CC 401 - Embracing Imperfections: Human Process of Garment Manufacturing

**Bret Schnitker** 00:00

Really unique complicated tasks of assembly or materials that tend to move we call them organic fabrics managed in the traditional way in terms of cutting at assembly, robotic struggle with that, you know, goods need to be more rigid to manage this kind of robotic assembly today.

**Emily Lane** 00:35

Welcome to Clothing Coulture, a fashion industry podcast at the intersection of technology and innovation. I'm Emily Lane.

**Bret Schnitker** 00:42

And I'm Bret Schnitker. We speak with experts and disruptors who are moving the industry forward and discuss solutions to real industry challenges.

**Emily Lane** 00:51

Clothing Culture is produced by Stars Design Group, a global design and production house with more than 30 years of experience.

**Emily Lane** 01:01

Welcome back to a brand new episode and a brand new season of Clothing Coulture. Bret, we are in season four!

**Bret Schnitker** 01:11

It's crazy how time flies.

**Emily Lane** 01:13

I'm I'm impressed with ourselves.

**Bret Schnitker** 01:17

No one else is but we're impressed.

**Emily Lane** 01:20

Oh, well, I'm excited about the season, we have a lot of great topics already lined up great guests, as well. But I'm, this is this episode, I've actually kind of had in my brain for a little while. And it really came together for me on a recent factory visit. It's really talking about

**Bret Schnitker** 01:43

factory visits, I think it 19 cities in 23 days. That's a lot in a short amount of time.

**Emily Lane** 01:49

I want to talk about the humans behind this process. We are in an industry where, you know, if you pick up a garment and at a store and you see Oh, a little imperfection, you know you can be oh my gosh, this is imperfect. But when you really get your yourself into the line really see what's happening to bring that garment to you, you understand the 1000s of people that actually had their hands in your garment. It's human process.

**Bret Schnitker** 02:22

Yeah, very human process. Still, I mean, technology's weighed, it weighed pretty heavily into different parts of the process. But it's still very human. And it's really, it was really interesting when we were traveling with yourself and Lauren on this trip, and it's almost kind of like second nature to me, because I've just been there and done that so long, so many years in this career, but kind of seeing this through the two of your eyes, you were just like, every time we sat in a room every time we walked through a floor of all these different steps, you guys were just amazed at the number the sheer number of people that were working at each and every step. And, and you know, it really got me thinking again, yeah, I remember years ago where I, I had that same really visceral experience, you know, and you really in your head, you're like, how does this thing happen? Because in some cases, you know, manufacturing is a little more self contained, you know, the thing comes in one side comes out. And, and in our industry, there's all these so many in somewhat this in some, in some ways, disparate parts that have to all come together and everyone has to work together to get the ultimate product done. And many times it's in countries that have challenges with infrastructure and right but they find that they find ways to pull it together it is it is truly this community of people that that make this happen, you know, we stay at stars, not me, but we. The entire organization, and our industry lives on we if we have effective we we wouldn't have product and it's kind of amazing that way.

**Emily Lane** 04:18

Let's break down that way a little bit. It's such a funny sentence, isn't it?

**Bret Schnitker** 04:23

Oui, Oui

**Emily Lane** 04:25

May Oui. So, you know, this industry, it's hard to get an exact number of how many people are actually in it, but it's, it's in the hundreds of millions that we know.

**Bret Schnitker** 04:38

And until like 99 and forget where I was and I'd start counting.

**Emily Lane** 04:43

And when we're you know, when we're when we're going through this process, we're thinking about all the different groups that are that have their hands in this one piece of garment. So, you know, we've got, you know, from the fiber forward, we're so we can talk about that.

**Bret Schnitker** 05:00

Farmers, growers changers, you know, transportation, I mean, it's just,

**Emily Lane** 05:06

it's on and on and on, then you've got once that fiber makes it to the mill, yeah, that whole process of turning that fiber into fabric, yes. You know, then you've got not just the fabric, the dyestuffs any kind of prints or treatments that are

**Bret Schnitker** 05:23

added? And you've got the whole die, you know, element. Yes, yeah. And

**Emily Lane** 05:27

then you have you have 1000s of people at that point, yes. Now, you've got just the garment creation itself, you've got your designers, you have your product development team, you have

**Bret Schnitker** 05:40

technical team, planning for factory,

**Emily Lane** 05:44

okay, and that was what blew me away. So here you are, this factory has taken a look at the tech pack, taken a look at all the specifications, the design, and they've said, Alright, yes, we're going to make this, what they do is they have internal planning, with leaders that are going, Okay, here's how we need to make this garment. And then they're working with the people in the line to create the solution of how this garment is going to come together, you've got a dozen or more people just in the planning,

**Bret Schnitker** 06:15

and not only how it's being put together, but the exact timing of how much each individual step takes to determine an overall profitable costs.

**Emily Lane** 06:25

We were walking through a line of one of our programs, and just that line alone had 94. sewers 94 people that's just in the sewing line. And then you've got quality control happening throughout, people are pulling things midway through measuring them making sure that everything's the specification. And then even when it's done, it's not done. You have you know, your ultimate quality control, you've got packing, you got people adding the trims, You've so many things happening to this one garment. It's astounding to me,

**Bret Schnitker** 07:04

yeah. Then you get into logistics, logistics aspect, the loading of those containers, the small trucks or lorries that take the goods to port the assembly and pour the distribution of goods all around the world with everything that's happening crazy, the people that are unloading it at ports, the truckers that deliver it, the retailers that take it apart and put it on the wall, you know, it's just, it is a massive people industry.

**Emily Lane** 07:31

So actually kind of amazes me that a garment is priced as low as it is when you factor in the number of people that are behind each one. So it really makes me appreciate, you know, what, what we what we're wearing every day,

**Bret Schnitker** 07:48

yeah, this industry has those very unique challenges, in my opinion, where the cost of garments haven't really risen to the level of other, you know, consumables or wearable or other items in the industry and, and it it challenges you each and every day to figure those things out.

**Emily Lane** 08:19

I'm glad it's a human process still, you know, we when you talk about hundreds of millions of people being employed, you've talked at times when you were in Ethiopia, that factory of 2000 people fed 40,000 people. So you know, it's it's quite a positive impact. Let's talk about maybe some of the changes that we are seeing happening. Either improving efficiencies or improving quality with technology.

**Bret Schnitker** 08:52

This goes back to you know, even previous conversations we've talked about with you know, the increased demand for speed or keeping costs low or things like that, as human labor costs increase, the overall world is getting more expensive. The basis for inexpensive labor are going away. I mean, there's still some but the ones that are really affordable are still somewhat problematic from a number of firms. Technology kind of creeps in in different areas to speed up different processes. And in speeding up processes, also increasing the quality of an individual step, as mechanics, robotics change, and replace human hands in certain operations. Those operations become more precise. And so it's really exciting to see on one hand, that, you know, for many years, there was no cheaper thing than human labor in certain cases. So why invest in technology? As those changes and shifts happen, you're finding Auto button holes and lines repleacing regular, you know, people manually doing that.

**Emily Lane** 10:10

which saves hands, right?

**Bret Schnitker** 10:13

It certainly it saves hands in some ways, but you're seeing automatic cutting tables vs manual cutting table

**Emily Lane** 10:22

Saves fingers.

**Bret Schnitker** 10:23

That definitely six fingers. Yeah, you know, a cutter that's been in the industry a long time sadly, might not be having a finger at some point. It certainly saves fingers. On the other hand, there are certain countries that rely exclusively on these kind of opening levels of industrialization, like apparel, and they don't have a big opportunity or infrastructure to evolve that production base to something that might be more. And so, you know, there's always two sides to every story, there's exciting things that are happening in terms of technology that are improving our industry making it more efficient, helping us keep our costs down our quality higher. But on the other hand, there's there's impacts to to, to the human condition, because they rely on that for living.

**Emily Lane** 11:20

You know, as we're talking about the sheer number of people that have hands in a garment, of course, there's going to be little imperfections from time to time. Let's talk a little bit about that, Brett. Yeah,

**Bret Schnitker** 11:33

I think overall, people think that that manufactured product has no imperfection. And certainly over the years processes of manufacturing have reduced imperfections, right. Even in our industry, we've seen a major shift toward more quality, even at lower opening price point levels, because there's been an awareness and a focus on improving process to the level that repetitive process improves quality. But we still, there are still imperfections in in many garments. And, you know, we take and we kind of define these imperfections, if you will, and garments into three major categories. Critical is something like a needle in a children's garment where it's a hazard. The entire shipments are generally rejected, you got to go through and kind of rework the entire ship and making sure that you don't have any dangerous materials in a shipment in general, you have majors, those are things that for people in that aren't in the industry, average consumers when they pick up a garment, and they see a defect that's so evident that they either return the garment or they don't buy it. That's majors. And they're a very, very long comprehensive list there. And then there's minors, minors are things that we in the industry, no, that could be a little bit better, but would never cause a customer to return them. And we set standards, every company has its own set of standards for quality within garments. But we set them at different levels. And that AQL allows for it to be set at different levels so that we're kind of understanding and cognizant of what's leaving the factory and what level of quality that exists. I think bringing awareness to each one of those things, constant process innovation, constant process. Education, we saw that in a lot of factories where workers were being educated in the better factories pretty consistently lead to better product. So, so understanding, you know, for those that are kind of newer into the industry understanding there's no such thing as a perfect garment. And there's associated levels for quality in our industry, because it is a human process needed by machine, I suppose.

**Emily Lane** 14:01

So what's happening in the world of innovations to ensure that, you know, we're supporting our humans as much as possible in their process and improving quality.

**Bret Schnitker** 14:15

Yeah, the question is, is whether it's supporting humans or replacing them that's, that's a big conversation. I'm hearing robots. Yes, robotics in general. Sometimes they're replacing humans. And we're seeing a lot of technological advantage or advances in robotics that are wholesale, replacing like one robotic machines, replacing three to 10 Human garment knitting. And whole garment knitting is very, very interesting on our recent trip, we were astounded by a level of a factory that had invested so much into the latest Gen whole garment knitting and, you know, watching a knit that's been fully program knit start to finish in seven minutes, regardless of the complexity, and popping out almost like Willy Wonka and crazy into a machine, you're kind of like, Wow, that's pretty amazing, you know, humans who are walk by they might be rethreading, something in the machine is managing the entire garment. And that's from a technological perspective, that's super exciting, right? You know, I love the fact that we can that we've progressed to that point that we can, we can make apparel, exact, more exacting. And we can do some amazing things with this new technology that exists out there. And so we're finding that at all levels, when it comes to different fabrications, robotics are more effective. In terms of auto cutting, or auto assembly, there's, there's some new technologies out there that are creating both cutting and assembly built into one entire garment. And that leads to maybe more of a distribution of production around the globe, where we had abdicated, manufacturing in the US or Europe at Advocate abdicated manufacturing in certain parts of, of Europe, because of the cost, we're able to bring some of those industries back because of technology.

**Emily Lane** 16:30

Where do Where did robotics fall short?

**Bret Schnitker** 16:39

Still today, although I don't imagine that, that will be permanent, really unique, complicated tasks of assembly, or materials that tend to move we call them organic fabrics, managed in the traditional way, in terms of cutting and assembly, robotic struggle with that, you know, goods need to be more rigid to manage this kind of robotic assembly today. And so, but every day, we're seeing improvements. Certainly, you see, you see glimpses of that in the medical industry, where precision is occurring in delicate human organs. And, you know, in surgical instruments, it's going to find its way through all industries in time. And so the big question is, what's the future look like for, you know, our industry? How much is going to be fully robotic? What are these massive workforces going to do? Where are they going to shift in certain countries, because precision manufacturing, robotics are now coming to the level where speed is a real thing. They're out there, they're able to knit things quickly and efficiently. And I think the affordable factor is coming into play, that's going to change the dynamic of our industry as it relates to people.

**Emily Lane** 18:15

I'm glad for now that it's still a very human process, we've had a great opportunity to meet a lot of humans along the way. And I'm going to embrace those little imperfections when we see them. Do you have any other thoughts to share as we wrap this episode up?

**Bret Schnitker** 18:34

I think, you know, I've always loved this business. I've always been fascinated by the people that have been involved, you know, understanding that, that this industry embraces the human effort. And there's some pretty wonderful people out there that are making your garments. Just be cognizant of that entire chain of individuals in the world, you know, as you're buying your garments, because it's a pretty fascinating thing.

**Emily Lane** 19:03

We're going to work on a download for you for those who are interested and really understanding each little component of the process to get a visual around how many humans have hands in your garment, so make sure to take a look on our website for that if you're interested. And as always, stay tuned for upcoming episodes. Don't forget to subscribe to stay apprised. We will see you soon.