



Words Kyla Zhao

In *Crazy Rich Asians*, protagonist Rachel Chu is blown away when she learns that her wealthy fiancé's grandmother is wearing a dress made from lotus flower stems. In the book, the lotus fabric was described as "normally available only for the most high-ranking monks". But thanks to Acala Stem, Su by Hand and Nost, textiles and dyes crafted from unusual plant materials are now entering public consciousness and ushering in a new frontier for sustainable fashion.

The three brands' founders are hovering on the precipice of a fashion revolution; one where sustainable design is not just a nice-to-have, but the very essence of their work. It is what inspires them to invest huge amounts of time, money and energy into creating alternative textiles and dyes from plants. Lotus woven into fabric so soft it feels like being swaddled in a cloud; spiky pineapple leaves transformed into dexterous cloth; superfoods like avocado and pomegranate turned into beautiful ombre hues—materials that might very well represent the future of fashion.



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SU BY HAND

Before she started Su by Hand in 2019, Su Pei Ho had been designing for luxury brands for over a decade. But working in commercial fashion for so long left her jaded. She decided to try designing her own clothes in a way that would “counter this perverse desire that people have for fast, cheap clothing”. Her first collection in late 2019 contained only a few pieces, some of which were made using plant-dyed fabrics sourced from Bangladesh.

Although she had always intended Su by Hand to simply be a passion project where she could explore her love for slow fashion and beautiful designs, the interest she received when she showcased her clothes at a private pop-up in November 2019 took her aback. “The customers were very surprised to learn that the dyes came from plants,” she recounts. “I managed to sell several pieces at rather high price points.”



CLOCKWISE FROM TOP Su by Hand's Cara dress is hand-dyed in natural avocado dye; the Cara dress modelled by Swedish sustainable lifestyle advocate Signe Siemsen; pomegranate and avocado are some of the foods Ho uses to create her dyes.

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Harvesting

the future

For Acala Stem, Su by Hand and Nost, plants like avocado, pineapple and lotus belong not just in the kitchen, but on our bodies as well.

Recognising the commercial potential in her personal project, she decided to take the plunge and registered her brand in December 2019. “I think there is a gap in Singapore for niche, interesting brands that have a bigger vision than just profits and margins,” she says. “I never started [Su by Hand] as something to make money and I’m not living off this. I just want to make essential items that are of high quality.”

A few characteristics define her designs: a nature-inspired aesthetic; loose, drapery fit; and most intriguingly, naturally dyed colours produced from plants such as avocado, pomegranate, onion, sandalwood and madder root. Ho makes most of her clothes with silk; both for its premium feel and the fact that it is the material plant dyes work best on. These days, she creates the plant dyes and dyes the silks—a process that can take one to two days for a single garment—in her kitchen. “My freezer is full of boxes of plant dyes,” she says with a laugh. “I want to rent a studio, but it’s just too expensive.”

Ho might be a veteran of the fashion industry, but her voice fills with child-like glee as she describes her experimentation. “It’s like cooking or like being in a chemistry lab.” Sandalwood and madder root are preferred for their warmer colours, while avocado and pomegranate contain more mordants (a chemical that binds dye to fibre). It also took a lot of trial and error before she settled on the best way of extracting pigment from each plant. Sandalwood must be powdered then mixed with just the right amount of ethanol, whereas madder root is first softened through overnight soaking, then pounded and boiled.

It is a hard-fought battle just for a small quantity of dye, but Ho loves it. “I find doing all this very therapeutic. I think working with plant dyes is for people who care as much about the process as they do about the product.”

Even after the dye has been made, the hard work does not end. Accidentally leaving any plant sediments in the dye vat might result in a splotchy dye effect. And, to achieve Su by Hand’s signature dip-dye pattern, she has to keep a close eye on the dyeing process from start to finish to avoid unsightly staining results.

Currently, she prefers working with dyes made from avocado, onion peel and pomegranate due to their ready availability—not just for herself, but also for her customers. Her plans to conduct educational workshops about plant dyes have led her to focus on plant materials that her customers can obtain and turn into dye relatively easily, compared to more obscure materials such as indigo plants. “As a sustainable brand, it’s really important for me to make the connection between consumer and clothes more personable,” Ho says emphatically. “Because when they understand the narrative, they value the clothes more.”



NOST

The story begins like something out of an ‘80s rom-com. Boy meets girl in a moment of serendipity, except in this case, it was a call by sustainability start-up Nextevo for designers who could make garments out of their pineapple leaf fibre yarns. The notice caught the eye of Nost, a local loungewear brand looking to work with innovative sustainable fabrics. It was a match made in heaven.

Nost’s co-founders Felicia Toh and Tessa Weiher share a love for handmade heritage textiles. But on their travels around Southeast Asia to meet with textile artisans, they heard many fearful accounts of being unable to compete with commercial manufacturers that could churn out products much more quickly, albeit through less eco-friendly means. Worried that Asia’s heritage craft culture was dying, Toh and Weiher launched Nost in February 2019, partnering with heritage artisans specialising in weaving, dyeing and batik-printing to bring their loungewear designs to life.

However, the two women remained plagued by one question: how can heritage crafts become relevant again to modern consumers? They knew there was a fast-rising demand for garments produced from alternative materials. Perhaps, if those fabrics were placed in the hands of artisans, it might help boost demand for their expertise. A way to future-proof their traditional practices along the trajectory of market growth, so to speak. In stepped Nextevo, like a textile fairy godmother.

A pineapple’s leaves are spiky and rough—in short, nothing that would seem comfortable on the body. But Nextevo, which aims to turn agricultural residue into sustainable lifestyle products, saw past the fruit’s prickly exterior to the potential lying within. It purchases pineapple leaves in bulk from Thailand, then processes and converts those leaves into pineapple leaf fibres (PALF). Those are then reinforced with Tencel and cotton to make a silky-smooth, high-strength yarn. The PALF

yarn’s malleability allows it to be set in a more open weaving structure, producing a highly breathable fabric that feels like linen and is great for wearing in tropical climates.

Nextevo sends the yarns straight to Nost’s partner artisans in Indonesia, who then weave them into fabrics according to Nost’s designs and specifications. “One of the perks of working with artisans is that we can produce fabric on a smaller scale first,” Toh says. “It’s nimbler and there’s more room for experimentation.”

In fact, this is not the first time Nost’s Indonesian weaving partners are working with PALF yarn. The material has been around for centuries, made historically in small cottage industries for wedding garments. However, the time-consuming manual production means supply is usually limited and unreliable. Collaborating with Nextevo enables Nost to feed a steady stream of PALF yarns into the artisans’ looms. In this merging of heritage with innovation, Toh and Weiher see the future of their lifelong mission to bridge heritage makers and modern markets.

Now, Nost, its partner artisans and Nextevo are working seamlessly together like a well-oiled, three-pronged machine on Nost’s new collection, set to be released in early 2022. Toh brims with excitement as she describes her and Weiher’s design ideas. “We want to retain our brand core of creating comfortable loungewear, perhaps in a resort style to tap into PALF yarn’s amazing breathability.” They plan to feature a mix of neutrals and prints, especially Nost’s signature architectural print (both co-founders are practising architects).

Right now, Toh and Weiher are working closely with Nextevo on the yarn’s composition and with the artisans on the weaving structure. If a sturdy enough fabric can be woven, they are also considering making bags or home goods such as throws and upholstery. When technology and tradition intertwine, the sky is truly the limit.

ACALA STEM

Leanne Savage was in Cambodia last February when the COVID-19 pandemic stormed across the world. It was the Lunar New Year at the time and Siem Reap, where she was, had too many people and not enough masks—a requirement for her flight to Bangkok. All she had in her bag were two scarves woven from pure lotus fibre.

“I tied them around my face and they were so comfortable that I fell asleep on the flight,” she recounts. “That was when it hit me that lotus fibre would be amazing for making face masks.”

She was in Siem Reap to visit Samatoya, a lotus textile manufacturer. Awen Delaval, who founded Samatoya in 2009, first proposed the idea of lotus fibre face masks to Savage after seeing that lake water around the lotus plant could be remarkably clear. After laboratory tests confirmed the material’s superior self-cleaning properties and breathability, she launched a face mask made of organic cotton and lotus fibre in April 2020.

For a long time, she had dreamt of starting her own sustainability brand, despite many naysayers claiming there was no room for an eco-conscious brand within the luxury realm. “I want our consumers to know and care about the textiles they are wearing,” she shares. “When we connect with nature, we connect with ourselves.” In the lotus plant, she found the ideal material that “is good for body, mind, and spirit”. Lotus fibre has an intriguing sponge-like architecture that makes it highly breathable, absorbent and malleable, meaning garments made with it



At Samatoya, lotus fibres are harvested and then woven into fabric entirely by hand.

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can be sweat-friendly and largely wrinkle-free. But another property that drew her to the lotus fibre was its touch: “Its silk-like feel is absolutely divine on the skin.”

Acala Stem’s lightweight and breathable face mask was an instant hit in humid Singapore. Another bestseller is its lotus wrap scarf—incidentally the same scarf Savage wore on her Bangkok flight. Each scarf is a labour of love, hand-woven with fibres manually extracted from 1,000 lotus stems—Delaval is adamant about making every stage of Samatoya’s textile process pollution-free. Despite the lengthy production process, Savage appreciates her supplier’s emphasis on sustainability, which matches her own. “In the past, things took a long time to be made and were treasured, but we [as a society] have lost our way. I want to go back to those values of creating something classic that will be kept and passed down,” she says.

She is keen to add more apparel into Acala Stem’s offerings in the next six to 12 months, with a focus on timeless cuts that will stay in the wardrobe for longer than a season. She is particularly excited about creating a line of gym wear to leverage the lotus fibre’s antibacterial and sweat-wicking properties. However, cautious of unsubstantiated antibacterial product claims made by other gym wear companies, Acala Stem is conducting extensive tests on the lotus fibre’s antibacterial activity as well as vitamin and mineral content. Savage is also working with textile engineers to make the material stretchier.

Meanwhile, in Cambodia, Samatoya is also forging ahead with textile innovation. It produces over 1,000 tons of lotus stem waste annually and recently found a way to turn the waste into vegan leather. According to Delaval, Samatoya’s lotus leather—a welcome departure from the usual vegan leathers made of plastic—has already caught the interest of luxury brands such as Hermès and Burberry. He envisions using the material for bags and shoes since it has yet to achieve a garment-appropriate texture.

Next on Savage’s agenda is setting up an Acala Stem flagship store in Singapore once the pandemic is over. She shares: “The lotus is such an important symbol in Asia that I always knew my brand would have to start there.” ●



Pineapple leaf fibre yarn being manually woven by heritage artisans.