

Pauline van Dongen: a sustainable relationship with the clothes we wear

The many dimensions of a simple square of fabric

Clothing has become an ephemeral product. Fashion chains introduce a new collection every couple of weeks and consumers replace one item with the next at the drop of a hat. Most people do not have a sustainable relationship with their clothing. We can change that, argues fashion designer Pauline van Dongen (29). We can really change that.

'In my work as a fashion designer, but also in my doctoral research at Eindhoven University of Technology, I'm examining ways to bring back the personal aspect of clothing, and to let people experience the value of it. I'm trying to do this by combining the fashion designer's craft with new technologies such as 3D printing and 3D scanning. The way I see it, clothing is no longer a question of *either* mass production *or* customized products; the two can be combined with great results.'

Curves

As far as Pauline is concerned, personalized clothing is about more than shape and fit alone. It also has a lot to do with making clever use of the dynamic character of materials, and involving the person for whom the clothing is intended. 'A 3D body scan allows you to collect a huge amount of body data that you can put to great use as a designer. Special software enables you to use that data to align the prints on the fabric with the curves and shape of the body. Data can also be used to cut patterns so that a dress moves around the body in a particular way. If your model also provides an opinion, you can genuinely say that your clothing is *customized*. >>



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Playground

Just type 'Jet Bussemaker Prinsjesdag 2015' in Google and watch the clip. Pauline uses a simple square of fabric as a basis for the 'Be-tween' dress worn by the government minister in the film. This fabric has been screen-printed using a special ink that expands on heating. As the ink expands, the fabric contracts. By programming the degree of expansion and contraction into special software based on body data collected from a 3D body scan, the dress follows the exact contours of the wearer. What's more, the shoes that the minister is wearing are also unique. In fact they are the first ever wearable 3D-printed platform soles. 'Back in 2010, I printed a pair of shoes as my graduation project, primarily to show that it could be done. Walking in them was pretty uncomfortable. A lot has changed in this discipline over the last five years; it really astounds me sometimes. For someone who is always looking for new techniques and loves to find out about other disciplines, it's a brilliant challenge. Every day it feels as if I've been let loose in a great big playground.'

Future

Although the fashion industry offers little time, space and freedom to experiment, Pauline is convinced that the future will be all about combining traditional and new technologies. 'Why would you have clothing for the Netherlands produced in India or Pakistan when you can knit, sew or print it using a computer application at a location nearby? In London there are knitting shops where you can have an affordable sweater made with a color pattern adjusted exactly to suit your figure and taste. This is not only beautiful, but sustainable and honest trade are also significant factors in this respect.'

Many companies and researchers are interested in Pauline's vision and approach. For example, she is developing a prototype in collaboration with Philips for a luminescent running shirt. 'This too is all about the value of clothing to the wearer, about the interaction between clothing and the environment, and how the body experiences the garment.'

'I'm sometimes astounded by all the possibilities.'



MIND THE STORY

Elk ontwerp kent zijn eigen verhaal, een verhaal over exploreren, beslissen en aanpassen.

Tijdens Mind the Story, het gesproken programma dat parallel loopt aan Mind the Step, staan de mensen centraal die bij het ontwerp een rol spelen. Als gebruiker, klant, organisatie, bedrijf. U maakt kennis met hun verhaal en raakt bekend met de verschillende stappen in het ontwerpproces.

Every design has its own story, a story about ideas, exploring, decisions and adaptations.

During Mind the Story, the lecture program that accompanies Mind the Step, the focus is on people involved in the design process. As user, client, organization and company. You will get to know their story and the various steps in the design process.