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Central-Asian Relics Of China's Ancient Silk Trade

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**CENTRAL - ASIAN
RELICS OF CHINA'S ANCIENT SILK TRADE**

BY SIR AUREL STEIN

It is a well-known historical fact that the export of China's silk fabrics had played a very important part in that earliest expansion of Chinese trade and political power into Central Asia which commenced under the great emperor Wu-ti, of the Former Han dynasty, towards the close of the second century B. C. No one has done more for the elucidation of the far-reaching effects which that expansion had on ancient civilisation both in the East and the West than the great Sinologue whom this volume is meant to honour. Hence my modest contribution towards it may appropriately take the shape of notes on some relics of that early silk trade brought to light by the explorations of my second Central-Asian expedition. They are culled from *Serindia*, my detailed report on the scientific results of that journey, completed in 1918 and now approaching publication at the Oxford University Press.

The relics deserving first mention consist of two silk strips discovered at a ruined watch-station, T. xv. a, of that ancient Chinese *Limes* in the desert west of Tun-huang (or Sha-chou) which my explorations of 1907 proved to have been constructed during the closing years of the second century B. C. and for a great part of its length to have been garrisoned down to about the middle of the second century A. D.¹ Both strips (marked T. xv. a. 1. 3) originally belonged to the same piece of undyed

¹ A fairly detailed account of those explorations has been given in my personal narrative, *Ruins of Desert Cathay* (Macmillan, 1912), ii. pp. 125 sqq.. All archæological, historical and geographical facts bearing on this westernmost portion of the Han border line will be found fully discussed in Chapters xv—xx of my *Serindia*. For a succinct preliminary record of the explorations of 1914 by which I traced this ancient *Limes* eastwards to the Etsin-gol, see *A third journey of exploration in Central Asia*, in *Geographical Journal*, 1916, xlvi. pp. 193 sqq.

creamy silk and were found together in one of the extensive refuse-heaps adjoining that post on the *Limes* wall. Among the Chinese records on wood recovered here and elucidated with hundreds of other Chinese documents from the Han *Limes* by my lamented great collaborator, M. Chavannes, a number bear precise dates, extending from A. D. 67 to A. D. 137, and conclusively proving when that particular refuse-heap T. xv. a. 1. had accumulated¹.

One of those strips² bears the ink impression of a Chinese seal, not as yet deciphered, and by the selvages retained at both ends is shown to have come from a piece or roll of silk which had a width of about 19.7 inches or 50 centimeters. The other strip, 12¹/₄ inches long and incomplete at one end bears a Chinese inscription read by M. Chavannes:

任城國亢父綢一匹幅廣二寸長四丈重廿五兩直錢六百一十八

He translates it: "*A roll of silk from K'ang-fu in the kingdom of Jên-ch'êng; width 2 feet and 2 inches; length 40 feet; weight 25 ounces; value 618 pieces of money.*"³ M. Chavannes has pointed out that the kingdom of Jên-ch'êng was established A. D. 84 and is represented by the present Chi-ning-chou in the province of Shan-tung.

M. Chavannes has already in a general way called attention to "*the historical importance of this text which furnishes us with precise indications as to the origin, the dimensions, the weight and the price of a piece of silk at the close of the first century or at the beginning of the second century of our era.*" But there are several special considerations which increase the antiquarian interest of this record.

¹ Cf. Chavannes, *Documents chinois découverts par Aurel Stein* (Clarendon Press, 1913), pp. 116 sqq.

² These strips are described by M. Chavannes, *Documents chinois*, p. 118, under No. 539 and are in part reproduced in Plate xv.

³ In a note written down for me at our last meeting October 3, 1917, M. Chavannes thus corrected his previous reading of the record. "Les mots que j'ai lus 古父 kou-fou ont été corrigés par M. Wang kouo-wei (*Licou cha to kien*, chap. II, p. 43b) en 亢父 K'ang-fou, et cette heureuse rectification permet de donner maintenant une traduction exacte: K'ang-fou est le nom d'une sous-préfecture située dans le royaume de Jen-tch'eng et qui était à 50 li de la ville actuelle de Tsi-ning tcheou dans le Chan-tong."

In the first place it deserves to be noted that this "find" dates precisely from the period to which relates the famous classical record about the direct silk trade of the West with the land of the Seres, as learned by Marinus of Tyre from the agents of Maës the Macedonian and preserved by Ptolemy in a well-known extract¹. Next we may attach distinct significance to the fact that the *Limes* station T. xv. a where this inscribed silk was found, is proved by conclusive archæological evidence to mark just the point where "the new route of the north", first opened by the Chinese in A. D. 2 through the desert ranges of the Kuruk-tāgh towards Turfān and the oases along the T'ien-shan, passed outside the *Limes* to the north-west². This makes it very probable that the roll of silk specified in the inscription had found its way there in connection with China's silk export to Central Asia and the distant West as carried on about the close of the first century A. D.

Finally it may be pointed out that some fortunate "finds" in the course of the same explorations enable us to test and confirm the information contained in that record by independent archæological evidence. The inscribed strip indicates the measure of 2 feet 2 inches for the width of the silk piece in question. Now the exact value of the (decimal) Chinese inch and foot during the Later Han period is accurately determined by two wooden measures brought to light by my excavations along the *Limes* west of Tun-huang³. The measure T. VIII. 4 shows a foot divided into ten inches, each $\frac{9}{10}$ " or 22.9 millimeters long. The other measure, T. XI. ii. 13, a slip of cane, is marked by inch divisions of exactly the same length.

The measures were found at watch-towers which can both be proved, from dated documents recovered there, to have been occupied during the first and second century A. D.⁴. Accepting the value of 22.9 mm. for the inch of the Later Han period, we

¹ Cf. Ptolemy, *Geographia*, ed. C. Müller, I. xi. 6. Regarding the approximate date of Marinus of Tyre's great cartographical work (about 100 A. D.) cf. A. Herrmann, *Seidenstrassen*, p. 19.

² See Chavannes, *Les pays d'occident d'après le Wei lio*, T'oung-pao, 1905, pp. 533 sq.; *Serindia* Chap. XIX, section vi.

³ For reproductions, see *Ruins of Desert Cathay*, Fig. 173,2; *Serindia*, iii. Plate LIV.

⁴ Cf. Chavannes, *Documents chinois*, pp. 126, 145.

get 50.38 centimeters (or 19.83 inches) as the equivalent of the measurement, 22 Chinese inches, indicated as the proper width in the inscription of T. xv. a. i. 3. And with this the actual width of 50 cm. practically coincides. This mutual confirmation of the recorded measurement and the wooden measures has its special value in view of the apparent uncertainties besetting early Chinese metrology¹.

That the width of 22 Chinese inches or approximately 50 centimeters may be considered to have been the standard one for Chinese silk fabrics throughout Han times is proved by another interesting relic of that ancient export trade of China found at the same *Limes* station, T. xv. a. At another of its refuse heaps, marked T. xv. a. iii, which is shown by datable Chinese records on wood to have accumulated in the course of the first century B. C. and the first few years of the first century A. D.², there were found together two strips of fine silk, undyed. One of the strips, about 13 inches long, is incomplete, having one end hemmed, the other torn off. But the other strip still retains the original selvage at either end and shows that the piece of silk from which it was cut, had a width of about 19½ inches or close on 50 centimeters. At one end of the strip there appears, written in bold upright Brāhmī characters, a short inscription of eleven *akṣaras*³. At the very time of discovery the writing had struck me as showing the type of the Saka or early Kuṣana period in India.

When early in 1917 I was able to turn my attention to this little relic of Indian writing and presumably Indian language from the ancient wall guarding the Far East, the analogy of the inscribed silk strip T. xv. a. i. 3, with its almost identical breadth, led me to hazard the conjecture that the Brāhmī legend, too, might prove to contain some record descriptive of the silk roll from the edge of which this strip had been cut off. There was some support for it in the word *paṭa* (Sanskrit *paṭṭa*, "piece of fabric") which alone seemed then clearly decipherable. Subsequent

¹ Cf. Chavannes, *Les livres chinois avant l'invention du papier*, *Journal Asiatique*, 1905, janvier-février, p. 18, note.

² The time limits extend from 53 B. C. to the downfall of the Former Han dynasty, A. D. 9; cf. Chavannes, *Documents chinois*, pp. 99 sq.

³ It is reproduced in *Serindia*, iii. Plate xxxix.

painstaking scrutiny of the legend by that exceptionally qualified collaborator, M. Boyer, has been rewarded by gratifying results. With the exception of the initial *akṣara* which owing to a hole in the silk remains uncertain, he determined the reading as: *[ai] śtasya paṭa giṣṭi ṣaparīṣa*.

M. Boyer interprets the short record in a manner which is philologically very convincing and accords remarkably well with archæological considerations. Accepting *paṭa* in the obvious sense of "piece of cloth", he takes *ṣaparīṣa* as a Prakrit equivalent of Skr. *ṣaṭ-catvāriṃśat* "forty six"¹. This reading of the word as a numeral suggests that the preceding word may designate a measure. No such term is found in Sanskrit; but it is just from such a form that we can most appropriately derive the word *giṭh*, *giṭh*, meaning "span" which is quoted by M. Boyer from modern Panjābī and is found also in Kāshmirī *giṭh*².

This interpretation of *giṣṭi* appears to me all the more convincing because if the record referred to the roll of silk itself — it is always in this form that silk is carried in Chinese trade nowadays, just as it is shown for antiquity by another "find" to be mentioned presently — there was an obvious reason for its indicating the length of the piece. Other details such as the Chinese inscription of that strip from T. xv. a. i. records as to weight, price, etc., were not essential for the foreign trader carrying his purchased fabrics to distant countries with different measures, money, etc. The width of the Silk was always visible to him and his purchasers. But the length he had certainly to note for his own convenience if troublesome unrolling was to be avoided on each occasion.

In short, while the Chinese inscription is of a kind as would recommend itself to the producer or wholesale exporter, the Brāhmī record in a strange script and language was just a brief memo intended by the trader from the distant West for his own guidance. I well remember having seen similar markings in Persian

¹ M. Boyer in support of his interpretation refers to the fact that in the Prakrit of my Kharoṣṭhī documents from the Niya Site Skr. *catvāriṃśat* appears as *capariṣa*, and that in Pali the same decimal numeral is contracted from *cattālisam* into *tālīsam* when compounded with single numerals, e. g. in *cuttālisam*.

² I owe the reference to Kāshmirī *giṭh* to Sir George Grierson who rightly notes in this form the confusion between cerebral and dental typical of Dardic or "Piśāca" languages.

or Turkī on the fabrics which the caravans of Muhammadan traders in Chinese Turkestan are accustomed to carry, whether silks exported from Ssū-ch'uan or British cottongoods brought from Kashmīr and Yārkaṇd.

Accepting then *giṣṭi* > *giṭṭh* to mean a "span" and assuming that the note referred to the complete piece of silk, we may attempt to determine its approximate original length. It is certain that by the modern Indian *giṭṭh* is meant a span measured between the tips of the thumb and the little finger. Such a measure cannot have an exactly fixed value nowadays; still less do we know what its accepted value may have been in Central Asia about the time of Christ. So it seems better to base our attempt on the assumption that the standard of *length* had been approximately the same about the beginning of the first century A. D. (T. xv. a. iii. 57) as about its end (T. xv. a. i. 3). There is distinct support for this in the fact to be noted presently that the width of the silk exported from China had undergone no change between the beginning of the first century A. D. and the third or early fourth century A. D.

If then we suppose the 46 *giṣṭi* or spans of the nose in Brāhmī to have been the equivalent of the 40 Chinese feet recorded in the inscription of T. xv. a. i. 3, we arrive at the equation of $1 \text{ } giṣṭi = \frac{22.9 \text{ cm.} \times 40}{46} = 19.9 \text{ cm.}$, or close on 8 inches. The result coincides

closely with the average span of the hand in India and the Middle East and thus indirectly offers some support for M. Boyer's interpretation of both *giṣṭi* and *ṣapariṣa*.

Leaving the initial word [*ai*] *ṣṭasya* to be discussed in *Serindia*, I may content myself here with an observation or two of some historical interest. The Brāhmī record proves that already during the period between 53 B. C. and A. D. 9, roughly comprising the last reigns of the Former Han dynasty, traders accustomed to use an Indian script and language must have made their way across the Chinese *Limes* for the sake of the "silk of the Seres". It would be useless to make guesses as to the origin and race of the particular trader to whose hand we owe this curious relic of the early silk trade across Central Asia. So much seems clear, however, that a Prakrit mixed with Sanskrit words must have

been used for purposes of secular record in the region where that ancient trader was born or settled¹.

The form in which Chinese silk fabrics found their way into Central Asia and thence to the regions westwards does not appear to have undergone appreciable change in the course of the century following the downfall of the Later Han dynasty, A. D. 221. This is proved by an interesting "find" made by me at the ruined site of "*ancient Lou-lan*" in the waterless wind-eroded wastes of the Lop desert. The remains I explored there in 1906 and again in 1914 have been fully described elsewhere². They mark the position of an important Chinese military station established on the ancient trade route which the emperor Wu-ti had first opened through the Lop desert and which formed the nearest line of communication between Tun-huang and the great northern oases of the Tārīm Basin. From many dated Chinese documents recovered there it is certain that this station on the early Chinese "*route of the centre*" continued to be occupied also under the Chin dynasty until it was finally abandoned to the desert in the first half of the fourth century A. D.

On clearing the ground near the foundation walls of a structure, *L. A. I.*, completely destroyed by the eroding force of the winds I found there, flush with the original flooring, a small roll of yellowish silk. Tightly rolled and evidently unused it had become so dry and brittle that when first lifted it broke into two. Its actual width was $18\frac{3}{4}$ inches, its diameter $2\frac{1}{2}$ inches. It is useless to speculate how it had come to be left behind when the structure once standing here was abandoned, or how it had escaped those who during the immediately succeeding period, are likely to have searched the deserted station for any objects of value or practical use.

It is true that on comparing this silk roll from the Lou-lan Site with the inscribed silk strips of the Han *Limes* we find its actual length to be $18\frac{3}{4}$ inches or about one inch less than the standard

¹ Sir George Grierson connects the term *giṣṭi* > *giṣṭh* with the Dardic or "Piśāca" language group. Its use in our brief record might thus point to the region where these languages or their influence is traceable. But the area thus covered is a very wide one, extending perhaps from Kābul in the west along the Hindukush and K'un-lun as far east as Khotan.

² Cf. *Ruins of Desert Cathay*, i. pp. 376 seq.; *Serindia*, Chapter XI, section i--v.

width as above determined. But a glance at the reproduction in my *Desert Cathay*, Fig. 116, or the larger one in *Serindia*, Plate xxxvii, shows that both ends of the roll have become frayed through abrasion, and this circumstance, together with the probable shrinkage of the fabric during so many centuries' deposit in dry sand, is amply sufficient to account for the slight difference.

We are thus justified in concluding that the standard width for silk, as established during Han times, remained the same also under the Chin dynasty. The dimension of the Chinese inch, on the other hand, had been altered considerably in this later period, if we may judge from the foot measure found near by at another structure of the same station, L. A. II. vi, which shows decimal divisions of $1\frac{3}{16}$ " or 30.16 mm. each. It is only natural that an important article of foreign export remained unaffected in its trade dimensions by this change in the units of measurement. In any case there can be no doubt that this strangely preserved relic has shown us for the first time the actual form in which that most famous product of the silk-weaving Seres used to travel from China to the distant West.

CERNOBBIO, LAGO DI COMO:
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