

DESIGNING INTO THE FABRIC OF CULTURE

OUR IDEA to the innovation incubator


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Oswald Mondejar/Spaulding Rehabilitation Network/Boston

Spaulding Rehabilitation Hospital is a current client of the Boston office of Perkins+Will. In collaboration with the Chicago office we are designing a new replacement facility scheduled to open by December 2012. Our firm is committed to helping clients find ways to be innovative and forward thinking, better positioning them for the future while maintaining focus on sustainable and Best Practice design solutions. We believe this initial line of inquiry into the possibility of rebranding their clinical uniforms worn by practitioners, care givers and staff when they move into their new facility may present itself as a great opportunity to rethink, in our opinion, an overlooked and underestimated operational attribute explored through a line of design inquiry that is somewhat different from our normal scope of design practice.

ANTICIPATED OUTCOME:

- 1) That the concept would be selected as a potential idea for a design competition at Project Runway.
- 2) Project Runway would want to interview key individuals at Perkins+Will and Spaulding Rehabilitation Hospital, which would result in developing a competition, leading to a show outcome. The benefit would be a huge improvement on the work morale of the staff involved at our client site (Spaulding Rehabilitation Hospital) of being a part of their mission and brand which would be an emphasis on their PEOPLE and not just the physical space that we currently are in the process of designing.
- 3) Influence the clinical apparel industry, in spurring new market trends and economy.

PERKINS
+ WILL March 2011



innovation
incubator

WE BEGAN HERE

CLINICAL UNIFORMS a.k.a 'Scrubs'

Text in this section is incorporated from WIKIPEDIA

Scrubs are the shirts and trousers or gowns worn by nurses, surgeons, and other operating room personnel when "scrubbing in" for surgery. In the United Kingdom, they are sometimes known as Theatre Blues. They are designed to be simple with minimal places for dirt to hide, easy to launder, and cheap to replace if damaged or stained irreparably. The wearing of scrubs has been extended outside of surgery in many hospitals. Originally issued as replacement clothing if street clothing was contaminated, scrubs are now worn by any hospital personnel in any clean environment. The spread of Methicillin-resistant *Staphylococcus aureus* (MRSA) has increased the use of scrubs but can give wearers a false sense of security that they are 'clean' when in fact are as easily contaminated as any other clothing.^[1]

Nearly all patient care personnel in Canada and the United States wear some form of scrubs while on duty, as do some staffers in doctor, dental and veterinary offices. Support staff such as custodians and unit clerks also wear scrubs in some facilities.

1. ^ Neely, A. N.; Maley, M. P. (2000). "Survival of Enterococci and Staphylococci on Hospital Fabrics and Plastic". *Journal of Clinical Microbiology* 38 (2): 724–726. <http://jcm.asm.org/cgi/content/abstract/38/2/724>.

Retrieved from "http://en.wikipedia.org/wiki/Scrubs_(clothing)"

Categories: History of fashion | Medical equipment | Uniforms | Medical hygiene | Suits (clothing)

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history of surgical attire



In contrast to the uniforms long required of nurses, surgeons did not wear any kind of specialized garments until well into the 20th century. Surgical procedures were conducted in an operating theater. The surgeon wore his street clothes, with perhaps a butcher's apron to protect his clothing from blood stains, and he operated bare-handed with non-sterile instruments and supplies. (Gut and silk sutures were sold as open strands with reusable, hand-threaded needles; packing gauze was made of sweepings from the floors of cotton mills.) In contrast to today's concept of surgery as a profession that emphasizes cleanliness and conscientiousness, up to the early 20th century the mark of a busy and successful surgeon was the profusion of blood and fluids on his clothes.

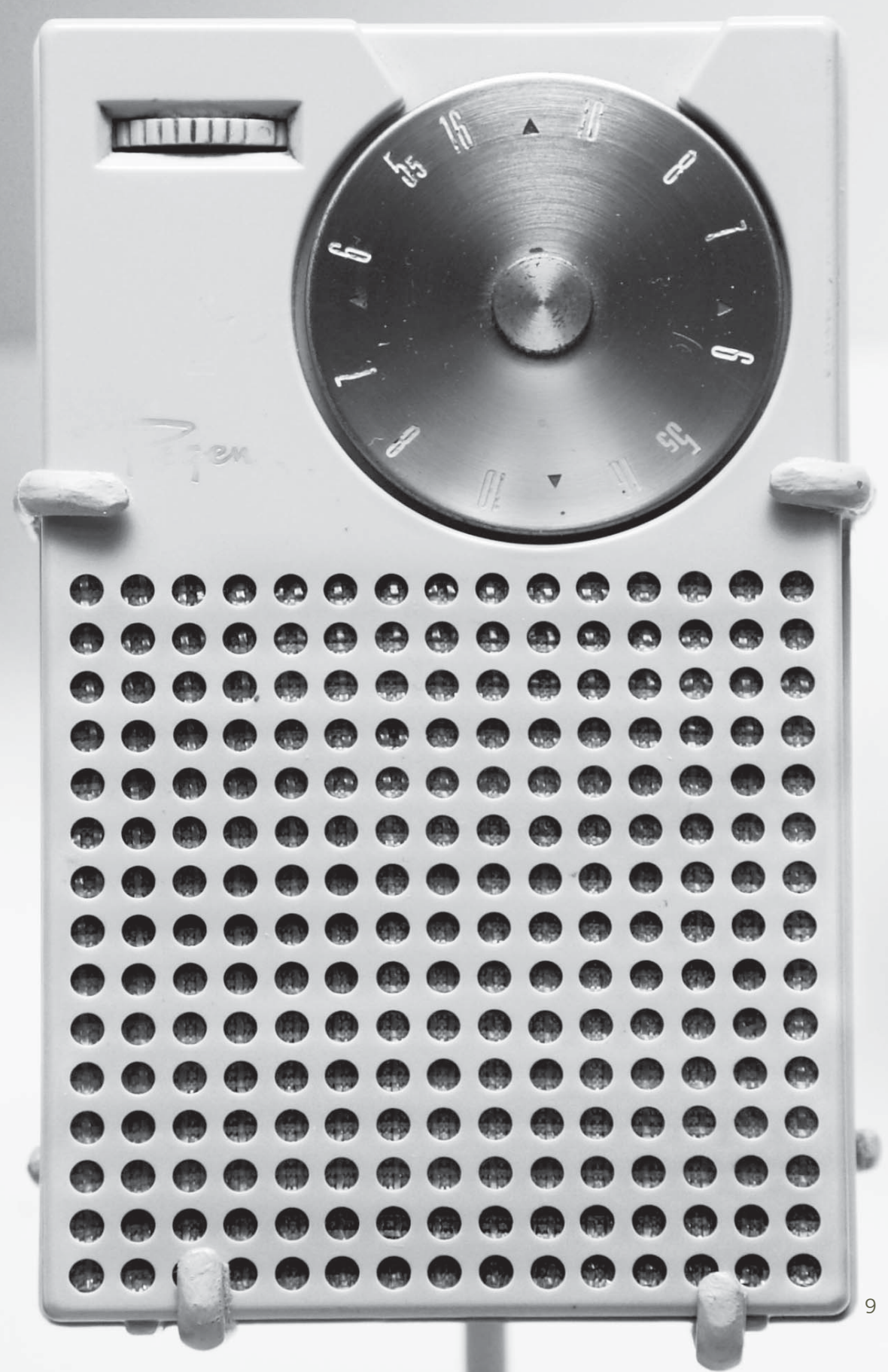
[citation needed]

With the "Spanish flu" pandemic of 1918 and the growing medical interest in Lister's antiseptic theory, some surgeons began wearing cotton gauze masks in surgery—however, this was not to protect the patient from intra-operative infection, but to protect the surgeon from the patient's diseases. Around the same time, operating theatre staff began wearing heavy rubber gloves to protect their hands from the solutions used to clean the room and equipment, a practice surgeons grudgingly adopted.

By the 1940s, advances in surgical antisepsis (now called aseptic technique) and the science of wound infection led to the adoption of antiseptic drapes and gowns for operating room ("OR") use. Instruments, supplies and dressings were routinely sterilized by exposure to either high-pressure steam or ethylene oxide gas.

Originally, operating room attire was white to emphasize cleanliness. However, the combination of bright operating lights and an all-white environment led to eyestrain for the surgeon and staff. By the 1950s and 1960s, most hospitals had abandoned white operating room apparel in favor of various shades of green, which provided a high-contrast environment, reduced eye fatigue, and made bright red blood splashes less conspicuous.

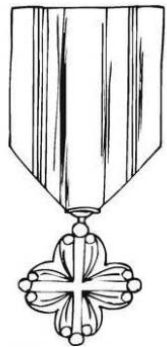
By the 1970s, surgical attire had largely reached its modern state: a short-sleeve V-necked shirt and drawstring pants.



should a uniform look like this ?

HISTORICAL FACT: The importance of dress as a badge of one's class in society was important and the processes behind the transmission of infection were the subject of controversy within the profession.

should it be worn as "badge of honor?"
should it be a privilege to wear a uniform?



Should you have earned it?
What should it stand for?
Must it command respect?
Would it be intimidateable?
Would it be considered noble?
Would it show that you care?
Would it distinguish?
Would it differentiate?
Should it have buttons?

A UNIFORM IS A SET OF STANDARD CLOTHING WORN BY MEMBERS OF AN ORGANIZATION WHILE PARTICIPATING IN THAT ORGANIZATION'S ACTIVITY.

- FROM WIKIPEDIA



over the years

Today, any medical uniform consisting of a short-sleeve shirt and pants is known as “scrubs”. Scrubs may also include a waist-length long-sleeved jacket with no lapels and stockinette cuffs, known as a “warm-up jacket”.

Scrub hats (scrub caps) have graduated from being functional to being a personalizable accessory both in the operating room and outside. Before the antiseptic focus of the 40’s, hats were not considered essential to surgery. In the forties and fifties, as a hygienic focus swept the industry, hats became standard wear to help protect patients from contaminants in hair. Full-face hats were even designed for men with beards. These hats have been, and continue to be distributed by Group purchasing organizations (GPOs) who supply hospitals with most equipment.

In the medical fashion ‘revolution’ of the seventies, more and more medical professionals began personalizing their scrubs by either sewing their own hats or buying premade hats made of eclectic fabric. Several styles were popular, including the ‘bouffant’, a utilitarian hairnet-like hat, and the ‘milkmaid’, a bonnet-like wrap around hat.

1909-1934



1934-1953



Cadet Corp Summer



Late 60s



1928-1950



Late 50s



Cadet Corp Winter



Scrubs



colors prints patterns

Scrubs worn in surgery are almost always colored solid light green, light blue or a light green-blue shade, although some medical centers have switched to pink as a theft deterrent. Surgical scrubs are rarely owned by the wearer; due to concerns about home laundering and sterility issues, these scrubs are hospital-owned or hospital-leased through a commercial linen service.

Non-surgical scrubs come in a wider variety of colors and patterns, ranging from official issue garments to custom made, whether by commercial uniform companies or by home-sewing using commercially available printed patterns.

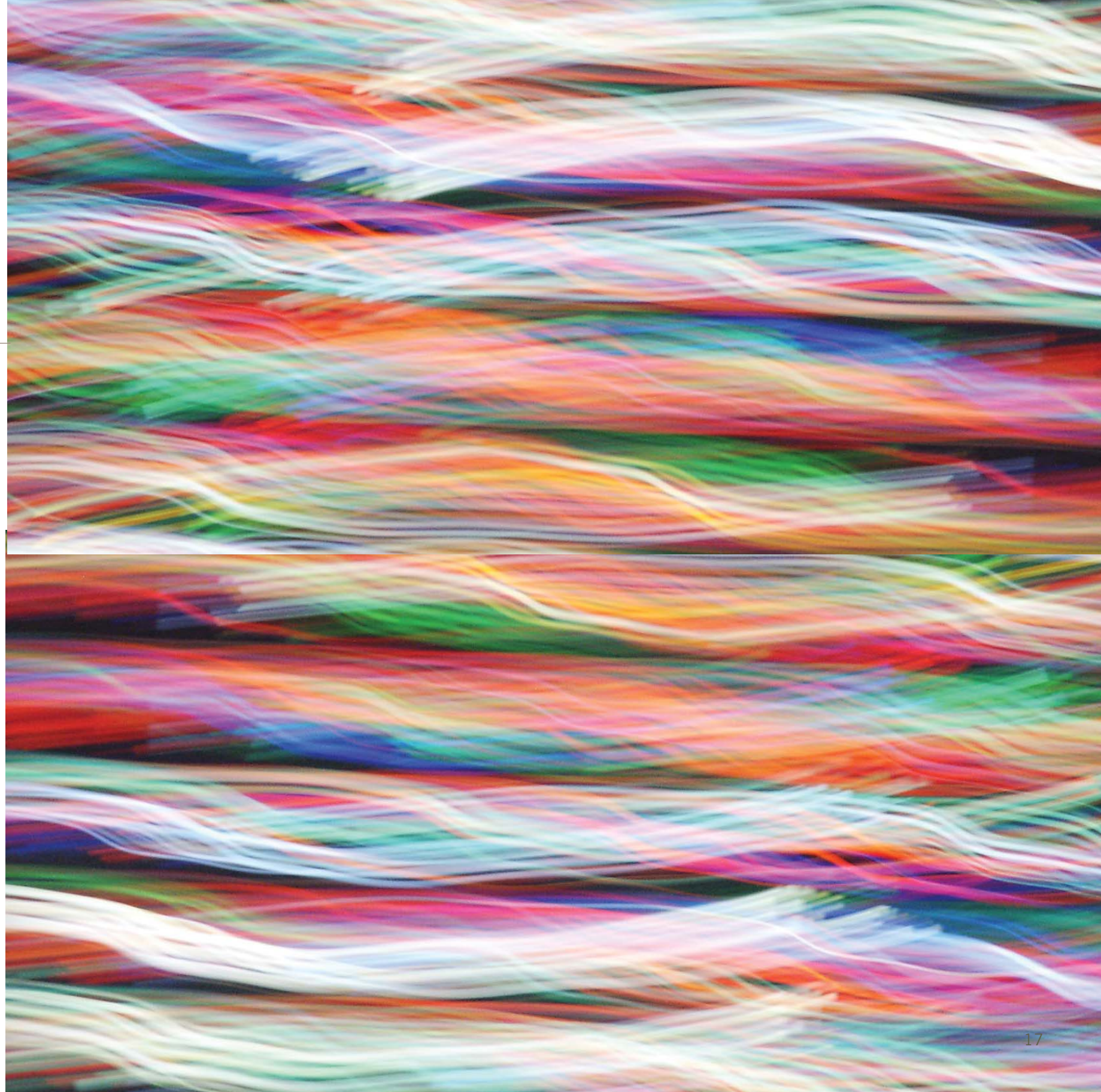
Some hospitals use scrub color to differentiate between patient care departments (i.e. Surgery, Labor and Delivery, Emergency, etc.) or between licensed patient care personnel (nurses, radiological technicians, respiratory and physical therapists, etc), unlicensed assistive personnel, and non-patient care support staff (i.e. portering, dietary, unit clerks, etc.). Hospitals may also extend the practice to differentiate nonstaff members/visitors.

Scrubs featuring cartoon characters and cheerful prints are common in pediatricians' offices and children's hospitals, while prints for various holidays can be seen throughout the year. Some acute care facilities or larger hospitals also have relaxed rules regarding the wear of non-regulation scrubs in nonsurgical units.

Some scrubs are found in custom colors, e.g. a university hospital may have scrubs in the school's colors.



SO WHY
RE-VISUALIZE
?



because

The purpose of revisualizing the clinical uniform, is to provide improved functionality, professional appearance and image, allowing for individual identity, leading to improved morale while at the same time promoting the institution's brand.



It would be a publicity and recognition of promoting Spaulding's quality of care for all involved at a national level. Spaulding would get a new clothing line and improve the styling of their medical professional clothing, which could result in an overhaul of the entire medical clothing industry.



With research studies informing us that in the future, there is going to be a reduction in nursing staff, there is only going to be an increased and challenging demands being placed on the medical caregivers.



Graphic on the facing page from: www.designverb.com/2008/04/06/d-barcode-fun/

Evolving hand held technologies being carried by the clinical staff requires them to be burdened down by it, and less inclined to deliver the quality of care that is required.

In the mean time, we know there are enhancements in textile technology and research into developments being made regarding wearable garments by other industries. So, we envision innovative new garments in the healthcare field as well, which may be constructed of anti-microbial materials which would reduce the spread of infections and support the integration of adaptive technologies while still providing flexibility, comfort and a professional appearance to the care giver.



do you go along or against the weave ?

culture.

what does that mean?

Who we are.
What we stand for.
What we believe in.
What we practice.
Where we belong.
What we imitate.
How we conform.
How we behave.
What we respect.
What we hold in high esteem.
What do we want to be?

Culture here is different from culture there.
Culture now, is different than what it was or what
it will be.

CULTURE, UNLIKE EYE COLOR
OR RACE, IS NOT A COMPULSORY
GENETIC ACCIDENT OF BIRTH,
BUT AN OPTIONAL INTELLECTUAL
POSITION.

- RIAN HUGHES (CULT-URE)

Culture evolves over time, over our personalities,
over our age, over the period of the organizations
we belong to.

Today, culture has a powerful 'influencer' ---
---the internet!
Ideas are shared. Minds can be changed.
Consensus can be built. Lives can be saved.

CULTURE EMBODIES SIGNIFICANCE.

please **fill in** the **dots** with your preferred responses.....



Perkins+Will and our client Spaulding Rehabilitation Hospital had discussions and identified a significant opportunity to redesign the clinical uniforms with the intended purpose of addressing, improved functionality, professional appearance and image, allowing for individual identity, leading to improved morale while at the same time promoting their institution's brand.

The approach we took was to get a better understanding of what would be required.

Step 1) Designed a survey & interview tool.

Step 2) Interviewed staff at Spaulding Rehabilitation Hospital to understand their brand and individual aesthetic choice & preferences.

The survey and interviews were designed with the intent to inform us of the following important issues:

a) Do patients, families and visitors perceive a higher quality of care due to these improved uniforms?

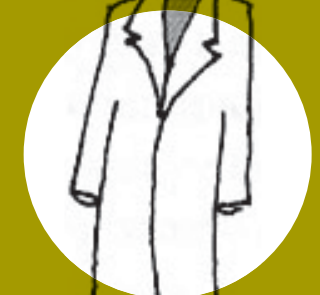
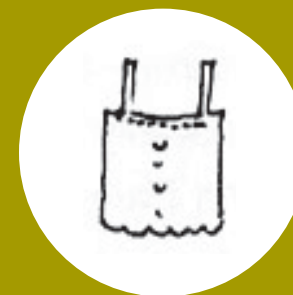
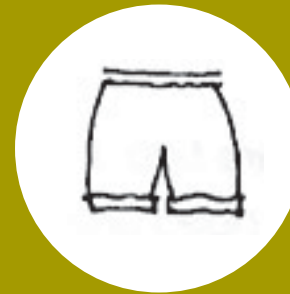
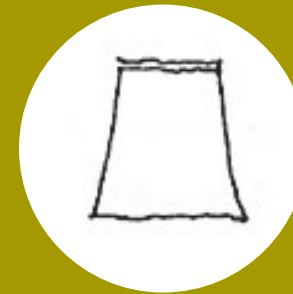
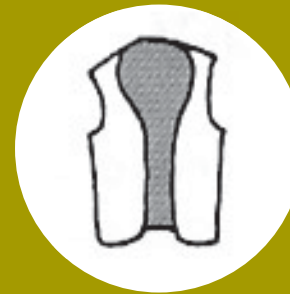
- b) Do the staff have a stronger feeling of purpose and self worth?
c) Would it help in improving their personal well being?

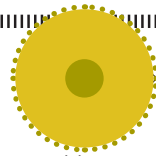
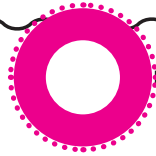
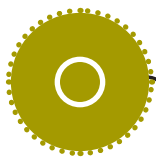
Additional considerations we had to keep in mind were to inform us about:

- Personal comfort
- Aesthetics- (style and fashion).
- Function / Practicality
- Personalization
- Integration of technology

Factors we had to consider in designing the survey were

- Who will participate in the survey? (clinical staff, administrators, patient).
- How many people will participate?
- Schedule - when the survey will be issued and closed to collect data.
- Format (computer survey or hard copy).
- What would be the process for notification and approval for the survey by Spaulding Rehabilitation Hospital.

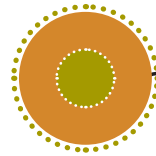




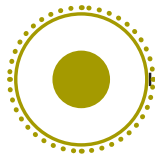
Do you like what you currently wear?
 Do you think there is variety in what you currently wear?
 Does your current outfit reflect a professional appearance?

patients age 18-100, inpatients/ outpatients w/orthopedic, multitrauma, rehab, burns, and amputees, stroke patients, general therapy, geriatrics, brain Injury, neuro/CVA/MS/ parkinsons, cardiac, spinal cord injury, fluoroscopy, radiology

What patient population do you provide care for?



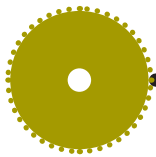
Do your clothes meet your thermal comfort, throughout the day?
 Do you think there should be seasonal collections?



Should professional outfits be designed with removeable layers?

shoes, jackets, handbags

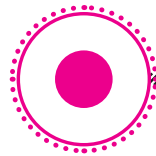
What accessories do you think would improve your professional outfit?



Do you think your appearance matters in the delivery of patient care?

walking+sitting, walking, therapy, sitting

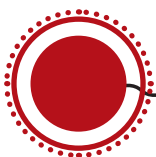
What type of movements do you perform on a workshift to deliver patient care?



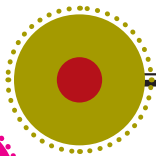
Do you think your professional outfit should be stylistic or simple?

incorporate name tags, corporate brand & logo, add more pockets

If you could personalize your outfit what would you choose to do?



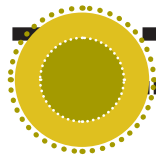
If you had a choice, what would you wear? Your current professional outfit or a stylized and branded outfit?



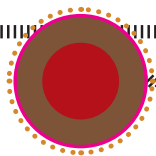
From your understanding, do you think a clothing line should address the distinction between the areas of practice?



If you had choice, would you invest in your professional outfit?



Does organizational brand matter?

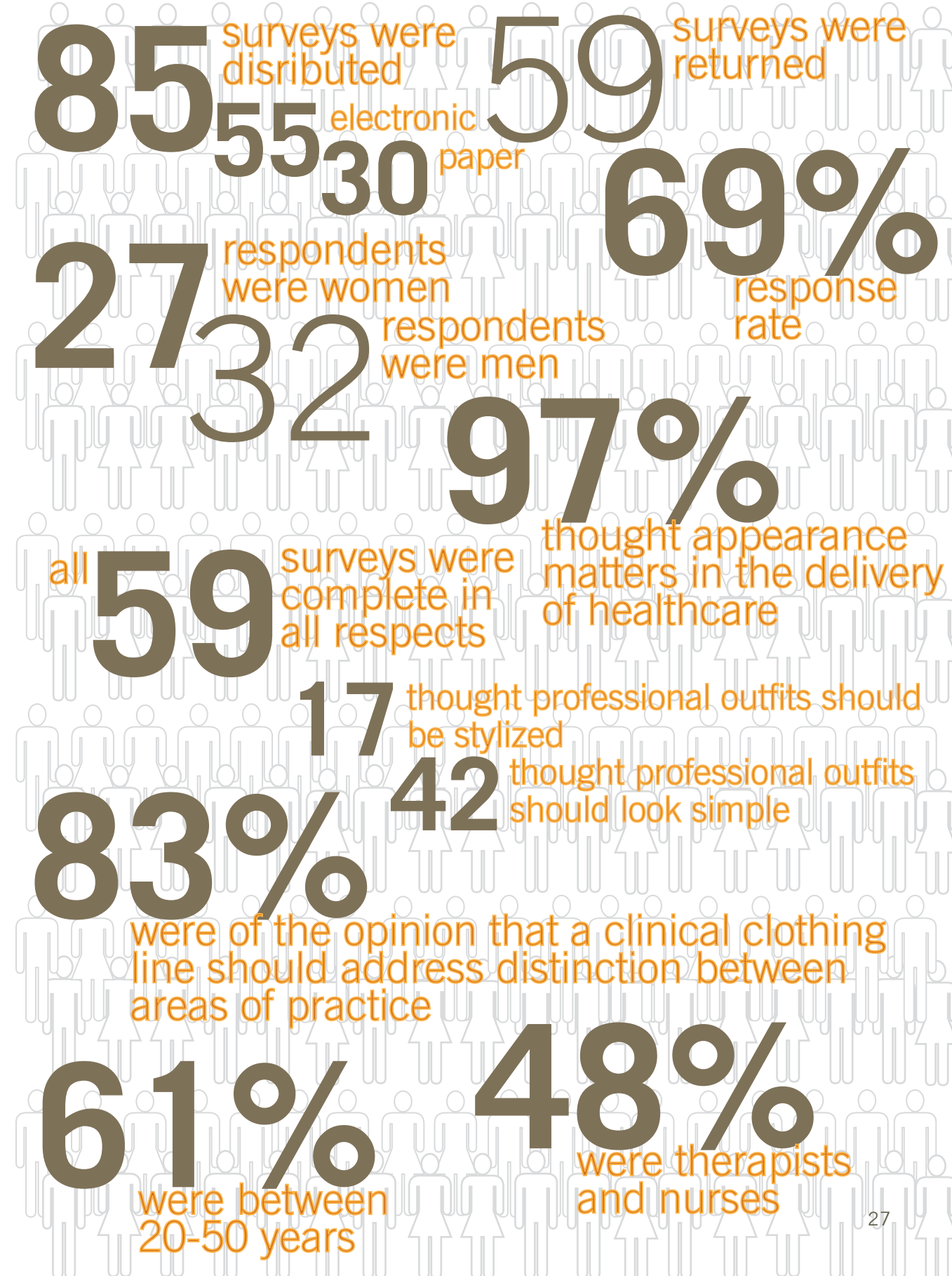


Is your professional outfit currently supplied by your employer?

analysis ?
or
analyze ?



It is all about dividing something complex into the smaller parts. If you manage to understand these small parts, you will be able to resolve bigger problems.



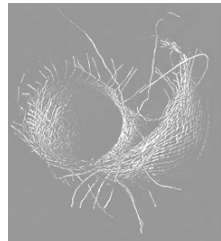
what has
caused the
rotations of
change ?



TEXTILE TECHNOLOGY how has it advanced?

Text in this section is incorporated from WIKIPEDIA

Textile manufacturing is a major industry. It is based in the conversion of three types of fibre into yarn, then fabric, then textiles. These are then fabricated into clothes or other artifacts. Cotton remains the most important natural fibre, so is treated in depth. There are many variable processes available at the spinning and fabric-forming stages coupled with the complexities of the finishing and colouration processes to the production of a wide ranges of products. There remains a large industry that uses hand techniques to achieve the same results.



[a book >>TEXTILE INNOVATION](#)

The expectations we have of the products we buy, including fashion and interior products, are rising all the time. The much heralded area of wearable technology and the incorporation of interactive systems are already commercially available in certain areas. Textiles that can automatically respond to temperature fluctuations, assist with our well being and communicate are all fact. We are also more aware of the environmental impact of textile production, and the steps we can take to minimise problems. These points are some of the influential areas covered in the latest edition of Textile Innovation. In looking at the textile advancements made for medical, industrial, automotive and agricultural use, we aim to inform and inspire our readers and gain an exciting glimpse into what may be possible for garment and interior textile technology in the immediate and more distant future.

TEXTILE INNOVATION ...

ROS HIBBERT - THE AUTHOR

<http://textileinnovation.com/pages/synopsis.htm>

This is the first publication to bring together such up-to-date and relevant information for professional, students and teachers of textiles and fashion. It is suitable for UK Curriculum (or equivalent) of Key Stage 4, AS/A2 level and above, and is on the recommended reading lists of UK examining boards. It has been purchased by international Textile and Fashion colleges for their libraries, and has sold to leading retailers, textile producers and garment manufacturers worldwide.

CHAPTER 1: Developments in Commercial Sources:

Divided into four sections, the first chapter looks at new developments in Commercial Fibre Sources, such as cotton, wool and cellulosic fibres. It explores how the major textile fibres are developing, what they will be able to offer for future design and performance, and how man-made materials can be engineered to meet new consumer demands and environmental criteria.

CHAPTER 2: Non-traditional Fibre Sources:

The second section covers developments in fibres such as hemp, nettle and the very directional bio fibres. New processing technology can allow the previously unusable to be manufactured into a

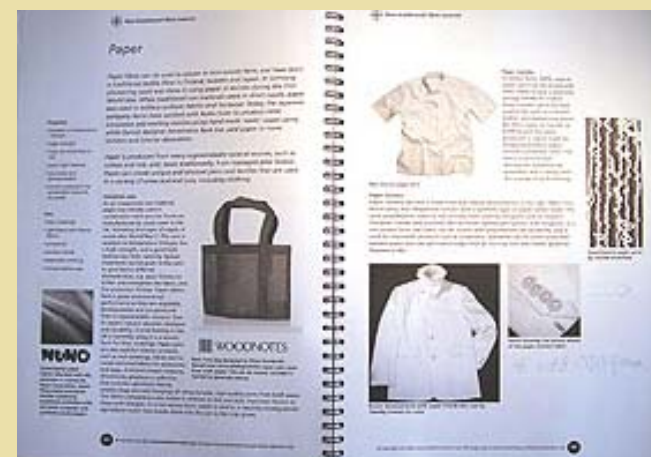
commercial fibre, and the specific features of unusual fibres can be used to satisfy the more particular demands of niche markets.

CHAPTER 3: New Properties and Functions:

Through fibre engineering and highly advanced finishing treatments, natural and synthetic materials can be produced with sophisticated functions, combining aesthetics with high performance. Protective Properties considers fabric and fibre qualities that protect the wearer against damage from the external environment. Signalling Textiles is a new section looking at developments in fibre-optics, reflective textiles, phosphorescence and colour change. Well Being Factors considers the wide range of 'caring' and therapeutic effects which textiles can offer, including the newer areas of cosmetic and medical benefits.

CHAPTER 4: Smart and Interactive Textiles:

This chapter examines the exciting developments in Interactive Textiles, and contains sections on Power Sources, Soft Interfaces, Fashion, Communication and Monitoring.



smart cars smart phones smart clothing

<http://www.clothingplus.fi/>
<http://www.innovations-report.de/html/berichte/verfahrenstechnologie/bericht-17970.html>



CLOTHING+ REDISCOVERING TEXTILES

Comfortable sensor systems

A new step in the evolution of sensor systems is taking place. Clothing+ brings clothing and textile approach to this evolution. Clothing+ vision is to implement comfortable sensor systems for potential application areas like sports, wellbeing, and healthcare. By this step of evolution, sensor systems become comfortable, invisible, and reliable.

This step is possible because of the significant developments in textile technology over recent years. Modern manufacturing technologies like different lamination technologies, laser cutting and ultrasonic welding, as well as conductive fibres, enable implementation of new textile sensor systems. With textiles, the features of the product can be developed in a number of attractive directions.

Clothing+ offers R&D and manufacturing services to implement this step in product evolution. Clothing+ is a globally acknowledged industrial pioneer in the field of textile sensor systems.

Clothing+ has a unique combination of know-how, global network and mass production facilities to seamlessly fit textiles to the requirements of the customers.

From wireless to wearable technology

Technology has moved beyond wireless and pocketable to wearable. Clothes and accessories can serve a wider range of purposes than we're currently accustomed to. Wearable technology produced by a Finnish smart clothing R&D center and its partners is selling well.

The smart clothing and wearable technology concepts are based on a permanent integration of clothing and technology. Clothes can be made 'smart' by adding intelligent features such as information technology and by using special fibres which react in unconventional ways. Wearable technology is close to the body and enables technology to be used in situations where it's normally not possible. For example, the user interface can be a mobile phone which is integrated into a jacket in such a way that no

dialing is required and, thereby, handsfree communication is possible during an action activity such as snowboarding.

In Finland the R&D center Clothing+ was established three years ago to explore the possibilities of wearable technology, especially smart clothing. The interdisciplinary enterprise also produces and supplies components and systems of wearable technology. "Production processes of integrating hard electronics and soft textiles are quite a challenge," notes Akseli Reho, Director of Research at Clothing+. "Our clients include large clothing and technology companies around the world."

Clothing+ worked together with the Finnish clothing company Reima to develop a wearable handsfree phone which is worn like a small bag. The wearable phone can work as a platform for different IT-applications and can even be used in harsh weather conditions. Clothing+ has also worked with Polar Electro to bring a new heart rate monitoring system to the market. The system consists of a small transmitter unit and a textile strap which wraps closer to the chest than con-

ventional plastic straps and, thus, enables more accurate monitoring of the heart. The strap is fastened fittingly by the transmitter unit and fits comfortably around chests of all shapes.

Smart clothing and wearable technology are already in demand and some 95 per cent of the Clothing+ products end-up abroad. "The current products are selling well. Feedback on the market has been positive," says Reho.

Clothing+ is currently researching new product concepts based on recognised strengths of wearability and new product announcements will be made next fall. "In 2003 many other producers will also bring their solutions to the market, 2003 is the actual birth year of the wearable technology markets," explains Reho.

Tekes has steered Finnish wearable technology innovation through its User-Oriented Information Technology Programmes, such as the already completed Survey of Intelligent Textiles and the still running Present Application of Intelligent Materials to Professional and Workwear (WEARCARE).

we know you
carry a lot !



What type of ID do you wear? One around your neck or clipped onto your pocket?



What do you carry in the pockets of your scrubs?

Do they weigh you down?

Do you find it cumbersome to carry around?

Do they come in the way of your delivery of care?

Do you lose track of them often?

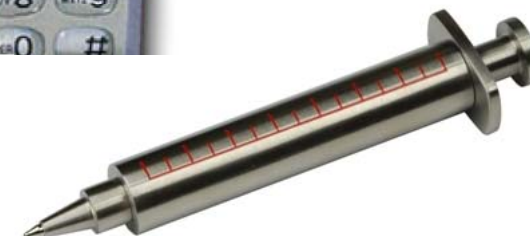
Can some of them be consolidated?
If so how?



Can some of them be addressed through technology solutions?

Could some of them be incorporated into your garments?

Which of all these are most critical to have on your person all the time?



research that informed us



A History of Nursing Uniforms

How nursing uniforms have changed over the past 200 years - from bonnets and aprons, to starched whites, to colorful scrubs. Written by Robyn Byrd



Nano technology adds value to textile finishing

Written by V Parthasarathi, Department of Textile Technology Kumaraguru College of Technology Coimbatore.



Towards a design framework for wearable electronic textiles

T. Martin, M. Jones, J. Edmison, and R. Shenoy, Seventh International Symposium on Wearable Computers (ISWC 2003), pp 190-199, October 2003.



Shape Sensing, Context Aware

Garment Joshua N. Edmison, Sookyoung Kim, Kevin Lio, Virginia Tech ECE 5984, Wearable and Ubiquitous Computing, Dr. Thomas Martin, Spring 2003.



Research problems in clothing simulation

Choi, Kwang-Jin, and Ko, Hyeong-Seok, Computer-Aided Design 37 (2005) 585-592.

Reconfigurable Fabric: An enabling technology for pervasive medical monitoring

Fang-Chun Chen, Roozbeh Jafari, Eren Kursun, Vijay Raghunathan, Thomas Schoellhammer, Doug Sievers, Deborah Estrin, Glenn Reinman, Majid Sarrafzadeh, Mani Srivastava, Ben Wu, Yang Yang, University of California, Los Angeles, CA 90095

A Design Process for the Development of Innovative Smart Clothing that Addresses End-User Needs from Technical, Functional, Aesthetic and Cultural View Points.

Jane McCann, Richard Hurford and Adam Martin Smart Clothes & Wearable Technology Research Group School of Art, Media & Design, University of Wales, Newport, Caerleon Campus, PO Box 179, Newport, UK, NP18 3YG, Proceedings of the 2005 Ninth IEEE International Symposium on Wearable Computers (ISWC'05) © 2005 IEEE.

Merging Digitization Technology Into Jacquard Fabric Creation

NG, M. C. F.¹ and ZHOU, Jiu²

¹Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hung Hom, Hong Kong;

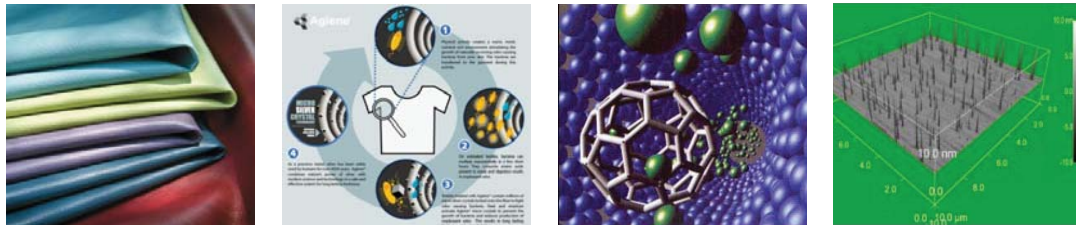
²Department of Textile Design, Zhejiang Sci-Tech University, Hangzhou, China, International Association of Societies of Design Research, 2007.



WEARABLE TECHNOLOGIES

possible applications to healthcare

Text in this section is incorporated from HOW TO CHOOSE MEDICAL UNIFORMS, by mecheil



As we know, hospitals and clinics are jam-packed with harmful pathogens – deadly viruses and infectious microbes. Common clothes worn at work simply provide cover and comfort, but such kinds of workwear uniforms would leave doctors and nurses too vulnerable to the dangers lurking around their workplaces. No matter where a health care worker is assigned, he or she is not immune from getting infected. Manufacturers of medical uniforms and nursing scrubs are all well aware of this fact. That is why they also continue innovating technology to be able to come up with products aimed to provide a certain level of protection.

Fabric Innovations

High technology has enabled fabric innovators and scientists to come up with clothing materials that provide reliable protection even from fatal biogas, acids, and keep the wearer safe while in highly dangerous environment. Some of the manufacturers of hospital uniforms, in part, incorporated these innovations in producing scrubs and lab coats that are ideal for everyday use.

Today, doctors, nurses, dentists, pharmacists, medical technologists, and every health care professional can benefit from the widely manufactured antimicrobial or antibacterial medical scrubs and lab coats. There are also those that are soil-resistant, can eliminate odor, and have anti-static technology, further improving protection for our dedicated health care workers.



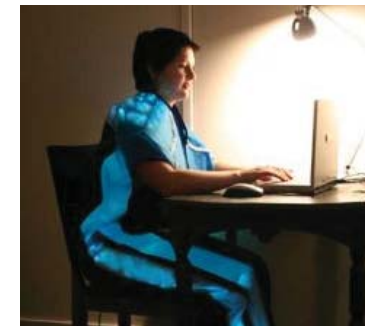
smarty pants

A group of researchers at the Virginia Polytechnic Institute have developed a pair of pants that judge your leg movements. They seem to be quite normal pair of jeans unless you get to know them better. They surely are a lethal combination of 'Technology' and 'Fashion'.

The people at the University claim that they have incorporated a special type of Loom that is used to stitch the cloth and wires together. The special cloth of the pant has an 'embedded sensor distribution' throughout its length that judges the velocity, rotation and flexibility of the fabric. After making out the exact configurations, the signals are sent wirelessly to a computer that in turn lodges the data.

It may find use in the medical field where a patient's movements are to be evaluated. The scientists are thinking of widening their horizons by innovating a full body attire incorporating this technology. Not a bad idea at all!

<http://www.scienceahead.com/entry/top-21-wearable-technologies/>



wearable light therapy device

The device, which has flexible Phillips Ledfoil disks, has a potential medical application for sufferers of the rare Crigler-Najjar syndrome. It is known as the Ledwrap, contains twelve Ledfoils between two layers of cloth and can act as either a sleeping bag or a rather bulky bodysuit for more freedom of movement -- well, as much movement as an extension cord allows, since the LEDs require too much juice to run on batteries. The prototype has yet to undergo the task of actual medical testing.

<http://www.engadget.com/2006/04/24/philips-tech-enables-wearable-light-therapy-device/>



Robotic jacket has power up its sleeve

'Wearable artificial muscle' is the next big revolutionary concept to be actualized in the Medical field. Seriously, this artificial muscle makes you feel as if you have 'power' up your sleeves.

A considerable amount of people are suffering from 'muscular dystrophy' and other muscle related ailments, so this breakthrough from the house of Matsushita Electric Company may prove to be an advancement for such patients and would assist them in some extreme cases like 'paralysis'. These artificial muscles are driven through compressed air that helps them to contract as well as expand as per the need of the patient.

<http://www.scienceahead.com/entry/top-21-wearable-technologies/>

would you like
to try on an
idea ?



make a
fashion
statement !



FASHION ?
how will it illuminate the purpose ?

WHY
is Fashion
Important?

Fashion is barometer of culture

“Fashion anticipates, and elegance is a state of mind ... a mirror of the time in which we live, a translation of the future, and should never be static.”

- Oleg Cassini

Appearance makes
all the difference

*“In order to be irreplaceable one
must always be different.”*

-Coco Chanel



Style also has a function

“BEAUTY OF STYLE AND
HARMONY AND GRACE AND
GOOD RHYTHM DEPEND ON
SIMPLICITY.”

- Plato

“Simplicity is the ultimate sophistication”

- Leonardo Da Vinci

“RESPECT IS LOVE IN PLAIN CLOTHES.”

- Frankie Byrne

“They think him the best dressed man, whose dress is so fit for his use that you cannot notice or remember to describe it.”

- Ralph Waldo Emerson

**“fashion is architecture: it
is a matter of proportions.”**

- Coco Chane

YOU in form dress to care...

When the technique of branding first started, it was meant to make identifying and differentiating a product easier. Over time, brands came to embrace a performance or benefit promise, for the product, certainly, but eventually also for the company behind the brand. Today, brand plays a much bigger role. Brands have been co-opted as powerful symbols in larger debates about economics, social issues, and politics. The power of brands to communicate a complex message quickly and with emotional impact and the ability of brands to attract media attention, make them ideal tools in the hands of activists.

Some people distinguish the psychological aspect, brand associations like thoughts, feelings, perceptions, images, experiences, beliefs, attitudes, and so on that become linked to the brand, of a brand from the experiential aspect.

THESE ARE THE BRANDS THAT ARE CURRENTLY INTRODUCING FASHION TO THE NURSING WORKPLACE

Brand is the personality that identifies a product, service or company (name, term, sign, symbol, or design, or combination of them) and how it relates to key constituencies: Customers, Staff, Partners, Investors etc.



is it unique to be unique ?

Each second we live is a new and unique moment of the universe, a moment that will never be again. And what do we teach our children? We teach them that two and two make four, and that Paris is the capital of France. When will we also teach them what they are?

We should say to each of them:
Do you know what you are?
You are a marvel.

You are unique.

In all the years that have passed, there has never been another child like you. Your legs, your arms, your clever fingers, the way you move. You may become a Shakespeare, a Michelangelo, a Beethoven. You have the capacity for anything.

If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away.

- Henry David Thoreau



“
Style is a simple
way of saying
complicated things
”

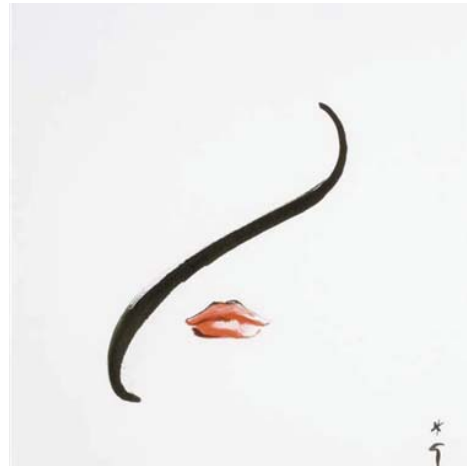
- Jean Cocteau



healthcare +
fashion =
really ?



understanding the art of fashion

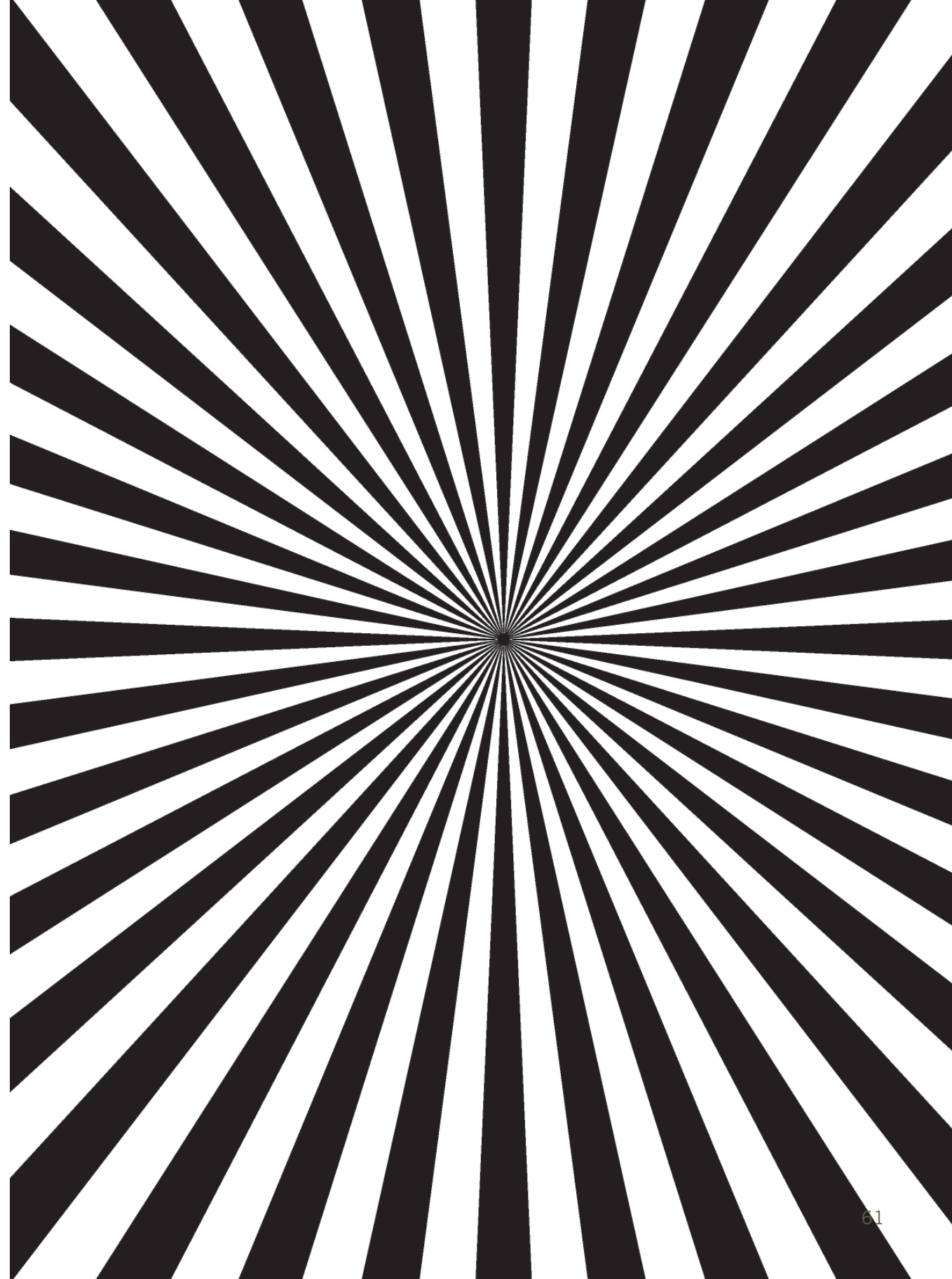


a focus on fashion design

Text in this section is incorporated from WIKIPEDIA

A the **fashion designer** conceives garment combinations of line, proportion, color, and texture. While sewing and pattern-making skills are beneficial, they are not a pre-requisite of successful fashion design. A **pattern maker** (or pattern cutter) drafts the shapes and sizes of a garment's pieces. This may be done manually with paper and measuring tools or by using an AutoCAD computer software program. Another method is to drape fabric directly onto a dress form. The resulting pattern pieces can be constructed to produce the intended design of the garment and required size. A **tailor** makes custom designed garments made to the client's measure; especially suits (coat and trousers, jacket and skirt, etc.). A **textile designer** designs fabric weaves and prints for clothes and furnishings. A **stylist** co-ordinates the clothes, jewelry, and accessories used in fashion photography and catwalk presentations. A stylist may also work with an individual client to design a coordinated wardrobe of garments. Some simply have a strong aesthetic sense for pulling great looks together. A **fashion buyer** selects and buys the mix of clothing available in retail shops, department stores and chain stores. Most fashion buyers are trained in business and/or fashion studies. A **seamstress** sews ready to wear or

mass produced clothing by hand or with a sewing machine, either in a garment shop or as a sewing machine operator in a factory. She (or he) may not have the skills to make (design and cut) the garments, or to fit them on a model. A **custom clothier** makes custom-made garments to order, for a given customer. A **dressmaker** specializes in custom-made women's clothes: day, cocktail, and evening dresses, business clothes and suits, trousseaus, sports clothes, and lingerie. An **illustrator** draws and paints clothing designs for commercial use. A **fashion forecaster** predicts what colours, styles and shapes will be popular ("on-trend") before the garments are on sale in stores. A **model** wears and displays clothes at fashion shows and in photographs. A **fit model** aids the fashion designer by wearing and commenting on the fit of clothes during their design and pre-manufacture. Fit models need to be a particular size for this purpose. A **fashion journalist** writes fashion articles describing the garments presented or fashion trends, for magazines or newspapers. An **alterations specialist** (alterationist) adjusts the fit of completed garments, usually ready-to-wear, and sometimes restyles them. An **Image Consultant, wardrobe consultant or fashion advisor** recommends styles and colors that are flattering to the client.



hospital walk to cat walk !



Project Runway is an American reality television series on Lifetime Television, previously on the Bravo network, which focuses on fashion design and is hosted by model Heidi Klum. The contestants compete with each other in each episode to create the best clothes and are usually restricted in time, materials and theme. Their designs are judged, and one or more designers are eliminated each week.

- 1** Innovation / Vision / Commercial Appeal / Collaboration / “Model” Clients / Making A Splash / Design A Collection / Postal Uniform Challenge / Design For The Red Carpet / Reunion / Finale
- 2** Clothes Off Your Back / All Dolled Up / Team Lingerie / Social Scene / Window Shopping / On Thin Ice / Inspiration / Flower Power / Makeover / What’s Your Line? / Reunion / Finale - Part 1 / Finale - Part 2
- 3** Wall to Wall Fashion / Fit for a Queen / Designer’s Best Friend / Reap What You Sew / Designer disqualification / Iconic Statement / Waste Not, Want Not / Everyday Woman / High Flying Fashion / Couture du Jour / Black and White / What the ELLE? / Reunion / Finale - Part 1 / Finale - Part 2
- 4** Sew Us What You Got / Started Crying / Money Changes Everything / Fashion Giant / Trendsetter / What’s the Skinny? / Eye Candy / What a Girl Wants / En Garde! / Even Designers Get the Blues / Raw Talent / The Art of Fashion / Reunion / Finale (Part 1) / Finale (Part 2)
- 5** Let’s Start from the Beginning / Grass Is Always Greener / Bright Lights/Big City / Rings of Glory / Welcome to the Jungle / Good Queen Fun / Fashion That Drives You / Double O Fashion / What’s Your Sign? / Transformation / Rock N’ Runway / Nature Calls / Finale Part I / Finale Part II
- 6** Welcome to Los Angeles! / We Expect Fashion / Rumble on the Runway / What a Woman Wants / Fashion Headliners / Lights, Camera, Sew! / The Sky Is the Limit / A Fashionable New Beginning / Sequins, Feathers and Fur, Oh My! / Around the World in Two Days / The Best of the Best / The Art of Fashion / Finale - Part 1 / Finale - Part 2
- 7** Back to New York / The Fashion Farm / The Highs and Lows of Fashion / Design Your Heart Out / Run for Cover / A Little Bit of Fashion / Hard Wear / The Elements of Fashion / Takin’ It To The Streets / Hey, That’s My Fabric / Sew Much Pressure / The Big, Top Designers / Finale - Part 1 / Finale - Part 2 / Reunion Special
- 8** And Sew It Begins / Larger Than Life / It’s a Party / Hats Off to You / There IS an ‘I’ in Team / You Can Totally Wear That Again / What’s Mine Is Yours / A Rough Day on the Runway / Race to the Finish / There’s a Pattern Here / A Look in the Line / We’re in a New York State of Mind / Finale, Part 1 / Finale, Part 2

paying
attention
to detail...

..... while you design!
Here are some reminders to
the project parameters.



Spaulding Rehabilitation
Hospital's BRAND & CULTURE

Responding to the health-
care industry and medical equipment issues, ie:
patient safety, caregiver safety, infection control,
technology,

Consideration given to maintenance, durability,
sustainability and cost.

Designed for - all seasons!
outside in.
top to bottom.
big to small.
young to old.
men & women.

OUR RECOMENDATIONS

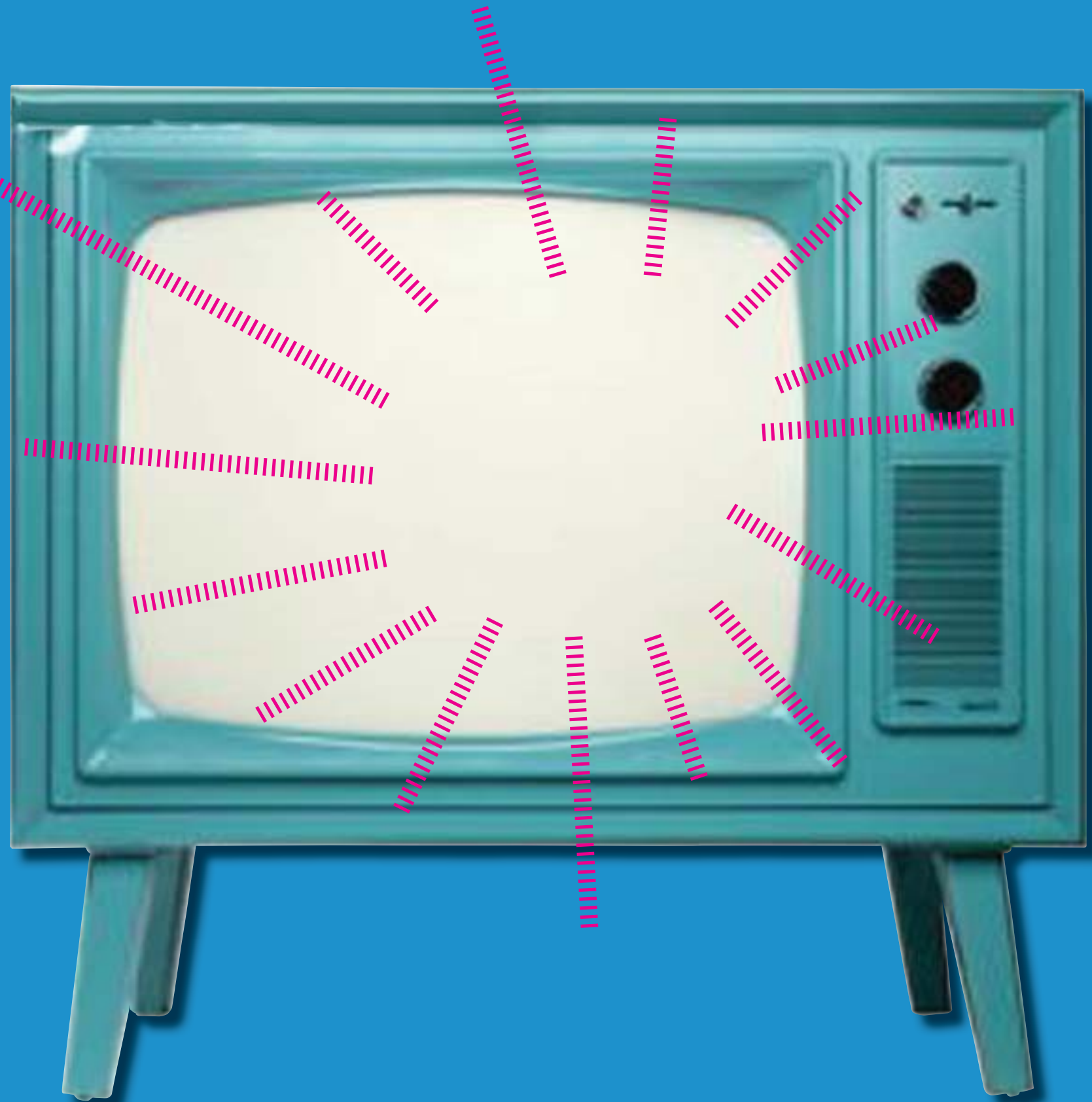
Fashion designers should create a collections to
address all season, not simply individual gar-
ments.

Versitile garments which allow of personalization,
while respecting the brand and culture of the
organization.

We recognize fabric selection is inseparable
from color, patterns and thermal performance,
however, we recognize that the **integration of
wearable technologies is now very much
an opportunity!**



soon to air
as an episode
on your telly!



links referenced

http://search.marcusuniforms.com/nav/Brand-White_Cross--page-2
<http://cgi.ebay.com/Vintage-linen-HEMP-fabric-Eco-friendly-BLUE-10yds-HEMP-/380254206876>
<http://www.uniquepatterns.com/catalog/show/6598N2>
<http://www.marcusuniforms.com>
<http://scopeblog.stanford.edu/spinner.jpg>
www.designverb.com/2008/04/06/d-barcode-fun/
http://farm3.static.flickr.com/2414/2216858570_38d6e252b8_o.jpg
<http://www.1014organictextiles.com/opencart>
www.nursing.umn.edu/.../fashiongallery/home.html
<http://www.scienceahead.com/entry/top-21-wearable-technologies/>
http://www.ccm.ece.vt.edu/etextiles/projects/Shape_Sensing.php
http://www.rondexter.com/professional/equipment/focus_pattern.htm
<http://fashiontribes.typepad.com/fashion/2010/01/eco-chic-innovation-in-clothing-production-.html>
<http://www.plugandwear.com/>
<http://www.rapidprototypingreview.com/uncategorized/medical-scrubs-are-new-and-fashionable.htm>
<http://realitypod.com/2010/12/scrubs-the-best-of-ted/>
<http://blog.mynursinguniforms.com/index.php/nurses-turn-instruction-into-action-how-technology-supports-nurses-part-2/>
http://books.google.com/books?id=MgSgz-qmIQEC&pg=PA416&lpg=PA416&dq=nursing+scrubs+incorporating+technology&source=bl&ots=C7s_cf88Am&sig=HxdIZm-lukfe7ek5QWaJpejBP40&hl=en&ei=4IVITdvTEJ7G8ATO_NHXCA&sa=X&oi=book_result&ct=result&resnum=10&ved=0CE8Q6AEwCQ#v=onepage&q&f=false
<http://hubpages.com/hub/How-To-Choose-Medical-Uniforms-Wisely>
<http://www.madehow.com/Volume-3/Yarn.html>

NURSING UNIFORM STUDY:

<http://www.fabricworkshopandmuseum.org/exhibitions/rn-survey.php>
<http://www.fabricworkshopandmuseum.org/exhibitions/uniforms.php>
http://www.ehow.com/about_5183792_effect-nursing-uniforms-self_esteem.html
<http://www.palmbeachpost.com/health/retro-nurses-outfit-has-retained-to-jfk-medical-625677.html?imw=Y>

CLEVELAND CLINIC STUDY:

http://findarticles.com/p/articles/mi_m3257/is_4_63/ai_n32145217/

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+ WILL

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Thank You.



DESIGNING INTO THE FABRIC OF CULTURE

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