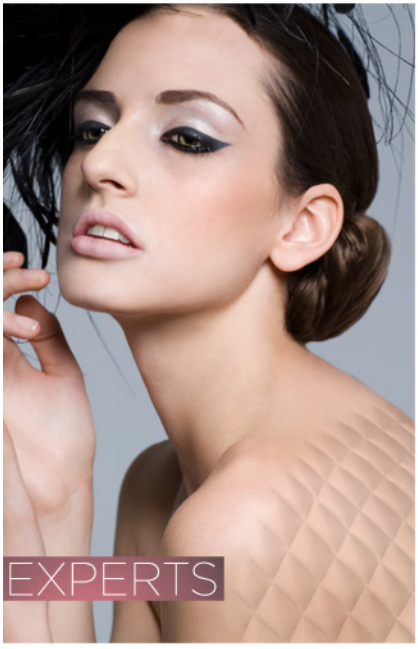

MATERIALS

Techno-Textiles

KnoWear's work explores the concept of wearable technology. Their Skinthetic Redux series, commissioned for the UK art book, Made In Code, will be published this year.

BEAUTYSTREAMS: Where do you find your inspiration?
Our work comments and reacts to the hyper-commercial society that we live in. Using this premise as the basis for our subject matter means we must be aware of cultural shifts and movements that we believe will become mainstream and dissect their cultural implications upon our lives. We can spot the emergence of a trend, oftentimes before the participants are even aware of it - everything from science to Main Street can become the subject matter for a project.

B: What is the next trend in wearable technology?
The next big step in wearable technology is the seamless combination of textile and technology, or smart textiles, with such material possibilities as electro-active polymers, shape-changing metals and thin bendable OLED displays and interfaces. In particular, the integration of bendable OLED technology will allow the graphic nature of clothing to change from moment-to-moment, giving the user the ability to modify the look and feel of a garment. This allows for multiple layers of self-expression, both emotive and technological in shape.

B: Are mainstream consumers heading towards wearable technologies?
Wearable technology is already a part of our daily lives. In the future, we foresee the garment removed from the body and technology embedded onto and into the skin. This idea might render itself as thin, flexible screens or interfaces that one can apply to their skin. Screen content might contain a personal animated tattoo or something we call body billboard - animated corporate-sponsored tattoos that live on the skin. Our project Façade of the Synthetic illustrates what displays on the skin might look like in the future, showcasing how corporations might harness the medium and turn one person's self-expression into a commodity.

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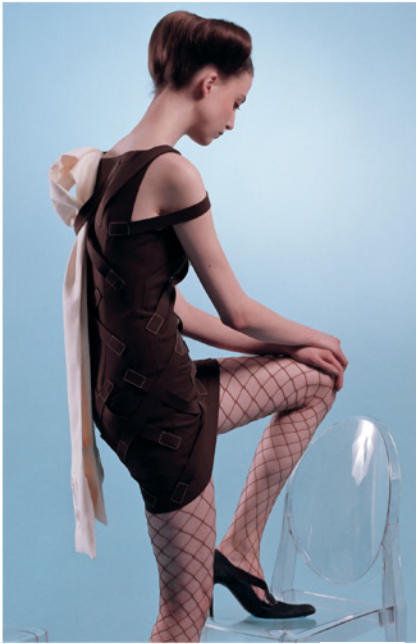
B: Does the technology exist for a garment to recognize a wearer's DNA?
Most of the developments that have been made in identifying and recognizing DNA have come from the field of forensic science. Touch DNA is an improvement that is on the cutting edge of DNA technology. It allows the isolating skin to recognize epithelial cells on certain parts of a garment, so that forensic scientists can determine where and how a victim was touched. This science could be used as a means of identifying a particular user, and garment access privileges could be pre-programmed.

B: Your Digital Nomadic Apparel concept integrates technology such as a digital wireless communication device into the garment, permitting the wearer to shop and communicate without carrying additional devices. When will we see such a garment on the market and who will embrace it?
We are seeing such applications presently in smart phones. Another example, which is an offshoot of our idea, has been created by the company P8tch. The company is selling a Velcro patch that one can apply to the body and through the use of QRcodes and smart phones, scanning the public can be directed to a designated URL.
The big step for our prediction to become a reality will be the integration of the object into the garment. In order for this to happen, the communication interface must become soft and malleable. In the future this might be accomplished with three-dimensional knitted garments or three-dimensional fabrics with technological devices fully woven into garments. The integration will be seamless, as if the technology is growing directly out of the skin or garment.

B: How are the youth today going to be different leaders and innovators? Will they have the same critiques and questions of ethics?
Generations that are brought up surrounded by ever-advancing digital technology are prone to embrace technological developments and not question them. While this leads to early adaptation, the downside is a lifestyle that is fueled by a secondary connection to the outside world. A device becomes the first means of interface. While this engagement may be questioned by a generation that has had technology introduced to them, generations whose first hand experience has always been with technology, may never question the insertion or the effect of technology on their life. Advancement and societal superiority has been equated to digital developments. Access, speed, and knowledge are becoming cultural keystones to a country's success. The cost of advancement must be balanced with the effect on society.

B: How do you see the function of garments in the future? What is your predicted timeline?
While the increasing miniaturization of technology may mean that the future will look decidedly different



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from today, garments will take on new uses, layered with intelligence, performance, and customization. Clothing will take on a greater role as a container, a carrier, for the seamless integration of small but life-altering devices, such as smart phones, health monitors, or translation services that will 'need' to be with us at all times. Another characteristic of the smart garment will include online augmentation with the application of CADCAM and desktop rapid prototyping technology, creating printed three-dimensional garments designed to individual needs and tastes. Current examples of this kind of customization are illustrated on such websites as NikeID or MIAdidas where a consumer can design a pair of shoes to their taste.

As implant and explant technology becomes more sophisticated and the idea of branding more intertwined into commodity culture, labels and bodies will become one. Whereas in the year 2011 we put labels on our bodies through the act of clothing, by 2021 we will be implanting designed body parts that not only are genetically coded but also bear the signs and brands of the couture and product houses that create them. Thus clothes will take on new functions: not only will the protection aspect be far superior to what is available today, but physical exposures and protrusion will dictate the aesthetic of a line.

B: How do you see the role of technology in our lives during the next five years?

Accessibility to technology through the DIY (Do It Yourself) community. What was once considered not feasible by the average consumer will become instantly accessible and ripe for augmentation. The DIY community has the means to share knowledge and goods via word of mouth (internet via social networks) very cheaply or free. This shift in transference of knowledge from top-end corporations to the average person will lead to a disruption of the means of distribution, meaning the technology will become cheap and free. Current examples of this are the online hacking communities that publish tutorials that teach you how to reconfigure your MP3 player, smart phone, or gaming device.

B: Do you feel that the human form is evolving into a synthetic product?

KnoWear's work explores the tensions between the future value of the natural and the future value of the synthetic. We believe our bodies will become surfaces with no real value in their own right, but rather blank slates awaiting the arrival of the latest commercial technological fad. Our two projects Skinthetic Redux and Brand X push two sides of this thought. Skinthetic Redux prototypes our bodies as sites for fashion's next line, merging flesh with the iconic billowy texture made recognizable by Chanel. Brand X goes even further, transforming our seemingly harmless obsession into an eruption of skin brands as they become one with us, metastasizing into an outbreak of uncontrollable 'branded' lesions.

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B: Your work includes manipulation of the skin. Why do you choose to work with skin as a material?
We take the position that architecture is akin to the human form. Skin is the primary membrane that we inhabit, the first protective layer we have. We view skin, human tissue, as a metaphor for the built environment. Skin is the architectural cladding, which gives the human body form. KnoWear's body of work uses the human body as a canvas, suggesting new ways the body can be reworked and interpreted to become an expression of cultural criticism. The theme that ties the work together is the use of body as a surface, specifically the manipulation of skin.

B: What other kinds of materials are you currently working with?
We are focusing on the digital medium, but we always move in between the real manufactured object and the digitized image. We continue to work with a material we discovered some ten years ago that allows us to manipulate it so that it appears as if three-dimensional objects are seamlessly growing out of a two-dimensional plane.

B: How do you see the relationship with technology and cosmetics evolving?
We see the relationship not of technology and cosmetics, but rather one of technology and beauty. We are interested in the idea that as technological objects move onto the human silhouette, the changing female silhouette will morph and twenty-first century perceptions of beauty will be altered.

B: What projects are you working on now?
Currently we have been creating images that illustrate our branding concepts. We have a show next spring in Dubai that is a bit of a departure from our current beauty based work. We are looking at creating large-scale portraits and manipulating the images by branding the person with their favorite object that will also be on display. We are excited by the idea because in a city like Dubai where the tallest building in the world exists, coupled with hyper retail and a crashing economy, the mix somehow seems ripe for exploration.

B: What is beautiful to you?
Beauty is clarity. The essence of an idea rendered so clearly that the viewer is not hindered by miscellaneous pieces of information that diffuse the concept.

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