

# TEXTILE + DESIGN LAB

**Case Study Number:** 07/2016

**Project Title:** Knitted alpaca shawls

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**Project Period:** 2016-2017

## **Project Description:**

Heirloom Woollen Collection (HWC), in conjunction with AUT's Textile and Design Lab (TDL), has designed and developed a 100% made New Zealand Suri alpaca shawl, which was launched in 2016. The lightweight shawls are knitted at the Textile and Design Lab from fine alpaca yarn, some of which are then digitally printed with the company's customised designs.

## **Background:**

The company's motto is '*Luxury and Warmth ~ Where Softness and Style Meet*', and their objective is to create timeless luxury garments using local fibres. The inspiration for the shawl came from the traditional Shetland lace 'Wedding Ring Shawl', which is so fine that it can be drawn through a wedding ring. The *Artisan Shade Shawl* is a contemporary interpretation of this idea, and designed to become an heirloom. The shawl is made from Suri alpaca yarn, prized for its rarity and luxury, with a smooth handle and deep lustre. Suri alpaca was reserved for royalty in Incan times. The open lace patterns knitted in fine yarn make the shawl almost transparent and very light, but surprisingly warm.

While investigating the possibilities of machine knitting the shawl, Heirloom Woollen Collection visited a number of manufacturers to produce samples. HWC's designer, Mandy Jiang, explains that she chose to work with the TDL due to the advantages of their specific knowledge and skills, cutting edge technologies and the need to achieve high quality products. '*The TDL has been very professional and*

*helpful and they always gave us a lot of professional advice whilst maintaining several options for us to choose from', says Mandy.*

The company also took the opportunity to develop digitally printed shawls at the TDL and discovered the advantages of inkjet printing on merino wool and alpaca. Due to the choice of colourants used by the lab in their printing process, the prints do not affect the luxurious handle and drape of the knitted textile. The digital printing process enables HWC to print to order thereby minimising stock levels and still being able to meet the demands of their customers. The printed shawls are both vibrant and durable.

### **Process:**

HWC's objective was to produce high quality shawls that referenced traditional hand knitted lace. They were able to achieve the look of the hand knit technique through machine knitting as well as contemporise the shawls with a range of vibrant digitally printed options.

Developing the machine knitting process required in depth prototyping and sampling. Suri alpaca yarn is not typically used to knit lace patterns, hence there were a number of issues to overcome. The yarn is very fine, and the needles have a complex range of movement due to the open lace pattern, which made the knitting very difficult initially. TDL Senior Technician, Gordon Fraser, trialled various methods in order to find the optimum tension to knit the shawls without detriment to the yarn. Another challenge was considering how best to knit the scalloped lace edges that border the shawls.

### **Project Outcomes:**

HWC has formed a close working partnership with the TDL in order to achieve their unique product. Mandy Jiang commented that *'The TDL staff's knowledge and professionalism is exemplary and this gives customers such as ourselves peace of mind. For example, their explanations of technical aspects of knitting were invaluable to us in the early production stage. The courteousness and prompt responses to queries emphasised the TDL's attention to detail and willingness to solve problems quickly. They also provided other valuable contacts in the knitting industry when needed'*.

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