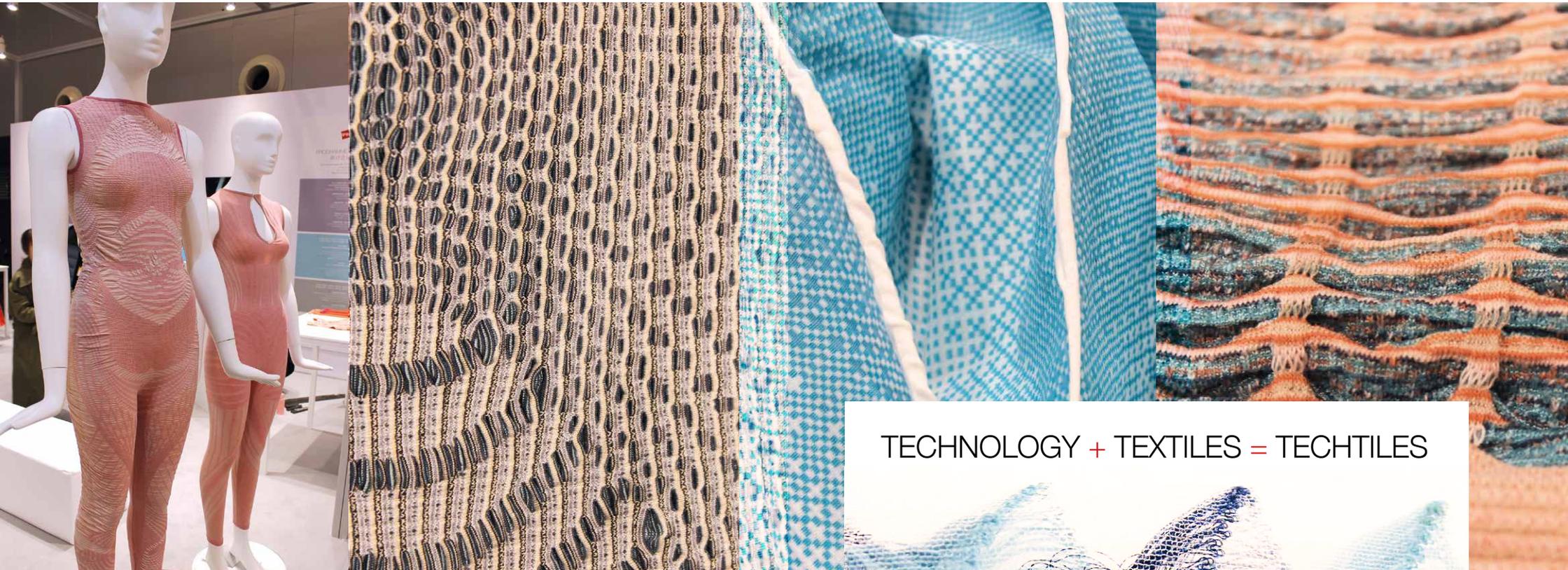


SPINACTIVE WRAP

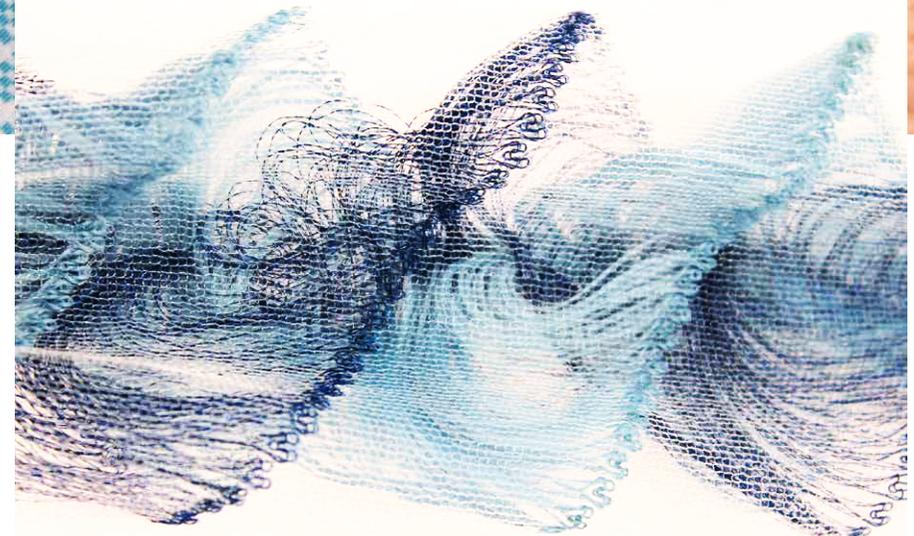
SPRING/SUMMER 2020

TECH/TILES

Summary



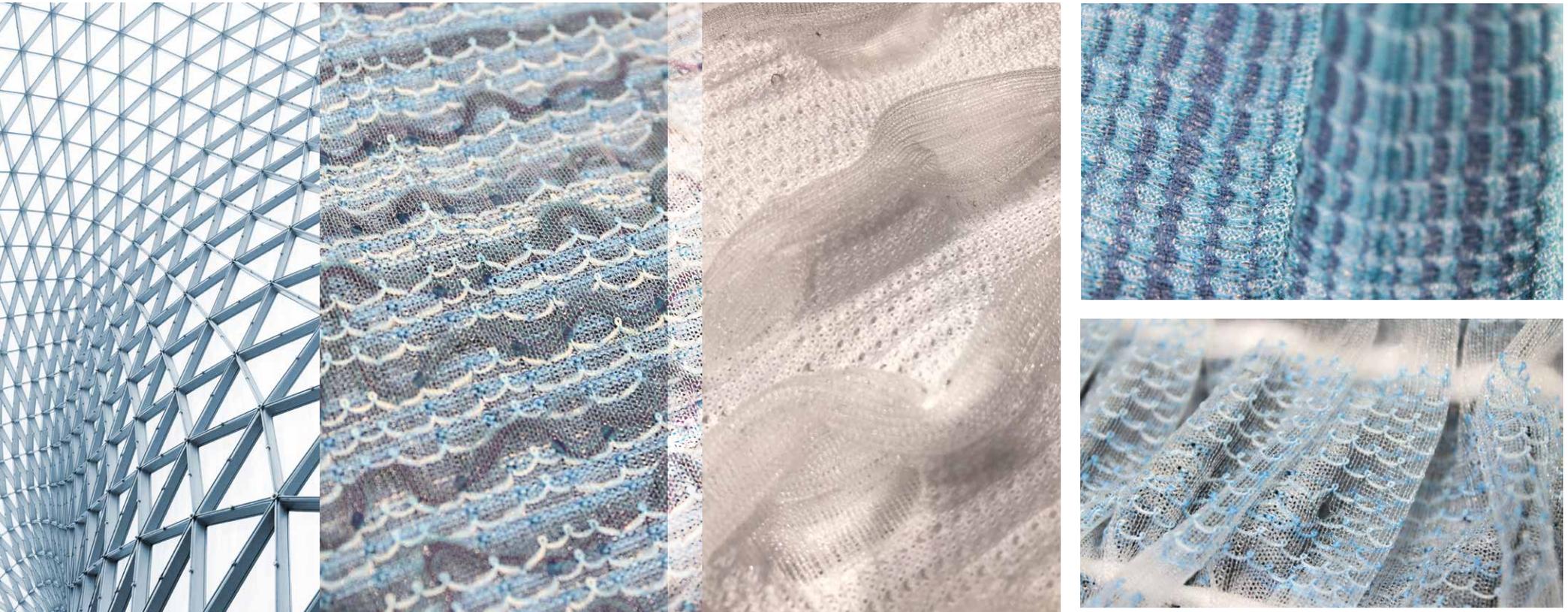
TECHNOLOGY + TEXTILES = TECHTILES



SPINEXPO™ in collaboration with Studio Eva x Carola presented TECHTILES, a project inspired by SPINEXPO™ In Between trends. Today's consumers are not only looking for the latest technological innovations; they are also looking for experiences that affirm and reinforce what it is to be human in an increasingly mechanized world. Even in textiles, there is a demand for the latest technological developments whilst also preserving all of the wholesome, human qualities of the handmade. With this in mind, the aim of the project was to fuse the two fields of textiles and technology.

This project was a collaboration with the renowned manufacturer Santoni Shanghai and innovative spinners like UPW, Esquel, Huayuan, and Shilead.

Organic Futurism Summary



Air Pollution:

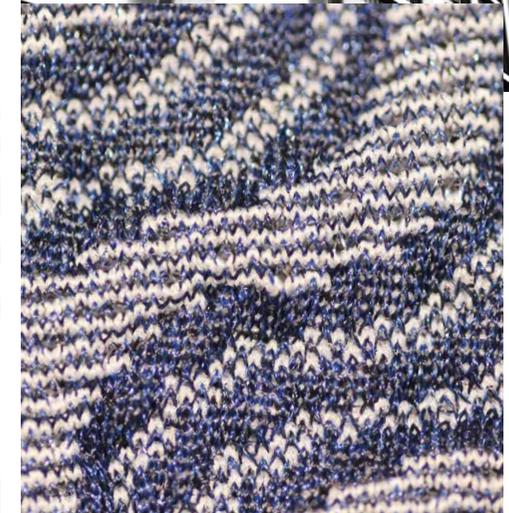
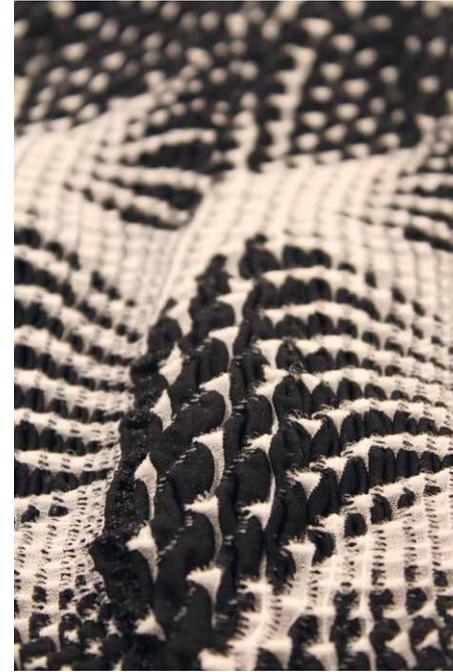
It is reported that 93% of our time is spent indoors. Our indoor air quality is often two to five times more polluted than the outdoor air quality. With this in mind, the focus was on creating textiles that would generate negative ions using cleaning yarns that contain organic geranium.

Noise Pollution:

Sound is another pollutant that can add to stress and cause us to lose focus.

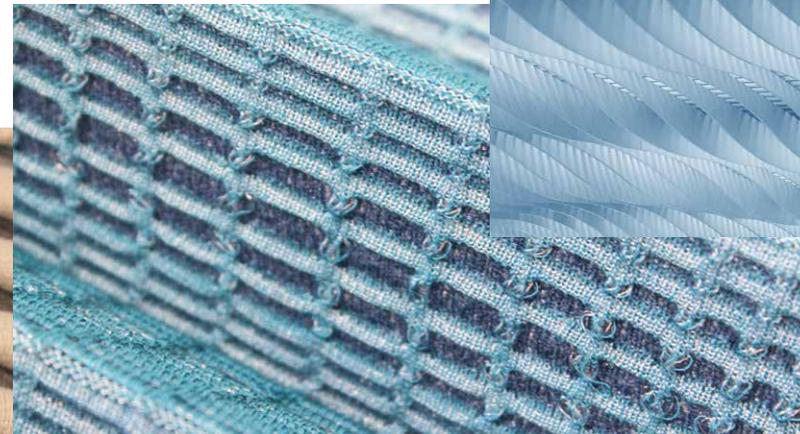
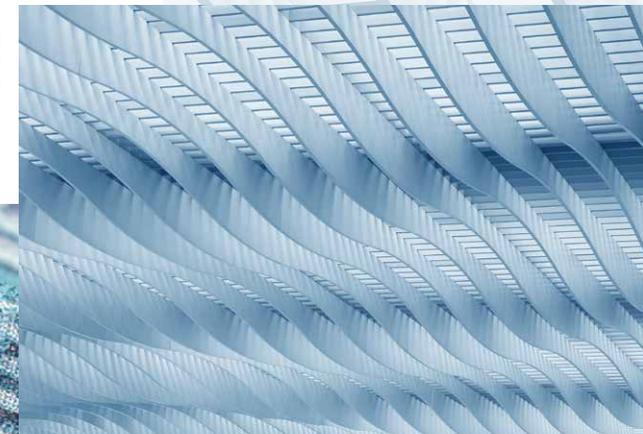
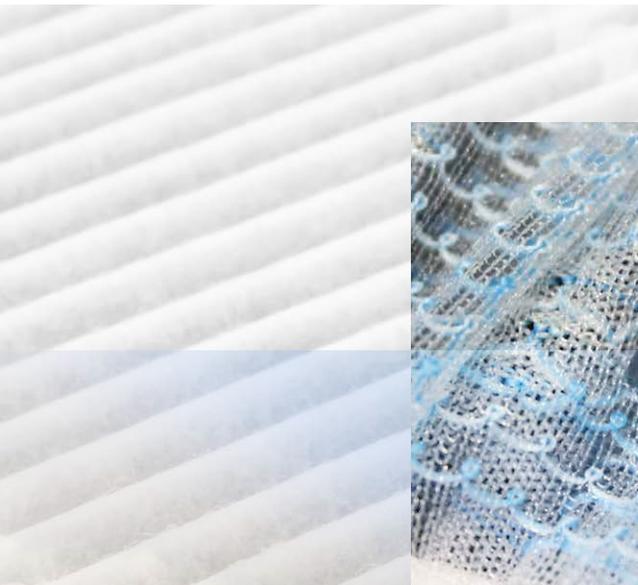
The second focus of Organic Futurism concerned textiles that could be applied to interiors that filter and dissipate unwanted noise pollution.





Organic Futurism Stitches

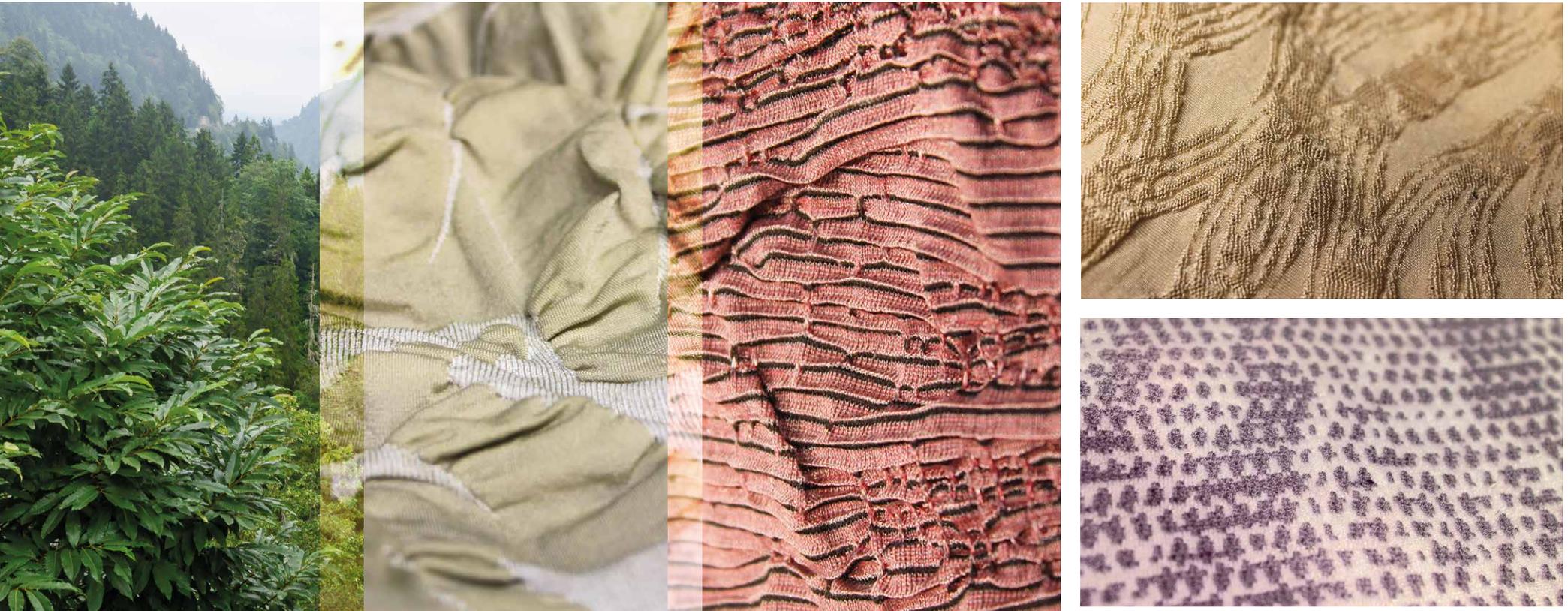
With a futuristic approach using organic materials, different colour combinations were applied to different structures, plating techniques and settings. Textiles are folded and pleated, inspired by metamerism, which means having a series of segments with similar structure.



Organic Futurism Filtered Interiors

3D textures are investigated to create sound damping and visual dimension for interior textiles. For interior design, this heralds some fantastic possibilities; for example, going forwards we could create interesting textiles for adjusting lamps, acoustic panelling or expandable blankets.

Bio Construction Summary



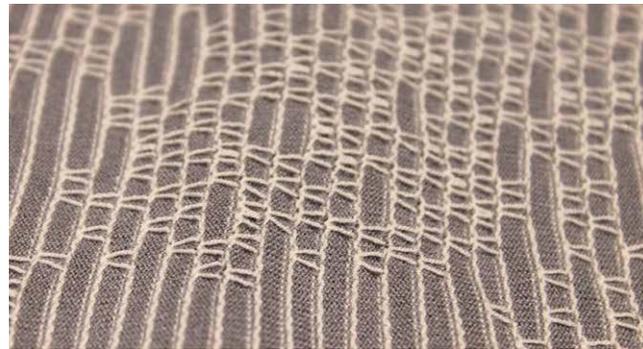
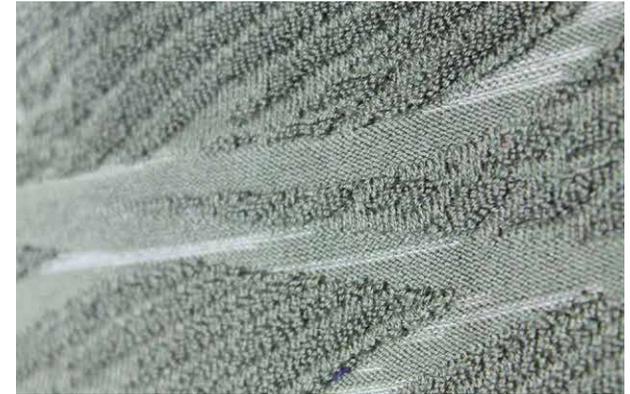
Natural dyes with food waste:

An eco-friendly approach to yarns, textiles and manufacturing is vital; for this SPINACTIVE looked at sustainable and biological options so that our designs could help the planet as well as the wearer, with a special focus on food waste that could be used in the dyeing process of yarns and fibres.

Biological patterns:

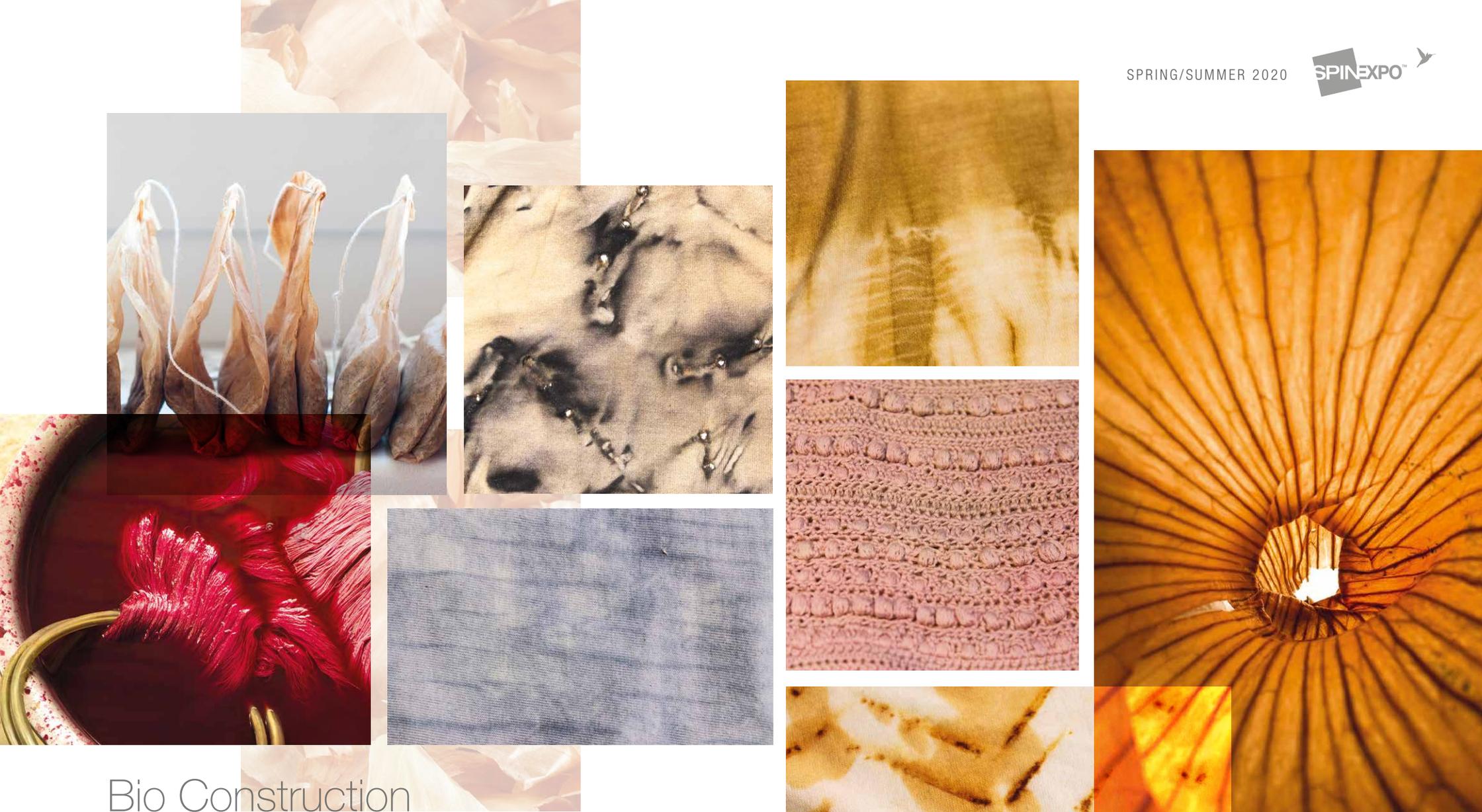
The alienation of humans from the natural world is being understood at new levels; research has shown that exposure to forests or even the experience of looking at a forest scene in an image can reduce stress, promote positive moods and in some cases help recovery from illness. Bringing in the natural patterns found in trees and leaves allows us to keep this calming influence next to our bodies and close by, even when we are not outside, via tactile stitches, pattern and colour.





Bio Construction Stitches

The elegant patterns of leaves is explored on a macro level as the cellulose veins are replicated in stitches that play with contrasting textures, while the distant views of arial photography inspires abstract textures that mimic the soft canopy of our forests.

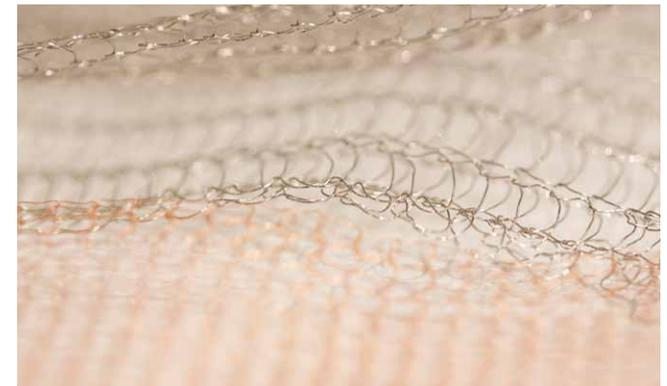
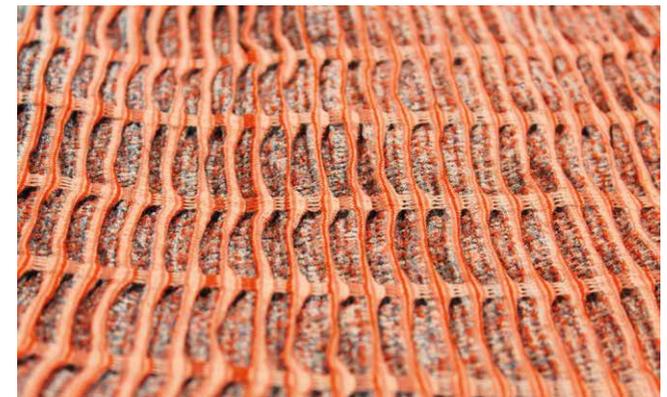


Bio Construction

Natural dyes with food waste

Roughly one third of the food produced in the world for human consumption every year (approximately 1.3 billion tonnes) gets lost or wasted. Food losses and waste amounts to roughly US\$ 990 billion worldwide. SPINACTIVE worked with alternative colour and finishing processes including exploring natural mordants like seawater, vinegar and avocado pits.

Material Innovation Summary



Strong frameworks:

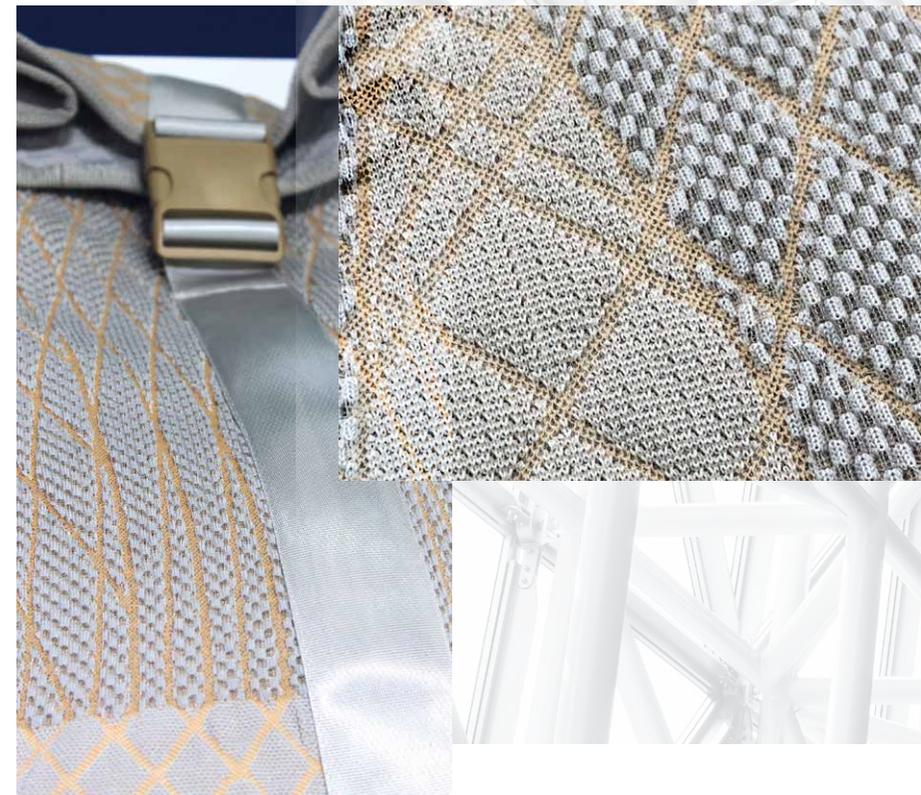
As a protective function, textiles require physical strength, durability while being lightweight and adaptable. For different end uses and by combining several machinery, yarns and industry applications we created a series of materials aimed to give these benefits using metal meshes and yarns such as Kevlar or Dyneema.

Medical relief: The ability to provide medical relief through textile innovation is one of our favourite research subjects, and we have explored the world of 3D knitting to create an alternative brace to support as well as applying our sock compression design to other products like arm sleeves, which could help people with Lymph cancer who need help with boosting their circulation.



Material Innovation Stitches

Several elements were explored in the stitch development for this group, including soft shaping, stretch movement, protecting with no abrasion, waterproof capabilities and breathable properties allowing thermal comfort.



Material Innovation Items

SPINACTIVE developed new innovations using elements from the medical and surgical fields to create products with anti-bacterial, non-toxic, and hypo-allergenic properties. Compression socks were developed applying the same functional elements but combined with design and colour to redefine and inspire future functional footwear

Human Centric Summary

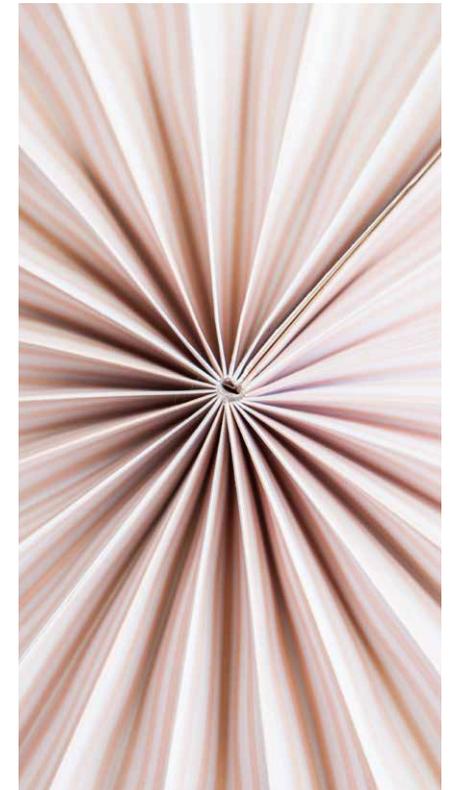
**Protect and Correct:**

Different stretch and support functions can be used to shape garments in activewear so that when at the gym or while exercising in public there is the reassuring support knitted into the active garments that many women find in their shapewear that they use each day under their regular clothing.

Healing yarn:

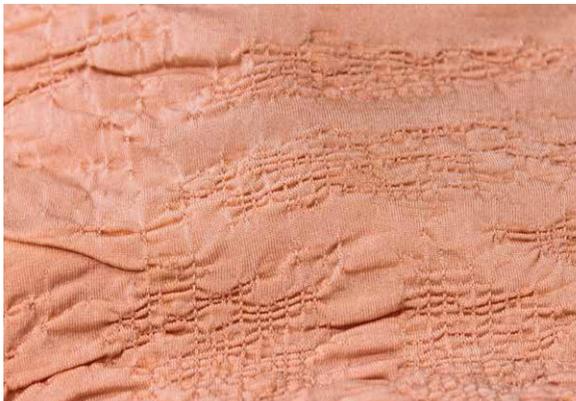
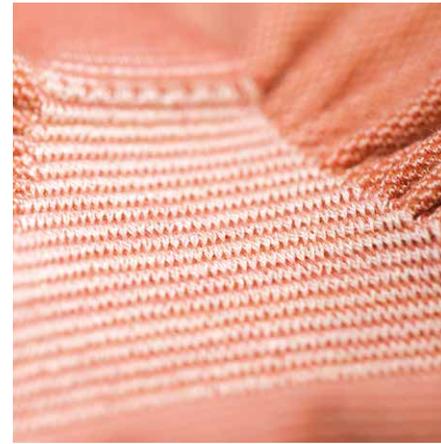
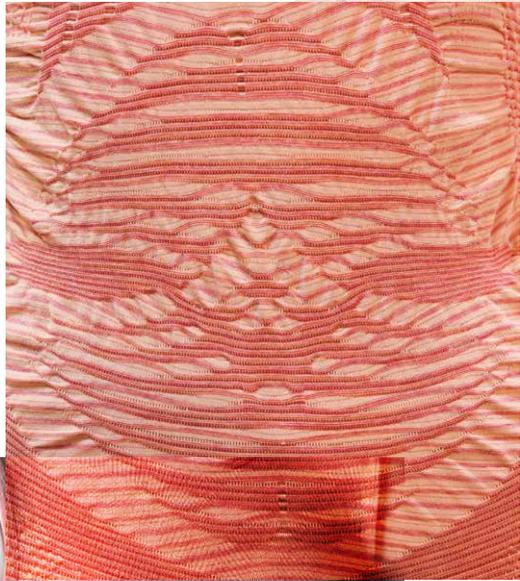
CottonX™ SKINCARE is a smart fibre, fusing 100% natural cotton with copper oxide to provide the ultimate in skin care and protection. Cotton has always been the fibre of choice due to its comfort, breathability and softness. Research has shown that copper is key in several processes of skin formation and regeneration.





Human Centric Stitches

Softly ruched and padded stitches are explored using copper and cotton fibres. When using copper-infused textiles, positive cosmetic effects are noted, such as significant reduction in the appearance of wrinkles and improvement in general appearance, all within several weeks of use.



Human Centric Garments

Textiles and cosmeto textiles can be utilised to support an aging or post-birth body when it loses shape. The way the textile interacts with the human body is central to creating a future-facing design. This is all about supporting, protecting and forming the body in a way that enhances the wearer's experience.