



Fig. 4 The screen-printing shed at Stead McAlpin, Carlisle (Photo Jeremy Bate)

## Stead McAlpin, Fine English Printers since 1835

The visit to a textile-printing company was an inspired choice by the RFS. Textiles play a significant part often sidelined in the history of furniture. Loose cushions covers and drapes universal to beds and seating, were integrated into seating for comfort and reasons of status from the reign of the Tudors onwards with increasing sophistication. The design of textiles for upholstery is an art in itself; textiles which are created flat become three dimensional in use, whether as curtains on windows or beds or on seating.

Stead McAlpin, one of a number of calico printers established in Carlisle from the 1780s, has a distinguished history of working with the highest quality companies including William Morris and Voysey, printing and finishing cotton and linen cloth for curtains and upholstery until today. The John Lewis Partnership owned the company from 1965 to 2007, and retains the Archive. After a short interregnum it was acquired in 2009, by L Soper Ltd of Lancashire with textile manufacturing at the heart of their business.

The strength of Stead McAlpin lies in its flexibility and printing of consistently high quality. Wood block printing was retained when printing with copper rollers was introduced. Hand screen-printing was added to the repertoire in 1927. Each method produces a different look on the cloth and design limitations differ in scale and in the number of colours used. The more colours used, the higher the cost.

By 1945, textile widths for dress fabrics and furnishing fabrics long were roughly standardised at 36 inches (91.5cm) and 48 inches (122cm). The exceptions were blankets and linen and cotton sheeting, usually white, woven in plain or twill. Curtain print designs could have two repeats across 48 inches. Deep designs originally block-printed, were expensive, because of limitations on the size of the rollers, the depth of design repeats is restricted.

As a generalisation, before World War11 curtain fabrics with large patterns tended to be Jacquard woven, and dress and shallow repeat furnishing fabrics were printed by roller. Jacquard weaving of pattern is time consuming and became very expensive by the 1960s. Thus silkscreen

printing came into its own with automated flat bed screen-printing introduced in 1961, enabling large print designs to enter the market at an affordable price, at the start of the 'Swinging Sixties' when Terence Conran's 'Habitat' flourished.

Speed of weaving production, always a factor in the economy of cloth, led modern looms to be engineered to faster speeds and produce wider cloth, with bullet shuttles or equivalents, marking the demise of the neat selvedge, except for kilt tartan and Harris Tweed. This enabled the fashionable duvet cover width to be woven and machine printed for the first time. Both 36-inch (91.5 cm) and 48-inch (122 cm) widths as standard have all but vanished.

The printing process begins with the preparation of 'Grey cloth', the term for fabric coming straight from the weaving-loom. This includes scouring, stretching and cropping to produce a smooth surface for printing. Pigment dyes lie on the surface, but where the dye is to penetrate the surface, liquid dyes are used. The replacement of carcinogenic dyestuffs, sourced from Coal Tar discovered in the 19th century, has been a priority. Colour-fastness, to both light and water, has improved to increase the range of colours that can be reliably used.

The first man-made fibre, rayon, made from cellulose, was mixed with natural cotton and linen furnishing fabrics in the 1930s. Today while cotton and cotton linen 'union', once extensively used for loose chair covers, remains a staple. Floral prints known as 'Chintz' from 'Chinese'

became the term applied to any polished cotton. The range of fibre mixtures to be printed is now extensive, with dyestuff designed accordingly. The only current use for flat fabric is for printed window blinds, a popular alternative to curtains.

Multi-directional designs work well on upholstered furniture, which means that the design remains the same whichever way you turn it to ensure the fabric enhances the form of a chair. Checks, stripes and floral prints take careful placing and use more material to produce a sympathetic result. An old design tradition, 'Never sit on a person', ensures figurative designs are confined to drapes and on chair backs, never on seats.

The group watched the automated flatbed screen-printing facility in action, and the rotary screen-printing, which replaced the copper rollers in 1971, in preparation. After printing and checking, cloth is stretched to size on 'Tenter hooks' and steamed. That is the origin of the phrase.

Eye, hand and human judgement remain necessary adjuncts to the most advanced technologies, which the company use. Members welcomed their introduction to the industrial process, some for the first time. Thank you to Stead McAlpin and their staff for a warm welcome and an insightful experience, and to Jeremy Bate for arranging it.

*Crissie White*



**Fig. 5 Hand-block printing c. 1916. Note the young female 'tierer' on the right preparing the blocks for use**