

NOTES ON ANCIENT CHINESE DOCUMENTS,
DISCOVERED ALONG THE HAN FRONTIER WALL
IN THE DESERT OF TUN-HUANG

BY

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In my *Ruins of Desert Cathay* * I had given a general account of the discoveries made by me in 1907 along the long-forgotten westernmost portion of that ancient frontier wall, a true *Limes*, which the great Han Emperor Wu-ti had constructed towards the end of the second century B.C. in order to guard his newly opened line for China's commercial and political expansion towards Central Asia. Subsequently in *Serindia*, the detailed Report on my second Central-Asian expedition (1906-8)†, which has now been completed in print at the Oxford University Press

* See *Ruins of Desert Cathay, Personal Narrative of Explorations in Central Asia and Westernmost China* (two vols., 8vo, Macmillan & Co., London, 1912), i. pp. 540 sqq; ii. 30-158.

† *Serindia, Detailed Report of Explorations in Central Asia and Westernmost China, carried out and described under the orders of H.M. Indian Government by Sir Aurel Stein.* (Clarendon Press, Oxford, 1921, royal quarto, Vols. I-III: Text, Vol. IV: 175 Plates, Vol. V: 95 Maps from original surveys).

For the explorations effected along the Tun-huang *Limes*, see *Serindia* (vol. ii), p. 566-730.

and will be published early in 1921, I have had occasion fully to describe the explorations, extending over two months and a half, which enabled me to trace the line of the ancient wall for a total length of over 140 miles and to search the ruins of its watch-towers and stations, including the famous 'Jade Gate.'

Having remained undisturbed by the hand of man in the solitude of the gravel desert, they yielded a rich harvest of early Chinese and other records, mainly on wood, along with many interesting relics of the life led along this most desolate of borders during the century immediately preceding and following the time of Christ.

The unsurpassed learning and critical acumen of my lamented great collaborator, M. Édouard Chavannes, had since 1913 rendered the mass of Chinese documents recovered here accessible to research also by non-sinologue students like myself.* It thus became possible for me to discuss in Chapter XX of *Serindia* the general organization of the *Limes* in the light of the historical and archæological information furnished by them, and to bring into correct focus the significance of the antiquarian facts revealed by actual exploration of its remains.

In the extracts from section vi of that chapter, communicated here with the kind permission of the Secretary to the Delegates of the Clarendon Press, no attempt can be made to set forth the manifold points of historical and archæological interest presented by the hundreds of official or quasi-official communications and records, all on wood, which were discovered at the ruined stations of the *Limes* and chiefly among their refuse-heaps. For those points, reference to the masterly summary furnished by the Introduction of M. Chavannes' work must suffice here.† But in the interest of those students in the Far East to whom the volumes of *Serindia* may remain difficult of access it has appeared useful to reproduce here the essential facts concerning the records of a personal and literary character to be found among those relics of Han times and in particular to indicate what light those relics as a whole throw upon the technicalities of the ancient stationery of China as used before the invention of paper by Ts'ai Lun in A.D. 105. ‡

* See Chavannes, *Les documents chinois découverts par Aurel Stein* (Oxford University Press, 1913), pp. 1-154, Plates I-XX.

† See Chavannes, *Les documents chinois*, pp. vii. sqq.

‡ For the information previously available from Chinese textual sources about the use of bamboo or wood as writing material, cf. M. Chavannes' *Les livres chinois avant l'invention du papier*, *Journal Asiatique*, janvier-février, 1905 (reprint), pp. 13-47.

As regards the 'stationery' aspect of the office records which form the vast majority of the documents recovered, such as administrative orders, reports, account statements, etc., my remarks may be brief; for in their material and shape they agree very closely with the Chinese records on wood first brought to light by me in the course of my excavations of 1901 at the Niya Site, an ancient settlement of the Tarim Basin abandoned to the desert sands in the 3rd century A.D.* As the specimens reproduced in *Ancient Khotan*, the detailed report on my first Central-Asian expedition,† in M. Chavannes' *Documents chinois*, Planches II-XX, and also in *Desert Cathay* show, these office records present themselves mostly as narrow slips of wood, from nine inches to nine and a half in length (roughly corresponding to the Chinese foot of the Han period) and from a quarter to a half of an inch in width. They may be inscribed on both sides, but ordinarily show only a single column of *tzü* 字 on either.

That bamboo 'slips' are relatively rare is a fact easily accounted for by the great distance separating that westernmost border of China Proper from the bamboo-growing regions of the Empire. In most of the slips the wood used is that of the cultivated poplar (*Populus alba*), as common now in the oases of northwestern Kan-su as it is in those of Chinese Turkestan, or else that of the wild poplar (the Turkestan *toghrak*) or the tamarisk. The latter two are still plentiful in the narrow belts of vegetation fringing the marshy depressions along which great portions of the *Limes* in the desert north and west of Tun-huang were constructed. But there are to be found also slips made of the wood of some conifer. This wood, probably brought from the forests of the Central Nan-shan, is found frequently in narrow tablets bearing more than one vertical line of characters on either or both faces. Otherwise these tablets conform in length and also in character of contents to the usual 'slips' described above.

I may add here in passing that owing to the traditional tenacity of Chinese convention the 'slip' form of the ancient wooden stationery used during the centuries preceding the invention of paper appears to be reflected in the arrangement of the pink coloured letter paper which ordinarily served for private correspondence in the pre-revolution China of our own times and widely continues in use still. The height of the vertical ruled lines on it and the distance between them cor-

* See Stein, *Ancient Khotan* (Clarendon Press, Oxford, 1907), i. pp. 342 sq., 539 sq.

† See *Ancient Khotan*, ii. Plates CXII, CXIV.

respond exactly to the average length and width of those ancient slips, each being meant to hold a single column of *tsü*.

Wooden slips of greater length up to 14 inches, form the stationery used for the numerous portions of calendars which turned up among the 'waste papers' (to use an anachronism) thrown on the refuse heaps of the ancient *Limes* stations. Such calendars were obviously needed in order to enable the clerical establishments to date reports, etc., correctly, to make out accounts, and so on. Usually these portions of calendars show in order the cyclic designations, arranged according to the sixty-years cycle, which a particular day bears in the successive twelve months of the year. This system has enabled M. Chavannes to fix in many cases the exact year intended, and in this way to restore complete calendars with absolute precision for the years 63, 59, 39 B.C. and A.D. 94, 153.* The result of his painstaking calculations affords valuable help for the verification of the tables prepared by Chinese chronologists. In this connexion it is of some interest to observe that an otherwise exactly-dated document, No. 255, of May 10th, 68 B.C., bears an erroneous *nien-hao*. The year is shown as the sixth of the *Pên-shih* 本始 period, which in reality had been replaced in 69 B.C. by the *Ti-chieh* 地節 period. This inaccuracy clearly points, as M. Chavannes observes, to the fact that the communications between the capital and the extreme western border were interrupted at the time.†

By the side of the official communications and records, private letters figure in considerable numbers among the writer remains from the *Limes*.‡ Most of them are too short or fragmentary to yield information bearing on the life of the border or to be otherwise of antiquarian interest. But special mention is due to two letters on silk, one long and well-preserved, T.XIII. i. 003 (*Documents*, Plate XX),§ which were found sewn up into a small bag for holding some medicine or condiment—luckily with the written surface turned inside. They were both addressed by an officer of superior rank stationed at Ch'êng-lo

* Cf. Chavannes' *Documents*, pp. xvii, 14.

† Cf. *Documents*, p. 61. For similar cases of dates given in elapsed *nien-haos*, see *Ancient Khotan*, i., p. 275, note. M. Chavannes' remarks, *ibid.*, pp. 533, sqq., make it quite certain that the erroneous *nien-haos* named in the Dandan-oilik documents of A.D. 781-7 were due to the isolation of Eastern Turkestan from the Empire through the Tibetan occupation of westernmost Kan-su in A.D. 781.

‡ See *Documents*, Nos. 151-4, 174, 178, 180, 243, 254, 344-6, 348, 349, 398, 398a, 419, 468, 489, 501-2, 573, 607, 629, 706-7 (the last two on paper).

§ See *Documents*, Nos. 398, 398a.

on the northern border of Shan-hsi to another exile on the Tun-huang *Limes*, the long one being intended to serve as a letter of recommendation for a colleague transferred to a post on the latter. Amidst much polite verbiage it also expresses the writer's disappointment at not having, after five years' service 'on the northern frontier, in a miserable country,' attained the desired charge of a command, for which he appears to have repeatedly petitioned the Emperor. In two other letters also we find the writers lamenting the hardship of the guard service on the frontier and the inclement season of spring.* The latter complaint bears a local touch which I can fully appreciate after my two spring campaigns of 1908 and 1914 on the desert border; it shows that the amenities of its climate were two thousand years ago much the same as now.

Of interest for the study of the ancient stationery is the small silk envelope, *Documents*, No. 503, T.xv.a.ii. 4 (Plate XIV) used for a private letter, as its address shows. Its inside width is 65 mm. This would conveniently admit of the insertion of a letter on silk, such as *Documents*, No. 398 (Plate XX), which is 58 mm. wide, after folding. As the refuse-heap where the envelope was found contained documents with dates ranging from A.D. 15 to 56, it appears to me very probable that the envelope, too, belongs approximately to the first half of the first century A.D., and thus to the period preceding the invention of paper.

We may now cast a glance at the fragments of literature, as M. Chavannes' analysis has revealed them, among the written relics of the *Limes*. Considering the conditions of the life led by those who guarded the line of small posts flung out into the desert, we cannot feel surprised at the scantiness of the traces which have survived of their intellectual occupations. For all that concerns the philological interest of these literary relics reference to M. Chavannes' full explanations will suffice here.† Of particular value among them are the relatively numerous fragments of a famous lexicographical text, the *Chi chiu chang* 急就章, which was composed in 48-33 B.C. and played an important part in the primary education of China during the Later Han period.‡

* See *Documents*, Nos. 344, 345.

† Cf. *Documents*, pp. viii, xvi sq., pp. 1 sqq. on Nos. 1-8.

‡ Cf. Chavannes, *Documents*, pp. 1-3. It is from *Chi chiu chang* that the script, commonly known in China as *chang ts'ao* 章草 and illustrated by most of the *Limes* documents, took its name; see Chavannes, *Documents*, p. viii.

These fragments, as M. Chavannes duly emphasizes, are the oldest known manuscripts which exist of a Chinese book, and it is fortunate that we have among them one containing the first paragraph of the work complete. The long prismatic tablet which bears this portion of the text on its three faces, *Doc. No. 1* (Plate 1), also has a special antiquarian interest as being a perfectly preserved specimen of a type of wooden stationery which is referred to in early Chinese texts and apparently was favoured for literary use.*

The popularity which *Chi chiu chang* soon acquired in the elementary teaching of Chinese writing sufficiently explains its rapid spread to the extreme north-west end of the border; for, among several ruined watchposts, fragments of it were found at T. VI. c (*Doc. No. 4*), a post early abandoned. In these, as in some other fragments which are of the usual slip form, the text appears to have been copied out as a writing exercise.† The importance which the Chinese have at all times attached to good handwriting is well known, and so also the necessity of constant practice which the very system of Chinese writing implies. This fact fully accounts not merely for the presence of these 'copy slips' from the *Chi chiu chang*, but for the abundant finds made also of other writing exercises.‡ Nothing could illustrate better the trouble which some of the men stationed at the outlying posts must have taken to 'improve their education,' or at least their handwriting, than the big packets of 'shavings' inscribed in this fashion which came to light on clearing the refuse-heaps of T. VI. b, a sectional head-quarters of the westernmost *Limes*.

Apart from three more slips containing fragments of other vocabularies as yet unidentified, § the literary remains among the finds on the *Limes* are merely a few extracts from treatises on divination ¶ and astrology, || and a fragment, *Doc. No.*

* See *Documents*, pp. ix, 6 sq., note 1. M. Chavannes' note explains the term *ku* 版, which occurs at the beginning of the first paragraph of the text and specially designates this type of tablet. We have fragments of prismatic triangular tablets in *Documents*, No. 2, T. xx. ii. 2 (Pl. II), also containing a portion of a text from *Chi chiu chang*, and in *Documents*, No. 451, T. xv a. iii. 31 (Pl. XII), which contains a brief congratulatory message.

† Cf. M. Chavannes' notes on *Documents*, Nos. 4, 6, 7.

‡ See, e.g., *Documents*, Nos. 251, 372, 422-3, 540, 632, 641, 643-4.

§ See *Documents*, Nos. 397, 603 (?), 701.

¶ Cf. *Documents*, Nos. 59, 448, 638, with M. Chavannes' remarks p. xvi.

|| See *Documents*, No. 182, where the notch proves the slip to have formed part of a book.

425, containing a passage from a treatise on military affairs, composed in 229 B.C. ¶ That the solace of literature was not altogether absent from this desolate border-line may, perhaps, be concluded also from the fact that a fragmentary slip, *Doc. No. 622*, T. xxviii. 10, quotes the title of the 'Biographies of Eminent Women,' *Lieh nü chuan*, a book composed in 32-7 B.C.* There is a brief extract, too, from a medical treatise, together with a few fragments of a probably similar nature. † Finally, we may mention here the curious multiplication table, *Doc. No. 702*, T. xxvi, though it does not come, of course, under the category of books.

It is in this connexion with books that one more point of antiquarian interest concerning the ancient stationery of bamboo or wood may here find convenient notice. I have had numerous occasions in *Serindia* to discuss various striking illustrations and additions which our knowledge of that early Chinese stationery, as first based on the evidence of my finds of 1901 at the Niya Site, has received from the documents yielded by the ruins of the Tun-hung *Limes* and, to a smaller extent, of the Lou-lan station. ‡

The presence among the finds on the *Limes* of remains of books and writings which from a quasi-technical point of view, i.e., from that of the book-binder, to use a modern expression, may claim the same character, now enables us to clear up the question, previously very obscure, how proper cohesion and sequence could be assured for the numerous slips or tablets over which texts of any size written on bamboo or wood must necessarily have extended. M. Chavannes, who in a masterly discussion, had previously reviewed the information that can be gathered from Chinese textual sources about the ancient writing-materials used before the invention of paper, § did not fail to observe when

¶ I owe this last reference to M. Chavannes, who was kind enough on Oct. 3, 1917, the day of our last meeting, verbally to indicate the identification made by Mr. Wang Kuo-wei in his *Liu sha to chien*, reproducing a portion of the documents first published by M. Chavannes. The treatise was apparently known as *Li-mo* 力墨.

* See *Documents*, pp. xvii. 137. Two records of A.D. 75, *Documents*, Nos. 613, 614, prove that the watch-tower T. xxviii was occupied towards the end of the first century A.D.

† See *Document*, No. 395, a complete slip, with the fragments Nos. 396, 397.

‡ Cf. *Serindia*, pp. 382, 659, on the use of seal sockets and string grooves on wooden 'envelopes,' as provided for many of the Kharoshthi documents of the Niya Site; p. 382, on sealed lids closing small boxes intended to hold communications extending over several 'slips'; p. 597, on the standard size of slips.

§ Cf. above, p. 244 note. ‡

handling my new finds, that a number among the narrow tablets or 'slips' bore one or more notches on one of the edges. As the position of these was uniform on those 'slips' which manifestly belonged to one series, M. Chavannes rightly concluded that the notches were intended to serve the purpose of uniting such slips into one group.* But he added: 'Nous ne comprenons pas bien encore comment on assurait l'ordre de succession de ces fiches; il n'y a aucune numérotation pouvant tenir lieu de pagination, et on ne comprend pas comment il était possible de rétablir l'ordre lorsque quelque cause accidentelle l'avait bouleversé.'

The question thus raised is a very pertinent one, and makes it desirable to examine the materials available for its eventual solution. They are briefly the following: In the set of slips, *Doc. Nos. 9-24*, belonging to a calendar of A.D. 63, we find the left edge of each provided with three notches, disposed as Plate I shows, at exactly uniform distances. Another set of slips, *Doc. Nos. 25-35* (Plate II), forming part of the calendar for 59 B.C., shows two notches, also uniformly placed, but on the right edge of each slip. A third method of arrangement is found in the set of narrow bamboo slips, Nos. 524-34,† making up a medical notebook: here we find two notches on the right, one above, one below, and a third always placed on the left in the middle. Among single slips provided with notches only one, *Doc. No. 182*, needs special mention here, as its text supports the conclusion suggested by the single notch on the right, that it belonged to a book.‡ It is worthy of particular note that none of these slips bear writing on the reverse except those of the calendar of 59 B.C., where we find a system of consecutive numbering by means of cyclic characters.

Attention is claimed by the fact that no text is to be found on the reverse of any of the notched slips belonging to sets.§ It appeared *a priori* all the more significant in view of the inconvenience which the bulk and weight of books written on slips of bamboo or wood must in any case have caused. It necessarily raised a presumption that the fastening, for which the notches

* Cf. *Documents*, p. viii.

† See *Documents*, Pl. XIV for specimens.

‡ There are besides: Nos. 264, 306, both fragments of calendar slips, displaying one notch on the right in the existing top-portion; No. 478, containing only a signature, with one notch on the top to the right. Nos. 519, 610, with three notches and one respectively on the right, remain un deciphered and hence must be left aside for the present.

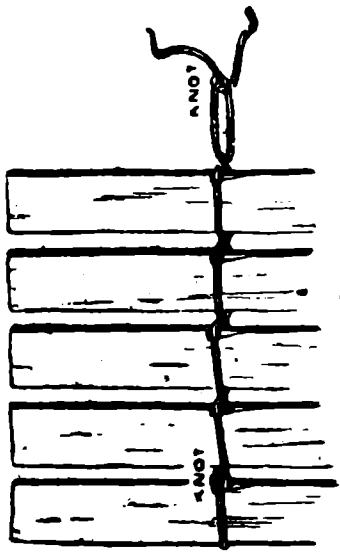
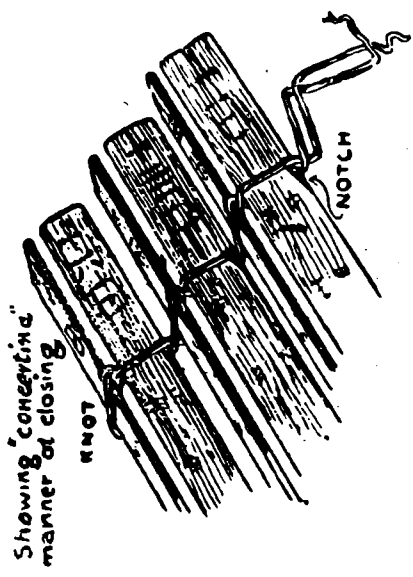
§ The same fact is clearly established by the evidence of Chinese literary records; cf. Chavannes, *Les livres chinois*, *J. Asiat.*, janvier-février 1905 (reprint), pp. 35 sqq.

were undoubtedly intended, must have been arranged in a way which brought the blank reverses of consecutive slips back to back and thus made it inconvenient to use the reverse surfaces for inscribing or reading any portions of the text. This conjectured arrangement recalled to my mind that of numerous Chinese and Tibetan manuscripts brought back from the walled up chapel of the 'Caves of the Thousand Buddhas' of Tun-huang, which are long sheets of paper consisting of several joined pieces and folded up into narrow pages somewhat after the fashion of a concertina. In these manuscripts, too, the reverse surface of the paper is always left unscribed, just as we find it regularly in Chinese printed books, in which as a matter of fact, we merely have an adaptation to block-printing of the 'concertina' method just alluded to.

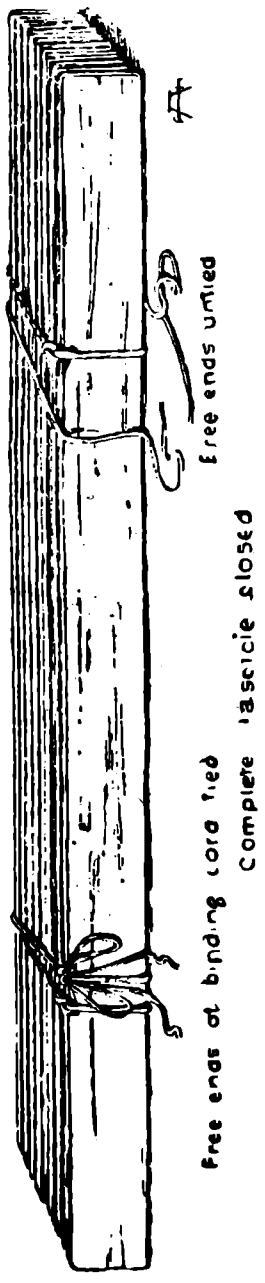
At this point I appealed to the often-proved technical ingenuity of my artist friend and assistant Mr. Fred. H. Andrews, Principal of the Technical Institute, Srinagar, Kashmir, and the following note and diagrams from his hand furnish what seems to me a very likely solution of the puzzle.

"Each 'slip,' i.e., small lath of wood (belonging to a series which contained one text or connected record), being a folio, it is clear that some means of binding must have been employed to maintain the folios in correct collation. The small notches observed on the edges of the 'slips,' and the fact that these exactly range when a number of 'slips' are collated, indicate that the connecting binding must have been of the nature of a string, an inference strengthened by the references in Chinese texts to silk or leather cords uniting the fascicles of wooden or bamboo slips mentioned by Prof. Chavannes. (cf. Chavannes, *Les livres chinois*, *Journal Asiat.*, janvier-février, 1905, pp. 43 sqq.)

"Experimenting with a fine raw silk thread, I found that a satisfactory result could be attained by the following method (see illustration). The cord is doubled end to end, the first 'slip' (folio one) is placed in the bend, and an ordinary knot tied with the two ends, care being taken that the encircling cord falls in the notch near one end of the lath, the purpose of which is to prevent the cord slipping. Folio two is then laid with its notch close to the knot, one end of the cord being below the lath and the other on top. The two ends are then half twisted round each other reversing the position of the cords, the upper becoming the lower and the lower the upper. Folio three is next placed between the cords with its notch against the half-twist, and the cords are again half



Method of binding slips
Fascicle open



twisted to secure it in position. The process is continued until the last page, after which a knot is tied, and the excess length of the two ends is left free to be used as a means of tying the complete record or chapter together, when it has been closed in concertina fashion. The same procedure is followed with the opposite end. The whole process is practically that followed by basket-makers and Indian 'chick' makers, sometimes described as 'wrap twining' or 'pairing,' and will be perhaps more clearly understood from the accompanying sketch.

"The reason for tying the first knot is to prevent the cord travelling with frequent opening and closing of the book, a tendency which it had, as experiment proved.

"When closed, the fascicle could be conveniently slipped into a rectangular case for protection. For lids of such cases, with string grooves and seal cavity, see *Ancient Khotan*, Pl. CXIV (N. xv, 345), and *Documents*, Pl. XXIII, L.A. vi. ii. 0200 (No. 751)."

Habent sua fata libelli. It seems strange that we should have to look among the relics from lonely desert posts of the borderline pushed out far toward the barbarian West for evidence to clear up details, even if they are only technical, concerning the books in which that glory of Chinese civilization, its ancient literature, found its earliest written record.