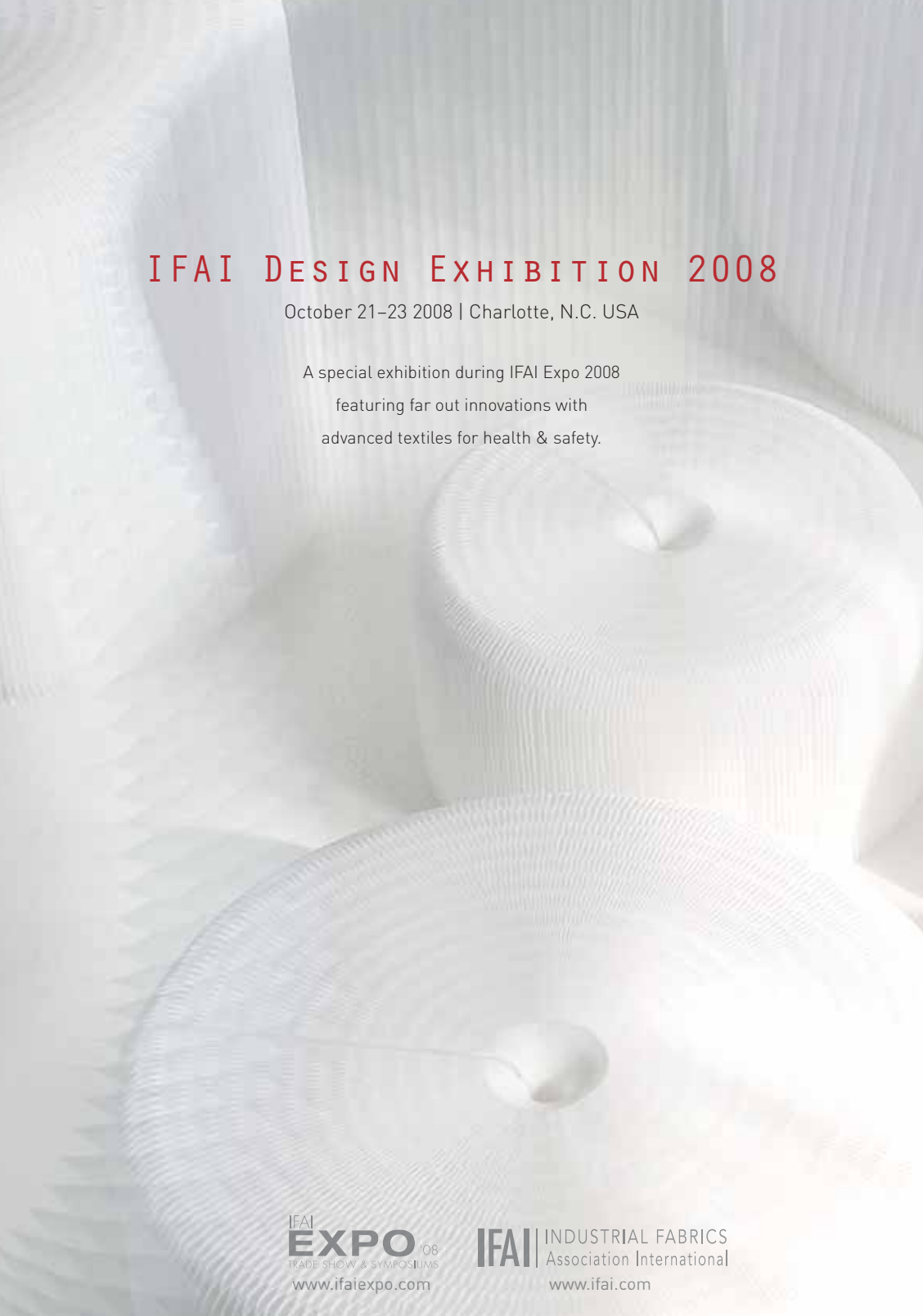

IFAI Design Exhibition 2008

October 21–23 2008 | Charlotte, N.C. USA

A special exhibition during IFAI Expo 2008
featuring far out innovations with
advanced textiles for health & safety.

IFAI EXPO 08
TRADE SHOW & SYMPOSIUMS
www.ifaiexpo.com

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www.ifai.com

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Introducing the Design Exhibition 2008

Health and safety is one of the biggest issues affecting us today. Yet to ask twenty people about their individual concerns, we would get twenty quite different answers. The aim of this exhibition is to act as a mirror for the local, personal concerns and look at how designers are addressing these.

This is an exhibition that celebrates the positive achievement that design is bringing to our lives. It goes beyond the functional, fit for purpose design products that protect us. Good design opens up new possibilities in the aesthetics it brings and even how we might use these products. There are exhibits that I hope will make you wonder at the workings of the creative mind that has married fine Irish lace with that most brutalist of building materials, concrete. The resulting material defies you to touch it and experience the different tactile sensations alongside the visual beauty of this so unexpected combination. Elsewhere in the exhibition the visitor is asked to put their personal concerns to one side and consider instead the plight of small animals. Designs for human health and safety have been scaled down to fit animals such as the lemur and cat. Their scale alone is touching and communicates strongly our wider responsibilities on this planet.

Advanced textiles and processes are at the heart of this exhibition. Some of the materials will be familiar, but it is the way that designers are using them that is being highlighted in this exhibition. Reflective fabric normally reserved for use in nocturnal outdoor settings can be seen incorporated into designs for furniture and interiors. Mylar likewise, is to be found transformed by bold prints for interiors and Aerogel, that most ethereal of materials, finds an application in outdoor clothing. These are not mass produced designs. Many are one-off or prototypes, while others combine the high tech with the hand made in small batch production with just a few that run to higher production. The difference to an area of design such as health and safety cannot be over emphasized. It allows for a dialogue between all involved in the development and production of these products from technologist to designer and manufacturer. These are highly personal designs, personal to those who have produced them and to the users. The thought and care that is evident can only come about with this level of engagement. That is what makes the difference, these designs are personal.

Marie O'Mahony
Exhibition Curator
October 2008

Exhibition Sectors

The exhibition is divided into five sectors, Space, Built, Mobile, Personal and Natural. These reflect five areas where there is a particular concentration on fabrics and products that offer some form of protection.

Space

Some of the most extraordinary protective materials of our time have their origin in the Space industry. The benefit of this provenance is that these advances become available to designers in the commercial sector relatively quickly, certainly in comparison with those developed for the military.

It is not always easy to design with these materials. Mylar and Aerogel for instance, have such distinctive qualities and aesthetics that it has been quite challenging for designers to use them. In both instances designers have succeeded by incorporating the space age aesthetic into their work without allowing it to dominate. It is in this sector more than any other that the performance can be said to be the aesthetic.

The cyclical nature of design and material development is evident in many of the designs for extreme environments. These harsh terrestrial habitats are often used as a blueprint by the Space industry, which in turn become the basis for protective clothing and environments back on Earth. Each seeks inspiration and know-how from the other in a relationship that is to their mutual benefit.

Built

It is generally presumed that a building is fit for purpose and not about to fall down. This is of course a good thing and as it should be. However, it has also led to a separation of those materials designed to provide health and safety functions within the building and those designed for decorative reasons. This adds to the cost, both financial and environmental, for no good reason. All this is set to change as a new breed of designer is developing materials that combine the performance and the aesthetic.

This sector of the exhibition looks at design for exterior but predominantly for interiors, both commercial and residential. The range of health and safety issues that fabric can address is evident as exhibits show designs relating to thermal and acoustic insulation, improved visibility as well as protection from fire and bacteria. In the hands of the creative designer few materials are found to be without the capability of being beautiful as well as protective.

Mobile

The textile industry has been essential in the development of all aspects of vehicle design – interiors, exteriors and beyond. We are visually accustomed to seeing textiles used in upholstery, floor and some areas of the door. But this is just a fraction of their use. Henry Ford was the first to recognise their potential in his experiments in developing a soybean composite with the intention of using it to replace steel in the body of the car to make it lighter thereby saving on fuel. His ideas in this area have become fashionable once again as designers now look at textiles as the basis for new composites.

The exhibits in this area include new designs using composite structures as well as upholstery and transport interior fabrics with added health and well being capabilities.

Anti-radar camouflage originally intended to cover tanks have been taken by young designers and transformed using a variety of textile and non-textile processes to produce inspirational fabrics for fashion. Henry Ford's vision of a car made from soybean composite may still elude us, but I think that he would be very enthusiastic about the current direction in textiles for transport.

Personal

The Blackfeet of Northern Montana recall a story about one of their warriors, Big Plume. Legend has it that during a battle, he became separated from his colleagues inside enemy territory. During a fitful sleep that night, he had a vision in which a man appeared to him in a pierced shirt. When Big Plume managed to get home safely he immediately made a shirt like the one that he had seen in his dreams. The shirt is reputed to protect the wearer from bullets and is now in the collection of the National Museum of the American Indian in New York City.

Not all protective clothing has so poetic a provenance, but many do have a story to tell and a journey they have travelled. One designer sees camouflage looks to promote camouflage as a non-military pattern, looking to emphasise instead its roots in nature and re-appropriating military patterns from around the world. Another designer converts controversial surveillance into clothing that allows self-monitoring to improve posture during Yoga. All have in common a creative vision that allows their work to have a voice as well as an aesthetic.

Natural

Textiles have been helping protect the environment from natural and human hazards for centuries. The structure Ziggurat Aqar Quf, close to present day Baghdad, is one of the earliest examples of geosynthetics. It dates from around 1400BC and uses an early composite of clay blocks reinforced with reeds woven and also used in bundles. Having survived to the twenty first century the structure is now under threat from Baghdad's suburbanisation and an encroaching industrial zone.

Textile designers and manufacturers are increasingly aware of where their materials have come from and their impact on the environment. They are also realizing that the issue is more complex than the provenance of the material and a holistic approach is needed. Design, use and reuse are becoming primary considerations and one that is engaging designer, manufacturer and consumer in the process.

Safety Products Student Design Challenge

Sponsored by the Safety & Protective Products Division and the Narrow Fabrics Institute, both divisions of IFAI, the program is offered annually to encourage college and university students of design, textiles, engineering and allied curricula to solve safety problems using high-performance textiles in functional designs.

In 2008, students were asked to create original designs and prototypes for protective end products which protect the human form or property from conditions which could cause accidents. These conditions included the top ten workplace injury causes, such as exposure to extreme hot or cold temperature; impact; chemical or biological exposure; poor visibility; unsafe conditions which permit falls. Entries were required to incorporate a textile component as a major part of the product.

Coghlans Ltd

Supplier Representative David Ripley | 3675 Dobleann Dr. | Charlottesville | VA 2291 | USA
daivdr@repfirst.com

Coghlan's Ltd | 121 Irene St | Winnipeg MB R3T 4C7 | Canada
www.coghlans.com

Coghlan's Ltd. aims to be the world leader in outdoor camping accessories. Founded in 1959 and based in Winnipeg, Manitoba Canada, it is a family owned company and has built its reputation on core values of product quality and innovation. They produce a range of products from conventional emergency blankets and hand warmers to snake bite kits. The No-See-Um Mesh series of clothing provides the ultimate protection against mosquitoes and other flying insects. The lightweight and cool jacket and trousers are made from polyester and comes with elasticized drawstring waist and cuffs and a zipper at the neck for easy access to the face. Mitts, socks and a head net complete the protection for the wearer. The product is entirely flame retardant.

Grado Zero Espace

Via 8 Marzo | 8 – 50053 Empoli | Florence | Italy
www.gzespace.com

Grado Zero Espace is the Research and Development department of Cove Nove. The company's mission is to develop new materials and technologies for industry to improve quality of life, work and the environment. Their Hinoki LS Jacket and Coat endeavors to redefine natural fibers using 'Hinoki', a genus of conifers in the Cupressaceae family native to eastern Asia. It is a slow growing tree which grows to thirty five meters in height with the trunk measuring up to one meter in diameter. The bark is processed to obtain natural textile fibers. The result is a lemon-scented fabric with anti-bacterial and insect repellent properties. The end fabric and products are completely natural textiles and completely eco-compatible. The Quota Zero Jacket uses the latest advanced fabrics to create a comfort zone for the wearer engaged in physical activity under extreme cold weather conditions. The jacket employs numerous advanced textile fabric constructions and materials to provide the best possible thermal insulation. An extremely thin, but strong and durable Shape Memory Membrane provides protection against wind and water, with exceptional breathability. Bielastic fabric conforms perfectly to the body's contours offering freedom of movement and Aerogel, inserted into areas requiring maximum thermal insulation. Aerogel is a highly insulating Silicon Dioxide weighing just three times the that of air it is the world's lightest known solid.

Neptunic Sharksuits

Studio D | 2308 Kettner Blvd | San Diego | CA 92101 | USA
www.neptunic.com

Neptunic Sharksuits are exhibiting two of their specialist suits, the Neptunic NEMO II and Neptunic C Suit. The Neptunic NEMO II sharksuit is suitable for divers working in relatively stationary positions as swimming is difficult in this garment. The suit is made using a liquid crystal polymer incorporated into a composite structure with gloves and boots made from a steel mesh and a polycarbonate helmet. The 'C' in Neptunic's C Suit stands for component. The suit combines stainless steel, nylon and polycarbonate and is made up of different parts. The diver can select to wear just some components such as the arms or legs, or the full garment. Though they recommend a full suit at all times, the company web site acknowledges that people may choose to select giving the option "for the bold or the budget minded".

Safety Gear for Small Animals

7 Silver Ave | Toronto M6R 1X9 | Canada
www.safetygearforsmallanimals.com

Bill Burns is the Director of the Safety Gear for Small Animals. The motivation is animal rescue, relocation and rehabilitation. Burns uses a branch of Safety Gear for Small Animals known as the Museum of Safety Gear for Small Animals to communicate this message around the world. The itinerant museum consists of nineteen scale model pieces with a total weight of just 944 grams using 2,750 machine stitches and 234 hand stitches. The exhibits include a trio of tents for Bio-Hazard to Radiation and Triage, a mosquito net, safety vest, floatation devices, respirator, visor and hardhat. These are all intricately made and manage to be both ironic yet raise serious issues. Part of the reason they are so disturbing is that their scale is so tiny, emphasizing the vulnerability and lack of consent from the animals. As viewers we are familiar with these products often on a daily basis and do not think twice about them. By changing the scale and use we look afresh.

Driessen + van Deijne

Hil Dreissen | de Bonte Zwaan studio nr 27 | stavangerweg, AX | Amsterdam 1013
info@hildriessen.com

Driessen + van Deijne were invited by Bakers Architects in Utrecht to make an art intervention into the interior corridor walls of a building. Although funded as part of the art budget, the brief also asked that they incorporate some form of acoustic insulation into the work. Hil Driessen and Toon van Deijne are part of a new breed of creatives who have the ability to work as artists and designers but also have the substantial technical expertise to undertake work of this nature.

The duo began by creating a series of mood-boards considering how fabric sits, drapes and moves within a building as people move past or create airflow opening doors and windows. The ideas were refined to a series of layered fabrics in crisp hues of blue to yellow. These were photographed before being used as the basis doe digital prints on a Trevira CS fabric. The series of images have been backed by a sound absorbing and flame retardant nonwoven fabric with both elements mounted on frames to create additional depth and clean edging. Driessen stresses the importance of photography in this and their work in general. In carefully considering the image and taking the time to set it up exactly as they want they keep the computer intervention to a minimum. In an age of digital photography the medium has increasingly become ubiquitous and disposable. Driessen + van Deijne remind us of the depth the medium can reach in the right hands.

Florence Broadhurst

Signature Prints | PO Box 91 | Rosebury, Sydney NSW 1445 | Australia
www.signatureprints.com

When Florence Broadhurst established her hand-printed wallpaper company in Sydney in 1959, it was one of a kind in its output of vigorously modern wallpaper designs intended to radically change design attitudes in her native Australia. Due to a revived curiosity in the life and work of Broadhurst, Signature Prints have re-released a number of her designs featuring an astounding range of bold and dynamic designs, including the iconic Japanese Floral, which was one of Broadhurst's signature designs on silver foil Mylar (boPET polyester film). Mylar was originally developed by DuPont in the 1950s and quickly found applications in the Space industry. When Broadhurst first used Mylar it was still a very new product and today it is retains that Space Age, futuristic quality in the way that it is innovatively used by Signature Prints. Mylar foil is recognized for its high tensile strength, electrical insulation and reflective properties, which when combined with unique designs for wallpaper provide an advantageous range of environmental add-ons in heat and energy preservation for the home environment.

Girli Concrete

Interface: Centre for Research in Art Technologies and Design | University Ulster
York Street | Belfast | Co. Antrim BT15 1ED | UK
girliconcrete.blogspot.com | interface.rehabstudio.co.uk

Girli Concrete is the brainchild of Patricia Belford and Ruth Morrow working at Interface: Centre for Research in Art Technologies and Design part of the University of Ulster in Belfast. The work looks to literally incorporate fabric as acoustic insulation into the fabric of the building material concrete. The impact of this material addresses many levels. Visually it combines delicate fabric with brutalist concrete to create an unconventional juxtaposition. On a tactile level it invites the viewer to touch and experience the differences, hard, soft, cold, and warm. It also operates at an environmental level reducing the need for additional painting or cladding over the concrete.

The duo are exploring a wide range of textile materials selected for aesthetic, cultural and acoustic properties. Cashmere, flocked fabric and even lace from their native Northern Ireland are all being explored and undergoing tests for their various acoustic properties. The work is produced in panels that are formed in moulds. The fabric is placed in a mould with cement poured over and left to dry over a period of twenty-eight days.

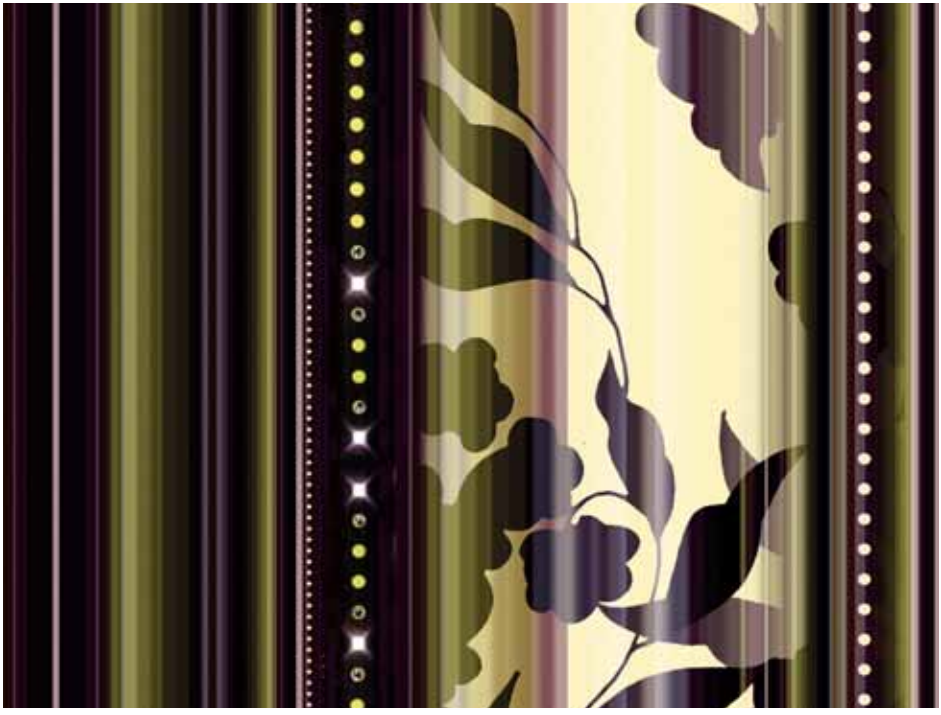
Helen Amy Murray

Flat 3 | 86 Downs Park Road | London E8 2HZ | UK
www.helenamymurray.com

Helen Amy Murray has developed a unique hand crafted 3D surface technique for textiles that she uses in her bespoke commissions for clients. The material is used as furnishing fabric, particularly for upholstery and interiors. Inspired by the carvings in wood and marble from a trip to India in 2001, Murray has translated similar effects into her textiles and leather work. In a series of pieces created specially for this exhibition, she has used the latest in advanced fabrics from leading fabric companies such as Schoeller Textil AG and Mercader. Schoeller's ColdBlack and Reflex fabrics are layered with Mercader's anti-bacterial leather and flame-retardant nonwoven to create her unique 3D appliqué. Murray uses her 'Oriental Flower' design for both the chair and the wall panel. The results are a collection of innovative and unique feature pieces, which are not only flame retardant and antibacterial but also self cleaning, heat reflective (ColdBlack), water proof and light reflective (Reflex).

Meystyle

22 Queen of Denmark Court | London SE16 7TB | UK
www.meystyle.com



Lighting is a feature that we normally expect to see next to or attached to the wall but Meystyle have abandoned tradition and incorporated lights into their wallpaper designs. LEDs provide ambient lighting as they are incorporated into the material. The low level lighting adds an aesthetic quality but also provides a spatial marker at night when all other lights are off. The digital prints are futuristic especially in their treatment of colour gradation, but often take the dramatic scale of the 1970's interior prints as their starting point. The use of Swarovski crystals accentuates the impact of the LEDs as the two work in harmony to create a dramatic impact. The digital designs are printed onto a synthetic fabric for the wallpaper with matching designs created in a flame retardant fabric for upholstery and cushions.

Sheila Clark

Research Fellow, Fashion and Textiles Department
Royal College of Art | Kensington Gore | London SW7 2EU | UK
vrc.rca.ac.uk/modules/members/profile/index.php?user=179

Sheila Clark is a research fellow at the Royal College of Art's School of Fashion and Textiles and Vehicle Design. Her work explores a variety of innovative materials for applications in the automotive industry, predominantly as upholstery. Clark embues her materials with health-giving properties that add to the driver and passengers comfort and safety. The blue seat sees a hand-woven glass fiber panel combined with a conductive strip to heat the seat and help relax the back's dorsal muscles while driving. The reflective seat is trimmed with two woven fabrics one has a steel weft yarn soft to the touch yet strong and conductive. The other is woven using a reflective tape - that is a coating of tiny glass beads on a polyester film. This fabric gives a light reflecting flash of silver when seen at different angles. The well-being seat is trimmed with two woven fabrics that have health-giving properties. The central panel uses a woven fabric with a bamboo weft. Bamboo is a sustainable material with natural anti-bacterial characteristics. The bamboo contains a honey pectin to make the fabric impermeable to Ultra Violet (UV) rays. The outermost fabric is made of silver and wool and also has anti-bacterial properties. It prevents static electricity and deflects electromagnetic rays. A potential usage would be for airline interiors. A soft luxurious cashmere and bamboo wrap accompanies this seat.

Multi-Media Textiles Department
Interface: Research Centre for Art, Design and Technology
Palmhive Technical Textiles

Multi-Media Textiles Department, Loughborough University School of Art and Design (LUSAD), Epinal Way, Loughborough, Leics LE11 3TU, UK

Interface: Research Centre for Art, Design and Technology, School of Art and Design, University of Ulster, York Street, Belfast, Co Antrim BT15 1ED, UK, www.interface.ulster.ac.uk

Students at the two colleges were invited to design samplers for potential use in fashion using Palmhive's military bobble camouflage fabric as their starting point. The warp knitted anti-radar camouflage relies on the absence of hard edges to bounce the radar signal off so that the radar does not know it is there. It is mainly used over military tanks. One unusual feature of this fabric is that it is sold be weight rather than length because its stretch makes it difficult to measure.

The outcome of the student project is an extraordinary array of design and aesthetics.

The techniques used include: heating: knitting; melting: cutting; stitching; layering; beading; interlacing and appliqué. Additions to the materials include: beads; threads; needles; buttons; rubber ribbon; Perspex birds, metallic foils and additional fabrics and trimmings.

Participating Students: Loughborough University College of Art and Design: Amy Bear, Rebecca Boatfield, Sharon Dean, Hannah Gilbert, Sarah McPhee, Sarah Walker, Natalie Wooller, Chloe Wragg. University of Ulster: Hannah Casey, Heather Castles, Emma Jannean, Elele O'Kane, Riona Tracey.

Parlee Cycles

119R Foster Street | Building 13 | Peabody | MA 01960 | USA
www.parleecycles.com

Parlee Cycle's mission is to build the world's finest carbon fiber bicycles using the highest quality materials and craftsmanship to provide an extensive range of customization. Each bike is individually hand built by a team of craftsmen integrating both science and art in the build to take advantage of the directional strength of carbon fiber, creating durable frames with high performance. The end result is a bicycle that offers maximum efficiency in power transfer and vibration dampening, achieving a perfect balance of comfort, durability and style. By optimizing the weight to strength ratio through an intricately refined design process. Parlee offers high performance bicycles with some cycles weighing a little fewer than ten kilograms.

Karen Fleming

Reader, Leader Textiles Research Zone Interface: Centre for Research in Art Technologies and Design
University Ulster | York Street | Belfast | CO. Antrim BT15 1ED | UK
www.interface.ulster.ac.uk/peopleprofile/peoplekaren.htm

The Incisions Gown is a garment designed to provide medical students with information on where operation incisions are made and a sense of the meaning of operations for the patient. The garment was developed by artist Karen Fleming from the University of Ulster and scientist John McLachlan from Durham University. It is worn and studied by medical students in their training to enhance their technical and emotional understanding of what will happen to their patients on the operating table. The gown is shaped like the familiar surgical gown but has zippers on major surgical incision sites named on the cloth –'Median thoracotomy' (heart operations); Pfannenstiel incision (hysterectomy and some gynaecological operations) and so on, alongside laparoscopic and peritoneal catheter insertion points. Unzipping the incisions reveals deeper layers corresponding to sequential muscle and tissue layers. The silk and rubber echos the texture of human muscles and flesh making it a unique tool for teaching medical students. In current medical training, traditional hard plastic models of the human body are generally used both as teaching aids and in explaining procedures to patients. Although they can be used to show areas of the body and where incisions will be made they are not able to convey the emotional impact that an operation inevitably has.

This is part of a project funded by Wellcome Trust.

maharishi hardy blechman LTD

2-3 Great Pulteney Street | London W1F 9LY | UK
www.emaharishi.com

In 1994 maharishi was founded by Hardy Blechman who remains the Creative Director. The company carries a strong ethos of respect for nature while utilising the latest technology. Blechman began by producing hemp and other natural fibre clothing as well as reselling army surplus. This soon turned to adapting and customising camouflage then going on to create their own versions. Collaboration with artists and designers including the grafitti artist Futura are a vital element in the label's creative process. The Gorscuba range uses a 3M Scotchlite reflective print that is often customised with hand-painted embellishment from Futura. The Scubafuturaempora coats also use reflective inks, this time to create bionic reflective fabrics that have 43% glass beads with a resin coating on a Wintermagic heat reactive fabric base. While the Gorscuba designs are predominently used on parka, street and military styles, the Scubafuturaempora are combined with designs inspired by Chinese Emperor's robes.

Rebecca Earley

EG21, TED Project Room | Chelsea College of Art and Design | University of the Arts London
16 John Islip Street | London SW1P 4JU | UK
www.beckyearley.com | www.tedresearch.net

Radiotherapy Treatment Gowns for the Queen Elizabeth Centre for the Treatment of Cancer, Public Art Commissions Agency

Rebecca Earley is currently a Reader of Textiles Environment Design (TED) and Associate Lecturer on BA and MA Textile Design at Chelsea College of Art and Design, University of the Arts, London. Her signature textile is the heat photogram technique which she began exploring while studying her MA and has gone on to further refine and develop since. She has introduced environmental and sustainability issues to her work enriching not just the finished design but the whole design and production process.

Earley's 1999 hospital gown series illustrates this process. This work was commissioned by the Queen Elizabeth Centre for the Treatment of Cancer, Birmingham. Each of the 100 gowns was designed using the photogram process of printing with the plants the directly onto fabric. The imagery used shows homeopathic plants used in the care of cancer patients varying according to the type of cancer. Rebecca changed the existing gown design, reshaping it and adding new functional details. The gowns were originally sized by colour (blue for small, pink for large etc.) and recognizing this as problematic for self-conscious patients, Rebecca changed this to a discrete numbered system. The gowns were printed using Earley's 'exhaust print' method which creates no waste fabric, water or chemical pollution. The overall design and aesthetic are far removed from the anonymous and aesthetically sterile garments that patients are usually required to wear.

Tara Carrigy

24 Cambridge Road | Rathmore | Dublin 6 | Ireland
www.taracarrigy.com

The Interactive Yoga Wear emerged as an initiative between the Crafts Council of Ireland and the Adaptive Information Cluster at Dublin City University (DCU). Tara Carrigy became first craftsperson in residence in an Irish university and went on to produce a prototype garment for yoga as well as a performance piece for Kilkenny Arts Festival 2006. The work combines smart materials and craft techniques demonstrating that technology and tradition can be brought together successfully to enrich both disciplines.

The intention of the garment is to allow practitioners to self-monitor in real time. Tiny transmitters are embedded into the fabric to take readings from the garment to show how the movement and breathing are being performed. The craft element is present through the print and surface embellishment of the garment. The intention is to produce a garment that is high tech and fully functional, but also have a strong aesthetic appeal.

The first stage in the development of this garment was shown at the 2006 Kilkenny Arts Festival in the Jacare Jungle interactive perfomance by Capoeira dancers. The highly acclaimed perfomance was a sell-out as it combined a specially commissioned short story, dance performance and gave children the opportunity to experience the science of smart materials and sensors in action.

Vlieger & Vandam

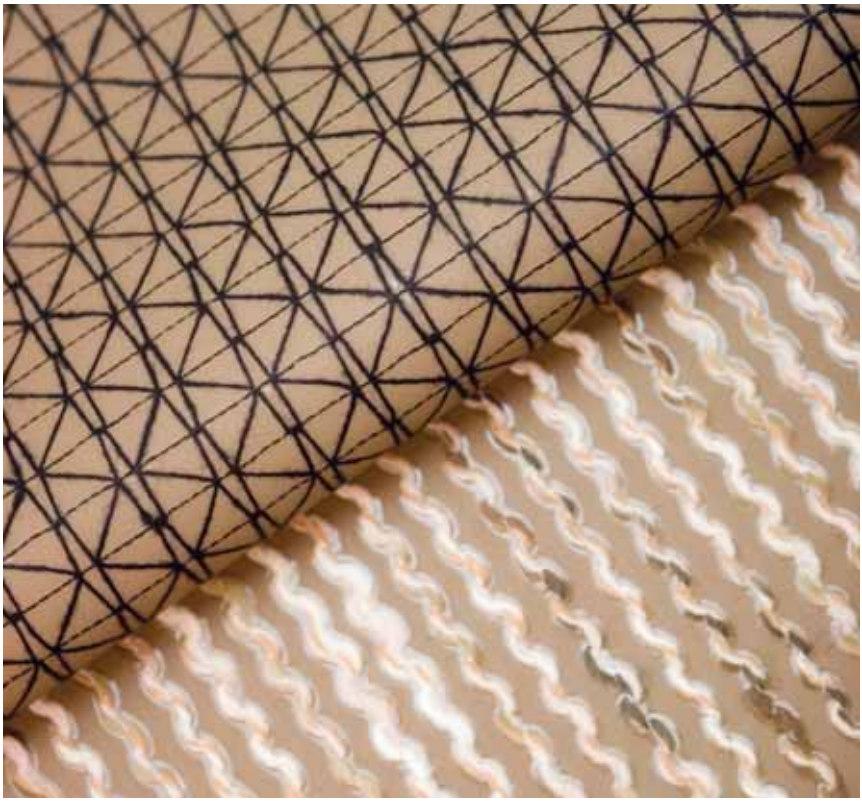
Betje Wolffstraat 60 | 3027 RN Rotterdam | The Netherlands
www.vliegervandam.com

Vlieger & Vandam is a fashion accessories label based in Rotterdam, the Netherlands. Hein van Dam and Carolien Vlieger, husband and wife, started working as a team in 2000. Two years later they made their first series of handbags called Guardian Angel, the first in a series of striking bags. Each appears to contain a gun or a knife but in reality the shape has simply been formed into the felted wool of the bag. The idea grew out of the increasing number of stories in the news that focused on lawlessness and antisocial behaviour. People's perceptions and the fear of violence soon grew to be greater than the number of crimes actually committed. As a response, Vlieger & Vandam wanted to give people the impression of feeling secure, arming them with a Guardian Angel handbag.

Maharam/Louisa Cevese

Luisa Cevese | Reidizioni | Via Bramante 39 | Milan | Italy
www.riedizioni.com/

Maharam | 251 Park Avenue South | New York 10010 | USA
www.maharam.com/



Luisa Cevese began as Director of Research at Mantero Seta on Italy's Lake Como. There she became interested in the waste generated by the textile industry and looked at ways of utilising it through the creation of new material. In 1994 she set up her own company, Riedizioni in the heart of Milan where she is now based. In her work she utilises remnants from industry, damaged yarns, even fishing nets past their useful life in the fishing industry find a use in her studio. The textile elements are combined with a polyurethane plastic in a laminate process. Most of her materials are developed for her range of bags and accessories. However, a recent collaboration with Maharam Design Studio has led to the launch of her specially developed materials for use in interiors. Maharam specialise in high quality fabrics for interiors and upholstery. The fabrics combine yarns with Cevese's signature polyurethane laminate with resulting materials including Ply Mesh, Ply Chenille Grid and Ply Tweed Stripe.

Safety & Protective Products Division of IFAI 2008 Student Design Challenge

First Place

Edana Conlon, Danna Sadetsky, Maureen Dougherty
University of California, Davis / Professor You-lo Hsieh

Danna Sadetsky | danna.sadetsky@gmail.com
Edana Conlon | edana@pacbell.net
Maureen Dougherty | quietclothing@yahoo.com

Moisture Management Protective Shell–Because the goal of the 2008 Safety Products Student Design Challenge was to offer solutions for workplace injuries, our team investigated the performance of wearers of concealable bullet proof vests. Because current ballistic vests are heavy and hot, wearers may suffer fatigue, lower reaction time, and worse, if they overheat. By providing a garment that reduces moisture collection and heat build-up on the skin, these issues are alleviated.

Through surveys and interviews conducted with the Oakland, CA police and the UC Davis campus police, and by researching current vest construction, we were able to pinpoint what is needed in the market. Our study led us to design a shell, or undershirt, with excellent wicking abilities and improved breathability.

Ballistic protection on the market now has highly porous sewn-in interlinings with hydrophobic inner surfaces. Our design maximizes the location of highly efficient moisture managing fabrics in a separate washable shell, rather than the sewn-in interlining seen on current products. This design uses Nano-Tex moisture managing fabrics. The garment was sized to fit standard ballistic protection from BAE Systems.

Second Place

Stacey Wenzel

University of Minnesota, St. Paul / ProfessorKaren LaBat | wenz0058@umn.edu

Kids Camouflage Safety Hunting Suit is a one-piece snow suit was designed to protect a child from extreme cold, especially when deer hunting, where a hunter may sit outdoors for hours. The garment is water resistant to protect from hypothermia, as well as highly insulative. The one-piece design aids in wind resistance as well.

By law, at least 50% of a deer hunter's outer garment must be blaze orange, hence the upper body and hood color. In addition, this garment does not include any exterior pockets, which could catch on branches and cause a fall or firearm discharge. None of the current market products for children incorporate all of these features on one garment.

Third Place

Laura Musekamp

University of Minnesota, St. Paul / Professor Karen LaBat | musek004@umn.edu

This cold-weather sailing outfit protects the body from extremely cold weather and harsh sailing conditions in both the fabric and the design.

For the jacket, the outer layer of fabric is Ultrex™ rip stop. This windproof, waterproof, and breathable fabric allows the user to be comfortable while offering wind and water protection. The blue fabric is a nylon rip stop. It is also windproof and waterproof and was added into the design for aesthetic. The interlining is 125 gram Thinsulate™ fabric. This type of insulation protects the body from extremely cold temperatures. The interlining in the collar is polar fleece, adding warmth but less bulk than the rest of the jacket. The lining fabric is a polyester mesh material that wicks moisture from the body. Keeping moisture away from the skin is important in cold conditions.

The pants are made from blue nylon rip stop and they are lined with the silver mesh that is in the jacket. The pants are meant to be worn over another pair of pants.

Acknowledgements

Industrial Fabrics Association International (IFAI)

IFAI is a not-for-profit trade association with nearly 2,000 member companies representing the international specialty fabrics marketplace. Member companies range in size from one-person shops to multinational corporations; members' products span the entire spectrum of the specialty fabrics industry, from fiber and fabric suppliers to manufacturers of end products, equipment and hardware. IFAI facilitates the development, application and promotion of products manufactured by our diverse membership.

This Design Exhibition is held exclusively at IFAI's annual Exposition gathering more than 8,000 international visitors. IFAI Expo is the premier tradeshow and Symposiums for the specialty fabrics industry.

1801 County Road B West
Roseville, MN 55113-4061
+1 651 225 6981
www.ifai.com | www.ifaiexpo.com

Marie O'Mahony

Marie O'Mahony is Professor of Advanced Textiles at University of Technology, Sydney (UTS) and Visiting Professor at Chelsea College of Art and Design. She is in the process of setting up a new masters course at the university and continuing with her consultancy, curating and other research activities. Marie is author and co-author of several books with publisher Thames and Hudson on design and technical textiles, the most recent being TechnoTextiles2. She is currently working on a new book Advanced Textiles: Design for Wellness and Health.

Professor Marie O'Mahony
Faculty of Design, Architecture & Building
University of Technology, Sydney (UTS)
PO Box 123 Broadway
Sydney
NSW 2007
AUSTRALIA
www.uts.edu.au
marie@techconsultant.co.uk
www.techconsultant.co.uk

Molo Design

Based in Vancouver, Canada, Molo is a design studio dedicated to materials research and an exploration of space making. As a design and manufacturing company, Molo creates and distributes unique and innovative products to clients around the world. The design of Molo products grows from Forsythe + MacAllen's architectural explorations, inspired by the idea that smaller tactile objects and elements can have a real potency in the physical experience of a space.

Molo's softwalls and softseating are featured during this Design Exhibition (and on the cover of this catalogue) exemplify ideas of intimate, temporal space making and the original thinking behind all Molo products. Molo's softwall and softseating have been acquired into the permanent collection of the Museum of Modern Art, in New York.

1470 Venables Street
Vancouver, V5L 2G7
+1 604 696 2501
info@molodesign.com
www.molodesign.c