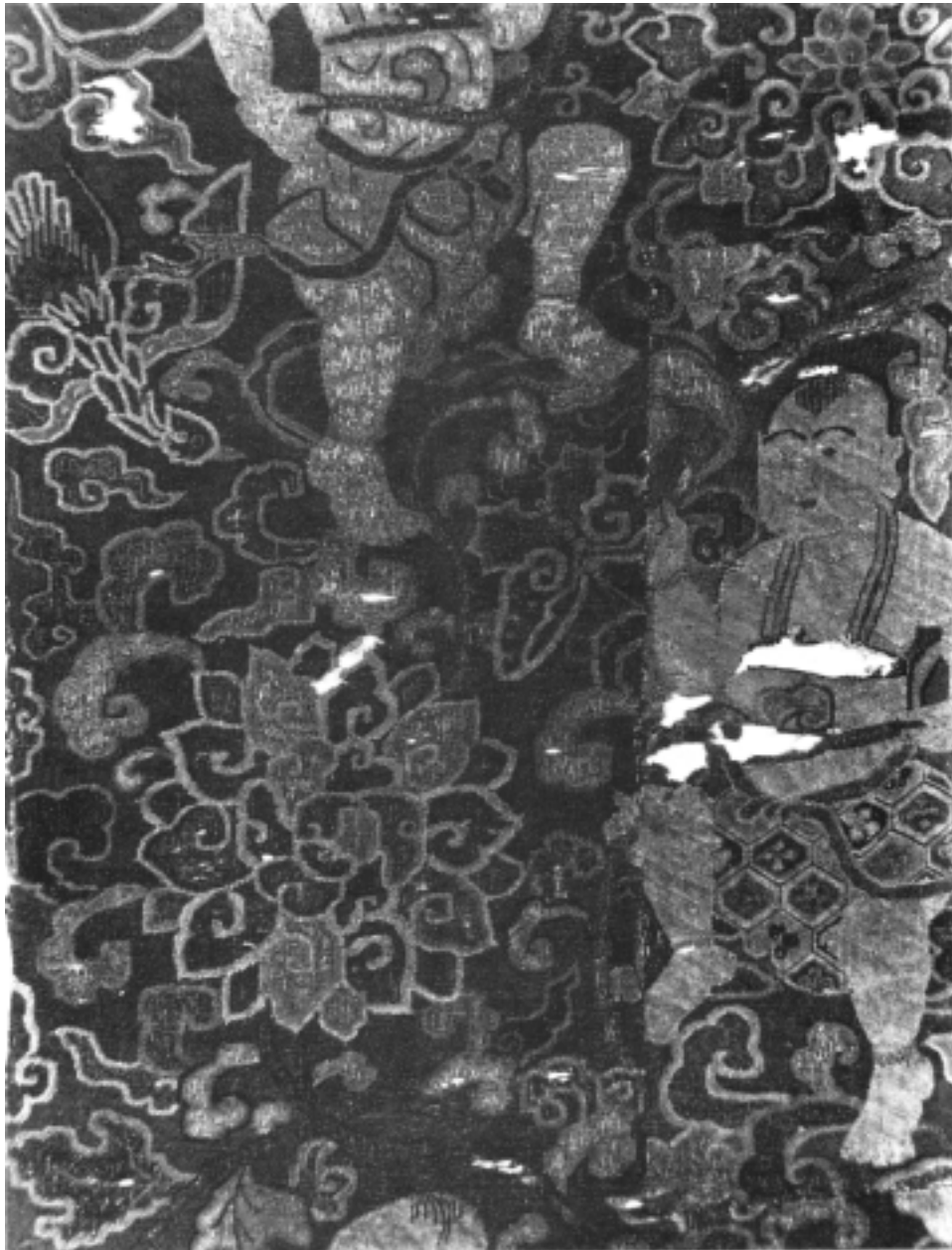


Notes on the Early Usage of Flat Metallic Strips in Central and East Asian Textiles

Alan Kennedy, *with technical analysis and drawings by Lucy Maitland*

Among the many fine textiles of Central and East Asian origin that have come out of Tibet in recent years is an unusual embroidery that incorporates flat metallic strips in a novel way (plate 1). The brief study that follows includes a technical analysis by Lucy Maitland.



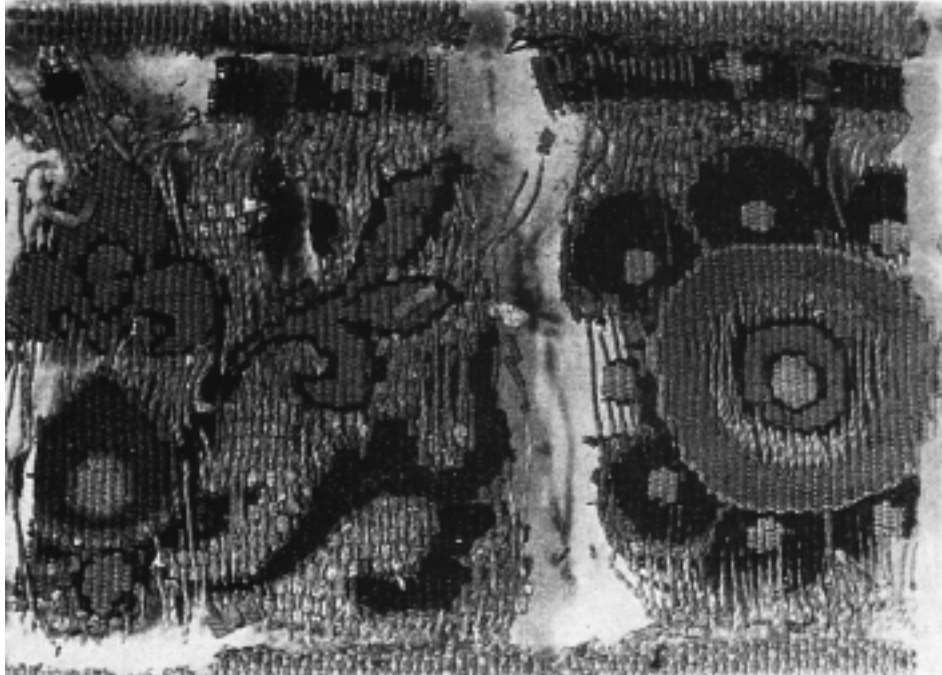


Plate 2 Reproduced from *Nihon no Bujutsu*, #220, 1984, p.1

Usually textiles are made entirely of yarns—silk, cotton, wool, linen, and so forth. Less common is the use of metal in conjunction with textile fibers. When found in Central and East Asian textiles, metal is usually in the form of foil, either silver or gold, fastened with an adhesive to paper or animal matter, such as skin or intestine, and cut into narrow strips. These metallic strips are often wrapped around a yarn core, which creates a rounded metallic element to be then incorporated into a textile product. The metallic strips are also used as they are, that is, as flat strips. It is this latter use that will be examined from both a historical and technical perspective in relation to the textile under consideration (Plate 1).

Examples of the earliest uses of metallic strips in their flat form have survived in Japan and Central Asia. From the 7th or 8th centuries and variously attributed to the Horyu-ji or the Shoso-in collections in Japan, is a narrow textile that incorporates flat metallic strips in a silk tapestry weave (plate 2). From the Central Asian region of Turfan is a textile dating to the 7th century that was used to clothe a doll. It also uses flat metallic strips in a tapestry weave (Plates 3 & 4). Embroideries found in Central Asia at Khocho and dated 9th/10th century employ flat metallic strips that are couched onto the ground fabric (plates 5 & 6). From Liaoning province in northern China is a 10th-century textile with flat metallic strips used in a tapestry weave (plate 7).

Stylistically, this textile (Plates 1 & 1A) dates to the Sung Dynasty (960-1279). The theme of boys and flowering vines, symbolic of the desire for prosperity and male heirs, is found on several other textiles preserved in China, and the United States and dateable to Sung times (Plates 8-10).

The technical description is as follows:

The foundation fabric of the embroidery is a simple white silk gauze weave. (Diagram 1) The design is outlined on the foundation fabric with black ink and worked in silk as follows:

Areas with metallic strips

A row of circling or back stitches, which at irregular intervals become long floating stitches, is worked between two pairs of the gauze crossing warps of the foundation weave. The floats vary in length by spanning 3 or 4 wefts of the foundation weave and sometimes as many as 15. (Diagram 2) In those areas which are to be covered with gold the underlying ground stitches are orange silk; in the areas that are to be covered with silver the underlying ground stitches are white.

Metallic strips are laid down between alternate wefts at right angles to the back/floating stitch rows. (Diagram 3) It seems to make no difference to the appearance of the gold whether it lies on a floating stitch or on a back stitch, therefore the floats may be a way of saving silk since a back stitch as seen here uses 2/3 on the back and 1/3 on the front.

The metallic strips are secured by attaching stitches following horizontally the direction of the metallic strips. The stitches diagonally cross two pairs of the gauze-crossing warps and two wefts of the foundation weave. (Diagram 4) These stitches which secure the metallic strips form opposing diagonals from row to row. Because the silk is thicker than the metallic strip that it is securing much of the metal is covered; the gold and silver therefore show as a subtle glimmer.

Areas without metallic strips

Areas of the pattern not covered with metallic strips such as the background and the faces of the boys are worked between each of the sets of the gauze crossing warps of the foundation weave. (Diagram 5) The back stitch rows are offset, probably to avoid a ribbed effect.

In some areas of the pattern the metallic strips do not go all the way to the edge of the pattern area leaving an "outline" of 3 or 4 back stitches. Here the back stitches are worked in the same way as in the background or, less carefully, in the same way as the metallic areas with the alternate rows filled with back stitch. The back stitches are worked either as in diagram 2 or in diagram 5.

As can be seen from the technical analysis and drawings, this textile is highly sophisticated in its use of metallic strips in combination with embroidery. None of the gauze ground is visible on the surface of the textile, which enhances the appearance of the metallic strips and embroidery yarns that are seen. The selection of gold or silver strips and their variations in width in accordance with the use of dyed or undyed embroidery yarns add further to the overall refinement of the textile. Also, the mostly unseen metallic strips contribute a touch of elegance.

By contrast, the earlier Central Asian embroideries (Plates 5 & 6) use a simple couching stitch to secure the metallic strips, and the strips are awkward in their width



Plate 3 Reproduced from *Nihon no Bijutsu*, #220, 1984, p.21



Plate 10 Lampas, Metropolitan Museum of Art, 46.186.78

relative to the scale of the textiles. The Sung textile represents a significant advancement in textile technique from these earlier examples. It will be interesting to see if other Central and East Asian textiles that come to light will follow this tentative chronological (and/or geographic?) advancement that appears to have taken place in the use of flat metallic strips in embroidery.

A similar development seems to have occurred with flat metallic strips in woven textiles. The textiles found in Japan, Central Asia and China (Plates 2, 3, 4 & 7) dating to earlier periods are all tapestry woven, one of the simplest of weaving techniques. However, it was not until Sung times in China that flat metallic strips were used in compound weaves.*

**Genshoku Senshoku Daijiten* (Illustrated Textile Dictionary), Kyoto, 1978, p.332 (under definition of *kinran*).

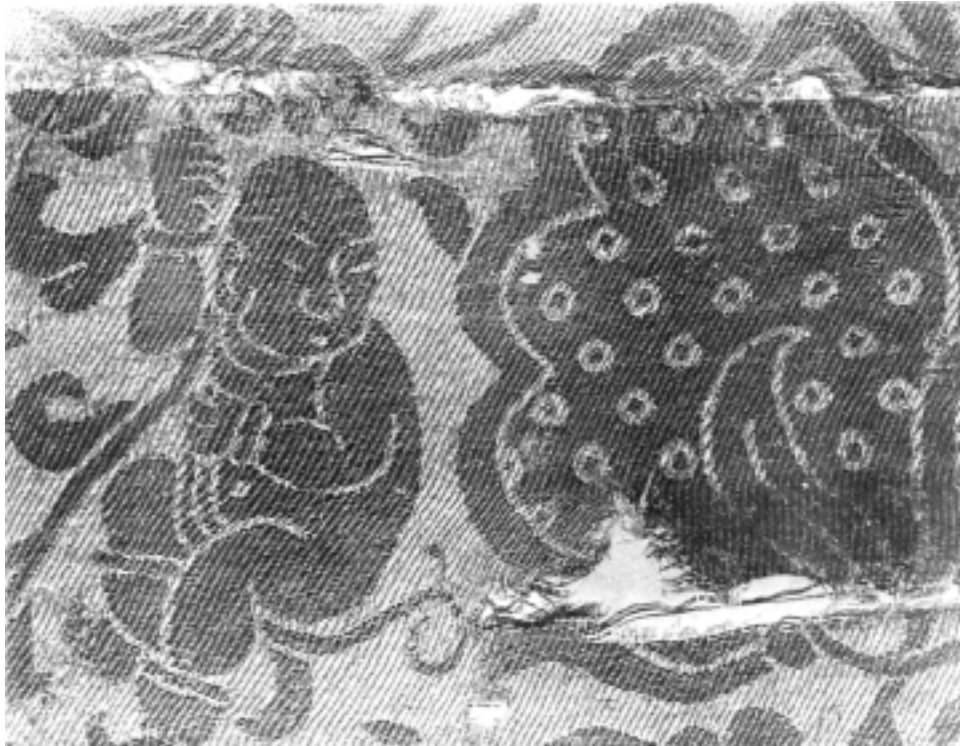


Plate 9 Damask from a Sung period tomb, reproduced from *Soieries de Chine*, p.71, note: a similar textile is in the Metropolitan Museum of Art, 52.8

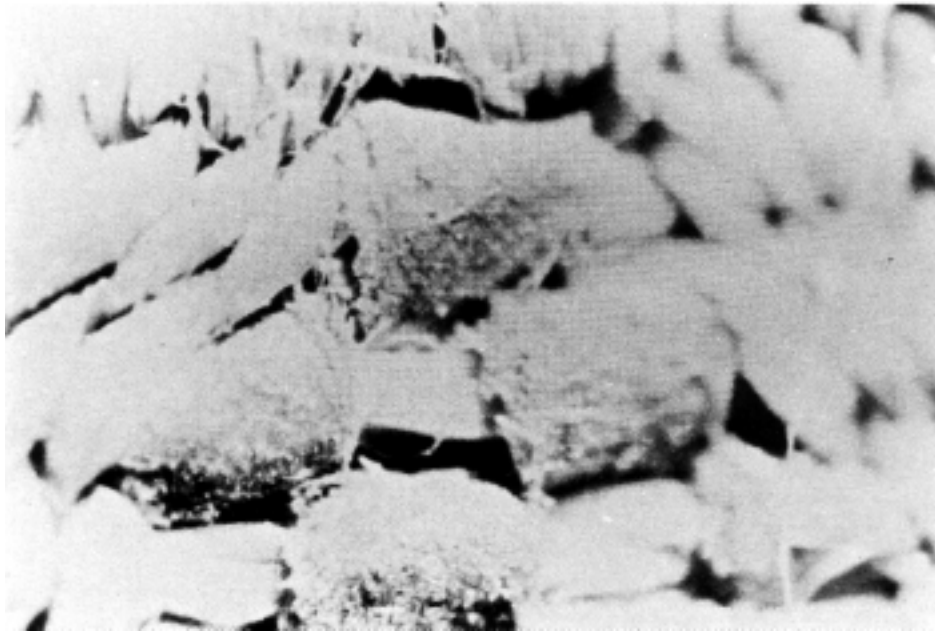


Plate 4 Reproduced from *Nihon no Bijutsu*, #220, 1984, p.21, detail pl. 3

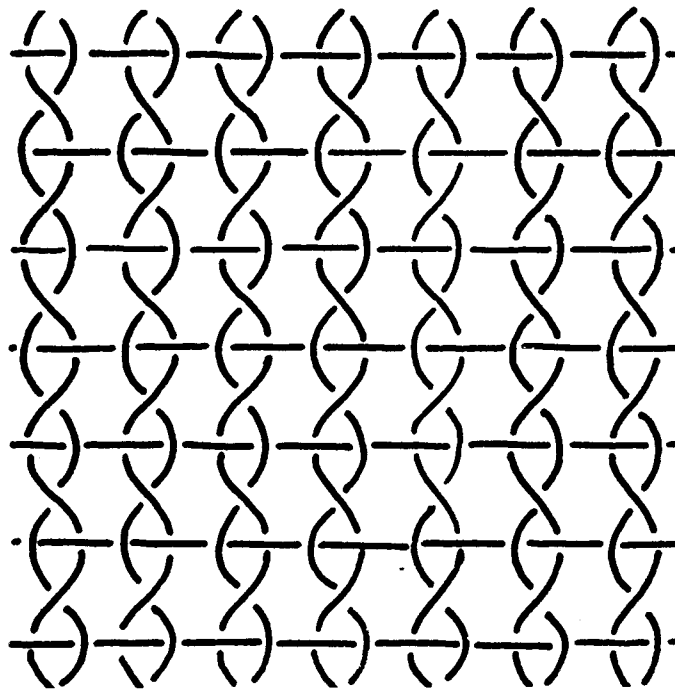


Diagram 1 The gauze weave foundation.

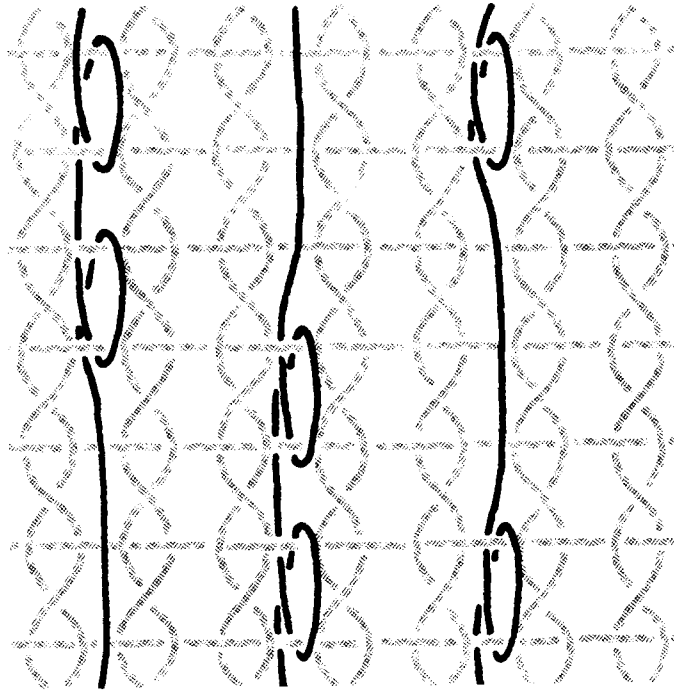


Diagram 2 Back stitches with long floating stitches in horizontal rows between two pairs of the gauze-crossing warps of the foundation weave.

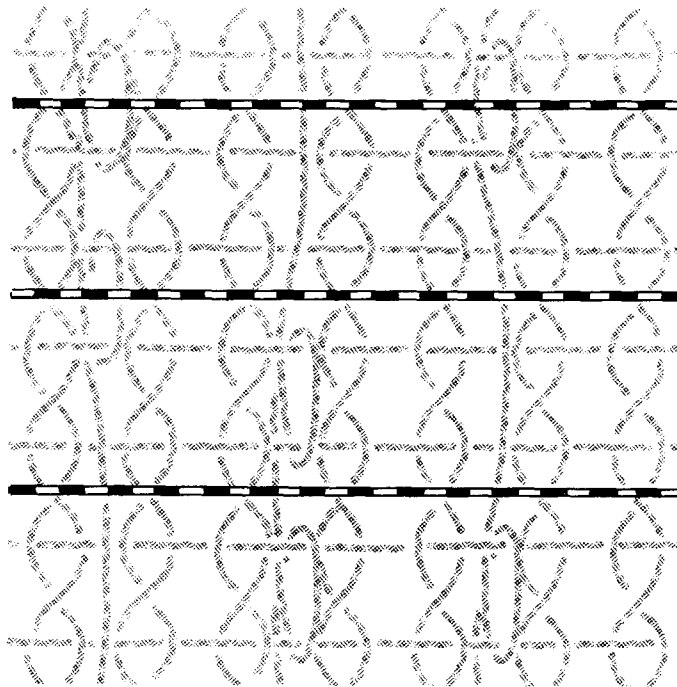


Diagram 3 Gold strips laid at right angles to the back/floating stitches, in between alternating wefts of the foundation gauze weave.

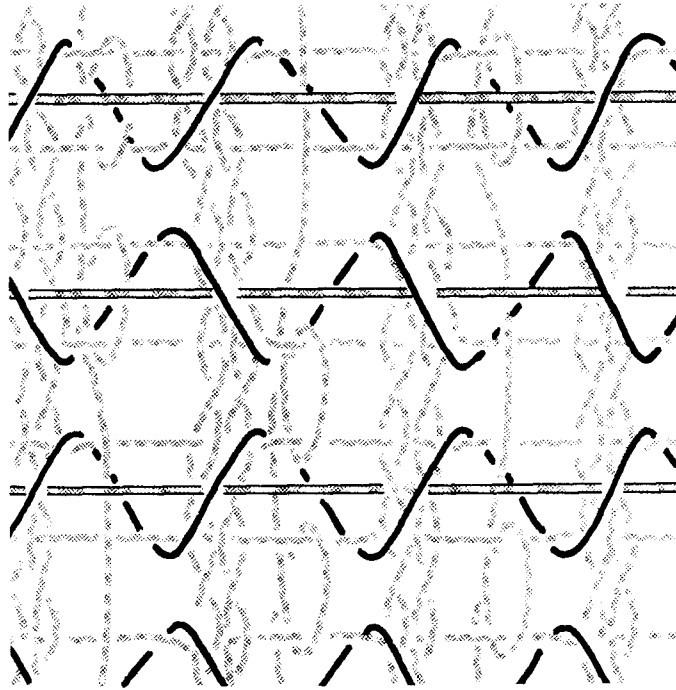


Diagram 4 Couching stitches attaching the gold strip crossing two pairs of gauze-crossing warps and two wefts of the foundation weave.

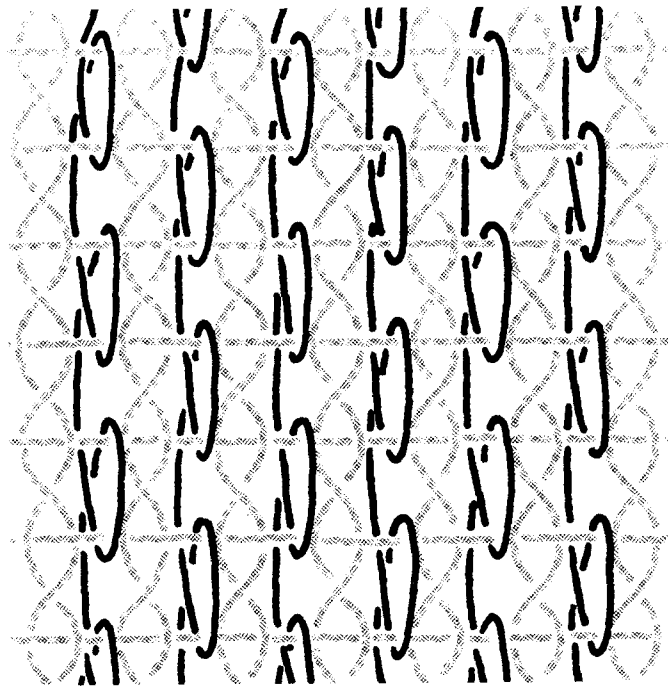


Diagram 5 Areas without metallic strips are worked in offset vertical rows of backstitch.



Plate 5 Reproduced from *Along the Ancient Silk Routes*, Metropolitan Museum of Art, New York, 1982, p.203, collection of Museum für Indische Kunst, Berlin



Plate 6 Reproduced from *Along the Ancient Silk Routes*, p.205, collection of Museum für Indische Kunst, Berlin

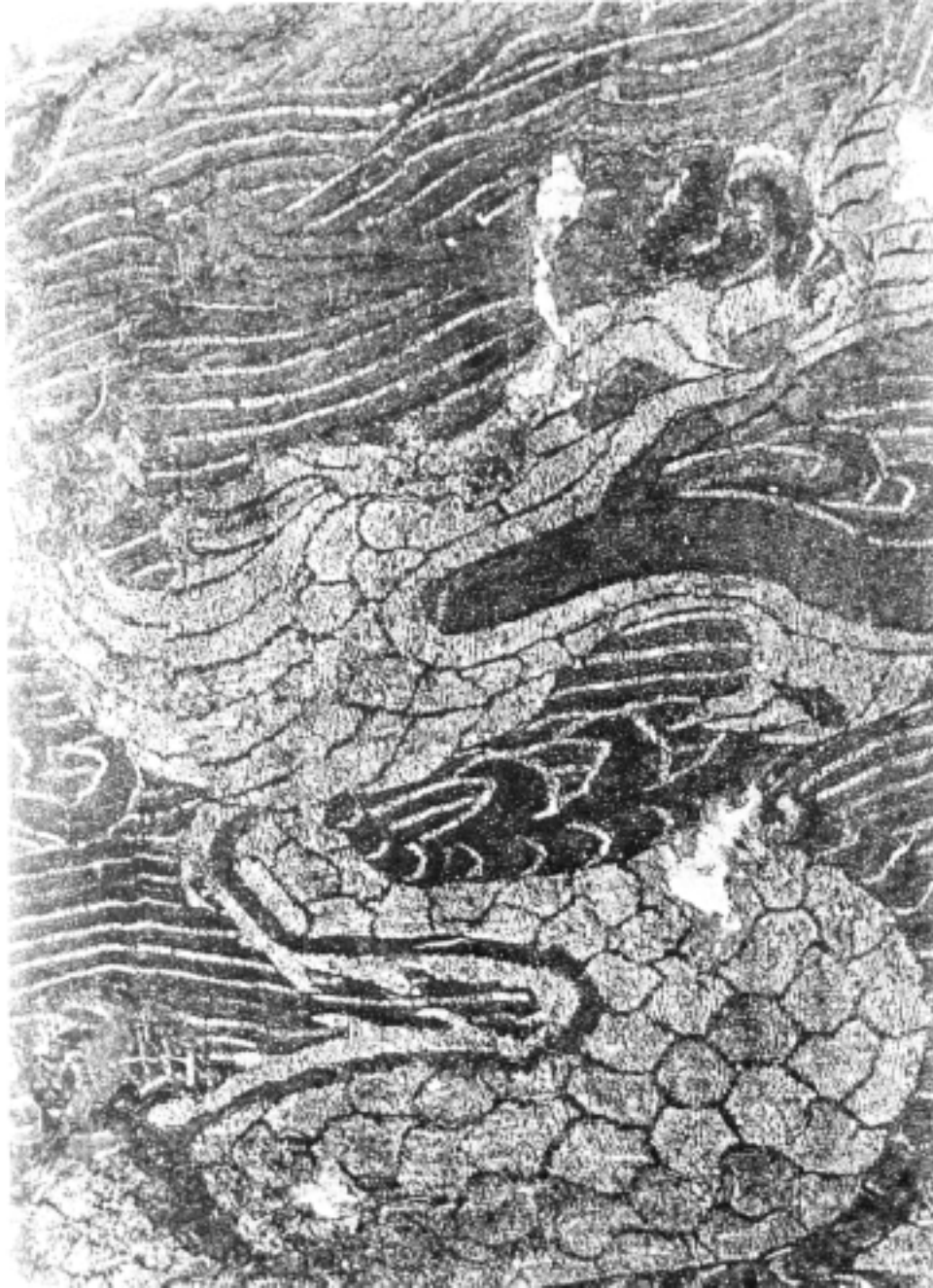


Plate 7 Reproduced from *Nihon no Bijutsu*, #220, 1984, p.23, Warp runs crosswise

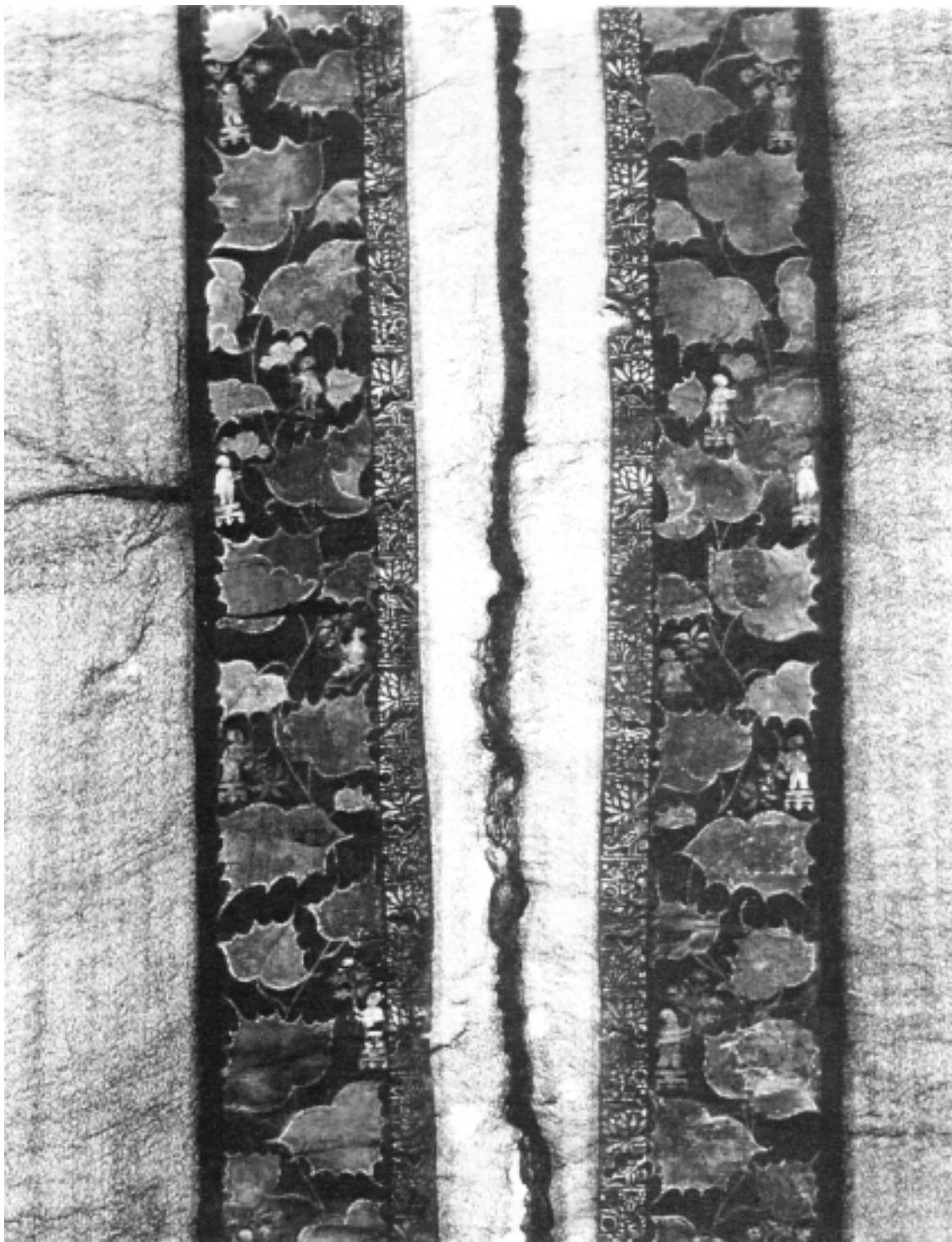


Plate 8 Gold leaf patterned textile with theme of boys and flowering vines, excavated from a Sung period tomb, reproduced from *Soieries de Chine*, Fernand Nathan, Editeur, S.A., Paris, 1987, p.220