GOLDSMITHS Research Online
Project

Jefferies, Janis K.

Five research projects in progress, 2004-2007


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Janis Jefferies

Five Research Projects in Progress
2004 - 2007
A research project that will take advantage of the ability of fabric to impart meaning through material and electronic languages.

- Combine a creative approach to the textile arts with technical innovations in circuitry and wireless transmissions;
- Explore ubiquitous computing, mobility and interactivity through the introduction of electronic devices into fabric structures;
- Create animated displays on the surface of cloth, in order to extend the dynamic, narrative abilities of cloth;
- Develop a transitional space in which meanings are altered and textiles are invigorated into new patterns of discovery.
HEXAGRAM Textiles, Translations, Transmissions
Wall Hanging: Electronic Cloth Concordia 2005

The texts at various meter marks make reference to the site of the HUB as a former seed warehouse in Lincolnshire, UK. This is the first incarnation of the text messages in the cloth and as the textile is shown in other locations, new texts can be added that will refer to the future sites. As the cloth changes exhibition spaces, texts may be deleted or rewoven with new ones, leaving traces of the different locations of display.
One: text about Sir Isaac Newton, born in Lincolnshire:

“Looking for truths, perplexed by gravity, thinking about light and motion, a fleeting red pattern reflects only one of the rays of possibilities....”

Two: description of qualities of plants as described in a seed catalogue. (The Hub at Lincolnshire used to be a seed warehouse).

rare, common, aromatic, smelly, ponderous, piddly, floriferous, leafy, weedy, picky, poisonous, nutritious, sour, sweet, bitter, toothsome, fruity, barren, hard, soft, stemmy, creeping, rooty, viny, night-blooming, day-blooming and just blooming.

Three: A regular, single line pointed twill pattern.

Four: Babble texts from email SPAM inclusions. This section can not be triggered by the body, but needs a hard flat plane (such as the pedestal in the last section of the video To trigger this display.) The text is interrupted at times with a heartbeat-style bleep.

Come history me. Grew me sea. Sound she idea, fun. Drive pull. Decimal the table all, decide. Finger science. Wonder through line.

Five: a regular double line pointed twill pattern. This is the default pattern when no one is in close proximity to the wall hanging.
QuickTime™ and a DV/DVCPRO - NTSC decompressor are needed to see this picture.
The Digital Studios
Goldsmiths College

Janis Jefferies
Robert Zimmer
Miguel Andres-Clavera
In-Yong Chong
Helen Weston

Janis Jefferies studio at Hexagram in Montreal
Sash Songs

Sash Songs extends a Wall of Woven Sounds. Lithuanian Sashes are used to examine, patterns and to create an archive, of sounds within new forms of technology that uses pattern recognition as an interactive model of communication. The project aims to reflect experience and the contradictions of society, within the present but recognising the issues of the Ethnographic, and the folk,, as the past mutates from the material into immaterial forms.
In the first phase of a joint collaboration between Janis Jefferies and Tim Blackwell micro-textures are explored by clicking the mouse at various points on the pattern, causing a small tile of image texture to unweave into a grain of sonic texture, which is immediately heard. Our aim is to stage the users experience between the screen and the wall through touch and aurality.

The virtual textile challenges several histories, firstly the history of acoustic attenuation. Seen and not heard, textile and their many textures absorb sound and brings warmth into the coldest of architectural environments. In our project, sound emantes from within the texture and promotes action. The viewer is activated to form new artworks on the virtual wall, and new sound patterns in space.
Can the traditional arts and crafts of oral composition and weaving inspire and create engaging new narrative media content forms in the interactive digital environment?

For story-engine software see ‘NM2: New Media for a New Millennium’ (2004-2007) http://www.ist-nm2.org, in which both the Digital Studios, Goldsmiths and the University of Cambridge, as well as B, are active development partners.
The word ‘text’ comes into English from Latin:

texo, texere, texui, textum [to weave; to twine together, plait; to put together, construct, build]; of speech and writing, [to compose];

textum -i, [woven cloth, a web; fabric]; of composition, [style]

The primary meaning of the word ‘text’ is ‘woven’ - as in English ‘textile’

In cultures where the printed text is not fundamental to narrativity, the woven pattern often is
LOOM OF TALES  video installation
LOOM OF TALES  video installation concept

Janis Jefferies
Maureen Thomas

For story-engine software see ‘NM2: New Media for a New Millennium’ (2004-2007) http://www.ist-nm2.org, in which both the Digital Studios, Goldsmiths and the University of Cambridge, as well as B, are active development partners.
LOOM OF TALES uses interactive digital technology to weave the myths of the Scandinavian and Baltic worlds, bringing alive this important cultural heritage for twenty-first century audiences in an active, personalised way.

Telling myths is a living way of shaping, questioning, updating and re-patterning cultural identity.

In *Loom of Tales*, the physical movement and activity of weaving is brought back into the participative practice of storymaking - translating directly, via the software, into the patterning of narrative, the flow of video images and the rhythms of the authentic songs delivered as original contemporary music in the mode of traditional singers.
The vocabulary of spinning and weaving is common in the context of storytelling in many cultures:

- Spin a yarn
- Weave a tale
- Embroider a tale
- Weave together the strands of a story
- Unravel the tale
- Follow the twists in a tale
- Follow the red thread of a story
- Break the thread of a narrative
- Find a hole in the fabric of the narrative
- Weave a rich narrative tapestry
- Reach the denouement (‘unknotting’) of the plot
The tradition of telling stories in textile is ancient.

Oseberg Tapestry, Sweden (c. 800-850)

Bayeux Tapestry, Normandy, France (c. 1170)

11th-century Weaver (Reconstruction, Roskilde Museum, Denmark)
Behind the famous Bayeux Tapestry lies a long tradition of spinning yarns and weaving tales - stretching all the way from prehistoric times.

Anglo-Saxons and Vikings did tablet-weaving, as do Eastern European and Sami weavers today, making woven belts.

In cultures where the printed text is not fundamental to narrativity, the woven pattern often is.
Tablet-woven sashes from Latvia and Lithuania show a rich variety of patterns and hues.

Each pattern has traditional elements, but is also personal to the weaver and the wearer.

Photo by Janis Jeffries, Oct 2006
Each handwoven sash can constitute the pattern of a story, - each story as long as the sash that fits the wearer

*Loom of Tales* will use such patterns, transposed via software, to weave a new, personalised, audiovisual tale for each visitor.

The letters of the alphabet can also be woven into a sash

For *Loom of Tales*, Janis Jefferies will design sashes which contain memorable phrases from each story woven together by an interactor, to take home after a visit to the installation as a tangible reminder of the arts of weaving and talemaking.
Sashes are woven double-sided, with a different language on each surface.
Tablet Weaving, as it survives in the Baltic, and was done in Anglo Saxon England and the Nordic countries in the Viking Age, provides the patterns both for the stories and for the tangible interface of the installation, as well as underlining the content of the myth tales.
Spinning, Weaving, Singing and Storytelling are important arts in all classes of society in the Middle Ages as well as the Anglo-Saxon and Viking Age, and are closely associated
**LOOM OF TALES** develops a tangible interface based on the Baltic and Scandinavian traditions of weaving ‘story-sashes’, whose patterns embody the shapes of orally-performed improvisational ‘sung tales’

Textile artist Janis Jefferies will use her expertise and experience in textiles and of technology in art, and her long fascination with Latvian, Estonian and Lithuanian sash-weaving craft, to create a contemporary digital version of this ancient practice.

Writer and multimedia/drama director Maureen Thomas, who has been working with Nordic myth as drama and interactive artwork since 1986, will research and provide the myth stories with Kariina Gretere and research partners, to create reconfigurable audiovisual versions, using the techniques of oral sung tales.

Together they will develop the logic of the tale-telling and music to match the patterns of weaving for both tangible interface and video playback.
# Draft Suggestions for Music/Image Ontologies for Weaving Tales

Colours could be the dyed threads, the qualities textures and thicknesses

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
<th>Category 5</th>
<th>Category 6</th>
<th>Category 7</th>
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<td><strong>YELLOW</strong></td>
<td><strong>GREEN</strong></td>
<td><strong>BLUE</strong></td>
<td><strong>INDIGO</strong></td>
<td><strong>VIOLET</strong></td>
</tr>
<tr>
<td>fiery</td>
<td>bright</td>
<td>very bright</td>
<td>middle</td>
<td>dark</td>
<td>very dark</td>
<td>very dark</td>
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<tr>
<td>exciting,</td>
<td>uplifting,</td>
<td>delightful,</td>
<td>reassuring,</td>
<td>sinister,</td>
<td>sinister,</td>
<td>fearsome,</td>
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<tr>
<td>dangerous</td>
<td>inspiring</td>
<td>awe-inspiring</td>
<td>comforting</td>
<td>mysterious</td>
<td>alarming</td>
<td>awesome</td>
</tr>
</tbody>
</table>

**MUSIC**

| Allegro          | allegro moderato | vivace           | andante          | adagio           | adagio maestoso  | no rhythm,      |
| appassionato     |                  |                  |                  |                  |                  | held note/      |
|                  |                  |                  |                  |                  |                  | chord           |
| passionate       | soaring          | ethereal         | steady           | sombre           | majestic         | threatening      |
| thrilling        | celebratory      | entracing        | mellow           | chilling         | mournful         | harsh            |
| piano            | energico         | pianissimo       | mezzo-forte      | forte            | rallentando      | fortissimo       |

| contralto        | mezzo-soprano    | soprano          | tenor            | baritone         | bass-baritone    | bass             |

**IMAGE**

<p>| red              | orange           | yellow           | green            | blue             | indigo           | violet           |
| glowing          | brilliant        | shimmering      | dazzling         | dappled         | shadowy          | black            |
| fast             | tripping         | very fast        | moderate         | unsteady         | very slow        | static           |</p>
<table>
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<thead>
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<tbody>
<tr>
<td>FIRE</td>
</tr>
<tr>
<td>Copper</td>
</tr>
<tr>
<td>carnelian</td>
</tr>
<tr>
<td>Summer</td>
</tr>
<tr>
<td>hot</td>
</tr>
<tr>
<td>south</td>
</tr>
<tr>
<td>sight</td>
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</table>
Visitors to the *Loom of Tales* will literally weave their own story as they physically handle the materials of the interface.

They will be enabled to fashion their own personal story-sash (whatever their level of skill and aptitude for learning this craft), using their own choice of colours and picking their own patterns.

As the storyseekers weave, so the recombinant video and original music components of the Anglo Saxon myth stories will be woven into associative narratives, and displayed on the ‘screen’ of the Loom itself.

Visitors will be able to take home their own story-sash, incorporating a phrase from the tale they have woven, and a CD of their personal audiovisual edit.
Tradition and Innovation

Digital Craft
MIT Touch Lab

*Intimate Technologies*

We are working with Dr. Mandayam Srinivasan, director of the Touch Lab, MIT, Boston USA and a pioneer in human and machine haptics. We are working on touch interfaces so that people can ‘feel’ a piece of cloth virtually. We are looking at how our material collection can inform technology by the development of interactive and creative displays for creative practice by a variety of different users.

*36-pin array tactile display, MIT and detail of textile from the Constance Howard Resource and Research Centre in Textiles Material Archive.*
The Centre is dedicated to the research and study of textiles within a broader context of visual and Material culture. The value of textiles as a primary source of cultural knowledge and experience is increasingly being recognised.

The Centre provides a distinctive resource for multi-faceted research and from many different perspectives.

Constance Howard Material Collection
www.goldsmiths.gold.ac.uk/constance-howard
Helen Weston Tufting gun samples for Intimate Technologies
Goldsmiths 2005
Helen Weston Tufting gun samples for Intimate Technologies
Goldsmiths 2005
**Woven Sound, refers to the weaving of images with live sound.** Incoming sound is digitised by the computer into a stream of left and right audio samples. In the woven sound algorithm, each stream becomes a linear thread, with samples mapped to pixel values. The threads can be woven in various ways, but a simple and effective weave is to use a warp and weft threading, so that left samples become the vertical warp and right samples become the horizontal weft. For continuity, the threads are doubled-back at the image edge.

In a live weave, the patterns are made in real time; each image represents several seconds of sound.

The following images © Tim Blackwell 2006

A woven multi-phonic saxophone texture
Images from sax + brush + Swarm Techtiles recording, 11th May 2006 (Tim Blackwell, Janis Jefferies, human performers)

The weaves show superpositions of saxophone (curvy patterns) and brush sounds (straight lines). Also evident is microtexture washing, a dilution of local texture caused by unweaving into sound (see Swarm Techtiles)
Tech-Tiles

Experiments were formed on images of a sunset, a calm seascape, a Eucalyptus tree, the Jefferies textile, recorded saxophone and voice, and synthetic images of pure tones, white noise, color rainbows and an image with an island of noise centrally placed on a constant color background. Some of these images and sonic tech-tiles are available for download at www.timblackwell.com.
Janis Jefferies Uniform and Laundry (Restaged 1) 2000

180x80cm

Woven at the Centre for Contemporary Textiles, Montreal from a digitally composed print via jacquard
Janis Jefferies detail of Uniform and Laundry (Restaged 1)
and used by Tim Blackwell for the beginning of our Tech Tiles project 2004.
Janis Jefferies Source the Code is a cotton, twill brocade jacquard that collages Swarm Tech-tile project (Tim Blackwell/Janis Jefferies: Ave Maria performance of 18th March 2005) with MIT blackboard source code. 1 metre wide x 94 cm August_ October 2005. Produced at the Centre for Textiles, Montreal.
Janis Jefferies details from Source the Code currently on show as part of About Jacquard exhibition, Centre for Contemporary Textiles Montreal
Teacquette jacquard 70x150cm, produced at the Centre for Contemporary Textiles, Montreal
Janis Jefferies top is the sketch version of Ave Maria (2005) meets Mondrian, Broadway Boogie Woogie (1942-43) August 2005. This work is a take on Mondrian’s painting - the material reading from a cross-sensory digital process that also includes code used by Tim Blackwell for Swarm Tech-Textiles Details of weave