thinking more locally about keeping production in a sense, closer to home in a shorter radius. And I don't know if we've really thought about that or exploring that more. The pandemic kind of brought some of these to light in terms of domestic production. Like, we don't have factories that can make masks or gowns and really realizing that maybe this is something we do need to support more, for a lot of reasons.

Robin Chenoweth: I was going to ask about the pandemic, how that has shifted the way people buy, and they think about fashion.

Tasha Lewis: I think the pandemic also gave us a preview of what it would be like if people just didn't buy anything, and what it's like to reduce consumption. And clothing took a really big hit. And what we see from that is we see stores closing; we see companies going out of business. So, there's this side of like not having consumption also has this huge economic impact. So, I think it gave us a preview of what it would be like, but it's also a reality of we need this industry because a lot of people work in it and make their living out of it. But at the same time, can we make it better? Can we make it more sustainable?

Mimi Prober: I agree with Tasha, that the answer necessarily isn't in us not buying anything. Maybe it's more mindfully buying things, or doing more research into what you're buying and supporting — again, those that you believe in so their businesses can continue to thrive and continue on. But maybe it's not in the excess that we were purchasing before From a production perspective, the pandemic definitely had a huge impact on the fashion industry. I think what was really interesting, in the beginning of the pandemic, there was this real sense of partnership and understanding that kind of existed, we're going to all get through this together.... I think there was also this pause that we realized that we were moving too fast, maybe at the expense of others. And my hope really is, as we do go back to a more normal way of living, however, that looks now, that we embrace kind of that idea of change And it's being more open to how we produce, when we produce, when the retailer's accept the orders, or even just like how frequently things are made, and just thinking about the health of the individuals that actually make the clothing that we wear. Where it isn't always about that bottom line and increasing those profit margins.

Robin Chenoweth: Prober's own collection uses recovered heirloom materials — some of them hundreds of years old. Her sustainability model incorporates all aspects of the process. She uses fibers like cotton, merino and cashmere cultivated on local family farms and woven in local or vetted mills. Her dyes are completely botanical. Mimi Prober.

Mimi Prober: My goal is to create sustainable modern heirlooms, through textile narratives, preservation and process, kind of with the mindset of honoring the hands that created the art, both the past and the present, and integrating this artistry of the past to establish a sustainable future.

Tasha Lewis: What Mimi does, she works with existing pieces and figures out ways to give them new lives. So, I think this is a wonderful way to think about honoring people who made things because every garment we still wear, even if it's not so expensive, was touched by human hands. So, it's this idea of, maybe let's think about all the value that's stored in there. But we do need to develop the production processes that can really support that. And I think that's where the time and reengineering will come into play where we have to rethink manufacturing.

Robin Chenoweth: A key study Lewis did at Cornell University looks at the feasibility of recycling old clothing to make new pieces.

Tasha Lewis: We took garments, took them apart at the stitches, which takes a long time. It's very labor intensive. You lay out all the pieces, and then you have to figure out, maybe this was a suit jacket. Now what can I turn it into with the pieces that I have? So, you're working within the confines of the shape. But then you can make a new, what we call a pattern, for a different garment and cut it out using that same fabric.

Robin Chenoweth: The study used computer imaging of the patterns to maximize the fabric reused.

Tasha Lewis: So, you're using the textile over. You can cut out a new garment, you could sew it and sell it, it might already have buttons on it and pockets. So, you don't have to use labor to make those things. So, these are some of the ways to think about it. But it does involve what we call deconstruction. It takes a lot of time to do that, which in my mind, I feel like is one of the reasons it's hard to scale up. But if we can think of ways to do that more efficiently, we might be in a better position to be more circular.

Mimi Prober: I think that deconstructing is an excellent way to kind of recycle it back into the production, and Tasha was saying, the idea of scaling that up again, I think it's going to rely on the brands, if they're going to take product back, how they can do this in an honest way, where they're just not going to end up disposing of it for the consumer. Tasha saying through her research, it definitely has the potential for larger brands

Tasha Lewis: The idea of what we call product stewardship, where if I buy it, maybe I can take it back to the store where I bought it. And they take it from there and they just take it apart. Some stores have done that. But usually it ends up being a donated as a charity item, not necessarily something that's recycled. But some brands are starting to look at ways to take something back and disassemble it But the idea that you can take your garment back as a retailer is not unknown. And even if you take it to a charity and donate it, we could still come up with a process of sorting it and figuring out what goes where and taking it apart. It's a whole new way of thinking about manufacturing. I definitely understand from my research and taking things apart that we're never designed to be taken apart — we want our clothing to last — but disassembly and reconstruction. But I think it's a new way to think about apparel, manufacturing.

Robin Chenoweth: YouTube and social media are replete with ideas on how you can do this yourself.

Robin Chenoweth: I was wondering about the about the stains, like I mean, how many things have I like, tossed in the goodwill pile because it's got a stain on it?

Mimi Prober: Depending on the fiber composition, I mean, if it is natural fiber, you could, you could overdye it. I do a lot of botanical dyeing in our collections. That's all that we do. And you can actually do a fun, traditionally called a bundle die. So, you can put flowers and steam it and then the flower imprints will cover, cover your stains.

Robin Chenoweth: You mean actual flowers?

Mimi Prober: Yes. Yeah, certain flowers. But, yes. It's something that I love to do. But it allows you kind of to reinvent your pieces. You know, not worry about just a stain because definitely, a stain shouldn't be the be all, end all of your garment, if it can be. And I try to teach that when we do workshops and things, whether it's botanically dyeing, overdyeing, Indigo dyeing or mending and repairing — doing creative stitching and embroidery techniques that you can also use to cover up imperfections. Or what we view as imperfections, which I actually find comforting as the history of the continued garment, personally.

Robin Chenoweth: So, you leave that little rip in there, right?

Mimi Prober: I mean, I would mend it and create a beautiful, a beautiful, like an honoring of that rip. But there are ways that you can revive your clothing visibly and invisibly to keep it out of the, you know, donation pile.

Robin Chenoweth: I was actually going to say I did a weekend trip with my sister. Her jeans were so ripped that they were actually shorts, I decided.

(Laughter)

Mimi Prober: That's a fashion trend — that's a whole other topic.

Robin Chenoweth: I started to tell her you're taking this — because I had a few little rips in mine — I'm like you taking this a whole new level here. You're nice and cool. Whereas I'm hot.

Robin Chenoweth: My little sis was prolonging the life of her jeans. Maybe we can all make similar adjustments to our fashion expectations. Can we rethink an economy sector that by its design plans for us to consume, discard and then re-consume? Whose very definition is change. Changing clothes, changing seasons, changing hemlines, changing color palettes. This style is OUT as in, not wearable. This style is IN. Can we rethink that? Can we afford not to?

Tasha Lewis: I think you asked about the inflection point. The industry, I don't think it can police itself yet. I think there are some consortiums and retailers that can share best practices. But I think part of that is the transparency, like maybe just show us what you're doing that's good, where you're making good product, people are making a good living making these products. But really being to a point where we're not scared of the proprietary information, but we care more about having the industry be better for everybody. And I think that's the inflection point, where companies are at that point. We just want to make it better, because we know how important it is.

Mimi Prober: Yeah. Authenticity, I think completely and not just being a trend. I hope. Sustainability is a trend right now. And I hope that this is going to carry on into a real change for the way that we do business and the way that we think, from both the production standpoint, the brand standpoint, as well as the consumer standpoint. And I always say that big change starts small. So hopefully this is the start of really us rethinking the way that we consume and how we create.

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