

HISTORY OF TEXTILES

THE ancient and most primitive arts were inspired by nature and were developed through the natural resources of the countries and the primitive tools and materials. The inspiration to create and design sprang from the people's simple needs and necessities; hence the first known arts were pure and original and there were no foreign influences to help them.

As the arts of past ages changed from period to period, the arts of nations and peoples expressed themselves through temperament and spirit in forms, lines, ornaments, and colorings. Through all the centuries, however, the immutable laws of composition and proportion remained in spite of changing styles and revolutions. The progress and development of all the arts, of architecture, painting, design, textiles, and costumes, may easily be traced from the earliest Egyptian, Babylonian, and Assyrian countries through Greece and Southern Italy, through Asia Minor to Bagdad and Byzantium, to the Mogul courts, to Italy, France, and England.

All primitive as well as Egyptian designs and ornamentations were simple in construction; they were representative and decorative, and geometrically arranged with only a few lines. The Egyptians used color conventionally, and though their paintings

were in flat tints they still conveyed clearly the objects they desired to represent. Red, blue, or yellow, with black or white, gave distinction and clearness to their color designs. The lotus, papyrus, and palm branches growing on the banks of the Nile, and the well-known asp and beetle, were the main motifs. Feathers of rare birds were depicted in the designs, with distinctness and motion. The flowers which the Egyptians used in their festivals to decorate the capitals of their pillars were taken perhaps from the full-blown lotus flowers or the rushes or reeds used to bind stalks at top and bottom of their primitive houses, or perhaps their tent poles lashed to a point at the top. In their tents the fibers used for the covers were often plaited and woven, a custom which probably inspired them to carry out the idea of the squared painted design for their temple ceilings.

It is not known definitely when the textile industry originated. It is certain, however, that it is older than architecture, that fabrics preceded paintings, and that "when the first inhabitants of the earth took refuge in caves or under interlaced boughs, they were clothed in coarse cloths or skins, and that when the first hut was built, they were comparatively well dressed." It may have been that primitive man by watching the birds build their nests conceived the idea of weaving, and that skins were embroidered with colored stones, stitches of grasses, or colored leaves. Thus, perhaps, embroidery was known before weaving.

At a really prehistoric date, man learned to weave

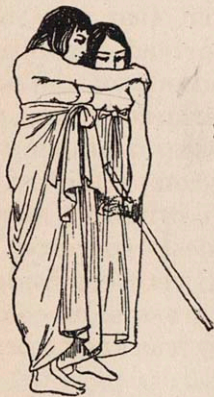
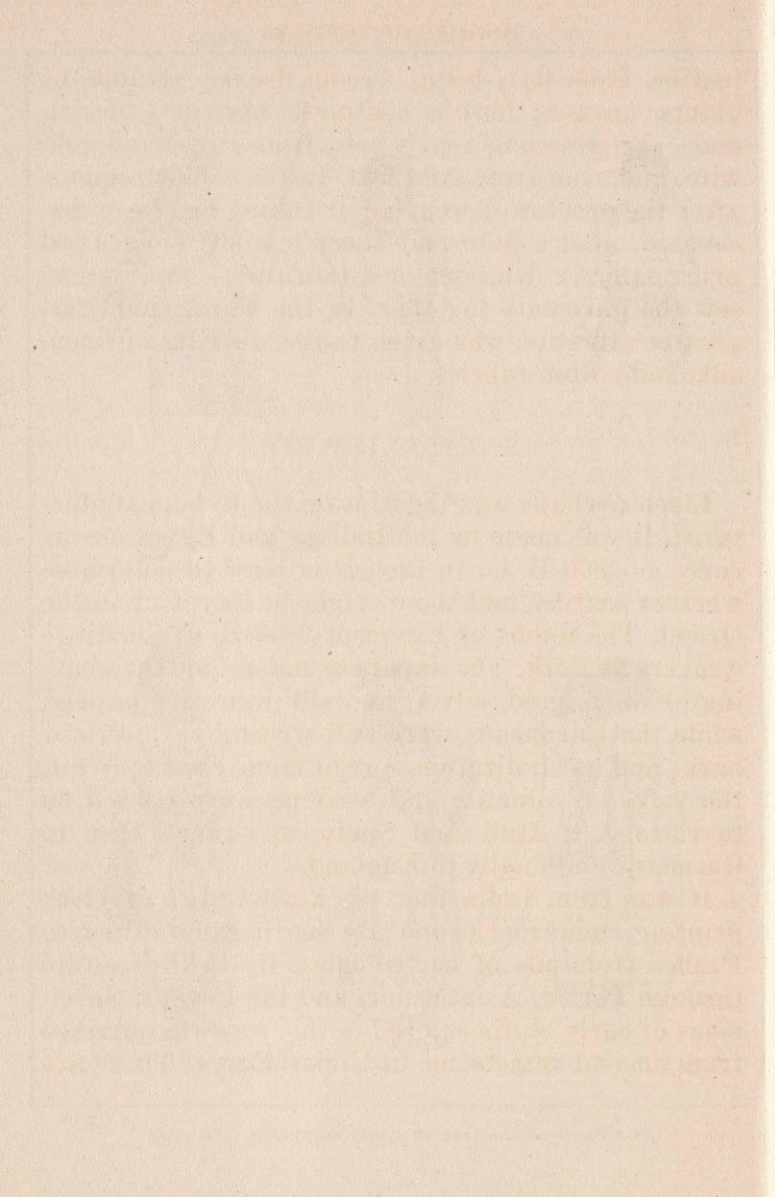


PLATE I.—Examples of Early Egyptian Costumes



textiles from flax, hemp, broom, leaves, strands of plants, grasses, fibrous coatings, intestines of animals, sheep's wool, goat's hair, from silver and gold wire, and even from gold leaf. In the colder regions, after the process of weaving or fulling had been discovered, goat's hair and sheep's wool were used principally. A fish bone or a thorn was employed to sew the garments together. In the warm countries, greater attention was given to the weaving of linen, silk, and cotton fabrics.

LINEN AND WOOL

Linen perhaps was the first textile to be manufactured. It was made by the Indians and Egyptians as early as 2800 B. C. In fact, it is hard to determine whether textiles had their origin in Egypt or in the Orient. The tombs of Egypt of 2800 B. C. illustrate weavers at work. The Japanese understood the weaving of linen, gold, silver, and silk into rare papers, while the Europeans were still writing on pieces of bark; and as civilization spread from East to West, the ways of spinning and weaving were passed on to Europe, to Italy and Spain, to France, then to Germany, and finally to England.

It was from India that the knowledge of block printing came to Europe. By sea it came direct to France from one of her colonies. By land it came through Persia, Asia Minor, and the Levant. Specimens of early stuffs colored in this way are obtained from ancient cemeteries in Upper Egypt. There are

pictures of similar textiles to be found on the walls of the Temple of Beni Hassan, built 2100 B. C., and Egyptian and Syrian monuments of 2400 B. C. show wall pictures of the manufacture of rugs and fabrics. Also, pictures of looms indicate that drawn-work and nettings were of prehistoric origin.

The Egyptians used wool, hemp, or flax for these early woven stuffs. In 400 A. D. were woven Egyptian and Roman tapestries. In 600 A. D. northern Egypt and Sicily were manufacturing silks. The Greeks were unacquainted with cotton until it came from India, and not until the time of Alexander the Great was it known in Europe.

Besides linen mummy cloths, woven a thousand years before Christ, there were also those made of woolen stuffs. Furthermore, cloth of gold tissue, of which we read in the Bible, was being made before the time of Moses. It was crudely wrought by pounding or flattening the gold into linen or cotton cloths by means of wooden mallets; and because the Egyptians, unlike the Orientals, did not know of gold wire, they used the softest gold leaf in the making of these wonderful mummy cloths.

Rugs were first woven by the Assyrians, but if the Babylonians and Egyptians had not discovered and appreciated the art, and if, later, the Greeks and Romans had not softened the walls and floors of their sumptuous palaces with these textiles, it is doubtful whether we should now know of the Oriental rug. Pliny speaks of the superior skill of the Assyrians in the weaving and in the color blending of rugs; Homer



PLATE II.—Needlepoint, Venetian, 1600 A. D.
Scenes from the Story of Judith and Holofernes
The Metropolitan Museum of Art, New York

and Herodotus tell of the weavers of the far East; and the Bible refers many times to the rug and its uses. The Persian rug of to-day is a later example of rug weaving and, with its myriads of deftly tied knots, bears testimony to unhurried and careful workmanship. The Oriental rug was first made for religious purposes, and later to take the place of wall decorations. The designs and patterns, therefore, were symbolic to the possessor and a constant reminder of his religion.

In Europe the weaving of wool reached its perfection, during the tenth century, in Flanders. In 1066 the Angles and Saxons were weaving wool, and the manufacture became extensive in 1331, in the reign of Edward III. Toward her colonies, however, England maintained a policy intended to repress any manufacture of woolen goods and all known textiles, although a report of Alexander Hamilton in 1791 mentions a mill for the manufacture of cloths and cassimeres in operation at Hartford, Connecticut.

SILK

Silk, after linen, was the next industry of the textile trade to be developed. Five thousand years ago it was being made in southern China, and it was only a hundred years later that the secret of its making was spreading across to the East and finally to Europe. Aristotle speaks of silk as being brought over from China through India to a small commercial colony in Asia Minor, and there is also the old story

of the Greek monks who returned from China carrying a goodly number of silkworms hidden in their staves. Although the Bible seldom mentions silk, and then as being rare and costly, when Solomon's temple was built, the altar cloths and the priests' robes were woven of strands of silk and set with precious stones. It is known that silk was woven in Constantinople, Corinth, and Thebes 1000 B. C., and the Orient was famous for its fabric creations as late as 1400 A. D. Then European weavers began to copy Asiatic weavings and designs. In the fifth century Constantinople, then known as Byzantium, was celebrated as the eastern seat of European silk cultivation. Incidentally, it is interesting to note that in 900 A. D. the history of lace began.

Silk, then, was commonly woven in China, but not until 500 A. D., in the time of Justinian, was it woven in Europe. It is recorded, 800 A. D., that the daughter of Charlemagne was taught to weave silk, and in 1000 A. D. that Roger Guiscard started a silk factory at Palermo, employing Theban and Corinthian weavers, and Palermo became the greatest silk manufacturing city in the world. Just after this time many Italian towns: Florence, Venice, Genoa, and Milan, began manufacturing silk, and many Saracen and Greek silk weavers started weaving in the German Netherlands and Great Britain.

It was not until 1174, at the time of the Second Crusade, that the cultivation of the silkworm was started in Italy and France. Moreover, two centuries elapsed before any real development was made in

silk manufacture there, although at the present time Europe produces one hundred and fifty million pounds of cocoons annually, and Italy and France carries the largest proportion of that amount. These countries of Europe have always been the homes of the finest weavers of silk, velvet, lace, and tapestry.

TAPESTRY

The weaving of tapestry was known early in civilization, dating back to the Egyptian period. Perhaps it was borrowed from the Orientals. In Europe it was first practiced toward the end of the twelfth century in Flanders, where it flourished in the rich and prosperous town of Arras (whence the name of "arras" applied to tapestry). Flemish weavers began to manufacture wool tapestries at Arras, Lille, and Brussels in 1477. In Europe, tapestries were first made in the monasteries and were used merely for covering church walls, altars, and seats. In France, tapestry manufacture began in 1466 at Lyons. Later factories were established by the kings for this manufacture. The Gobelin factory, for instance, was started in 1539 by Francis I, and here artists, such as Rafael, made designs for the tapestries. In 1619 this factory became the royal property of France.

In the twelfth century, the weaving of church vestments was an important industry, although the Germans were far behind in other kinds of weaving, Cologne was famous for her ecclesiastical textiles known as Orphrey Web. With this exception, Ger-

man designs were heavier and their cloths coarser than those of the French.

In 1480 needlepoint lace work began in Italy. In 1500 Italy manufactured cloths of silk, satin, damask, and plain and cut velvets. In 1500 England tried, but failed, to manufacture satins, damasks, velvets, and cloth of gold.

In 1690 the Beauvais tapestry works were established in France; and in 1750 A. D. silk weaving was begun in England, and large amounts of Chinese and Indian silks were used there. Not until 1800 did Austria begin silk manufacture.

In 1531 Cortez brought silk to Mexico, whence it finally came to the United States, where its production was slow at first. In 1619 it was cultivated in Virginia and it thrived moderately until 1666, when it proved a complete failure. In 1732 it was raised in Georgia, but here, too, it was a failure. In 1736 South Carolina started the industry, and it was fairly well established when the Revolution came to disturb all industry. It was not until 1829 that a mill, which was to flourish and endure, was established at Mansfield, Connecticut. Despite this tardiness, however, silk cultivation is now a permanent and ever growing industry in the United States, as is the manufacture of cotton and linen cloths.

Thus from all these countries, American textile manufacturing has developed into a more or less modified and almost always ugly type of machine-made fabrics. The good color and simple designs of the homespun clothes, counterpanes, and samplers of

our grandmothers of colonial times, are most excellent hand-wrought examples of the American textile; and to-day perhaps the best textile weavings are dyed, designed, copied, and woven by individual weavers, arts and crafts societies, and by certain interior decorating shops of New York, which have imported French weavers, and their dyes, their looms, and methods. Pamphlets of the chemical properties of dyes and cloths and tests for textiles, may be obtained upon request from the Home Economics departments of American colleges and universities.

It is certain that the demand for better American textiles will force the manufacturers and dye makers to produce more worthy designs, fabrics, and dyes.