



Elliat RICH, *Yala Sofa*, 2008

list of works

High Tea With Mrs Woo
works Newcastle, Australia

Hidden, 2007
cotton, silk, polyester, conductive thread and nylon ripstop, nichrome, copper, PVC, hook-up wire, Ni-MH rechargeable batteries
115 x 45 x 3 cm (flat garment)
courtesy the artists

project produced for RESKIN: The Future of Wearable Technology, facilitated by ANAT in partnership with Craft Australia and the Australian National University's School of Art and Centre for New Media Arts (CNMA)

Donna Franklin

works Perth, Australia
Fibre Reactive, 2004–2008
orange bracket fungi (*Pycnoporus coccineus*)
silk, organza, perspex, wood
198 x 75 x 75 cm
courtesy the artist

project produced during residency at Symbotica, The Centre of Excellence in Biological Arts, The School of Anatomy and Human Biology, University of Western Australia

Elliat Rich

works Alice Springs, Australia
Yala Sofa, 2008
thermo chromatic ink, digital print, plywood, laminex, stainless steel components, and upholstering materials
80 x 154 x 59.5 cm
courtesy the artist

Alyce Santoro

works Texas, USA
Sonic Sails (The Tell-Tail Thankgas), 2008
sonic fabric, woven from 50 percent recorded audiocassette tape and 50 percent polyester thread
270 x 270 cm
courtesy the artist



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Coded Cloth, New Media Textiles
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University of South Australia
GPO Box 2471, Adelaide SA 5001
T 08 8302 0870
E samstagmuseum@unisa.edu.au
W www.unisa.edu.au/samstagmuseum

Exhibition Curator: Melinda Rackham
Australian Network for Art and Technology (ANAT)

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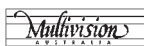
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Cover Image: Donna FRANKLIN, *Fibre Reactive (detail)*, 2004–2008



Coded Cloth New Media Textiles

The Analytical Engine weaves algebraic patterns
just as the Jacquard loom weaves flowers and leaves. **Ada Lovelace**

Coded Cloth: a 21st century revolution in art, fashion and design

A single connecting thread winds through 300 years of textile and computing history. John Kay's invention of the flying shuttle and Joseph Marie Jacquard's binary punch cards and loom head led to mathematicians Ada Lovelace and Charles Babbage's design and programming for an Analytical Engine, the direct predecessor of our modern-day mechanical computer. Without the warp and weft of textile technology, the hardware and software that enable today's ubiquitous information processing revolution would never have emerged.

In the early 21st century the newest hybrid artforms of embedded computing and wearable technology are generating creations that would, until only recently, have been beyond imagination. Take, for example, the luscious wearable artworks of London-based Turkish Cypriot fashion designer Hussein Chalayan, including a short animation projected through 15,600 LEDs and Swarovski crystals integrated into one dress. Chalayan, like many creatives today, works seamlessly across art, fashion and design, appearing to be equally at home showing at the Venice Biennale or at Paris Fashion Week.

This blurring of delineated arenas of practice, and the entwining of the latest technologies into established realms, is not new. In 1956, Japanese avant-garde artist Atsuko Tanaka updated the rich textures and intricacies of the traditional kimono with the dazzling coloured lights of the modern world. Her *Electric Dress* was composed entirely of light bulbs of all shapes, sizes and intense colours, as well as a plethora of connected electrical cords. It was, however, a little dangerous as daily attire, appearing mostly as a sculptural form and recently as one of the central works exhibited at *Documenta XII*.

In the same manner, the artists we see in *Coded Cloth* all utilise traditional textile practices such as weaving, stitching, embroidery, printing and dyeing, however the different electro-mechanical or biological properties of their materials produce aesthetically charming and complex works which have both practical properties and surprising functionality.

Elliat Rich's elegantly designed reactive furniture piece, the *Yala Sofa*, blossoms in the company of others. Working in Alice Springs, Rich employs the motif of the Bush Potato or Yala, the sustaining bush food of Central Desert Pintupi people, to illustrate the importance of connection and community. Using thermochromatic

ink, the Yala flowers printed on the sofa's fabric remain invisible until the body heat from those sitting on the sofa 'activates' the ink and the flowers appear, just as the Yala plant blooms after life-giving desert rains.

Traditional women's business in many cultures, the gathering of food and weaving of cloth also provide opportunities to fashion close-knit social groups; it is therefore not surprising that most of the pioneering and prominent figures in the field of wearable technologies today are women. With the *Yala Sofa*, Rich beautifully illustrates her philosophy of designing sustainable 'objects that celebrate the poetry of humble pleasures'. She understands that sitting together and sharing a cup of tea and a conversation is the invaluable emotional nourishment that grows and sustains our relationships, our community and our culture.

Encoding the cloth itself, **Alyce Santoro** weaves fabric from recycled audiocassette tape. Her *Sonic Fabric* was inspired by two things: the 'tell-tales' she saw as a child – tiny wind indicators used on sailboats that are often made from small strands of cassette tape, from which she imagined she could hear music playing – and fluttering Tibetan prayer flags – squares of fabric silk-screened with mantras and hung outdoors where their blessings can be activated by the wind. Alyce combined these two very different cultural concepts to 'create a fabric with sounds (that) I considered sacred, woven into it'.

Santoro's five-metre *Sonic Sails* gallery installation is, quite literally, a ship that sails on a swell of sound. As the cassette tape retains its magnetic quality through the weaving process, her Sonic fabric actually emits sound when you run a cassette tape head (the piece inside a Walkman that touches the tape) over it. As well as creating sculptural objects and desirable designer goods such as handbags and ties, she has sewn the fabric into funky frocks which musicians can 'play' onstage, mixing the sounds live to create a totally unique experience.

In what may seem like a science fiction scenario, bio artist **Donna Franklin** has created a living garment – a dress that you grow! This dynamic cloth is created from the prolific non-infectious, non-hazardous



Donna FRANKLIN, *Fibre Reactive* (detail), 2004–2008



Western Australian orange bracket fungi (*Pycnoporus coccineus*). The *Fibre Reactive* dress is a living and mortal entity which will grow, change colour, and eventually start to die during the course of the exhibition.

According to Donna, 'the experience of wearing the living garment feels uncanny... Its soft suede-like texture feels like an extension of your own skin... a primordial link to the origin of clothes, when our ancestors first wore the skins of other animals'. The glowing and seemingly floating hybrid *Fibre Reactive* dress challenges us to consider how we as a society commodify and manipulate other living entities, and how that will manifest in the not-too-distant future through the physical and cultural impact of biotechnology.

Exquisite tailoring hides a high-tech secret in an elegant dress jacket by Newcastle fashion designers **High Tea With Mrs Woo** – sisters Rowena, Juliana and Angela Foong. The stylishly feminine contemporary traveller is freed from the unnecessary layers of thick coats and



scarves as her skin is warmed by heating circuits embedded within her elegant *Hidden* jacket pockets.

High Tea With Mrs Woo describe their travel wear for the 21st century woman as 'fashion with secret powers... prepared and invincible'. Quite often when electronic functions are integrated into fashion for the commercial world, the aesthetic is more masculine, androgynous and/or sporty. This piece highlights a feminine touch, allowing a woman's needs and desires to be met with delicious concepts and delightful design.

Each marvellously intricate and unique artwork in *Coded Cloth* seamlessly combines traditional skills with innovation and creativity to express the philosophies and personality of the creator. These embedded electronics, interactive textiles, encoded and living fabrics, produce a surprising, astounding and inspirational glimpse into our coded future, while highlighting an integrated approach to art, design, sustainability, community and culture.

Dr Melinda Rackham

Executive Director, Australian Network for Art and Technology (ANAT)
Adelaide, October 2008

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