

## Object Studies

### Fabric, Printed

#### What Are These Objects?

Fabric, Printed. A set of fabrics demonstrating the process to make chintz, a printed cotton textile.

These images depict a cloth in three stages of the print process: after printing the basic design; after the red colors have been added; and covered with wax in preparation for resist dyeing. The fourth image shows the completed pattern. Other intermediate stages in the production process include the application of the mordant, the subsequent red-dyeing, and bleaching or clearing steps.

The series is in the collection of the Victoria and Albert Museum.

#### How Is the Color Made?

A number of eighteenth-century publications describe the process to print a design on cotton.<sup>1</sup> While details vary, the technique used in Europe involved repeated cleaning, dye preparation, and dyeing stages. The woven cloth is first prepared by bleaching. The purpose of this initial stage was to remove oils and dirt rather than to make the cloth white, but in the process the cloth became lighter-colored. European descriptions of the procedure in India note the use of a substance called *cadou* or *cadoucaïe*, often translated as myrobalans, in the bleaching process.<sup>2</sup> The more common European counterpart, gall nut, does not appear to have been recommended in Europe. Instead, instructions that call for a soaking in fermented bran, whey, or ashes followed by an astringent rinse of lemon juice, verjuice or, later, oil of vitriol seem more typical.

It is thought that the alkaline particles of the dung, prevents the particles of the colouring drug from too copiously entering into the ground.

Charles O'Brien, *The Callico Printers' Assistant* (London, 1789) 2: n.p.

To create the pattern, mordant was block-printed (or, later, roller-printed) onto the prepared cloth. The basic mordants were the same as those used for piece dyeing, with the addition of thickening agent (to control placement) and color (so that the pattern could be checked). If the background was to remain light-colored, trailings, hatchings, and other fine lines might also be printed onto the cloth with ink. The cloth would then be cleared—soaked in dung or a similar substance—and then washed and dried. Dyeing the red or red-based colors then took place, the coloring material was madder or chay. Once this stage was

completed, the partially colored cloth would again be cleared to remove excess or unwanted color. The mordant and dye steps might be repeated a second or third time to add yellows or other red colors and create certain compound colors.

In this example, the next step was resist printing. All but the areas to be dyed blue were covered with a wax—here brown-colored. Again the whole cloth was immersed in the color; the dye adhered only to the exposed areas of the cloth. The wax was removed from the dyed cloth by washing it in an alkaline liquid; that liquid combined with oil in the wax to form a soluble soap, making removal easier. Once the wax was removed, the cloth would again be cleared to remove excess dye from unwanted areas.

Once the coloring stages were complete, the cloth was given a final clearing and finishing. Finishing could include further bleaching and repair of damage to the cloth that occurred in the dye processes. The finishing stages always included pressing and polishing or the calendaring that gives the characteristic glossy surface to chintz.

### How Are the Objects Used?

Personne n'ignore la prodigieuse consommation qui se fait en France des Indiennes, des Perses, des toiles peintes, ou teintés qui nous viennent d'Angleterre, de Hollande, de Suisse, d'Allemagne, de Silésie, &c ...

"Sur les Toiles Peintes" *Journal œconomique* (April 1755), 93.

The samples shown here were made as demonstration objects, to explain the stages in the calico or printed-cotton process.<sup>3</sup> The widespread fascination with cotton prints that began in Europe in the sixteenth century, and the related development of cotton-printing processes in the eighteenth are well documented. Printed fabrics were used for clothing and for furnishings. The pattern of this sample, an overflowing vase of flowers, was always a popular decorative motif for goods made for European markets; often the patterns were reminiscent of the Indian palampores. This design combines flowers in Turkish, Persian, and Indian styles, one mark that this is a nineteenth-century pattern. As with painted textiles, many decorated ceramics, and even paintings, the pattern differentiates this object from all others made in a similar fashion. The techniques to create the pattern were, as in each of those examples too, chosen for their compatibility with the cotton support and chosen to take advantage of the behavior of cotton and the dyestuffs.

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### Notes:

**Note 1:** "Sur les Toiles Peintes," *Journal œconomique* (April 1755): 91–102; Delormois, *L'Art de faire l'indienne à l'instar d'Angleterre, et de composer toutes les couleurs, bon*

*teint, propres à l'indienne* (Paris, 1770); Charles O'Brien, *The Callico Printers' Assistant; From the First Operation of Designing Patterns, to the Delivery of Work for Sale: Including, . . . Thoughts on Genius and Invention. . . . and a Concise History of Callico Printing to the Present Time . . .* (London, 1789) 2:n.p.

**Note 2:** "Father Coeurdoux's Letters on the Technique of Indian Cotton Painting, 1742 and 1747, Introduced and with a Commentary by P. R. Schwartz," in *The Origins of Chintz, with a Catalogue of Indo-European Cotton-Paintings in the Victoria and Albert Museum, London, and the Royal Ontario Museum, Toronto* by John Irwin, and Katharine B. Brett, (London, 1970), 42–53.

**Note 3:** Stanley D. Chapman and Serge Chassagne, *European Textile Printers in the Eighteenth Century: A Study of Peel and Oberkampf* (London, 1981); Josette Brédif, *Printed French Fabrics: Toile de Jouy* (New York, 1989). Some old but still-useful works on the history of painted and printed textiles in England, were written by Peter C. Floud, see "The Origins of English Calico Printing," *Journal of the Society of Dyers and Colourists* 76 (1960): 275–81; "The English Contribution to the Development of Copperplate Printing," *Journal of the Society of Dyers and Colourists* 76 (1960): 425–34; and Alfred P. Wadsworth and Julia de Lacy Mann, *Cotton Trade and Industrial Lancashire, 1600–1780* (Manchester, 1931); Peter Floud, "English Chintz" *Ciba Review* 1961 no. 1 (1961).

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