

Case study number: 01/2013

Project Title: Machine Crafted: 3-dimensional Machine Knitted Forms

Researcher: Jyoti Kalaynji

Project Period: April 2012 – February 2013

Project Description:

Jyoti's project focused on exploring through design research machine-knitted forms for home wares. This research was the creative outcome of a one year practice-led Master of Art and Design degree. The impetus for the project came from identifying in emerging research the unrealised design capacity in computerised seamless knitting technology.

As a technical learning exercise, this research explored technique and capability, by starting with experimentation and process in the AUT University's Textile and Design Lab (TDL). Jyoti engaged with learning and the technology of the WholeGarment® Shima Seiki knitting machines, replicating work to understand shape and form. Through this extensive practical inquiry, Jyoti developed an appreciation as a designer/maker of what was possible through seamless knit, and an understanding of how the tools and materials work. By acquiring technical skills and an understanding of the seamless environment through practice-based inquiry, this research integrated computerised seamless knit technology into small-scale textile design practice.

The unique experience as a designer to engage in experimental prototyping and access the knit machinery was facilitated by the TDL, with support during the learning process provided by Senior Technician, Gordon Fraser. This enabled Jyoti to develop and extend her own processes as a textile designer as she navigated the complexities of the machinery and its user interface.

This hands-on, craft based approach exploited the creative potential of the technology and integrated design research and practical inquiry to produce innovative crafted design outcomes. Her research and development resulted in prototypical soft furniture and home ware products, and an engagement through process.

Conference Papers:

Kalyanji, J. (2013, April). Machine Crafted: 3-Dimensional Machine Knitted Forms. *Stretching the Limits Knit Symposium*. Symposium conducted at AUT University, Auckland, New Zealand

Kalyanji, J. (2013, August). Machine Crafted: 3-Dimensional Machine Knitted Forms. *"Intense Cultures", Art and Design Postgraduate Research Symposium*. Symposium conducted at AUT University, Auckland, New Zealand.

Joseph, K., Kalyanji, J. (2013, September, **pending**). *Machine-Crafted: Investigating form and aesthetics in the seamless knit environment as a sustainable textile design practice*. Paper presented at Making Futures Conference, Plymouth, United Kingdom. Abstract retrieved from [http://makingfutures.plymouthart.ac.uk/Submitted Abstract/Jyoti%20Kalyani%20and%20Frances%20Joseph.pdf](http://makingfutures.plymouthart.ac.uk/Submitted%20Abstract/Jyoti%20Kalyani%20and%20Frances%20Joseph.pdf)

Interesting and Relevant links:

Jyoti's work received a Highly Commended award from the prestigious 2013 Student Craft/Design Awards run by the Friends of the Dowse and hosted at The Dowse Art Museum.

<http://www.scoop.co.nz/stories/CU1308/S00230/winners-announced-for-2013-student-design-awards.htm>

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Images:

