



CHAPTER 6

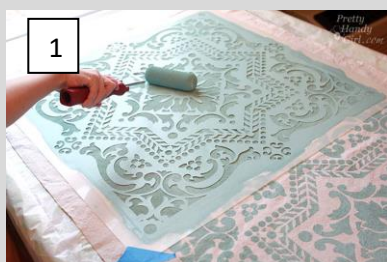
TEXTILE PRINTING: A CHANGE IN THE MONOTONE

Applying colored patterns and designs to decorate a finished fabric is called 'Printing'. In a proper printed fabric, the color is affixed to the fiber, so that it may not be affected by washing and friction. Whether a fabric is dyed or printed can be known by examining the outline of the design. On a printed fabric, the outline of a design is sharply defined on the outer side. The design generally do not penetrate to the back of the cloth. However, the design may show up on the reverse side of transparently thin fabrics. These fabrics may be confused with the woven designs where yarn dyed warp and filling are used. If the design is printed on such a fabric, the yarns will show some areas on which color is not equally distributed.

PRE-READING

There are different methods of textile printing. Here are a few of them. Can you match each picture with the right method?

- | | |
|------------------------|-------|
| A. Screen Printing | |
| B. Hand Block Printing | |
| C. Stencil Printing | |
| D. Digital Printing | |



READING

Textile Printing

Textile printing is the process of applying color to fabric in definite patterns or designs. In properly printed fabrics the color is bonded with the fiber, so as to resist washing and friction. Textile printing is related to dyeing but, whereas in dyeing the whole fabric is uniformly covered with one color, in printing one or more colors are applied to it in certain parts only, and in sharply defined patterns. In printing, wooden blocks, stencils, engraved plates, rollers, or silkscreens are used to place colors on the fabric. Colorants used in printing contain dyes thickened to prevent the color from spreading by capillary attraction beyond the limits of the pattern or design.



Traditional textile printing techniques may be broadly categorized into four styles:

- Direct printing, in which colorants containing dyes, thickeners, and the mordents or substances necessary for fixing the color on the cloth are printed in the desired pattern.
- The printing of a mordant in the desired pattern prior to dyeing cloth; the color adheres only where the mordant was printed.
- Resist dyeing, in which a wax or other substance is printed onto fabric which is subsequently dyed. The waxed areas do not accept the dye, leaving uncolored patterns against a colored ground.
- Discharge printing, in which a bleaching agent is printed onto previously dyed fabrics to remove some or all of the color.

Resist and discharge techniques were particularly fashionable in the 19th century, as were combination techniques in which indigo resist was used to create blue backgrounds



prior to block-printing of other colors. Most modern industrialized printing uses direct printing techniques.

Textile Printing in the Past

Woodblock printing is a technique for printing text, images or patterns used widely throughout East Asia and probably originating in China in antiquity as a method of printing on textiles and later paper. As a method of printing on cloth, the earliest surviving examples from China date to before 220, and from Egypt to the 4th century.

Textile printing was known in Europe, via the Islamic world, from about the 12th century, and widely used. However, the European dyes tended to run, which restricted the use of printed patterns. Fairly large and ambitious designs were printed for decorative purposes such as wall-hangings and lectern-cloths, where this was less of a problem as they did not need washing. When paper became common, the technology was rapidly used on that for woodcut prints. Superior cloth was also imported from Islamic countries, but this was much more expensive. During the latter half of the 17th century the French brought directly by sea, from their colonies on the east coast of India, samples of Indian blue and white resist prints, and along with them, particulars of the processes by which they had been produced, which produced washable fabrics. Textile printing was introduced into England in 1676 by a French refugee who opened works, in that year, on the banks of the Thames near Richmond. Curiously enough this is the first print-works on record, but the nationality and political status of its founder are sufficient to prove that printing was previously carried on in France. In Germany, too, textile printing was in all

probability well established before it spread to England, for, towards the end of the 17th century, the district of Augsburg was celebrated for its printed linens, a reputation not likely to have been built up had the industry been introduced later than 1676.

Textile Printing as an Art

Hand block printing, considered by some to be the most artistic, is the earliest, simplest and slowest of all the existing printing methods. In this process, a design is drawn upon, or transferred to, a prepared wooden block. A separate block is required for each distinct color in the design. A block cutter carves out the wood around the heavier masses first, leaving the finer and more delicate work until the last so as to avoid any risk of injuring it during the cutting of the coarser parts. When finished, the block presents the appearance of flat relief carving, with the design standing out.



Fine details are very difficult to cut in wood, and, even when successfully cut, wear down very rapidly or break off in printing. They are therefore almost invariably built up in strips of brass or copper, bent to shape and driven edgewise into the flat surface of the block. This method is known as coppering. To print the design on the fabric, the printer applies color to the block and presses it firmly and steadily on the cloth, ensuring a good impression by striking it smartly on the back with a wooden mallet. The second impression is made in the same way, the printer taking care to see that it fits exactly to the first. If the pattern contains several colors the cloth is usually first printed throughout with one, then dried, and printed with the second, the same operations being repeated until all the colors are printed. Block printing by hand is a slow process it is, however, capable of yielding highly artistic results, some of which are unobtainable by any other method.

POST-READING

Recalling Information. Decide if the following sentences are True (T), False (F), or Not Given (NG).

- 1. In resist dyeing, a mordant is applied to the fabric after dyeing is complete.
- 2. In discharge dyeing, a bleaching agent is applied to a fabric prior to dyeing.
- 3. In 1860s, resist and discharge dyeing were the most commonly used techniques.
- 4. Different colors can be applied to the same wooden block for printing.
- 5. Today, direct printing is the most common technique being used in textile printing.

Text Comprehension. Provide the following questions with appropriate answers from the text.

1. Which one of the following statements is correct about discharge printing?
 - a. Mordant is used prior to dyeing.
 - b. A bleaching agent is used.
 - c. Dyes are printed into the fabric in certain patterns.
 - d. Colorants are applied to a previously dyed fabric.

2. In this printing technique, we use a substance which prevents colorants from adhering to the fabric.
 - a. Direct printing b. Mordant printing c. Resist printing d. Discharge printing

3. Which item is **NOT** correct about printing in Europe?
 - a. Printing on fabric for decorative purposes was very common.
 - b. The dyes which were used were stable enough on the fabric.
 - c. Better cloth was imported from other countries.
 - d. Europeans got familiar with it through the Islamic countries.

4. Better quality printing processes producing washable fabrics were introduced into Europe first in
 - a. France b. England c. Germany d) Augsburg District

5. Which item is **NOT** correct about hand block printing?
 - a. The finer edges of the block are carved out in the final stage.
 - b. To ensure a good impression on the fabric, the block is hit on the back with a hammer.
 - c. There are prints which are so artistic that they cannot be obtained with any other method.
 - d. The fine edges on the wooden blocks are carved out of the wood only.

Vocabulary

Guessing Meaning of Words from Context

When attempting to decode the meaning of a new word, it is often useful to look at what comes before and after that word. The surrounding words can give readers helpful context clues about the meaning and structure of an unknown word, as well as how it is used. Now try to guess the meaning of the following words from the context using the clues provided in the surrounding context. You need to tell others how you could guess the meaning of each word.

1. Traditional textile printing techniques may be **broadly** categorized into four styles.
2. A blockcutter carves out the wood around the heavier masses first, leaving the finer and more **delicate** work until the last so as to avoid any risk of injuring it during the cutting of the **coarser** parts.

3. To print the design on the fabric, the printer applies color to the block and presses it firmly and steadily on the cloth, ensuring a good impression by striking it smartly on the back with a wooden mallet.
4. The second impression is made in the same way, the printer taking care to see that it fits exactly to the first.

Go through the text and find a word or phrase which is synonymous to the words underlined in the following sentences.

1	The book was published in 1954 and was <u>later</u> translated into 15 languages.	
2	The common household fork was nearly unknown in <u>ancient times</u> .	
3	Strong colors are very <u>popular</u> used at the moment.	
4	Peeling paint must be scraped away so that new paint will <u>stick</u> .	
5	Some of the fallen trees had left a clear <u>impact</u> in the hardened mud.	
6	The police sent in the <u>hammer</u> to see if the stains on it are human blood.	
7	Wool and silk are the materials that are easiest to <u>color</u> .	
8	In the Middle Ages, priests and other religious figures had a very high <u>position</u> .	
9	The new law <u>limits</u> the sale of hand guns.	
10	The names of soldiers who were killed are <u>carved out</u> on two marble walls.	