

silks from
Han Limes.

more than a century or two later, are in 'warp-rib'.¹¹ This weave is shown also by an interesting piece from the Ch'ien-fo-tung hoard, Ch. 00118, discussed in Mr. Andrews' preliminary paper and fully described in *Serindia*,¹² which by its very characteristic design attaches itself closely to those finds from the Limes of the Han period.

Later use
of 'twill
weave'.

From these considerations it appears safe to conclude that the use of twill weave was not known to the producers of Chinese figured silks during Han times and the period immediately following, and that the variation of 'warp-rib' then employed in its stead was subsequently, at some time intervening between the fourth century and the latter half of the sixth (the time of the earliest Astāna burials), abandoned for the more suitable twill. Thus we see that a very useful criterion of the date of Chinese figured silks can be derived from the weave technique employed.

Introduction
of 'twill
weave'.

We have at present no definite evidence as to where twill weave first originated. But a valuable indication as to its possible introduction from regions west of China may, perhaps, be deduced from the fact that varieties of twill weave are actually found in at least four woollen fabrics (L.C. 037-8; v. 02. b, 026) as well as in several cotton stuffs.¹³ Considering that wool is a material which at all periods must have been abundantly produced and put to textile use in the Tārīm basin,¹⁴ and further that all the woollen tapestry pieces from L.C. show in the style of their designs unmistakable Hellenistic influence suggesting production west of China,¹⁵ it appears probable that twill had been established in use by the local weavers of the Tārīm basin long before its adoption by the silk industry of China. On the other hand, it deserves to be noted that among the woollen and cotton fabrics from the Tun-huang Limes which may be presumed to be of Chinese manufacture and which are either earlier than, or coeval with, the corresponding textile relics from the L.C. graves, I have not been able to trace any use of the twill weave.

Polychrome
figured silks
prevail over
damasks.

Among the methods of decoration applied to the texture of the silk fabrics themselves, that of inwoven patterns or 'figures' is by far the most general. With the exception of the few specimens in monochrome described as 'damasks', all the figured silks are polychrome.¹⁶ In all of them the colours, whether restricted to two only to bring out figure and ground, or else used in greater variety, are rich and always harmonious. Nothing could demonstrate better the high state of perfection that the silk-weaving craft of China had reached in the Han period, and no doubt for a long time before it, than the exquisite art observed in the execution of almost all these specimens. The almost exclusive use of a polychrome scheme of decoration in the figured silks from L.C. contrasts curiously with the fact that in the Ch'ien-fo-tung hoard specimens of patterned damasks and gauzes are quite as numerous as polychrome fragments.¹⁷ In this difference we may probably recognize a result of the far greater facilities offered for damask decoration by the later introduction of twill weave.

¹¹ Cf. *Serindia*, ii. pp. 704, 781, 783, 785; iv. Pl. LV; also Andrews, *Chin. Fig. Silks*, pp. 14, 19.

¹² See *loc. cit.*, p. 14 with Fig. 10; *Serindia*, ii. pp. 911 sq., 963 sq.

¹³ See above, p. 232.

¹⁴ Cf. *Serindia*, iii. p. 1578, Index, s. v. woollen fabrics. Among the woollen fabrics recovered in 1906 from the Lou-lan station the polychrome material L.A. IV. 004 (*Serindia*, i. p. 434; iv. Pl. XXXVII) shows also a variation of twill, sateen weave. A similar technique is probable also in the polychrome fabrics, L.B. IV. ii. 0014, 0016 (*Serindia*, i. pp. 445 sq.).

Twills are represented also among the woollen fabrics, E. Fort. 0012 (*Serindia*, i. p. 292), recovered from the ancient

refuse beneath the fort walls of Endere which belongs approximately to the same period as the Lou-lan remains.

¹⁵ Cf. below, pp. 241 sq.

¹⁶ For facility of reference a list of all the figured silks may be given here as distinct from the notes in the text, which treat them with regard to their designs. Polychrome figured silks are found under the following numbers (o preceding figures omitted): L.C. 01-3, 7. a-b, 8, 31. a-c; i. 06-7, 9-10; ii. 01, 3, 4, 5. a, 7. a-c, 8. a, 11; iii. 01, 2, 4. a-d, 11-12, 16-20; v. 014, 17, 23, 27. a-b; vi. 03; vii. 02, 7; ix. 02; x. 04. 'Damasks', i.e. figured silks in monochrome, are found in L.C. 033; ii. 05. b; v. 013; vi. 01; vii. 09.

¹⁷ Cf. *Serindia*, ii. p. 901.