

2007

SIGGRAPH 2007 FASHION EVENT

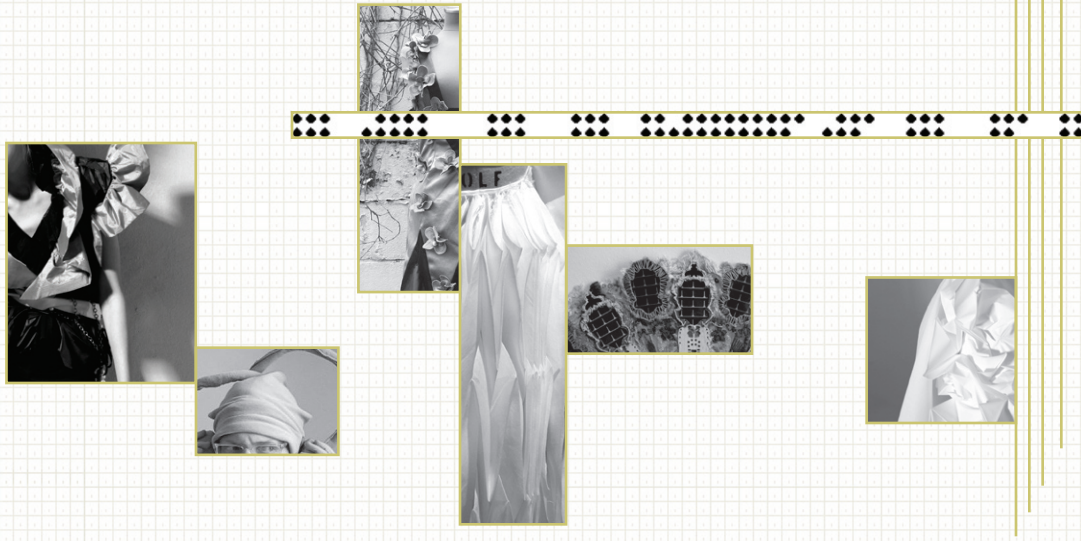
MONDAY AUGUST 6 2007

8:30PM - 12AM AT THE CHAPTERS PARTY

'ON BROADWAY' 615 BROADWAY

SAN DIEGO, CA





## UNRAVEL: the SIGGRAPH 2007 Living Exhibition of Fashion

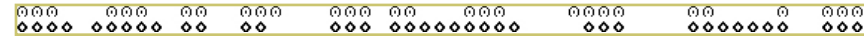
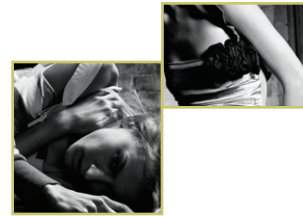
brings together international designers and artists

to present innovative and interactive works in

computational and conceptual couture, socially

conscious fashion, science-inspired from,

and new technologies in textiles.



Welcome to Unravel 2007, a living exhibition of fashion. We invite you to experience these works of design in a salon style format merging the embodied excitement of the runway with the interactivity of an exhibition to celebrate designers who are seeking to redefine the notion of 'wearable'.

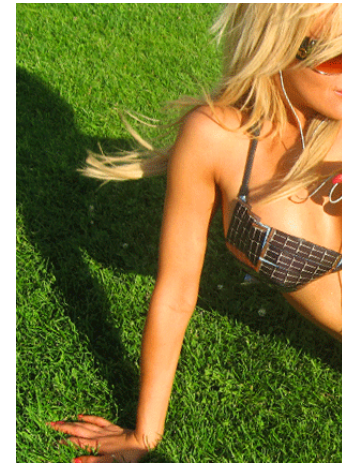
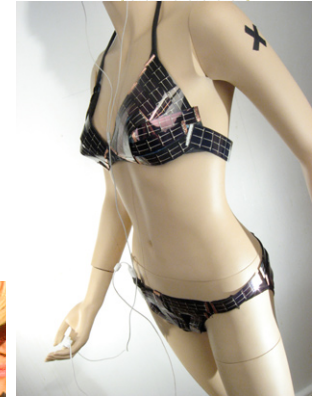
In the increasingly mobile nature of contemporary life, the devices we carry and the garments we wear are converging into a 'secondary skin' which functions as an extension of ourselves, in both ability and perception. By using fashion, a medium which has always been associated with self-expression and personal identity, these designers seek to demonstrate how the use (or misuse) of technology and its modes of production have the power to stimulate, delight, and inspire in ways as yet untapped in the fashion world.

Gone are the stereotypical bulky cyborg devices; what has emerged are garments of beauty, subtlety and elegance in form. Some bring to light important social issues — redefining our notions of personal space, mobility, the environment, and issues of privacy and protection. Others relish in pure delight, reminding us how technology has the power to enhance our personal relationships and celebrate fantasy, narrative, and play as part of the human condition. Not all of the garments have embedded 'technology' - some are the outgrowth of the scientific and technological trends that are expanding the creative process by which we produce fashion, while others reflect how our evolving relationship and reliance on technology is changing the garments we desire. Together these designs demonstrate the delicacy and intricacy of craft which emerges when technological augmentation becomes one with the body.

## Solar Bikini

designer: Andrew Schneider

A solar film bikini that charges your iPod! (With a USB connection!) The suit is a custom made bikini swimsuit retrofitted with 1" x 4" photovoltaic film strips sewn together in series with conductive thread. The cells terminate in a 5 volt regulator into a female USB connection. Don't worry guys! The male version of the Solar Bikini (coming soon) called the iDrink, features a greater surface area which equals more output voltage. This additional juice is used to power a 1.5 amp peltier junction which cools a single beer in a custom coozy. Double cool! The iDrink solar swimware line is perfect for those who want to go the beach, listen to music, and enjoy a cold and deserved beverage, but who don't want to get wet! You've got tunes, you've got beer, you've got sun, and you've got each other in swimwear. The rest is up to you.





## Walking City

designer: Ying Gao; electronics developer: Simon Laroche  
fashion design assistants, students at UQAM: Anne-Marie Durand-Laflamme,  
Isabelle Giroux & Annie Hebert



The aim of Walking City was to create dresses that would respond to their physical and acoustical environments. Each garment was connected to a pneumatic system that allowed air to enter and exit; this system paced the garment's "breathing" and analysed the movements and sounds the wearer produced. The garment's physical changes were achieved through fluctuations in the volume of air and designs applying the method known as origami or the art of folding paper. This mathematical method combines paper folding and cutting techniques, and can be used to create objects that can be transformed into a variety of shapes. Using this fascinating medium - air - as inspiration, the intention was to give aesthetic form to the ethereal by creating garments far removed from the idea of lifesaving, and closer to playfulness and the concept of allurements.

<http://www.cavaaller.blogspot.com/>

**Ying Gao** is a fashion designer and professor at University of Quebec in Montreal's (UQAM) graduate school of fashion. Her two areas of interest are fashion and media arts. The central theme of her work includes various aspects of the environment, be they social, climatic or urban. **Simon Laroche** has been involved in electronic and interactive arts for over seven years. His interests are focused on robotics, performance art, installation work and interactivity and his approach aims at automating and mechanizing analogue or natural processes, as well as layering biologically inspired models of behavior on robotic or digital structures.

## Index of Indifference

designer: Ying Gao  
fashion design assistants, students at UQAM:  
Anne-Marie Durand-Laflamme & Isabelle Giroux



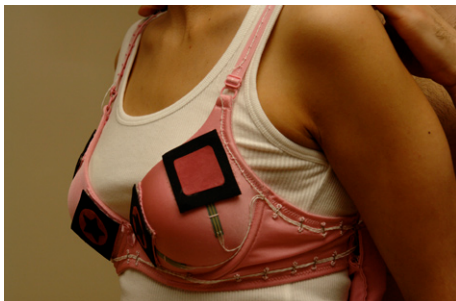
Inspired by interactive opinion surveys, this project is a study of clothing structure. The data used to create the shirts were mathematically compiled and manipulated. Online interactive opinion surveys are a growing phenomenon. I am amazed by the number of Internet users who vote daily that they are "indifferent" about political, economic or cultural issues. Using Lingo, I compiled and manipulated statistical data concerning this neutrality in order to modify the basic structure of a man's shirt. Data was compiled over the course of four weeks and was used daily to alter the entire pattern: the angle of the collar, the length of the pocket, the depth of the folds, etc. The unconventional structure of the shirts designed in this manner "reflect" our indifferences relating to certain social questions.

<http://www.cavaaller.blogspot.com/>

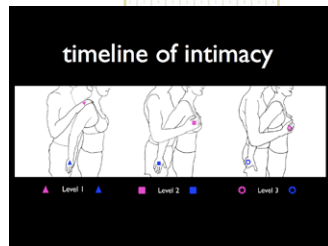
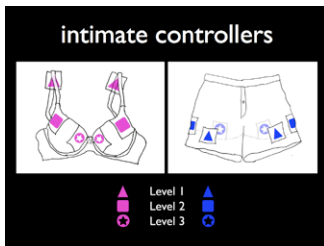
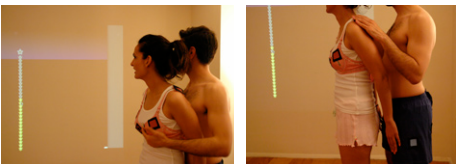
**Ying Gao** is a fashion designer and professor at University of Quebec in Montreal's (UQAM) graduate school of fashion. Her two areas of interest are fashion and media arts. The central theme of her work includes various aspects of the environment, be they social, climatic or urban.

## Intimate Controllers

designer: Jenny Chowdhury; flash programmer: Sinan Ascioğlu;  
electronics assistance: Jeff Gray



Intimate Controllers is a platform where video games are played by couples touching each other. The platform consists of two controllers, a bra for the female player and boxer shorts for the male player. Each controller is embedded with 6 sensors placed with varying degrees of intimacy in relation to the body part with which they correspond. Players must pass game levels together and in doing so, game play results in increasingly intimate positioning.



## Smoking Jacket

designer: Fiona Carswell



The Smoking Jacket has a built-in pair of plastic lungs on the front. The smoker exhales cigarette smoke into a one-way air valve in the collar, and the smoke is then funnelled into the lungs which gradually darken over repeated exposure to the smoke. This project was one in a series exploring reflective design as it relates to the body, behavioral choices, and information displays.



Jenny Chowdhury is a New Media Artist who likes to do funny things with electricity. She currently works in Yahoo's Design Innovation Group and is a resident researcher at NYU/ITP. Jenny holds a BS in Electrical Engineering from Tufts University and a Masters from NYU/ITP. Jeff Gray is a New Media Artist and Adjunct Professor at School of Visual Arts, NY and Hunter College, NY. He holds a Studio Art Degree from University of Idaho and a Masters Degree from NYU/ITP. Sinan Ascioğlu is a flash programmer and web designer. He is a graduate of Istanbul Technical University and is currently working towards his Masters at NYU/ITP

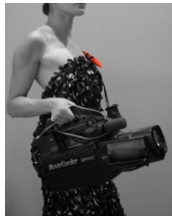
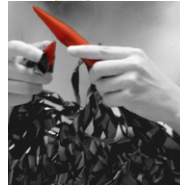
Fiona Carswell is a recent graduate of the Interactive Telecommunications Program (ITP) at NYU and a User Interface Engineer for Apple, Inc.

## Knitter's Tapestry

designers: Daniela K. Rosner, Kimiko Ryokai



Knitting takes place in many different environments: social, private, and public. But a knit fabric cannot tell the story of the knitter's journeys. What if the material could record and playback these memories? Our experimental dress is knit with recordable magnetic tape that travels with the knitter and captures the knitter's experience as she knits. With every stitch, the tape is pulled out of the knitter's companion basket and records the knitter's environment, creating both a dress and a tapestry of memories. Simultaneously, the tape is ripped out at the end of the dress and fed back into the knitter's basket, playing back the past before being re-recorded. This project explores the preservation of the creative process embodied in the artifact.



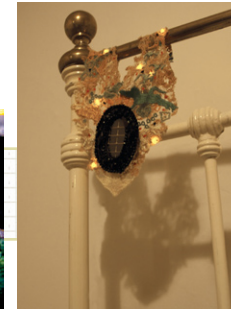
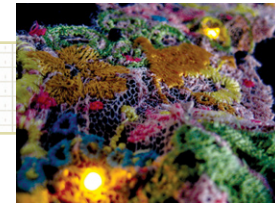
*Daniela K. Rosner is a Master's student at the School of Information at UC Berkeley. Her research interests focus on how the design of emotive and social cues in information technology influence decision making and creative processes. She is currently developing a system to enable people to imbue more personal meaning in their handmade creations. Kimiko Ryokai is an assistant professor at the School of Information and Center for New Media at UC Berkeley. Kimiko's research focuses on building new expressive tools that take advantage of people's familiarity with the physical world, and studying how new media expand the interaction space and the change that could be brought out in the way people perceive this extended interaction space. Her research investigates the potential of new interactive media that push us to actively expand the way we perceive the world and make new meanings.*

## "solar vintage, we will become silhouettes"

designer: Elena Corchero; sponsor: Distance Lab



A collection of accessories for the eco-fashion-minded in which technology meets tradition. Explores delicate ways of incorporating organic solar cells and other electronic components into textiles. Embroideries and prints recall endangered birds. The pieces are charged while used outdoors during the day. In the evening they transform into a decorative ambient light display for the home.



*Elena Corchero is an experienced fashion and interaction designer with a fine arts background and specialist knowledge in Smart Textiles through work as a research associate at MIT Media Lab Europe and Textile Futures Masters Degree at Central Saint Martins in London.*



# Hacking Couture

Hacking Couture is a platform that explores new ways of introducing interactivity to the traditional fashion processes. A yearly collection is brainstormed and assembled through workshops and remote contribution. The first collection explored applying the concept of remixing and Open Source culture into fashion. The current collection is exploring performance in fashion.

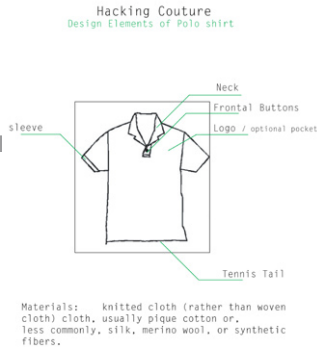
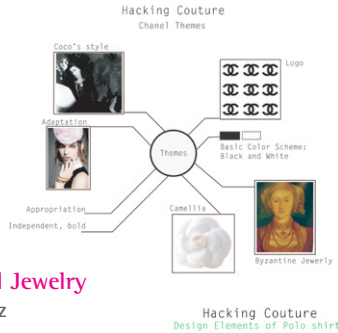
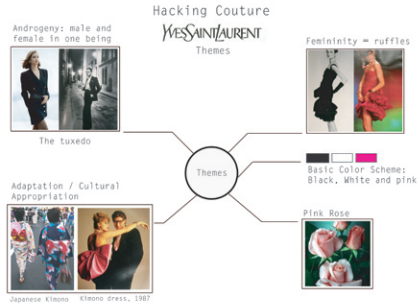


photo credit: Theodore Samuels

## Proposed Polo Hack Hacking Couture and Chanel Jewelry

dress by: Giana Gonzalez  
jewelry by: HyeJoo Lee

The Polo Dress is Hacking couture's proposed polo hack. The Chanel hack was constructed at Hacking-couture.com Chanel Hacking workshops at New York University. The material of the dress is a recycled polo shirt and the design presents an oversized polo exaggerating the elements of the design code traditional of a Polo shirt, the sleeves, next, logo and tennis tail.

**Giana González** is an interaction designer whose work explores the intersection of culture, design and technology. **Hye Joo Lee** is an interaction designer whose work focuses on wearable technology and their interaction with ubiquitous devices.

## Asymmetric YSL shirt, YSL Bow Purse & Chanel Belt

shirt by: Katherine Anderson & Sarah Bergenheim  
bow purse by: Giana Gonzalez  
Chanel belt/necklace by: Jenny Chowdhury



photo credit: Theodore Samuels

The YSL Hack took place at the Fashion department at Pratt Institute. Part of the goal of Hacking Couture is to allow an exchange between the design and technology. The participants to the workshops were exposed to the concepts of Open Source and made available their design for the Online Library This shirt takes the basic color scheme of YSL and the ruffles element, which has been present throughout YSL career.

**Katherine Anderson and Sarah Bergenheim** are recent graduates from the fashion department at the Pratt Institute in New York. Katherine is from New Jersey and has worked at Marc Jacobs and Yohji Yamamoto. Sarah is originally from Boston and currently does work with trend forecast and fashion design. They are both based out of New York City.

## Remixed Dress, Polo vs. YSL

designers: Charlotte Gaspard [aka MissCSpot], Sonali Sridhar & Carolina Pino for Hacking Couture



photo credit: Theodore Samuels

The Remixed dress takes the design code of Yves Saint Laurent and Remixes it with the Polo Shirt Design Code. YSL is known for its use of ruffles, gathered fabric and its traditional color scheme, black, white and bright colors like pink, which represents his trademark flower, the pink rose. On the other hand the polo shirt is known for its traditional collar, knitted fabric, logo and tennis tail. This creation re-appropriates all these codes maintaining the original part spirit of both identities hacked but allowing a new aesthetic to emerge in the design, acknowledging the original inspiration and the genealogy behind this design.

**Carolina Pino** had worked on open space installation and sculpture. Spreaded Arts and Technology in remote places in Chile. Made clothes, costumes and toys. Given Art classes and talks. **Charlotte Gaspard** from C.Spot Designs, is a Brooklyn based artist and fashion designer. Her primary materials are recycled clothes and objects. Her work deals with femininity and self-expression. She moves from video, to installation and sculpture to painting. **Sonali Sridhar** is a media artist and interaction designer. She currently lives and practices in New York City. Sonali's work explores networks, seen and/or unseen through wearable technology and screen base applications.

## Jacket Antics

designer: Barbara Layne/Studio subTela

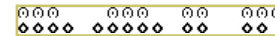
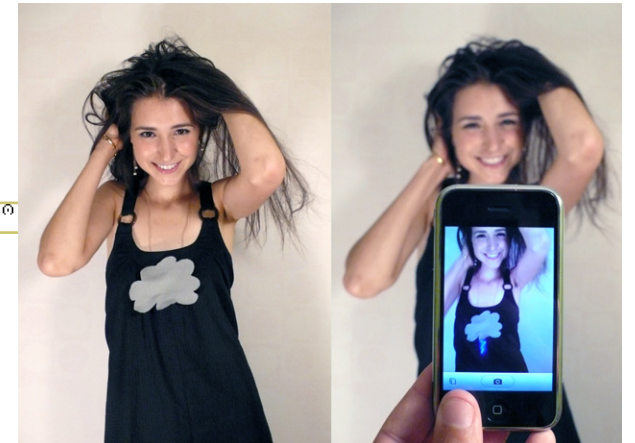
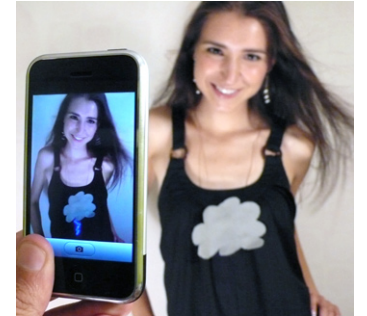


Jacket Antics feature unique texts and designs scrolling through the LED array on each of the backs. Traditional black linen yarns are hand woven alongside light emitting diodes, microcontrollers and sensors. When the wearers hold hands, the LED arrays presents a third, synchronous message that scrolls from one to the other, presenting a new pattern of communication. When the wearers release hands, the message reverts back to the individual themes. The capacity for interactivity in the animated cloth displays extend the narrative qualities of cloth and provide new possibilities for dynamic social interaction.

**Barbara Layne** is the Director of Studio subTela, a creative research lab at the Hexagram Institute and is a faculty member at Concordia University in Montreal, Quebec. She has lectured and exhibited internationally, most recently at El Dorrego in Buenos Aires, at the Ivan Dougherty Gallery in Sydney, Australia, and the International Biennale of Design in St. Etienne, France. **Studio subTela** members include Diane Morin (robotic artist), Hesam Khoshnevis and Maryam Golshayan (electrical engineers) and Meghan Price (textile artist).

## kameraflage™

kameraflage™ is display technology that is invisible to the naked eye, yet is visible when imaged with a digital camera. By integrating kameraflage™ into garments, a new level of expression is enabled for people who are limited by dress-codes or those who simply wish to add an interactive element to their wardrobe, as garments can now include a secondary message or design that appears only in photographs or digital camera viewfinders. Additionally, kameraflage™ can be used as "electronic makeup" that can protect a wearer's identity in today's camera saturated world by discreetly disrupting the features required by electronic face-finding and face-recognizing systems.



**Connor Dickie** is a scientist, inventor, and entrepreneur. He studied Computer Science and Film at Queen's University in Canada, and Media Arts and Science at the MIT Media Laboratory.



## Self-Sustainable Chair

designer: Joo Youn Paek



Self-Sustainable Chair, a dress made out of polyethylene, connected to shoes that pump air into an inflatable bubble attached to its rear part on each step. The dress slowly transforms into a chair with each step and holds the person to sit on it naturally. With his or her body weight the chair is slowly deflated and forms back to the original flat dress. Self-Sustainable chair is a conceptual garment that motivates users to consistently switch between walking and sitting as a loop behavior on the street. The balance between exercise and rest would be maintained by wearing this suit. The purpose of this project is to transform the humdrum experiences produced by routine walking commutes into an amusing interactive performance.

Please visit <http://www.jooyounpaek.com/ssc.html> to watch the performance video.



**Joo Youn Paek** creates musical performances and games for public spaces by applying everyday behaviors such as a writing letters, folding blankets, drinking water, opening zippers and dialing cell phones to her designs. She likes to mimic and play with people's expectations about daily behaviors through her pieces. Using technology, she has been developing a tactile interface that enhances people's physical senses and ability to create and share their stories.

## Muttering Hat & Talk to Yourself Hat

designer: Kate Hartman



The Muttering Hat is an exploration of what it would be like to extricate the noise of the thought process and put it into physical form. A pair of muttering balls are tethered to the hat. They may be stuck to the ears, so that all other noise is obstructed by the mutterings, or they may be detached, providing the opportunity to escape from the mutterings or to share them with a friend.



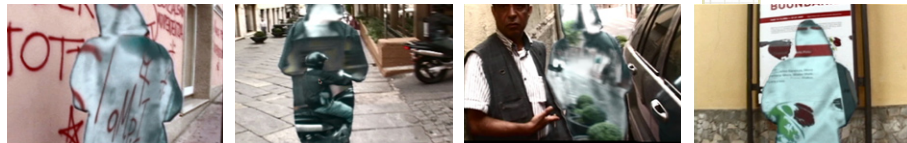
The Talk to Yourself Hat considers the act of conversing with oneself. When speaking through a mouthpiece suspended in front of the face, the voice is channeled back into the ears. It allows the wearer to speak out loud while still retaining the right to a somewhat private conversation.



**Kate Hartman** is an interactive artist whose individual and collaborative projects span the fields of video, telephony, fashion, and electronics. She holds a BA from Bard College in Film & Electronic Arts and an MPS from New York University's Interactive Telecommunications Program.

## Negotiation

designers: Daniela Kostova, Galina Kumanova, Olivia Robinson

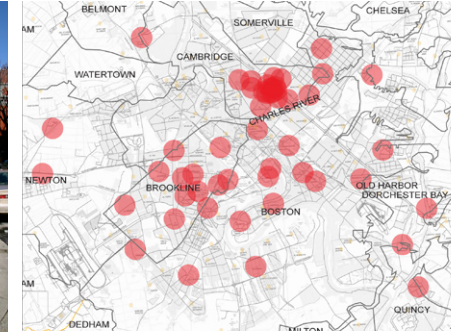
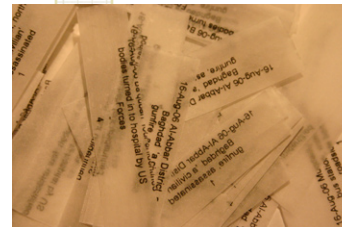


Negotiation is a wearable interactive video system that combines textiles and technology to explore concepts of identity creation, presence and absence, integration and estrangement in different political and cultural environments. During site-specific performances, video from two characters (an Alien and an Authority) are composited and displayed real-time creating a negotiated final video that highlights boundaries. While in Sardinia, Italy, the performance brought attention to the limits of cross-cultural communication between "us" and "others," the characters and the federal police, the police and "others," as well as between the two characters. While drawing from theoretical concepts like the "invisible immigrant" and "double consciousness," the warped video is a metaphor for how one's image and self-identity is a negotiation between the watcher, the watched, and the environment.

Daniela Kostova (b. 1974) is a Bulgarian artist living in the USA. Her work takes the form of single and multi-channel video installation, performance and documentary. It addresses issues of geography and cultural representation, the production and crossing of socio-cultural borders, and the uneasy process of translation and communication. Daniela's works are exhibited internationally. Galina Kumanova is a Bulgarian fashion designer based in Sofia. She is experimenting with various materials such as paper and light sensitive fabrics. Her works combines fashion with performance and her clothes are often shown as objects and in multimedia installations. Olivia Robinson is a digital artist, weaver, and sculptor living in upstate New York. She views installation and performance as mediums for connections between people and communities across boundaries and history. Her current work uses inflatable architecture and video to resurrect and explore local histories.

## Cherry Blossoms: When War Comes Home

designer: Alyssa Wright



Cherry Blossoms addresses the disparity between human suffering and perception of that suffering. The project starts in a backpack outfitted with a small microcontroller and a GPS unit. Recent news of bombings in Iraq are downloaded to the unit every night, and their relative location, to the center of the city, are superimposed on a map of Boston. If the wearer walks in a space in Boston that correlates to a site of violence in Baghdad, the backpack detonates and releases a compressed air cloud of confetti, looking like a mixture between smoke and shrapnel and the white blossoms of a cherry tree, completely engulfing the wearer. Each piece of confetti is inscribed with the name of a civilian who died in the war, and the circumstances of their death. With Cherry Blossoms human loss resonates beyond the boundary of conflict.

Alyssa Wright explores the interdependence of politics, culture, and technology. She studied cultural theory at Wellesley College, received a master's degree in new media from New York University, and is currently a graduate student at MIT's Media Lab, Computing Culture Group.



## Shutters

*designers:* Marcelo Coelho, in collaboration with Steve Helsing  
*assistants:* Elena Jessop & Analisa Russo



Shutters is a kinetic e-textile membrane for environmental control and communication within an architectural context. It consists of a curtain composed of actuated louvers that can be individually addressed for precise control of ventilation, daylight incidence and information display.

The mechanism for Shutters is based on the electronically actuation of an array of shape-memory alloy strands, which can be individually addressed to move the louvers inwards and outwards, regulating shading, ventilation, and displaying images and animations.

By combining smart materials, textiles and computation, Shutters creates living environments and work spaces that are more energy efficient, while being aesthetically pleasing and considerate of its inhabitants' activities.



*Marcelo Coelho* is a Graduate Student at the Ambient Intelligence Group at the MIT Media Lab, in Cambridge, USA. His work explores how technology can refashion communication by incorporating computation into common substrates, materials and structures.

## Bracelets

Woven bracelets—created on traditional bead looms out of beads, conductive thread and surface mount LEDs—function as motion-sensing, communicating wearable displays. The bracelets are almost as thin and flexible as traditional beaded jewelry, controlled with surface mount electronics and soft conductive materials and powered with flexible Lithium-ion batteries. Each one contains an accelerometer that senses wrist movement and a Bluetooth module for wireless communication. They can communicate with laptops, PDAs and cell phones as well as other bracelets and wearables.



*Leah Buechley* is a graduate student in the Craft Technology Group at the University of Colorado at Boulder. Her work focuses on making computation soft and beautiful, and making electronic/computational textiles accessible to designers of all stripes.



## “Peau d’Âne”

designer: Valérie Lamontagne

collaborators: Lynn Van Gastel (Fashion Design); Patrice Coulombe (Max Interface & Circuits); David Beaulieu (Engineering); Brad Todd (Technical Consultation)



In the Charles Perrault fairy tale “Peau d’Âne” a young princess, whose stepfather’s riches are dependant on his gold excreting donkey, orders the impossible from her doting father in order to avoid having to marry him: three dresses made of im-material materials: the sun, moon and sky. The aim of the project “Peau d’Âne” is to incarnate these “impossible” dresses in a material form. A weather antenna culls live weather data, which transforms the dresses, reflecting the changing barometric characteristics of sky, moon and sun in real-time.

The “Moon” dress display changing colour patterns based on the 28-day cycle of the moon. Thermo-chromic painted flowers embroidered with resistive silver threads change colours based on the moon’s transformative phases.



*Valérie Lamontagne is a Montréal-based performance and digital media artist, freelance art critic and independent curator. She received an MFA from Concordia University (Montréal) where she presently teaches in Design and Computation Arts and she is a co-founder, with Brad Todd, of the media arts collective MobileGaze. She is presently a Ph.D. Candidate investigating “Relational and Ubiquitous Performance Art.”*

## Reconfigure

designer: Leah Buechley

music: Maurin Donneaud



Reconfigure, a costume for interactive performance, consists of a torso piece and an assortment of motion sensing appendages that can be snapped to the torso. Sensor data is wirelessly sent from the torso to a computer where it can be used to control music and video. The snap-on sensor sleeves can quickly be added to, removed from or rearranged on the torso. This project was inspired by the way dancers wear and frequently rearrange quirky layers of clothing—mismatched leg warmers, chiffon skirts, torn sweat pants and holey shoes. Constructed using new electronic textile techniques, the garment is form-fitting and stretchy.



*Leah Buechley is a graduate student in the Craft Technology Group at the University of Colorado at Boulder. Her work focuses on making computation soft and beautiful, and making electronic/computational textiles accessible to designers of all stripes. Maurin Donneaud is an industrial design graduate from the French National School of industrial Creation, “Les Ateliers” in Paris. Specializing in the creation of new textiles, he strives to make technology more human. His last project was an interactive textile which allowed users to compose and interpret electronic music.*



#### event credits:

fashion chair & curator: Amanda Parkes

production coordinator: Julie Klein

web & graphic design: Takashi Okamoto & Amanda Parkes

photography: Jennifer Ann Ogren

videography: Leonardo Bonanni

#### SIGGRAPH 2007 Fashion Committee:

Marcelo Coelho

Ryan Genz - Cute Circuit

Valérie Lamontagne

Despina Papadopoulous

Francesca Rosella - Cuit Circuit

#### special thanks to:

Joe Marks & the SIGGRAPH 2007 Conference Committee

Joshua Strickon

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For more information on an ACM SIGGRAPH Professional or Student Chapter in your area, send e-mail to [tochapters@siggraph.org](mailto:tochapters@siggraph.org) or visit our web site at [www.siggraph.org/chapters](http://www.siggraph.org/chapters). Or, while you're in San Diego for SIGGRAPH 2007, stop by the ACM SIGGRAPH Chapters Booth at the ACM SIGGRAPH Village in the Sails Pavilion of the San Diego Convention Center.

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