Janis Jefferies

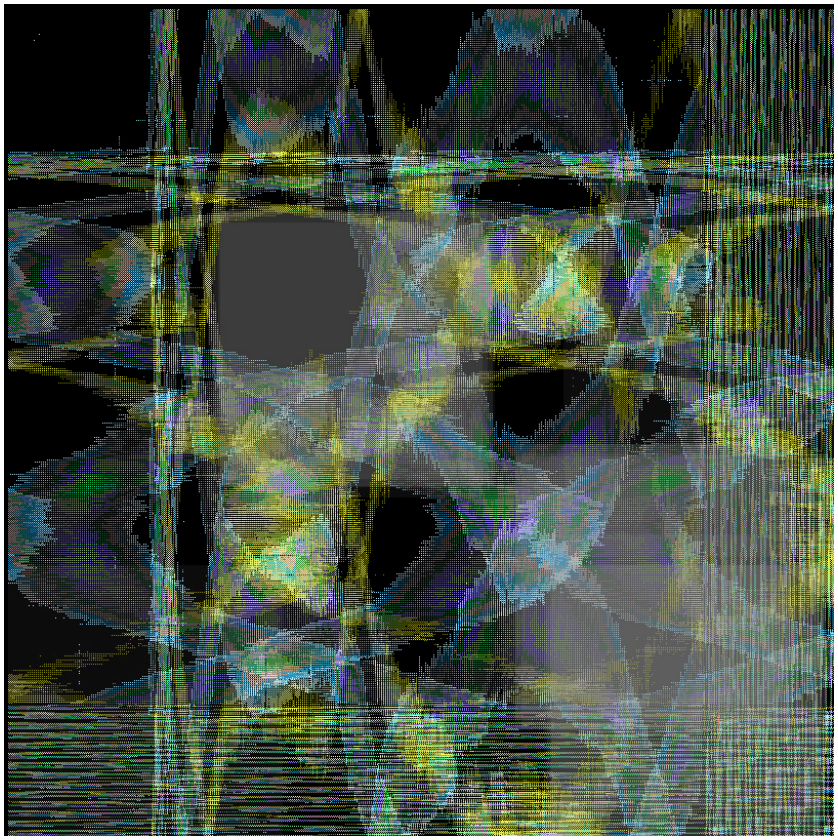
A Sound you can Touch
2006

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.

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

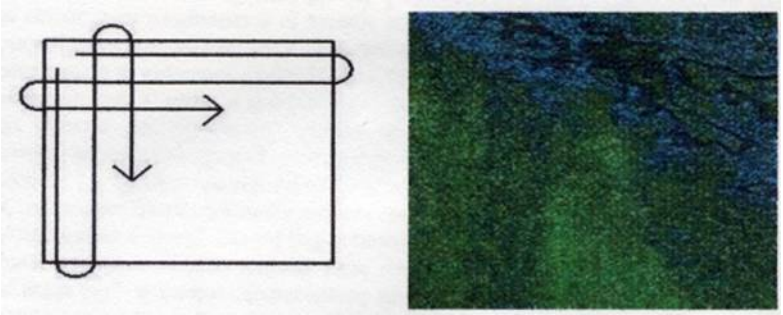


Fig 1. Warp and weft scan lines

Fig 2. Uniform and Laundry by Janis Jefferies.
Photo: David Ramkalawon

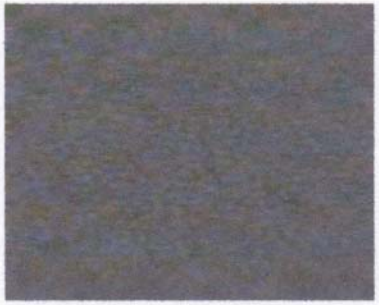


Fig 3. Techtile of a mutiphonic saxophone tone

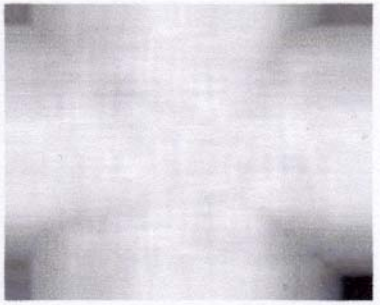


Fig 4. *Max entropy* texture map of Fig 3.

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.

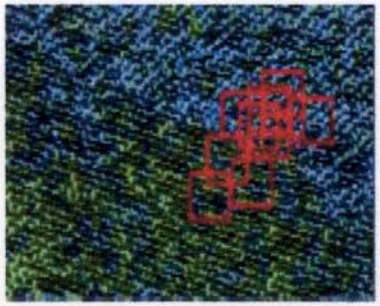


Fig. 5. 595 x 413 part (top left) of the textile of Fig 2. The red squares show the last ten techtiles rendered by the granulator.

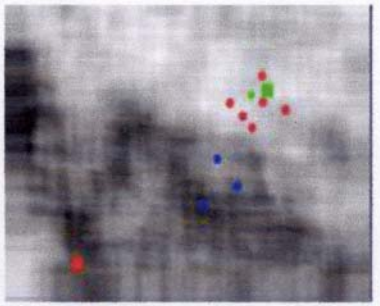
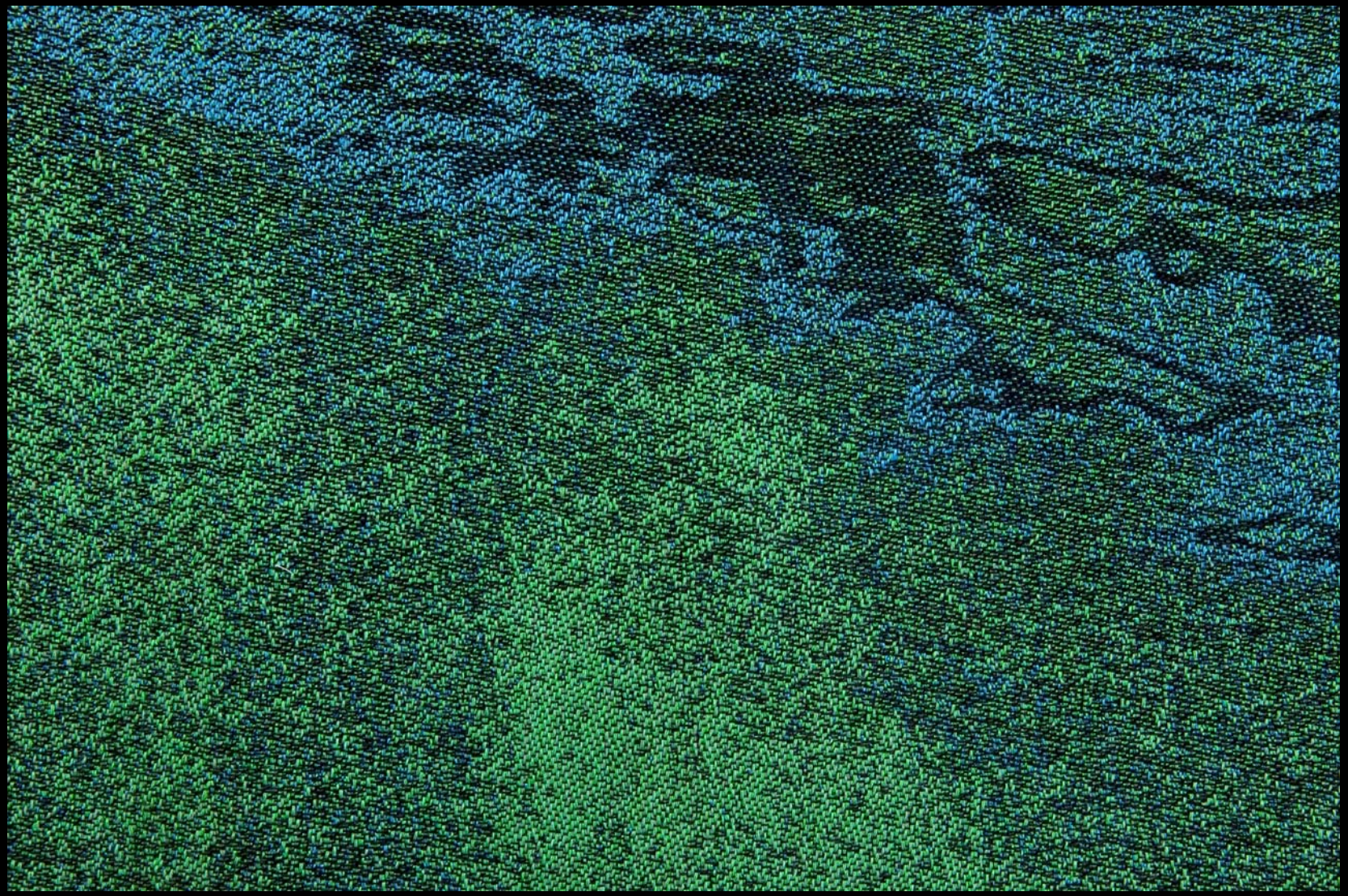


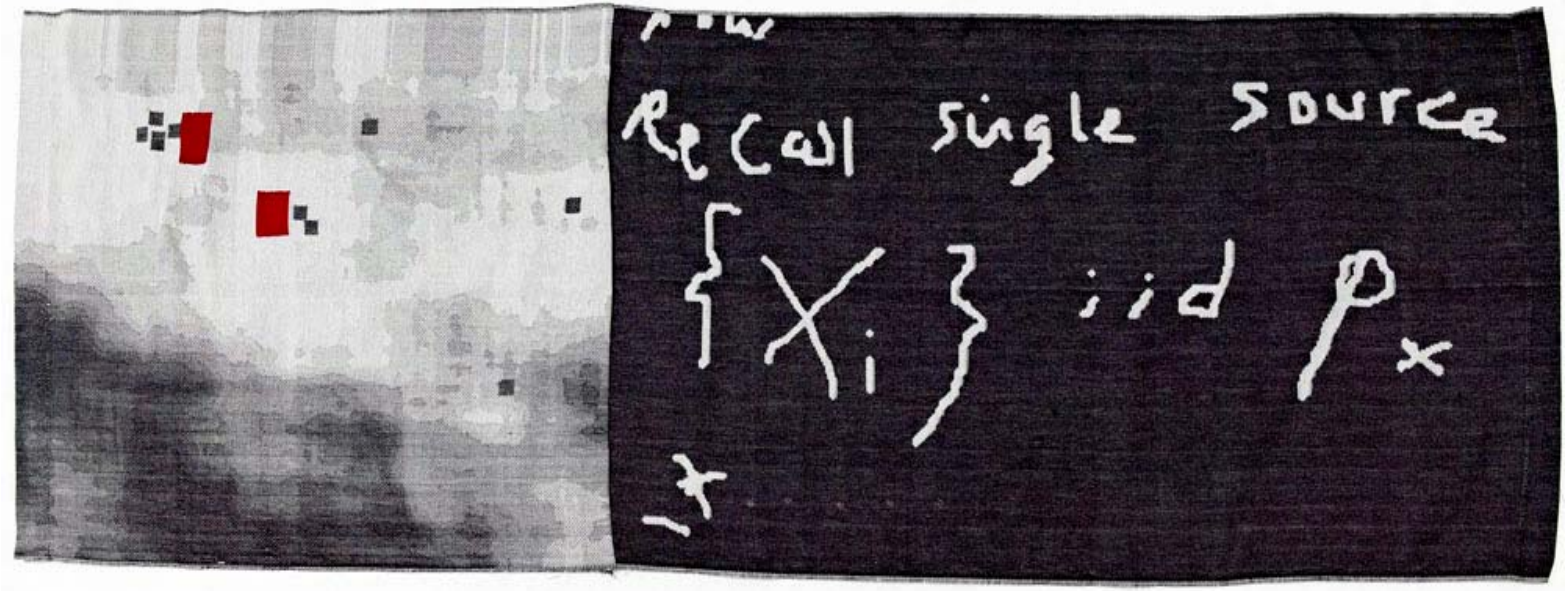
Fig 6. What the swarm sees when flying above the textile of Fig 5. Particles (red and blue discs) position attractors (boxes) on regions of high entropy.

Janis Jefferies Uniform and Laundry (Restaged 1) 2000 180x80cm

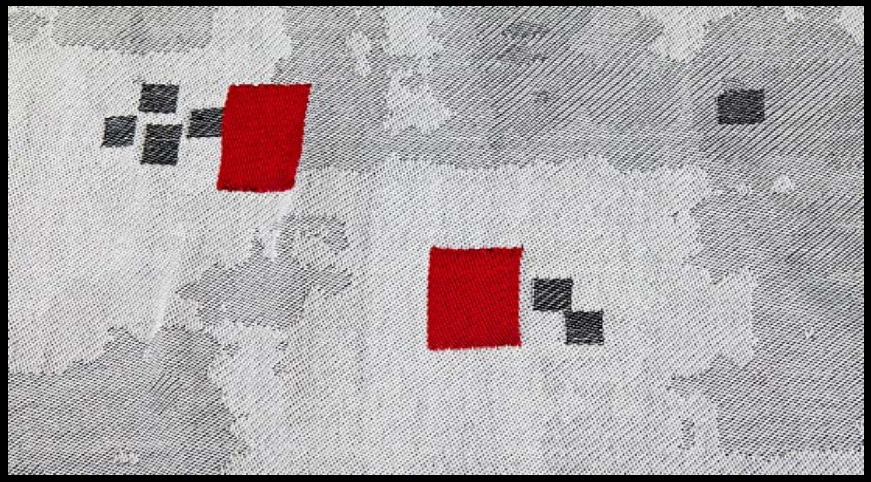
Woven at the Centre for Contemporary Textiles, Montreal from a digitally composed print via jacquard

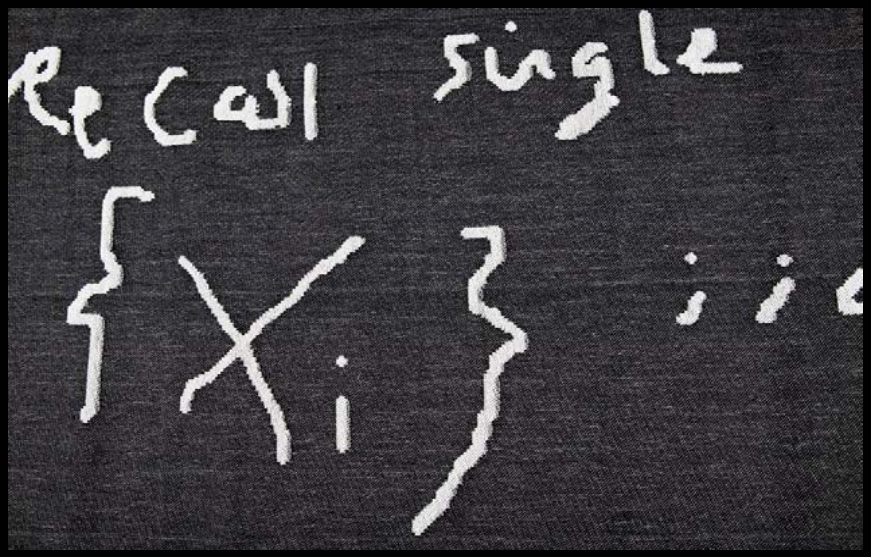


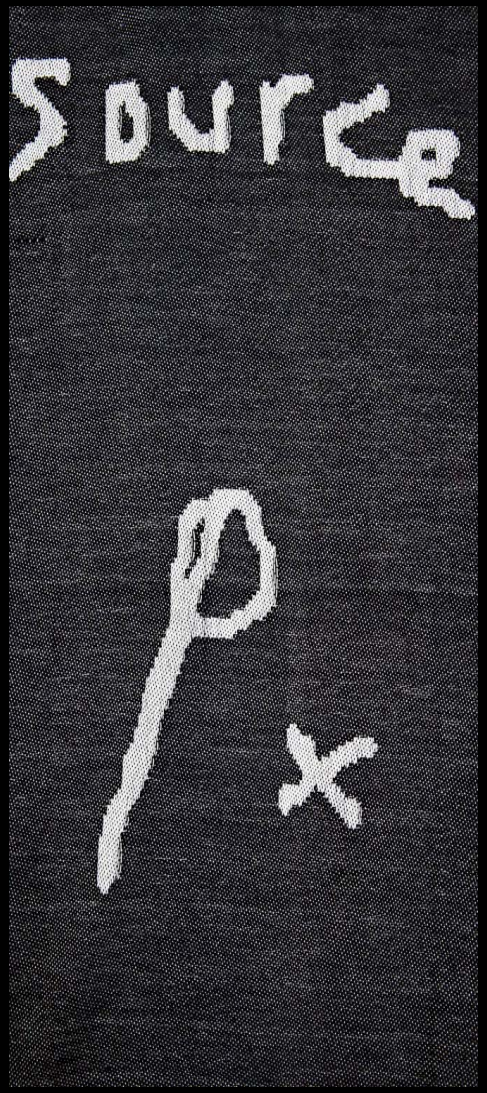
Janis Jefferies detail of Uniform and Laundry (Restaged 1)
and used by Tim Blackwell for the beginning of our Tech Tiles project 2004.



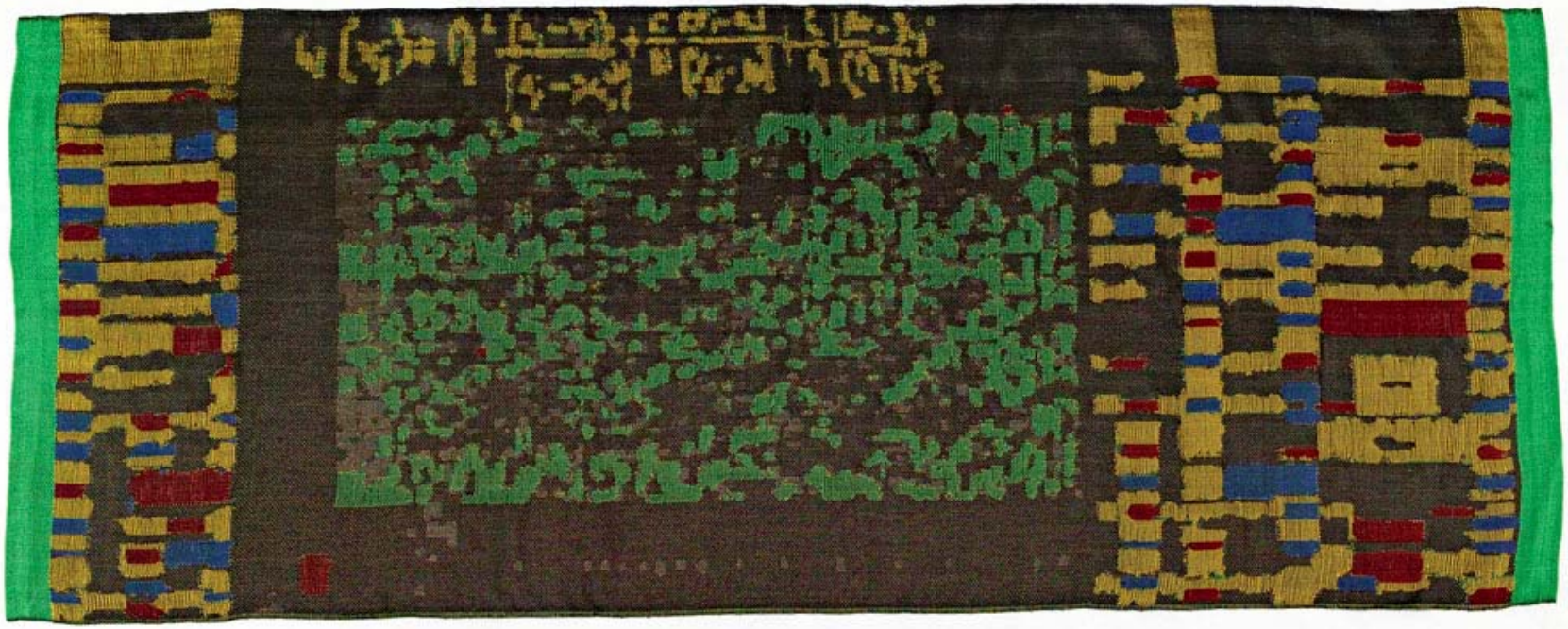
Janis Jefferies Source the Code is a cotton, twill brocade jacquard that collages Swarm Tech-tile project (Tim Blackwell/Janis Jefferies: Ave Maria performance of 18th March 2005) with MIT blackboard source code. 1 metre wide x 94 cm August_ October 2005. Produced at the Centre for Textiles, Montreal.0



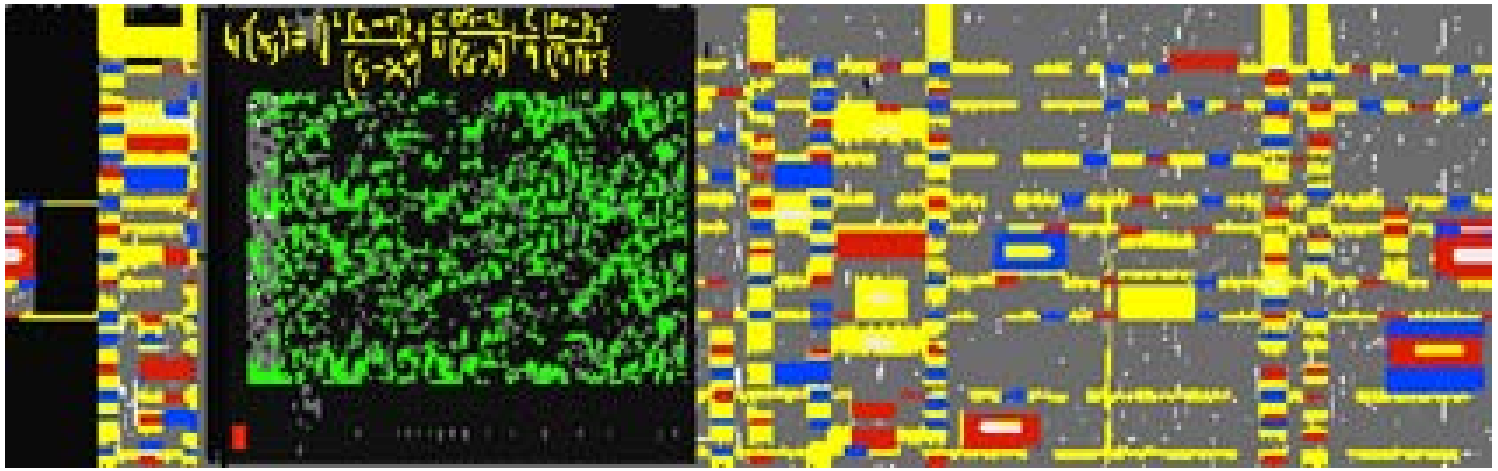




Janis Jefferies details from Source the Code currently on show as part of About Jacquard exhibition, Centre for Contemporary Textiles Montreal



Janis Jefferies Ave Maria (2002) meets Broadway Boogie Woogie (1943-43)
Teacquete 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