with their discovery was that of a fragment of printed cotton at Arles in the grave of St Caesarius, who was bishop there about A.o. 542. Equal in archaeological value arc similar fragments found in an ancient tomb at Quedlinburg. These, however, are of comparatively simple patterns. Other later specimens establish the fact that more important pattern-printing on textiles had become a developed industry in parts of Europe towards the end of the 12th and the beginning of the 13th century.

According to Forrer *(Die Kunst des Zeugdrucks,* 1898) medieval Rhenish monasteries were the cradles of the artistic craft of ornamental stamp or block cutting. In rare monastic MSS. earlier in date than the 13th century, initial letters (especially those that recurred frequently) were sometimes stamped from hand-cut blocks; and German deeds of the 14th century bear names of block cutters and textile stampers as those of witnesses. Between the nth and 14th centuries there was apparently in Germany no such weaving of rich orna­mental stuffs as that carried on in Spain and Italy, but her competitive and commercial instincts led her to adapt her art of stamping to the decoration of coarse textiles, and thus to produce rather rough imitations of patterns woven in the Saracenic, Byzantine and Italian silks and brocades. Amongst the more ancient relics of Rhenish printed textiles are some of thin silken stuff, impressed with rude and simplified versions of such patterns in gold and silver foil. Of these, and of a considerable number of later variously dyed stout linens with patterns printed in dark tones or in black, specimens have been collected from reliquaries, tombs and old churches. From these several bits of evidence Dr Forrer propounds an opinion that the printing of patterns on textiles as carried on in several Rhenish towns preceded that of printing on paper. He pro­ceeds to show that from after the 14th century increasing luxury and prosperity promoted a freer use of woven and em­broidered stuffs, in consequence of which textile-printing fell into neglect, and it was not until three centuries later that it revived, very largely under the influence of trade import­ing into Europe quantities of Indian printed and painted calicoes.

Augsburg, famous in the 17th century for its printing on linens, &c., supplied Alsace and Switzerland with many crafts­men in this process. After the revocation of the edict of Nantes, French refugees took part in starting manufactories of both painted and printed cloths in Holland, England and Switzer­land; some few of the refugees were allowed back into France to do the same in Normandy: manufactories were also set up in Paris, Marseilles, Nantes and Angers; but there was still greater activity at Geneva, Neuchâtel, Zürich, St Gall and Basel. The first textile-printing works in Great Britain are said to have been begun towards the end of the 17th century by a Frenchman on the banks of the Thames near Richmond, and soon afterwards a more considerable factory was established at Bromley Hall in Essex; many others were opened in Surrey early in the 18th century. At Mulhouse the enterprise of Koechlin, Schmatzer and Dollfus in 1746, as well as that of Oberkampf at Jouy, led to a still wider spread of the industry in Alsace. In almost every place in Europe where it was taken up and followed, it was met by local and national prohibitions or trade protective regulations and acts, which, however, were gradually overcome.

Towards the end of the 18th century a revolution in the British manufacture of printed textiles was brought about through the invention of cylinder or roller printing from metal plates. This is usually credited to Oberkampf of Jouy, but it seems to have also occurred to a Scotsman named Bell, and was successfully applied in a large way about 1785 at Monsey near Preston. From this and the calico-printing works at Manchester in 1763, and in Scotland in 1768, the present huge proportions of the industry in the United Kingdom have grown.

Illustrations accompanying this brief account merely indicate a few types of patterns used in various European countries up to the beginning of the 19th century. Typical specimens of East Indian painted and printed calicoes for coverlets and other draperies are shown in the Indian division of the Victoria and Albert Museum. These arc *sui generis,* and therefore differ from the bulk of Western prints on chintz, cretonne, &c., which together with a less quantity of printing on satin, silk, velvet, crêpe and the like are principally from adaptations of weaving patterns. An interesting series of over 2500 patterns, chiefly of this character, was made by Μ. Corimand between 1846 and i860, and is preserved in the National Art Library at South Kensington. For many years of the Latter part of the 19th century, William Morris designed and produced attractively ingenious floral and bird patterns, admirable in contrasts of bright colours, frequently basing his arrangement of crisply defined forms in them upon that of Persian surface ornament. His style, which on its appearance struck a distinctive note, has very considerably affected numbers of British and foreign designers of printed patterns whether for textiles or wall papers.

The portion of linen hanging or valance given in fig. 1 (Plate I.) comes from an ancient cemetery at Akhmîm in Upper Egypt. The linen dyed blue bears ornamentation with figures undyed or “ reserved,” through the previous application to it, by means of an engraved block, of some such saturating fluid as that mentioned by Pliny. The design and cutting of the block were no doubt the work of Coptic artificers, the style of the composition being Egypto-Roman of the 5tl1 century a.d. On the child's tunic dyed blue (fig. 2) the simple trellis and blossom pattern is similarly produced by the “ reserve ” process, and the specimen is of the same *provenance* as that of fig. 1. It is perhaps rather earlier in date, *i.e.* 4th century A.D. Fig. 3 is from a fragment of red silk printed in red, green and black from wood-blocks, thus illustrating another method of applying colours to textiles. It is probably of Rhenish work in the 12th or 13th century, and came from the Eifel district. The ornament, however, is a survival of a scheme of pattern which was in use in Perso-Roman weavings as early as the 7th century’ a.d. Fig. 4 shows a piece of red silk printed with a Rhenish adaptation of a 13th-century North Italian weaving pattern possessing earlier Byzantine features. The design in fig. 5 is another Rhenish version of a richer style of 14th-century North Italian weaving. An advance in refinement of block-cutting is seen in fig. 6, a Rhenish adaptation of a 14th-century North Italian pattern often employed in brocade weaving of that period. The pattern in fig. 7 (Plate II.) is typical of a style introduced during the 15th century in sumptuous damask satins, and velvets woven at Florence, Genoa and Venice. Very different is the style exem­plified in fig. 8, taken from a Dutch 17th-century “ Indienne,” the trade name for such prints. The repeated wide and narrow’ stripes recall a scheme of design which the Siculo-Saracens of the 11th century’ employed for brocades; the intertwining floral orna­ment closely resembles such as occurs in 16th-century Indian painted and printed cottons. Fig. 9 is a 19th-century Italian reproduction of the Persianesque spreading tree device often used in Indian palampores from the 16th century onwards to the present day. These, however, were either painted or printed from wood­blocks, whereas for this Italian copy engraved metal plates were used, after the manner of the process which was started, as already mentioned, by Oberkampf and Bell in the 18th century. The remaining figures 10, 11 and 12 are from stuffs metal-printed with subjects of a pictorial character which had a vogue for some time. In fig. 10—a French print—are family groups: shepherds and shepherdesses with their flocks; children at play; buildings, rocks, trees, &c. ; the decorative effect of which, for the purposes of curtains and furniture covers, resulted mainly from the ordered repetition of these somewhat unrelated details. A landscape with a Chinese pagoda was repeated in lengths of the English cotton print, a piece of which was cut to fit the back of a chair as in fig. 11. Fig. 12 is from a linen panel printed in colours with a stipple engraving to be used as a small fire screen. The style reflects the pseudo-classical taste of the end of the 18th century in England. Beneath the group of figures in the original is an inscription, “ London, engraved and published, August 1, 1799, by M—Bost No. 207 Piccadilly.” This sort of printing has practically disappeared: it was unsuitable for manufacture on a large scale.

Authorities.—J. Persoz, *L’Impression des Tissus* (Paris, 1846, see vol. i. Preface); E. A. Parnell, *Dyeing and Calico Printing* (London, 1849); W. Crookes, F.R.S., *Dyeing and Catico Printing* (London, 1864, see Introduction); Dr R. Forrer, *Die Kunst des Zeugdrucks* (Strassburg, 1894). (A. S. C.)

**TEXTUAL CRITICISM,** a general term given to the skilled and methodical application of human judgment to the settle­ment of *texts*. By a “ text ” is to be understood a document written in a language known, more or less, to the inquirer, and assumed to have a meaning which has been or can be ascertained.