Digital Crafting at CUSTHOM

By Jemma Ooi, Specialism tutor for MA printed textiles at The Royal College of Art and director of design studio, CUSTHOM.

Introduction

In this paper I will be describing my experience of working with digital technologies as an integral part of my own design studio: CUSTHOM, where my business partner and I design and manufacture wallpapers, fabrics and fine bone china. The core of how we design and make lies in the craft of both digital and hand making; printing by silk screen and block to interpreting stitch weight, direction and length, through digital design programmes for embroidery, to hand metallic foil finishing. Exploiting techniques originally developed for cloth, we re-interpret these methods of making to capitalise on the benefits and potential of making through a combination of analogue and digital techniques.

When exhibiting and displaying work to both the general public and design specific audiences, we encounter consistent questioning around 'value' when describing products that have been digitally created. It is an interesting observation that certain clients and customers tend to dismiss the idea of a product being 'made' when digital technology has played a part in its realisation.

This perception on the part of customers is possibly related to the expectation (especially with students) that making with digital media is very fast and involves minimum input to produce creative and innovative results. This supposed immediacy and over-reliance on software functions which read and interpret found images as a default action, result in an oversaturation of poor quality and formulaic printed materials which in my opinion have really tarnished the value of digital making.

This contrasts with my belief that there is huge possibility in digital technology, especially when combined with more traditional craft skills. The opportunities this intersection of analogue and digital making opens up has huge potential; as a studio we have chosen to embrace digital technology as a fundamental part of our practice.

One example of this intersection of making has been utilising previously unconsidered properties of digitally printed inks: their potential as an adhesive for metal foils. The development process for this involved an extensive manual exploration of combinations of different paper substrates and digital inks.

RYE wallpaper, gold. 48cm x 1000cm FSC non-woven paper. Photographer Nathan Philpott.

The flat finish of the resulting printed papers (in contrast to traditional screen printed, raised adhesive or foil block embossed finishes), is a consequence of how digital and manual processes have been combined. In addition, the technique results in minimal uniformity, giving individuality to each area of metallic finish.

The process has other practical advantages over established surface printing methods. In comparison with traditional screen printing used for metallic foil application, there are fewer stages. As this cross over of digital and analogue techniques uses no water, less glue, takes less time and allows us to make only what is needed, it reduces manufacturing inefficiencies.

Bermondsey Square wallpaper, Pewter 48cm x 1000cm FSC non-woven paper Photographer Nathan Philpott

Bermondsey Square wallpaper, Pewter 48cm x 1000cm FSC non-woven paper Photographer Petri Haggrén

We find one of the most liberating aspects of digital printing to be the way it facilitates non-repeating imagery. Traditional printing methods have always been limited by the dimensions of the frame, screen or roller; a constraint which determines the size of the repeating tile. Although possible, it is financially unviable to create non repeating wallpaper using traditional methods. In contrast, by using digitally printed shapes, combined with our newly-developed hand-foiling techniques, we are able to produce randomised patterns and surfaces unimaginable using a repeat block system.

Offset wallpaper, Navy and gold. 48cm x 1000cm FSC non-woven paper. Photographer Nathan Philpott

The problem we find is that our clients and customers often do not understand or appreciate that the elements of the process involving digital technologies require the same levels of skill and creativity as the manual ones. In an effort to overcome this impasse, we label our products as 'hand finished' to our clients.

We have found that there are great advantages to printing digitally. For example accuracy and the reduced set up costs of smaller runs; the flexibility of being able to adapt colour and scale more economically (in contrast with multiple screen stencil exposure, the mixing of dyes and inks and the reduction of water waste).

There has been an emerging trend over the last 15 years of designers explicitly showing their making process. This increased transparency of 'making' by hand or using low level technology can promote engagement with and appreciation of a product. The explicit nature of visual description seems to attract and educate a wider audience, by capturing their imagination. Yet I feel this trend compromises digital making, as we have not yet reached a situation where most viewers can recognise the equivalence of value.