Hand and Technology
The Revival of Hand Process in a Digital Age

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Throughout design history links can be made between the advancement of ornamentation, print and dye technology with the importation of dyes, designs and artefacts from other areas of the world. European textiles have been influenced from abroad since Roman times. The expansion of the Roman Empire established the importation of foreign dyestuffs into Europe, many of which were brighter and faster than the indigenous supplies. As trade with the east expanded the degree of this influence also increased, by the sixteen and early seventeen centuries, the importation of hand-painted cottons from India to Europe had formed the basis of dress fabric and furnishing designs of the time and the desire for similar cottons, if the originals were not available, formed the foundation for European textile printing industries. The Indian and Middle Eastern madder technique used on these painted fabrics became the base of European dye systems. For it was the analysis of alizarin, the colouring matter in madder and its subsequent chemical reproduction, that paved the way for most of the later experiments in colour chemistry.

There have always been close connections between hand produced fabrics and textile technology, but these were commonly the use of technology for commercial reasons as a means of copying or imitating the hand produced. In many cases, the process of coping has led to the evolution of ingenious forms of manufacture and innovative design, where the resulting fabrics had little in common with the original forms they were designed to replace.

Historically, the techniques of resist patterning, hand painting and block printing have themselves been used as a means of imitating other textile techniques such as woven jacquard patterns and embroidery, but as
they became established as a patterning technique in their own rights the imitations were themselves copied. Examples of these imitation fabrics can be found throughout the world in all the areas where basic forms of patterning took place and in the countries that imported many of the original fabrics.

There is a growing trend in the importance of individualism that has created a renewed interest in craft, one-off and hand produced objects. As a result multi-national textile firms are looking for ways of manufacturing such designs in larger qualities. Original designs often exhibit the qualities of hand produced, be it achieved through painted, dyed texture or the use of hand produced marks that show the occasional fault or mistake but current CAD and CAM manufacturing methods tend to flatten and over simplify losing the original qualities a design may have exhibited.

This paper discusses the integration of hand processes, their development and influence within the field of surface design and textile technology throughout history and a possible future role such fabrics will play in a digital age.