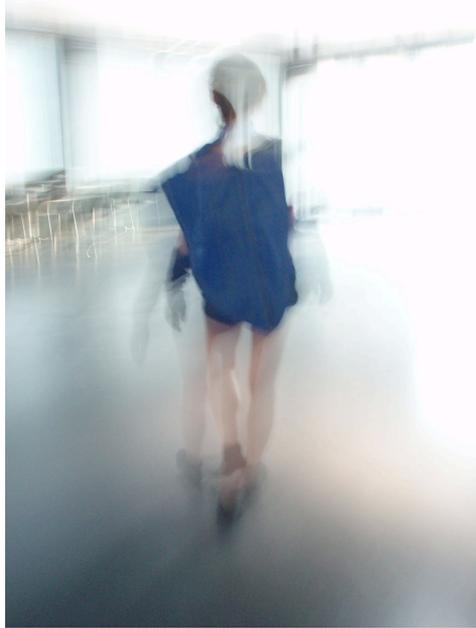


Proposal

The Leonardo Education Forum's *Social Fabrics* exhibition of wearable technology art at the College Art Association 2008 Annual Meeting in Dallas, Texas

Curated by Patrick Lichty and Susan Ryan



Title:

Suna no Onna
(Interactive narrative garments)

created by Dans Sans Joux Productions, 2007

Designers:

Fashion Design: Michèle Danjoux (Nottingham, UK)

michele.danjoux@ntu.ac.uk

Interactive Programming: Johannes Birringer (London, UK),

johannes.birringer@brunel.ac.uk

Sensor Design: Paul Verity Smith (Gloucester, UK)

Dancers: Katsura Isobe, Helenna Ren (London)

(1) Design Description

Dans Sans Joux will present the UK premiere of a movement-design collection of "Woman in the Dunes" (Suna no Onna) in performance at the Laban Center, December 2007. Adapted from Hiroshi Teshigahara's 1960s

film noir, the performance explores existential entrapment in an inhospitable environment through the interactive potentials of the wearables. Garments (worn by dancers) were tested in telepresence with partners in Tokyo, Japan.

The prototype developments of the garments involves the meeting of fashion design with interaction design, new methods of garment fabrication, telepresence performance and subsequent creation of a real-time digitally animated responsive environment (on site). The integration of the various elements of this performance follows an experimental narrative design concept enabling dancers to wear sensorial clothes that can respond to human emotions and affect environmental projection (screens/mediaskins) and the perception of viewing public.

The production concept includes specially designed garments that incorporate sensors allowing dancers to move or influence the projected visual environment. The sensorial experience of “wearable space” is central to the performance as touch extends inwards and outwards from the fabrics, and the textures, shapes, colors, details and the physical contact with the skin respond to the intimacy of movement and gesture through wearing. New wearable designs in the collection include: the SensorDress, which combines traditional and sensuous fabrics (such as silks, leathers, and linens) and organic textures with integrated wireless sensor technologies; the ScreenDress, which is made from ‘chromatte’, a technical light-reflecting screen cloth for chroma key production that provides a dynamic moving canvas for superimposition of motion graphics, allowing the performer’s movement consciousness to connect to digital sketches in an emotional wearing of the transforming digital patterns; and CaptureDress, which allows kinematic data to drive animations and abstract graphic elements in the scenic environment. The slow rhythms of the dancing (performed by Katsura Isobe, Helenn Ren) and the garments-in-motion generate a feeling of continuous transformation, reflecting the ceaseless movement of sand. The dance, exploring dimensions between reality and virtuality, breathes its social strands/threads through the textures of the garments. There are new languages developing between bodies, and shifts in the way bodies communicate.

Proposed Presentation of two Prototypes:
*Outfit one: **Teshigahara***

Sandtones and rhythmic, organic textures unite the body with the earth. A shapeshifting movement sensitive coat (integrating mercury switches, transmitter and battery pack) is worn over a rustic silk and sandblasted worksuit. Between the worksuit and the coat lies a second interactive layer, a protective shield; a fishskin housing lightsensor, transmitter and battery pack for control of audio and visual output. This ensemble also has a sensor sleeve/arm for gestural control, so bringing together 3 different types of interface design, the gestural editing with accelerometer, the organic with multiple mercury switches and the light.

*Outfit two: **BeetleSpirit***

Composition in blue with black sensor arm (lined in green). Unexpected shapes combine in a surreal and fantasy mix of poetic lines. The understated, sensual and liquid form of a hooded silk satin playsuit with luxurious proportions and drawstrings is worn beneath a soft laser cut lamb nappa 'beetle shell' belted gilet. Worn close to the skin is an interactive 'fantasy' and insect-like sleeve housing sensor (accelerometer), transmitter and battery pack giving the model/dancer editing power over her projected environs

Infused in both outfits is the essence of Eastern cutting philosophies with inspiration taken from Samurai Warriors, beetles, Cosplay and a touch of martial arts. These 2 pieces (worn by 2 separate dancers/models) shift us between the two worlds of the woman. Her existential self and her fantasy self, exploring the physical and psychological aspects of wearing.

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(2) Integrated sensor design on the garments, with I-Cube Wi-microSystem wireless transmitters via Bluetooth. Editor runs on MacPro laptop for incoming data; output is programmed on Isadora running on a second MacPro laptop. Additional equipment needed: two LCD projectors, VGA cables to laptops. Screens or white walls/projection surfaces, building surfaces. Sound PA system for sound, running on a G4.

(3, 4) The lead designers can commit to participating in the event in Dallas, Texas, on February 22, but would suggest not to try out the wearables with models but to bring one or two dancers for presentation, if that can be arranged (or work with local performers). The garments are built for interaction with scenic (projection) environments and not suitable for runways; they work in gallery/performance situations (or modified runway).

Attachment:

-Photos/sketches of project and its presentation

Website: <http://people.brunel.ac.uk/dap/dap5.html>

-We would be willing to have visuals from our project appear on the exhibition website

Contact:

Johannes Birringer DAP Lab, School of Arts Brunel University
West London UB8 3PH UK +44 (0)1895 267 343 <http://www.brunel.ac.uk/dap>

Visual Sketches

Suna no Onna Choreodesign - Sketches and Videostills

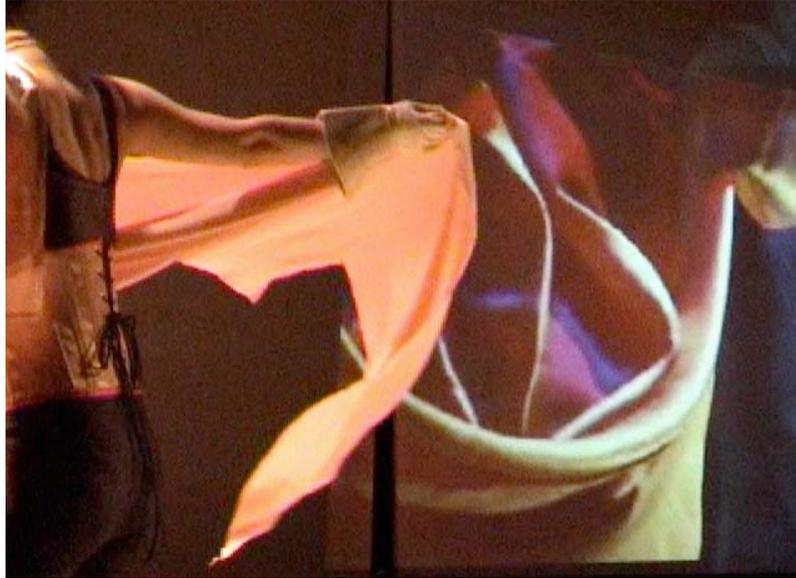


Fig. 1 Helenna Ren manipulating partial garment in telematic performance Videostill ©
2006 Dans Sans Joux



Fig. 2 Design model for Teshigahara © 2007 Dans Sans Joux



Fig.3 Performance of Teshigahara, Video still © 2007 Dans Sans Joux



Fig.4 Performance of Teshigahara, Video still © 2007 Dans Sans Joux



Fig. 5 Design sketches for B Spirit, sleeve © 2007 Dans Sans Joux



Fig. 6 Design sketches for B Spirit, sleeve © 2007 Dans Sans Joux



Fig,7. Performance of Beetle Spirit, © Dans Sans Joux