ART. IX.—On a newly discovered Bactrian Pali Inscription; and on other Inscriptions in the Bactrian Pali Character. By Professor J. Dowson, Royal Staff College.

[Read 16th February, 1863.]

In January, 1862, Mr. A. A. Roberts, of the Bengal Civil Service, presented to the Society two copper plates inscribed with Bactrian Pali characters, said to have been found at Hussun Abdal, near Rawal Pindee, in the Punjab. These plates were submitted to the examination of Mr. Norris, and that gentleman at once picked out the names of Takhasila nagara (Taxila) and Sakyamuni, proving the inscription to be one of more than ordinary importance. Having made a transcript of the document, he wrote a few notes upon it which were read at one of the Society's meetings, and he then suggested that the plates should be sent to me. The interest I had taken in these Bactrian inscriptions from the time of our joint labours on the Kapur di Giri edicts was well known to him, and was sufficient to ensure a careful if unsuccessful consideration of the newly-discovered inscription. In this recommendation the Society acquiesced and placed the plates at my disposal for examination and report. I now propose to state the results of my investigation.

A very short examination satisfied me of the value of the record, and of the great service which Mr. Roberts had rendered to Palaographic science in preserving this relie and in making it available for the furtherance of our knowledge of the somewhat restricted but greatly perplexing stock of Bactrian Pali records. The inscription of Kapur di Giri, with all the assistance it received from two independent versions in another character, has in many points baffled the learning and industry of Wilson and Burnouf, and I know of no inscription in this character of which, up to the present time, a complete and convincing interpretation has been offered. The one now before us has enabled me to understand many things in other inscriptions of which I was in doubt or ignorance before, and, above all, it supplies the long-desired key to the Bactrian system of numbers. Encouraged by the new light which it

affords, and emboldened by the very unsatisfactory condition of Bactrian antiquities, I have extended my enquiries to several other inscriptions in the Bactrian character.

Mr. Thomas, with the consent of Mr. Austin, has kindly placed at my service the two plates of inscriptions which appeared in his edition of Prinsep's works. These two plates, and the additional two now published, contain nearly all the Bactrian inscriptions which have been made known. I propose to go through the whole of these, and although I have no expectation of making all things clear, I hope to help the advance of knowledge by a detailed statement of the results of my study and a frank acknowledgement of my doubts and difficulties. Others may thus be incited to follow up the investigation, and looking at it from a different point of view, or bringing to it greater and more varied knowledge, may correct my errors and make up for my deficiencies.

The inscription of Mr. Roberts was described as being upon two copper plates, and Mr. Norris dealt with them as distinct plates, but their general appearance made me suspect them to be two portions of one plate broken very nearly in the centre. A careful examination confirmed this surmise. The two corresponding ends were much corroded and abraded, but upon joining them together a small portion of each accurately fitted into the other, and in one place the juncture completed a letter, part of which was graven upon one and the remainder upon the other portion of the plate. This was decisive, and afforded a clear direction as to the order of reading the inscription.

The plate is fourteen inches long and three broad. The letters which are composed of small dots punched upon the plate, vary somewhat in size, but are very carefully and distinctly formed; their average length may be said to be half an inch. The short line at the bottom of the plate is in somewhat smaller characters, as also is that stamped on the back of the plate as an endorsement or label. With these preliminary remarks, I proceed to give, in Roman characters, my reading of the inscription:—

- Line 1. Samvatsaraye atta-satatimae XX7333 Maharayasa mahantasa mogasa pashemasa masasa divase panchame 1X Etaye purvaye chhaharasa
 - 2. chukhsasa cha chhatrapasi Liako Kusuluko nama tisa patropati...... Takhasilaye nagare utarena prachu deso Chhema nama atri

サイナンダンプ サイン・サイトウ きていって ナイロスナイト ユーニアンよく たして そともらるするとを ファケ Fig. 3. Bimoran Tase. Fig. 2. Pishawar Tase.

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- 3. sepatiko apratittavita Bhagavat Sakamunisa sariram patithavati sangharamam cha sarva-buddhana puyae mata pitaram puyayanto
- 4. chhatrapasisa putra darasa ayu bala vardhia bhratara sarva cha satiga ... a ... dhavasa cha puyayanto mahadana patipatika sidha uvajae

Short line at bottom. Rohini mitrenaya imahi sangharame nava kamika

On the back. Patipasa Chhatrapa Liako.

The opening sentence is Samvatsaraye atta-satatimae, Sans. Samvalsare ashta-saptatime, "In the 78th year." The first word has two points of interest; it supplies a new compound in the form ts, and a variety of the locative case, ye being used instead of the common c. The words expressing the number are of the chief importance; it is therefore satisfactory to find that the letters on the plate are distinctly legible, and that, with one exception, their powers have long been conclusively decided. The exception is the second character rendered as tt (or tth) but of which the value has hitherto been unknown. A little consideration will, however, demonstrate that its power must be that now assigned to it. There cannot be any doubt as to the second word of the number being satati, "seventy;" the preceding word must, therefore, be the unit, and that unit unquestionably begins with the vowel a. Ashta (Pali, atta) is the only unit which has a for its initial, and consequently, that number must be here intended. A further proof of the value of this character is found in line 3, where we have it in the word apratitavita, the Pali equivalent of apratishthapita. After this there cannot be any doubt of the character being the equivalent of the Sanskrit sht and shth. The reason for reading it as the and not as shi, is twofold; the number seventy being in the Pali form satati, it is only reasonable to expect that the unit must be the Pali atta, not the Sanskrit ashta, and in the second place we have another character for the compound sht very clearly written on the Wardak Urn. These words are succeeded by six numerals, representing the number 78. The system of notation will form an independent portion of this paper, and need not be further noticed Then follow the words Maharayasa mahantasa pashemasa masasa divase panchame 5. The three concluding words admit of no doubt whatever, but signify the "5th day of the month." The other four words are all in the genitive agreeing with masasa, and apparently in connection with it. The last of them, or perhaps the

last two, must be the name of the month, but I have been unable to identify it quite satisfactorily. The name unfortunately occurs just at the fracture of the plate, and the first two letters are very indistinct; the first of them may be p, k, or bh, and the second seems to be she, but as it is difficult to decide what these letters really are, we may perhaps assume the name to be Panemasa, i.e., Panamus, one of the Seleucidan months; for we shall find these months employed in other inscriptions. The initial letter seems to be preferably p, and it is easy to perceive how the letter ne might come to look like she, where the plate is so caten away and corroded. Assuming then the name to be Panemasa, we have the words Maharayasa mahantasa mogasa, to dispose of. The first word is the same as Mahárájasa, the substitution of y for j, being common in Prakrit, and of which we shall meet with other examples, as puyae for pujac. Mahantasa is the adjective "great," for the Pali retains throughout the conjunct n, which occurs only in some of the cases in Sanskrit. In modern times the word is used for the head of a religious establishment. I have not been able to find a plausible equivalent for moga, and hence am led to conclude that it is a name. Having thus examined the meaning of each word, their syntactical relation requires attention, and is not without its difficulty. words are all in the genitive case, agreeing with the word masasa, but whether they are to be taken as epithets of the month, or whether they are to be construed in connection with the previous sentence, "In the year," is a matter of some importance. In Fig. 2, of Plate x, we have the words Chetrasa maha dharistisa 8, the words maha dharistisa, whatever they may mean, clearly being used as an epithet of the month, like the Rajabu'l-murajjab of the Muham-There is, therefore, good ground for believing that descriptive epithets were occasionally applied to the months. when we come to examine those before us, it is difficult to see how maharajasa and mogasa can thus be applied. The former might possibly have the forced signification of "very royal," but no intelligible meaning is discoverable for mogasa; I propose, therefore, but not without much hesitation, to read the opening sentence, "On the 5th day of the month Panamus, of the 78th year of the mighty king, the great Moga." Who or what this Moga is it is difficult to conjecture. There is the Magas of the Kapur di Giri Inscription, and the name of Maudgala or Mogala, the great disciple of Gotama, is derived from the word Mudga, the Pali of which is Muga or Moga. Mahanta might fairly be applied to this great priest, but the applicability of Maharaja is not so apparent. The epoch from which

the year is numbered, must also remain in doubt—the number of the year is too high to be that of the reign of any king, so that if it really be "the year of" of any particular person, it must date from his birth or accession, or his death, like the era of Buddha. We shall have, however, to recur to this subject in reviewing other dates.

The words coming next after the date are etaye purvaye, locative cases apparently like samvatsaraye at the beginning. The following word is chhaharasa, but the final s is doubtful, and the vowel attached still more obscure. Taking the word in connection with the next, Chukhsasa, which is a genitive, and followed by the conjunction cha, we may fairly assume this to be in the same case. The opening sentence then will read, Etaye purvaye chhaharasa chukhsasa cha. Unfortunately the two words chhahara and chukhsa are unintelligible; the latter has a very foreign look, but the former may spring from the root kshi "to dwell," "to reign." Etage, is the demonstrative pronoun, and means, "in this;" and the word púrva, as a noun, signifies "the east," and in Pali has the meaning of "the presence" (Clough 124). The latter seems to be the most suitable meaning here. We may, therefore, read the sentence, "In this presence of Chhahara and Chukhsa." The following words are, Chhatrapasi Liako Kusuluko nama, "The satrap by name Liako Kusuluko." I read the final of chhatrapa as si, for the point of the s is evidently curled intentionally, and is so made when the word occurs again in the third line. The whole word appears to be a mere variant, not an inflection, of the word chhatrapa, as we have the genitive termination added thus, chhatrapasi-sa in line 3. The next word is tisa "his," and is followed by the letters patropati, which extend as far as the fracture, and leave the word incomplete, as there is room for two more letters. If this be the right reading, it is probably connected with the word pátra, though the application of this word is In my first reading of the plate, I took it to be patipati, but Mr. Thomas, after cleaning the copper, considers the engraving as correct, and so we must leave the word in doubt. The next words are Takhasilaye nagare utarena prachu deso chhema nama-rather an awkward sentence, but apparently signifying "The country called Chhema, north-east of the city of Taxila." Práchu is the Sanskrit prách, prág, "east," and the phrase utarena prachu is equivalent to the ordinary prág-uttarena. Chhema for Kohema represents a well known word, but it has not been found as the name of a locality agreeing with that specified in our text. The following word is atri or atra, "here." The third line begins with

the word sepatiko, the name of the building or establishment set up by the Satrap. No Sanskrit equivalent for this word is apparent. The word sepa, with the signification of "comfort," is given by Hardy in his Eastern Monachism, and possibly is connected with the word ścpatiko. We shall probably be not very far wrong in assuming this word to designate a temple, vihar, or some sort of building for religious purposes. The following word is a participle, amatittavita for ápratishthápita "established," founded "-the substitution of tt for shth has already been referred to, and that of v for p is common in Prakrit; thus padivaddi is the Prakrit of pratipatti, and in a future page we shall find thuve for thupe. After this come the words Bhagavat Śakamunisa śariram, " a relic of the Holy Śakamuni," and the verb patitharati, the medial letter of which is somewhat obscure, but the whole word is sufficiently clear, and signifies "establishes," "places." The sentence then may be translated, "The Satrap, by name Liako Kusuluko, deposits a relie of the Holy Sákyamum in the ścpatiko established in the country called Chhema, north-cast of the city of Taxila." The language is not very grammatical, and the dependence of the different words is not very clear. The word atra seems to be used instead of putting the name of the country in the loc. case, that case having already been used for the name of Taxila.

The next sentence is Sangharamam cha sarva buddhana puyae, "in honour of the Sangharama, and of all the Buddhas." Burnouf discusses the meaning of Sangharama (Lotus 436), and comes to the conclusion that it signifies "the garden of the assembly," and by extension the "lieu d'habitation des Religieux." This signification is certainly borne out by the etymology, and would seem to apply to the word in a passage lower down, but it hardly suits our text. where the word is coupled with "all the Buddhas." May not the term be used to designate the Buddhist religion, or the priesthood collectively? The next sentence is Mata-pitaram puyayanto, "for the honouring of his father and mother." The last letter of puyayanto is indistinct, but there can be no hesitation about it as the word occurs again in the next line. It is the dative case of the active present participle. The following sentence, beginning line 4, . is Chhatrapasisa putra darasa ayu-bala vardhia, "For the long life, strength, and prosperity of the son and wife of the Satrap." The Sanskrit word dárá, wife, is a masculine, and is always used in the plural; but the Pali, while retaining the gender, employs the word in the singular, as in the text (Clough 29). Vardhia is from the Sanskrit vriddhi. The next sentence is defective—Bhratara sarva

cha sati. ga... dhavasa cha pnyayanto. The defective word after the cha is doubtless some form of sat, "good," "virtuous," and.. dhavasa may probably be completed as bandhavasa, gen. of bandhava, "a relative." Omitting the defective word, the sentence may be translated, "For the honouring of all his brethren and... relatives." The last sentence appears to be Maha dana patipattika sidha uvajae, "For the knowledge (making known) of his great liberality, fame, and success." The final word seems to be uvaja, the Sanscrit upajnā—maha dana patipatti is clear; but whether the ka should go with patipatti, or with the following word sidha or sidahi. I have taken this word to stand for siddha or siddhi.

The small line at the foot reads Robini Gatrenaya imahi sangharame nava kamika. The two first words form a name, and must
be read as transcribed; for if Gatrena be taken as an instrumental,
the ya will be superfluous. Imahi is the loc. "in this," agreeing
with sangharame, "religious abode." The next word is obscure, and
may be nava, nara, or nata; as nava it will mean "new," as nara
"man." The last word is Kamika, Sanskrit Karmika or Kármika,
"maker." Kármika is also the name of a Buddhist seet (Burnouf,
Int., 441), but the word would here appear to be used in its simple
sense. The whole seems to be the builder's endorsement or certificate, "Rohini Gatrenaya, the new (?) builder in this religious
abode."

The endorsement on the back is a sort of label comprising the Satrap's name—Patipasa Chhatrapa Liako. If Patipasa be taken as a gen., the reading will be "Liako, Satrap of the Lord of Lords;" but if the word be a nom., as we have seen Chhatrapasi to be, it will then read, "The Lord of Lords, the Satrap Liako."

TRANSLATION.

In the year seventy-eight (78) of the great king, the great Moga, on the fifth (5) day of the month Panæmus. In this presence of the Chhahara (?) and Chukhsa (?), the Satrap, by name Liako Kusuluko deposits a relic of the Holy Śákyamuni, in the *sepatiko* established in the country called Chhema, north east of the city of Taxila, in honour of the great collective body of worshippers and of all the Buddhas; for the honouring of his father and mother; for the long life, strength, and prosperity of his son and wife; for the honouring of all his brothers and relatives; and for making known his great liberality, fame, and success.

Robini Gatrenaya, the (new?) builder in this religious abode.

Liako, Satrap of the Lord of Lords.

Liako Kusuluko, the Satrap of this inscription, is a new name; but his dynastic name of Kusuluko is, without much doubt, the same as the Greek Kozola, and the Bactrian Kujula or Kuyula which has been found upon many coins (see Thomas' Prinsep II, 202, 3). Mr. Thomas has kindly favoured me with copies of the usual legends of these coins, and has noted several variants observable in them. They will come under review in a subsequent portion of this paper. Little is known of these Kozolas or of the date of their power. Their coins have been found in considerable numbers in the Punjab, and the present inscription is an indication of their authority over Taxila. They would seem to have belonged to a Scythic race; and the various ways in which their name is rendered in Bactrian characters is strong evidence of its being a foreign one.

The Bactrian word for Satrap, which has hitherto been rendered "Chatrapa," I have converted into Chhatrapa. The initial letter is a clear modification of the chh of Kapur di Giri, and the transition stages are seen in Mr. Bayley's seal (plate iv, fig. 6), and in the Wardak Urn (pl. x). It is always found as the representative of the Sanskrit ksh, of which compound, chh and not ch, is the modern representative. Thus we find Rachhita for rakshita, and dachhina for dakshita; and the word chhatrapa itself is spelt Kshatrapa on the coins of the Sah Kings, and Khatrapa on the coins of the "Buddhist satraps," the signification being "ruler or patron of the Kshatras." (Prinsep ii, 85, 87, 223.)

NUMERAL SYSTEM.

Before entering upon a consideration of any other inscriptions 1 propose to investigate the numeral system as exemplified and explained in this inscription, and to bring together all the dates within reach. These Bactrian figures have, for a long time, excited the curiosity of the learned, and Colonel Cunningham has put forward a system of interpretation so authoritatively that I feel bound to notice it at length, and accordingly allow him to speak for himself in a note. 1 He gives the figures a decimal value; but a mere

¹ Colonel Cunningham's readings of these dates were, I believe, first made known in the year 1854 (Beng. Journal, xxiii, p. 703), in which he states his interpretation to rest "upon the authority of a stone slab in my own possession, which gives in regular order the nine numerals of as early a period as the Sah

glance at the array of six figures in the Taxila plate is sufficient to prove that the numerals must have an arbitrary and not a decimal power; that the Bactrian system must in fact be of the same nature as the Roman. I had long been possessed with this idea, arising, in the first instance, from the fortuitous resemblance of the figures in the Manikyala inscription to the Roman C and X, and I was confirmed in it by the occurrence of three figures in the date of the month on the Wardak Vase.

Upon reading the words atta satatimae, "seventy-eight," in the Bactrian plate, and the word panchame, "five," I immediately sent my readings, with the figures, to Mr. Norris, and by return of post he

coins of the Satraps of Saurashtra;" and he then continues to state in a note that he discovered in the year 1852, "that these numeral figures, from 5 to 9. were the initial letters of their Pashtu names written in Ariano Pali. Thus 5 is represented by p for pinz; 6 by sp for spaj; 7 by a for avo; 8 by th for atha, the a having been already used for 7; and 9 by n for nah. Even the 4 is a ch; but as the Pashtu word is salor, this form must have been derived from India. The first four figures are given in two distinct forms, the second set being the older; and the two forms show, in the clearest manner, how the straight horizontal strokes of Asoka's, and even of later days, gradually became the 1, 2, 3 of India, from which they were transmitted through the Arabs to Europe." The objections to this theory have already been very forcibly urged by Mr. Thomas (Jour. As. Soc. Beng. xxiv, p. 556; Prinsep. Vol. I, 144, 145), and I should not have noticed it so fully here but for the reference to the inscribed stone upon which the theory is stated to have been founded. It is very much to be regretted that no copy of this stone has ever been made public for the satisfaction of the learned in these matters, as it is quite clear that Colonel Cunningham's interpretation and method of application are uncertain or erroneous, indeed he himself seems to have mistrusted his own renderings, as in his first paper above quoted he read from left to right, but in his last (Beng. J. 1862, page 303) he reverses the method. The dates of which he gave solutions in the first paper, are -

- 1. Manikyala (pl. ix), XX7 = 446.
- 2. Ohind (pl. x, fig. 2), month XX = 44.
- 3. " " year | 333 | 333.
- 4. Panjtar (see pl. x, fig 3), year 390.

Upon comparing the first and second of these, it is clear that they were read from left to right; the reading of the last date is unintelligible. In the last paper the reading is from "right to left," and the numbers 733 (Wardak, pl. x), and XX7 (Pl. ix, fig. 3), are rendered as 331 and 144, from which also it appears that the figure 7 had in the interim changed its value from 6 to 1. The true value has been given to the figure X, 4, from the first; but the reading of XX as 44 in the date of a month was a manifest error, as has been well urged by ajendra Lal (Beng. J. vol. xxx. 342). Whether the correct rendering of the figure X was more than accidental it is impossible to say without a reference to the authority of the "stone slab," a publication of which document is urgently required for the furtherance of antiquarian knowledge.

favoured me with his interpretation of the numerals, which cutirely agreed with that I had myself determined in the interim, and satisfied me that we had concurrently arrived at the true solution. It was clear from the date of the month that IX represented 5, i.e., 4 and 1; consequently the two X's at the left of the number of the year expressed the number 8. It was thus manifest that the figures must be read from right to left. Taking the form 7 to represent 10, and the duplication of that form in the figure 3 to be 20, the required number 78 was obtained—thus XX2333.

$$78 = .4 + 4 + 10 + 20 + 20 + 20$$

The result of this is that we get examples of the figures 1, 4, 5, 8, 10, and 20, and are enabled, as I shall presently show, to express all numbers under 100.

The date then of the Taxila Plate is 5th Panæmus, of the year 78.

The inscription on the Hidda Jar, which will be found in the plate at page 262 of the Ariana Antiqua, appears to be the earliest date known; the year being XX = 8. Colonel Cunningham, in his last paper on these dates, reads it as consisting of three figures XX7, but this is a mistake, as there are only two figures. this interesting paper, Colonel Cunningham first makes known the fact of the Seleucidan months being in use. I had previously made the same discovery by reading the name of the month in the Wardak inscription as Artemisius. Gladly conceding to Colonel Cunningham the merit of first publication, it is desirable to mention the fact of my having independently arrived at the same conclusion. and being entirely of accord in identifying a Seleucidan month. The very unsatisfactory nature of the published copy of the Hidda inscription, and the absence of any means of verifying it, had induced me to pass it over, but I now fully concur with Colonel Cunningham in reading the month as Apilaesa, or rather Apiraesa, The succeeding words he reads as vrehi dasami. i. e., Appellæus. We may admit that the last word is that which is really intended. but it reads dasahi rather than dasami; it may, however, be allowed to pass for "10th." The word which Colonel Cunningham reads "vrehi" requires attention, as it occurs in several other inscriptions. Rajendra Lal, in his paper on the Wardak inscription, agrees in reading the word as vrehi, and thinks it to be an abbreviation of Vrihaspati, or Thursday. Colonel Cunningham, however, considers it the representative of the Sanskrit vriddhi, and to mean the increase of the moon-the bright half of the

month. I am obliged, however, to dissent from these opinions, and I concur with Mr. Thomas's tentative reading stehi. The initial letter is clearly the well-known "st" of Thomas's alphabet: it is found in the names of Strato (Ari. Antiq., plate vi, fig. 10) and Hippostratus, and in the word which Colonel Cunningham reads as "Strategasa," the Greek $\Sigma \tau \rho a \tau \eta \gamma \phi s$, on the coins of Aspavarma (Beng. J., 1857, p. 696). In the face of all these it is impossible to read the word as vrehi, however desirable it might be. We must here anticipate a little, and compare the various dates in which the form appears. The following are examples of its use:—

Hidda—Apiraesa stehi dasahi = 10.

Wardak—Artamisiyasa stehi 1X2 = 15.

In fig. 3, pl. ix, it occurs after an illegible month as stehi ? = 10. It may possibly be found in the Manikyala inscription between the name of the month and the word divasa, "day;" but this is far too doubtful for the purposes of argument. Colonel Cunningham, in his last paper, supplies another date, Tsattikasa divasa vrehi (stehi), 3, which he renders "third day of the increase of Xanthikos." It is very desirable to ascertain if the word divasa really occurs as placed in the last date, or whether it is only inserted as complementary, as is the case with Colonel Cunningham's reading of the Wardak inscription, in which he gives the word divasa, though it is not in the original. The solutions of the word proposed by Babu Rajendra Lal and Colonel Cunningham, even supposing it to be vrehi, as they read it, are by no means satisfactory. The supposition of its being an abbreviation of Vrihaspati, Thursday, is quite inadmissible, for the letters "vrehi" are not "the initials" of Vrihaspati; and even if they were it is next to impossible that they could be used in that sense in so many different records. The proposal to look upon the word as signifying the increasing half of the moon is more specious, but equally untenable. I cannot find that the Sanskrit vriddhi is ever used to express "the increase of the moon;" but even supposing it to have been employed in that signification vrehi is not the Prakrit or Pali form of the word. The word vrehi is used as we have seen with the Seleucidan months, perhaps exclusively with them; and although there are reasons for believing those months to have been luni-solar, there are none, that I am aware of, for supposing the purely Hindu division of the bright and dark half to have been observed in them. Finally, if Colonel Cunningham's reading of his last date Tsattikasa divasa vrehi (stehi) is accurate, it settles the question, for there the term follows the word "day," which it could not do if

it had the meaning he proposes: it would necessarily come after the name of the month if it related to the month. Though satisfied of the inaccuracy of the interpretations proposed, it must be confessed that no convincing solution of the word is apparent. It seems to be a word in the locative case; and in plate x, fig. 2, we have a form "stisa," which may possibly be the genitive. It seems to be equivalent to "date;" the "Artamisiyasa stehi, 15," of the Wardak Vase, corresponding with the "divase panchame, 5" of the Taxila inscription. Further discoveries may enable us to settle the meaning of the word more distinctly, but we cannot err very much in attaching to it the meaning here proposed.

The Manikyala inscription (plate ix) is dated xx7, i.e., 18; and the month is apparently given in the last line of the short passage on the right-hand side of the inscription. Colonel Cunningham has read it as "Kattikasa māsa divasa, 3;" and I agree in the main with this reading of the letters; but there is such obscurity in this part of the record that copies and tracings made at different times vary considerably. The first two letters and the last two are distinct, the others are all very hazy, and cannot be traced with any degree of certainty. The first two letters make karti (for the compound is rt, not tt), the next letter does not resemble the required k, but its true form is somewhat doubtful. The next is s, and is tolerably clear. The succeeding letters are extremely indistinct; and one tracing of my own is somewhat suggestive of the word stehi. The d of divasa is not clear, but the other two letters are distinct. The figure which Colonel Cunningham reads as 3 is badly formed; but there can be no hesitation in identifying it with the 20 of the Taxila plate. We may, therefore, read the date of the Manikyala inscription as "20th Kartika, year 18."

The short and indistinct legend figured in plate ix, fig. 3 is dated in the same year as the Manikyala inscription; that is XX7 = 18. Colonel Cunningham reads the month "doubtfully" as Artemisius (Beng. Journ., 1862, p. 303), but I cannot go with him in this reading. The number of the year is followed by two unknown letters, and the rest are indistinct, but appear to finish with "stehi 10." The date would then appear to be "10th of ——, year 18."

The date next in succession is that of the Wardak Urn, which is Sam 1733 Masya Artamisiyasastehi 1X7 "15th of the month Artemisius, in the year 51."

Colonel Cunningham's two Yusafzai inscriptions from Ohind and Panjtar (plate x, figures 2 and 3) have the peculiarity of being

preceded and followed by a straight stroke, enclosing the three central figures as it were in brackets; and it is just possible that this may be their use here; but as the single stroke is the representative in other places of the numeral 1 we are not justified in assuming that they have no numerical value in the dates before us. If they are really part of the date the right-hand stroke may be the representative of 100; but this is a mere speculation. inscription reads "San 1333 | Chetrasa maha-dhatistisa vaomiti XX." I have adhered strictly to the published copy, but I am curious to know if the original might not justify the reading of attamiti instead of the unintelligible word vaomiti. The first letter as it now stands may be read indifferently as a or v, and the second merely requires a straight instead of a curved top to make it #—the word would then be attamiti, "eight," and would agree with the numerals XX = 8. The emendations required to arrive at this intelligible reading are so slight that they may very fairly be suggested, but I will not assume them however probable they may appear. date then of this inscription is "8th Chaitra, of the year 61." value of the right-hand stroke remains to be settled; but, as before stated, it may possibly stand for 100, and if so the year will be 161. I have, in a previous page, noticed the words "maha-dhatistisa," and the ground for considering them to form a descriptive epithet of the month. The meaning of maha is obvious; dhatistisa may possibly be the Sanskrit adjective dhátri, "cherishing, nourishing, fostering"an epithet not unsuitable to the vernal month of Chaitra. As to the termination stisa, may not this be the genitive form of the word stehi, already commented upon.

The other Yusafzai inscription from Panjtar (pl. x, fig. 3) presents an unknown numeral if the form is correctly delineated. It is not possible to do more than guess at its value; but supposing it to be a real figure, it may dispute the representation of the number 100 with the right-hand I. The following figure is 20, and the two succeeding strokes may be considered as representing 2. Colonel Cunningham reads this date as San 390 Śrávanasa mása sudi prathame. Passing over the number of the year, which is irreconcileable with our present system of numbers, the remainder of the reading is satisfactory. I am not sure, however, that we should read mása sudi rather than másasahi, for the very slight twist at the bottom of the s is not to be compared with the well-developed conjunct u which occurs subsequently; and the next letter is more like the usual h than d. Sudi is certainly more intelligible, and so far preferable. The word prathame is clear and certain,

and the stroke following it may be taken as its numerical representative.

REVIEW OF THE NUMERALS.

Having thus gone through all the known dates, we may now proceed to sum up our acquisitions, to examine the arguments for and against the values assigned to the figures, and to see how far the Bactrian system is capable of development from the materials in hand.

- 1. The stroke representing the figure 1 has been hitherto passed over, with the belief, apparently, of its being a mere stop or mark of separation dividing the numerals from the letters; and at first sight there is nothing improbable in such a supposition. The Wardak inscription employs this stroke after two figures in the date of the month, so that it could have no power if the figures had a local value like the Arabian numerals; and the copies of the Ohind and Panitar inscriptions (pl. x, figs. 2 and 3) place it both before and after the undoubted figures, enclosing them as it were in brackets: thus affording a prima facie case for deeming it of no numerical value. On the other hand, it must be observed that it is entirely absent from the Manikyala inscription, and in the Taxila inscription it is absent from the number of the year, while it is used in the date of the month. Independent, therefore, of any knowledge of its value it would seem to have been used with a purpose and a power. Now, as to its being the representative of the unit one, the general use of this symbol for that purpose need only be referred to as strongly favouring the supposition. The four straight strokes in the Kapur di Giri inscription, representing numerically the chaturo rajano, prove it to be there used as the figure 1; following the word prathame in the date of the Panitar inscription it must be looked upon as the figure representing that number; and, finally, the way in which it is used in the Taxila inscription is decisive of its value; unless, indeed, the interpretation of the numbers in that document is altogether erroneous.
- 2. 3. The equivalents for these numerals are not given in the faxila inscription, and the only inference we can draw respecting them is from the Kapur di Giri inscription, where four distinct strokes are used as the representative of the numeral 4.
- 4. The four lines of the Kapur di Giri inscription are represented by X in the Taxila inscription; the four points of the cross being severally counted as one, like as a star with 5 points, was used by the Egyptians as the representative of 5 (Revue. Arch. Oct, 1862).

The change thus effected between the date of the Kapur di Giri and Taxila inscriptions is a very reasonable one, and the character so formed is a fair and intelligible symbol for the number 4. This figure, like the Roman V, is an important one, being used with additions for expressing other numbers. As we have facts to deal with, it is unnecessary to theorise as to the employment of the number 4 as a master number; there are arithmetical reasons in its favour, and the Indians have certainly shown a partiality for this number and its multiples, in their weights, measures, and coinage.

- 5. This number is very clearly expressed in the Taxila inscription by IX, i.e., 4×1 .
- 6. 7. We have no example as yet of these numbers, but we may conjecture that they are represented by the X for 4 with additional straight strokes, upon the same principle as in the numbers 5 and 8.
 - 8 Is represented by XX, that is by two figures of 4.
- 9. Of this numeral we have no example; it might, however, be clearly represented by IXX.
- 10. 20. Ten is represented by the sign 7, and twenty by 3, that is by a double ten, in the same way as 8 is noted by a double 4.

The highest numeral that we are acquainted with is 78, the date of the Taxila inscription, in which the 70 is expressed by three 20's and a ten. It may reasonably be inferred that the same principle continued up to 100. Thus, although we have examples of only six figures, including the 10 and 20, we may, by carrying out the principle, express the unknown numbers intelligibly and in all likelihood accurately, thus:—

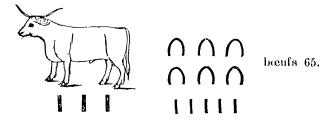
	Certain.	Conjectural.		Certain.	Conjectural.
1	ı		10	2	
$2 \dots$		11	20	3	
3		111	30		<i>23</i>
4	X		40		33
5 111	or IX		50		<i>233</i>
6		IIX	60		<i>333</i>
7		IIIX	70	<i>2333</i>	•
8	XX		80		<i>3333</i>
9		IXX	90		<i>13333</i>

In the conjectural column there are many numbers about the accuracy of which there cannot be the remotest doubt; thus, seeing how the numbers 5 and 8 are formed, there can be very little doubt

about 9; and having the number 70 there is small room for hesitation about the way of representing the numbers between 20 and 70. No number, however, has been inserted under the head of "certain" without express authority in words for the value assigned to it. As to the numbers from 100 upwards we are at present in the dark, and have not the same means of constructing them as we have of lower numbers. Whether a simple stroke upon the right of the figures is the representative of 100, or whether the unknown figure in pl. x, fig. 3, be the symbol of that or any higher number must, for the present, be a mere subject for speculation, and remain open for the decision of future discoveries. The newly discovered inscriptions of Muttra with Indian Pali letters and Bactrian Pali figures may, when published, afford means for verifying and extending our knowledge of these numerals.

The Bactrian system thus developed may appear, at first sight, clumsy and complicated; but keeping the Roman system in remembrance, it is impossible to pronounce it improbable or unpractical. Comparing the Bactrian, so far as we know it, with the Roman, there is little reason to prefer one over the other, on the ground of clearness or simplicity.

It is beside my present purpose to seek analogies to these numerals, or to make any general comparison of them with other ancient systems of notation; nor have I the means at my command for doing so. Mr. Thomas, who has taken great interest in my discovery, has very kindly brought to my notice an "Exposé des Signes de Numeration usités chez les Peuples Orientaux;" par A. P. Pihan, Paris, 1860, in which the following very curious account is given of the Phænician system:-" Un trait horizontal (-), quelquesois recourbé à droite (-) indiquait le nombre 10 La première dizaine s'exprimait aussi par l'un des signes suivants \wedge \wedge \wedge \wedge ou \rightarrow \wedge ou bien \wedge \wedge . Le nombre 20 pouvait s'écrire — ou = ou bien encore ~ O 0 3 (ce qui représente deux fois o). Cependant il existait un signe commun pour les vingtaines. On le figurait habituellement ainsi The higher numbers up to 80 were made by repeating the sign for 20, thus N N = 40, N N N N = 80. This system, so far as respects the numbers 10 and 20, and the repetition of the latter for the expression of higher numbers is identical in principle with our numerals, and seems conclusive as to the accuracy of the values assigned to the Bactrian figures before this Phenician system came under my notice. The similarity of the two cannot well be accidental. The Bactrian figures, therefore, like the characters of the alphabet, must have been drawn from a Semitic source. It is interesting also to compare the Egyptian figures 9 for 100 and Ω for 10 which continued in use to the second or third century after Christ; and the following illustration of the Egyptian system which appeared in the Revue de l'Archéologique for October, 1862, is very apposite in its analogy to the Bactrian.



EPOCH OF THE DATES.

The materials at our command do not enable us to fix the epoch from which the dates start, nor are we by any means certain that they are all concordant and of the same era. The use of the Seleucidan months gives fair ground for believing the Seleucidan era also to have been in use; but the documents before us cannot be so old as their dates would make them according to that era. The Samvat of Vikramaditya comes perhaps nearest in point of time, but we cannot assume that era to have been in use in Bactrian inscriptions without good evidence, and none is at present forthcoming. The epoch may be the rise of the dynasty, or the accession or the death of some king or great personage. The number is too high in one instance (Taxila plate) to admit of its being the year of the reign, which is encouraging, and leaves ground for hope that future discoveries may enable us to determine the epoch, and thus settle a very important point in Indo-Bactrian chronology.

Coins of the Kozola Kadphises Group.

The coins of the Kozola Kadphises group give us three names, Kadphises, Kozola Kadaphes, and another Kadphises. The Bactrian Pali legends present a few variants, which Mr. Thomas has pointed out, and which will be noticed in due order.

The coins of Kadphises are thus described by Mr. Thomas in Prinsep's Essays, vol. ii, p. 202:—

"Copper-Plate xxviii, fig. 12.

"Obverse-Head as in the Su-Hermaeus' coins.

- "Legend-KOPCHAO [Variety KOPONAO] KOZOYAO KAA-OIZOY.
 - "Reverse-Hercules as above.
 - " Arian Legend—Dhama Phidasa Kujula Kasasa Kushanayatugasa.
- "Monograms—Arian dh with r. Ariana Antiqua, pl. xi, figs. 10, 11."

These coins have also been described by Colonel Cunningham (Beng. J., vol. xxiii, p. 709, and pl. xxxv). His reading of the Arian legend is Knjula Kasasa Kushanga Yathagasa Dhama pidasa. I propose to slightly amend these versions by reading the Bactrian legend (pl. iv, fig. 7 a) as follows: Dhama thidasa Knjula Kasasa Kushana Yarugasa, "(coin) of the Yaruga of the Kushans Kujala Kasa, steadfast in the Dharma." In the variants of this legend wo find tharasa for thirasa and Sujula for Kujula.

The coins of Kozola Kadaphes are thus described (Prinsep, vol. ii, p. 203):—

- "Copper small coin—Plate xviii, figs. 13, 14, 15, and pl. xxviii, figs. 13, 14.
 - "Obverse-Youthful head.
 - "Legend-ΚΟΖΟΛΛ ΚΛΔΛΦΕΓ ΧΟΡΑΝΕΥ ΖΑΘΟΥ.
 - "Reverse-A Scythic figure.
- "Arian Legend—Khashanasa Yauasa Kuyula [Kuyanla?] Kaphsasa Sachha dhani phidasa.
- "Monogram, No. 124—Some specimens add the Bactrian letter inserted in the plate under No. 125. Ariana Antiqua, pl. xi, fig. 14."

Colonel Cunningham's reading and translation of the Bactrian legend is (Beng. J., vol. xxiii, p. 709), Khushanga Yathaasa Kujula Kaphsasa Sachha-dharmapidasa, "Coin of the king of the Khushang Kujula Kaphsa the Crown of the true dharma." My reading differs in a few particulars, being, Khashanasa Yaiiasa Kuyula Kaphsasa Sacha-dharma thirasa "(coin), of the Yaüasa of the Khashan, Kuyula Kaphsa, steadfast in the true dharma" (plate iv, fig. 7, b).

The coins of the second Kadphises are thus described (Prinsep's Essays, ii, 213):—

- "Gold-Unique.
- "Obverse—King, seated after the Oriental fashion (cross-legged) on clouds. He holds a club in his hand, and small flames ascend from his shoulders; he wears a Scythic cap surmounted by a single-centred trident.
 - "Legend-BACIAEYC OOEMO KAADICHC.
 - "Monogram-169.

42/2/ 12/57	
Fig 5 Manikyala Silver disc	5277777777
Fig. 4. Mandeyvola Gelinder. 71/P ETTYTHTP	5/2 用 > 1 475 + 17 5 左

しいしょく しょうしょ しょくしょ しょんがしょい。 77 7 7 5 2 on + Y Y Y Cith A II V S is + the 2 mu 2 mu? 2 si Compounds & the 7 th R to 7 pho F the R bir A th 7 st 9 st Z st 2 sy 2 sy 2 pr 2 tr Pran 9 man A yan 7 ram 5 san 2 han. Frank Frant Tran Gravis Fri Bry Bris Cin Bish Fish Fish

W. Nest Lie "

- "Reverse—Siva and his bull (Nandi); flames rise from the divinity's head; he holds a trident in his right hand.
- "Arian Legend Maharajasa Rajadirajasa sarvaloga Imastasa Mahimastasa Hapinasasa.
 - "Monogram-159.
- "Other gold and copper coins of this king have some varieties in the device, thus:—
- "Obverse-King seated on an Eastern throne, with a flower in his right hand. Legend and monogram as above.
 - "Reverse-Device as above.
- "Jour. des Sav., 1834, pl. fig. 7; Ariana Antiqua, pl. x, fig. 5, and pl. xxi, fig. 7.

The Bactrian legend (pl. iv, fig. 7 c) is remarkably clear and intelligible. There is no reason to call in question the first half of Mr. Thomas's reading, but the latter half may certainly be greatly improved. The reading I propose is Maharajasa Rajadirajasa Sarva-loga-iśwarasa Mahiśwarasa Kapiśasa "(Coin) of the Great King, King of Kings, ruler of the whole world, the mighty Lord Kapisa." The gold coin which Mr. Thomas describes as "Unique," reads Hapinaśasa for Kapiśasa. The star at the foot of the pi in the name is persistently repeated, but its power is not obvious. Professor Wilson read it s, making the name Kapsiśa; but the analogy of the phs in fig. 7 b forbids this rendering.

The substitution here proposed of thira or thida for the word hitherto read pida or phida is a manifest amendment. The old reading originated with the late Professor Wilson, who thought the character to be "in all probability pi," because "the same form very nearly commences the equivalent of Philoxenes" (Áriana Antiqua, 257). The same learned writer conjectured the title as being either Dhama-pidasa or Dhama-piasa, "the parent, or the friend of justice." Colonel Cunningham considered the word to be pida, a chaplet or crown, and consequently read the compound Dhama-pida, "Crown of the Dharma." He admitted this compound to be "unusual," but still be thought it "grammatically correct and eminently Buddhistical." Mr. Thomas appears to have adopted the last reading in default of a better, but has changed the word pida to phida. With respect to Colonel Cunningham's reading it must be observed, in the first place, that the Sanskrit word for "crown" is not pida, as he writes it, but pida, not masculine but feminine; next that the cerebral d is not employed in the word on the coins, but the dental d or the letter r; and lastly the compound is, as he admits, an unusual one. On examining the character, it is evident that the right hand perpendicular is the stem or base of the letter, and the line on the left is the vowel mark—to make the letter pi, the positions of these lines must be reversed, and a downward curve must be added to the horizontal line. The character is, perhaps, more like phi, but still the curve of the horizontal line, distinctive of the letter ph, is absent in the character before us. The only objections to the proposed rendering thi, is the circumstance of the left end of the horizontal line being somewhat longer than in the simple th; but this prolongation has probably been made to allow of the vowel i being graven distinctly across it. But the fact of the word being written tharasa upon some coins is, I think, conclusive as to the word being really thirasa. The emendation thira represents the Sanskrit sthira, firm steadfast, a word very commonly employed in compounds; and the epithet dharma-thira, steadfast in the dharma, conveys a very appropriate and intelligible meaning, corresponding with the well-known name Yuddhishthira.

The alteration in Fig. 7 a of Colonel Cunningham's reading Yathagasa, and of Mr. Thomas's, Yatngasa to Yarugasa, is abundantly justified by the exact resemblance of the letter in question to the normal form, and to the frequently recurring r in Fig. 7c. This word Yaruga corresponds with the word in Fig. 7b, which I concurwith Mr. Thomas in reading Yaüasa. No meaning has yet been assigned to this word or words, and I have no conjecture to offer as to the signification. The two words are probably only different ways of expressing some foreign title. The letter r is rarely clided, but the guttural is frequently omitted; thus we have dhamiasa for dhamikasa on the coins.

Fig. 7c is important, as affording in the word sarva, a character which there can be little hesitation in accepting for rv, and as supplying a key to similar combinations with other letters, as rdh of the word sanvardhaka in the Manikyala inscription. The word which I have transcribed iśwara, I at first read iśwara, a difference of spelling, not of meaning; but finding the vowel u to be invariably affixed to the left perpendicular line of the s in the Kapur di Giri and Wardak inscriptions, and the same vowel to be similarly annexed, in the Taxila inscription, to the left line of the y, while the anuswara is annexed to the right, I conclude that the word on the coin must be read iśwara—if this is right we get a new compound sw. It may further be observed that in the Kapur di Giri inscription, and in the word sw in Colonel Cunningham's Panjtar inscription, the letter r is appended to the right hand perpendicular of the s; these facts together, establish the rule that

vowels are added to the left limb, and conjunct consonants to the right limb of the letters y and ś.

PESHAWAR VASE.

Plate iii, fig. 2. This is a legend copied from a Steatite Vase now in the Museum at Peshawar, but its history is unknown to me. The inscription is carefully and clearly executed, every letter is distinctly formed, and the whole is in a fine state of preservation. A copy of the inscription was sent to me some months ago by Mr. Thomas, and I had but little difficulty in mastering it. The reading is—

Gihilena Siha-rachhitena eha bhratarchi Takhasilae ayam thuro pratithavito sava Buddhana puyae. "This tope was erected in Taxila by the brothers Gihilena and Siha Rachhitena, in honour of all the Buddhas."

The word Taxila, I was at first disposed to read as tat silae or tan silae, but there can be no doubt that the reading now proposed is the right one, especially when the light of the Taxila inscription is thrown upon it. There is little in the wording of this inscription to call for special remark, as the whole is expressed in very grammatical language. The word Takhasilae, derived from the Sanskrit Takshasila, takes the proper form of the feminine locative. The inward bend of the right limb of the y in ayam has been read as anuswara, but it may be omitted without injury to the sense. Thuco may be tuvo with the unaspirated letter, and the substitution of v for p in this and the following word is a regular Prakrit change already noticed in the Taxila inscription. The form sava instead of sava is a nearer approach to the Pali.

BIMARAN VASE.

Fig. 3, pl. iii, is from a Steatite Vase, found by Masson in a tope at Deh Bímarán, near Jelalabad. Within the vase was inclosed a gold casket, described by Professor Wilson in the following terms;—
"The casket is chased with a double series of four figures, representing Gautama in the act of preaching; a mendicant is on his right, a lay follower on his left, and behind the latter a female disciple: they stand under arched niches resting on pillars, and between the arches is a bird; a row of rubies is set round the upper and lower edge of the vessel, and the bottom is also chased with the leaves of the lotus. The vase had no cover" (Ariana Antiqua, 41). Engravings of the vase and casket are given in the same work. The longer inscription is scratched or graven round

the body of the vase; the shorter one round the upper part or shoulder, not on the cover, as stated in the description of the plate; for, as above observed, the vase had no cover. picked out the word Sarirchi, but Colonel Cunningham was the first to make known the fact of the upper line being only an abbreviation of the longer one, and to read the opening words as Bhagavána Sarirahi "(Stupa), containing relies of Bhagwán or Buddha" (Jour. As. Soc., Beng., vol. xxiii, p. 707). The commencement of the longer inscription he read as Sri Tabachitrasa Khamaspada putrasa "(gift) of Sri Tabachitra, the son of Khamaspada." These readings, although imperfect and open to amendment, do, nevertheless, give a very good idea of the import of the inscription. The engraving in the Ariana Antiqua is somewhat faulty; but the copy now given has been carefully copied from the original vase. Taking the longer inscription, the first word is a name in the genitive case, and is plainly Siva-rachhitasa. This differs considerably from Colonel Cunningham's reading, but the variation arises from the close resemblance of the letters t, b, r, and v—the normal forms of which are clearly distinct, but are sometimes confounded in practice. A close adherence to the normal forms in this instance supplies a well-known name in Sanskrit, Siva-rakshitasya. The next word is also a name which is very difficult to read; indeed, the two versions of it on the vase differ materially. The first character Colonel Cunningham reads kh, to which letter it bears a partial though not satisfactory resemblance. The next character differs in the two versions; in the long one it appears to be d in the other mi; the following character is like v in the first, and dh in the second; the last letter is in both versions an n or d. Assuming that the first letter is kh, until a more satisfactory reading is arrived at, the transliteration of the name of the longer legend will be Khadavana, and of the shorter Khamidhana. I leave the name in doubt, for future discoveries or more acute investigators to determine. The following word is clearly putasa, or putrasa, and that succeeding it danam. The next character is one to which no equivalent has hitherto been assigned: but I think we have now very good grounds for reading it as mu. The syllable mu, in "Sakyamuni" in the Taxila inscription, is expressed by a character strongly resembling this, and in the same name on the Wardak Vase the mu is identical with this character. This is tolerably decisive, and the sentence now before us appears to strengthen the proposed render-The mu is followed by hi, making muhi. The Sanskrit adas, "that," "this," makes, in several of its cases, amu; and I take

this word muhi to be a contracted form of the Prakit locative amuhi, "in this." But whether this conjecture be right or wrong, and whatever the true value of the letter, there can be little or no doubt of the word in the inscription signifying "here;" the words "gift here," corresponding exactly with the "relic here," which comes in subsequently. Here the shorter legend terminates. Continuing with the longer one, the next word is the verb, or rather participle. mences with niya. The following letter is uncertain; and the engraver appears to have so deemed it, for he has endeavoured to make it more distinct by re-writing it, but with little success. khi, di, or ti; the final character may be read nam. The whole word is in all probability nigatinan, the causal past participle of the root pat, which signifies "made to descend," "lowered," "deposited The following words are bhagavat śarirehi; which words also occur separately at the beginning of the shorter legend. Sarirehi is as Burnouf observed the "forme Palie de l'instrumental pluriel," but it is not probable that the word can be used in that sense here. In the longer legend an instrumental plural might possibly be admitted, but the construction would be a very forced In the shorter legend it seems quite inadmissible, for no sense can be got out of the phrase "with the holy relics." The word chi, or ihi, a dialectical variety of the Prakit iha, signifying "here," or "in this," is, doubtless, the true reading, and supplies a consistent and appropriate meaning—Bhagavat śarir chi "Here (or, in this) is the holy relic." The remaining words are but a repetition of the formula in figs. 1 and 2-Sarva buddhana puyae, "in honour of all the Buddhas;" the n of Buddhana is obliterated, but may be unlesitatingly supplied.

The reading of the shorter legend is then Bhagavat śarir ehi. Siva-rachchitasa Khamidhana? putasa dana ehi. "In this is the holy relic. In this is the gift of Siva Rachhita, son of Khamidhana" (?). The reading of the longer one is Siva-rachhitasa Khadavana (Khamidhana) putasa dana muhi niyatinam. Bhagavat śarir ehi sarva buddhāna puyae. "The gift of Siva Rachhita, son of Khamidhana (?), is here deposited. In this (is placed) the holy relic in honour of all the Buddhas."

In this inscription we have met, for the first time, a variety in the form of the letter y, differing but slightly from the letter s, with which it has hitherto been confounded. The difference, though small, is distinctly marked in this inscription; the top line of the y being sloped, that of the s quite straight. The final word of this inscription recurs in the Wardak Vase inscription, in which Babu

Rajendra Lal has read it "puśac," and has translated it as "nourishment, protection, or prosperity," making it an imaginary noun, supposed to be derived from the root push, to cherish or nurture (Journ. As. Soc., Beng.: No. IV, 1861, p. 344). Mr. E. C. Bayley subsequently adopted this reading in an attempt to explain the inscription now under notice! (Id.: No. II, 1862, p. 190). The formation of a simple noun meaning "prosperity," from the root, "to cherish," is not very obvious. But it is unnecessary to pursue this enquiry further; the employment of the same formula in two other inscriptions, where the word is clearly written puyac, is quite sufficient to determine the true reading.

MANIKYALA CYLINDER.

We now come to some of the important articles extracted by General Ventura from the great tope of Manikyala. A full description of the excavations and of the articles discovered is given in Prinsep's Works (vol. i., p. 93), but it will be sufficient for our present purpose to state that although coins, medals, and other relics were found in several parts of the tope, there were three distinct deposits at the depths, respectively, of 12, 45, and 64 feet, for the security and preservation of which great precautions had been taken. In the first deposit was found an iron or copper box, enclosing one of pure gold, within which were several coins, some of a comparatively late date. The second deposit also consisted of a copper box, enclosing a gold one; but nothing was found in the latter. The third deposit consisted first of a copper box, enclosed in this was a brass cylindrical box on the cover of which an inscription was punched. Within this brass box, and immersed in a thick brown liquid, was a gold cylindrical box, four and a-half inches long, and one and a-half inches in diameter. This box also contained some of the brown liquid and some fragments resembling There was besides a small gold coin with the broken amber. legend OHPKI KOPANO, and some other illegible letters, another small gold coin, and lastly, "a plain disc of silver, upon which have been engraved certain letters evidently calculated and intended to explain the whole mystery" (Prinsep i, 102). The inscription on the lid of the brass cylinder is that given in fig. 4, pl. iii, and that of the silver disc as fig 5 in pl. iv.

Colonel Cunningham has given considerable attention to these.

¹ Mr. Bayley says, "The inscription from Bimaran is also a dedication of a reliquary for the prosperity (pusae) of Sri vechitra dbatra putra."

His reading of the first is-Swati Siva Chatrapasa Gandaphuka Chatrapa putrasa danatrayam. "The three gifts of the Satrap Swasti Siva, son of the Satrap Gandaphuka." In explanation of this, he says-"The last four letters of the inscription which, for want of room on the lid of the cylinder, are placed below, I read as danatrayam, 'the three gifts.' These, I suppose, to refer to the three cylinders or relic boxes which were deposited in the three separate chambers of the tope" (Jour. As. Soc. Beng. Mr. Thomas has already taken exception to the rendering "Swati Siva," preferring "Kavi Siva;" and his amended copy of the legend fully justifies him in this reading. The word Kavi signifies "poet" and may possibly bear that meaning The following word is unmistakeably Chhatrapasa. next word, which Colonel Cunningham reads Gandaphuka, is somewhat doubtful, but his rendering can hardly be right. He appears to have taken the line at the bottom of the q for an n, but this addition to the letter is frequently used without any alteration of the sound, as in Bhagavat, in fig. 3, pl. iii. The first letter, then, is a simple g, the next is n, not d. The third is a doubtful compound; the upper part of the letter is identical with the ph of the coins of Gondophares, and is observable in Colonel Cunningham's Panjtar inscription, though it is not the usual form of ph. Mr. Thomas has already demurred to the rendering of the subjoined letter by u, very justly observing that it is different from the usual form of that vowel. This part of the letter resembles k in shape, and from the analogy of shk in the names of Kanishka and Huvishka in the Manikyala and Wardak inscriptions, would appear to be a k-if it be so, the compound will be phk, and the whole word Ganaphkaka. The two next words are clearly Chhatrapa putrasa, and the following The last word, which Colonel Cunningham reads trayam, is open to much doubt, and is important as the basis of his theory as to the three gifts or deposits. The first letter may be either tr or t,—it has generally been read as tr in the word putra, but it may be a simple t, as it is in the word Bhagavat (fig. 3, pl. iii), where the curl of the bottom cannot represent the letter r. The final character is a compound which Colonel Cunningham reads yam, but the first is preferentially the cerebral nasal, and the whole word therefore is trajam or tajam. It must be admitted that there is much plausibility in the reading trayam, for "it assimilates so well with apparent probabilities." To my eye, however, the word is tradam, not trayam, and I cannot allow any conjuncture, however plausible, to lead me astray from a strict literal rendering of the

original. The reading train appears, moreover, to be a very natural one, and requires very little theory to support it. The Sanskrit train with the cerebral n, as in the word before us, signifies "preserving, protection," and, according to Böhtlingk and Roth, "covering for the body, armour, helmet 1"; it may therefore be considered as applicable to the brass box on which the inscription is engraved, and in which the "gift" was deposited. For these reasons, the reading now proposed is—

Kavi-Śwa Chhatrapasa Ganaphkaka Chhatrapa putrasa dana trańam. "Casket of the gift of Kavi Śiva Chhatrapa son of Ganaphkaka Chhatrapa."

MANIKYALA SILVER DISC.

The short inscription on the silver disc, which Prinsep considered so important as a key to the whole (fig. 5, p. iv) now claims our attention. Colonel Cunningham has published more than one decipherment and interpretation of this legend. Upon his last reading he has built a very ingenious and attractive theory, concerning which it is desirable to quote his own words. He says-"The upper line (of the inscription) may be read, without hesitation, as Gomangasa 'of the emancipated,' or more literally of 'one who has abandoned the body,' from guna abandoning, and angga the The second line I read as Kanarakasa, taking the first and fourth letters as cursive forms of k. No doubt this plain disc of silver, as J. Prinsep supposed, was intended to explain the whole mystery. This mystery I believe to be explained by my reading of the two words as Gomangasa Kanarakasa, or '(relics) of the emancipated Kanerki.' According to this reading, the great tope of Manikyala was the Mausoleum of the Indo-Scythian Kanerki or Kanishka, the paramount ruler of Kabal, Kashmir, and the Punjab, about the beginning of the Christian era. The Brown liquid, therefore, most probably contained the mortal remains of the great Indo-Scythian emperor, mixed with a portion of saudal wood or other ashes from his funeral pile" (Jour. As. Soc. Beng. vol. xxiii, 701).

I very much regret that I am unable to acquiesce in this theory. The true interpretation of the legend has long seemed to me to be much more simple than that proposed by Colonel Cunningham. I must confess that in the examination of old inscriptions, and

¹ Schutz für den Körper, Harnisch, Helm u.s.w.

especially in these Buddhist inscriptions, my turn of mind inclines me to seek for the simple rather than the mystic, for a plain ordinary meaning, intelligible to all contemporaries, in preference to a refined and spiritual expression, comprehensible only by the learned and the priesthood. Mr. Thomas has already demurred to this interpretation, and very pertinently remarks that "no theory at all is preferable to a bad one; the negative position is not likely to mislead, the positive converse is."

The reading of the first word as Gomangasa seems to me untenable, and the interpretation of that reading to be equally inadmissible. The first letter with the subjoined vowel is certainly go, the next letter is m; thus far our readings coincide. The following letter, which Col. C. reads ng1, is clearly n,—the dental, as I believe, but the cerebral, according to Mr. Thomas,-at any rate it most closely resembles the n in the word danam, the curve not being sufficiently deep for the cerebral. The final letter is sa; thus there is only a difference of one letter between us; Colonel Cunningham's reading being Gomangasa, that now proposed Gomanasa. Let us now examine if there is anything in the proposed etymology of Gomangasa to make that reading preferable. The derivation of the term is said to be from gun, abandoning, and angga, body. In the first place, there is the fatal objection that qui cannot by any conceivable means become gom, nor is any suggestion offered in explanation of the assumed change. The meaning "abandoning, leaving" is certainly to be found under the substantive Guna in Wilson's Dictionary, but Boltlingk and Roth remark upon it as an unusual sense (besondere Bedienst); and no such meaning is given to the word in the Pali Amera Kosha (Clough, pp. 51, 104, 107). But it is with the verb or participle, and not the noun, that we are concerned in this compound word, and no such signification is traceable to the root in any of the authorities consulted. Wilson gives to the root the meanings to "invite, advise"; Westergaard agrees, "Consilium dare, suadere"; Clough's List of Pali roots says "to accustom." It is not to be found in Delius' Radices Pracriticae, nor can I find it in Cowell's Vararuchi. Taking all these points into consideration, it is not too much to say that Colonel Cunningham's interpretation is inadmissible.

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[&]quot;It is not a little singular that Major Cunningham should have fallen in with so many of these otherwise rare letters ng,—they are infrequent enough in the ordinary language, but we have no single example of their use in the entire Kapur di Giri inscription, and Prinsep was a long time before he detected the sign at all in the Pali Lat alphabet."—Thomas in Prinsep, vol. i, p. 103, note.

Before offering any suggestion as to the import of this word, it seems desirable to examine the second word which Colonel Cun-Mr. Thomas, though differing deningham reads Kanarakasa. cidedly from this rendering, nevertheless "concurs in the acceptance of the opening letter as k," which is the more surprising from the fact of Colonel Cunningham having felt a difficulty in this reading which he got over only by supposing the letter to be "a cursive form." If in "cursive" writing it be allowable to reverse the form of a letter, to turn it bodily round, then this letter may be a k, not otherwise. The outline of the letter most closely resembles the normal form of the letter v, the vowel o being subjoined in the same manner as to the letter g in the preceding word. The next letter is too angular in the head, and differs so distinctly from the n in the word above, that it cannot be so read; to me it is preferentially d. The next letter is clearly v. The following is a very doubtful character; it is probably the letter t in combination with some consonant, possibly r. The last letter is s. may then be read Vodavartasa, - with doubt and hesitation certainly, but with much greater adherence to the regular forms of the letters than in the reading Kanarakasa. This rendering of Kanarakasa must have sprung from a preconceived notion as to what the word ought to be, and would probably never have been proposed if a coin of "Kanerki" had not been found with the piece of silver.

Gomanasa appears to be the gen. case of the Sanskrit qomat, making Goman in the nom., and Gomatas in the gen. signifies "rich in kine," being in fact a word of similar formation and import to the well-known Govind and Gopal. The word Goma is given in the Pali Vocabulary with this meaning. however, another derivative word in Sanskrit, exactly similar in character, and having precisely the same primitive meaning, which has the further signification of "an attendant on a Buddha," according to Wilson, and of "a Buddhist lay brother," according to Böhtlingk and Roth. This word is Gomin, or Gomi, -may not the word Goman, Goma, have been used in a similar sense? then a choice of two interpretations, -Gomanasa may be taken as a name or title, like Govind; or it may mean "of the lay brother." The other word, Vodavartasa, if that be the true reading, is connected with the Sans. udvartta, "abounding, plentiful," but it is probably used here as a name. Accordingly, we may conjecturally and with hesitation presume the legend to signify-"Of the lay brother Vodavarta."

SEAL RING.

Fig. 6, pl. iv, is a defective inscription on a copper seal procured by Mr. Bayley in the Punjab. "As the letters are reversed, the seal most probably belonged to one of these Indian satraps, who must have used it for stamping and authenticating his public docu-The Ariano Pali legend has not been satisfactorily made out, but it appears to be Sivasena Chatrapa Atri naram Pathanavare "(Sealed) by Sivasena, of the race of Atri, Satrap of Pothowar" (Cunningham, Jour. As. Soc. Beng., xxiii, 698). The learned writer goes on to suggest that "Pathanáwáré may probably be considered as the original form of the present Pothowar, which is a part of the Rawal Pindi district." The letters of this short legend are stiff and well defined, the forms approaching the Kapur di giri type, especially in the letter chh. Very little change appears necessary in the reading above proposed, but that little involves some alteration in the interpretation. The reading now proposed is Sivasena Chhatrapa Atridara patana are . . . "Sivasena Chhatrapa, city of The letter after the word Atri, which I have rendered d, is more like that letter than n, but I am not disposed to insist upon my reading if any reason can be shown for preferring n_{1} —the letter in question may possibly be a stiffly formed n_{1} . cannot find the m which Colonel Cunningham gives in his reading naram, and the letter which I have read r differs somewhat from the true shape as exemplified in the last letter of the inscription. The next difference is a slight one, a substitution of t for th; but in the last letter but one there is a difference of more importance, as the notion of the modern Pothowar being connected with this inscription, depends in some measure upon the reading of the two final letters. Colonel Cunningham's reading of these letters is vare; the re is indubitable, but it is equally clear that the other letter is a, and not v, for the letter is exactly like the a in Atri, and quite different from the v of Siva. The final words, then, are Patana are. the former being the Sans Pattana city; and the latter, in all probability, a mere fragment of a word. I have not succeeded in finding any city of Atridara in the authorities I have consulted, but the Brahminical tribe of Atri was widely spread in the northwest of India from the earliest times, and the name was also borne by a tribe of Rajputs mentioned in the Maha-Bharat.

THE MANIKYALA STONE INSCRIPTION.—PLATE IX.

The Manikyala inscription discovered by M. Court, and which is the subject of Plate ix, baffled the acumen and ingenuity of Prinsep, and has remained to the present time the opprobrium of scholars and antiquaries. The familiar words maharaja and chhatrapa were picked out at once, and the word vihar in the left hand margin has since been read. Colonel Cunningham, in his paper so frequently referred to, made a considerable advance by reading the names of Kanishka and Gushan, but his other speculations upon the inscription are more than doubtful. He put them forward, indeed, with considerable hesitation. Taking the end of the fourth line he says the name of the Satrap "is unfortunately doubtful, but I venture to read the name as Gandaphuka,1 which I will retain for the present for want of a better or more probable reading. The inscription appears to me to contain the following important facts:- In the year 446, in the reign of Kanishka, Maharaja of the Gushang (tribe) the Satrap erected a tope (for what purpose I have not yet been able to decipher).' As a proof of his attachment to the Buddhist faith, the inscription ends with the words Sachadhama-pidasa, 'of the crown of the true dharma.'" That the inscription refers to the building of a tope may very fairly be predicated, but I am obliged to reject unhesitatingly the supposed name, Gandaphuka, and the reading of Sacha-dhama-pidasa.

The foregoing is, I believe, a fair summary of the decipherments of this inscription, and I fear that I cannot add very much to them. Some few words, however, seem to be intelligible, and I hope to aid the progress of discovery by making them known, and by pointing out possible variants from the published plate. The original stone had, apparently, a very uneven surface originally, and time has so added to its imperfections that no two copies of the inscription agree in all the details. I possess several independent tracings, three of Mr. Thomas's and two of my own, and I propose to point out the important variations which occur in them.

The first line of the inscription appears to be independent, and to serve as a kind of heading to the rest, being, perhaps, somewhat similar in character to the "Sacred to the Memory" of our grave-stones. The reading seems to be Bhatarasya Tabuddhisa aga patiasac,

¹ This is Col. Cunningham's reading of the name on Gen. Ventura's cylinder, and which he supposes to occur again in this inscription. The reading of the name on the cylinder has been already noticed in page 244.

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"In hope of the future of the brother Tabuddhi." The meaning of the word aga will be discussed in the notes on the Wardak Urn inscription, in which it occurs many times. The word patiasa is, probably, the Sanskrit pratyásá, "reliance, hope"—one tracing makes the pati into pati, but this would make very little, if any, alteration in the meaning.

The body of the inscription opens with the date "San 18." This is succeeded by the character sp, which is followed by a letter wholly illegible; the next letter is pu, then comes one without a head, but which is, probably, rv or rt, for the conjunct r is distinct; the last of this series is again sp. It is difficult to make any guess at the import of these five syllables beginning and ending with sp; the word púrva, "old, prior, chief," is probably included among them, and the last may be aspa, a word found on the coins (Sans. aśwa); the whole is, perhaps, a name or title. The next word is maharajasa, "of the great King;" the object of this genitive case is not very manifest, it may, lowever, refer to the date "In the year 18 of the great King," but this is far too doubtful to form the basis of any theory. The following word is unmistakeably Kaneshka, but it has for its final a letter which all the tracings agree upon, and which cannot, I think, be read otherwise than as ram, thus, apparently, forming a word in the genitive plural. The succeeding words are clear Gushanna vasa samvardhaka, "Increaser of the dominion of the Kaneshkaras and Gushans." The last word may be read without the final ka, and may signify simply "increase." Vasa may be either vansa, "family," or vasa, "authority, supremacy;" but the latter seems preferable. The next letter is a clear l in the plate, but some tracings make it resemble an e, and as such it might be the dative or locative of the word Samvardhaka. The last letter of the line is l. The first letter in the following line is no or nu in the plate, but one tracing makes it hi, and another more like da. The following letters are tena saga, but the first of them may be re, or even d, for its outline is not very distinct: and the last letter has an o added to it in some copies. I am quite at a loss to suggest any probable meaning for these six or seven letters, and am afraid that the sense must remain in obscurity. words are respasisa chhatrapasa, the first of which will be found repeated in the last line. The next line, and the line following (five and six) begin with a series of letters which may be considered identical, notwithstanding some little varieties in the outlines. The copies differ most in respect of the second letter of the upper line; some make it, doubtfully, vi, but the i

should probably be nothing more than the upward bend peculiar to the consonant. Continuing our reading, the lifth line begins with huta (or hoba) murtasa, and continues tasa apanage vihare; the last letter re is somewhat obscure, but is not doubtful. The rendering mu has been already referred to in the notes upon fig. 3 of plate iii, and will again come under notice in the Wardak Vespasisa Chhatrapasa Hutamurtasa are all genitives, and must be taken together; they, probably, have their complement in some of the words preceding them, while the following word tasa, the genitive of the pronoun, would more naturally relate to what follows. The words Vespasi and Hutamurta are, probably, names or titles, standing, as they do, in agreement with Chhatrapa. A further reason for considering them to be names or titles is that Huta, apparently, is found in the last line connected with Vespasi, thus, "Huta Vespasi." In Sanskrit, huta signifies "offered sacrificed," and murta may represent múrtti, "form, body," múrtta, "formed, swooned," or, mrita, "dead." None of these, however, supply any intelligible meaning to the context. I take the words tasa apanage vihare, to signify "in his own vihar," for it is not improbable that the word apanage is connected with the Hindi ap, apna, from the Sanskrit átman; or, it may be a proper name "in his Vihar of Apanaga." The sixth line begins "Huta (Hoba) murta" in the nominative, followed by the words atra, "here," and nana, "many, various." These are succeeded by two words, which I pretty confidently render as Bhagara Budha; the letters bh, v, and dh, are clear and are so given in all the copies; a copy of my own makes the second letter distinctly ga, and the unknown form given in the plate closely resembles that letter. The most doubtful is the bu, which is more like su in some of the tracings. Taking all the letters together, however, there can be very little hesitation in recognizing the words Bhagava Budha. The succeeding letter is an unknown one, and we have nothing here to suggest its power. The plate gives the true form graven on the stone, and the only point open to doubt, is, whether the bend of the down stroke is sufficiently distinct to form the nasal. The last letter of the line is, apparently, va.

The last line is in a very unsatisfactory condition, and will, I fear, remain unintelligible until the preceding context is so clearly understood as to suggest the words to be expected here. Two tracings make the line to begin with a, but this is, probably, a mere fracture. Several copies agree in making the first letter pa, and the second la, but one of my own makes the latter resemble ka, as in

the engraving. The following character is pretty clearly sta, and that after it va. The next letter is very doubtful; besides the form given in the engraving, we have the variants va and ba in different copies. The following letters ri, sa, are sufficiently distinct. The next two are obscure, but the plate gives a fair representation of them, and no variant is suggested. The following letter may possibly be a, not ba; and the next, which is obscure, must be either a or a. Then comes the word a is the next seems to be a defective a; then comes a is a badly-formed a; the next seems to be a defective a; then comes a is a in the finals are a and a. The third letter from the end may be a is a in the series a in the finals are a and a. The third letter from the end may be a in a in a is very doubtful.

The short passage in the left margin commences with a series of instrumental cases connected by the copulative cha. The first words may be read as Buritena cha vihara; then come the letters kara, followed by an unknown form. The next letter is possibly a defective k, and the last is na. From the collocation of the words there can be little hesitation in admitting this last word to be in the instrumental case, and there is very little doubt in my mind as to the meaning of the word, which I suppose to be, "maker, builder." The following word reads samvena, but probably is either intended for sarvena, or is used in the same sense. The next word is cha, and that following is parivarena, the re being defective at the point where the characteristic twist of the r should appear. following word is saddhae, and but for its commencing with the deutal s I should take it to stand for śraddhá, "faith"-sandhá, "union, association," seems, however, to be the more sultable The following words are clearly tena kusal-mulena, for some tracings indicate the presence of the u wanting to the k, and we have a repetition of the phrase imena kusal-mulena on the I take the word mula, if that be the true reading, to be a derivative, signifying "foundation," from the root mul, to plant, and in Pali "to found." The passage thus far may, therefore, be somewhat conjecturally rendered as "Buritena, the architect of this vihar, and his whole train of workmen in union by this meritorious foundation," do something which I can only guess at, for the remainder of the passage is very indistinct and unintelli-The first letter is tu, as given in the plate, but the next is so obscure that its true outline cannot be traced-st, the next letter. is tolerably clear, but hi seems a possible variant and a more likely The next letter, which is di in the plate is converted distinetly into cha in two tracings. The next two characters are spa,

va, and the next, which is ka in the plate, may also be spa—that next in order may be sta or hi—the last is cha. There seems then to be fair ground for considering these letters to form two words ending in sta or hi, and the conjunction cha to be placed between them; if the former is the right rendering, they are probably verbs; but if the latter, instrumental plurals. This short inscription terminates with the copulative cha, which affords good reason for supposing it to be connected with the two lines on the opposite side, where we find the same prevalence of instrumental cases. first words of this may be read as Sandha budhi lena cha, for the i to the second dh is clear in two copies. This would appear to be a The next letter is very obscure, but probably va. The next is still more doubtful; one copy makes it si, another so, the others incline to the form of k, as in the plate: the following letter is also doubtful, but the plate appears to have the best rendering. The last two letters are clearly "qena," another instrumental case. is impossible to make much out of this beyond assuming that the first is a name in the instrumental case, followed by a conjunction; which makes it probable that the last word, in the same case, is a name also. The last line contains the date, and has already been examined. It appears to read Karttikasa masa divasa 20-"Twentieth day of Karttika."

The two words written upside down at the top of the inscription may be read Sachhasana bhavatu, for there seems to be a stroke under the second letter, making it chh in preference to m. This may be rendered "May it be manifest"—"May it be clear to all." The Sanskrit Sákshát, has the signification of "manifest" being derived from aksha, the eye.

Fig. 2 of plate ix is the bi-literal inscription discovered by Mr. E. C. Bayley in the Kangra hills. These counterpart legends are stated to be "cut on two granite boulders, about thirty yards apart." I shall simply quote the rendering of these as given in Thomas's Prinsep (vol. i., p 160). Bactrian, Krishanyaśasa aramá; "the garden of Krishnayasa." Indian, Krashnayaśasya arama madantasya: "the garden of the happy Krishnayasa."

Fig. 3 of Plate ix.—This is taken from the lid of a brass box, which "seems to have enclosed the usual silver and gold boxes devoted to the enshrinement of relics." It was included among the relics sent home by Mr. Masson, but the place of its discovery is unknown. The inscription seems to have been badly executed at

the first, and the box has been very much rubbed, so that a correct delineation is difficult, if not impossible. I have a copy of my own which differs in some respects from that in the plate. There can be no doubt that we ought to begin with the date "San 18," &c., which has already been examined, and need not be further referred After the date is a small blank, and then the inscription begins with what appears to be a name in the gen. case—Hasharesya. Taking the letters in order they read ga, go or gi, la or vi, the letter we have assumed to be mu, and then two doubtful letters, possibly both of them n, or one n and the other d. My copy makes the next word sarir, and the last word seems to be parishkasti, or parishpasti, for the character read shp differs somewhat from the shk of the Manikyala and Wardak inscriptions, and the last compound sti has not been met with before. The word seems to be connected with the root kás, "to shine," or spas, "to touch, take, connect," and to both of which the sense of "making manifest" is applicable.

WARDAK INSCRIPTION.—PLATE X.

The inscription upon the Wardak urn is the longest we possess in the Bactrian character, after that of Kapur di giri. It is in a most perfect state of preservation, not a single letter has been obliterated, yet such are the difficulties attending the interpretation of these inscriptions that high authority pronounced this record to be written in no Sanskrit dialect. This opinion has been shown to be erroncous; and some isolated passages have been translated, but no satisfactory interpretation of the whole document has vet been accomplished—and I cannot boast of a complete success. I hope, however, to clear up a few points, and to render some service by stating the objections which appear against some of the readings and interpretations proposed by my fellow-labourer Babu The Bengal Journal, No. 1V, of 1861, contains Raiendra Lal. his proposed translation of the document, but the writer disclaims all desire of having it looked upon "as other than tentative," and expresses himself "fully prepared to surrender the version whenever further research will suggest another better fitted to suit the requirements of the monument." Before proceeding to criticise I will perform the more grateful task of applauding the success he has achieved, especially in the reading of the name of the king, and in identifying him with the Hushka of the Raja This alone would have been a valuable gain; but I am disposed to go further, and agree, in a great measure, with Colonel Cunhingham, in believing that however much the details may be improved, a very fair notion of the general scope of the record has been obtained.

Before entering upon a consideration of the document I thust express my acquiescence in the opinions of Mr. Thomas and Rajendra Lal as to the want of due care in the delineation of the characters. They have been formed by a firm decided hand! but so little trouble has been taken to mark the true outlines and nicer shades of distinction that it would seem as if the work had been executed from a copy by an engraver who was ignorant of the letters or language; take for an example the letter bh as it appears in the frequently recurring word bhavatu. It is also desirable that some guiding principle should be first laid down for discriminating the letters r, t, and v, which differ in some respects from the normal forms. In the best examples of writing, as we have already seen, the r and the v are about equal in height, if there is any difference the v is longer than the r. In this document, however, the v appears to be generally short in the stem, but the main point of distinction is observed; the horizontal line of the v being straight, that of the r curved at the point. The t is more true to the real form, being generally short in the perpendicular, and curled at the point of the horizontal. The line at the bottom of the letter g would appear to be an optional addition, for it is sometimes given and sometimes omitted in the same word agabhaga, and it can hardly have any power in the word bhagavan.

The inscription opens with Sum, for Samvatsara, year; then follow the figures for 20, 20, 10 and 1, the year, therefore, is 51. The words Másya, or Mássa, "of the month;" and Artamisiyasastehi, "Artemisius," follow, and are succeeded by figures representing 15. The date, then, is "15th Artemisius of the year 51." The value of this date has already been discussed in a previous page, and needs no further notice here.

Rajendra Lal's amended reading of the first line, as given in a note at the end of his article, is—

"Imena gatrigeno Samagusa putra Vagamitegaso iya khaba ilharmasatasa siga Vagamitega Vihar Mritwa-vrimri Bhagavat Sakyadanna śarir paridhareti or patidhareti."

"In this gatriga (cross way?) the son of Samaguso of (the village) of Vagamitega has placed this pillar (of religion and virtue??), and that monastery of Vagamitega for the relics of the divine Sakya."

The reading of the first two words is clearly imena gatrigena,

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Fig. 2 ××447737432~725133313

there is no o at the end of the last word, and its insertion in the reading is probably a more slip of the transcriber or printer. following letter is, I think, bh, for it is identical in shape with the undoubted bh, five letters from the end of the third line: If it be a sibilant it must be the cerebral sh, but the bh is preferable for the reason given. A similar variety in the form of the letter k is observable in the fourth letter of line 2. The letters magu succeed, but it is by no means clear that the final is s, or rather sy or ss, the sign of the genitive, as it differs materially from the fluid sy or ss of the word másya in the date, and of the word Vagamaregasya a few letters further on. There are no means at present for determining its true value, but the upper part of the character appears to be l and the lower part a conjunct y; the preceding letters being Bhamagu, we may arbitrarily read the whole as a name The next word is putra, and I think there can Bhamagu*lya*. be no doubt of the following one being Vagamaregasya, not Vagamitegaso, for there is no i perceptible; and the middle consonant has the true normal form of the r. The next word is ina. and then follows a series of 9 letters, which are perhaps the most difficult in the inscription, and out of which nothing satisfactory can be extracted. Mr. Thomas's tentative transcription and Rajendra's first and second versions are as follows:-

> Thomas.—Khaanagrashana—siga. Rajendra.—1. Khasavamri sekhala—siga. ,, 2. Khaba dharmasatasa—siga.

The first letter may be admitted to be kh. The next is doubtful: it may be a b, for it is like the initial of the word which appears to be Budha, in line 6 of the Manikyala inscription, or it may be a badly formed a; the succeeding letter I have no hesitation in reading as d, and that following as mi or mmi, making altogether khabadami or khaadammi, which I take to be a word in the locative case, the horizontal stroke at the bottom of the mi possibly having the power of doubling the consonant, and making mmi the common Prakrit form of the locative. The mi in Artemisiyas and mitra has no such mark appended; some value must, therefore, be assigned to it, and that which I have suggested is the most obvious. The next letter is a very bad one; it may be k, bh or sh; let us take it as ka. The following letter is da, the next a badly formed l, like the l in the undoubted word kusal at the beginning of line 2; the last two letters are siga, upon which all are agreed. The reading then is khabadammi kadala siga; the first word may be the Sanskrit stambha, and the last

may be the representative of śringa as suggested, but I am at a loss to propose any meaning for the whole. I would gladly adopt Rajendra's last version, could I find the least warrant for it, as it affords an intelligible meaning; but a strict adherence to the text forbids the reading, and compels me likewise to reject a fancy I have sometimes indulged of the latter mmi being an imperfectly formed q, which supposition would give us the word dagabha. now come to a more intelligible passage, Vaga-mariga viharammi, "in the vihara of Vaga-mariga." The next letter is tu; but the following one is doubtful, probably sti; the next is mmi, making altogether tustimmi, apparently a locative. The nearest Sanskrit equivalent is stuti "praise;" but the Pali form of that word is tuti, and tusti is hardly admissible for the Prakrit. The next word is Bhagavan, not Bhagavat, but the following name is doubtful; it begins with sa, and, although the next compound is more like shy than ky, the latter is preferable; the k is supported by the word kusal in the next line, and a warrant for the conjunct y may be found in Masya and Vagamaregasya. We thus get Śakya. The power of the next letter has hitherto been unknown. It resembles, however, the indubitable mu of the Taxila Plate, and as that sound is required here, we may assume it to have that power until a better offers. It is followed by an n apparently doubled; but there can be no doubt of the word being in the gen, and so we will read Sakyamunna, "of Sakyamuni." The last two words are distinctly farir paridhareti or paridharedi, the latter being the true Prakrit form. The following is a consecutive reading, the doubtful letters being in Roman:-

Imena gatrigena Bhamagulya putra Vaga-maregasya iya Khabadammi Kadala siga Vaga-mariga viharammi tustimmi Bhagavan Śakyamunna sarir paridharedi.

I can find no authority supplying a meaning to the word gatriga. Rajendra Lal says, it may "possibly" have the sense of "crossway;" but this compels him to read "imena gatrigena" as a locative, though the phrase is unequivocally in the instrumental. May not the word apply to the urn in which the relic would seem to have been deposited, and be read, "With this urn." The following words apparently mean, "Vaga-marega, the son of Bhamagulya," and the donor in a subsequent passage distinctly calls himself "Hashtuna marega," leaving little room for doubt as to "Marega" being the name of his family or sect. Vaga is possibly the Sans, varga, "class." The following doubtful words are not suggestive of any intelligible rendering but Vaga-mariga viharammi may be translated "in the Vihara of Vaga-mariga." The following

obscure word, tustimmi may possibly signify "in praise." Bhagavan Sakyamunna tarir, means "the relic of the Holy Sákya," and the last word paridharcti or paridharcti is the Prakrit Causal form, from the root dhri, to hold, to keep—and may be rendered as "places, deposits." The obscurities in this passage are so great as to deter me from venturing upon any attempt at a literal translation, but the general meaning is, I think, sufficiently clear; viz.: "With this (votive urn?) of Vaga-marega, the son of Bhamagulya there is deposited a relic of the Holy Sákya in the Vihar of Vaga-mariga."

Rajendra's reading of the next passage is *Imena Kusalākhilena Mahārāja rājātirāja Huvishkasya agabhagae bhavatu*, which he translates, "May the fruit of this depository of innumerable blessings (relic-deposit) be conducive to the good fortune of Huvishka, the great king and king of kings."

There is little objection to this reading beyond that which Mr. Bayley made to the reading of the 7th letter as khi—it is certainly not the same as the kh in the preceding line. We have in the name of Sakyamunna assumed its power to be mu, and for consistency will so read it here. The reading will then be-Imena kusal mulena maha-raja rajatiraja Huveshkasya agabhagae The second and third words occur in the Manikyala stone, on the left-hand side, where the initial is clearly k; this removes all doubt which might arise from the malformation of the letter on the urn. The reading of the second word is mula, the first letter appearing to be mu for the reasons above stated. This word I have supposed to mean "foundation" in the Mankyala inscription. The gist of this and of many other passages depends entirely upon the words agabhagae. This phrase occurs several times in this form, that is, in the locative case, which is employed in Pali for the dative, and may also stand for the inst. and genitive. At the end of the 3rd line, however, aga-bhaga the nominative is found; and in two instances we have a variety of the phrase in agabhaga patisasanam (or patiyasanam) bhavatu. Rajendra Lal has discussed the signification of the term at some length. In the first place he rejects Mr. Bayley's idea of its meaning "an expiation for sin," on the ground that the Sanskrit agha, "sin," would in all likelihood have been written with the Bactrian gh, and not g. In Pali, however, there is a word aga or agu, meaning "sin" (Clough's Pali Vocab., p. 10), which would seem to be connected with a root ang; as in the Dhammapada, we meet the word anangana, "sinless." (Faussböll Dhammapada, pp. 23, 295; Weber in Zeitschrift Deutsch. Morg. Gesell, vol. xiv, p. 49). In Sanskrit also we have Agas, "sin."

It is clear then that we may adopt the signification "sin," if desirablo; and if taken in that sense the second word bhaga must stand for the Sanscrit bhanga, "breaking," "defeat." Another reading which suggests itself is the Sanskrit anga-bhága, "a portion of the body;" and a third is that which Rajendra adopts agra-bhága, "first or chief share," but which he understands to signify "good fortune" in the record before us. Let us now see if the word patisasanam will Rajendra reads this word "parisasana," and takes it to be the Sanskrit "pratisásana," which he renders "control." The true reading of the word in the inscription is pati (or pati), not pari, being in this respect nearer to the equivalent proposed; but sásana is hardly admissible, because the second sibilant of the Sanskrit word is dental, while that in the inscription is palatal, and the sibilants are so clearly and regularly distinguished in Bactrian that very strong evidence is required to establish a case of confusion. The word may be either patisasanam, or patiyayanam, for it is difficult to distinguish from y, and the changes may be rung upon these two letters—the curve of the right limb of the first of them may also be intended for the anuswara. I cannot think of any satisfactory Sanskrit equivalent, for the only words which suggest themselves are pratisraya, "a house, refuge," and a derivative from either saswat, "continually, perpetually," or yasas, "fame." The word aga makes its appearance in a different combination in the Manikyala inscription. the first line of which reads, "bhatarasya Tabuddhisa aga patiasae (or paliasae); the last word is the Sanskrit matyasa "trust, confidence," and hence this line appears to signify "In hope of the 'Aga' of the brother Tabuddhi." If this be anything like the true sense all idea of aga signifying "sin" must be set aside. is also very difficult to see how the word anga, "body," can have any application, and we are consequently driven back upon the word agra, "chief, supreme," which would make the above line read, "In supreme hope of the brother Tabuddhi"-a vague and unconvincing result. Agra, however, as a substantive, has the meaning of "top, summit," and hence may signify "exaltation," "preferment." The same word under the form aga is used in Hindi, with the sense of "the front," "that which is before," "the Future;" and I am strongly inclined to believe that the latter is the true meaning of the word in the inscription. At any rate it seems the most suitable of all the possible equivalents that we have examined, and it may accordingly be adopted. I shall gladly surrender it if a more appropriate or authoritative rendering is offered. Taking the word then to mean "the Future," bhága must signify "lot," and

patisásanam, we may assume to mean "perpetual," the whole meaning "a lasting portion in the world to come." Turning now to the passage, a further difficulty meets us in the construction of the sentence; it begins with an instrumental, which is followed by a genitive, and ends with a locative and the verb. There seems to be no help for this, but to take one as a nominative, when we shall find the sense to be, "May this meritorious foundation tend to (procure) a lasting future lot for Huvishka, the great king, king of kings." The difference after all, between this and Rajendra's version, is but little; an exhaustive examination of all conceivable renderings of the phrase agabhague seemed, however, to be desirable, and has not been, I hope, altogether unprofitable.

The next two sentences are about the clearest in the whole inscription; Rajendra reads them—

Mátápitá náme pushae bhavatu. Bhráta náme hasphanimategasya pushae bhavatu. "May it be to prosperity of the name (my) mother and father—may it be to the prosperity of my brother Hasphanimatega."

I can find no warrant for the reading "name," which appears to have troubled Rajendra in his translation; and the me is manifestly the possessive pronoun. I think the compound letter in the name is clearly "sht."—The word which he reads "pusae," and for which he constructs the meaning "nourishment, prosperity," from the root push to cherish, is without doubt the puyae (Sans. pujá) of the Taxila Inscription. In the Bimaran Vase we have seen the same word written with a character intermediate between the y and s, and in this inscription the two characters appear to be confounded. The ordinary form of the y never occurs in this Wardak inscription, but it cannot be conceived that the letter is altogether absent. The reading of these sentences is—

Máda pidar me puyae bhavatu. Bhradar me Hashtunamaregasya puyae bhavatu. "May it be to the honour of my father and mother—may it be to the honour of the brothers of me, Hashtunamarega." The final r of pidar and bhradar seems to represent the genitive plural.

Rajendra's reading of the next clause is—Šuchyami bhushana tigamitrasya bhratigana pushae bhavatu. "May it be to the prosperity of the brothers of Tigamitra, the ornament of Suchyami." "The doubtful word," he says, "being the first, Suchyami." To me this word or words seems not at all doubtful, but my reading is different. The first letter is so not su, the next a simple ch not chy, and Rajendra so reads the same character three times in the last line, and the third is me and not mi—the whole making socha me,

"my purity," socha being the Sanskrit saucha. Rajendra's bhushana is inadmissible, the sibilant, if it be one, is palatal, not cerebral, and ought not to be confounded with it. The letter seems to be preferably y, making bhuya, which I suppose to represent the Sanskrit bhuyat, the optative of bhu, giving the sense "May it be to my purity." The remainder of the sentence reads natiga mitrasa bhatigana puyae bhavatu. The first word I suppose to be the Sanskrit naptri "a grandson," or preferably juita, "a relative," which becomes nuta in Hindi, and supplies a meaning consistent with the context. Bhatigana, a genitive plural, which Rajendra read as bhratigana "brothers," is more probably the Sans. bhartti, "protector;" for a clause has been specially devoted to the brother, and the orthography of the word differs. The reading of this clause is Socha me bhuya. Natiga mitrasa bhatigana puyae bhavatu. "May it be to my purity—may it tend to the honour of relative and friend (and) of (my) protectors."

Rajendra's reading of the next clause is Mahisachya Uyamategasya aga-bhaga parisásana bhavatu, "May it ensure to the highly pure (or the great minister) Ugamatega control over good fortune." The first word is either Mahiśácha or Mahiyacha, for it is impossible to distinguish with certainty whether the character is intended for \dot{s} or \dot{y} ; the word occurs again lower down, and there the form of the letter gives some ground for reading it as y. Rajendra supposes the word equivalent to Mahá suchi "highly pure," or mahá sachiba, "great minister;" but neither of these is satisfactory in sense, and the orthography is objectionable. The whole sentence reads, Mahisacha Vaga-mareganám aga-bhaga patisasana bhavatu. word appears to be a term qualifying the second, which, as we have seen above, is the name of the donor's family or class, and one would expect it to have some religious or sectarial meaning. There was a sect of the school of Rahula designated "mahisaka" (Bournouf, Int. p. 446) and this term is so like the one in our text, that we may presume them to have some connection. This clause then will read as follows, "May this work tend to the lasting (happy) future lot of the Mahisacha Vaga-maregas."

Rajendra's reading of the first clause in the third line is Sarvasaturna arya gatichina bhavatu, "May it prove conducive to the
moral improvement of mankind." I read "Sarva sattana aroga
dachhina bhavatu." The letter tt (or tw) is a new form, but the
body of it is clearly t. The formation of the chhi is curious, the
stem extending above the semicircular top, and so far resembling
mi. As, however, the vowel is appended in addition there can be
no hesitation in reading it as chhi. The vowel mark i is more

distinct on the urn itself, passing, as it ought, right through the letter. Sattana is a genitive plural from the Sans. Sat, and signifies in Pali, "wise," learned (Clough 28) dachhina is the Sans. dakshina. The whole may be confidently rendered, "May this tend to the health and reward of all the learned."

Rajendra says the next clause, "has a long string of names of objects, most of which are unintelligible," and he offers no explanation of any part of it. I am reluctantly compelled to come to much the same conclusion; but some of the words are intelligible, and afford a clue to the drift of the passage. The first three words seem to be avisana Sans. avesana, "passion, demoniae possession;" raga, "desire, lust;" and parśa, Sans. sparśa, "touch" "contact." The succeeding letters are tasávabhavaqaso. I cannot suggest any meaning for tasa, as the palatal s precludes us from assuming the word to be either trishiid, "thirst," or trása, "fear." The ta may possibly belong to the preceding word making sparata instead of parsa, and then the next word would be śava, Sans. śáva, a corpse. succeeding word is in all probability bháva, state, condition of mind; but gaso, the following one, is unintelligible. After this come the words atra antara, "hereupon." Some letters follow which are difficult to read with precision, and I am unable to discover any meaning until we get towards the end. The last words appear to read arupanta sarvina puyae bhavatu, "may it be to the honour of all incorporeal beings (emancipated spirits?)." So far then as this clause of the inscription is readable, it appears to begin with an aspiration for the removal of passion, lust, and ceremonial impurity, and to conclude with a desire that the work (of building the vihar) may be to the honour of all emancipated souls.

Rajendra's reading of the next clause is Mahisachayyarhana satwasangena avashati ganasya parivara cha aga-bhaga parisasana bhavatu, "May it ensure control over good fortune to those who observe the autumnal fast abasatha, as also to their domestics and such pious congregations as are capable of noble conduct." My fellow-labourer must forgive me for saying that here he seems to have given the reins too freely to his imagination. I cannot acquiesce in the reading satwasangena, nor in the greater part of the translation. The first word is the same as that we have above read as mahisacha; the next is a name Rohanasa; the next is dasa, probably dása, "a slave," "servant." It is difficult to say what the next compound character is intended for, as we have no exact parallel to it. The body of it is v, so that it may be intended for rv, and be only a faulty execution or a variety of the character

T

which occurs at the beginning of this line in the plate. If so the word is probably sarvina, which compels us to suppose the letter s to have been omitted, and the phrase to read dasa sarvina instead of In offering this suggestion I may be making up for my own deficiencies, but I see no other way of getting through the difficulty. The following word is avashatri or anvashatri, which Rajendra takes to mean the *ávasatha* religious observance. no authority for considering the árasatha to be a Buddhist institution, but even if it be, the orthography differs too materially from that of the word anvashatri to be taken as its original. The nearest equivalent appears to be anveshtri-"inquirer," "searcher." The next word is ganasa, "of the band or class;" those succeeding are parivara cha, "and the train," which is followed by aga-bhaga parışaşanam bhavatu. The whole of it appears to signify, "May there be a perpetual happy future lot for all the servants of the Mahisacha Rohana, and for his train of attendant students."

The last clause Rajendra reads Mistugrasya cha agabhaga bhavatu, "May it ensure good fortune to Mistugra." The only objection to this reading is to the rendering of the second character. The first part of this character is clearly the cerebral t, and when we consider the few consonants that can be added to this letter, we shall have little hesitation in reading the compound as tth. The whole will then read Mitthagassa cha aga-bhaga bhavatu, "May there be a (happy) future lot for Mitthaga.

The last line written in larger characters is thus rendered by Rajendra Esha viháru asansthánna mahásangigana patigaha. "This vihara is the asylum of the houseless of the great congregation." The first two words are clearly esha viharam, the termination of the last word, however, seems to be erroneous, the accusative being employed as a nominative. The following word, which Rajendra reads asansthánana, presents some difficulties. The first two characters are pretty certainly asan, but the following is the palatal rs, and certainly cannot be taken as sth. But giving the compound its proper equivalents rs we get the impossible combination asanrs. To escape from this difficulty we can only suppose the compound to be sr instead of rs, which will give the word asansrana, a word which has much the same meaning as Rajendra's asansthánana; but may possibly have also some peculiar sectarial signification, being connected as it is with the Mahásanghis, the great sectarians. Parigraha signifies "accepted;" it has also the meaning "belonging to" (Clough, 115). The passage may, therefore, be translated

"This Vihara belongs to the asanśras (or, 'to the houseless') of the great congregation."

PROPOSED TRANSLATION.

Year 51—Artemisius 15.—With this (votive urn?) of Vagamarega, the son of Bhamagulya, there is deposited a relic of the Holy Sakya in the vihar of Vaga-mariga. May this meritorious foundation tend to (procure) a lasting future lot for Huveshka, the great king, king of kings: may it be to the honour of my father and mother: may it be to the honour of the brothers of me, Hashtuna-marega: may it be to my purity: may it tend to the honour of relative and friend, and of (my) protectors: may this work tend to the lasting future lot of the Mahisacha Vaga-maregas: may this tend to the health and reward of all the learned. (The next clause is not fully intelligible, but appears to begin with an aspiration for the removal of passion, lust, and ceremonial impurity, and to conclude with a desire that the work of building the vihar may be to the honour of all emancipated souls.) May there be a perpetual (happy) future lot for all the servants of the Mahisacha Rohana and for his train of attendant students: may there be a happy future lot for Mitthaga.

This Vihar belongs to the Asanśras (or "to the houseless") of the great congregation.

Before dismissing this inscription I may remark that there appears to have been an attempt at writing a portion of it in verse. The fourth line apparently concludes with a couplet of twelve syllables, and is preceded by a couplet of eleven.

Fig. 2 of plate x has been already examined in page 233, and the greater part of Fig. 3, comprising the date, has also been referred to. The words following the date are *Maharayasa Gushanasa raja*. "Of the great king Gushan." The substitution of y for j is a common one, as we have already seen in several instances. Here the word *Gushan* is apparently used as the name of a king not of a people.

These two last inscriptions were discovered and published by Colonel Cunningham, Beng. J., xxiii, 705. The first of them contains a few letters more than are given in the Plate; the second two lines more; but the dates, being the most important parts, were alone included in our plates. Nothing is known of these inscriptions beyond the fact of their having been found, the one at Chind and the other near Panjtar, in the Yusafzai country. It is to be

regretted that so little is known about them. A description of the positions in which they were found, and some account of the perfection or imperfection of the stones and the inscriptions would be of service in any attempted translation.

Notes on the Alphabet.

The characters of the Taxila Plate are so clear and so well defined that a few notes upon them and upon the characters in fig. 8 of plate iv. will be useful for reference.

The letters t, r, and v, which have hitherto been frequently confounded, here appear in their true normal forms. The t is short in the stem, and curled at the point of the horizontal line. The r and v are longer in the stem than the t; the horizontal line of the r is curled like the t, but that of the v is perfectly straight. These are the true points of distinction, and ought never to be disregarded without strong reason. That variations do occur is certain, as we have seen in the Wardak inscription (page 256); but all the best specimens of writing mark the points of distinction above defined.

I have incidentally stated some of the reasons for the emendations in respect of the letters ch and chh; but the following general summary may be acceptable. The first form of the ch, of which two slightly varying specimens are given, has long been conclusively settled by the Kapur di Giri inscription and the coin legends. The second form, of which also there are two slightly different types, is well exemplified and decided by the Taxila Plate. The third form is used in the word Chaitra in fig. 2, plate x, and is employed for the copulative chain the Manikyala Inscription. The fourth form is so used in the Wardak Inscription as to leave no doubt of The earliest form of the chh is that of the Kapur di its power. The second form, found on Mr. Bayley's seal, departs slightly from this type by omitting the transverse line. The transition from this form to the third, by converting the angular to a semi-circular top, is easy and manifest. This letter has usually been read as ch, but is very clearly chh for reasons I have stated above (page 228), chief of which are its similarity to the earlier forms of the chh, and its being the constant representative of the Sanskrit ksh. The fourth form is found in the Wardak Inscription in line 8 of plate x, in the word dachhina for dakshida (see page 262).

The two forms of the letter y are found in the word puyae in the Bimaran and Wardak Vase Inscriptions. This word is written with

the ordinary form of the y in the Taxila Inscription in precisely the same phrases, and there cannot be the slightest doubt of its being the same. The first form differs sufficiently from the s to mark a difference in pronunciation, and the second is probably only a careless manner of writing.

The additional form of the Kh is found in the Wardak Inscription, line 2, and in the word Khushan of the coin legends (plate iv, fig. 7 b).

The reasons for reading the character thi are given in page 239, where it is shown to occur in the word thira for the Sanskrit sthira.

There can be no doubt as to the character mu, which is found so distinctly in the word $\acute{S}\acute{a}kyamuni$ in the Taxila plate. The second form, however, is not quite so certain, but still there is little room for doubt. It resembles the certain form of the mu more than any other letter; it occurs in what seems to be a faulty spelling of the same name $\acute{S}akyamuni$ in the Wardak Inscription; and wherever it occurs the sound mu appears to be suitable (see pp. 242, 253, 259).

The variety of the letter s, which has been read si, occurs twice on the Taxila plate in the word *Chhatrapasi*, and it is difficult to see what else than the vowel i can be expressed by the curl of the point. The same twist appears to be added to the letter t at the end of line 2; but this is not quite certain as the plate is much decayed in this spot.

khs-See line 2 of Taxila Plate.

tt—See lines 1 and 3 of the Taxila Plate where it is the representative of the Sanskrit sht and shth. It also occurs in a short inscription published in the Beng. J. for 1862, page 178, where it greatly troubled Rajendra Lal, who finally read it as jṇa, and the word in which it is found as prájna. The word, however, is clearly pretta, Sans. preshta, "dear."

phs-See coin legend. Plate iv, fig. 7 b.

bhr—The first form of this compound is found on the coins, and was so read by Colonel Cunningham (Ben. J. xxiii, p. 695). The second form is found in the word bhrata in the Taxila, Peshawar and Wardak Inscriptions.

rt, rt, rdh. &c. &c. -The conjunct form of the r preceding a consonant is found in two shapes. That of the rv and rdh of the Taxila and Bimaran Inscriptions (plate iii), and that of the rv in the word Sarva in the coin legend (plate iv, fig. 7 c). This latter form is found combined with other consonants in the Manikyala and Wardak Inscriptions, and its power may be now considered settled.

The two forms of the rm differ from the ordinary way of pre-

fixing the r, Colonel Cunningham was the first to read this compound. The character rmi, which occurs in the Manikyala Inscription is doubtful.

św—This compound is found in the word Iśwara (plate iv, fig. 7 c); and I may here repeat what I have before stated in page 240, that conjunct consonants appear to be always joined to the right-hand limb of this letter and the letter y, while vowels are added to the left.

shk—The first form of this compound occurs in the name Kaneshka, line 3 of the Manikyala Inscription. The second form in the name Huvishka, Wardak Vase, line 4.

sht-See Wardak Vase, line 5.

st, str—The first form of the st was made known by Mr. Norris in his article on the Kapur di Giri Inscription. The second will be found in Mr. Thomas's Alphabet (Prinsep's Essays ii, p. 166). The form str occurs in the word read "Strategasa" by Colonel Cunningham.

sy—The two forms of this compound are found in lines 1, 2, and 6 of the Wardak Inscription. And it may be here stated that the first appears to be the common way of adding a conjunct y. See the words read as Gulya and Sakya in lines 2 and 3 of the same inscription.

pr, tr, &c.—The adjunct form of the r has long been well-known.
pan, ram, &c.—The form of the anuswara has also been long
recognised, but a few examples are given from the Taxila Plate.
The mam and han are worthy of attention.

I cannot conclude this paper without expressing my thanks to Mr. Thomas for many valuable hints and for references to books of authority not within my reach. The characteristic care and accuracy with which he has prepared the Taxila plate will be appreciated as much by my readers as by myself.