

XIII

THE "UNKNOWN LANGUAGES" OF EASTERN TURKESTAN. II

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SINCE writing the article in the October number of the Journal for 1910 (pp. 1283 ff.), I have been further examining some of the manuscript treasures which Dr. Stein succeeded in recovering from the immured Temple Library near Tun-huang. In that article I gave extracts from two "bilingual" texts which I discovered among those treasures, and which promised to furnish us with the key to the southern of the two unknown languages of Eastern Turkestan.¹ In the present article I propose to report another discovery, which seems to throw light on some phonetic peculiarities of that language.

Among the Stein MSS. there are a number of rolls, varying in length from about 2 to 23 feet, and in breadth from about 10 to 12 inches. They are inscribed on one side with Chinese and on the other with Eastern Turkestani characters.² The latter are not that species of upright Gupta characters of the essentially Indian type in which the two "bilingual" texts are written, and of which a specimen is shown in the Plate accompanying my article in the Journal for 1910. They rather constitute a development from the Indian Gupta characters, which has never been found in India, but which appears to have originated among the Eastern Turkestanis themselves. Moreover, in our present state of knowledge, this

¹ It is the "Sprache II" of Professor Leumann: see his articles in JGOS., lxi, p. 651; lxii, p. 83. His "Sprache I" is the Tokhari of the German savants mentioned below.

² They present, however, in no case anything bilingual; so I am informed by Dr. Stein, who has had the Chinese writing examined by M. Chavannes.

essentially Eastern Turkestani species of Gupta characters, which in my early report on them, in 1897, in the *Journal of the Asiatic Society of Bengal* (vol. lxvi), I have named "cursive", appears to have been restricted to that relatively southern area of Eastern Turkestan in which the language of the two "bilingual" texts was current. In the relatively northern area of the other "unknown" language of Eastern Turkestan, to which the Berlin savants propose to give the name of Tokhari, the Indian Gupta developed what, in my still earlier report on the Weber MSS., in 1893 (*ibid.*, vol. lxii, p. 4), I named the "slanting" species of it; and this species appears to have been limited to that area. We have, therefore, in Eastern Turkestan three species of Gupta characters: (1) the upright Gupta of the Indian type, (2) the "slanting" Gupta, and (3) the "cursive" Gupta, both these latter species being of Eastern Turkestani origin, and apparently restricted to the relatively northern and southern parts of Eastern Turkestan respectively. In the sequel, I shall, for the sake of brevity, provisionally distinguish the two still undefined languages of these two areas as the "northern unknown" and the "southern unknown".

Further, according to our present knowledge, the "slanting" species originated at a very early period (*circa* fourth century A.D.); for it appears in manuscripts which, so far as we know, are practically contemporary with the earliest written in the upright Gupta species.¹ On the other hand, the "cursive" species appears to have originated at a much later period, about the sixth or seventh century A.D.,² if we may judge from the

¹ e.g., in the Weber MSS., and in Dr. Stein's palm-leaf MS. from Miran, of the third or fourth century A.D.

² According to the testimony of Chinese pilgrims of the sixth and seventh centuries, the script of Khotan and its district was that of the Brahmans. This, however, may, and probably does, refer to the upright Gupta script, which was current in those parts of Eastern Turkestan alongside of the "cursive" Gupta. See Dr. Stein's *Ancient Khotan*, vol. i, p. 90, where the authorities are quoted.

age of the Chinese documents, together with which the documents in "cursive" Gupta have been found, and which belong to the eighth century (see Dr. Stein's *Ancient Khotan*, vol. i, p. 271). There is a curiously suggestive similarity of *ductus* between the Kharoshthi and "cursive" Gupta types of writing found in Eastern Turkestan. Both favour an elongated form of letters, as compared with the squat form of the upright or Indian Gupta. This similarity suggests that the "cursive" Gupta may have developed under the influence of the Kharoshthi script, which was current in the same area at a much earlier period, and that the "cursive" Gupta came in when the Kharoshthi went out of fashion.

Our acquaintance with the "cursive" Gupta script dates from the year 1895, when the Godfrey MSS. fell into my hands. The first specimens of it were published by me from those manuscripts in 1897, in the *Journal of the Asiatic Society of Bengal* (vol. lxvi, pp. 225 ff., pls. iv-vii). Additional specimens from them were published in 1901 in my "Report on the British Collection of Central Asian Antiquities", pt. ii (published as an Extra Number of *JASB.*, lxx, pp. 30 ff., pls. vi, vii), and by Dr. Stein in his *Ancient Khotan*, vol. ii, pl. cx (D. iii, 12). In my description of the documents in which the script occurred, I said that "the characters of the writing are evidently Brāhmi of a very cursive type" (*JASB.*, vol. lxvi, p. 229), and in my Report (p. 32) I spoke of the script as "a species of cursive Brāhmi". The main reason for thus designating the script was that it represented a very degraded type of the upright Gupta script, and that its use seemed to be confined to documents, public or private, semi-religious or secular, to the exclusion of all literature proper, whether religious or secular. The latter distinction still holds good. Even now, with all the mass of manuscripts, literary and documentary,

which Dr. Stein has brought back from his last tour of exploration, the "cursive" Gupta script has not been found employed in any literary work, nor in any *pothī*. The single exception I know of are the two folios, 7 and 8, which have been inserted into the *pothī* of the *Aparimitāyuh Sūtra*, to replace two lost folios which had been written in the ordinary literary upright Gupta of the rest of the work (see this Journal for 1910, p. 834). Still, though provisionally I retain it, because of its convenience, the term "cursive" is hardly appropriate, because the letters of the script, however quickly or badly written, are not "running", that is, not connected with one another. In this respect they do not differ from the letters of the upright or slanting species of Gupta. Moreover, as may be seen from the illustrative plates accompanying this article, they may be written with any variety of neatness or coarseness.

The initial difficulty in reading the letters of the "cursive" Gupta script was that some of them had grown so similar to one another and others had wandered so far away from their original Gupta form that their identity became almost unrecognizable. As explained in my Report of 1901 (*loc. cit.*, p. 32), it took some years before the identity, e.g. of the signs for *ma* and *bha*, was recognized. In these circumstances it was a most welcome discovery to find on the back of some of the rolls, which Dr. Stein submitted to me for examination, more or less complete tables of the Eastern Turkestani cursive alphabet and its syllabaries, which were evidently modelled on the similar tables current in India. For an account of the latter I may refer to Bühler's *Origin of the Indian Brahma Alphabet* (2nd ed., 1898, pp. 27 ff.), and of their Eastern Turkestani counterparts, to Watters' remarks in his *Yuan Chwang's Travels in India*, vol. i, pp. 154 ff., and to Dr. Rosthorn's letter in the *Vienna Oriental Journal*,

vol. x, pp. 280 ff., also to Dr. Takakusu's Translation of Itsing, pp. 170-1. From the report of the Chinese writers about these tables, which they call *si-t'an-chang*, i.e. *siddham*-sections, it appears that they commenced with the word *siddham*, followed by the alphabet, or series of radical signs (Sanskrit *mātrkā*), that is, the twelve (so-called) vowels, *a ā i ī u ū e ai o au am ah*, and the thirty-four consonants, *k kh g gh ṇ, c ch j jh ñ, ṭ ṭh ḍ ḍh ṇ, t th d dh n, p ph b bh m, y r l v, ś ṣ s, h, kṣ*. Huilin, a native of Kashgar, who wrote his account at some time between 788 and 810 A.D., adds the four vowels *ṛ ṝ ḷ ḹ*, which he calls supplementary. From this it may perhaps be inferred that the rolls, none of the alphabets of which includes these four supplementary vowels, must be referred to a date earlier than Huilin. The alphabet was followed by a set of syllabaries, the first of which gave the combinations of the consonants, singly, with the vowels, while the others gave the same vowel-combinations with the consonants in various ligatures. All Chinese accounts agree with regard to the first syllabary, which comprised thirty-four series of combinations, beginning with the series *ka kā, ki kī, ku kū, ke kai, ko karu, kam, kah*, and ending with the series *kṣa kṣā, kṣi kṣī*, etc. Regarding the other syllabaries the accounts do not agree. Hiuen Tsiang (seventh century) gives their number as twelve; but the number usually given (e.g., by Itsing, seventh century, Huilin, ninth century) is eighteen. The precise reason for this difference does not clearly appear from the accounts; but according to Bühler the tabulated ligatures included those made with *y, r, l, v*, and the five nasals; and that much the rolls tend to confirm. The whole *siddham-chang*, then, would appear to have been a long statement, consisting of a number of "sections" (*chang*), which began with the alphabet and continued with a varying number of syllabaries, the whole statement being headed by the word *siddham*, which served as its

name. The term *siddham-chang*, accordingly, would mean "the sections of the siddham".¹

Now the rolls discovered by Dr. Stein in the main confirm those Chinese accounts. The most important, for our immediate purpose, is the Roll Ch. cviii, 007, which is 10 ft. 9 in. long by 10 $\frac{3}{8}$ inches wide. On its back it is inscribed with a very long statement, which practically covers its entire length. It is divided into three sections, the first of which gives the alphabet, while the two others contain syllabaries. See Plate I, which shows the alphabet in ll. 1-6, and the commencements of the two syllabaries in ll. 8-10, 42, and ll. 43, 44. Of the two syllabaries, the first gives the vowel combinations of the single consonants (l. 9), *ka k̄a ki k̄i ku k̄u*, and so forth, down to (l. 42) *kṣa kṣ̄a kṣi kṣ̄i*, etc., while the second gives the syllabary of the conjuncts made with *y*, that is (l. 43), *kya kyā kyī kyī̄*, and so forth down to *lya lyā lyi lyī̄*, etc. It is not complete; the series of vowel combinations of the last six ligatures, *vy, śy, sy, sy, hy, ksy*, are wanting. Why they should have been omitted is not apparent, for there is just sufficient blank space left at the bottom of the roll to have taken them. But whatever the reason may have been, the omitted six series are found at the extreme top of the back of another roll, Ch. xc, 002. See Plate II, ll. 1-6 (the original size of the portion shown is 19 by 10 $\frac{1}{2}$ inches). The line of the first series (*vya vyā vyī vyī̄*, etc.) stands so close upon the upper margin of the roll that its edge cuts through some of the vowel marks, thus proving that at one time the roll must have been somewhat larger than it is at present, its present length being only 6 ft. 5 in. (with a width of 10 $\frac{1}{2}$ inches). As, however, the papers of the two rolls are of entirely different make—Roll 002

¹ There has been some dispute as to the precise meaning of the Chinese word *chang*, whether it means "table" (Legge) or "section" (Julien) or "chapter" (Watters) or "composition" (Takakusu). The evidence of the rolls supports the meaning "section". But the translation "table", if not literal, is at least more suggestive of what the thing really was.

1
2
3
4
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42
43
44

is soft, while Roll 007 is hard—they cannot have constituted two portions of a single roll torn asunder. At the same time, the handwriting in the syllabaries on the two rolls is so strikingly alike as to make it impossible to doubt the identity of their writers. Roll 002 is so short that it may be suggested that originally it was some 10 feet longer, and that the portion now missing carried the alphabet and the complement of the syllabary. The upper portion being torn away and lost, the missing portion of the statement was rewritten on Roll 007. This would explain the abrupt ending of the second syllabary on the latter roll. Following immediately on the completion of the syllabary of the conjuncts with *y*, on the back of Roll 002, there comes the syllabary of the conjuncts with *r*. It begins (l. 7) with the series *kra krā kri krī*, etc., and ends (l. 39) with the series *kṣra kṣrā kṣri kṣrī*, etc., each series occupying a separate line. There are, however, only thirty-three lines instead of thirty-four, because the series with the vowel notations of the conjunct *bhr* is omitted—whether intentionally or not will be considered in the sequel (p. 464). At the end of this third syllabary there is appended the following remark:—

vimjilaki byam di ni tsa nrvi (?) hā yam ñi dau la ni pa
ja dra ā ysā ja ga tca sni pī ka sadham

This remark concludes the statement of the alphabet and syllabaries, which commences on the back of Roll 007 and continues on the back of Roll 002; for what follows the remark on the back of the latter roll is written in an entirely different hand, and refers to a different statement, which will be explained further on (p. 457).

The precise meaning of the remark is at present not intelligible, but one point is fairly certain, namely, that the term *vimjilaki* must denote the preceding “statement”, and is probably equivalent to the Chinese term *chang* or *siddham-chang*, “sections of the siddham.” For we meet with that term, variously spelled *vajalaka* or *vaijalaka*, also

on other rolls, but always in immediate reference to statements of the alphabet and syllabaries. Thus (below, p. 457) it occurs twice on the back of Roll Ch. 0042, by way of introducing a *siddham* statement. It is found also in a like connexion on three minute fragments of the Roll Ch. 0046 in the phrase

- (1) eysa vaijalaka sūhaṁka,
- (2) . . . vaijalaka sūhaṁka,
- (3) eysa sūhaṁka vaijalaka.

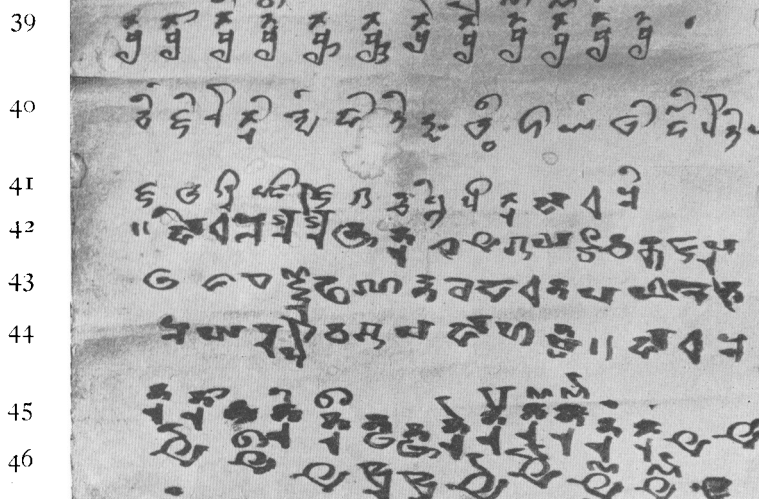
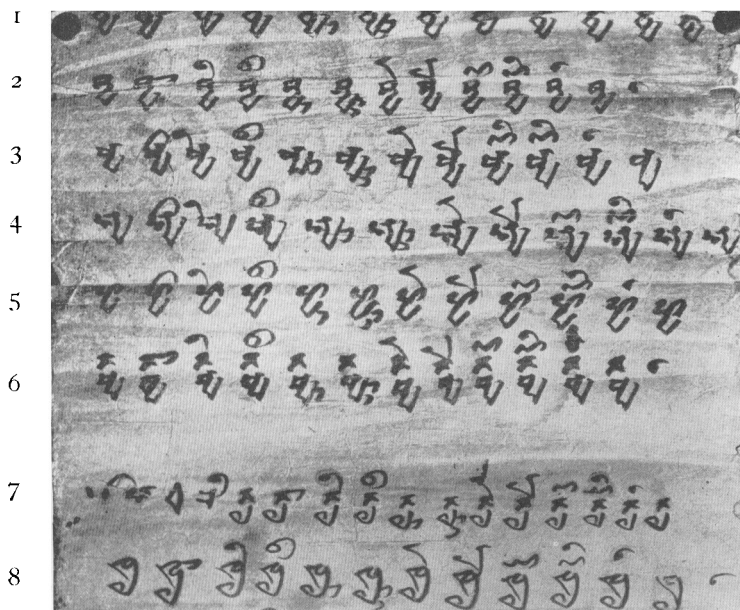
We have, then, here on the back of the Rolls 007 and 002 an example of the *siddham-chang* as described by the Chinese witnesses, comprising the initial *siddham*, the alphabet, and a varying number of syllabaries, in the present case only three. But our example amplifies their testimony in two particulars. In the first place, the word *siddham* stands at the head, not only of the whole statement, but introduces also each of the "sections" (*chang*). In fact, our example interpolates a sentence between the alphabet and the series of three syllabaries. The latter are introduced thus (Pl. I, l. 7):—

sidham nta nta mahājsa pyū,
i.e. "listen to this siddham from me".

In the second place, the alphabet includes not only the radical signs of the letters, but also those of the numerals. It runs as follows (Pl. I, ll. 1–6):—

- l. 1, sidham a ā e ī ā ū e ai o au aṁ a
- l. 2, k kh g gh ṇ . c ch j jh ñ . ṭ ṭh ṇḍ
- l. 3, ḍh ṇ . nt th d dh n . p ph b bh m
- l. 4, y r l v ś ṣ h kṣ ८ ॐ □
- l. 5, ṭā 1 2 3 4 5 6 7 8 9 10 20 30
- l. 6, 40 50 70 60

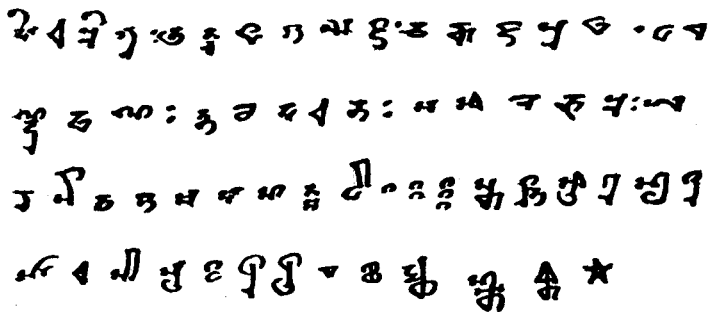
There are some peculiarities in this scheme of radical signs, to which I shall return later on. With regard to my transcript of the radical signs of the consonants, it should be observed that, as written in the original (viz., without the *virāma* attachment), they represent, considered from the Sanskrit point of view, not radicals



(*k kh*, etc.), but syllables (*akṣara*, *ka kha*, etc.). But the Chinese accounts explain that in the alphabet the signs express "half-sounds", while in the syllabaries they express "full-sounds" (VOJ., x, 281). Thus the "full-sound" of a syllable (*akṣara*), e.g. of *ka*, consists of the two "half-sounds", the consonantal element *k*, and the vocalic element *a*.

The second peculiarity, regarding the composition of the alphabetical table, is fully confirmed by another roll. This is Roll Ch. xc, 003. It is very long, measuring 22 feet, with a width of 10 inches; but with the exception of the small space (about four inches) at the top of the roll, occupied by the alphabetical table, the remainder is blank. The table is shown in Fig. 1, reduced to about one-third of the original.

FIG. 1.



It runs as follows :—

1. 1, sidham a : u k kh g gh ñ . c ch j jh ñ . t th
1. 2, ṇḍ ḍh ṇ : nt th d dh n : p ph b bh m : y
1. 3, r l v ś ṣ s h kṣ Tā 1 2 3 4 5 6 7 8 9
1. 4, 10 20 30 40 50 60 70 80 90 100 1000 10000 100000

It will be observed that in this table the series of the numeral radicals is more extended; and that it places the radicals for 60 and 70 in their proper order. In the table of Roll 007 they are misplaced, probably by a mere scribal error. The syllable *tā* which introduces the series of the numeral radicals in both tables may possibly be the

Eastern Turkestani term (or the initial syllable of it) for "numeral". On the other hand, our present table apparently omits the vocalic radicals altogether; for the two solitary radicals *a* and *u* probably represent merely the mystic syllable *om* (i.e. *aum*).

Attention may be called to the calligraphic execution of the "cursive" Gupta writing in the alphabet and syllabaries of the rolls 002, 003, and 007. They were evidently written by a practised hand. The appearance of the writing is very different in the rolls to which we now proceed. In them it is exceedingly coarse, and points to an illiterate person or to one who was quite unfamiliar with the "cursive" Gupta script.

This coarse handwriting may be seen on the back of Roll Ch. 0042. The roll measures 6 ft. 5 in. in length by 10 inches in width; but only about 16 inches (from the top) are inscribed; the remainder is blank: see Plate III.¹ The inscribed portion commences with seven lines of most disorderly writing. Then follow five lines (ll. 8–12) of more orderly writing, beginning with—

1. 1, Sidham nta nta majsa vā pyūṣṭa he bye khu spa namau

1. 2, diśabhala (ca)¹ cakravantri Śakyamuni gyistibaysi, etc.

i.e. "Siddham. Thus it has been heard by me. Salutation to Daśa-bala, Chakravartin, Śakyamuni, the Blessed", etc.

After this comes (ll. 13, 14) an attempt at the table of radical signs, which reads as follows:—

1. 1, abayā ḍaṁ vaijalaka Sadham a (u)² u k kh g gh

1. 14 { 1. 2, ṇ c ch j jh ñ ṭ (ṭh)¹ ṭh

1. 3, ṇḍ ṇ nt th d dh n p ḍh

Then follow other five lines of text (ll. 15–19), commencing with—

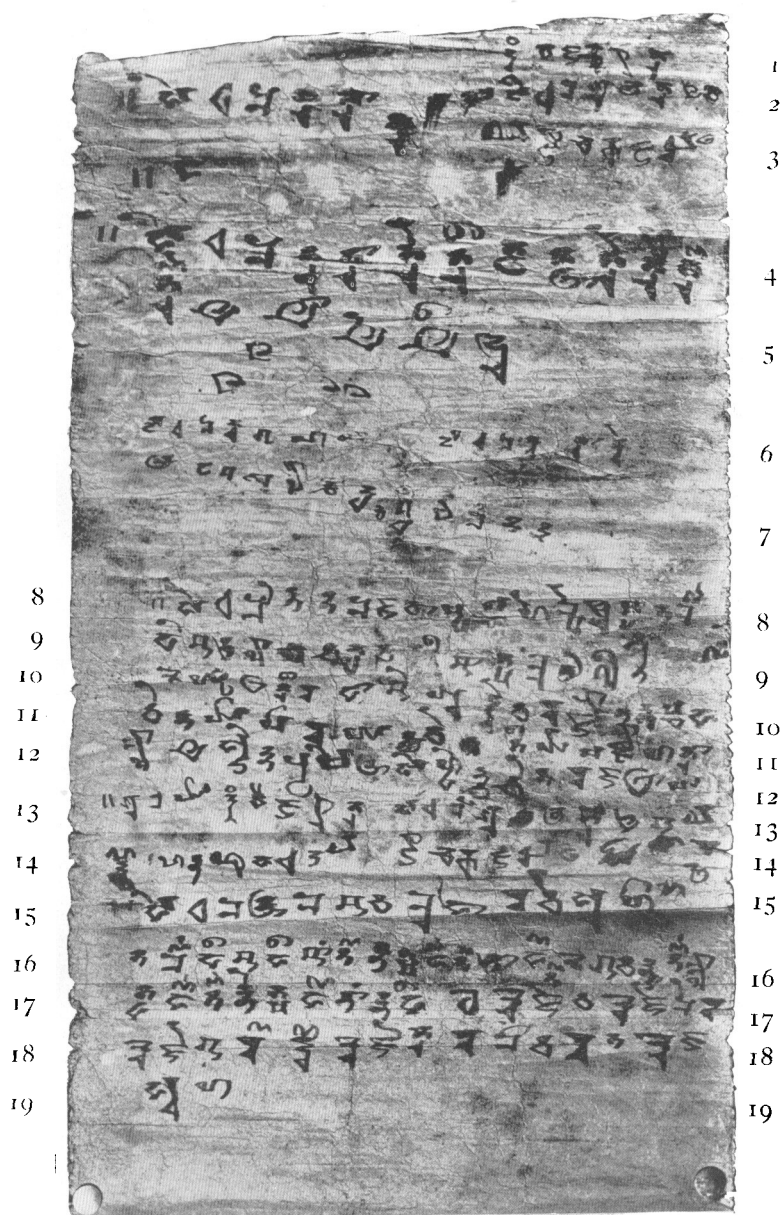
1. 1, Sidhama ūma śava budārave suhā

i.e. "Siddham Om to all Buddhas svāhā",

and ending with *garoṇḍa* (i.e. Garuḍa) *buje kabamāṁvarana buja suha*.

¹ The roll is in a very soiled condition, and has not come out in the photograph as clearly as one could wish.

² Bracketed letters are badly written and cancelled.



The term *vaijalaka* (l. 13), the probable meaning of which has been referred to previously (p. 453), occurs also among the disorderly lines, in the statement in the upper right-hand corner, which runs as follows:—

- l. 1, *ḍaṁ vāja(la)¹laka*
- l. 2, *sidhama a u k kh g*
- l. 3, *gh ṇ c ch j jh ñ*

The same, or a very similar, coarse handwriting appears on the back of Roll 002, immediately below the remark, above referred to (p. 453), with which the three syllabaries conclude. It consists of an exceedingly ill-executed and incomplete *siddham-chang* (Pl. II, ll. 42–6), which runs as follows:—

- l. 1, *sidhama a ā ū k (kh)¹ kh g gh ñ c ch j jh*
- l. 2, *ñ ṭ ṭh ṇḍ ḍh ṇ nt th d dh n p ph b bh*
- l. 3, *m y r l v ś ṣ s h kṣ || sadhama*
- l. 4, *ka kā (ka)¹ ki kī ku kū ke kai ko kau kaṁ ka kha khā*
- l. 5, *khi khī (kha) khu khu khe khai kho khau (kha)¹*
- l. 6, *khaṁ kha ga gā gi gī gu gū go gau gaṁ ga gha ghā*
- l. 7, *ghi ghī ghu pu ghe (gha)¹ ghai ghō ghau ghaṁ*
- l. 8, *gha ṇa nā ṇe nī ṇu ṇū ṇe ṇai ṇo ṇau ṇaṁ (ṇa) ṇa ca cā*
- l. 9, *ci cī cu cu ce cai co² cau caṁ ca cha chā chī chī chu*
- l. 10, *chu cho chau che chai chaṁ cha ja jā ji jī ju ju je*
- l. 11, *jai jo jau jaṁ ja jha (jha) jhā jhi jhī jhu jhū*
- l. 12, *jhe jhai jho jhaṁ pa sa(l dha)¹ dhama a*

That this statement was written by an illiterate person is shown not only by its coarse execution, but also by its numerous errors; *ge gai* is omitted in l. 6, *cho chau* and *che chai* are misplaced in l. 10, *kha*, *ṇa*, and *jha* are superfluously repeated in ll. 5, 8, and 11; *khu khu*, *ṇu ṇu*, *cu cu*, *chu chu*, *ju ju* stand for *khu khū*, *ṇu nū*, etc., in ll. 5, 8–10; *pu* and *pa* are wrongly written for *ghū* and *jha* in ll. 7 and 12; the *virāma* is omitted in *sidhama* in ll. 1 and 12. Occasionally *i* is hardly distinguishable from *e*, as in *khi*, l. 5; it is better in *chi*, l. 9, *jhi*, l. 11.³

¹ See n. 2 on p. 456.

² *co* had originally been written *cu*; afterwards *u* was crossed through, and *o* substituted.

³ After the *siddham-chang* there comes a short text, in twelve lines, at present not intelligible, which, however, is written again in fairly good cursive Gupta characters.

There is still another roll, Ch. 0046, which deserves notice on account of the striking peculiarities in its scheme of the alphabet and syllabary. It is a mere fragment of a roll, measuring 15 by 10 inches. The inscription on its back has the unusual arrangement that it commences with the simple syllabary, and then proceeds, in the concluding three lines, to the alphabet. The latter (Pl. IV, ll. 17-19) runs as follows:—

1. 1, Sidham a ā e ī ā ū e va ai au va au a a k kh g g-h ñ c ch

1. 2, j j-h ñ nt th d dh n p ph b bh m y r l va ś s h

1. 3, ks

Here the following points are noticeable: (1) The entire omission of the group of cerebral radicals; (2) the dissociation of the aspiration in *g-h* for *gh*, and in *j-h* for *jh*; (3) the identity, or practical identity, of *ñ* with *j*, and of *d* with *s*. Turning to the syllabary (ll. 1-16), the most striking point is that the radical elements of the several syllabic series are arranged in a very unusual and apparently fanciful way,¹ and that some of them apparently are wanting. This may best be seen from the subjoined table, in which the radicals are placed in their normal order, while the raised numbers indicate their actual order on Roll 0046. The missing radicals are within brackets.

a ²²		k ¹	kh ⁴	g ¹³	(gh)	(ñ)		c ⁵	ch ¹⁸	j ⁹	(jh)	ñ ¹⁵		(t)	th	d	dh	na)								
nt ²³	th ²¹	d ²⁴	dh ¹⁹	n ²⁶		p ¹²	ph ²⁰	b ⁸	bh ²⁵	(m)		y ³	r ¹⁰	l ⁶	v ²		ś ¹¹	s ¹⁴	(s)		h ¹⁷		ks ¹⁶		ys ⁷	

It will be noticed that (1) the cerebrals are entirely omitted, (2) the aspirates *gh* and *jh* are omitted; but they are so only in appearance, for owing to the dissociation of their aspiration in the table of radicals there was no need of showing *gh* and *jh* in the syllabary, seeing that their dissociated elements, *g*, *j*, and *h*, were already exhibited; moreover, as we shall see (p. 464), the

¹ On a still smaller fragment of the same roll, measuring only 6 by 4 inches, the commencement of a syllabary in precisely the same peculiar order is repeated, viz., *ka*, *va*, *ya*, *kha*, *ca*, *la*.



STEIN MSS -ENTIRE ROLL, CH. 0046.

ORIG. SIZE 10" x 15"

existence of *gh* and *jh* seems doubtful in the "southern unknown" language, which appears to have an aversion to aspirates. (3) For a similar reason, *ṇ*, *m*, and *s* are omitted, for their forms are practically not distinguishable from those of *j*, *b*, and *d* respectively. (4) *bh* has the same peculiar form as in the table of radicals; and (5) *e*, *ā*, and *au* are substituted for *i*, *u*, and *o* respectively in the alphabet; but in the syllabary *u* and *e* are omitted altogether. Thus, e.g. in l. 2, we have *ya yā ye yī yū yai yau yau yam ya* instead of *ya yā yī yī yu yū ye yai yo yau yam ya*. Substantially therefore in all the five points the syllabary agrees with, and confirms, the evidence of the alphabet. The only striking point of difference is that the syllabary adds a series of vowel notations for the conjunct *ys* (ll. 4 and 5), apparently treating that conjunct as a radical exactly as the conjunct *ks*.

What precisely the significance of the substitution of *e*, *ā*, *au*, and *a*, for *i*, *u*, *o*, and *aḥ* may be, remains to be discovered. The full tale of radicals is shown only in Rolls 007 and 0046. The others apparently omit the vowels entirely, for their mention of *a u* may have reference to the mystic syllable *om*. The substitution of *a* for *aḥ* is probably a mere formality; for the Sanskrit *visarga*, in all probability, did not exist in the languages of Eastern Turkestan, as little as it does in the vernacular languages of India; thus we have, e.g., *nama sarva°* for *namaḥ sarva°*, in l. 10 of the Dhāraṇī on Roll 0041 (p. 462). The omission of the *u*-syllables from the syllabary of Roll 0046, and the substitution of *e* and *au* for *i* and *o* respectively, would seem to indicate that the southern unknown language of Eastern Turkestan did not distinguish particularly between the sounds of *u* and *ū*, *e* and *i*, *o* and *au*; and this explanation would seem to be confirmed by the fact that in their proper places the *e*-syllables are omitted in the syllabary, so that in it the single *e*

represents both *i* and *e*. Somewhat similar phenomena may be observed in the vernaculars of India. Numerous illustrations, on all these points, are furnished by the Dhāraṇī on Roll 0041. The curious interpolation of *va* (or *v*?) in the vocalic series of radicals on Roll 0046 is also a point, the explanation of which remains to be discovered.

The most striking point in all the alphabetic and syllabic tables is that they uniformly write *ṇḍ* and *nt* in the place of the simple cerebral *ḍ* and dental *t* respectively. It seems to me probable that the intention is not so much to indicate a nasal conjunct consonant, as a simple consonant nasalized, or in some other way modified; but I must leave it to experts in phonetics to determine what the precise significance of the graphic notation may be.¹ All with which I am now concerned is to show that those tables really represent a truth, namely, that the people who spoke the language which is now under discussion always spoke *ṇḍ* and *nt*, where others (e.g. Sanskrit speakers) pronounced *ḍ* and *t*. Among Dr. Stein's rolls there is one, Ch. 0041, measuring 10 ft. 10 in. by 10½ inches, the back of which is covered, from top to bottom, with a long Buddhist Dhāraṇī, or rather with a pair of Dhāraṇīs, or mystical litanies for protection from evils, which extend to 151 lines. The first ends in the middle of the tenth line, and bears no name. It is, however, the well-known *Uṣṇīṣa-vijaya-dhāraṇī*, the Sanskrit text of which has been published by Max Müller in the *Anecdota Oxoniensia*, vol. i, pt. iii, pp. 9, 22, 35, 36; and a copy of which exists also in the Hodgson Collection of the Royal Asiatic Society, No. 79, pt. iv. The second comprises the

¹ In this connection it may be worth noting that, as Dr. Waddell points out in his *Buddhism in Tibet*, p. 353, in Japanese Skt. *vaidūrya* becomes *binzura*. The southern unknown language has *vaiṇḍarya* (see pl. v, l. 23 of the Dhāraṇī on Roll Ch. 0041).

remainder of the Dhāraṇī, from the middle of l. 10 to the end of l. 151. Its name occurs repeatedly in the body of Dhāraṇī, e.g. on ll. 105 and 126, where it reads ntathā-ganta-uṣṇīṣa-saintāntapantra-nāmāparājanta-mahāprantya-garā, i.e. Skt. *tathāgat-uṣṇīṣa-sitātapatra-nāmā Aparījitā mahāpratyaṅgirā*. A Sanskrit copy of this Dhāraṇī exists in the same Hodgson Collection, No. 77, as well as in the gigantic roll of Dr. Stein's collection, which will be noticed in the sequel (p. 471). The Eastern Turkestani text, however, appears to be mutilated in two places, and in some others it differs not inconsiderably from the Sanskrit text of the Hodgson MS. Both the Dhāraṇīs were originally written in Sanskrit (of a kind), but on Roll Ch. 0041 they appear in the form in which their Sanskrit was "transmogrified" in the mouth of the natives of Eastern Turkestan. It is this transmogrification which constitutes their interest, for they are written, one might say, phonetically, and thus illustrate the phonetics of the language. Plate V shows the initial twenty-three lines, which give the whole of the *Uṣṇīṣa-vijaya* and the commencement of the *Aparājita-mahāpratyaṅgirā Dhāraṇī*. I give the Eastern Turkestani text from the roll, and below it, in italics, the Sanskrit text from the *Anecdota Oxoniensia* and the Hodgson MS., No. 77.

[l. 1] Sadhahama Namau rahna-ntriṇyāya namau bagavante ntraile-
 (Namo ratna-truṇyāya)¹ namas (bhagavate)¹ trailo-
 kyanta prantaviśaiṣṭāya bādha[l. 2]ya bagavante ntadyathā auma
 kya prativīṣiṣṭāya buddhāya bhagavate tadyathā om
 viśaudhiya viśaudhiya sama sama samantāvabhāsa [l. 3] (spha)² spharaṇa
 viśodhaya viśodhaya sama sama samantāvabhāsa spharaṇa
 ganta gahana svabhāva viśuddhe abhaṣaīcantū mā suganta vara vante³
 gati-gahana svabhāva-viśuddhe abhiṣīncatu mām sugata-vara-vacana

¹ Anec. Oxon. om. bracketed words.

² See n. 2 on p. 456.

³ Apparently wrong for vara-vacane.

a[l. 4]mrantābaṣaikai: ¹ mahā madra padā āhāra ² āhāra āyū sādārane. ¹
amṛtābhīṣekaiḥ mahā-mudrā-padaḥ āhara āhara āyuh-sandhāraṇi
śādhi[l. 5]ya śādiya gagana viśūdhe uṣṇi ³ vijaya viśūdhe saha(sra) ⁴sra
śodhaya śodhaya gagana-viśuddhe uṣṇīsa-vijaya-viśuddhe sahasra-
raśmi sacāda[l. 6]nte sarva ntathāganta hṛdayādheṣṭhānādheṣṭhānta
raśmi samcodite sarva-tathāgata hṛdayādhiṣṭhānādhiṣṭhite
mādre vajra kāya sagāntanaviśū[l. 7]dhe sarvāvaraṇa viśūdhe prāntanar-
mudre vajra-kāya-saṅghatana-viśuddhe sarvāvaraṇa-viśuddhe pratānir-
varantaya āyū viśūdhi. ¹ samayādhiṣṭhānte mahā[l. 8]mane ntadyathā
varantaya āyur-viśuddhe samayādhiṣṭhite mahā-muni tadnyathā
būnta kautī paraśūdhi vaisphuṭinta būdha sūdhi he he jiya vajjiya
bhūta-koṭi-pariśuddhe viśphuṭita buddhi-sūddhe he he jaya vijaya
va[l. 9]jeya smara smara sarva ntathāgantā būdhādheṣṭhau sūdhi
vijaya smara smara sarva-(tathāgata) ⁵ buddhādhiṣṭhite sūddhe
vajre vajre va paraśūdhi sarva ntathā [l. 10] gantā hṛdayādhiṣṭhān-
vajre vajre — pariśuddhe sarva-tathāgata hṛdayādhiṣṭhān-
ādheṣṭhānta mūdre svāhā || Sadhama namau rahna-trīyāya nama
ādhiṣṭhite mudre svāhā || (Sīdham namo ratna-trayāya namaḥ
sa[l. 11]rva-bādha-baudhasatvebya | namau baudhāya namau dharmāya
sarva-budha-bodhisattvebhyah |) ⁶ namo buddhāya namo dharmāya
namau sagāya namau sapntānā [l. 12] samya sabaudha kauṭīnā namau
namo saṅghāya namo sapntānām samyak-sambuddha-koṭīnām namo
lake arhantānā namau ⁷srāntāpannānā namau sakṛantāgau[l. 13]minā
loke arhantānām namaḥ śrāntāpannānām namaḥ sakṛdāgāminām
namau anāgaumīnā namau lake samya gantānā samya prāntapanānā
namo anāgāminām namo loke samyag-gatānām samyak-pratāpannānām
namau de[l. 14]va raṣīnā śāpānā gra(ha) ⁴ha samarthānā namau saidha
namo deva-rṣīnām (śāpānām) ⁸ graha-samarthānām namo siddha-

¹ The double dot and single dot appear to be marks of interpunctuation ; they do not signify the visarga and anusvāra respectively.

² Note the peculiar serpentine mark under ḥ in ll. 4, 15, 17. It seems to correspond to the semicircular mark which is found in the upright Gupta script.

³ Wrong for uṣṇīsa.

⁴ See n. 2 on p. 456.

⁵ See n. 1 on p. 461.

⁶ The bracketed passage is not found in the Hodgson MS., No. 77. Instead, it has the usual conventional opening : *evam mayā śrūtaṁ kasmir samaye bhagavān deveṣṭa-trayastrīṣeṣu viharati sma | sadharmāyām deva-sabhāyām mahatā bhikṣu-saṅghena mahatā bodhisattva-saṅghena Sakreṇa devānām Indreṇa sārđham ||*

⁷ *na* is inserted below the line ; and the insertion is marked by a cross above the line.

⁸ The Hodgson MS., No. 77, has *sāpāyūdhānām namo sāyānugraha°*.

vidyādhara raṣiṇā namau brāhma[1. 15]ṇā namau Aidrāyi namau
 vidyādhara-(ṣiṇām)¹ namo brāhmaṇebhyaḥ namo Indrāya namo
 bagavante Rau(dra)²drāya Umāpanta-siḥ³āya namau bagavante [1. 16]
 bhagavate Rudrāya Umāpati-sahitāya namo bhagavate
 Nārāyaṇāpa⁴ ca mahāmūdra namaskṛtāya namau bagavante
 Nārāyaṇāya ca mahāmūdra-namaskṛtāya namo bhagavate
 mahākālāya ntra[1. 17]pura vekṣaupañā karāya adhimūḥ⁵anta śmaśāna-
 mahākālāya tripura-(vikṣepaṇa)⁶karāya adhimuktika⁶-śmaśāna-
 vāsane māntra gaṇa nama(skṛa)²skṛantā[1. 18]ya namau bhagavante
 vāsine mātṛ-gaṇa-(namaskṛtāya)⁷ namo bhagavate
 ntathāganta kūlāya namau padma kūlāya namau vajra kūlāya [1. 19]
 tathāgata-kulasya namo padma-kulasya namo vajra-kulasya
 namau maṇā kūlāya namau gaja kūlāya namau kumāra kūlāya namau
 namo maṇi-kulasya namo rāja-kulasya namo kumāra-kulasya namo
 nāga kūlāya [1. 20] namau bagavante draiṇḍi sūrasena praharaṇa rājāya
 nāga-kulasya namo bhagavate dr̥ḍha-sūrasena-praharaṇa-rājāya
 ntathāgantāyārahente samya [1. 21]sabaudhāya namau bagavante
 tathāgatāyār hate samyak-sambuddhāya namo bhagavate
 Amintābāya ntathāgantāya rahente samya sabādhā[1. 22]ya namau
 (Amitābhāya tathāgatāya ar hate samyak-sambuddhāya namo
 bagavante Akṣubhyāya ntathāgantāyārahente samya sabā(dha)²dhāya
 bhagavate Akṣobhyāya tathāgatāyār hate samyak-sambuddhāya
 namau ba[1. 23]gavante baiṣaja gūrū vaiṇḍarya praba rājāya ntathā-
 namo bhagavate bhaiṣajya-guru-vaiḍūrya-prabha-rājāya tathā-
 gantāyārahente samya sabaudhā[1. 24]ya, etc.
 gatāyār hate samyak-sambuddhāya, etc.).⁸

It will be seen from the preceding extract that every Sanskrit *t* becomes *nt* in Eastern Turkestani. Either singly or in ligature, *t* occurs upwards of 400 times in the Dhāraṇī, and with two exceptions it is in every case

¹ Hodgson MS., No. 77, om. the bracketed words.

² See n. 2 on p. 456.

³ See n. 2, p. 462.

⁴ Wrong for Nārāyaṇāya.

⁵ Hodgson MS. reads *vidrāpaṇa* for *vikṣepaṇa*.

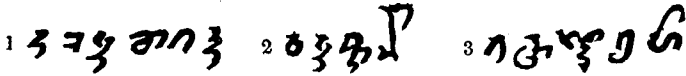
⁶ The full reading of the Hodgson MS., No. 77, is : *adhimuktika kāsmīra-mahāśmaśāna*². The Eastern Turkestani *adhimūḥanta* = Skt. *adhimukta*, with °hanta for *kata* = *kta*.

⁷ The Hodgson MS., No. 77, reads *vandita-sahitāya* for *namaskṛtāya*.

⁸ The Hodgson MS., No. 77, omits the bracketed final three clauses. Dr. Stein's gigantic roll omits the first and second clauses, but it has the third clause referring to *bhaiṣajya-guru*.

spelled *nt*. The two exceptional cases are the conjuncts *tv* and *st*. In these the simple *t* appears to be preserved regularly; thus we have—

FIG. II.



1. 11 (Plate V), *baudhasatvebya* = *bodhisatvebhyah*.
1. 101 (Fig. II, 1), *namas* = *tathāganta*° = *namas* = *tathāgata*°.
1. 114 (Fig. II, 2), *vasta-sūla*° = *vasti-sūla*.

The cerebral *ḍ* does not occur so often, but whenever it does occur it appears as *ṇḍ*. Thus we have—

1. 23 (Plate V), *vaiṇḍarya* = *vaiḍūrya*.
1. 52 (Fig. II, 3), *garuṇḍa-grahā* = *garuḍa-graha*.
1. 102, *vaintāṇḍi-ṇḍākanī* = *vetāḍi-ḍākanī*.

Another example, *garuṇḍa* = *garuḍa*, occurs in the passage quoted above (p. 456) from Roll 0042.

Another striking point, which however is not so prominently indicated in the alphabetic and syllabic tables, is the loss of aspiration in *b* for *bh*; e.g. in Plate V,

1. 1, *bagavante* = *bhagavate*.
1. 3, *svabāva* = *svabhāva*.
1. 8, *būnta-kauṭi* = *bhūta-koṭi*, etc.

This loss of aspiration is practically absolute in the *Dhāraṇī*, for in a total of about 150 cases there are only two exceptions; these are—

1. 18 (Plate V), *bhagavante* = *bhagavate*.
1. 118, *bhayaupadravebya* = *bhayopadravebhyah*.

In this connexion it may perhaps be not without significance that in the syllabary on Roll 002 (as noticed on p. 453) the line referring to the vowel notations of the conjunct *bhr* is entirely omitted, though, of course, the omission may be due to an error.

In the case of *gh* and *jh*, probably disaspiration was equally regular; still, those two aspirates are of infrequent occurrence, and hence examples are rare; but we have, e.g.,

1. 6 (Plate V), *sagāntana* = *saṅghatana*.
1. 11 (Plate V), *sagāya* = *saṅghāya*.
1. 130, *vaigna-vanāya* = *viḅhna-vināya*.

1 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 2 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 3 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 4 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 5 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 6 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 7 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 8 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 9 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 10 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 11 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 12 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 13 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 14 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 15 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 16 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 17 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 18 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 19 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 20 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 21 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို
 22 မဟာသဒ္ဒါသို့ နိမိတ်တရားကို နိမိတ်တရားကို နိမိတ်တရားကို

The case of *dh* is peculiar. It is often disaspirated, as in

1. 2 (Plate V), *viśaudiya* = *viśodhaya*,
1. 4 (Plate V), *sādāraṇe* = *sandhārāṇi*;

but equally often aspiration is retained, as in

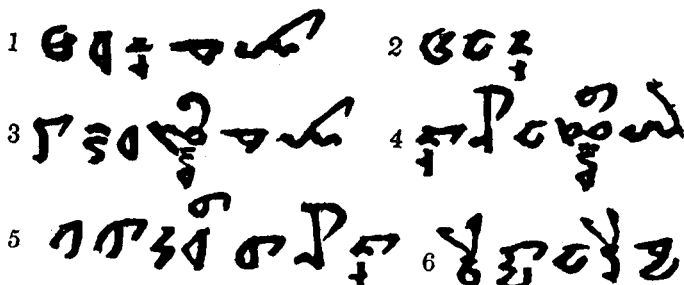
11. 6, 9, 10 (Plate V), *adheṣṭhāna* = *adhiṣṭhāna*,
1. 11 (Plate V), *dharmāya* = *dharmāya*,
1. 14 (Plate V), *vaidyādhara* = *vidyādhara*,

specially when *dh* stands for Skt. *ddh*, as in

11. 3, 5, 7 (Plate V), *vīśūdhe* = *viśuddhe*.
1. 9 (Plate V), *būdha* . . . *śūdhe* = *buddhi* . . . *suddhi*.
1. 10 (Plate V), *sadhama* = *siddham*.

On the other hand, occasionally *dh* is introduced in the place of *d*, e.g.,

FIG. III.



1. 50 (Fig. III, 1), *udhaka-bayā* = *udaka-bhaya*.
1. 51 (Fig. III, 3), *rāja-dhaṇḍī-bayā* = *rāja-daṇḍī-bhaya*.
1. 134 (Fig. III, 5), *gagā-nadhī-vālakā* = *gaṃgā-nadī-vālukā*.

Altogether the treatment of aspiration in the case of *d* and *dh* appears to be very capricious; thus we have, e.g.,

1. 73 (Fig. III, 6), *vaidyādaraihya* = *vidyādharebhyah*.
1. 85 (Fig. III, 4), *kāla-daṇḍīye* = *kāla-daṇḍine*.
1. 104 (Fig. III, 2), *udaka* = *udaka*.

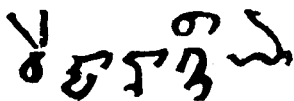
Of the dissociation of aspiration we have an example in l. 1, *sadhahama* for *siddham*, where one would rather expect *sadaham*, to represent the usual spelling *sadham*.

The *Dhārāṇī* illustrates also some other curiosities of spelling in the southern unknown language of Eastern Turkestan previously noticed, such as the substitution of *e*, *ā*, and *au* for *i*, *u*, and *o* respectively. Thus, *i* occurs eight times in the 23 lines shown in Pl. V, viz.,

l. 5, uṣṇi and raśmi; l. 7, viśūdhi and samayādhi; l. 8, paraśūdhi and būdha-śūdhi; l. 10, hṛdayādhi; l. 17, adhimūhanta. In some cases the writing is not sufficiently distinct; e.g., l. 8, kauṭi or kauṭi; l. 20, drainḍi or drainḍi, etc. Generally long *i* takes its place, as in l. 5, vijaya-viśūdhe (= *vijaya-viśuddhe*), etc.; but occasionally *e*, as in ll. 6, 9, 10, adheṣṭhānādheṣṭhānta (= *adiṣṭhānādhiṣṭhita*), or *ai*, as in l. 1, viśaiṣṭāya (= *viśiṣṭāya*); l. 3, abaśaicantu (= *abhiṣimcatu*); l. 8, vaisphuṭinta (= *visphuṭita*); l. 14, saidha-vaidyādhara (= *siddha-vidyādhara*); l. 15, Aidrāyi (= *Indrāya*). Not uncommonly it is represented by *a*, as in ll. 1, 7, pṛanta (= *prati*); l. 15, Umāpanta (= *Umāpati*), etc.; exceptionally also by *ā* or *au*, as in l. 6, adheṣṭhānta, and l. 10, adheṣṭhaunta (= *adhiṣṭhita*). Again, *o* never occurs at all; we have, e.g., regularly namau and auma (= *namo* and *om*); l. 8, kauṭi (= *koṭi*), etc.; and in l. 1 even ntrailekyanta apparently represents a barbarous Sanskrit *trailokita* (for *trailokya*). Again, *ā* takes the place of *u* in ll. 11, 21, 22, bādhāya (= *buddhāya*), and occasionally of *o*, as in ll. 4, 5, śādiya (= *śodhaya*), and, as above noted, even of *i*. But occasionally *u* is represented also by *ū* or *au*, as in ll. 8, 9, būdha (= *buddha*), ll. 18, 19, kūlāya (= *kulāya*); or ll. 11, 21, baudhāya (= *buddhāya*), l. 15, Raudrāya (*Rudrāya*).

A noticeable curiosity is the spelling *gn* for Skt. *jñ*, as shown below.

FIG. IV.



l. 83, vaidyā-rājñiye = *vidyā-rājñiyai*.

This may be compared with the pronunciation of Skt. *jñ* in the vernaculars of India, e.g. *gy* in Hindi and *gny* in Gujarāṭi.

Finally, attention may be drawn to the peculiar form of *kh* in all the rolls, and of *bh* in Roll 0046. The more

original form of *kh* may still be seen in the syllables *khru* and *khū*. Both forms of *kh* occur in the Dhāraṇī, but *bh*, as already observed, never occurs but twice, and in those cases it is the ordinary form of *bh* (Fig. I, l. 2, as in Pl. V, l. 18, *bhagavante*).

When I published, in the October number of the Journal for 1910, the extracts from the two "bilingual" texts, I had not yet seen the rolls. The information of the latter on the phonetics of the southern unknown language of Eastern Turkestan is borne out to a considerable extent, though not altogether, by those two texts. Thus the pronunciation *nt* for *t* is illustrated by the pronouns *nta*, *ntyē*, *ntiṇa*, etc., the nouns *ntirā-ṛsa*, *pāntarā*, *biśāpīrmānta*; the verbs *paraunta*, *untaipastisa*, etc. *Per contra*, the spelling of the conjuncts *tv* and *st* (without the nasal) is illustrated by the words *baudhisatva*, *gyasta*, *mista*, *dasta*, etc. On the other hand, in certain words, *t* is preserved, where one would expect *nt*, as e.g. in *napatata* (for *napantanta*?). The nasalization of *d* (as *ṇḍ*) is entirely absent, e.g., in *yudai*, *haṇḍā-dana*, *beḍamī*, etc. What the true explanation of this discrepancy may be has yet to be ascertained. Further research among the manuscript treasures, brought back by Dr. Stein from his recent tour of exploration, may furnish us with the answer. In the meanwhile I suspect that the discrepancy may be due to the fact that the rolls were inscribed by natives of Eastern Turkestan, who wrote exactly as they spoke, while the translations from the Sanskrit which we have in the "bilingual" texts were written by "pandits", men from India, who wrote under the spell of Sanskrit phonetics rather than Eastern Turkestani, a suggestion which is supported by the fact that the Eastern Turkestani "bilingual" texts are written in the upright Indian Gupta characters, while the rolls are inscribed in the peculiar Eastern Turkestani "cursive" script. There is also another possibility, viz. that of clerical

errors. For example, the word (above referred to) which I have transcribed *napatata* (JRAS., 1910, p. 1286, l. 5), is transcribed *napanatä* from another manuscript by Professor Leumann (JGOS., lxii, p. 107, l. 32). Both transcriptions, as such, are undoubtedly correct, but obviously the original spellings cannot both be correct: there must be a scribal error in one of the two manuscripts. The graphic signs for *n* and *t*, in the upright Gupta script as current in Eastern Turkestan, are, in some manuscripts, rather difficult to distinguish. They are so in the manuscript fragment (Dr. Stein's *Ancient Khotan*, vol. ii, pl. cx, D. iii, 1, obv. of fol. 8, l. 2) from which Professor Leumann transcribed. His transcription I believe to be correct; yet the *n* and *t* are so nearly alike that the real reading might be *napananä*. In the *Vajracchedikā* manuscripts, from which my transcription was made, the signs for *n* and *t* are easily distinguishable, for *t* is written with a very elongated left limb, while *n* has two short and equal limbs.¹ There can be no doubt, therefore, that the reading of the *Vajracchedikā* manuscript, as it now stands, is correctly represented by *napatata*. Yet, after all, there might be a clerical error, and the true form of the word might be *napanana*; and if that were so, there would be no violation of the rule that *t* becomes *nt* in Eastern Turkestani.

Some confirmation of the view above expressed is afforded by the fact that the two folios 7 and 8 of the *Aparimitāyuh Sūtra*, which are written in "cursive" character (of a rather slovenly kind), absolutely agree with the Dhāraṇī and alphabetic and syllabic tables of the rolls with respect to the spelling *nt*. There is also much agreement with reference to the treatment of the vowels. The main difference from the Dhāraṇī is in

¹ Compare, e.g., *tä* and *nä*, sixth and third letters from the right, on l. 3 of fol. 3 rev. on the accompanying plate; or *ti* and *ni*, third and fourth letters from the left, on l. 2 of fol. 32 obv.

FOL 7 OBVERSE

1
 2
 3
 4

REVERSE

1
 2
 3
 4

FOL 8 OBVERSE

1
 2
 3
 4

REVERSE

1
 2

respect of the aspirate *bh*, which is regularly preserved, as in the tables. All the other folios of the manuscript are written in well-formed Indian Gupta characters, and exhibit all the peculiarities of the *Vajracchedikā* manuscript. The two folios 7 and 8 were evidently added subsequently by a native of Eastern Turkestan in order to supply a lacuna. They are shown in Plate VI, and read as follows, Sanskrit equivalents being added occasionally in bracketed italics :—

[Fol. 7a, l. 1] samāṁdaganta (*samudgate*) · sūbhāva vaṁśūde mahāniyaṁ paramivare svāhā : ntī vā pā nca spam ra (nca)¹ cai śna na yū [l. 2] nta ja sna ḥe ysa haṁ mye a-ysmūm-ja ha mye bī jā śnta ntū Aparāṁ-mintāyaṁ sūtra (*Aparimintāyuh sūtra*) ḥvāṁda : namau bhagavante aparāṁ [l. 3] mintāyū jñānāna sūvanaiścinta ntejāṁ (*surviniscitatejo*) rājāyaṁ ntathāgintāyaṁ (*tathāgatāya*) rahente samyaṁ-sabaudhāyaṁ · ntadyethā [l. 4] auma sarva saskāri paśūṁde (*sarva-saṁskāra-pariśuddhe*) darmante gagāṁne (*gagana*) samāṁdaganta sūbhāva śūde mahāniya parvare

[Fol. 7b, l. 1] svāhā : ntī vā pā nca gagañāyaṁ grī nce sye ja haṁ ma gi na yū nta ja sna ḥe ysaṁ ha mye a-ysmū-ja ha [l. 2] ha mye bī jā śnta ntū aparāṁmintāyaṁ sūtra hvāda namau² bhagavante aparāṁmintāyū jñāna sūvanai [l. 3] ścanta ntejāyaṁ ntathāgantāyaṁ rahenta samyaṁ sabaudhāyaṁ ntadyethā auma sava skāra paśūde : [l. 4] dharmanta gagana saṁmāṁdagantaṁ sūbhāva vaśūde mahāniya parvare svāhā :

[Fol. 8a, l. 1] kām na ṣa ha mā ve caṁ ntū aparāṁmintāyaṁ sūtra pī ri ntye ja ṣṭhāṁ na jśī na saṁsaṁli pa skyā ṣṭa u kha [l. 2] ysde : namau² bhagavanta aparāṁmintāyaṁ jñāna sūvanaiścanta ntejāya rājāyaṁ ntathāgantāyū [l. 3] rahente samya saṁbaudhāyaṁ ntadyethā auma saskāra paśūde darmante gagana saṁmāṁda gagana sūbhāva [l. 4] vaśūde mahāniyaṁ parvare svāhā

[Fol. 8b, l. 1] kau ma ṣa haṁ mā ve nca ntū aparāṁmintāyaṁ sūtra pī ye : ntū na dā jśā ve ū na bṛi yvā [l. 2] naṁ ntrai śū u na ha ṣḍā a ha kṣa :

* * * * *

In order to complete the present preliminary account of the rolls, I may add a few interesting particulars of a different kind.

I. Four of the rolls contain dated statements. Thus at the bottom of the back of Roll Ch. 0042 there are six

¹ Apparently cancelled.

² The original text seems to read *namām*, but the apparent *ām* is merely a very crudely formed cursive *au*.

or seven very brief entries, one of which gives the following date, three times repeated :—

īśi silya (so twice, but once aśa salya) ḥadyaja māšte kṣausimya haḍe
(rabīci)

i.e. "in the first year, in the ḥadyaja month, on the sixth (or sixteenth?) day". Signature in oval.

Again, the back of Roll. Ch. 0048 is inscribed with a Buddhist text in seventy-one lines, which begins with the following date :—

ssa salya cūvija māšte nāmai haḍa

i.e. "in the sixth year, the cūvija month, the ninth day".

Again, on the back of Roll. Ch. cvi, 001, there is some text, which begins with the following date :—

maḍala (?) salya cvāvaja māsti bistimye haḍai

i.e. "in the maḍala year, the cvāvaja month, the twentieth day".

Again, among Dr. Stein's manuscripts there is a gigantic roll, about 70 feet long, entirely covered on one side with 1,108 lines of writing. On it there occur the following four dates :—

(1) On ll. 196–7, sahaicā salya puhye māsti paḍauyse¹ haḍai ārdra
nakṣantrā

i.e. "in the sahaicā year, the fifth month, the first day, the ārdra lunar asterism".

(2) l. 846, śi sūntri pūhye¹ māsti 20 mye haḍai

i.e. "this sūtra, in the fifth month, the 20th day".

(3) l. 1058, sahaici salya naumye māsti pūhye haḍai

i.e. "in the sahaici year, the ninth month, the fifth day".

(4) l. 1102, sahaici salya dasamye māste 8 haḍai purva-bhadriva
nakṣatri

i.e. "in the sahaici year, the tenth month, the 8th day, the pūrva-bhādrapāda lunar asterism".

In the foregoing series of dates we have the mention of the following two months, (1) Ḥadyaja, (2) Cūvaja or Cūvija. The names of other nine months are quoted in my "Report on the British Collection of Antiquities from Central Asia", pt. ii, p. 35 (Extra Number 1 to JASB., vol. lxx, pt. i, 1901), and shown there in pls. ii, 6; vi;

¹ See Professor Leumann's remarks in JGOS., vol. lxii, p. 87, footnote 1.

and vii, 1, 2 (see also JASB., vol. lxvi, pl. v). They are (1) Skarhvāri or Skarihvāri, (2) Cvābhaja or Cvuābhaja, (3) Mūñamja, (4) Khahsāja or Khahsā, (5) Hañdyaja, (6) Ōhaja or Ōaha, (7) Jeri, (8) Kaja, (9) Pāñija (or Māñija?).¹ The names of three months are mutilated, viz., (10) . . khaja or . . caja, (11) . i . ija, (12) . vāraja. As the names ḥadyaja and hañdyaja, and the names cvāvaja (or cūvija) and cvābhaja (cvuābhaja) are evidently identical respectively, we thus have the names of twelve months, nine complete and three mutilated. The months in the four dates of the gigantic roll are not named, but numbered, viz., *pūhya* or *puhya*, fifth; *naumya*, ninth; and *dasamya*, tenth. Among the names Skarhvāri is clearly identical with the old Persian Kṣatravairya, and the modern Persian Shahrivār; but none of the others has as yet been equated. The days (*haḍa*) in the dates are always indicated by numbers; so also the years (*salya*, modern Persian *sāl*). The term *īśi*, or *aśa*, in the date of Roll. Ch. 0042 I take to be connected with *śau*, one (see JRAS. for 1910, p. 1297, note 10), and *ssa* to be six; but *sahaicā* and *maḍala* (the reading is not quite certain) I cannot explain for the present. Two nakṣatras, or lunar asterisms, are mentioned in the date of the gigantic roll, viz. *ārdrā* and *pūrva-bhādrapāda*.

II. The gigantic roll, above referred to, is one of the proceeds from the Temple library of Tun-huang. It is made of tough buff-coloured paper, and measures, in its present condition, 70 ft. 10 in. by 11½ inches, but about 3 or 4 inches are torn off at the top. The interior side is entirely covered with 1,108 lines of writing. The exterior side is blank with the exception of a parti-coloured figure at the top. This figure consists of two geese, standing on two open lotuses, facing each other, and holding in their bills flowering tendrils. The whole of the writing is in fair upright Gupta script, excepting three interspersed

¹ My readings of the names in JASB. have to be amended as above.

paragraphs which are written in "cursive" Gupta characters. The contents are as follows :—

ll. 1–197 are a long Dhāraṇī, in corrupt Sanskrit, named, in ll. 193–4, *tathāgatauṣṇīṣa sidhāntapatraṁ nārmā-parājita mahāpratyagirā*, i.e. Skt. *tathāgatoṣṇīṣa-sitātapatraṁ nāma aparājita mahāpratyāṅgirā*. A manuscript of this Dhāraṇī is in the possession of the Royal Asiatic Society, No. 77 in its Catalogue. Another is described in R. Mitra's *Catalogue of Sanskrit Buddhist Literature*, No. B, 46, p. 227. It is practically identical with the long Dhāraṇī, in "cursive" Gupta script, on the back of Roll Ch. 0041, but the opening passage, down to the middle of l. 5 (*uṣṇī vijaya viśūdhe*), is torn away. It ends with the first of the four dates above quoted. Its name is spelled variously *sitātapatra*, or white umbrella, in l. 178, or *sitāntapatra* in ll. 91, 158, 169, or *setāntapatra* in l. 190, or *satāntapatra* in l. 136, or *sidhāntapatra* (apparently Skt. *siddh-ātapatra*) in ll. 58, 72, 193, or *sūdhāntapantri* (Skt. *śuddh-ātapatra*) in l. 841.

ll. 198–220 are a story of the communication of the 1,000 names of Buddha, in the southern unknown language, and in upright Gupta script.

ll. 221–728 contain the enumeration of the 1,000 names, in corrupt Sanskrit and upright Gupta script. At the end, however, in l. 728, there are the numeral figures for 1,000 and 5 (i.e. 1,005), though the names actually enumerated are only 1,000.

ll. 728–754 give the text of the Buddha *piṭai bhadrakalpya-suntrā*, i.e. Skt. *bhadra-kalpa-sūtra*, followed in

ll. 755–840 by an enumeration of classes of superhuman beings (such as 12 koṭi of Ratnottama, 18 koṭi of Ratnāvabhāsa, etc.) ; the whole in the southern unknown language and in upright Gupta script.

ll. 841–8 contain a short statement with reference to the preceding two texts (the *sitātapatra* and the *bhadra-kalpa* with its enumeration), including the second date

previously mentioned; the whole in the southern unknown language and in cursive Gupta script.

ll. 848–1058 give the text of *Sumukha-nāma-mahāyāna-sūtra*, in the southern unknown language and in upright Gupta script.

ll. 1058–60 contain a statement referring to the preceding (third) text, with the third, above-quoted date, in the southern unknown language and cursive Gupta script.

ll. 1060–1100 practically repeat the enumeration of classes of superhuman beings which was given in ll. 755–840, in the same language and script.

ll. 1100–5 contain a statement referring to the preceding enumeration, nearly alike to that in ll. 841 ff., with the fourth above-quoted date, also in the southern unknown language and cursive script.

ll. 1106–8 conclude with a few salutations to *Ratnatraya*, etc., in corrupt Sanskrit language and in upright Gupta script.

As a curiosity it may be noted that the frequently occurring term *gyasta* is once (l. 841) spelt *jasta*, while in other places it has the usual spelling *gyasta*.

III. On the upper portion (about 5 feet) of the back of Roll Ch. 0044, which measures 23 ft. 10 in. by 10 inches, there are seventy lines of writing in cursive Gupta script and in corrupt Sanskrit language. They contain the text of the *Kauśakī Prajñāpāramitā*, the end of which may be compared with the ending of the *Prajñāpāramitā-hṛdaya-sūtra*, printed in the *Anecdota Oxoniensia*, vol. i, pt. iii, pp. 50, 54, and in R. Mitra's *Catalogue of Sanskrit Buddhist Literature*, No. A, 15, p. 192. It runs as follows, the Sanskrit version being in italics :—

Namaḥ prajñāpā[l. 66]ramintāyai ntadyathā gante gante pāragante
Namaḥ prajñāpāramitāyai tadyathā gate gate pāragate
 pārasagante baudhi svāhā[l. 67] idam avaucant bhagavān āmtamana
pārasaṃgate bodhi svāhā | idam avocāt bhagavān ātmamanā

āyūsmā Sārapūtra Śakrau devām[l. 68]nām idra nte ca baudhisatvā
 āyūsmān Sāriputraḥ Śakro devānām indraḥ te ca bodhisattva
 mahāsattvā sā ca sarvāvatī parṣa sa-de[l. 69]va-gaṁddharva-mānūṣ-
 mahāsattvā sā ca sarvāvatī parṣat sa-deva-gandharva-mānuṣy-
 āsūmraś ca lokau bhagavantau bhāṣitam abhyanaṁda | kauśaki [l. 70]
 āsuraś ca loko bhagavato bhāṣitam abhyandan | kauśaki
 nām mā prajñāpāramitā samāpnta ||
 nāmā prajñāpāramitā samāptā ||

Notice the invariable substitution of *nt* for *t*.

IV. Roll Ch. 0048 is one of the smallest. It measures only 7 ft. 11 in. by 12 $\frac{3}{8}$ inches. Its back bears seventy-one lines of writing in the southern unknown language and in exceedingly crude cursive Gupta script. The initial thirteen lines are introductory prose, and are followed on ll. 14–71 by a Buddhist story which opens in the conventional way, except that here the opening statement is not in the usual prose, but in verses (one and a half), as follows :—

[l. 14] Siddham Nta pyūṣṭi śau bām de ḥaysi • Śrāvasti kṣīri ṣa
 mūm de • jintīṣpūri udāmñā • pharāṁkye [l. 15] parṣijṣa
 hansa • 1 Dharmi sai nāva misti • Sāripūtra sthīri ntū
 kām la •

After these verses the story proceeds in prose. In the prose portion the word ḥaysi appears several times spelled biysi. Perhaps the versified opening may hereafter lead to the identification of the Sanskrit version of the story.

V. Roll Ch. cvi, 001, which is only a sheet of thick, tough, dun-coloured paper, measuring 24 $\frac{1}{2}$ × 13 inches, is remarkable also on account of being inscribed, not in Chinese, but in Tibetan. The obverse, or what appears to be the principal side, is covered entirely with thirty-one lines of writing in extremely crude cursive Gupta script, and in the southern unknown language. It opens with the date, above quoted, and is continued on the reverse side with eight lines of similar writing. This is followed by fifteen lines of fair writing in Tibetan script and apparently Tibetan language, which runs, however, in the

opposite direction to the cursive Gupta inscribed above it. Below this again, and finishing the reverse side, there is another Tibetan inscription of nine lines, which again runs in the opposite direction to the Tibetan above it, and therefore in the same direction as the cursive Gupta inscription at the top of the reverse side.

On the obverse side, on the eighth and ninth lines from the bottom, there is a cancelment of eleven syllables (*aksara*) of the cursive writing (crossed through), and below is written interlinearly, in Tibetan script, *manana* with an unintelligible mark after it. On the same side, on the ninth line from the top, there is what looks like the indication of a fresh paragraph in the cursive writing which here begins with *um*, and below it is written, interlinearly, *am* (or *ama*) in Tibetan. The corrections in Tibetan seem to indicate that the Tibetan inscription on the sheet was made at a date subsequent to the inscription in cursive script. If that be so, and if the Tibetan inscription contain a date (which I have not been able to make out), it may furnish a key to the identification of the era and the system of dating of the documents in cursive script.

VI. Towards the end of the *Aparājita Pratyāṅgirā Dhāraṇī* there occurs a curious clause enumerating the different kinds of writing material which was in use at that period of time. The clause runs as follows :—

- (1) Roll Ch. 0041, ll. 125 ff., *ya imā ntathāgantauṣṇīṣa-saintāntapantra-*
- (2) Gigantic Roll, ll. 158 ff., *ya imān tathāgatauṣṇīṣaṁ sitāntapātram*
- (3) Hodgson, No. 77, fol. 17b, — *imā tathāgatoṣṇīṣa-sitātapatrā*
- (4) Sanskrit : *ya imān tathāgatoṣṇīṣa-sitātapatra-*
- (1) *nāma-parājanta pratyagarā lakhatvā buvyū-pantrai vā vastre vā*
- (2) *nāmnāparājitaṁ pratyāṅgirā likhitvā bhūja-patre vā vastre vā*
- (3) *nāmāparājitā pratyāṅgirā likhitvā bhūrja-patre vā vastre vā*
- (4) *nāmān aparājitaṁ pratyāṅgirān likhitvā bhūrja-patre vā vastre vā*
- (1) *kalke vā kāyagante vā karyagante vā likhatvā dhāriyaṣyante |*
- (2) *kalke vā kāyagate vā kaṇthagate vā likhitvā dhārayeṣyate |*
- (3) *bhūvatkare vā kāyagatām vā kaṭhegatā vā kṛtvā dhārayiṣyanti |*
- (4) *kalke vā kāyagate vā kaṇtha-gatām vā kṛtvā dhārayiṣyati |*

- (1) *ntasya yāva-jīva vaṣa na kramaiṣyante*, etc.
- (2) *tasya yāva-jīvaṁ viṣaṁ na krameṣyate*, etc.
- (3) *tasya yāvaj-jīvaṁ viṣe na kramiṣyanti*, etc.
- (4) *tasya yāvaj-jīvaṁ viṣaṁ na kramiṣyati*, etc.

i.e. "who, having written this powerful Pratyāṅgirā (Dhāraṇī), named the white sunshade of the Tathāgata's crown, either on birch-bark, or on cloth, or on paste, or on paper, or having committed it to memory, makes use of it; him throughout life no poison will injure", etc.

This clause names four kinds of writing material—(1) *bhūrja-patra* or birch-bark, (2) *vastra* or cloth, (3) *kalka* or paste, and (4) *kāyagata* or paper. There can be no question about the identity of the words for birch-bark and cloth. The form *buṣyū*, if the reading is correct, would seem to be the name of the birch in the southern unknown language. As to *kāyagata* or *kāyaganta*, it is clearly identical with the Arabic word *kāghadh*, or, as it is pronounced in India, *kāghaz* (Ūrdu) or *kāgad* (Hindī). This word, as I have shown in this Journal for 1903, p. 669, on the authority of Professor Karabaček, is a mere loan-word in Arabic, into which it was introduced from the Chinese *kok-dz'* through Eastern Turkestan in the middle of the eighth century. Dr. Stein's rolls would show that, by the natives of Eastern Turkestan, the Chinese word was pronounced *kāyaganta* (or *kāganta*, p. 477); and in that case the Arabic pronunciation of it, as *kāghadh*, might throw light on how the Eastern Turkestanis pronounced their *kāyaganta*. Of *kalka* I am unable to make anything, unless it may be an error for *valka*, and unless the latter may signify skin or parchment. The ordinary meaning of the word is "paste" (e.g., made of powdered dry, or crushed fresh drugs, in medicine). Might it here refer to mortar, or beton, which when plastered on a wall would make an inscribable surface? The reading *bhūvatkare* (*bhūvalkale*?) of the Hodgson MS. is equally puzzling. The reference of the fifth alternative to memorizing seems clear from its version in the gigantic roll and the Hodgson MS. That version, however, is the

lectio faciliior, and the version in Roll 0041 seems to point rather to a fifth kind of writing material, but what that material might be I am unable to suggest. It seems possible that the name of paper should be *kāganta* or *kāgata*, the existing reading *kāya-ganta*, or *kāya-gata*, lit. “gone into the body”, being erroneously due to the following phrase *kaṇṭha-gata*, or “gone into the throat”, the well-known Sanskrit idiom for “committed to memory”.