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ESSAYS  
ON  
INDIAN ANTIQUITIES,  
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ESSAYS  
ON  
INDIAN ANTIQUITIES,

HISTORIC, NUMISMATIC, AND PALÆOGRAPHIC,

OF THE LATE  
JAMES PRINSEP, F.R.S.,

SECRETARY TO THE ASIATIC SOCIETY OF BENGAL;

TO WHICH ARE ADDED HIS  
USEFUL TABLES,

ILLUSTRATIVE OF INDIAN HISTORY, CHRONOLOGY, MODERN COINAGES, WEIGHTS,  
MEASURES, ETC.

EDITED, WITH NOTES, AND ADDITIONAL MATTER,

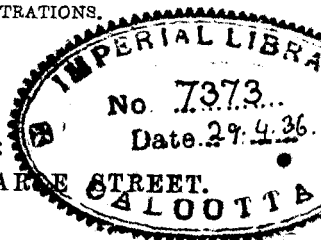
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## ERRATA IN VOL. II.

Contents, line 4, for "collection" read "collation."

Page 41, line 9, for "Plates xxxvii. and xxxviii.," read "Plates xxxviii. and xxxix."

" 80, " 10 from the bottom, for "explanation of Plate xii.," read "explanation of "Plate xxxvii."

" 109, " 11 from the bottom, for "Ardeslin Bálbiek," read "Ardeshr Bábek."

" 126, " 6 from the bottom, *cancel* "Fig. 2" (omitted in the new Plate).

" " 3 from the bottom, for "Fig. 1," read "Fig. 4."

" 151, " 14 for "deduced," read "educed."

" 178, " 8 from the bottom, for "~~ΔΙΟΔΟΤΟΤ~~," read "ΔΙΟΔΟΤΟΤ."

" *Useful Tables*," page 84.—Table of Imports and Exports of Gold and Bullion.—In heading of *third* column, for "total amount of goods imported into," read "total amount of goods exported from."

" page 110, note 2, for "Marakkál," read "Marakkál."

## NUMISMATIC ESSAYS.

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### XVII.—APPLICATION OF THE EARLY BHILSA ALPHABET TO THE BUDDHIST GROUP OF COINS.

[ 7TH JUNE, 1837.]

Having once become possessed of the master-key of this ancient alphabet, I naturally hastened to apply it to all the doors of knowledge hitherto closed to our access. Foremost among these was the series of coins conjecturally—and, as it now turns out, correctly—designated as the Buddhist series; and of these, the beautiful coin discovered by Lieut. Conolly, at Kanauj, attracted the earliest notice from the very perfect execution and preservation of the legend; [see pl. vii., fig. 1, vol. i., p. 115]. The reading of this coin was now evident at first sight, as *𑀧𑀺𑀢𑀺𑀓 Vipra-devasa*; which, converted into its Sanskrit equivalent, will be *विप्रदेवस्य Vipra-devasya*, '(the coin) of Vipra-deva.' On reference to the chronological tables, we find a Vipra in the Magadha line, the tenth in descent from Jarasandha, allotted to

the eleventh century before the Christian era ! Without laying claim to any such antiquity, we may at least bespeak for our Vipra-deva a place in the Indu-vansa line of Magadha, and a descent from the individual of the same name in the Paurānic lists.

[ I regret to have to disturb this identification, but the new reading of the name on the coin, as *Vishnu-deva*, is distinct and positive ! Prinsep himself, it will be seen hereafter, amended his first form of  $\text{v} = ph$ , to  $\text{v}$ , [see pl. xxxvii.] The true letter on the coin is the old equivalent of  $\text{v}$  *sh*, which does not seem to have been met with in either the Lāt character or that of the Western caves, though Dr. Stevenson gives the letter in its present shape among what he terms Satrap characters.—*Jour. Bombay Br. As. Soc.*, July, 1853, pl. xvii.]

Other coins depicted in former plates may, in a similar manner, be read by the new alphabet.

The small bronze coins of Behat (fig. 5, pl. [iv.] xviii., vol. iii. and fig. 13 of pl. [xix.] xxxiv., vol. iv.) have the distinct legend  $\text{vgr}\bar{\text{e}}\text{a}$  in the square form of the same alphabet. The application of the word *mahārājasa* in the genitive, with no trace of a name, might almost incline us to suppose that the title itself was here used as a name, and that it designated the ‘Mahraje, king of Awadh,’ of the Persian historians, who stands at the head of the third lunar dynasty of Indraprastha, in the ‘Rājavalī’ !

The only other coin of the group which contains the same title, is the silver decayed Behat coin, seen more perfect in Ventura’s specimen (fig. 16 of pl. [xix.] xxxiv., vol. iv.), where may be read indistinctly  $\text{vgr}\bar{\text{e}}\text{a}\text{mah}\bar{\text{r}}\bar{\text{a}}\text{j}\bar{\text{a}}\text{s}\bar{\text{a}}$  . . . . .  $\text{vgr}\bar{\text{e}}\text{a}$  *Amapasātasa mahārāja . . kunarasa*. [See vol. i., p. 204].

On the bronze Behat coin (figs. 11, 12, of pl. [iv.]

xviii., vol. iii., and 3, 6, 9, of pl. [xix.] xxxiv., vol. iv.), though we have ten examples to compare, the context is not much improved by the acquisition of our new key: the letters are  $\square\Delta\Delta\perp+\perp\Delta\Delta\perp$  *basā dhana kanaya dhaya*; (the second letter is more like  $\pi$  *bhu*.)

Stacy's supposed Greek legends (figs. 2, 3, of pl. [vii.] xxv., vol. iii.), may be read (as I anticipated), [vol. i., p. 114], invertedly  $\Delta\Delta\Delta\perp\Delta\Delta$  *Yagā bijana puta (sa?)*

The larger copper coin, having a standing figure holding a trident (fig. 4, pl. [vii.] xxv., vol. iii.) has, very distinctly, the name of  $\pi\Delta\Delta\Delta$  . . . *Bhagavata cha* (or *sa*). A *rāja* of the name of *Bhagavata* appears in the Magadha list, about the year 80 B.C.

On some of the circular copper coins, we have fragments of a legend  $\pi\pi\pi\cdots\Delta\Delta\Delta$  *Bhāmada* . . . *vatapasa*, quasi *Bhīmadeva tāpasya*—but the last word is the only one that can be confided in.

On a similar coin, of which Stacy has a dozen specimens (fig. 47, pl. [xx.] xxxv., vol. iv.) the name of  $\pi\pi\pi\Delta\Delta$  *Rāmadatasa*, 'of Rāmadatta,' is bounded by the 'lizard' emblem of Behat.

These are the only two in the precise form of the *Lāt* character—the others are more or less modified.

Another distinct group (that made known first by Mr. Spiers) from Allahābād (pl. [viii.] xxvi., figs. 12-15, vol. iii., p. 436, See Art. vi.), can be partially deciphered by the *Lāt* alphabet. Capt. Cunningham has a fine specimen with the letters  $\pi\Delta\Delta\perp\Delta\Delta$  *Rāja Dhana-devasya*, 'of Rāja Dhana-deva,' a name not discoverable in the catalogue, though purely Sanskrit. On three more of the same family, we find  $\perp\Delta\Delta$  *Navasa*. On one it seems

rather 𑀭𑀸𑀓 *Narasa*, both *Nava* and *Nara* being known names. On another 𑀭𑀸𑀓𑀭 *Kunamasa*; and on another, probably, 𑀭𑀸𑀓𑀭𑀸𑀓 *mahapati*, 'the great lord.'

The 'bull' coins of this last group are connected in type, and style of legend, with the 'cock and bull' series; on which we have lately read *Satya-mitasa*, *Saya-mitasa*, and *Bijaya-mitasa*; so that we have now a tolerably numerous descending series of coins to be classed together from the circumstance of their symbols, of their genitive termination, and their Pálí dialect and character, as a Buddhist series, when we come again to review what has been done within the last few years in the numismatology of India.

But the most interesting and striking application of the alphabets to coins is certainly that which has been already made (in anticipation, as it were, of my discovery, by Lassen, to the very curious Bactrian coins of Agathocles.

The first announcement of Lassen's reading of this legend was given [vol. i. p. 401]. He had adopted it on the analogies of the Tibetan and Pálí alphabets, both of which are connected with, or immediately derived from, the more ancient character of the Láts. The word read by him, '*rájá*,' on some specimens seems to be spelt 𑀭𑀸𑀓𑀭𑀸𑀓 *yāja*, rather than 𑀭𑀸𑀓𑀭𑀸𑀓 *lāja*, a corruption equally probable, and accordant with the Pálí dialect, in which the *r* is frequently changed into *y*, or omitted altogether. I am, however, inclined to adopt another reading, by supposing the Greek genitive case to have been rendered as literally as possible into the Pálí character; thus 𑀭𑀸𑀓𑀭𑀸𑀓𑀭𑀸𑀓 *Agathuklayej* for *Αγαθοκλαῆς*: this has the ad-



vantage of leaving the letters on the other side of the device for the title, rájá, of which, indeed, the letter *a* is legible.

I am the rather favorable to this view, because, on the corresponding coin of Pantaleon, we likewise find both the second vowel of the Greek represented by the Sanskrit semivowel, and the genitive case imitated: supplying the only letter wanting on Swiney's coin—the initial *p*,—of which there are traces in Masson's drawing, the word *ὔ.Α.Ν.Β.Γ. Pantelewanta*, is, by the help of our alphabet, clearly made out; the anuswára, which should follow the *α*, being placed in the belly of the letter instead of outside; and the *á* being attached to the centre instead of the top of the *κ* [Pantalevasa.]

The discovery of these two coins with Páli characters, is of inestimable importance in confirming the antiquity of the alphabet; as, from the style of Agathocles' coins, he must necessarily be placed among the earliest of the Bactrians, that is, at the very period embraced by the reign of Asoka, the Buddhist monarch of Magadha.

On the other hand, the legend throws light on the locality of Agathocles' rule, which, instead of being, as assigned by M. Raoul Rochette, in 'Haute Asie,' must be brought down to the confines, at least, of India proper.

As, however, the opinions of this eminent classical antiquary are entitled to the highest consideration, I take this opportunity of making known to my readers the substance of his learned elucidation of this obscure portion of history, given in a note on two silver coins of Agathocles, belonging to the cabinet of a rich amateur

at Petersburg, published in the 'Journal des Savans,' 1834, p. 335 :

'In the imperfect accounts transmitted to us of the troubles occasioned to the Seleucidan kingdom from the invasion of Ptolemy Philadelphus, and of the loss of entire provinces after the reverses of Antiochus II. Theos ; the foundation of the Arsacidan kingdom by the defection of the brothers Arsaces and Tiridates is an established point, fixed to the year 256 B.C. But the details of this event, borrowed from Arrian's 'Parthics,' have not yet been determined with sufficient care, as to one important fact in the Bactrian history. From the extracts of various works preserved in Photius, the defection of the Parthians arose from an insult offered to the person of one of these brothers by the Macedonian chief placed by Antiochus II. in charge of the regions of High Asia, and named Phéréclès. The two princes, indignant at such an outrage, are supposed to have revenged themselves with the blood of the satrap, and, supported by the people, to have succeeded in shaking off the Macedonian yoke.

'This short notice from Photius has been corrupted by transcribers in the name of the chief Phéréclès, which modern critics have failed to correct by a passage in the 'Chronographia' of Syncellus, who had equally under his eyes the original of Arrian, and who declares expressly that 'Arsaces and Tiridates (brothers, issue of the ancient king of Persia, Artaxerxes), exercised the authority of satraps in Bactria at the time when Agathocles, the Macedonian, was governor of Persia ; the which Agathocles, having attempted to commit on the person of the young Tiridates the assault before alluded to, fell a victim to the vengeance of the brothers, whence resulted the defection of the country of the Parthians, and the birth of the Arsacidan kingdom.' Agathocles is called by Syncellus, *Ἐπαρχος τῆς Περσικῆς*, while Photius calls him (under an erroneous name) *Σατράπην αὐτῆς τῆς χώρας καταστάντα*, appointed by Antiochus Theos ; so that no doubt whatever could exist as to their identity, although, until the discovery of the coins, there was no third evidence whence the learned could decide between the two names. The presumption might have been in favor of Agathocles, because among the body-guard of Alexander was found an Antylocus, son of Agathocles, who, by the prevailing custom of his country, would have named his son Agathocles, after his own father.'

M. Raoul Rochette proceeds to identify the Eparch of Persia with Diodotus, or Theodotus, the founder of the

Bactrian independency ;—supposing him to have seized the opportunity of striking the blow during the confusion of Antiochus' war with Ptolemy, and while he was on deputation to the distant provinces of the Oxus,—that he was at first chary of placing his own head on his coin, contenting himself with a portrait of Bacchus, and his panther on the reverse, but afterwards emboldened to adopt the full insignia of royalty. Thus, according to our author, a singular shift of authorities took place : Arsaces, the satrap of Parthia, quits that place and sets up for himself in Persia, in consequence of the aggression of Diodotus (or Agathocles), king of Bactria, who had originally been Eparch of Persia,—both satraps becoming kings by this curious *bouleversement*. The non-discovery of Theodotus' medals is certainly in favor of M. Raoul Rochette's argument, but the present fact of a Hindí legend on his coin militates strongly against his kingdom being thrown exclusively to the northward. By allowing it to include Parthia proper, or Seistan, and the provinces of the Indus, this difficulty would be got rid of; but still there will remain the anomaly of these Indian legends being found only on Agathocles, and Pantaleon's coins, while those of Menander, who is known to have possessed more of India proper, have only the Pehlvi reverse. Agathocles' rule must have included a sect of Buddhists somewhere, for, besides the letters, we find their peculiar symbol present on many of the 'panther' coins. At any rate, we have certainty of the existence of our alphabet in the third century before Christ, exactly as it exists on our Indian monuments, which is all that on the present occasion it is relevant to insist upon. . . .

[ Prinsep then goes on to test the application of this alphabet to other classes of inscriptions, and terminates his remarks with—]

A few words in conclusion regarding the alphabet, of which I have had a fount prepared while this article was setting up for press.

There is a primitive simplicity in the form of every letter, which stamps it at once as the original type whereon the more complicated structure of the Sanskrit has been founded. If carefully analyzed, each member of the alphabet will be found to contain the element of the corresponding member, not only of the Devanágari, but of the Kanaúj, the Pálí, the Tibetan, the Hala Kanara, and of all the derivatives from the Sanskrit stock.

But this is not all: simplification may be carried much farther by due attention to the structure of the alphabet, as it existed even at this early stage, and the genius of its construction, *ab initio*, may in some measure be recognized and appreciated.

First, the aspirated letters appear to have been formed in most cases by doubling the simple characters; thus, ॢ *chh* is the double of ॡ *ch*; ॣ *th* is the double of ॡ *t*; । *dh* is the half of this; and ॥ *th* is the same character with a dot as a distinguishing mark: (this may account for the constant interchange of the ॡ, ॢ, ॣ, and ॥, in the inscriptions). Again: ॢ *dh* is only the letter ॡ produced from below—if doubled, it would have been confounded with another letter, the ॡ. The aspirated *p* ॢ is merely the ॡ *p* with a slight mark, sometimes put on the outside, either right or left,<sup>1</sup> but I cannot yet affirm

<sup>1</sup> [I have allowed Prinsep's original speculations on the structure of this alphabet to stand uncommented upon; and have reserved for rectification, under his own hand, in the succeeding article, whatever was left imperfect or incomplete in this.]

that this mark may not merely denote a duplication of the letter rather than an aspiration—if, indeed, the terms were not originally equivalent; for we have just seen the doubling of the letter made to denote its aspiration.

The *kh* seems formed from the *g* rather than the *k*: the *gh* and *jh* are missing as in Tibetan, and appear to be supplied by *g* and *chh* respectively: *bh* is anomalous, or it has been formed from the *ḍ* by adding a downward stroke.

Again, there is a remarkable analogy of form in the semi-vowels *r*, *ṛ*, *l*, *y*, *ṛ*, *ṣ*, *ṣ*, *ṣ*, which tends to prove their having been framed on a consistent principle: the first *r* hardly ever occurs in the Dihlī inscription, but it is common in that from Girnār. The *h* *ṛ* is but the *ṣ* reversed: the *ri*, so peculiar to the Sanskrit alphabet, is formed by adding the vowel *i* to the *r*, thus, *ṛ*.

As far as is yet known, there is only one *n*,<sup>1</sup> and one *s*: the nasals and sibilants had not therefore been yet separated into classes; for the written Pālī of 200 years later possesses at least the various *n*'s, though it has but one *s*.

The four vowels, initials, have been discovered, *ṛ*, *ṛ*, *ṛ*, *ṛ*. The second seems to be the skeleton of the third, as if denoting the smallest possible vocal sound. Of the medial vowels it is needless to speak, as their agreement in system with the old Nāgarī was long since pointed out. The two long vowels *ī* and *ū*, are produced by doubling the short symbols. The *visarga* is of doubtful occurrence, but the *anuswāra* is constantly employed;

<sup>1</sup> I think the Girnār and Ceylon inscriptions will be found to have the other nasals made by the modification of the primary *ṛ*. There are other letters in these texts not found in the Lāts of this side of India.

and when before *m*, as in ॐ४ *dhamma*, it is equivalent to the duplication employed in the more modern Páli writing. The following, then, is our alphabet, arranged in the ordinary manner.

Gutturals	..... + १ ॡ	<i>k kh g gh ng</i>	क ख ग घ ङ
Palatals	..... ॡ ॢ ॣ	<i>ch chh j jh ny</i>	च छ ज झ ञ
Cerebrals	..... ॢ ॣ । ॥	<i>t th d dh n</i>	ट ठ ड ढ ण
Dentals	..... ॡ ॢ ॣ । ॥	<i>t th d dh n</i>	त थ द ध न
Labials	..... ॢ ॣ । ॥ ॥	<i>p ph b bh m</i>	प फ ब भ म
Semivowels, etc.	..... ॡ ॢ ॣ । ॥ ॥	<i>y r l v s h</i>	यर ल व स ह
Vowels	..... ॡ ॢ ॣ । ॥ ॥	<i>a i e u ri</i>	अ इ ए उ ऋ

We might, perhaps, on contemplation of these forms, go yet farther into speculation on their origin. Thus the *g* may be supposed to be formed of the two strokes of the *k*, differently disposed; the *j*, of the two half curves of the *ch* superposed; the two *d*'s<sup>1</sup> are the same letter turned right and left respectively; and this principle, it may be remarked, is to be met with in other scions of the Indian alphabet. Thus, in the Tibetan, the ॐ *z*, a sound unknown to the Sanskrit, is made by inverting the ॐ *j*; the cerebral *n*, by inverting the dental ॢ *n*; and the cerebral *t*, *th*, by inversion of the dental ॢ *t th*.

The analogy between the ॢ and ॡ is not so great in this alphabet as in what we have imagined to be its successor, in which the essential part of the (ॡ) *t* is the ॢ placed downwards (˘). In the same manner, the connection of the labials, *p* and *b*, is more visible in the old Ceylonese, the Kanauj, and even the Tibetan alphabets;

<sup>1</sup> It is worth observation that the dental *d* of the inscriptions corresponds in form to the modern cerebral, and *vice versa*.

the  $\pi$   $\delta$  being merely the  $\pi$   $p$  closed at the top; and in square Pálí  $\cup$  and  $\cap$ .

Thus, when we come to examine the matter critically, we are insensibly led to the reduction of the written characters to a comparatively small number of elements, as  $+$ ,  $d$ ,  $\zeta$ ,  $r$ ,  $\perp$ ,  $\cup$ ,  $\delta$ ,  $\cap$ ,  $\delta$  and  $\Delta$ ; besides the vowels  $\mathfrak{u}$ ,  $\mathfrak{v}$ ,  $\mathfrak{l}$ . Or, perhaps, in lieu of this arrangement, it may be preferable to adopt one element as representative of each of the seven classes of letters. We shall thus come to the very position long ago advanced by Iambulus the traveller.

Iambulus was antecedent, says Dr. Vincent, to Diodorus; and Diodorus was contemporary with Augustus. He made, or pretended to have made, a voyage to Ceylon, and to have lived there seven years. Nine facts mentioned by him as characteristic of the people of that country, though doubted much in former days, have been confirmed by later experience: a tenth fact the learned author of the 'Periplus' was obliged to leave to future inquiry,—namely, "whether the particulars of the alphabet of Ceylon may not have some allusion to truth: for, he says, 'the characters are originally only seven, but by four varying forms or combinations they become twenty-eight.'"<sup>1</sup>

It would be difficult to describe the conditions of the Indian alphabetical system more accurately than Iambulus has done in his short summary, which proves to be not only true in the general sense of the classification of the letters, but exact as to the origin and formation of the symbols. As regards the discussion of the edict of

<sup>1</sup> Vincent's 'Periplus of the Erythrean Sea.'

Devánampiyatissa, the testimony of Iambulus is invaluable, because it proves that written characters—our written characters—were then in use (notwithstanding the Buddhist books were not made up till two centuries later :) and it establishes the credit of a much vituperated individual, who has been so lightly spoken of, that Wilford endeavours to identify him with Sindbad the Sailor, and other equally marvellous travellers !

[ Though not strictly susceptible of classification with numismatic developments, I am anxious to associate with James Prinsep's other contributions to the historical antiquities of India, his most interesting discovery of the names of the early successors of Alexander the Great, on the lapidary monuments of Asoka, the grandson of Chandragupta.]

#### DISCOVERY OF THE NAME OF ANTIOCHUS THE GREAT, IN TWO OF THE EDICTS OF ASOKA, KING OF INDIA.

(Read at the Meeting of the Asiatic Society of Bengal, on the 7th March, 1838.)\*

As long as the study of Indian antiquities confines itself to the illustration of Indian history, it must be confessed that it possesses little attraction for the general student, who is apt to regard the labor expended on the disentanglement of perplexing and contradictory mazes of fiction, as leading only to the substitution of vague and dry probabilities for poetical, albeit extravagant, fable. But the moment any name or event turns up in the course of such speculations, offering a plausible point of connection between the legends of India and the rational histories of Greece or Rome,—a collision between the fortunes of an eastern and a western hero,—forthwith a speedy and spreading interest is excited, which cannot be satisfied until the subject is thoroughly sifted by the examination of all the ancient works, western and eastern, that can throw concurrent light on the matter at issue. Such was the engrossing interest which attended the identification of Sandracottus with Chandragupta, in the days of Sir Wm. Jones: such the ardour with which the Sanskrit was studied, and is still studied, by philologists at home, after it was discovered to bear an intimate relation to the classical languages of ancient Europe. Such, more recently, has



been the curiosity excited, on Turnour's throwing open the hitherto sealed page of the Buddhist historians to the development of Indian monuments and Pauranic records.

The discovery I was myself so fortunate as to make, last year, of the alphabet of the Dihli Pillar Inscription, led immediately to results of hardly less consideration to the learned world. Dr. Mill regarded these inscriptions as all but certainly demonstrated relics of the classical periods of Indian literature. This slight remainder of doubt has been since removed by the identification of Piyadasi as Asoka, which we also owe to Turnour's successful researches; and, dating from an epoch thus happily achieved, we have since succeeded in tracing the name of the grandson of the same king, Dasaratha, at Gaya, in the same old character; and the names of Nanda and Ailas, and perhaps Vijaya, in the Kalinga caves: while on Bactrian coins we have been rewarded with finding the purely Greek names of Agathocles and Pantaleon, faithfully rendered in the same ancient alphabet of the Hindús.

I have now to bring to the notice of the Society another link of the same chain of discovery, which will, if I do not deceive myself, create a yet stronger degree of general interest in the labours, and of confidence in the deductions, of our antiquarian members than any that has preceded it. I feel it so impossible to keep this highly singular discovery to myself that I risk the imputation (which has been not unjustly cast upon me in the course of my late undigested disclosures), of bringing it forward in a very immature shape, and, perhaps, of hereafter being obliged to retract a portion of what I advance. Yet neither in this, nor in any former communication to the Society, have I to fear any material alteration in their general bearing, though improvements in reading and translation must of course be expected as I become more familiar with characters and dialects unknown for ages past even to the natives themselves, and entirely new to my own study.

A year ago, as the Society will remember, Mr. Wathen kindly sent me a reduced copy of the facsimiles of the inscriptions on a rock at Girnár (Giri-nagara) near Junágarh, in Gujarát, which had been taken on cloth by the Rev. Dr. Wilson, President of the Bombay Literary Society. He also sent a copy to M. Jacquet of Paris, which I dare say before this has been turned to good account.

After completing the reading of the Pillar Inscriptions, my attention was naturally turned to these in the same character from the west of India, but I soon found that the copy sent was not sufficiently well done to be thoroughly made out; and I accordingly requested Mr. Wilson to favour me with the facsimile itself, which, with the most liberal frankness, he immediately sent round under a careful hand by

sea. Meanwhile Lieut. Kittoe had, as you are also aware, made the important discovery of a long series of inscriptions in the same character at a place called Dhauli, in Katak. These were in so mutilated a state that I almost despaired of being able to sift their contents; and they were put aside, at any rate until a more promising portion of my labour should be accomplished.

I had just groped my way through the Girnár text, which proved to be, like that of the pillars, a series of edicts promulgated by Asoka, but essentially different both in language and in purport. When I took up the Katak inscriptions, of which Lieut. Kittoe had been engaged in making a lithographic copy for my journal, to my surprise and joy I discovered that the greater part of these inscriptions (all, indeed, save the first and last paragraphs, which were enclosed in distinguishing frames), was identical with the inscription at Girnár. And thus, as I had had five copies of the Pillar Inscription to collate together for a correct text, a most extraordinary chance had now thrown before me two copies of the rock edicts to aid me in a similar task! There was, however, one great variance in the parallel; for, while the pillars were almost identical letter for letter, the Girnár and Katak texts turned out to be only so in substance, the language and alphabet having both very notable and characteristic differences.

Having premised thus much in explanation of the manner of my discovery, I must now quit the general subject for a time, to single out the particular passage in the inscriptions which is to form the theme of my present communication.

The second tablet at Girnár is in very good preservation; every letter is legible, and but two or three are in any way dubious. The paragraph at Aswastuma, which I found to correspond therewith, is far from being in so good a state; nevertheless, when the extant letters are interlined with the more perfect Girnár text, they will be seen to confirm the most important passage, while they throw a corroborative evidence upon the remainder, and give a great deal of instruction on the respective idioms in which the two are couched.

The edict relates to the establishment of a system of medical administration throughout the dominions of the supreme sovereign of India, at one of which we may smile in the present day, for it includes both man and beast; but this we know to be in accordance with the fastidious humanity of the Buddhist creed, and we must therefore make due allowance for a state of society and of opinions altogether different from our own. . . .

#### TRANSLATION.

"Everywhere within the conquered provinces of Rája Piyadasi, the beloved of the gods, as well as in the parts occupied by the faithful, such as Chola, Piḍa, Satiyaputra,

and Ketalaputra, even as far as Tambapanni (Ceylon)—and moreover, within the dominions of Antiochus the Greek (of which Antiochus' generals are the rulers)—everywhere the heaven-beloved Rāja Piyadasi's double system of medical aid is established, both medical aid for men, and medical aid for animals: together with medicaments of all sorts, which are suitable for men, and suitable for animals. And wherever there is not (such provision), in all such places they are to be prepared, and to be planted. both root-drugs and herbs, wheresoever there is not (a provision of them) in all such places shall they be deposited and planted.

“And in the public highways wells are to be dug, and trees to be planted, for the accommodation of men and animals.”

Many things are deserving of comment in this short edict. . . . But the principal fact which arrests attention in this very curious proclamation, is its allusion to Antiochus the Yona (Sanskrit, *Yavana*) or ‘Greek’ king. The name occurs four times over, with only one variation in the spelling, where, in lieu of *Antiyako* we have *Antiyoko*, a still nearer approach to the Greek. The final *o* is the regular Pāli conversion of the Sanskrit nominative masculine termination *as*, or the Greek *os*. In the Pillar dialect the visarga of the Sanskrit is replaced by the vowel *e*, as we see in the interlined reading, *Antiyake*. Again, the interposition of the semivowel *y* between the two Greek vowels *i* and *o* is exactly what I had occasion to observe in the writing of the words *Agathuklayoj* and *Pantalavanta* for *Αγαθοκλεως* and *Πανταλευντος* on the coins. All this evidence would of itself bias my choice towards the reading adopted, even were it possible to propose any other; but although I have placed the sentence, exactly transcribed in the Devanāgarī character, in the pandit's hand, he could not, without the alteration of very many letters, convert it to any other meaning, however strained. And were there still any doubt at all in my mind, it would be removed by the testimony of the Katak version, which introduces between *Antiyake* and *Yona* the word *nāma*,—making the precise sense ‘the Yona rāja, by name Antiochus.’

[I transcribe so much of the duplicate version of the original, since illustrated and confirmed by the decipherment of the Arian inscription at Kapur di Giri, as in any way affects the historical value of the document, together with Professor Wilson's commentary and revision of Prinsep's translation. The Professor's opening remarks explain the derivation and arrangement of the parallel texts, inserted *in extenso* in the Journal of the Royal Asiatic Society.]

In order to exhibit with as much distinctness as possible the

language of the inscriptions . . . . I have placed the several inscriptions in parallel lines, in order to bring the words of each in juxta-position as far as was practicable. They accordingly form four lines. The upper line represents Mr. Prinsep's original readings, as published in the Journal of the Asiatic Society of Bengal, vol. vi., p. 228, and above the line, in a smaller character, are inserted his subsequent corrections, as given in a copy of the Journal, corrected by himself, and placed at Mr. Norris's disposal, by his brother, Mr. H. T. Prinsep. Small numerals refer to the lines of our own lithographed copy. This line I have designated G *a*. The second line is the representation of the copy lithographed (in the 'Jour. Roy. As. Soc.,' vol. xii., p. 153), and which I have generally referred to as Mr. Westergaard's copy, as he has the larger share in it. This is marked G *b*. The third line marked D repeats the Dhauli inscription, as given by Mr. Prinsep. We have not yet been fortunate enough to have had a second and revised transcript, although it is very desirable. The lower line is marked K, as being rendered into Roman letters from the lithographed copy of the Kapur di Giri inscription. The small figures here also refer to the lines of the original. Where blanks occur in either of the inscriptions they are denoted by asterisks (dots are used in this work): where words are wanting for the collation, although there is no blank in the inscription, a line (of dots) supplies their place.

TABLET II.

G <i>a</i>	<sup>1</sup> Savata	vijitemhi	devānam	piyasa	Piyadasino	raño
G <i>b</i>	Savata	vijitamhi	devānam	piyasa	Piyadasino	raño
D	avata	vimitamsi	devānam	piyasa	Piyadasine	.
K	Savatam	vijite	devanam	priyasa	Priyadaśisa	raja
G <i>a</i>	<sup>2</sup> evamapāpavantesu	yathā	Choḍa	Piḍa	Satiyaputo	
G <i>b</i>	evamapipāvantesu	yathā	Choḍā	Pāḍā	Satiyaputo	
D	.	.	.	.	.	.
K	.	.	yi	Palaya	Satiya	putra
G <i>a</i>	<sup>a</sup> Ketaleputo, <sup>ā</sup> a	<sup>n</sup> Tamba <sup>3</sup> panni	Antiyako	yona	rāja	ye
G <i>b</i>	Ketalaputā, <sup>a</sup> a	Tambapani	Antiyako	yona	rāja	ye
D	.	.	tiyoke nāma	yona	lāja	yā
K	cha Keralamputra	Tambapani	Antiyoka ne	yona	raja	ye
G <i>a</i>	vā pi	tasa	Antiyakasa	<sup>aan</sup> samino	<sup>4</sup> rājāno	
G <i>b</i>	vā pi	tasa	Antiyakasa	sāmipam	rājāno	
D	va ..	.. sa	Antiyokasa	sāmantā	lājāne	
K	cha	araṇa tasa	Antiyokasa	samata	rajaya	

The portion of the Kapur di Giri inscription, which corresponds with the second Tablet of Gīrnār and Dhauli, is less imperfect than that which answers to the first

Tablet, and in the few blanks which occur, it admits of being conjecturally completed without any great violence.

There are, however, several omissions as compared with the Girnár sculpture, which are apparently intentional, constituting a variety in the language, though not in the general purport of the inscriptions. The inscriptions correspond also in the chief point of interest, the mention of Antiochus, the Yona Rāja.

The inscription commences with the phrase, *Savata vijite*, followed by a short blank, which may be filled up, without much risk of error, by the syllable *mhi*, of the Girnár Tablet—'everywhere in the conquered countries;'—which is followed by the usual designation 'of the beloved of the gods' Piyadasi, the genitive being as before, *Priyadaśisa*: the word 'countries,' it may be presumed, is understood in all the inscriptions.

We have no equivalent for what follows, which is read by Mr. Prinsep, *svama-pdpavantesu*. In Westergaard's copy it might be read, *mahi pdchantesu*, but it is, perhaps, only *evam api pachantesu* (for *pratyanteshu*) 'also even in the bordering countries,' not as Prinsep proposes, 'as well as in the parts occupied by the faithful.' Nor have we any equivalent for *Choḍa*, conjectured by Prinsep to be that portion of the south of India which is known as Chola, or Cholamandala, whence our Coromandel.

Instead of *Piḍa*, which requires to be corrected to *Piḍḍ*, we have *Palaya*, and then *Satiya putra cha Keralamputra Tambapani*, in near approach to *Satiya puto Ketalaputi and Tambapani*, words which have been thought intended to designate places in the south of India, but of which the two first, *Palaya* and *Satiya-puto*, are new and unknown. *Kerala* is no doubt a name of Malabar, as Chola is of the opposite coast; but we also find both words, in combination with others, designating countries or people in the north-west, as Kamboja, Yavana, Chola, Murala, Kerala, Śāka. (Gana-Pāthra, referring to a *sūtra* of Pānini, 4. 1. 175.) *Tambapani* it has been proposed to identify with Tāmraparni, or Ceylon, but further research may also remove that to the north. The same authority, giving the *Gana*, or list of words indicated in the *sūtra*, 5. 1. 116, explains them to signify tribes of fighting men, and specifies among them Savitri-putra, which offers some analogy to the *Satiya-putra* of the inscription. It is much more likely that countries in the north-west, than in the extreme south, of India are intended.

We next come to the important passage in which a Greek name and designation occur. Both the Girnár copies read *Antiyako yona rāja*: the Kapur di Giri has *Antiyokane yona rāja*; but the two last letters, *ne*, are rather doubtful. It should perhaps be *Antiyoke nama*, as at Dhauli, where we have *tiyoke nama yona lāja*. The use of the nominative case, however, offers a syntactical perplexity, for there is not any verb through which to connect Antiochus with the rest of the sentence; and it seems unusual to associate the name of an individual with those of places. Prinsep supplies the defect with 'the dominions of Antiochus the Greek;' but we have no term for 'the dominions,' nor is the noun in the genitive case, as it is in what follows. In this the Kapur di Giri inscription nearly agrees with that of Girnár, and it may be read *ye cha a rapa tasa Antiyokasa samata rajaya sakato devanam priyasa*, etc., that of Girnár being *ye va pi tasa Antiyakasa admipam rājano savata*. Either may be rendered 'and those princes who are near to Antiochus everywhere;' although *rajaya* is an unusual form of the plural of *rāja*, being neither Sanskrit nor Pāli. The object of prefixing *a* to *rājna* in the word *arapa*, being equivalent to 'no king,' is not very intelligible, and it can scarcely be doubted that *sukuto* should be *suutu*, as found both at Girnár and Dhauli. It seems likely that there may be some inaccuracies in this

part, either in the original or the copy. But admitting a concurrent reading, we still want a connecting word, and it is not specified what these neighbours or dependants of Antiochus are to do. We may presume that they are expected to attend to the object of the edict, or they may be comprehended in the list of the *savata vjite*, 'the conquered.'

#### PROPOSED TRANSLATION.

In all the subjugated (territories) of the King Priyadasi, the beloved of the gods, and also in the bordering countries, as (Choda), Palaya, (or Paraya), Satyaputra, Keralaputra, Tambapani (it is proclaimed), and Antiochus by name, the Yona (or Yavana) Raja, and those princes who are near to (or allied with) that monarch, universally (are apprised) that (two designs have been cherished by Priyadasi: one design) regarding men, and one relating to animals; and whatever herbs are useful to men or useful to animals.

#### PRINSEP'S TRANSLATION.

'Everywhere within the conquered province of rāja Piyadasi, the beloved of the gods, as well as in the parts occupied by the faithful, such as Chola, Pida, Satiyaputra, and Ketalaputra, even as far as Tambapanni (Ceylon); and moreover, within the dominions of Antiochus, the Greek (of which Antiochus' generals are the rulers)—everywhere the heaven-beloved rāja Piyadasi's double system of medical aid is established; both medical aid for men, and medical aid for animals; together with the medicaments of all sorts, which are suitable for men, and suitable for animals.'

### CONTINUATION OF REMARKS ON THE EDICTS OF PIYADASI, OR ASOKA, THE BUDDHIST MONARCH OF INDIA, PRESERVED ON THE GIRNAR ROCK IN THE GUJARAT PENINSULA, AND ON THE DHAULI ROCK IN KATAK; WITH THE DISCOVERY OF PTOLEMY'S NAME THEREIN.

(Read at the meeting of the Asiatic Society of Bengal, on the 4th April, 1838).

In continuation of the discovery I had the pleasure of bringing to the notice of the Society at its last meeting, I am now enabled to announce that the edicts in the ancient character from Gujarāt do not confine their mention of Greek sovereigns to Antiochus the ally of Asoka, but that they contain an allusion, equally authentic and distinct, to one of the Ptolemies of Egypt! The edict containing this highly curious passage is in a mutilated condition and at the very end of the inscription, which will account for its having hitherto escaped my attention. As I propose to lay before the Society a brief account of the whole of the Gīrnār inscription, I will do no more than mention the fact at present, reserving the particulars until I come to the actual position of the passage on the stone. . . .

I have already mentioned the fortunate discovery of a duplicate of the Gujarāt inscription, at Dhaulī, in Katak.

The divided sentences, or, as I shall for the present venture to call them, the edicts, which are common to Gīrnār and to Dhaulī, are eleven

in number. From the first to the tenth they keep pace together: the only difference being that while, at Girnár, each is surrounded by an engraved line as a frame; at Dhaulí, the beginning of each edict is marked by a short dash. The regular succession is then interrupted by three interpolations at Girnár; after which, the fourteenth edict of that series is found to correspond with the eleventh or concluding one of the same set at Dhaulí.

The three missing edicts are more than compensated at Dhaulí by the introduction of two others not found at Girnár, one at the end enclosed in a frame, and one on the left hand of the same rock on a larger scale of sculpture; but both of these being of a totally different purport, and being quite unconnected with the rest, I shall postpone for separate consideration.

That the edicts are of different dates is proved by the actual mention of the year of Piyadasi's reign, in which several of them were published. Two of them are dated in the tenth<sup>1</sup> and two in the twelfth year after his *abhišek* or consecration, which we learn from Turnour's Páli history did not take place until the fourth year of his succession to the throne of his father, Bindusaro. Only one of the pillar edicts is dated in the twelfth year; the remainder, generally, bearing the date of the twenty-seventh year; and one containing both, as if contradicting, at the later epoch, what had been published fifteen years before. From this evidence we must conclude that the Gujarát and Katak inscriptions have slightly the advantage in antiquity over the Láts of Dihlí and Allah-ábád: but, again, in the order of sequence, we find edicts of the twelfth year preceding those of the tenth; and we learn expressly from the fourteenth edict that the whole were engraven at one time. Their preservation on rocks and pillars therefore must be regarded as resulting from an after order, when some re-arrangement was probably made according to the relative importance of the subjects.

The copy that emanated from the palace must, however, have been modified according to the vernacular idiom of the opposite parts of India to which it was transmitted, for there is a marked and peculiar difference, both in the grammar and in the alphabet of the two texts, which demands a more lengthened examination than I can afford to introduce in this place. I shall, however, presently recur to this subject, and, at least, give the explanation of those new characters which I have been obliged to cut in order to print the Girnár text, and which, in fact, render the alphabet as complete as that of the modern-Páli,

<sup>1</sup> I use these terms as more consonant to our idiom: the correct translation is 'having been consecrated ten and twelve years,' so that the actual period is one year later in our mode of reckoning.





The sight of my former friend, the *yona rāja* (whom, if he should not turn out to be Antiochus the ally, I shall shortly find another name for), drew my particular attention to what followed; and it was impossible, with this help, not to recognize the name of Ptolemy even in the disguise of Turamayo. The *r* is however doubtful; and I think, on second examination, it may turn out an *l*, which will make the orthography of the name complete. The word *rājano*, and its adjective *chaptáro*, being both in the plural, made it necessary that other names should follow, which was confirmed by the recurrence of the conjunction *cha*. The next name was evidently imperfect; the syllabic letter, read as *gon*, if turned on one side would be rather *an*, and the next, too short for a *g*, might, by restoring the lost part above, be made into *tí*: I therefore inclined to read this name  $\text{𑀅𑀲𑀭𑀺}$  *Antikono* for *Antigonus*; and, assuming that *chaptáro* was a corruption of *chatwáro*, 'four,' to understand the passage as alluding to a treaty with the four principal divisions of the Alexandrine monarchy, two of which in the time of Antiochus the Great were governed by princes of these names, viz.: Antigonus, in Macedonia, and Ptolemy Euergetes, in Egypt. The fourth name, however, thus remained inexplicable; while on the stone it was even more clear than the others, *Magá*. . . It seems, therefore, more rational to refer the allusion in our edict to the former period [B.C. 260], and so far modify the theory I have lately adopted' on *prima facie* evidence of the treaty of Asoka with Antiochus the Great, as to transfer it to the original treaty with one of his predecessors, the first or second of the same name, Soter or Theos, of whom the former may have the preference, from his close family connexion with both Ptolemy and Magas. . . . I say nothing of the intermediate name, *Gongakena* or *Antigonus*, because I cannot be certain of its correct spelling. Antigonus Gonatus had much to do with the affairs of Egypt, but he could not well be set down among its kings.

[ I again take advantage of Prof. Wilson's most elaborate revision of Prinsep's original translation of this Tablet, prefixing the Romanized variants of the different texts. ]

K	sanyatam	Antiyoko	nama	yona	raja	parancha	tena
G a	"	"	"	yona	rāja	parancha	tena
G b	"	"	"	yona	rāja	parancha	tena
K	Antiyokena	chaturō		rajano	Turamara	nama	An-
G a	" "	chaptáro	" "	rájano	Turamáyo	cha	An-
G b	" "	chattáro	" "	rájano	Turamáyo	cha	An-

<sup>1</sup> [To the effect that Antiochus the Great was the monarch of the name referred to.]

K	tikona	nama	Mako	nama	Alikasunari	nama	likhichha
G a	<sup>igono</sup> takana	cha	<sup>o</sup> Magá	cha	. . . . . <sup>9</sup>	. . . . .	. . . . .
G b	takana	cha	Magá	cha	. . . . .	. . . . .	. . . . .

The division of the Girnár inscriptions, numbered by Prinsep as thirteen, finds a counterpart at Kapur di Giri ; but, unfortunately, it is not of a nature to supply the defects and imperfections of the Girnár tablet. As mentioned by Prinsep, the rock at Girnár is at this part so much mutilated, that it is difficult to put together the context of the entire tablet : portions of the inscription are wanting at either end of each line, especially at the beginning, but the middle portions are tolerably perfect. The rock at Kapur di Giri has not apparently suffered much mutilation, and the inscription is consequently more complete, supplying the words effaced from that at Girnár ; but it is not only in this respect that it exceeds in length the Girnár inscription. There are evidently additional passages which the latter does not contain, and which intervene between what are apparently intended for the same passages in both places ; on the other hand, there are several obliterations or deficiencies in the Kapur di Giri inscription where that at Girnár is entire. In collating the two, therefore, wide gaps occur without a parallel, partly owing to these respective mutilations,—partly to the additional matter at Kapur di Giri. From place to place, however, concurrent passages do occur, which leave no doubt of the general identity of the inscriptions, as will appear from the collateral copy.

It happens, however, still unfortunately, that neither the additional, nor those which are evidently identical, passages in the Kapur di Giri inscription, are for the major part to be satisfactorily deciphered. The circumstances under which the characters were transcribed sufficiently account for the disappointment. Masson has explained the impossibility of taking a fac-simile of this part of the inscription, and he was obliged after many fruitless efforts to effect his purpose, to be content with carrying off a copy only. But the position of the stone, which prevented a fac-simile from being made, was also obviously unfavourable to the making of a faithful copy ; and it is not at all therefore to be wondered at, that the forms of the letters should have assumed deceptive appearances, differing consequently in different parts of the inscription, in words which there is reason to believe the same ; and varying from one another in words which from one or two distinct characters are known to be identical, as for instance in *Devanam prya*, in which the latter term is generally legible, and we may therefore infer that *devanam* precedes it ; but, without such a guide, it would be impossible to read *devanam*, as it presents itself in a number of different and unusual forms. Masson's copy, however, is more legible than one made by a native employed by M. Court, the use of which has been kindly allowed to the Society by Lassen. In this, very few words can be made out, even by conjecture, and with the assistance of Masson's transcript. It has not, however, been wholly unserviceable.

Prinsep has ventured to propose a continuous translation of the Thirteenth Tablet, although he admits that insulated phrases alone are intelligible. Such is the case in the Kapur di Giri inscription ; and it were very unsafe to propose anything like a connected rendering, even of what is perfect, although a few words and phrases are decipherable, and may be compared with similar words and phrases in the Girnár tablet. In most of these passages, however, the reading of the original itself is conjectural only, for it will follow from the sources of imperfection described, that although a transcript has been attempted, as above in Roman characters, yet no great reliance is to be placed on the greater part of it, particularly where parallel passages are not found in the Girnár inscription. . . . .

Deficiencies at the end of the seventh and beginning of the eighth line at Girnâr, are rather more than adequately filled up at Kapur di Giri, and some of the additional matter is important. The name and designation, *Antiyoka nama yona Raja*, are given distinctly: why he is introduced does not very well appear, but we might venture to connect it with what precedes, and to interpret and fill up the passages thus: 'He who had obtained the alliance of men—he has been received as the friend of (me) Devanampriya: we have for this conjectural rendering, *Devanam priyasa*; then some unreadable letters, *sampapi* (for *samaprdpi*) *yo janasa* (su) *sanyatani*. At Girnâr we have only *yona Raja*, but no name, no Antiochus, nor any circumstance relating to him. Both inscriptions next read *parancha*, 'and afterwards;' the Girnâr has then *tena*, 'by him,' which, as no name was specified, Prinsep necessarily interpreted, 'by whom' (rather 'by him,' the Greek king). In the Kapur di Giri tablet, *tena* refers of course to Antiochus; but, not to leave any doubt on this score, the inscription repeats the name, and gives us *tena Antiyokena*, 'by that Antiochus;' thus furnishing a very important illustration of the Girnâr tablet. What then was done by him? by that Antiochus? this is not to be made out very distinctly; but, connected with what follows, it may be conjectured to imply that four other Greek princes were brought under subjection by him. There can be no doubt that the numeral which Prinsep read *chaptdro* is, properly, *chattdro*. There is no *p* in the Kapur di Giri inscription; it is, clearly, *chataro*, with the usual disregard of correct orthography and identification of long and short vowels. In the Girnâr inscription the form is like *pt*, no doubt; but this combination, as already observed, treating of Tablet XII., is so utterly repugnant to the most characteristic feature of Pâli, that it cannot be allowed; and in this case, if the original word intended to be the Sanskrit numeral *chaturdra*, the *p* would be gratuitously inserted. The only admissible reading is *chattdro*, the regular Pâli form of the Sanskrit *chaturdra*: four indistinct marks follow the numeral in each inscription, being probably intended for figures equivalent to four. We then have the several names of the four princes remarkably distinct, and it luckily happens that M. Court's copy is also very legible in this passage, and entirely confirms Masson's readings. The passage runs thus: *Turamara nama, Antikona nama, Mako nama, Alikasunari nama*. At Girnâr the last name is wanting, there being some letters obliterated. We have also some variation in the reading, but not material, the names being there, *Turamdyo cha, Antakana cha, Magd cha*. The two inscriptions give us, no doubt, the names of four Greek princes, of whom Ptolemy, Antigonos, and Magas may be readily recognised, although, how they come into juxta-position with Antiochus on the one hand, or Alexander on the other, is only to be explained by the supposition that, although these names had from their celebrity reached the west of India, the history of the persons so named was vaguely and incorrectly known.

We shall, however, recur to the subject: at present we are only concerned with the purport of the inscription, which is unfortunately by no means distinct. We have the order, by that Antiochus four Yavana kings, were:—what? neither inscription enables us to answer: the Girnâr inscription being in fact here mutilated. Prinsep, in his introductory remarks, supplying the connection conjecturally, fills up the blank by reading, 'And the Greek king besides, by whom the four kings have been induced to permit,' but there is nothing to warrant such a translation; and in the actual rendering of the passage the latter clause is omitted: we there have, 'and the Greek king, besides, by whom the kings of Egypt, Ptolemaios, Antigonos (?), and Magas, etc., and then follows a blank. The Kapur di Giri inscription, although entire, presents characters of undetermined value, and probable inaccuracies. The

first term, *likhichha thana*, is very doubtful; the next appears to be *jayavata*, which might be rendered 'victorious,' in the instrumental case, agreeing with *Antiyokena*: *anansa* is doubtful, both as to reading and sense; *ye asa miti puna rajanti* might be rendered 'they who (the kings) become his friends, again shine (or enjoy dominion).' We may also render *eva hi yona kati yasha*, 'such, indeed, is the Yavaná become, of whom;' there then follow some indistinct characters, and the phrase seems to terminate with *miti hi kite*, 'friendship or alliance has been made.' This I admit is very conjectural, and a corrected copy or a better founded interpretation of the original may shew it to be wholly erroneous; but, in the present state of the inscriptions we may hazard the conjecture that the purport of the whole passage may be, that the four princes, after being overthrown by Antiochus, had been reconciled to him, and that an alliance had then been formed between him and the Indian prince Devapriya. There is nothing whatever to justify the supposition that Devapriya had attempted to make converts of the Greek princes, or to disseminate the doctrines and practices of Buddhism in their dominions. \*

The state of this transcript of the Kapur di Giri inscription is very far from satisfactory, while, from the names it records, it appears to be of great historical value. It would be very desirable to have a fac-simile carefully taken; and, as the part of the country in which it is situated is now within the reach of British influence, it might be possible, perhaps, without much difficulty, to have such a copy. In the 'Jour. As. Soc. Beng.', Feb. 1848, Capt. Cunningham mentions, in his Diary, his having visited the spot, and taken a copy of the most legible portion of the inscription;<sup>1</sup> he adds, however, that a proper copy could only be made by levelling the ground and building up platforms, and by white-washing the surface of the rock to bring out the sunken letters, a work of time, but which would well repay the labour.

[Prof. Wilson, it will be seen, promised to recur to the subject of the identities of the kings named in the inscription; he does so—while contesting the identity of Piyadasi and Asoka—to the following effect] :—

So that neither of these epithets (*Priyadarsana*, or *Su-darsana*), is exclusively restricted to Asoka, even if they were ever applied to him.

That they were so applied is rendered doubtful by chronological difficulties, of which it is not easy to dispose: Piyadasi appears to have lived, either at the same time with, or subsequent to, Antiochus. Could this have been the case if he was Asoka? For the determination of this question, we must investigate the date at which the two princes flourished, as far as the materials which are available will permit.

The first point to be adjusted is, which Antiochus is referred to. There are several of the name amongst the kings of the Seleucid dynasty, whose sway, commencing in Syria, extended at various times, in the early periods of their history, through Persia to the confines of India. Of these, the two first, Antiochus Soter and Antiochus Theos, were too much taken up with occurrences in Greece and in the

<sup>1</sup> [A lithograph, by T. Black, of Calcutta is now before me, which purports to give, under Mr. J. W. Laidlay's authority, the 'Inscription at Sháh-baz-garhi, copied by Captain A. Cunningham.' The facsimile is defective and erroneous to a marked degree. As it does not include the thirteenth tablet, it affords no aid in determining the probable orthography of the doubtful names. Major Cunningham's own version of the fifth name is quoted at the foot of p. 26.]

west of Asia, to maintain any intimate connexion with India, and it is not until the time of Antiochus the Great, the fifth Seleucidan monarch, that we have any positive indication of an intercourse between India and Syria. It is recorded of this prince that he invaded India, and formed an alliance with its sovereign, named by the Greek writers, Sophagasenas, in the first member of which it requires the etymological courage of a Wilford to discover Asoka. The late Augustus Schlegel conjectured the Greek name to represent the Sanskrit, Saubhāgya sena, he whose army is attended by prosperity; but we have no such prince in Hindú tradition, and it could scarcely have been a synonyme of *Asoka*, the literal sense of which is, he who has no sorrow. Neither is Sophagasenas more like Piyadasi, and so far therefore we derive no assistance as to the identification of Antiochus. Still, with reference to the facts, and to the allusion to his victorious progress, which Tablet XIII. seems to contain, we can scarcely doubt that he was the person intended, and that the Antiochus of the inscription is Antiochus the Great, who ascended the throne, B.C. 223, and was killed, B.C. 187. The date of his eastern expedition is from B.C. 212 to B.C. 205.

There is, however, an obvious difficulty in the way of the identification from the names of the princes which are found in connexion with that of Antiochus, and which the thirteenth Tablet appears to recapitulate as those of contemporary princes,—subjugated, if the conjectural interpretation be correct, by Antiochus. With respect to one of them, Ptolemy, this is allowable, for Antiochus the Great engaged in war with Ptolemy Philopator, the fourth king of Egypt, with various success, and concluded peace with him before he undertook his expedition to Bactria and India. He therefore was contemporary with Antiochus the Great. It is, however, to be recollected that Ptolemy Philopator was preceded by three other princes of the same name, Ptolemy Soter, Ptolemy Philadelphus, and Ptolemy Euergetes,—extending through a period of rather more than a century, or from B.C. 323 to B.C. 221. These princes were frequently engaged in hostilities with the Seleucidan kings of Syria, and we cannot therefore positively determine which of them is referred to in the inscription. The long continuance of the same name, however, among the kings of Egypt, as it was retained until the Roman conquest, no doubt made it familiar throughout the East, and we need not be surprised to find it at Kapur di Giri or Girnar.

The same circumstance will not account for the insertion of the name of Mako, probably Magas, for although there was such a prince, he was far removed from India, and of no particular celebrity. Magas was made ruler of Cyrene by his father-in-law, Ptolemy Soter, the first Greek king of Egypt, about B.C. 308. He had a long reign of fifty years, to B.C. 258. He was not, therefore, contemporary with Antiochus the Great, dying thirty-five years before that prince's accession. He was connected with Antiochus Soter, having married his daughter, and entered into an alliance with him against Ptolemy Philadelphus,—and this association with the names of Antiochus and Ptolemy, generally but not accurately known, may have led to his being enumerated with the two other princes of the same designation, Ptolemy Philopator, and Antiochus the Great. There was a Magas also, the brother of Philopator, but he is of no historical note, and was put to death by his brother in the beginning of his reign. The allusion is, therefore, no doubt to the Magas of Cyrene.

It is impossible to explain the juxta-position of the other two names, Antigonus and Alexander, upon any principle of chronological computation, although we can easily comprehend how the names were familiarly known. That of Alexander the Great must of course have left a durable impression, but he is antecedent to any of his generals who made themselves kings after his death. It is very unlikely that his

son Alexander, who was not born till after his death, and from the age of three years was brought up in Macedonia, where he was murdered when only twelve years old, should be the person intended, and a greater probability would attach to an Alexander who was Satrap of Persia in the beginning of the reign of Antiochus the Great, and rebelled against him. He was defeated and killed, B.C. 223. So far therefore we have an Alexander contemporary with Antiochus, if that be thought essential; but it seems more likely that here, as in the case of Magas, the concurrence of names is no evidence of synchronism, and arises from the name being familiarly known without any exact knowledge of the persons by whom they were borne.

Such seems to be the case also with respect to Antigonus. The most celebrated of the name, Alexander's general who succeeded to the sovereignty of Phrygia and Lycia, extended his authority to the East by the defeat and death of Eumenes, and his name may thus have become known in India, although the scene of his victories over his rival was somewhat remote from the frontier, or in Persia and Media. The latter portions of his career were confined to Asia Minor and Greece, and he was killed B.C. 301. He was contemporary with the first Ptolemy, but not with Antiochus, having been killed twenty years before the accession of Antiochus Soter. We have another Antigonus, the grandson of the preceding, who was contemporary with Antiochus Soter, but his life was spent in Macedonia and Greece, and it is not likely therefore that any thing should have been known of him in India. It can only be the first Antigonus whose designation reached an Indian prince, and the mention of him in conjunction with Ptolemy, Antiochus, Magas, and Alexander, shows clearly that the chronology of the inscription was utterly at fault, if it intended to assign a contemporary existence to princes who were scattered through, at least, an interval of a century. We must look, therefore, not to dates, but to the notoriety of the names, and the probability of their having become known in India, for the identification of the persons intended. Under this view, I should refer Alexander to Alexander the Great, Antigonus to his successor, Magas to the son-in-law of Ptolemy Philadelphus, Ptolemy to either or all of the four first princes of Egypt, and Antiochus to the only one of the number who we know from classical record did visit India, and who, from the purport of the inscriptions, we may infer was known there personally,—Antiochus the Great.<sup>1</sup> In this case we obtain for

<sup>1</sup> [I append Major Cunningham's criticism on these arguments.] 'The minor difficulties of chronology, which form Prof. Wilson's last objection ('Jour. Roy. As. Soc.,' vol. xii., p. 244), are easily disposed of, for they seem to me to have arisen solely from the erroneous assumption that Priyadarsi must have been a contemporary of Antiochus the Great. In the Girnār and Kapur di Giri rock inscriptions, King Priyadarsi mentions the names of five Greek princes who were contemporary with himself. Of these four have been read with certainty,—Antiochus, Ptolemy, Antigonus, and Magas; and the fifth has been conjectured to be Alexander. James Prinsep, who first read these names, assigned them to the following princes:—Antiochus II., Theos of Syria, B.C. 265—247; Ptolemy II., Philadelphus of Egypt, B.C. 285—246; Antigonus, Gonatus of Macedon, B.C. 276—243; Magas of Cyrene, B.C. 258; and with these identifications the learned of Europe have generally agreed. 'The fifth name has been read by Mr. Norris as Alexander; and if this reading is correct, we may identify this Prince with Alexander II. of Epeiros, who reigned from B.C. 272—254; but the two copies of this name, published by Mr. Norris, from facsimiles by Masson and Court, appear to me to read Ali bha Sunari, which may be intended for Ariobarzanes III., King of Pontus, who reigned from B.C. 266—240. But in either case the date of Priyadarsi inscription will be about B.C. 260—258, shortly preceding the death of Magas.'—'Bhilsa Topes,' p. 111. 'To some it may seem difficult to understand how any relations should exist between the Indian Asoka and the Greek princes of Europe and Africa; but to me it appears natural

the date of the inscription some period subsequent to B.C. 205, at which it seems very unlikely that Asoka was living.

To obviate the chronological difficulty it has been suggested that the Antiochus alluded to is not Antiochus Magnus, but Antiochus Theos, who reigned from B.C. 261 to B.C. 246, and who would therefore be contemporary with Asoka. This is no doubt true, but as intimated above, historical events are opposed to the maintenance of any friendly connexion between the princes of India and Syria during the reign of Antiochus Theos. At its very commencement he was involved in hostilities with the King of Egypt; the war continued during the greater portion of his reign, and amongst its results, were the neglect and loss of the Eastern provinces. Media and Bactria became independent principalities; and their geographical, as well as political position must have completely intercepted all communication between India and Western Asia. It is very unlikely that an Indian sovereign would have promulgated any alliance with the enemy of his immediate neighbours, and we should rather look for the names of Arsaces or Theodotus in his edicts, than that of Antiochus Theos. We cannot, therefore, upon historical grounds admit the identity of the Antiochus of the inscriptions with Antiochus Theos, any more than we can recognise an alliance between Asoka and Antiochus Magnus, as chronologically probable upon such premises as we derive from classical Pauranic, and partly Buddhist data.

If, indeed, we are guided solely by the latter, we shall render the synchronism of the two princes still more impossible. According to the Dipawanso and Mahāwanso, Dharṃasoka was inaugurated two hundred and eighteen years after the death of Buddha; his inauguration took place four years after his accession, and we place the latter therefore two hundred and thirteen years after the Nirvāṇ of Gautama. The date of this event was B.C. 543, and  $543 - 214 = \text{B.C. } 329$ ; and Asoka, therefore, ascended the throne, according to the Buddhists, before the invasion, not of Antiochus, but of Alexander the Great. This, however, must be wrong, and Mr. Turnour acknowledges that the chronology of the Buddhist chronicles is here at fault; he makes the error amount to about sixty years, and conceives that it was an intentional vitiation of the chronology: with what purpose he has not explained. It is enough for us to determine that Asoka cannot have been the cotemporary of Antiochus the Great, according to the chronology either of Brahman or Buddhist. That Piyadasi was the cotemporary of Antiochus, or even posterior to him, is evident from the inscription, and therefore Piyadasi and Asoka are not one and the same person. That Asoka became a convert to Buddhism after commencing his reign as a sanguinary tyrant, may or may not be true: we have only the assertions of the Buddhists for the fact. But allowing it to be true, if Asoka was not the author of the edicts in question, no inference of their Buddhist character can be drawn from his conversion to the faith of Buddha, and the uncertain evidence afforded by their language is not rendered less equivocal by any positive proof of their having been promulgated by a prince who was a zealous patron of the doctrines of Sākyasinha.

But who then was Piyadasi, the beloved of the gods? This is a question not easily answered. The term is evidently an epithet applied to more than one individual, and not the proper designation of any one person exclusively. We have

and obvious. Asoka's kingdom on the west was bounded by that of Antiochus; his father, Bindusāra, had received missions from Antiochus, Soter, and Ptolemy Philadelphus; and as Asoka was 45 years of age when he was inaugurated, in B.C. 269, he might have conversed with both of the Greek ambassadors, Daimachos and Dionysios.—112.

no such name in any of the Brahmanical traditions, and find it in the Buddhist, as indicating a sovereign prince, to whom it could not have been applied consistently with chronological data, upon the authority of a work of the fourth century of our era. That any uncertainty with regard to its appropriation should exist, seems very incompatible with the extent of the dominions ruled over by the prince of the inscriptions, as far as we are to infer, from the sites in which they are found, as Gujarát, Katak, Behar, Dihli, and the Panjab. A monarch, to whom all India, except the extreme south, was subject, must surely have left some more positive trace of his existence than a mere epithet, complimentary to his good looks, and shared with many others of equally pleasing appearance. That such almost universal sovereignty in India was ever exercised by a single prince is extremely improbable, and it is undeniable, from the evidence of the inscriptions themselves, that they have not been sculptured, in the situations in which they occur, contemporaneously with the year of any individual reign. Thus, in all the rock inscriptions, the third and fourth edicts are said to be issued in the twelfth year of Piyadasi's inauguration; the fifth and eighth, in the tenth year: the two later edicts, in point of time, taking precedence of the two earlier, in the order of inscription—an utter impossibility. We can only infer, therefore, that they were simultaneously inscribed. Mr. Prinsep states, that it is so specified in the Fourteenth Tablet, but I am unable to understand the passage in that sense. That it was the case, however, is obvious, from the inverted order of the dates, and from the uniform appearance of the inscriptions. The whole must have been cut, therefore, at some subsequent period to the latest of the dates. How long subsequent, is another question of impossible solution; but it is very improbable that the rocks of Gujarát, Dhaulti, and Kapur di Giri, were all engraved at the same time. The operation must have been spread over some years, and it is not likely that it was subsequent to the date of their reputed author, if he ever had a real existence. It seems, however, not improbable, that the rulers of the several countries, or influential religious persons, adopted the shadow of a name, to give authority to the promulgation of edicts intended to reform the immoral practices of the people, and for that purpose repeated documents which had acquired popular celebrity in some particular locality not yet ascertained.

From these [and other] considerations, I have been compelled to withhold my unqualified assent to the confident opinions that have been entertained respecting the object and origin of the inscriptions. Without denying the possibility of their being intended to disseminate Buddhism, and their emanating from the Maurya prince Asoka, there are difficulties in the way of both conclusions, which, to say the least, render such an attribution extremely uncertain.

[I have allowed Prof. Wilson to state his doubts and difficulties at greater length than I should have conceded to him, had I not been prepared to contest his leading inferences.

I do not, however, design to enter upon any critical examination of the minor evidences and coincidences the Professor has sought to reconcile; as, with a doubtful text, an avowedly imperfect interpretation, with one of the historical names only partially legible and dates conflicting *inter se*, the most elaborate solution could not but fail to prove unsatisfactory. And further,



I am disposed to accept, with added force, all that portion of the Professor's deductions which implies crass ignorance of Syrian and Grecian events on the part of the compilers of Piyadasi's Edicts. Still, there are some obvious facts upon which we may fairly speculate. It is clear that Antiochus, as spoken of in these inscriptions, was, at the moment of their composition, the most prominent personage of the western world within the ken of the Indian court. That Antiochus ~~is~~ is the sovereign alluded to many miscellaneous items of evidence, now available, tend to show. These points being admitted, it would seem to follow, from the expressions made use of in the second tablet, that the defection of the Bactrians under Diodotus—assigned to 250, B.C.—had not, up to this time, developed itself. The allusion to the four kings it is less easy to explain, nor is it obvious why that particular number should have been selected. As the text does not enable us to say what position these kings held in reference to the more influential Antiochus, speculations on this head must, of course, be next to futile. Certainly the satisfactory explanation of the coincidences of the given names, with any combination of the then-existing monarchical distributions, remains to be accomplished: whether the record aimed at a mere vague selection of the more generally known Greek names to complete the list, or whether, as is just possible, there was some indefinite remembrance of the quadruple alliance (311, B.C.), of which Seleucus was the subordinate confederate and local representative during his Indian expedition, and of the eastern rights and titles of which Antiochus became the apparent heritor, it would be rash to assert; but it is clear that the designations of two of the parties to this league open the list, and whether MAGAS represents the Cyrenian, or some other of the name, or stands as the curtailed corruption of that of Lysimachus, while *Ali Kasunari*<sup>1</sup> may

<sup>1</sup> Masson's eye-copy of the Kapur di Giri inscription may be variously read, *Ali Kasanari*, *Ali Kasadari*, or, doubtfully, *Ali Kahasanari*. The initial letter is very uncertain, and might almost be read as a *G*. The third letter differs materially from the ordinary *SA*, and ~~must~~ either be the simple *X* of Court's copy or some compound of *SA*, under Masson's representation.

chance to do duty for Alexander, Cassander, or some living potentate whose cognomen had but lately reached Indian ears, we need scarcely stop to inquire.

In his first paper<sup>1</sup> on the Girnár, Dhauli, and Kapur di Giri edicts, Prof. Wilson expressed an opinion that, 'although the tenor of the inscriptions was not incompatible with a leaning to the religion of Buddha, yet the total absence of any reference to the peculiarities of the Buddhist system, left some uncertainty with regard to the actual creed of the rája, and his intimate connection with the followers of Buddha.'

In a subsequent article on the Bhabra inscription<sup>2</sup> the Professor frankly admits that, 'although the text is not without its difficulties, yet there is enough sufficiently indisputable to establish the fact, that Priyadasi, whoever he may have been, was a follower of Buddha.'<sup>3</sup> Our leading Orientalist, it will be seen, still hesitates, therefore, to admit the identity of Priyadasi and Asoka. With all possible deference to so high an authority, I am bound to avow that I see no difficulty whatever in the concession. We may stop

<sup>1</sup> 'Jour. Roy. As. Soc.', vol. xii. (1849), cited nearly in extenso above.

<sup>2</sup> 'Jour. Roy. As. Soc.', vol. xvii. (1856), p. 357. *Supra cit.*

<sup>3</sup> The inscription opens thus: 'Priyadasi, the king, to the venerable assembly of Magadha, commands the infliction of little pain, and indulgence to animals. It is verily known, I proclaim, to what extent my respect and favor (are placed) in Buddha, in the law, and in the assembly. Whatsoever (words) have been spoken by the divine Buddha, they have been well said,' etc.—See also 'Jour. As. Soc. Beng.' 1840.—Lassen 'Indische Alt.' ii. 221. [I annex to these notes on the Bhabra inscriptions some interesting speculations of Bournouf's, as to the nature of the monument itself, and the probable purpose for which it was shaped.] 'C'est, ainsi que l'a bien vu M. Kittoe, une missive adressée par le roi Priyadasi à l'Assemblée des Religieux réunis à Pataliputra, capitale du Magadha, pour la suppression des schismes qui s'étaient élevés parmi les Religieux bouddhistes, assemblée qui, selon le Mahāvamsa, eut lieu la dix-septième année du règne d'Açoka. La forme est en elle-même très-remarquable. L'inscription, en effet, n'est pas gravée comme les autres monuments de ce genre qui portent le nom du Priyadasi, soit sur une colonne monolithe, soit sur la surface d'un rocher adhérent aux flancs d'une montagne. Elle est écrite, et très-soigneusement, sur un bloc détaché de granit qui n'est ni d'un volume ni d'un poids considérable, n'ayant que deux pieds Anglais sur deux de ses dimensions, et un pied et demi sur la troisième. Ce bloc, de forme irrégulière, peut être aisément transporté. . . . C'est une lettre que le roi a fait graver sur la pierre avec l'intention avouée d'assurer la durée de cette expression si claire de son orthodoxie, peut-être aussi avec celle de faire transporter facilement et sûrement cette singulière missive dans les diverses parties de l'Inde où se trouvaient des Religieux . . . L'inscription est écrite dans l'ancien dialecte Magadhî.'—'Le Lotus de la bonne Loi,' p. 727, 728.

short of absolute and definite proof, that Asoka enunciated his edicts under the designation of Priyadasi, 'the beloved of the gods;' but all legitimate induction tends to justify the association, which is contested by no other inquirer.<sup>1</sup> To assert that the edicts themselves do not accord in spirit with the exclusive intolerance attributed to Asoka by his Buddhist successors, is merely to show that they misrepresented his aims and desires in this respect, as they palpably misinterpreted and altered many of the original tenets of the religion itself.

As a fitting conclusion to these commentaries, I append Prof. Wilson's remarks on the language of the edicts:—]

The language itself is a kind of Pāli, offering for the greater portion of the words forms analogous to those which are modelled by the rules of the Pāli grammar still in use. There are, however, many differences, some of which arise from a closer adherence to Sanskrit, others from possible local peculiarities, indicating a yet unsettled state of the language. It is observed by Mr. Prinsep, when speaking of the Lat inscriptions, "The language differs from every existing written idiom, and is as it were intermediate between the Sanskrit and the Pāli." The nouns and particles in general follow the Pāli structure; the verbs are more frequently nearer to the Sanskrit forms; but in neither, any more than in grammatical Pāli, is there any great dissimilarity from Sanskrit. It is curious that the Kapur di Giri inscription departs less from the Sanskrit than the others, retaining some compound consonants, as *pr* in *priya* instead of *Piya*; and having the representatives of the three sibilants of the Devanāgarī alphabet, while the others, as in Pāli, have but one sibilant: on the other hand, the Kapur di Giri inscription omits the vowels to a much greater extent, and rarely distinguishes between the long and short vowels, peculiarities perhaps not unconnected with the Semitic character of its alphabet.

The exact determination of the differences and agreements of the inscriptions with Pāli on the one hand, and Sanskrit on the other, would require a laborious analysis of the whole, and would be scarcely worth the pains, as the differences from either would, no doubt, prove to be comparatively few and unimportant, and we may be content to consider the language as Pāli, not yet perfected in its grammatical structure, and deviating in no important respect from Sanskrit. Pāli is the language of the writings of the Buddhists of Ava, Siam, and Ceylon; therefore it is concluded it was the language of the Buddhists of Upper India, when the inscriptions were engraved, and consequently they are of Buddhist origin. This, however, admits of question; for although the Buddhist authorities assert that Sakya Sinha and his successors taught in Pāli, and that a Pāli grammar was compiled in his day; yet, on

<sup>1</sup> Turnour, 'Jour. As. Soc. Beng.' vi. 1050, and vii. 930; Lassen, ii. 271; Burnouf, i. 633, ii. 778; Cunningham, 'Bhilsa Topes,' 108; Sykes, 'Jour. Roy. As. Soc.' vi. 460; Müller, 'Buddhism and Buddhist Pilgrims,' p. 23.

the other hand they affirm, that the doctrines of Buddha were long taught orally only, and were not committed to writing for four centuries after his death, or until B.C. 153, a date, no doubt, subsequent to that of the inscriptions. In fact, the principal authorities of the Cingalese Buddhists appear to have existed in Cingalese, and to have been translated into Pāli only in the fifth century after Christ.

According to M. Burnouf and Mr. Hodgson, the earliest Buddhist writings were not Pāli but Sanskrit, and they were translated by the Northern Buddhists into their own languages, Mongol and Tibetan. It does not appear that they have any Pāli books. The Chinese have obtained their writings from both quarters, and they probably have Pāli works brought from Ava or Ceylon. They have also, according to M. Burnouf, translations of the same Sanskrit works that are known in the North. It is by no means established, therefore, that Pāli was the sacred language of the Buddhists at the period of the inscriptions, and its use constitutes no conclusive proof of their Buddhist origin. It seems more likely that it was adopted as being the spoken language of that part of India where Piyadasi resided, and was selected for his edicts, that they might be intelligible to the people. Hence, also, the employment of different alphabets, that of Kapur di Giri being the alphabet current in Afghanistan and Bactria, as we know from the Græco-Bactrian coins. The use of the provincial or local alphabet was evidently designed for the convenience of those to whom it was familiar, while the ancient form of the Devanāgarī was that employed in Hindūstān as being there in general use. The popular currency of the language, admitting that it might have been the spoken dialect of the north-west of India, would be more likely to prevent, than to recommend its use as a 'sacred' language, and its being applied to such a purpose by the Southern Buddhists was in some degree probably owing to their being as a people ignorant of it, and it would then assume in their eyes a sanctity which as a spoken dialect it was not likely to possess. At the same time, we can scarcely suppose that the language of the inscriptions was understood in all the countries where they have been discovered, beyond the Indus, at Dihli, in Behar, in Orissa, and Gujarāt, where we know that very different dialects, however largely borrowing from a common source, at present prevail. Neither is it likely that edicts intended to regulate the moral conduct of the people at large should have been intelligible only to Buddhist priests, or should have been perpetuated on pillars and rocks solely for their edification. We may therefore recognise it as an actually existent form of speech in some part of India, and might admit the testimony of its origin given by the Buddhists themselves—by whom it is always identified with the language of Magadha or Behar,<sup>1</sup> the scene of Sakya Sinha's first teaching—but that there are several differences between it and the Māgadhī, as laid down in Prakrit grammars, and as it occurs in Jain writings. It is, as Messrs. Burnouf and Lassen remark, still nearer to Sanskrit,<sup>2</sup> and may have prevailed more to the north than Behar, or in the upper part of the Doab, and in the Panjāb, being more analogous to the Sauraseni dialect, the language of Mathura and Dihli, although not differing from the dialect of Behar to such an extent as not to be intelligible to those to whom Sakya and his successors addressed themselves. The language of the inscriptions, then, although necessarily that of their date, and probably that in which the first propagators of Buddhism expounded their doctrines, seems to have been rather the spoken language of the people in Upper India, than a form of speech peculiar to a

<sup>1</sup> Turnour's 'Introduction to the Mahawanso,' xxii., *Sā Māgadhī mūla bhāsa.*

<sup>2</sup> *Essai sur le Pāli*, p. 187, 'La Palie était presque identique à l'idiome sacré des Brahmanes, parce qu'elle en dérivait immédiatement.'

class of religionists, or a sacred language, and its use in the edicts of Piyadaai, although not incompatible with their Buddhist origin, cannot be accepted as a conclusive proof that they originated from any peculiar form of religious belief.<sup>1</sup>

[In a subsequent paper 'on Buddha and Buddhism' (J.R.A.S., xvi. 229), Professor Wilson enters more comprehensively into the linguistic question touched upon in the above note: the following extracts will put the reader in possession of that author's present view in regard to the comparative antiquity of the use of Sanskrit and Pálí<sup>1</sup> in the Buddhist Scriptures:—

The great body of the Buddhist writings consists avowedly of translations; the Tibetan, Mongolian, Chinese, Cingalese, Burman, and Siamese books, are all declaredly translations of works written in the language of India—that which is commonly called *Fan* or more correctly *Fan-lan-mo*, 'or the language of the Brahmins;' and then comes the question, to what language does that term apply? Does it mean Sanskrit, or does it mean Pálí, involving also the question of the priority and originality of the works written in those languages respectively; the Sanskrit works as they have come into our hands being found almost exclusively in Nepál, those in Pálí being obtained chiefly from Ceylon and Ava. Until very lately, the language designated by the Chinese *Fan* was enveloped in some uncertainty. . . . The mystery, however, is now cleared up. In the life and travels of Hwan Tsang, written by two of his scholars and translated from the Chinese by M. Julien, the matter is placed beyond all dispute by the description and by the examples which the Chinese traveller gives of the construction of the *Fan* language, in which he was himself a proficient. . . . We learn from him. . . . All this is Sanskrit, and what is more to the point, it is not Mágadhi, the proper designation of the dialect termed in the south, Pálí. . . . Hwan Tsang also correctly adds that the grammar in use in India, in his time, was the work of a Brahman of the north, a native of Tula or Sálátula, named *Po-ni-ni*, or Pánini, the well-known Sanskrit grammarian. . . . The Buddhist authorities of India proper, then, were undeniably Sanskrit; those of Ceylon might have been Pálí or Mágadhi; were they synchronous with the Sanskrit books, or were they older, or were they younger, more ancient, or more modern? . . . We may be satisfied, therefore, that the principal Sanskrit authorities which we still possess were composed by the beginning of the Christian era at least; how much earlier is less easily determined. . . .

We may consider it, then, established upon the most probable evidence, that the chief Sanskrit authorities of the Buddhists still in our possession were written, at the latest, from a century and a half before, to as much after, the era of Christianity.

Now what is the case with the Pálí authorities of the south? . . . The principal Pálí works of the south, are, therefore, of a period considerably subsequent to the Sanskrit Buddhistical writings of India proper, and date only from the fifth century after Christ.

<sup>1</sup> Pálí, means—original text, regularity.—Maha. Introd. xxii.

Professor Max Müller seems to concur in these deductions, judging from his remark :—

‘After Buddhism had been introduced into China, the first care of its teachers was to translate the sacred works from the Sanskrit, in which they were originally written, into Chinese.’—‘Buddhism and Buddhist Pilgrims,’ p. 24. London, 1857.

Col. Sykes, however, I observe, still considers that he has evidence to show that ‘the books taken from India to China by the Chinese travellers between the fourth and seventh centuries were equally in Páli’ (*Times*, May 21, 1857), basing his argument to that end upon M. Gutzlaff’s catalogue of ‘Chinese Buddhistical Works,’ published in vol. ix. of the ‘*Jour. Roy. As. Soc.*’, p. 199 (1848).

XVIII.—*RÉSUMÉ* OF INDIAN PÁLÍ  
ALPHABETS.

[In continuation of the subject treated of in the supplement to Art. XVII., p. 8, I extract the substance of Prinsep's 'Completion of the Pálí Alphabet,' which the decipherment of the Gírnár text of the edicts of Asoka enabled him to verify.]

First, however, I must take a review of the Gírnár alphabet, for it is evident that it contains many additions to the more simple elements of the pillars. These additions, to which only I have time to allude, will be found to complete the alphabet to the existing standard of the Páli of Ceylon.

The most remarkable change observable in the alphabet has already been noticed in my paper of last June, namely, the substitution of the letter *j* for *ṣ* in all words now written with an *r* in Sanskrit, but on the pillars spelt with an *l*, as *ṛṣṭi* *ṛṣṭi*, etc., now corrected to *ṛṣṭi* *ṛṣṭi* *rāja*, *dasaratha*, etc. Although there are many words in the Sanskrit in which the use of the *l* and *r* is indifferent, still the invariable employment of the former liquid, does not appear to have been ascribed to any of the numerous Prākṛits or even the Apabhṛāṇsas, by the Sanskrit grammarians.

Of other letters made known by the Girnár tablets, we may notice first in order the *ṭ* or *gh*, which can no longer be denied a place, or be confounded with any other letter, because it now occurs in the well known word *gharistāni* (S. *grihastāni*), and in *megha*, *ghara*, *ghāta*, etc., of the Kalinga and Sainhadri inscriptions. These words, it must be observed, occur only in those tablets of the Katak inscription wherein the letter *ṭ* is used, and which so far resemble in dialect those of Girnár. The orthography of *grihastāni* on the pillars is *girithāni*. It does not therefore follow necessarily, though there is every probability thereof, that the *g* is never used for *gh*; but when we find the aspirate

present in other words of the same monuments, such as *ghanti*, *sanghathasi*, etc., we are bound not unnecessarily to aspirate the simple *g*, where it can be read without doing so.

The nasal of the first class of consonants, or gutturals, has not been yet recovered, because its place is generally supplied by the *anuswara*; but in one or two places I think the ङ may be traced in its primitive form of ञ : at any rate it may be safely *constructed* so, from the analogy of the form in No. 2 alphabet ञ also found on the coins in the name *Simha vikrama* (written sometimes *singha*), and from the more modern form of the Tibetan ञ *ng*.

The letter *jh* ञ, is of rare occurrence, even in the Sanskrit. It is not therefore to be wondered at, that we should be tardy of discovering it in the ancient alphabet. Yet in Pāli this letter takes the place of the Sanskrit ञ in *madhya*, *madhyama*, 'middle,' and perhaps of *ry* in *nirjita* and of *rdy* and *ryy* and other similar compounds which in pronunciation assimilate to *jh*; and it is thus more likely to be found in a Pāli than a Sanskrit monument. On my first review of the pillar alphabet, I was inclined to look upon the letter ञ as *jh*, from its occurrence in the word ञमं ञ *majhima*, coupled with *ukasa* and *gevaṇḍa*, domestics and ascetics, but it seemed better explained by *ri* in other places. A similar expression in one of the Gīrṇār tablets again leads me to consider it as *jh*, viz.: '*sankhitaṇa, majhamaṇa, viṭṭitaṇa*,' where the central word is written ञमं ञ both in the Gīrṇār and in the Dhāuli versions of the concluding paragraph. Again, in the pillars it is generally inflected with the *i* or the *a* vowel mark, which could not be the case with *ri*; and lastly, it bears considerable affinity to the Bengali ञ *jh* which also resembles the *ri* of the same alphabet; I therefore now pronounce ञ without hesitation to be a *jh*; and I must modify former readings accordingly.<sup>1</sup>

The *n* of the second class, or palatials, is an acquisition upon which there is no room to doubt. It is a peculiarity in the Pāli language that this letter, which has the pronunciation of *ny*, both supplies the place of the Sanskrit compound letter *jn* in such words as *raḍṇah* राञ:

<sup>1</sup> This it is not difficult to accomplish: ex. gr. in the western tablet of the Feroz lāt, *ndsantan nijhipayitā dānamdāhanti*, may be Sanskritized as follows: नाश्रतंनिध्या पायित्वा दानं दासन्ति, 'expelling the murderer (from the town or community) they shall give him an alms.' And in the edict regarding animals,—*ta se sajive nijhāpayitaviye*—'such while life remains shall not be abandoned,' उज्झापयितव्यः and, in the last tablet, for *dhamma niyame nijhayitā bhūye*, read निजयत्वमेवेत् 'the rules of dharma shall be invincible.'



of a prince, and **आज्ञा** *ājñā*, 'order'—and of **न्य**, or *ny* in such words as **अन्यतः** *anyatah*, else, **अन्यानि** *anyāni*, others; and in **मन्यते** *manyate*, Pālī *manñate*, deems. Now these and many other examples occur most opportunely in the Gīrnār inscriptions—the letter न, with the necessary vowel inflections न *ne*, न *ná*, or न *no*, being invariably employed in all such cases; as in the sixth tablet above quoted, **नाना** *anata* **अगना** *agena* **परकामेना** *parākamena*: whereas in the Dīhlī pillars the word *anata*, for instance, is written **अनना** *annata*, with the dental *n*, the only one there made known to us, doubled by the *anuswara*.

The next form of *n*, belonging to the *cerebral* series, has already been made known to us from the Sainhadri cave inscriptions, **न**; and the modern derivative forms were on that occasion described (see page 1045 of volume vi.) In the present inscription this *n* invariably follows the letter *r*, as in Sanskrit; ex. gr. **धम्मचरिण** *Dhammacharāṇam* 'the progress of religion.' The vowel affixes are united to the central perpendicular stroke as **ने** *ne*, **ना** *ná*, **नो** *no*. A few words written in Sanskrit with the dental *n*, are found in the inscription written with **न**, as **जानसा** *janasa*, **दासाणम** *dasāṇam* (7th and 8th tab.) and the same holds good of the grammatical Pālī of books. It should be remembered that, in the regular Prākṛit, this is the only *n* which ever stands singly in a word.

The only letter of the labial series which was yet wanting to us, the *ph*, is most fortunately recovered through the indubitable expression **मल्लानि चा फलानि चा** in the second tablet of Gīrnār—"both roots and fruits"—written **मल्लानि चा फलानि चा**. In the letter **फ** we at once perceive the prototype of the *ph* of No. 2, and the **ཕ** of the Tibetan alphabet: and we see the reason why this was departed from in the Nāgari form, **फ**, by turning the stroke outward, lest by turning inwards it should be confounded with the **क्ष** or *ś*, a letter unknown in our old alphabet. With reference to my former remark on the duplication of alphabetic forms to produce the aspirates, it may be adduced as an additional argument for such an assumption that in the oldest of three plates from Kaira with copies of which I have been lately favoured by Dr. A. Burn, the *ph* of the word *phala* is twice written **प्प** in lieu of *ph*, which is the augmented or aspirated form used in the other plates, and which is more consistent with the original type now disclosed to our knowledge.

Of the **बह** I would merely take this opportunity of noticing that I have discovered the period and cause of the two very opposite forms of this letter which are found in later alphabets, as for instance the Mahratta **बह** and the Tibetan **པཨ** (which agrees with the Devanāgarī or Kutila of the 10th century) and have proved them both to descend from the original **व**; the Mahratta may be said to follow naturally

from the Sainhadri form; the other I have traced on the Sanrashtra coins of Skanda and Kumara Gupta, where sometimes the one and sometimes the other form is employed, the latter being the natural course followed by the pen in imitating the sculptured letter ः, beginning at the top, viz. : ः, whence would gradually follow ः, and ः with the headstroke, common to all the modern characters.

The Pālī contains but one *s*. We cannot, therefore, expect to find in our ancient alphabet the prototype of either the Sanskrit ः or ः. Of these letters I only notice the early forms, because I have inserted them in the accompanying lithographed plate. The modern form of ः would seem to be derived from the ः of the Samudragupta, or No. 2 alphabet, where again it might be presumed that it was introduced as a trifling modification of the letter ः, or *s*,—in fact, by closing the outer stroke or doing the same thing to this as was done to the *p*, to have the effect of duplication or aspiration. Or, it may be more proper to consider it a *written* modification of the more ancient form ः found on the copper-plate grants of the third century dug up in the Gujarāt peninsula, whence the transition is more evident and palpable to the various Pālī and Sinhalese forms, the Cashmere form and even the modern Nāgarī and Bengālī.

It is not so easy to trace the origin of the *tālība sha*, ः, in the old alphabet, but there is plausible reason to suppose that this was originally merely the *murdina* or cerebral *s* ः, turned in an opposite direction, invented to denote another modification of the sibilant required in the refinement of the Sanskrit alphabet. In the oldest Gujarātī plates, these are written with simple linear marks in the middle, and exactly the same structure is retained in the square Pālī alphabet or stone letter of Barma, except that the stroke in the centre is contracted into a dot; further, they are merely rounded in the modern Burmese for the facility of writing. In no other alphabets that I know of are the analogies to the original type so faithfully preserved as to shew that these two sibilants were originally the same letter reversed in position, a mode frequently adopted, as I have had occasion to notice before, in Indian alphabets, to represent slight modifications in sound (see vol. vi. p. 475-6.)

The most ancient Sanskrit form, however, of the *tālība sh* is one I have just discovered on a genuine inscription of the time of Chandragupta [Sāh Inscription]. This type is evidently the original of the form so common on early Hindu coins and inscriptions, whence are directly descended the Tibetan ः, the Bengālī ः, and the modern Nāgarī ः, which heretofore presented a kind of anomaly in the derivation of our alphabetical symbols.

Having thus recovered the complete, and, as I consider it, the primeval alphabet of the Indian languages, I have arranged in the accompanying plate the changes each letter has undergone in successive centuries, as deduced from absolute records on copper or stone. The table furnishes a curious species of palæographic chronometer, by which any ancient monument may be assigned with considerable accuracy to the period at which it was written, even though it possess no actual date.

I begin with the sixth century before the Christian era, because I suppose that the alphabet which we possess, as used by the Buddhists of a couple of centuries later, was that in which their sacred works had been written by the contemporaries of Buddha himself, who died in the year 543 B.C.

What in some measure confirms this hypothesis is, that the Sanskrit character of the third century before Christ (of which I have introduced a specimen in the plate from the genuine document above alluded to), differs only so much from the original form as the habits of a class of writers distinct in religion and more refined in language might naturally introduce;—just as we afterwards find an equal degree of modification from the type of Asoka's time, in the Sanskrit alphabet of five centuries later, on the pillars.

The Asoka alphabet (the Sanskrit one) agrees very closely with that of our Sauráshtra coins, which may thence be pronounced to be anterior to the Gupta series. The Gujarát plates, dated in the third century of the Samvat era, differ but little from the Allahábád pillar or

Samudragupta inscription, but that little is all in favour of their superior antiquity.

Of the more recent alphabets it is unnecessary to say anything. The Tibetan is acknowledged to be of the seventh century. The Kuṭila alphabet is taken from the inscription sent down in facsimile by Col. Stacy from Bareli;—we learn thence that the artist was of Kanauj; and we see that the Bengálí, which was drawn from the same focus of learning nearly a century afterwards, does not differ more from it than the modifications it has undergone since it was domiciled in the lower provinces will explain;—indeed, all old Sanskrit inscriptions from Benáres to Katak differ only from the Kuṭila type in having the triangular loop त्र, instead of the round one वृ.

A hundred other modifications of the primitive character might be easily introduced were I to travel southward or to cross to Ava or Ceylon; but I purposely avoid swelling the table, and include only those epochs of the Indian alphabet which can now be proved from undeniable monuments. On a former occasion,<sup>1</sup> the Amara-vati, Hala Canara, and Talinga alphabets were traced to the Gupta as their prototype, and thus might others be deduced; but another opportunity must be sought of placing the whole in a comprehensive table.

In conclusion, I may again regret that our printers did not take for their standard the form that would have served to blend the Bengálí and the Hindí into a common system!

[Prinsep's observations introductory to his Chronological

<sup>1</sup> 'Jour. As. Soc., Beng.', vol. vi., p. 219 (March, 1837).



# MODIFICATIONS OF THE SANSKRIT ALPHABET

VOWELS.

INITIALS

MEDIALS

a a i ē u ā ū rē mē e ai o au am ah

ka kha gi ghā chu chhā krī

re dha me ma

1. FIFTH CENT. B.C.

ममः LL

ममः .

+ f r d k

र र

र

2. 5th CENT. B.C.

ममः

ममः .

+ f r d k

र र

र

3. THIRD CENT. B.C.

ममः

ममः मंमः

+ f r d k

र र

र

4. SECOND CENT. A.D.

ममः

ममः मंमः

+ f r d k

र र

र

5. FIFTH CENT. A.D.

ममः

ममः मंमः

+ f r d k

र र

र

6. SEVENTH CENT. A.D.

ममः

ममः मंमः

+ f r d k

र र

र

7. NINTH CENT. A.D.

ममः

ममः मंमः

+ f r d k

र र

र

8. TENTH CENT. A.D.

ममः

ममः मंमः

+ f r d k

र र

र

9. MODERN

ममः

ममः मंमः

+ f r d k

र र

र

SQUARE 3461

ममः

ममः

ममः मंमः

+ f r d k

र र

र

after J. Prinsep.

Published by Stephen Austin, Hartford.



Table of Alphabets appear to have been designedly brief, as the several series had already been freely examined and desecrated upon in the occasional Essays which had from time to time been devoted to the independent illustration of each. The definition of almost every letter was now an accepted fact, and under the treatment of Prinsep's practised eye and ready hand, each form might be compared in its multiple transitions and ramifications, by the veriest tyro in Indian Palæography. I have copied, *literatim*—in pl. xxxvii., xxxviii.—his original synopsis; but as his labours in elucidation of these, and other cognate alphabets, were detached and scattered over many volumes and numbers of the Journal he so long and efficiently edited, I have taken advantage of the facilities afforded by the imitative faculty of our German neighbours, who have reproduced, in movable types, these and some further varieties of the local characters first deciphered by my author,—to introduce into a printed table many of the older forms omitted in the lithograph; and I have further profited by the progress of type-founding, to add to the general series certain provincial alphabets, which illustrate the literal changes incident to independent naturalization, as well as those due to epochal departure from the parent stock.

It will be seen from this observation, that I have ventured to differ from my elsewhere usually accepted authority; but in this case, his unvarying frankness and candour have of themselves paved the way for my justification, and I doubt not that, had his intellect been spared to us, he would himself have been prompt to reduce to a more consistent and mature theory, the imperfect hypothesis somewhat hastily enunciated on the initiatory publication of these fac-similes.

The general subject of the rise and transitional development of Indian alphabets spreads itself over various sections of research, and requires to be considered from different points of view, the more prominent of which I will endeavour to recanitulate as concisely as possible.

I. Regarding the probable date of the earliest use of the type of character, of which Asoka's edicts present us with the first extant example, Prinsep hazarded an opinion that two centuries of anterior currency might fairly be assigned to that style of writing. This idea pre-supposed somewhat of an exclusively sacred character, as pertaining to the alphabet; but by no means implied that the literal series did not pre-exist in an earlier or less perfect form. A conjectural limit of this description may of course be indefinitely extended or contracted, but I myself should be disposed to enlarge considerably the period of the previous culture of so perfect and widely-spread a system of alphabetical expression.<sup>1</sup>

II. As respects the derivation of the literal series, Prinsep had clearly a leaning towards associating it with the Greek, grounded upon the similarity and almost identity of some of the forms of each, the phonetic values even of which fell into appropriate accord. That these similitudes exist there can be no doubt, but not in sufficient numbers or degree to authorize an inference that the one system borrowed directly from the other. Prof. Weber, following out Prinsep's idea in another direction, has sought to establish a Phœnician origin for the Indian alphabets.<sup>2</sup> This theory I regard as altogether untenable, for we not only have to get rid of the inversion of the direction of the writing—sufficiently intelligible in the case of the Greek derivative from that stock—but we have to concede a much larger amount of faith to fanciful identities of form; and lastly, we have to place this excellently contrived alphabet in juxtaposition

<sup>1</sup> Huen Tsang gives the following account of the origin and spread of the Indian alphabet:—"Les caractères de l'écriture ont été inventés par le dieu Fan (Brahmā) et, depuis l'origine, leur forme s'est transmise de siècle en siècle. Elle se compose de quarante-sept signes, qui s'assemblent et se combinent suivant l'objet ou la chose qu'on veut exprimer. Elle s'est répandue et s'est divisée en diverses branches. Sa source, s'étant élargie par degrés, elle s'est accommodée aux usages des pays et aux besoins des hommes, et n'a éprouvé que de légères modifications. En général, elle ne s'est pas sensiblement écartée de son origine. C'est surtout dans l'Inde centrale qu'elle est nette et correcte."—"Mémoires, etc.," p. 72.

<sup>2</sup> Ueber den Semitischen Ursprung des indischen Alphabets.—'Zeitschrift,' 1856, p. 389.



and contrast with a system of writing manifestly claiming a quasi-Semitic parentage, but as imperfect and ill-adapted for the expression of Indian languages as it is possible to conceive, which we find in concurrent use in the contiguous provinces of Northern India. Certainly, to judge by internal evidence, the Páli alphabet of Asoka's day bears every impress of indigenous organization and local maturation under the special needs and requirements of the speech it was designed to convey. Though, amid the marvels that are daily coming to light in regard to the march of languages and the varieties of the symbols employed to record the ancient tongues, it might be possible to concede so much of identity to the two sets of characters as a common but indefinitely remote starting point might be held to imply.<sup>1</sup>

III. Was the Páli alphabet sacred or profane? classic or vernacular? monumental or popular? The answer to these queries must, I think, be decidedly against its exclusive devotion to the former, in any case; it will be safer to say that, up to a certain period, it was employed both for one and the other, and stood as the sole medium of graphic communication. This primitive character may well have proved sufficient for all purposes of record, so long as the language it was called upon to embody remained as simple as that for expression of which we may suppose it to have been originally designed

<sup>1</sup> [M. Barthélemy St. Hilaire, in a review ('Journal des Savants,' January, 1857), of the valuable work of M. E. Renan, on the Semitic Languages (Paris, 1855), enters into an examination of the relative claims to priority of the Indian and Phœnician alphabets. His remarks on the remote antiquity and independent and spontaneous elaboration of the Indian alphabet are sound, but the general argument is marred by a want of due discrimination between the Páli and Sanskrit influences, and is deficient in all reference to the co-existent Semitic system of writing of the northern provinces. Though I do not concur in any conclusion that one alphabet must necessarily have been derived from the other, I append M. St. Hilaire's opinion on the question as it stands between the two:—"Je ne vois pas qu'il repugne à la raison que le système le plus parfait de l'alphabet soit aussi le plus ancien. L'alphabet sémitique n'est pas précisément plus simple, quoique moitié plus court; il est, à vrai dire, moins complet. Pour ma part, je comprends mieux les Sémites recevant de troisième ou quatrième main l'alphabet indien, et l'adaptant à leur usage, en le réduisant de moitié et en le mutilant, que je ne comprends les Indiens recevant cet alphabet informe et confus et le portant à la perfection que nous savons."—p. 52.]

and adapted. On the introduction of the Sanskrit element, it was necessarily subjected to previously-needless combinations, and under this and other processes perhaps lost some of the stiffness of outline, which it may, nevertheless, have retained together with its original literal simplicity among the vulgar,<sup>1</sup> even in the presence of an improved style of writing, suited for more polished literature; as in the existing orthography of Hindī, contrasted with the elaboration of Sanskrit alphabetical definitions.<sup>2</sup> Prinsep

<sup>1</sup> Major Cunningham speaks of 'the extremely rare use of compound letters' in the Buddhist legends engraved on the Bhilsa Topes. He remarks, 'only three instances occur throughout all these inscriptions; and they are certainly exceptions to the common practice of Asoka's age, which adhered to the simplest Pāli forms.'—'Bhilsa Topes,' p. 268.

<sup>2</sup> [I have elsewhere noticed certain evidences bearing on this question, which I may append in further illustration of my present argument]: 'I imagine it must be conceded, whether on the indications afforded by inscriptions, coins, or Buddhist relics, that the ancient Pāli or Māgadhi alphabet had once a very extended currency, and likewise that for a lengthened period it retained its separate identity. It occurs in Asoka's edicts at Dihlī, Allahābād, Matia, Bakra, Dhaulī, and Gīrnār; its appearance in these several localities would, *prima facie*, imply, either that it was intelligible to the people at large throughout the circle embraced within these geographical boundaries, or that it was the recognized sacred alphabet of Buddhism: opposed entirely to the latter supposition is the departure from its use in the Kapur di Giri text of the edict itself, and the modification the language is seen to have been subjected to in some of the Pāli transcripts, to meet apparently the local dialects of each site.' [I do not imply from this that the edicts were ordinarily designed to be within reach of the vision of the people, as was the case with the Greek tables, even if it was expected that the literary cultivation of the population at large was sufficient to create many readers.] "On coins, the characters can scarcely be thought to hold any religious signification, but the available medallic testimony contributes largely to the inference that these characters formed the ordinary medium of record in the majority of the states included within the limits above adverted to. In this alphabet exclusively are expressed the legends of numerous series of coins of purely local type,\* its characters are found associated on the one part with the Greek of Agathocles and Pantaleon,<sup>4</sup> and its phonetic signs are conjoined with counterpart Arian legends on certain classes of the Behat coins." The Bud-

\* Of the two stone pillars at Dihlī, one was moved down from near Khizrābād, at the foot of the Himalayas—the other was taken from Mirat—'Jour. Arch. Soc. Delhi,' p. 70, 1850 [vol. i., p. 324.]

\* Other inscriptions in this character occur at—1. Sanchi—'Jour. As. Soc. Beng.', vol. vi., pl. xxvii., p. 461, and vol. vii. pl. lxxiii., p. 562; 2. Gya—Caves, 'Jour. As. Soc. Beng.', vol. vi., pl. xxxv., Nos. 2 and 3, p. 676; these are of the epoch of Dasaratha, who followed Suyasa, the immediate successor of Asoka! 3. Katak—Udayagiri Caves, 'Jour. As. Soc. Beng.', vol. vi., pl. liv., p. 1072; 4. Katak—Khandagiri Rock, 'Jour. As. Soc. Beng.', vol. vi., pl. lviii., p. 1080. And we may now add a but slightly modified form of writing as discovered in the Mehentélé inscription in Ceylon. 'Jour. Roy. As. Soc.', vol. xiii., p. 175.

\* 'Jour. As. Soc., Beng.', vol. iv., pl. x. and xxxv., and vol. vii., pl. lx. and lxi.

\* 'Jour. As. Soc., Beng.', vol. v., pl. xxxv., p. 8 and 9; 'Ariana Antiqua,' pl. vi., pp. 7, 8, 9, and 11.

\* 'Jour. As. Soc., Beng.', vol. vii., pl. xxxii. [i. 203.]

himself has originated the inquiry as to how much a change of alphabetical symbols might be incident to the use of a more perfect language as compared with the necessities of the local Páli; and to this I am disposed to attach even more weight than he apparently contemplated; the leading conception was suggested to him by the advance displayed in this direction by the Sáh inscription at Gírnár, which, because it contained the name of Asoka, he conceived should be attributed to the reign of that monarch. He was content, therefore, to accept this system of writing as absolutely contemporaneous with that employed in the public edicts of the early patron of Buddhism. However, we need not now claim so distinct a concession as this, as Asoka's name is only made use of in the subsequent monument, as a whilom benefactor in a similar cause, for which the Sáh king claims credit at a later day.

IV. Among other causes that are liable to have affected the march of alphabetical divergence from the one fixed model, may be noted the cursive departure from the older form, which though not exclusively monumental, was evidently better suited for lapidary purposes than for facility and rapidity of expression by the amanuensis;<sup>1</sup> and, under this aspect, there would arise

dhist relics do little towards elucidating the expansive spread of this style of writing; \* but—if rightly interpreted—they illustrate in a striking manner the antiquity of its ordinary employment in its even then fixed form.' [This inference, however, does not necessarily militate against my conclusion that, at a subsequent period, and in exceptional localities, the Páli language and the Páli letters did not become the special sectarian vehicles of the Buddhist faith, as opposed to the Sanskrit tongue and its more copious alphabet, whose use was affected by the Bráhmans.] Dr. Stevenson remarks, in speaking of the Nasik cave inscriptions, 'On the whole, we find that Bráhmans and Buddhists, in these early days of our era, lived in peace with one another, and were both favoured and protected by the reigning sovereigns; and that, among the former, the Sanskrit language was used in writing, and the Prákrit by the latter; the two languages, probably, holding the same place to one another that the Sanskrit and the vernaculars do at present.'—'Jour. Bomb. Br. Roy. As. Soc.', July, 1853, p. 41.]

<sup>1</sup> [In my last paper on this subject I remarked, 'We have evidence, in sufficient abundance, to prove that the eastern nations often availed themselves of a cursive hand, in common with the more formal character reserved for inscriptions. These would each be naturally affected, in the ultimate determination of forms—by the material which had to receive the writing.

'Thus, the straight wedge-shaped elements of the cuneiform alphabet' were

\* 'Jour. Roy. As. Soc.', vol. xiii., p. 108; 'Bhilsa Topes,' p. 299, etc.

<sup>2</sup> Layard, 'Discoveries,' etc., 346 and 601, etc., 'Jour. Bomb. As. Soc.', vol. xvi. p. 215.

a still more obvious reason for the rounding off of angularities as the complex orthography of the Sanskrit gained head upon the simple letters of the local Pālī.<sup>1</sup>

singularly well fitted for easy expression on tablets of Babylonian clay, and equally suited to rock inscriptions, while the written hand, executed only on a smooth surface, presented no difficulties to any series of curves or complicated lines. In addition to leather<sup>a</sup> and other materials, the ancient Persians, we also learn, wrote upon *Tûs*<sup>b</sup> (Birch-bark). The Indians, we know, adapted this substance to the same uses,<sup>c</sup> and possibly the Indian Vedas are indebted for their preservation to this very material; whether its employment was limited to the population whose dialects were expressed in the Arian character we have no means of saying, but in all probability, if the Northern Indian races knew of its use, the Magadhis would not have remained long deprived of it, or some suitable substitute; that they also wrote with ink is amply established by the discovery of letters so written on the relic caskets at Sanchi.<sup>d</sup>

Since the above was written, I have met with a most apposite illustration of the justice of my opening remark, in the shape of a Babylonian clay-tablet—now in the British Museum—of about 600 B.C., which is impressed with cuneiform characters on the one face, and inscribed with Phœnician letters on the other. The Babylonian character is not very perfect, but the Phœnician has evidently been difficult to execute, in comparison to the simple lines of the associate inscription; the curves of the letters, and the depth it was necessary to give the lines, to ensure permanence, have clearly puzzled the stile of the artist, whose knowledge of, and aptitude in, the formation of the letters, are otherwise sufficiently apparent. While adverting to these subjects, I would further draw attention to the double system of writing in use in ancient times, as exhibited in the concurrent record of spoils, etc., almost uniformly depicted in the Konyunjik marbles, where the one scribe uses a broad stile with a clay cylinder or book-tablet; and the other appears to be writing with a more pointed instrument, on some pliable material.—See Layard, ii. 184, 'Monuments of Nineveh,' pl. 58; as well as Nos. 59 and 15\* British Museum.

To revert, however, to the Indian question, I may remark, in conclusion, that the tradition in Huen Tshang's time, evidently went to the effect, that the early Buddhist scriptures of Kāsyapa's council were written 'sur des feuilles de *tāla* (palmier),' and that, in such form, (il) 'les répandit dans l'Inde entière.'—'Histoire,' p. 158. Albiruni, in speaking of his own experience in the eleventh century, notices the use of paper (کاغذ), and the local employment, 'dans le midi de l'Inde,' of the leaves of the *Tāri* (تاری); to which he adds, 'mais dans les provinces du centre et du nord de l'Inde, on emploie l'écorce intérieure d'un arbre appelé *touz* (توز). C'est avec l'écorce d'un arbre du même genre qu'on recouvre les arcs: celle-ci se nomme *bhouy*' (بھوج).—'Reinaud Mémoire sur l'Inde,' p. 305.

Further references are given to 'Arrian,' l. viii., c. ix.; 'Foe-koue-ki,' p. 392, etc.]

<sup>1</sup> [Dr. Weber has instituted certain philological comparisons, in the hope of

<sup>a</sup> Assyria.—P. H. Gosse, London, 1832, p. 546.

<sup>b</sup> Hamzæ Ispahānī کتاب تاریخ الأمم, p. 961, and xxv. 'Isbri inventi sunt, in quibus depositæ erant variæ eorum disciplinæ, omnes lingua Persica antiqua scripti in cortice tûz.'—See also 'Ayin-i Akbari,' vol. ii., 125.

<sup>c</sup> Masson in A. A. p. 60 and 84. See also fig. 11, pl. iii. *Ibid.* Masson continues his remarks on substances used to receive writing: 'In one or two instances I have met with inscriptions; one scratched with a styllet, or sharp-pointed implement around a steatite vase, extracted from a Tope at Darunta; another written in ink, around an earthen vessel, found in a Tope at Hidda; and a third dotted on a brass vessel.'—See also 'Reinaud Mémoire sur l'Inde,' p. 305.

<sup>d</sup> 'Jour. Roy. As. Soc.', vol. xiii., p. 110; 'Bhilsa Topes,' 299; 'Jour. As. Soc. Beng.', vol. xxiv., p. 394.

This Sanskrit action upon the indigenous form need not be limited to the date at which we are now able to cite extant examples of the Pálí letters; and, as I have claimed for the latter an antiquity very inadequately represented by their use under Asoka, so I may assume an independent process of maturation under the influence of the former language, in written documents, which is not necessarily restricted in its point of departure to the date of the lapidary models of which that monarch has left us examples. Indeed, these very monuments, in their bearing upon each other, already exhibit the early phase of an irregular advance beyond the limitation of the normal letters, in the greater amount of compound consonants to be found in use in the Girnár edict, as contrasted with the Dhaulí transcript, and the still more simple records of the Eastern pillars, which, in point of time, are absolutely subsequent to the two former inscriptions. And this alone is sufficient to form a justifiable basis for a line of argument I have elsewhere adopted in reply-

being able to determine the initial method of writing in India by the definition of the primary meaning of the words employed to describe the endorsement of the edicts of Asoka. Following out the Greek and Latin analogy of the derivation of the art of writing, implied in the  $\gamma\rho\alpha\phi\omega$ , 'to grave,' and *scribo*, 'to scratch,' he contrasts the inflections from the roots लिप and लिख, which occur in the opening passage of these inscriptions; the one signifying 'to smear,' and also 'to write;' the other, he affirms, meaning primarily 'to scratch into,' and, secondarily, 'to write.' Any exclusive induction, however, from these materials is denied to us in the fact that the two words occur in absolute juxtaposition, and almost as if they were convertible terms; there can be no difficulty in admitting that the one root exists with almost a leading meaning for writing in the South (and in Bengal लिप); while in the north it has retained a nearly exclusive signification for smearing, plastering, etc. The लिख, on the other hand, whether its primary intention was to scratch into, or, more probably, to draw a line, holds its position to a much greater extent in the dialects of India as the special indication of writing. However, these comparisons, incomplete and unsatisfactory as they must needs be, are complicated by a doubt as to the original derivation of the word *lipi*. In the Pálí transcripts of Asoka's edicts the orthography is assured; but in the Kapur di Giri text, in spite of Professor Wilson's most determined conversion of the initial letter, in the numerous instances in which it occurs, the word is palpably and uniformly *dipi* (*dipitam*, *dipikitam*, etc.), which, as Mr. Norris has shewn, finds a counterpart in position and meaning in the Persian Cuneiform Inscription ('Jour. Roy. As. Soc.', vol. x., p. 247, 250, lines 48, 55 of Tablet); and in the Scythic version it appears as *tipi*, with the same signification (vol. xv., pp. 19, 24, 187). The legitimate Arian *likhita*, occurs in one passage as the correspondent of the Pálí *likhítati* (Girnár, i. 10); but usually the *dip* of the northern alphabet answers to the *likh* of the south (iv. 11, v. 9).

ing to those who follow too implicitly Prinsep's first idea of the progress of writing, and who seem

Disposed to admit of but one single element, as liable to affect the march of alphabetical development—that of time. To show how fallacious any notion of a *necessarily* progressive change would be, I may call attention to the very slight modification that is seen to have taken place in the local alphabets of Gujarât, etc., during several centuries; and I would inquire, if this argument is to hold good, how much of difference ought we to be able to detect between the alphabet of the Vallabhi copper-plates, which they would date in the sixth century A.D.,<sup>1</sup> and the style of writing in use in the Western Caves, which is almost identical with the characters in prevalent use among the Buddhists in the 3rd century B.C. And yet, a reference to the facsimiles in pl. xxxvii. will demonstrate how essentially limited the alterations effected by this lapse of ages really were! Prinsep, as we have seen, was prepared—with his usual fairness—to concede that there were other causes likely to influence these alphabetical mutations, though his original idea had clearly been to assign all impulse in this direction to the effect of time. Had he lived to perfect his theory, I doubt not that he would have accepted other agencies as playing an important part in the results to be accounted for: prominent among these would, I think, have to be placed, the advance or retardation due to nationality or other local influences; otherwise it would be difficult indeed to account for the various separate alphabets that we find in all their independent diversity at a later period of Indian progress.<sup>2</sup>

Prinsep's own impression, above reprinted, will display how little reliance could

<sup>1</sup> 'Bhilsa Topes,' p. 149.

<sup>2</sup> As my readers may be glad to learn what Albiruni says on the state of the distributive varieties of writing current in his day, I append M. Reinaud's version of the entire passage:—'On compte plusieurs écritures dans l'Inde. La plus répandue est celle qui porte le nom de *siddha-matraca* (سد ماترك) ou substance parfaite; elle est usitée dans le Cachemire et à Benarès, qui sont maintenant les deux principaux foyers scientifiques du pays. On se sert également de cette écriture dans le Madhya-Deça, appelé aussi du nom d'Aryavartta. Dans le Malva, on fait usage d'une écriture appelée *nagara* (ناگر): celle-ci est disposée de la même manière que la première; mais les formes en sont différentes. Une troisième écriture, nommée *arddha-nagary* (ارد ناگر), c'est-à-dire à moitié nagari, et qui participe des deux premières, est usitée dans le Bhatia (بھاتیه) et dans une partie du Sind. Parmi les autres écritures, on peut citer le malcâry (ملقاری), usité dans Malcascheva (ملقشوا) au midi du Sind, près de la côte; le besandiba (بسنديب), employé à Bahmanava, ville appelée aussi Mansoura; le karnâta (کرنات), usité dans le Karnate, pays qui donne naissance aux personnes appelées, dans les armées, du nom de Kannara (کنره); l'andri, employé dans l'Andra-Deça ou pays d'Andra (اندر ديش); le dravidi, usité dans le Dravida ou Dravira; le lari, dans le Lar-Deça ou pays de Lar; le gaura (گوري), dans le Purab-Deça (پورب ديش) ou région orientale (le Bengale); et le bikchaka (بيککشک) dans le Oudan-Pourahanâka (اودنپورھناک). La dernière écriture est celle dont se servent les bouddhists (البد).—M. Reinaud, 'Mémoire sur l'Inde,' p. 298.

be placed on a judgment which did not take this element into consideration, for he assigns, on the mere ground of forms of letters, a higher antiquity to the Gujarát copper-plates, than he does to the Gupta inscriptions; whereas, we now know, that the Guptas preceded the Vallabhis!

Had he confined himself to tracing the alphabetical advances made by these different sections of Indian races, instead of comparing two series of literal signs that had been thus far matured by different hands, he would have worked upon surer ground. To support my assertion, I would direct attention to the varieties of types of letters to be found on the nearly contemporaneous inscriptions of the Gupta dynasty. If we examine the Allahábád writing,<sup>1</sup> and contrast it with that on the Bhitari Lát,<sup>2</sup> we discover considerable difference between the general configurations of the majority of the characters in each—varying from scarcely perceptible modifications to an absolute difference of form in others; for instance, the ख, ग, घ, प, and ण are virtually the same characters in both inscriptions, but their outlines are by no means identical, while the signs ण, म, ह, and स are, so to speak, different letters. To carry out the contrast, let us refer to the Bhilsa<sup>3</sup> inscription. Here again we find a general change in the aspect of the letters and most distinct modification or absolute divergence from the Allahábád type in the following characters—ख, क, ण, घ, प, म, न, रं, ह, श, ष, and स.

V. As to the possible influence of the Semitic character of Northern India on the collateral Palí; I should reduce this to the very minimum under its direct Palæographic aspect,<sup>4</sup> and should even prefer to advocate the converse proposition. There are here also some singular alphabetical coincidences which, however, had better be reserved for examination under the notes on the Arian character. A point which adds materially to the difficulty of instituting any useful comparisons in regard to this division of the subject is our ignorance of the date of the introduction of the Arian branch of the Semitic tree into the regions south of the Hindú Kush and its extension into the sub-Himalayan belt towards Hastinapúr. For, as in the case of the Southern alphabet, its

<sup>1</sup> 'Jour. As. Soc. Beng.,' vol. vi., p. 969.—See Translation, vol. i., p. 233.

<sup>2</sup> 'Jour. As. Soc. Beng.,' vol. vi., p. 1.—English Version, vol. i., p. 240.

<sup>3</sup> 'Jour. As. Soc. Beng.,' vol. vi., p. 455.—Noticed at p. 245.

<sup>4</sup> [I am not at all certain, however, that the Arian alphabet did not contribute the letter ण, the equivalent of ण in its own series, to serve in the Sâh inscription as ण. The original character has, to my perception, more of mechanical coincidence with the general tendency of the Arian formation of letters, than of homogeneity with the alphabet of the South; and it is curious to observe how soon the perpendicular centre stroke of the original became horizontal under local treatment. The proper Indian ण = ण, on the contrary, seems to have been of indigenous adaptation.]

earliest appearance, within our ken, is in the counterpart edict of Asoka at Kapur di Giri in the Peshāwur valley. Two items, however, suggest themselves as important in the general inquiry. (1) The greater amount of pure Sanskrit the Kapur di Giri inscription<sup>1</sup> carries in its text, as illustrating the descending course of that language<sup>2</sup>; and (2) the ultimate and not very long delayed extinction of all trace of the once extensively prevalent Arian character, and its supersession by the more exact and appropriate system of writing indigenous to the south!<sup>3</sup>

<sup>1</sup> [‘Jour. Roy. As. Soc.’ vol. xii., p. 236.]

<sup>2</sup> [Prinsep had already noticed this fact in connexion with other data then at his command—‘The vernacular language of India at that period, then, varied in different provinces;—it approached more to the Sanskrit in the N.W.’ etc.—vol. vii., p. 280. The possession of several letters requisite for the due definition of Sanskrit orthography, but unneeded in Pālī writing, is also important.]

<sup>3</sup> [I have usually avoided complicating the simple Palæographic inquiry—on which alone my data entitle me to speak—with any reference to the important light philology must be expected to throw upon the general question. I depart from my rule in this instance, in citing the original and highly valuable remarks of the author of the ‘Dravidian Grammar,’<sup>a</sup> regarding the existing state and probable early course of certain Indian languages. Mr. Caldwell’s position may be stated in his own words:—‘That the Dravidian languages are to be affiliated, not with the Indo-European, but with the Scythian group of tongues; and that the Scythian family to which they appear to be most closely allied is the Finnish or Ugrian.’<sup>b</sup> [The scope of the term Dravidian is defined by the author as follows:] ‘The idioms which are included in this work under the general term ‘Dravidian’ constitute the vernacular speech of the great majority of the inhabitants of Southern India. With the exception of Orissa and those districts of Western India, and the Dekhan, in which the Gujarāthī and the Marāthī are spoken, the whole of the peninsular portion of India, from the Vindhya mountains and the river Nerbudda (Narmadā) to Cape Cormorin, is peopled, and from the earliest period appears to have been peopled, by different branches of one and the same race, speaking different dialects of one and the same language—the language to which the term ‘Dravidian’ is here applied; and scattered offshoots from the same stem may be traced still further north as far as the Rajmahal hills, and even as far as the mountain fastnesses of Beluchistān. The Gujarāthī, the Marāthī (with its offshoot the Konkani), and the Uriya, or the language of Orissa, idioms which are derived in the main from the decomposition of the Sanskrit, form the vernacular speech of the Hindū population within their respective limits: besides which, and besides the Dravidian languages, various idioms which cannot be termed indigenous or vernacular are spoken or occasionally used by particular classes resident in Peninsular India.’

‘The idioms which I designate as ‘Dravidian’ are nine in number, exclusive of the Rajmahal, the Uraon, and the Brahui.’ They are as follows: 1, Tamil;

<sup>a</sup> ‘A comparative Grammar of the Dravidian or South Indian Family of Languages, by the Rev. R. Caldwell, B.A. London, Harrison, 1856.’

<sup>b</sup> Cf. also Norris’ Scythian text of the Inscriptions at Behistun.—‘Jour. Roy. As. Soc.’ vol. xv.

• The discovery of this Dravidian element in a language spoken beyond the Indus proves that the Dravidians, like the Aryans, the Græco-Scythians, and the Turco-Mongolians, entered India by the North-Western route.—p. 23.



In this indeterminate state, I am content, for the present, to leave the general question of the progressive development of the writing of India proper; being convinced, that no uniform or absolute law can be enunciated applicable to the varied circumstances of the whole circle of the palæography of the

2, Telugu; 3, Canarese; 4, Malayalam; 5, Tulu—[the remaining four are] entirely uncultivated, destitute of written characters, and comparatively little known—6, Toda or Tudara; 7, Kota; 8, Gond or Goand; 9, Khond or Kund, or, more properly, the Ku. The proportionable numbers of the several races by whom the languages and dialects mentioned above are spoken appear to be as follows:

1 .....	10,000,000	} 32,150,000
2 .....	14,000,000	
3 .....	5,000,000	
4 .....	2,500,000	
5 .....	150,000	
6 to 9 .....	500,000	

‘Whilst I regard the grammatical structure and prevailing characteristics of the Dravidian idioms as Scythian, I claim for them a position in the Scythian group which is independent of its other members, as a distinct family or genus, or, at least, as a distinct subgenus of tongues. They belong not to the Turkish family, or to the Ugrian, or to the Mongolian, or to the Tungusian, . . . but to the group or class in which all these families are comprised. On the whole, the Dravidian languages may be regarded as most nearly allied to the Finnish or Ugrian family, with special affinities, as it appears, to the Ostiak.’—p. 46.

The conclusions arrived at with regard to the Northern Indian languages are summed up thus—‘It is admitted that before the arrival of the Aryans, or Sanskrit speaking colony of Brāhmans, Kshatriyas, and Vaisyas, the greater part of Northern India was peopled by rude aboriginal tribes, called by Sanskrit writers Mlêchhas, Dasyus, Nishādas, etc.; and it is the received opinion that those aboriginal tribes were of Scythian, or, at least, of non-Aryan origin. On the irruption of the Aryans, it would naturally happen that the copious and expressive Sanskrit of the conquering race would almost overwhelm the vocabulary of the rude Scythian tongue which was spoken by the aboriginal tribes. Nevertheless, as the grammatical structure of the Scythian tongues possesses peculiar stability and persistency; and as the pre-Aryan tribes, who were probably more numerous than the Aryans, were not annihilated, but only reduced to a dependent position, and eventually, in most instances, incorporated in the Aryan community, the large Sanskrit addition which the Scythian vernaculars received would not necessarily alter their essential structure, or deprive them of the power of influencing and assimilating the speech of the conquering race. According to this theory, the grammatical structure of the spoken idioms of Northern India was from the first, and always continued to be, in the main, Scythian; and the change which took place when Sanskrit acquired the predominance, as the Aryans gradually extended their conquests and their colonies, was rather a change of vocabulary than of grammar,—a change not so much in the arrangement and vital spirit as in the *material* of the language. This hypothesis seems to have the merit of according better than any other with existing phenomena. Seeing that the Northern vernaculars possess, with the words of the Sanskrit, a grammatical structure which in the main appears to be Scythian, it seems more correct to represent those languages as having a Scythian basis, with a large and almost overwhelming Sanskrit addition, than as having a Sanskrit basis, with a small admixture of a Scythian element.’—p. 38.

‘The Scythian substratum of the North-Indian idioms presents a greater number of points of agreement with the Oriental Turkish, or with that Scythian tongue or family of tongues of which the new Persian has been modified, than with any of the Dravidian languages.’—p. 39.

multifarious languages and nationalities embraced amid the indigenous or intrusive races, who in succession may have peopled portions of that land.

I now insert the type Table of transitions of the Indian Alphabet referred to at page 41. This, like Prinsep's lithographed synopsis, requires but little introductory notice, as it should be sufficiently explanatory in itself, but it may be necessary to mention, that I have modified some of the headings of the earlier alphabets, which I have felt bound to retain unaltered in the artist's copy of Prinsep's original fac-similes.<sup>1</sup>

The derivations of the six leading or epochal series of the general table may ordinarily be gathered from the notices and translations of the original texts of each, inserted in various parts of this publication.<sup>2</sup>

The so-entitled Nerbudda character is taken from a set of copper-plate grants, of uncertain date, found at Seonī in the Saugor and Nerbudda territories;<sup>3</sup> and the Kistna alphabet,

<sup>1</sup> [As the accompanying Table of Alphabets has lately appeared, under a slightly varied form, in the work of another author, it is necessary for me to explain how it comes to be inserted in this place without the usual acknowledgment. My Publisher, in making his preparations for the present reprint, imported, at my request, from Germany, such of the Sanskrit types, based upon Prinsep's originals, as were deemed requisite for the illustration of the Palæographic history of Indian writing. As some difficulties presented themselves, on the arrival of this foreign type, in regard to its justification and assimilation with our own, it was determined to set up the entire table before it was required in the order of the consecutive articles. This was done, and the first rough proof had been submitted to me, when Mr. Austin's managing superintendent intimated that if I had no objection he intended to lend the table for publication in Mr. Monier Williams' Sanskrit Grammar. I of course assented willingly to this arrangement, merely stipulating, in the most distinct manner, for the due acknowledgment of the derivation. I heard nothing further on the subject till the work in question appeared, under the auspices of the Oxford University Press, when I naturally looked for the expected recognition of the use of my materials. However, to my surprise, I could discover no notice whatever of obligations to my publisher or myself. Upon making inquiries, I discovered that there had been some misapprehension as to the terms under which these materials had been permitted to be used; and Mr. Williams assures me that he was not in any way made aware of my interest or concern in the synopsis, and therefore necessarily failed to acknowledge the merely secondary title I claim in its reproduction.]

<sup>2</sup> [No. 1, vol. ii. p. 8, *et seq.* of this publication; No. 2, 'Jour. As. Soc. Beng.,' vol. vi., p. 1042; see also Stevenson, 'Bombay Journal,' July, 1853, and January, 1854; No. 3, Art. xix. *infra*; No. 4, vol. i., p. 233; No. 5, vol. i., p. 252; No. 6, vol. i., p. 321.]

<sup>3</sup> [See p. 726 'Jour. As. Soc. Beng.' vol. v. (1836), and also Prof. Wilson on 'Chattisgarh Inscriptions,' 'Asiatic Researches, vol. xv., p. 607.]

TRANSITIONS

OF THE

INDIAN ALPHABET,

FROM THE TIME OF AŞOKA;

WITH SOME OF THE MOST MARKED LOCAL VARIETIES

AT PRESENT IN USE.

C O N S O N A N T S.

	k	kh	g	gh	n	ch	chh	j	jh	ñ	ṭ	ṭh	ḍ	ḍh	ṇ	ṭ	ṭh	ḍ	ḍh	n	p	ph	b	bh	m	y	r	l	v	h	s	ś
ASOKA'S EDICTS. 3rd Cent. B.C.	+	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱
WESTERN CAVES.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
SĀH INSCRIPTION. (Girnār.)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
GUPTA INSCRIPTION. (Allahābād.)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
VALABHI PLATES. (Gujarāt.)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
KUTILA INSCRIPTION. 10th Cent. A.D. (Barcū.)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
NERBUDDA.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
KISTNA.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
TELANGA. (Modern)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
TIBETAN. (Modern)	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
SQUARE PALI.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
GUJARĀTĪ.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
PUNJĀBĪ.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
KASHMĪRĪ.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
BENGĀLĪ.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
DEVANĀGARĪ.	𑀓	𑀔	𑀕	𑀖	𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲

# V O W E L S.

	a	ā	i	ī	u	ū	ṛi	ṛī	e	ai	o	au	an	ah
ASOKA'S EDICTS. <i>3rd Cent. B.C.</i>	𑀅	𑀅	:		𑀇	𑀇			𑀉	𑀉	𑀊			
WESTERN CAVES.	𑀅	𑀅	:		𑀇				𑀉	𑀉	𑀊			
SĀH SCRIPTION. <i>(Girnār.)</i>	𑀅	𑀅	:		𑀇	𑀇			𑀉	𑀉	𑀊	𑀋	𑀌	𑀍
GUPTA SCRIPTION. <i>(Allahābād.)</i>	𑀅	𑀅	ꣳ	ꣳ	𑀇	𑀇			𑀉	𑀉	𑀊	𑀋	𑀌	𑀍
VALABHI PLATES. <i>(Gujarāt.)</i>	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇	𑀈				𑀉	𑀉	𑀊	𑀋
KUTILA SCRIPTION. <i>10th Cent. A.D. (Bareil.)</i>	𑀅	𑀅	ꣳ	ꣳ	𑀇	𑀇	𑀈	𑀉	𑀉	𑀊			𑀋	𑀌
HERBUDDA.	𑀅	𑀅	𑀆	𑀆										
ISTNA.	𑀅	𑀅	𑀆											
ELINGA. <i>(Modern.)</i>	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇			𑀉	𑀉	𑀊	𑀋		
TIBETAN. <i>Modern.)</i>	𑀅		𑀆		𑀇				𑀉		𑀊			
QUARE PĀLÍ.	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇			𑀉	𑀉	𑀊			
GUJARĀTÍ.	𑀅	𑀅	𑀆		𑀇	𑀇			𑀉	𑀉	𑀊			
UNJĀBÍ.	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇	𑀈		𑀉	𑀉	𑀊	𑀋	𑀌	𑀍
ĀSHMIRÍ.	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇	𑀈	𑀉	𑀉	𑀊	𑀋	𑀌	𑀍	𑀎
ENGĀLÍ.	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇	𑀈	𑀉	𑀉	𑀊	𑀋	𑀌	𑀍	𑀎
EVANĀGARÍ.	𑀅	𑀅	𑀆	𑀆	𑀇	𑀇	𑀈	𑀉	𑀉	𑀊	𑀋	𑀌	𑀍	𑀎

which follows, was obtained from inscriptions at Amarávati in Berár.<sup>1</sup>

For the more modern alphabets, which are arranged irrespective of their relative antiquity, I have had to rely upon such

<sup>1</sup> [Prinsep explains the source from whence he derived the materials for this alphabet in the following remarks:—‘In the library of the Asiatic Society are ten manuscript volumes of drawings of sculpture, images, architecture, and inscriptions, forming part of the celebrated collection of the late Colonel Mackenzie. The greater portion of these are as yet unknown and undescribed. None of the series, as far as we can ascertain, have been published, nor are we aware of any attempt having been made to decipher the inscriptions. It is greatly to be wished that the whole of these interesting documents could be digested in some convenient arrangement and made accessible to the learned world, especially now that the invention of lithography offers a cheap and expeditious means of effecting such an object. We were in hopes of combining their publication in the form of a volume or two of plates, with the digest of the Mackenzie manuscripts, which, at the recommendation of the Society, the Government has lately entrusted to the Rev. W. Taylor at Madras, the author of ‘Oriental Historical Manuscripts.’ As a specimen of the contents of these curious volumes, Captain Cunningham has kindly favored me with the two lithographs numbered as pls. x. and xi., vol. vi., ‘Jour. As. Soc. Beng.’ He has selected the two longest inscriptions from the volume, No. 18, entitled ‘Antiquities at Amarávati,’ a town in the Berár province, situated on the Kistna river to the west of Nágpur.

‘The majority of the sculptures of Amarávati seem to belong to a magnificent *dehgopa*, or Buddhist shrine; but there is an admixture towards the end of the volume of objects of the *linga* worship. An accurate map of the town is prefixed, whence it appears that the ruined *dehgopa*, whence the relics are taken, was on a mound of 150 feet diameter, now converted into a tank. It is called Dipaldinna (translated by Colonel Mackenzie ‘the mound of lights’), which so resembles the name of a similar place of Buddhist celebrity in Ceylon (Dambadinna), that we imagined, on seeing the inscription from the east side of the gateway, some mistake must have been committed; for on comparing the characters with pl. xxviii. of the ‘Jour. As. Soc. Beng.’, vol. v., p. 554, their perfect identity with the Ceylonese type of old Nágari was manifest: indeed the three initial letters appear to form the same word ‘*mujike*’ . . . and the same combination there recognized as ‘*Mahárāja*’ . . . drew Captain Cunningham’s attention while copying the penultimate line of the present inscription.

‘The second inscription, occupying the two sides of pl. xi., ‘Jour. As. Soc. Beng.’, vol. vi. [the Kistna alphabet], is altogether of a different class, although the book states it to have been procured from the same town, Amarávati.

‘The character has much resemblance to that of some of the cave inscriptions at Mahábalipur and other places to the westward; the essential portion of each letter also assimilates very closely to the alphabets of the Chattisgarh and Seonf inscriptions, and this has served as the key by which I have effected the transcription of the whole.

‘It is worthy of remark, that in this alphabet, which we may aptly denominate the Andhra character, from its locality, may be traced the gradual transition from the more simple Devanágari of Northern India (No. 2 of Allahábád, Gaya and Gujarát) to the complicated or florid writing of the Southern Peninsula. On comparing it with the Hala Kanara, or ancient Karnatic, the letters *a*, *i*, *y*, *r*, *l*, *kh*, *th*, *dh*, *bh*, which may be regarded in some degree as test letters, because they have undergone more variation than others in the modern writing of different provinces, are nearly identical. There is also an incipient loop in the lower line of many of the letters which becomes afterwards more developed in the west and south. The Telinga or Telugu character is one step further removed, but it springs directly from the Hala Kanara, and retains many of the Andhra letters still unchanged, particularly the *dh*

type as chanced to be available, amid which may be found some isolated forms that might stand but indifferently the test of local criticism.—E.T.]

and *th*. In the accompanying plate ('Jour. As. Soc. Beng.,' vol. vi. pl. xii) we have thought it worth while to exhibit these resemblances, and point out the peculiarities noted, that no means may be neglected of facilitating the examination of other inscriptions that may link on naturally at either end of this fragment of the chain of our Indian palaeography.'

## XIX.—EXAMINATION OF THE SÁH INSCRIPTION FROM GIRNÁR IN GUJARÁT.

SANSKRIT INSCRIPTION, No. 1, FROM JUNAGARH.

[ I insert Jas. Prinsep's translation of the Sáh inscription at Girnár as it originally appeared in the ' Jour. As. Soc. Bengal '—notwithstanding that it has to a certain extent been superseded in the acquisition of more perfect copies of the monumental writing than he was constrained to rely upon—in order both to complete the record of his contributions to an important section of Indian Numismatics, and to serve as a needful introduction to his notes in illustration of the subject, which retain, with but limited exceptions, their pristine value!—E. T.]

After the announcement made in the proceedings of the Society, that the Governor-General has acceded to my request, for the deputation of an officer to take exact facsimiles of the several inscriptions in Gujarát, which have turned out to be of so important a nature, it may seem premature or superfluous to continue the publication of the analysis of the less perfect document now in my hands. But it is only in a few uncertain passages that the expected corrections are desired. The body of the matter is sufficiently intelligible, both in the Pálí edicts of Girnár, lately published, and in the Sanskrit inscription from Junagarh, which I have chosen for the subject of my present notice.



I should, indeed, be doing an injustice to Capt. Laing, who executed the cloth facsimile for the President of the Bombay Literary Society, and to Dr. Wilson himself, who so graciously placed it at my disposal, when, doubtless, he might with little trouble have succeeded himself in interpreting it much better than I can do, from his well-known proficiency in the Sanskrit language; it would, I say, be an injustice to them were I to withhold the publication of what is already prepared for the press, which may be looked upon as their property and their discovery, and to mix it with what may hereafter be obtained by a more accurate survey of the spot.

Before, however, proceeding to the inscription itself, I insert Dr. Wilson's account of the site.

'The rock containing the inscriptions, it should be observed, is about a mile to the eastward of Junágaḍ, and about four miles from the base of Girnár, which is in the same direction. It marks, I should think, the extremity of the Maryádá of the sacred mountain. The Jainas, as the successors of the Bauddhas, greatly honour it.'

The rock or large stone above alluded to, appears to contain all three inscriptions. On the eastern side facing the Girnár hill are the edicts of Asoka in the old character; on the western side, the Sanskrit inscription which I have selected as my theme for the present occasion; and on the southern side a third inscription, longer even than either of the others, but somewhat more modern, and less distinct.

The western inscription, then, is near the top of the stone;—it covers a surface of ten feet and a half in breadth, by five feet in height. The stone is a good deal cut or worn away in two places, but it does not seem that anything has been lost on the outer edges, the

irregularities there visible proceeding from the contour of the stone. Capt. Laing's facsimile is lithographed on a very reduced scale in the 'Jour. As. Soc. Beng.,' vol. vii., pl. xv.

The character is only one remove from the Buddhist alphabet of Girnár. It has the same mode of applying the vowel marks *e*, *a*, and *o*, in particular to those excellent test letters, *n*, *ṇ*, and *m*. The vowel *i* is still formed of the three dots; but I need not more fully dilate upon its peculiarities, since I have already inserted the whole alphabet, as No. 3 of the comparative table [Pls. xxxviii., xxxix.] A few, also, of the principal passages are now subjoined on a larger scale in pl. xix., 'Jour. As. Soc. Beng.,' vol. vii., as upon them rests the value with which this inscription will, doubtless, be regarded in Europe as well as in India, on account of the historical information it is calculated to afford.

Once transcribed into modern Nágari a Sanskrit inscription becomes easily intelligible through the aid of a skilful pandit. In the present instance, it has only been necessary to change two or three dubious letters to enable Kamalákánta to explain to me the contents of all the continuous passages which still exist on the stone, and it is fortunately not very difficult to imagine from the context what must have occupied most of the spaces now eroded or mutilated.

TRANSLATION OF THE GIRNÁR BRIDGE INSCRIPTION (APRIL, 1838).

(Be it) accomplished!<sup>1</sup> This very impassable bank at the foot of the hill city (Girinagara<sup>2</sup>). . . . . (15 syllables) with wide expansion and with great

<sup>1</sup> The same invocation, *siddham*, is used in the Skandagupta inscription, pl. i.

<sup>2</sup> The vowels of the word *Girinagar* are wanting, but the name cannot be mistaken, being modern Girnár.

depth of strong masonry,<sup>1</sup> carried all along the bottom of the said hill, filling up the interstices or irregularities in even layers, up to the height of the bank . . . . . (30) . . . . . by a chosen (architect?) the foundations of the bridge being completed most substantially, by embanking off in various ways the water . . . . . (50) . . . . . by workmen cheered on by kindnesses, and with a vast abundance of materials, was in progress. Then the work continued under favor of the Rājā Mahākshatrpa (the great patron of the warrior class), who was named Swāmi Chastāna . . . . . (and was completed) in the seventy-second year of his son, the Kshatrpa, mindful of the lessons of his instructors, the rājā named Aridāmā,<sup>2</sup> in the dark half of the month of Mārgairsha . . . . . (afterwards) by an immense inundation, brought on by heavy rains, converting the whole surface of the earth into an ocean, and making a mass of mud of the hill of Urjayata (?)— . . . . by the tempestuous waves of the Palasini river, and its several tributaries, the bridge . . . . . (was carried away. Subsequently) . . . . . in conformity with the original design, (it was) repaired with blocks of stone from the hill, remedying the difficulties of the passage way with numerous long beams and trees laid across,—and skilfully uniting them . . . . . (A second time) by the force of the waves, in a fierce hurricane and flood, (it was) broken down and much damaged, . . . . . (after which), with stones and trees and piles,<sup>3</sup> and massive beams<sup>4</sup> stretched across, it was again put into complete repair, with an indestructible embankment, having a length of 400 cubits, and in like manner having a breadth of 75 cubits, in a wonderful manner taking out all the water, and laying dry the bed of the river<sup>5</sup> . . . . . by Pūpya Gupta, the territorial treasurer of Rāja Chandragupta Maurya, (this) was caused to be done: and by the Yavana rāja of Asoka Maurya, (named) Tushaspa, it was ornamented with cornice and parapet, and with an artificial canal visible there, over which the bridge also extended, in a manner worthy of the approval of the rājā. . . . . (Afterwards) by him, who, being predestined from the womb to the unceasing and increasing possession of the fortunes of royalty, was invited by all classes waiting upon him for the security of their property—to be their king:—who, from clear intelligence, has not suffered the sacrifice of animal life;—who is faithful to his promises—who is courteous in speech—who in battle, opposed face to face with an equal antagonist, and threatening to discharge his weapons, compassionates his yielding foe . . . . . who gives hope to those of their own accord repairing to him to beseech for succour . . . . . preserving the ancient customs of the town unin-

<sup>1</sup> सन्धि बन्धि, the joining or cementation of masonry, is now called by a similar name *jorāi*. I suppose the piers or foundations to be intended.

<sup>2</sup> नामरदिदाम (sic)—if this is correctly traced, it contains a grammatical error, in the substitution of र for ; after न. The name might be read *Atri*; or *Budra*, were the preceding word *namno*. The date may be read either *varshe dwisaptatita* (me) followed by numerals,—or *Ari damni nashte dwisaptati vatsare*, in the 72nd year after the death of Aridāmā. As there is a space after *dwi*, *sata* may be also supplied, making the date 270.

<sup>3</sup> अनुतल्पद्वारशरण, the introduction of *Dwāra* here is hardly intelligible, perhaps we should read *anutaalpāt vāri sarana ucchraya vidhansind*—the remover of the impediments to the flow of the current from the beams and materials that had fallen into the river.

<sup>4</sup> गुल्मखता—the distinction of *golas* and *lattas* in the modern wood market is, that the former are unsquared, and the latter, squared timbers.

<sup>5</sup> I have given to this obscure passage the best sense in which I think it explicable, as the breadth, 75 cubits, could hardly have been that of the bridge itself.

fringed by the proud and insolent;—who is lord of the countries<sup>1</sup> of Avanti, Anupa (?) Vrija, Anartha, Surashtra . . . . . Savara, Kukára, Kiráta, Tishat, and others, all conquered by his own might, and maintained in their former prosperity, and all their inhabitants, both high and low, converted into obedient subjects—all these countries, under his majesty (forming one empire), and furnishing every object of desire and gratification: who is the powerful leader of an army obeying him fondly as one born with the title of a renowned hero;—who, after more than one conquest of Sátakarni, the king of Dakshinapatha, by merely a threat (of attack), concluded a peace (with him) for the security and protection of his country . . . . . and again set up his royal banner;—who has a natural taste for exercising and improving the strength of his hand, according to the rules<sup>2</sup>;—who is renowned for his skill in the practice of all the celebrated sciences, of grammar, of polity, of singing, of expedients (mechanics?) and the rest, the theory of which he has gone through, and tolerably retained;—who, powerful in horses, elephants, chariots, oxen, weapons, and armour . . . . . exceedingly clever in breaking down the strongholds<sup>3</sup> of his enemies;—who is every day happy in the bestowal of alms and mercy;—who is affable in manners;—whose treasury is abundantly filled with gold, silver, tin, and the lapis lazuli jewel, brought as tokens of his greatness, offered to him as his just and proper measure of tribute; who (understands) the precise etiquette of (courtly terms), their sense, measure, sweetness, rarity . . . . . who is of correct bodily proportion, excellent in gait, color, vigour, and strength, &c.; in form and limb of most auspicious aspect;—who, of his own (merit?), has the title of ‘patron of warriors and king of men;’—who is crowned with the garland<sup>4</sup> of flowers won in the Swayamvara ceremony (or tournament);—by this great patron of the warriors (or Satrap) Rudra Dámá . . . . . zealous for the increase of his religious fame, and in kindness and compassion for females, and the lame and sick: and with a most liberal expenditure from his own treasury (for the people?);—consenting at once to the petition of the chief citizens;—the construction of this bridge with threefold strength, . . . . . after due inspection, was ordered to be done;—thus:

By the dignified in virtue, the chief minister of the great Satrap . . . . . the road was also lined with trees, conferring pleasure (on the passers by).

Further, by him who, out of favor to the inhabitants of town and country, restored with substantial repairs the excellent condition (of the bridge) to the good subjects of this metropolis,—who made it impregnable to the torrents of water . . . . .? by the descendant of the Pahlaván tribe, Mavya, the contractor, who has finished his work precisely on the terms of his estimates and plans, so as to give

<sup>1</sup> Most of the countries enumerated here are to be found in the Purānas. Avanti is well known: as Oujain; Vrija is the country about Mathura; Anartha is mentioned with Comboja, Sindhu, and Yavana Mārgana (‘As. Res.’ viii. 339, 341), and is therefore probably in the Panjáb:—Kukura is enumerated in the same list with Benares; Savara is called a wild tribe in the south-east. There are three Kirátas named—two (Chandra and Rajya) in the north-east, and one in the south (pp. 339-41) Tishat may perhaps be read Toshali in Katak, of which more hereafter.

<sup>2</sup> By inadvertence, I have omitted the repetition of the word *arjita* अर्जितार्जित at the beginning of the 13th line in the lithograph.

<sup>3</sup> Reading **परवसाय**, but the text may be read **बलसय** making it ‘destroying his enemy’s force,’ or again it may be **परवसाघवेसौष्टवक्रियेन**, well skilled in diminishing the power of his enemies. (The Nāgari transcript has been altered thus.)

<sup>4</sup> In former times, Hindú maidens chose their favourite among a band of suitors by throwing a garland over his neck. A play on the name *Dámá* is intended.

satisfaction,—the strong man and overcomer of difficulties, surrounded by his overseers (*pattis*),—by him, the establisher of religious fame, and the increaser of the glory of his master, was this work executed." <sup>1</sup>

## OBSERVATIONS.

I have already remarked, that in this inscription, for the first time, we find the name of the great Chandra Gupta, the contemporary of Alexander, recorded on a genuine monument of antiquity. There can be no doubt of his identity, because his family name Maurya is added; and further, the name of his grandson, the no less famous Asoka, immediately follows, designated also by the same family cognomen of Maurya.

On first discovering this important fact, and perusing the mutilated fragment with Kamalákánta pandit, as well as we could make it out, I thought myself in possession of a record of the time at least of Asoka, by whose deputy or viceroy the bridge seemed to have been completed. The long string of complimentary epithets which fill up the bulk of the inscription being in the instrumental case, and thus agreeing with the *Yavana rájēna* of the upper sentence.

This turns out not to be precisely the case. A considerable period is embraced in the history of the Girnár bridge, partly anterior and partly subsequent to the time of Chandra Gupta;—thus it seems originally to have been erected by a Prince named Swámi Chashtána, a name rather Persian than Indian;—it was then either repaired

<sup>1</sup> *Anushtitam अनुष्ठितं*, accomplished. The same word is used at the foot of the Allahábád inscription—(vol. vi. 978). But I know not how it there eluded the apprehension of the pandit who made me write in lieu of it अवस्थितं 'remaining firm or fixed.'

or more probably completed by his son Aridámá or Atri-dámá in the month of *Mārgasirsha* or *Agrahayana*, in the year 72, but the letters which follow are unfortunately illegible, and we are left in the dark as to the era then in use for recording events.

The bridge was then totally destroyed by an inundation of the river Paleshini, a name I cannot discover in the map of Gujarát. Thus temporarily repaired, perhaps by the inhabitants, it was again carried away; and a more thorough reparation was commenced under orders from Chandra Gupta Maurya, by his prefect of the province, Pupya Gupta, and completed in the reign of Asoka, his grandson, thirty or forty years afterwards, by his Greek officer, for so I think we may understand *Yavana rāja*. The brahmanical population of the distant province of Suráshtra probably had but little affection for the Buddhist monarch, who is not even honoured in the inscription with the title of *rāja*, being simply styled Asoka the Maurya! The name of his Greek employè is not very plain on the cloth; it may be read तुषसेन—‘by *Tushaspa*,’ a name evidently of Persian termination, like *Gushtasp*, *Lohrasp*, etc., from *asp*, ‘a horse’ (Sans. *asva*). Were the name written *Tushasva*, we might have supposed it a translation of the Greek name Philippos, having precisely the same meaning; and we might have argued that some adventurer having, from his military prowess, obtained service under Asoka, had added those new provinces to his empire, which we find noticed in his religious edicts, and had at length usurped a considerable share of power to himself; being, in fact, the very *Yona rāja* whom the Muhammadan historians state to have

dispossessed Sinsar Chand's grandson. But I am sensible that I have been frequently guilty of running ahead of prudence with my deductions, and I must consequently draw in a little; for it may be possible, after all, that the word *yavana* does not exist. It is preceded by the letter न, which I have rendered नु, 'further,' 'too;' but the expletive is somewhat out of place, and some may prefer the reading अशोकस्य तोयवनराजेन, 'by Asoka's *rāja* (or lord) of the floods and forests.'

To continue my history of the bridge:—after the last repairs, although no accident is mentioned, we must conclude that such had occurred, and that the bridge was rebuilt by the prince upon whom the largest share of the eulogistic inscription is lavished. The opening passage may perhaps be recoverable on a careful re-examination of the stone. Towards the close, it does indeed mention that on the petition of the inhabitants (backed by female influence?) he strengthened the structure three-fold at his own expense. Now the name of this prince is Rudradámá, destined, it says, from his cradle to be elected to the throne,—his title is *Rāja Mahá Kshatrapa*, the same as that of *Aridámá* and *Swámi Chashtán*. We may therefore view him as a scion of the old dynasty, replaced on the throne after a temporary subjugation of the province by the Maurya sovereigns of India proper.

It is curious, and most interesting to those whose attention is engaged in the subject, to observe how different ancient monuments throw light upon one another, and help to their mutual development. The name of *Rudradámá* recalls to our memory the series of *Surashtra* coins

described in my journal hardly a year ago. Among the eleven names there distinguished, Rudradámá was conspicuous as following just such a break in the line as would be made by the cause above alluded to. Again, the title then read as Mahá Kritrima, the elected king, on second examination agrees precisely with the present more palpably developed Mahá Kshatrapa. On referring to the plate of Mr. Steuart's coins, sent to me by Capt. Harkness, I find that I so read the word at first, and noted it in pencil, but gave it up on the pandit's ignorance of such having ever been a title in use. Had I possessed at that time a comparative alphabet to consult, I should immediately have perceived that the right hand twist at the foot of the *k* did not *then* denote as it does now the vowel *ri*, which was formerly turned in the contrary sense; but that it was the cerebral *sh* subjoined to the *k* (forming *ksh*), exactly as it occurs on the Junagarh<sup>1</sup> inscription. The *p* also deceived me, being more pointed than the same letter in the word *putra*; but on examination of the coins in my possession, I find it generally rounded off as U, and never crossed below as the *m*.

The word क्षत्रपः *kshatrapas*, although wholly unknown as a sovereign title to modern Hindús, and not to be found in their books, is familiar to the reader of the Grecian history of ancient Persia, with merely a softening of the initial letter, as ΣΑΤΡΑΠΗΣ, *Satrapa*, the prefect of a province under the Persian system of government. I do not believe that the etymology of this name has ever

<sup>1</sup> I have before remarked that this town seems called after the Greek prince, Yavanagada.



been traced. It is called a Persian title, but the Persian dictionaries only contain ستراب *Satrab*, as an obsolete term for the governor of a province, without explanation of its origin. In Sanskrit it signifies the ruler, feeder, or patron of the *kshatra* or military class; and now that we know the ancient language of Persia east of the Euphrates to have been a near dialect of the Sanskrit, we may conclude that Satrapa had the same signification in Ariana. It is not for me in this place to speculate on the purport of the term in the Persian polity, but it is a fact well known that the effeminate Persians at a very early period were in the habit of governing their numerous tributary provinces by mercenary troops. The same system, and the same denomination of Satrap, was adopted and retained by the Macedonian conqueror, both when Greek and native officers were employed: and instances are frequent enough of the Satraps assuming to themselves independence and a regal title.

The Satrapies of the ancient Persian monarchy are not supposed to have extended across the Indus. If, in Alexander's time, this limit was first transgressed, it was not long before the Bactrian Greeks, or the Parthians, made themselves masters of Sindh, Katch, and Gujarát.<sup>1</sup> The present inscription may incline the learned to conclude that Suráshtra was before then one of the Satrapies of the empire, from the name of Chastan, the Satrap, who is stated to have first erected the bridge, and who must have preceded Chandragupta. Rudra, Viswa, and others of the list are more Indian in sound. It is remarkable

<sup>1</sup> See 'Jour. As. Soc. Beng.,' vol. vi., p. 385, for Vincent's authority on this subject.

that in the long string of epithets applied even to Rudradámá, the chosen Satrap, there is none which bears the slightest allusion to Hindú mythology; while, on the other hand, the coins of the whole dynasty bear an emblem which we have hitherto considered either of Mithraic or of Buddhist import. The name Jinadámá (wearing Buddha as a necklace) is decidedly Buddhistic; and the epithet applied in the inscription to Rudradámá, —‘who, from right persuasion, never put any living creature to death,’—proves that Rudra’s opinions were at any rate influenced by the proximity of the important Buddhist establishment at Girnár.

The style of prose eulogy employed by the composer of the inscription puts us much in mind of our old friend, the Allahábád column. It has its corresponding list of countries conquered and equitably ruled; but few of the names are, as might be expected, the same in the two. Avanti or Ujjayani, and Vrija (if the latter name be correctly read) are of the most importance as implying that the elected kings of the Sáh family, or the Satraps of Suráshtra, as we may now more properly call them, had acquired dominion over all the central portion of India, driving back the Magadha sovereigns (who had previously spread their hands to the farthest west), into their own Gangetic limits. The other places, Anartta, Kukura, etc., are probably provinces to the northwest, out of India proper. One other name, however, deserves our particular attention, the king of the Dakhan (Dakshinapatha), who was twice threatened with an invasion, and brought to sue for peace. His name is Sátakarni, the same which occurs several times in the lists of the

Andhra kings extracted by Wilford from the Bhágavat and other Puránas. It is a patronymic, from शतकर्णि, 'the hundred eared,' which was, doubtless, the name of the founder of the family; and Sátakarni was probably the surname of all the line, though not repeated everywhere in the versified enumeration of the Puránas.

The locality of the Andhra dominion has hitherto been as uncertain as the period of its sway. Wilford says in one place that the Andhra princes 'made a most conspicuous figure on the banks of the Ganges for above 800 years;' <sup>1</sup> again, that Andhra and Koshala (near Kalinga) are used synonymously by some Hindú authors: again, that Sri Carna-deva took the title of king of Tri-kalinga, or of the three shores, to the east and west and south of India.<sup>2</sup> From our inscription we perceive that the general term of Dakshinapatha agrees well with the latter definition, and we may rest content with denoting the Sátakarnis as kings of the Peninsula.

Further, as to their age, we find one of the name contemporary with Rudradámá who followed Asoka (we cannot say at what precise distance). Wilford brings them much lower down, from the third to the sixth century after Christ, in order to square the last of their name, Pulomarchi, or Puliman, with the Pulomien<sup>3</sup> of the Chinese.

He is forced to confess, however, that there were Andhras at the beginning of the Christian era, when, says Pliny, 'the Andaræ kings were very powerful' in

<sup>1</sup> 'Asiatic Researches,' vol. ix. p. 101.

<sup>2</sup> Ibid, p. 104.

<sup>3</sup> Quere. Is not Brahman written with this orthography in Chinese?

India, having no less than thirty fortified cities, an army of 100,000 men and 1000 elephants.<sup>1</sup>

We must, therefore, consent to throw back the Andhras; and, instead of requiring them to fall into a general and single line of paramount Indian kings, as Wilford would insist, let them run in a parallel line, along with the lines of Suráshtra, Ujjain, Magadha, and others, individuals of each line in turn obtaining by their talent, prowess, or good fortune, a temporary ascendancy over their neighbours: thus at length we may hope to fulfil Capt. Tod's prophecy,—‘let us master the characters on the columns of Indrapreshta, Prayag, and Mewar, on the rocks of Junagarh, at Bijollie on the Aravulli, and in the Jain temples scattered over India, and then we shall be able to arrive at just and satisfactory conclusions (in regard to Indian history).’<sup>2</sup>

[Prof. H. H. Wilson has most obligingly favored me with the subjoined revised translation of the interesting monumental record which forms the subject of the preceding remarks. The text upon which the interpretation is based is derived from an independent Devanágari transcript of the original, I had prepared with much care from the improved fac-simile of Messrs. Westergaard and Jacob, published in the Journal of the Bombay Branch Roy. As. Soc. for April, 1842. Prof. Wilson has of course referred to the amended lithographed transcript of this

<sup>1</sup> The name Sáragan, given in the Periplus as of a sovereign that had formerly reigned at Kalliena (near Bombay), has some resemblance to Śatakarni; but I will not build upon such uncertain ground.

<sup>2</sup> Tod's ‘Rájasthán,’ i. 45: he gives a curious derivation, by the way, of the name of Junagarh:—“The ‘ancient city,’ *par éminence*, is the only name this old capital, at the foot of, and guarding, the sacred mount Girnár, is known by. Abul Fazl says it had long remained desolate and unknown, and was discovered by mere accident. Tradition even being silent, they give it the emphatic name of *Juna*, ‘old,’ *gurh*, ‘fortress.’ I have little doubt that it is the Asildurga or Asilgurh of the Grahilote annals, where it is said that prince Asil raised a fortress, called after him, near to Girnár, by the consent of the Dabi prince, his uncle.”

writing, and verified my doubtful readings. His Sanskrit text and commentaries will be reserved for separate publication, in the 'Jour. Roy. As. Soc.' The matured result is all that I need desire to present to my readers.—E. T.]

REVISED TRANSLATION OF THE SÁH INSCRIPTION ON THE GIRNÁR ROCK.

(1). This perfect, delightful, beautiful (causeway?) from Girinagar to the foot of . . . . . (was constructed) of . . . stone (and in) breadth, length, and height, was firmly built as a public road . . . . . along the skirt of the mountain . . . . Emulous<sup>1</sup> . . . . formed . . . .

(2). . . . . by that artificial causeway, and still renowned.

(3 and 4). . . . . remains in a great heap . . . then this . . . in the year two (and) seventy (?) of the royal Mahahshatraps<sup>2</sup> Rudra Daman, whose name is repeated by the venerable, the son of the royal Mahahshatraps, of well selected name, Swami Chandana.<sup>3</sup>

(5). In the dark half of Marga Śirsha, the earth was converted as it were into a sea, by heavily raining Panjanya, so that the golden sand of the mountain (was washed away?).

(6). And by the exceeding violent currents of the Palesini, and other rivers, destroying, as if at the end of the world, all that sought an asylum, even on the highest parts of the hill, as well as along the skirt, and bringing down the trees from the peak, the causeway (was broken down?).

(7). And this being accompanied by a terrible strong wind, the water rushed down like a cataract, sweeping away the stones, trees, shrubs, creepers, along the river, by (whose joint efforts) four hundred cubits (were thrown down). . . . .

(8). And seventy cubits (more) broken by the torrent . . . . . was caused to be made by Pushpagupta, the chief artificer<sup>4</sup> of the Maurya King Chandragupta, by Tushasyenu, the Yavana rāja . . . . . of Asoka, the Maurya, through good fortune was adorned<sup>5</sup> . . . . . through that restoration, the rāja (announced) to all castes having come to see the causeway, for their security, that by him discontinuance was made of putting men to death, by expelling the breath of life.

(10). By observing this engagement, he (overcame all enemies, and extended his rule) over many well affected countries, conquered by his prowess.

(11). Both in the east and west, as . . . . . avanti . . . . . ānarta Surashtra . . . kukkura Aparāutā, and all the nishadas.

(12). Having repeatedly overcome Śatakarni, the lord of the South, he concluded an alliance (with him?).

<sup>1</sup> Apparently alluding to the Selubandha of Rama, to which that of Girinagar is compared.

<sup>2</sup> Rājno Mahahshatraps may also mean 'the great Satrap of the King.'

<sup>3</sup> But there is room left, by defects in the inscription, for one or more names between Rudra Daman and Swami Chandana.

<sup>4</sup> The words are Sashti Yagusyena, possibly for Sreshtiya Gusyena, or the last may be intended for Guptena, as if there was a Sashtigupta after Chandragupta.

<sup>5</sup> The inscription records the repair of the causeway by Rudra Dama. Here, apparently, it relates its having been built by some officer, or by the successor of Chandragupta; and repaired or beautified by the Yavana rāja (?) in the time of Asoka.

As an atonement for leading my readers into this long digression, I now present them with an engraved plate of all the varieties of the Suráshtra group of coins yet found. There is one new name added through the diligence of Lieut. E. Conolly. The rest are already known; but I subjoin their corrected readings for the satisfaction of my numismatical friends. The fact of their having a Grecian legend and head on the obverse is now explained, and the date of their fabrication is determined so far that we may place some of the early reigns in the second and third centuries before Christ: to what later period they descend we may also hope to ascertain through the means of other coins which will come to be described along with the third inscription from Junagarh, as soon as we obtain a correct facsimile of it. I may here so far satisfy curiosity, as to state that this third inscription,—the longest, and in some respects the best preserved, though from the smallness and rudeness of the letters it is very difficult to decipher,—is in a more modern character, that allotted to the third century after Christ, or the Gupta alphabet; and that in the opening lines I find an allusion to Skanda Gupta, one of the Gupta family, whose name has also been found upon a new series of the Suráshtra coins. The words are ... कीर्त्ति विगुण गुपतिः स्कन्दगुप्तः पृथुश्रीः चतुर..... (Vide 'Jour. As. Soc. Beng.,' vol. vii., pl. xix., and vol. i. *ante*, p. 247).

We shall thus be able to string together by means of the inscriptions and coins of ancient Suráshtra a continued series of names and *dates* from the time of the Maurya dynasty to that of the Gupta dynasty of Kanauj, which terminates the catalogues of the Puránas.

*Dates*, too, did I say? Yes, I am in hopes of adding even actual dates to the series, for I have been fortunate enough to light upon a clue to the ancient forms of the Sanskrit numerals, and to discover their presence on the very series of Suráshtrian coins to which I have been just alluding. But here again I must solicit a little patience while I describe the grounds of this new assertion.

#### ON THE ANCIENT SANSKRIT NUMERALS.

The most ancient mode of denoting number in the Sanskrit languages, as in the Greek and Latin, was by the use of letters in alphabetical order. This system we find prevalent in all ancient Sanskrit works, as well as in the Pálí, the Tibetan, and other derivate systems. There do not, indeed, appear to be any numerals peculiar to the Pálí. In their sacred records the words are always written at length; they have also the symbolical words of the Sanskrit astronomical works, and what is called the *Varna sankhya*, or numeral classification of the alphabet. The numerals now employed in Ceylon, Ava, Cambodia, Siam, have hardly the slightest affinity to one another.

When this system was exchanged for that of the decimal or cipher notation does not appear to be known, or to have been investigated by the learned. Up to the ninth or tenth century of our era, the Nágari numerals extant on numerous monuments do not differ materially from those now in use.

In the Gupta class of inscriptions, as far as I know, no numerals had as yet been found until I noticed

some doubtful and unknown symbols on the Bhilsa monument. In the Buddhist pillar inscriptions the dates where they occurred were uniformly expressed at full length.

A few months ago I was engaged in transcribing and reading with my pandit some copper-plate grants supposed to be of the third century, found in Gujarát by Dr. Burn, whose beautiful copies of them I hope shortly to make public. In one of these, the date was entered at full in the words संवत्सरे शतत्रयेचतुर्नवत्यधिके 'in the *samvat* year three hundred and ninety-four.' A few lines below this the word ॥ संवत्सर ॥ again occurred, followed by three symbols,<sup>1</sup> *d*, *m*, *f*, which must, of course, be numerals: they are more exactly copied in pl. xl., and, according to the preceding statement, should be 394.

On a second plate in the same manner, the date in words was संवत्सर शत त्रयेशित्यधिके कार्तिक शुद्धपक्षदश्या, 'in the 15th of Kartik, *samvat* 380,' and in figures सं, *d*, *l*, कार्तिक शु

On a third plate the date in words was शतत्रयपञ्चाशित्यधिके कार्तिक पूर्णिमास्त्रे, 'Kartik full moon, *samvat* 385,' and in figures *d*, *l*, *i*, and *o*, *i*, as before: in both of which the same symbols occur for 1, 3, 8, and 5; and the latter figure, much resembling the ancient letter *na*, but slightly altered, was again observed on a fourth plate sent me by Dr. Burn, from Gujarát, which did not contain the date in words, thus, सं, *d*, *k*, *h*.

<sup>1</sup> [In the original text of the 'Jour. As. Soc. Beng.,' fac-similes of these numerals are inserted in each place; as these are repeated in full in Prinsep's own Plates No. xl. of the present series, and are re-copied and classified in my supplemental Lithograph, pl. xl. a, I have not thought it necessary to have these types re-cut, but have supplied their places by italic letters, whose several correspondents are duly defined in the new transcript of pl. xl. a.]



Much pleased with this new train of discovery, I turned to Mr. Wathen's paper in the fourth volume of the Journal, in which I remembered his interpretation of the date on a similar grant by Śrī Dhara Sena, as being in the ninth year of the *Valabhi Samvat* of Tod, corresponding with A.D. 328. Here the translator had no written entry to guide him, nor had he any clue whereby to recognize the numerals which followed the abbreviated *Samvat*, thus, *d, c*, which we now perceive to be 300, + some unknown unit. I immediately wrote to Mr. Wathen and to Dr. Burn, requesting them to examine carefully the dates of all other plates in their possession, and from them in return I received all the examples which are inserted in plate xl. From the whole series combined, we may venture to assign a certain value to the 1, the 3, the 4, the 5, the 8, and the 9.

The last of these, I could not but remember as the symbol on one of the Bhilsa inscriptions, which led to so many conjectures a year ago. In the form of  $\oplus$  we have evidently our *m*, or the year 9, but the three strokes at the side would appear to modify its value, or to be themselves a numeral, perhaps the *o*. Then, as we find the preceding *k* has not a dot above it, we may use that also as a numeral, and understand the whole *k, m, o* as 2 or 6, or 790 according to the value to be hereafter assigned to *k*.

Again, in the second Bhilsa inscription ('Jour. As. Soc. Beng.,' vol. vi., p. 458, pl. xxvi.), the fig. 3, with another, is perceived following the word सम्बत्, and the last letter may possibly be a numeral also. In Mr. Ommanney's Multai inscription, two numerals of the

# Sanskrit Numerals.

	1	2	3	4	5	6	7	8	9	0
Modern Devanagari	१	२	३	४	५	६	७	८	९	०
Devanagari of 11 <sup>th</sup> century	१	२	३	४	५	६	७	८	९	०
Bengali, modern	১	২	৩	৪	৫	৬	৭	৮	৯	০
Assamese coins 17 <sup>th</sup> cent.	১	২	৩	৪	৫	৬	৭	৮	৯	০
Nepalese coins ditto	१	२	३	४	५	६	७	८	९	०
Kashmirian, from an ancient Manuscript.	०	३	३	४	५	६	७	८	९	०
Tibetan	१	२	३	४	५	६	७	८	९	०
Burmese	၁	၂	၃	၄	၅	၆	၇	၈	၉	၀
Ceylonese	෧	෨	෩	෪	෫	෬	෭	෮	෯	෦
Karnāta and Tilinga	೧	೨	೩	೪	೫	೬	೭	೮	೯	೦
Pāli letter numerals in the Burmese character.	၁	၂	၃	၄	၅	၆	၇	၈	၉	၀
Initial letters { ancient modern	ပ	စ	တ	ဇ	ည	ဓ	မ	ရ	လ	ဝ

## Ancient Numerals on Copper-plate Grants.

N<sup>o</sup> 1. Kaira, D<sup>r</sup> Burn. in words, *संवत् ३९४* (samvat 394.)  
repeated in figures "३९४" ३९४

N<sup>o</sup> 2. In words and figures *३८०* (380) - N<sup>o</sup> 3. *३८५* (385)

N<sup>o</sup> 4. D<sup>o</sup> only in figures *३८५* - N<sup>o</sup> 5, d<sup>o</sup> J.A.S. IV. 477. *३८५*

N<sup>o</sup> 6. D<sup>o</sup> *३८५* = Samvat 375? or 30<sup>th</sup> ardha pausha

Bhiloa Inscription N<sup>o</sup> 7. J.A.S.VI. 464 or samvat ३८५ 79? Bhādrapada di. 1

D<sup>o</sup> N<sup>o</sup> 8, second, less perfect. *३८५* ३८५

## Numerals on the Satrap Coins of Surashtra.

Silver coins, 9 *३८५* 10 *३८५* 11 *३८५* 12 *३८५* 13 *३८५*

Copper do. 13 (Stacy) *३८५* 14 (Conolly) *३८५*

Lead do. *३८५* *३८५* ३८५ many without date as



ANCIENT NUMERALS restored. १ ० ३ ४ ५ ६ ७ ८ ९ ०

same class were observed ('Jour. As. Soc. Beng.,' vol. vi., p. 869.)

It may also be remembered that in my notice of the Suráshtra coins (vol. i, p. 433), I remarked behind the head on the obverse, besides a legend in corrupted Greek characters, a few strange marks, not at all like either Greek or Sanskrit alphabetical characters; to these I now re-directed my attention, and was happy to perceive that they too were in fact numerals of the same forms, and of equal variety with those on the copper-plate grants.

I have arranged at the foot of pl. xl. those specimens in my own cabinet, on which the figures are best developed.

Upon bringing the subject to the notice of Dr. Burn, at Kaira, he wrote me that he had already remarked these symbols on another very numerous class of old coins, found in the ruins of the Gujarát towns. They are made of lead or tin; and have on one side, in general, a bull, and, on the other, the triple pyramid which forms the central symbol of the silver hemi-drachmas of the Suráshtra satraps. I have not found space to introduce them into the present plate, but fig. 22, pl. xxxvii. will serve as a representative of the whole class. It is a finely preserved copper coin, most opportunely discovered and presented to me by Lieut. E. Conolly, from Ujein. It bears the numerical symbols  $d$ ,  $k$ , very distinctly marked under the Chaitya symbol. Among the facsimiles of the leaden coins, I find  $d$ ,  $l$ ,  $:$ , and  $d$ ,  $m$ ,  $:$ , with barely room for a third figure, but in one the reading is  $d$ ,  $j$ ,  $g$ , so that we may venture to

place them all in the fourth century of some yet unknown era.

Among the silver coins the variety is greater : fig. 23, which I find by the reverses is a coin of Rudra Sáh, has the year *d, l, h*.

Another, fig. 26, also of Rudra Sáh, has the third figure well developed *d, l, a*.

Fig. 24, of the son of Rudra Dámá (the repairer of the Girnár bridge), has apparently the numbers, *d, m, :,* or 390.

Fig. 12, from Ujein, Rudra Sáh II. has *d, d, b*, the first three rather faint. In a coin of Viswa Sáh, given to me by Mr. Wathen, similar to fig. 9, of the plate, the date is *d, b, g*.

Fig. 25, is a well brought out date *d, j, :,* on a coin of Atri Dámá, son of Rudra Sáh, in my cabinet : the coins of the same prince in Mr. Steuart's plate, and one also of Aga Dámá shew traces of the same second figure.

Now, although the succession of the Satraps, or Sáh family, as given in volume i., p. 429, rests but on slender evidence in some points ; still, where the names of father and son are consecutive, we may rest with confidence on it in fixing the priority of such of our newly found numerals as occur on them respectively.

We must, for the sake of perspicuity, repeat the list, with the addition of the dates as far as we have traced them :

#### REGAL SATRAPS OF SURASHTRA.

1 K. Rudra Sáh, son of a private individual, Swámi Jina Dámá.

2 K. Aga Dámá, his son.

(Here the connection is broken.)

3 MK. Dámá Sáh (no coins.)

- 4 MK. Vijaya Sáh, son of Dámá Sáh.  
 5 K. Vira Dámá, son of Dámá Sáh.  
 6 MK. Rudra Sáh, son of Vira Dámá, *Samvat*, *b*, (?) *l*, *a*, and *d*, *a*, :.  
 7 K. Viswa Sáh, another son of Vira Dámá ditto *d*, *b*, *g*.  
 8 K. Rudra Sáh, son of M.K. Rudra Sáh, ditto *d*, *d*, *b*.  
 9 MK. Atri Dámá, son of M. K. Rudra Sáh ditto *d*, *j*, :.  
 10 MK. Viswa Sáh, son of Atri Dámá.  
       (Here the connection is broken.)  
 11 MK. Swámi Rudra Dámá (no coins.)  
 12 MK. Swámi Rudra Sáh, his son, *Samvat*, *d*, *l*, *h*, and *d*, *m*, : .

The two last names being insulated from the rest, were on the former occasion placed by me before Dámá Sáh, because the form of the letter *j* seemed of the earlier type. Since, then, I have learnt that the turning up of the central stroke of the *j* constitutes a vowel inflection. I now, therefore, bring the two Swámis to the foot of the list, on the plea that all figures must have precedence of the 9 or *m*. In the same manner we may now argue that *b* precedes *d*, this figure *j*, and the latter again *l*.

To aid in prosecuting my inquiry, I begged Kamalákánta to point out any allusions to the forms of the ancient numerals he might have met with in grammars or other works; but he could produce but very few instances to the point. One of these is to be met with in the *Kātantra Vyākaraṇa*, a work of Belála Sena's time, where the conformation of the four is alluded to in these words,

स्त्रियुगाकृतिसत्तुरङ्गो विसर्गश्च

Like a woman's breast is the figure four, and like the visarga;

and the visarga is further explained by a passage in the *Tantrā-bhīḍhāna*, a more modern work still, dated in 1460 *Saka*.

**द्विठः स्वाहानलप्रिया ठकारेणवर्णसाम्यात् विसर्ग**

The name of visarga is 'two ths,' 'Swāhā,' *anālapriya*,—because the visarga has the form of the letter *ṭh* (O).

This merely alludes to the modern form of the 4, which exactly resembles the Bengálí visarga.

The oldest allusion he could furnish, was the following on the form of the 6, from Pingala's 'Prákrit Grammar.'

**छगुरवङ्कदुमत्तो अखोलङ्गहोद सुद्वयकृत अलो**

"The *guru* mark<sup>1</sup> is like the figure 6, crooked, and of two strokes; it is called also *lahu* (*laghu*), it is also denoted by one stroke or one minute."

This passage evidently alludes to a form of 6 more resembling the Bengálí than the present Nágari type.

Another channel through which I was in hopes of tracing the ancient cyphers, was the numerical system of those Indian alphabets which bear most resemblance to the forms of the earlier centuries, such as those of Kashmír, etc. In the specimens of these, which I have introduced into the plate for the purpose of comparison, it will be seen that the three has certainly considerable affinity to our *d*; while the one and five approach nearly to our *a* and *h*. There is a faint resemblance in others of the group; but some again are totally changed.

The Tibetan numerals (of the seventh century) do not yield much more insight into the matter. They are, we may say, one remove backwards from the Bengálí numbers—the 1, 2, 3, and 5, only agreeing better with the Nágari forms. The 1, however, agrees exactly with one of the ancient figures on the coins, and this has been my inducement to consider the latter as 1.

<sup>1</sup> i. e. The mark used to denote a short quantity in prosody and in music, which is formed ॐ.

Upon regarding attentively the forms of many of the numerals, one cannot but be led to suppose that the initial letters of the written names were, many of them, adopted as their numerical symbols. Thus, in the Tibetan, 5 ञ, we see the ञ or *p* of the same alphabet, the initial of *pancha*. The same may be said of the Kashmírian, and the modern Hindí form ५, and indeed in some measure of the ancient forms *h* and *i*.

Again, the Tibetan 6 ས, resembles the *ch* ས of that alphabet: the Ceylonese form is exactly the *ch* of its alphabet, and there is an equally marked connection between the Nágari ङ and the ङ *chha*, which is the common name of this numeral.

On the same principle, in the absence of other argument, we may set down the *k* of our new series as 7, being identical with ञ, the initial of *sapta*.

The modern ३ ३, has no small likeness to the *tr* of the older Nágari alphabets; nor does the 2 differ much from *d*; but these resemblances may be more ideal than real; for, by an equally facile process of comparison, they might be both derived from the Arabic figures, as might other members of the series, as 7 and 8, in the Nágari of the Nepalese coins particularly.

The 9 of the Tibetan, Bengálí, Nepalese, and Burmese numerals is precisely the *l* of the ancient alphabets. Now, in the allotment of the vowels numerically, the *l* represents 9; but it would appear far-fetched to adopt one insulated example of derivation from such a source.

The 9, however, of the Suráshtra grants and coins is of a totally different order. It resembles the four-petalled flower of the *bél*, or Indian jasmine; and in the copper

plates we find it absolutely represented with a stalk (see No. 1, of pl. xl). Seeking the name of this flower in Sanskrit, *mallika*, the pandit reminded me that one of its synonymes was *nava mallika*, which the dictionaries derive from *nava*, 'praised, excellent,' but which may now receive a much more natural definition as the 'jasmine flower resembling the figure 9.'<sup>1</sup>

It is further to be remarked that, in many of the ancient systems, separate symbols were used to denote ten, twenty, etc. in combination with the nine units severally. The curious compound figure seemingly used for the 1 of 15 in the two cases quoted above *o* may be of this sort: indeed it somewhat resembles the Ceylonese ten (see plate). On this point, however, I can offer no demonstration, nor any other argument, save that we have already more than nine symbols to find accommodation for as numerals.

With all these helps, and analogies, I have endeavoured to arrange the nine old numerical symbols in their proper order in the accompanying plate, so as also to meet the conditions of the succession of dates on the coins of the satraps of Suráshtra. In this I am far from being confident of having succeeded; but having once, as it were, broken the ice, we may soon hope for a more perfect solution of the curious problem, through the multitude of new, or rather old, monuments which seem to emerge from oblivion just at the time they are wanted, under the united efforts of the Society's associates in central India. Once having proved that it was customary to date the

<sup>1</sup> [Prinsep's usually quick perception seems to have failed him here, as the *Lantsa Numerals*, in vol. xvi., '*Asiatic Researches*,' p. 420, give almost the exact normal forms of 80 and 90, as found in the inscriptions and coin legends.]



coin of that early period, we must direct attention again to the monograms on the Bactrian, Indo-Scythic, and Kanauj coins, which may turn out to be also used numerically.

The numbers, then, which, from comparison with foreign and modern native series, as well as the other considerations above given, I have finally adopted, are as follows :—

1	2	3	4	5	6	7	8	9	10	0
<i>a</i>	<i>b</i>	<i>d</i>	<i>f</i>	<i>h</i>	<i>j</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>o</i>	:
Varieties ? <i>c</i>	<i>e</i>	<i>g</i>	<i>i</i>					<i>n</i>	<i>p</i>	

Before concluding this division of my theme, I may be expected to explain in what era the dates of the Suráshtra coins can be expressed, so as to place Swámi Rudra Dámá, whom we perceive in the inscription to have followed at some reasonable distance Asoka himself, at the end of the fourth century, or about the year 390. If the Vikramáditya or Samvat be here intended, he will fall after the close even of the Arsakian dynasty of Persia, when the Greek was disused, and the arts had greatly deteriorated ; when, moreover, the form of the Sanskrit character had undergone considerable change. If we take the Seleucidan epoch, which might have been introduced in the provinces tributary to Syria, Rudra will have reigned in A.D. 89. If, lastly, out of deference to Asoka's temporary supremacy in the Gujarát peninsula, we take the Buddhist era, then 543—390 will leave 153 B.C. about a century after Asoka, and in every respect the period I should like to adopt, were it possible to establish any more certain grounds for its preference. The most perplexing circumstance is that the grants of the

Balabhī dynasty are also dated in the third (or fourth) century, and that it is hardly possible to consider their dominion as contemporary with those of the satraps. For them, indeed, we must adopt the Vikramāditya era, whatever may be determined in regard to the one before us.

[Following out the view of the question suggested by Prinsep's remarks at p. 77, in 1848 I succeeded in demonstrating that these signs were uniformly independent symbolical numerals, each denoting in itself a given number, irrespective of any relative collocation; <sup>1</sup> and, therefore, that the *d* was equivalent to 300, wherever it might be found; and likewise, that the *l* and *m* stood for 80 and 90 respectively, whatever position they might chance to occupy. I then proceeded to distinguish those symbols of the Sāh coin dates that declared themselves severally units, tens, or hundreds, by their fixed place, in the order of value, which was always fitly maintained, notwithstanding that the figures themselves clearly could not change their signification by any relative re-arrangement. Beyond this, I cannot claim to have advanced the enquiry in any essential degree. The important aid that otherwise might have served me in the sequent classification of the numbers—the test of their recurrence on the coins of the Sāh kings—was altogether wanting, from the fact that the order of succession of those princes was in itself undetermined.

A re-examination of the entire subject was therefore sufficiently called for; and it is possible that the new data, which have lately become available, may contribute materially to solve the general problem of the system under which the ancient Indian scheme of notation was primarily conceived.<sup>2</sup>

<sup>1</sup> ['Jour. Roy. As. Soc.', vol. xii., p. 33.]

<sup>2</sup> [M. Reinaud's 'Mémoire sur l'Inde' was published after the appearance of my Essay in 1838. I therefore transcribe the information contributed by that work towards the general subject. 'Albyrouny a consacré un passage de son Traité sur l'Inde aux chiffres employés de son temps, chez les Indiens, avec une valeur de posi-

The most important elucidation that this subject has received since Jas. Prinsep's original discovery, consists in the 'Observations on the dates found in the cave inscriptions at Nasik,' by the Rev. J. Stevenson.<sup>1</sup> Among these records are to be found no less than twenty-eight figures, or combinations of figures, usually appended to the written exposition of the given value defined at length in the body of the text;<sup>2</sup> the lower numbers are suffi-

tion. Ces chiffres sont appelés par nous *chiffres Arabes*, et les Arabes les nomment *chiffres indiens*. Albyrouny s'exprime ainsi : Les Indiens, à la différence de nous, ne se servent pas des lettres de leur alphabet pour indiquer des nombres. Mais, de même que l'alphabet varie suivant les provinces, les chiffres changent aussi; les indigènes les nomment *anka* अङ्क. Les chiffres dont nous faisons usage sont empruntés à ce que l'on a trouvé de plus convenable chez eux. Du reste, les formes sont indifférentes, pourvu qu'on s'entende de part et d'autre. Dans le Cachemire, on ne se sert pas de traits particuliers pour exprimer les nombres; on a adopté les signes employés par les Chinois. Mais un point sur lequel tous les Indiens sont d'accord, c'est de procéder d'après le système décimal.

M. Reinaud continue : Arrêtons nous un moment sur les paroles d'Albyrouny : Les Indiens, a-t-il dit, ne se servent pas des lettres de leur alphabet pour exprimer des nombres. Il existe un traité sanscrit, composé par Aryabhata, dans les premiers siècles de notre ère; et dans ce traité, comme cela se pratiquait chez les Grecs, les Juifs, et plus tard chez les Arabes, les nombres sont exprimés par les lettres de l'alphabet ayant une valeur numérique.\* Apparemment, le procédé employé par Aryabhata était tombé en désuétude au temps d'Albyrouny. Néanmoins, les traités scientifiques composés par Brahma-Gupta, au vii. siècle de notre ère, et par les écrivains postérieurs, ne supposent pas, en général, l'usage des chiffres; les nombres sont exprimés par des mots susceptibles d'être rattachés à une quantité quelconque. Albyrouny ajoute qu'on ne pouvait se livrer à la lecture des traités consacrés à l'astronomie, si l'on ne s'était d'abord rendu un compte exacte de cette manière de compter.' . . . M. Reinaud sums up his inferences to the following effect, 'Il semblerait résulter de l'emploi des lettres, de l'alphabet par Aryabhata, pour exprimer les nombres, que dans les premiers siècles de notre ère, les Indiens mêmes, en employant ces lettres avec une valeur de position, n'avaient pas encore eu l'idée de recourir à des signes particuliers. A l'égard de la méthode mise en usage par Brahma-Gupta, elle s'explique suffisamment, d'un côté par l'habitude ou les indigènes ont été de tout temps de faire mystère de leur savoir; de l'autre, parce que des mots significatifs s'incorporent mieux dans un vers que des chiffres.'

<sup>1</sup> 'Jour. Bombay branch, Roy. As. Soc.', July, 1853, p. 35. 'Jour. As. Soc. Beng.' 1854, Note, p. 407.

<sup>2</sup> I could have desired that the facsimiles of these inscriptions should have been more calculated to command our faith in their exact rendering of the originals, but I observe that Dr. Stevenson himself does not place any great reliance upon the transcripts, as he remarks, 'I trust also to be able to compare all the published copies of the facsimiles with the inscriptions themselves, which, in respect to those at Nasik, I have been unable as yet to do, so as at least to get as perfect a copy of them as can be obtained in the present state of the rocks. As the facsimiles are the property of Government, and executed by another gentleman (Lieut. P. F. Brett), I have done nothing more than, to the best of my ability, see that the lithographer executed his task faithfully.'—Bombay Journal, 1853, p. 57. And again, p. 60, Dr. S. observes,

\* Voy. un mémoire de feu M. Whish, intitulé, On the alphabetical notation of the Hindus ('Transactions of the Literary Society of Madras,' London, 1827).

ciently simple and obvious, and are only perplexing in the multiplicity of forms some of their exponents are seen to take; the larger sums on the other hand, are expressed by a crude and uncertain method, under which the amount has often to be read backwards in the current line of writing; thus, the generic symbol for *thousands* is ordinarily entered first, that for *hundreds* second, while the specific decimal, or unit cipher, which has to determine the value of the whole, is placed last in the order of alignment, followed by the rest of the inscription. . At times again, the mark for *hundreds* is indifferently inserted before or after the figure which indicates the total.<sup>1</sup> If, by any possibility, further argument were required to that end—this double system of arranging the ciphers would alone establish that they were incapable of having their value enhanced or diminished by change of place.

Dr. Stevenson's point of departure, like my own on a previous occasion, was from Jas. Prinsep's investigations of April, 1838 (here reprinted); he does not seem to have seen my paper of 1848, and therefore expresses no opinion either for or against my position, but continues to follow Prinsep in reading ३ as *three*, in preference to *three hundred*; at the same time that he admits that the triple horizontal lines of the normal 3 fully suffice to express the lower number—for which indeed he has a second variant—and notwithstanding that his own materials contribute separate and independent signs for *ten*, *twenty*, *thirty*, and *one hundred*: the latter being specifically distinguished from the various generic signs for *hundreds*.

The next item I have to advert to, is the idea advanced that the Satrap numerals owe their forms to the Bactrian alphabet.<sup>2</sup> This supposition I can scarcely bring myself to entertain.

<sup>1</sup> It is difficult for me at present to say whether the frequent omissions of the point for ॥ and other anomalies, belong to the original, or are the faults of the facsimile.

<sup>1</sup> Nasik Inscription, No. 2, plate 7.

<sup>2</sup> Dr. Stevenson remarks, 'In the Satrap inscriptions, the numerals used to express the different sums of money there mentioned are peculiar. At first I could determine nothing about their origin, but on a careful examination I found a strik-

The assumption is chiefly based upon the similarity traced in certain forms of the figures to the original letters of the Arian writing; in order to carry out the comparison however, very great liberties have to be taken with the normal forms of the characters themselves—still very incompletely ascertained—and even these, rather forced identifications, are confined to a very limited proportion of the entire suite of the numbers; while on the other hand many of the figures are clearly and indubitably composed of letters of the identical alphabet in which the inscriptions at large are expressed. That these ciphers in their original constitution actually were indigenous letter symbols seems to be further established by other more recent inscriptions, where such forms are frequently seen to follow the progressive modification of the associate alphabet. I omit the dry details incident to the verification of each symbol, referring my readers to the 'Journal of the As. Soc. Beng.,' in which the original paper is to be found.<sup>1</sup>

ing resemblance between the character denoting a thousand (*Sahasra*) and the Bactrian S reversed. This induced me to examine the rest of them, and I think it exceedingly probable that they are all derived from that source. The Bactrian Tz, pronounced in Sanskrit J or *Dsch*, will represent well the figure, which is first in 5 or 10 (*Dasha*). The sign for 5 (*Pancha*) is the P, or the old Indian  $\overline{\text{P}}$  inverted. The Bactrian double T also approaches very nearly to the 8 of our inscriptions, as if to denote  $\overline{\text{अठ}}$ . It would appear, then, that the Bactrian letters had been introduced into the Satrap Indian inscriptions as numerical ciphers. The system, also, is the ancient Roman and Greek one, that in which there are different signs for the 1 in tens, hundreds, and thousands; our present decimal notation being, as I have noticed elsewhere, a comparatively modern invention of the Scindian merchants of the middle ages ('Jour. Roy. As. Soc. Bombay,' vol. iv.) Further research will probably show, as Mr. Prinsep has done with a few of them already, that the old Indian numerals are also ancient letters.—Jour. Roy. As. Soc. Bombay, vol. v., p. 39.

<sup>1</sup> The Gupta units vary somewhat from the Sâh exemplars, and hence demand a passing notice. As yet I have only been able to discover three definite and complete forms,—the *one*, which is shaped as an ordinary hyphen, the  $\overline{\text{P}}$  = *four*, and the curious figure that occurs on coin No. 57, pl. ii., 'Jour. Roy. As. Soc.' vol. xii., which in its outline follows the design of an alphabetical  $\overline{\text{न}}$ . But, in treating of Gupta numbers, I must fairly warn my readers of a preliminary difficulty that I have experienced in regard to the correct point from whence their exponents should be viewed. The Nasik inscriptions display the symbol for *one hundred* written perpendicularly; and if that be the correct direction of the cipher in the general alignment, the Gupta dates running in front of the profile of the King ought to be read Mongol fashion, like the parallel names of the monarchs of the Gupta race, as usually expressed on the field of their gold currency. On the silver pieces of the Kumâra Gupta, however, whether the sign for 100 may be reversed or not, the arrangement of the tens and units clearly demonstrates that the whole must be read as consecutive rather than as superposed figures, while, strange to say, the dates on the Skanda Gupta

In conclusion, I sum up the results of the present state of the enquiry by the exhibition of the lithographed plate of figures [xl. a] regarding which I have merely to add, that the second compartment includes all such symbols, whether lapidary, numismatic or graven on metal, that I am generally prepared to recognise. The third column reproduces Prinsep's primary conjectural arrangement of the ciphers and their supposed variants. The remaining spaces are filled in with the products of Dr. Stevenson's investigations, but I must warn my readers, that I have taken a double liberty with that author's materials; on the one hand, I have copied my examples of each cipher from the transcripts of the original facsimiles of Lieut. Brett, which are lithographed at large in the *Bombay Journal*, in preference to following the outlines entered in the companion table of numbers given in that *Journal*, and supposed to be compiled from the same sources.

On the other hand I have ventured to insert, subject to correction, two signs for 2, which Dr. Stevenson does not definitively acknowledge in his list; but which I obtain from his rendering of inscription No. vi.<sup>1</sup> The third figure for *hundreds*, under the Satrap heading, is also of my introduction, under similar authority.—E.T.]

#### EXPLANATION OF PLATE XII.

Fig. 1, (from Stuart's plates), a silver hemidrachma.

Fig. 11, a coin belonging to Mulla Feroz of Bombay.

Fig. 13, a coin found by Capt. Prescott at Palhanpur in Gujarát, presented to me by Mr. Wathen.

These three coins have all the same legend, but No. 11 exhibits the application of the vowel *i* in two places, which the others want: the legend thus completed is,

*Rājna Kshatrapasa Rudra Sāhasa, Svadmi Jina Ddmāputrasa,*  
'Of the Royal Satrap, Rudra Sāh, the son of the lord Jina Dāmā.

and Buddha Gupta coins seem to necessitate a supposition of a contrary mode of distribution. I have entered the outlines of the Gupta numerals, both tens and units, in accordance with this somewhat arbitrary arrangement, leaving the point fairly open to correction, when more numerous and more perfect specimens of this coinage may decisively instruct us on the general question.

<sup>1</sup> 'Jour. Roy. As. Soc. of Bombay,' vol. v. p. 53.

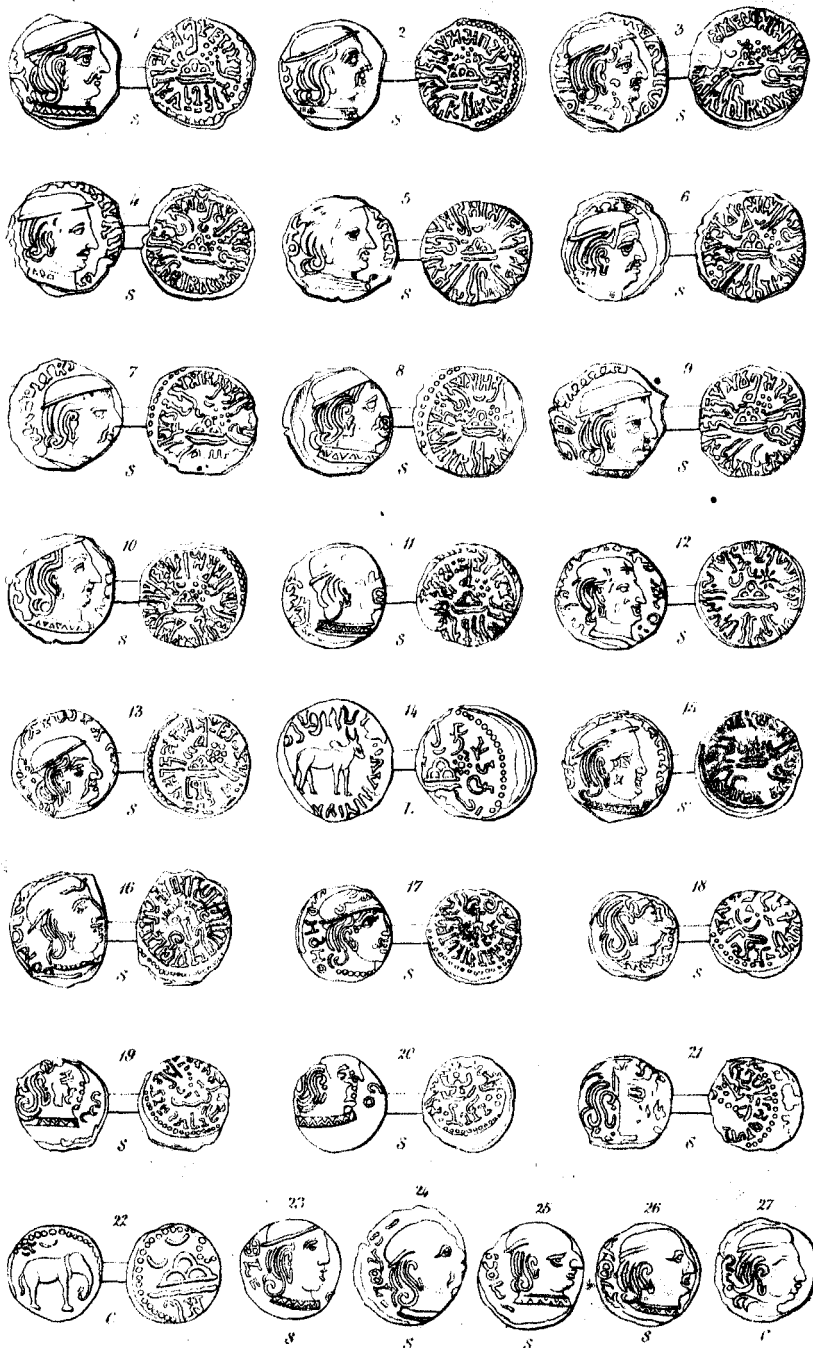
# Ancient Indian Numerals.

Pl. XL

Nos	Numerals	Prinsep.	Stevenson.			
			Fractions	Old Indian	Satrap	
1	-	१ <sub>a</sub>	-		५५	1
2	=	० <sub>b</sub> ० <sub>c</sub>	=		७ १ ०	2
3	≡ =-	३ <sub>d</sub> २ <sub>e</sub>	≡	३३	५	3
4	५५५५५	५ <sub>f</sub> ५ <sub>g</sub>		५५५५	५	4
5	५५५५५५	५ <sub>h</sub> ५ <sub>i</sub>	+	५	५	5
6	५	५ <sub>j</sub> ५ <sub>k</sub>		५	५	6
7	५.५	५ <sub>l</sub> ५ <sub>m</sub>		५	५	7
8	५	५ <sub>n</sub> ५ <sub>o</sub>		५	५	8
9	५ ५	५ <sup>m</sup> ५ <sup>n</sup>		५	५	9
10	५ ५ ५ ५	५ <sup>o</sup> ५ <sup>p</sup>		५ ५ ५ ५	५ ५ ५	10
20	० ०			० ०		20
30	५ १ ०			५		30
40	५					40
50	५					50
60	५					60
70	५					70
80	५ ५ ०					80
90	५ ५ ५					90
100	१ ~ Gupta	१ <sub>Nasik</sub>		० ०	० ० ०	100
200	३ २					200
300	५ ५				५ ५	300

Gupta Numerals	
Units	- . . ५ १ ५ ५ ५
Tens	० ५ १ ५ ५
Hundreds	१

## Saurashtra Coins





The title of Jina Dámá, 'votary of Buddha,' is a better reading than Jina Dámá, 'subduer of that sect, formerly adopted. [My No. 11].

Fig. 2, (from Steuart's plates), a coin of Aga Dámá, son of Rudra Sáh. [No. 10].

*Rájna Kshatrapasa Aga Dámna, rájna Kshatrapasa Rudra Saha putrasa.*

Fig 3, (ditto), a coin of Vijaya Sáh, son of Dámá Sáh. [No. 9].

*Rájna Kshatrapasa Vijaya Sáhasa, rájno mahá Kshatrapasa Dámá Saha putrasa.*

Fig. 4, (ditto), a coin of Vira Dámá, son of Dámá Sáh. [No. 7].

*Rájna Kshatrapasa Viradámna, rájno mahá Kshatrapasa Dámá Saha putrasa.*

Fig. 5, (ditto), a coin of Rudra Sáh, son of Vira Dámá. [No. 13].

*Rájno mahá Kshatrapasa Rudra Sáhasa, rájno Kshatrapasa Viráddámá putrasa.*

Another coin, apparently of this Rudra, in my possession, fig. 26, has a date which may be read 283; I find I have two coins of this prince (one given me by Mr. F. Stainforth). Colonel Stacy has also two of the same; they may be known by the epithet *mahá*.

Fig. 6, (ditto), a coin of Visva Sáh, son of Rudra Sáh. [No. 4].

*Rájna Kshatrapasa Visva Sáhasa, rájno mahá Kshatrapasa Rudra Saha putrasa.*

Fig. 7, (ditto), a coin of Atri Dámá, another son of Rudra Sáh; behind the head, but more distinctly in my own coin (fig. 25), is the date 360? [No. 2].

*Rájno mahá Kshatrapasa Atri dámna, rájno mahá Kshatrapasa Rudra Saha putrasa.*

This name is the nearest approach to the Ari Dámá of the inscription, who, however, was the son of Swámí Chastána. Colonel Stacy has also a coin of Atri Dámá.

Fig. 8, (ditto), of the same prince, introduced as shewing more clearly the name of his father.

*Rájna Kshatrapasa Atri . . . . . trapasa Rudra Saha putrasa.*

Fig. 9, a coin of Visva Sáh, son of Bhatrí Dámá. [No. 3].

*Rájno Kshatrapasa Visva Sáhasa, rájno mahá Kshatrapasa Atri Dámá putrasa.*

This coin has a date, which may be read 323, in which case it must precede the last two: the father's name was before read as Atri Dámá, whence the misplacement.

Fig. 10, a coin of Swámí Rudra, son of Swámí Rudra Dámá, in the obverse, the figures 39 (perhaps 390). Another has 385. [No. 12].

*Rájna mahá Kshatrapasa Swámí Rudra Sáh, rájno mahá Kshatrapasa Swámí Rudra Dámá putrasa.*

Fig. 12, a new name, or new as to the second title; Rudra Sáh, son of the *great* Satrap Rudra Dámá, was presented to me by Lieut. E. Conolly, from Ujein.

*Rájna Kshatrapasa Rudra Sáhasa rájna mahá Kshatrapasa Rudra Dámá (?) Saha putrasa.*

This is the only coin which bears the name of the repairer of the bridge, and that rather dubiously, as the father of the prince who

coined the piece. It has a date on the obverse, which I have interpreted 390, like the preceding.

Fig. 15, a silver coin belonging to Mulla Ferez of Bombay, similar to Mr. Steuart's coin, fig. 3. [No. 9].

*Rājna mahā Kshatrapasa Vijaya Sāhasa, rājna mahā Kshatrapasa Dāmd Sāha putrasa.*

ig. 14, a copper coin, unique, discovered by Lieut. Conolly at Ujein, and placed in my cabinet through his kindness. Obverse, a bull, with a marginal legend, apparently Greek, some of the letters seeming to form the word *Basileus*, etc.

*Rājna mahā Kshatra(pa)* . . . the remainder of the legend lost.

The letters are larger and better formed on this than on the silver coins. Most copper coins of the series exactly resemble the silver ones with a head on the obverse. Col. Stacy has a good specimen, of which the obverse (fig. 27) has apparently a date.

[It is now time that I should advert to the epoch of the Sák kings and the position in which the somewhat difficult question involved at present stands. Prinsep's opinions are reproduced above in their entirety. In continuation of these researches, I myself attempted, some years ago,<sup>1</sup> to determine more precisely the period to which the rule of this dynasty should properly be ascribed; and I selected on that occasion, as the era best calculated, in general coincidences, for the due explanation of the figured dates extant on the coins, the cycle of Śrī Harsha; a system of computation at that time only recently made known to us under the authority of Albirúní, whose work has already been largely referred to in these pages. In arriving at this determination, I did not neglect to consider the claims of other eras whose initial dates promised in any way to accord with the requisitions of the various historical and numismatic evidences derivable from independent sources. Notwithstanding certain leading recommendations that offered themselves in favor of the Buddhist era, I saw cause to reject unconditionally all idea of its title to rule the recorded registers.<sup>2</sup> The Seleucidan era was also tested

<sup>1</sup> [‘ Jour. Roy. As. Soc.,’ vol. xii., p. 1 (1848).]

<sup>2</sup> [My present conclusion is that the date of the death of Śākya was never generally used in ancient times either for civil or religious computations, otherwise it would be hard to account for the impossibility of fixing its correct epoch, even in the

in its more obvious applicability to the local or epochal demands; and though many arguments were seen to be suggested in support of its selection, which have since been even strengthened by fresh combinations,<sup>1</sup> I am constrained to declare—apart from the slightest desire to adhere to first impressions—that I still give the preference to the *Sri Harsha* era!

Albirúni's account of this cycle will be found quoted at large, p. 166, 'Useful Tables'; and though it will be seen that he himself confesses to doubts and difficulties in regard to its origin and true initial date, I am, for the moment, content to take the fact that some such scheme of chronological admeasurement, reckoning from an event proximate to 457 B.C. or 400 before Vikramaditya,<sup>2</sup> was actually once in use in India, and that the memory thereof, whether distinct and definite, or jumbled and perverted, remained current in the land till the 11th century A.D.

We are not yet in a condition to discuss exact annual or

days of Huen Tshang, who, in his own words, shows how important, and yet how difficult of determination, this point was held to be among the Buddhist communities of India when he sojourned amongst them.]

<sup>1</sup> [I allude prominently to the concession of Greek supremacy, which, it will be seen, I have admitted more definitely since I last wrote on the subject,—though the abnegation of the employment of dates on the Bactrian coins, from whose types the Sáh money was copied, detracts somewhat from the value of the inference. One of the previous obstacles to the admission of the dependence of the Sáh kings, was the doubt respecting the absolute import of the term *𑀲𑀸𑀓𑀭𑀺𑀢𑀺*, suggested by Prof. Wilson, who remarked, 'Ariana Antiqua,' p. 205, 'Kshatrapa admits etymologically of its being explained chief or protector of the Kshatriya, or martial race, and may possibly be the origin of the Persian title Satrap, as Prinsep supposes, although there is some incompatibility in the assignment of the titles of Rája and Satrap to the same individual.' On reconsideration, I do not quite admit the force of the latter reason, and the identification of the *𑀲𑀸𑀓𑀭𑀺𑀢𑀺*, as the titular equivalent of the Greek *ΣΑΤΡΑΠΗΣ*, seems now to be set at rest by the recurrence of the term in the Bactrian Pálí as *𑀲𑀸𑀓𑀭𑀺𑀢𑀺* (Inscriptions, vol. i., pp. 99-146, Bactrian coins *infra*); and in Indian Pálí as *𑀲𑀸𑀓𑀭𑀺𑀢𑀺*, pl. xlv., §g. 14.

<sup>2</sup> [Major Cunningham has originated a speculative date of 477 B.C. as 'the era of the Nirvāna of Sakya Sinha, not as established in 543 B.C., but as generally believed in by the early Buddhists for a period of several centuries.' This scheme is based on the fact of Asoka's conversion to Buddhism falling 218 years after the Nirvāna, the former being fixed from other sources at 259 B.C.; hence the Nirvāna itself is assigned to B.C. 477 (259 + 218). A subordinate section of the argument is grounded upon Kanishka's having 'flourished' an even 400 years after the Nirvāna, and yet Major Cunningham, in the same page, while objecting to my inferences, naively remarks—'The difference of exactly 400 years between the dates of Sri Harsha and of Vikramaditya is, to say the least, very suspicious.'—'Jour. As. Soc. Beng.', vol. vii. of 1854, p. 764.]

monthly dates; an approach to the truth is all we need be concerned with for the time being; for, while the arguments *pro* and *con* extend to questions of centuries, we can afford to leave a very open margin for discretional modifications among the units and tens. I do not propose to recapitulate at any length my original speculations in regard to the correct epochal position of the Sáh kings, but it is needful that I should notice any confirmation my opinions may since have received, as well as any flaws, real or imaginary, that may have been detected by others in my reasoning or inferences.

Amongst other questions that arose during the course of my examination of the materials then available for the illustration of the history of these administrators, was that of their partial or complete independence; and it will be seen that though the balance of evidence appeared to favor the latter supposition as regarded the later members of the dynasty, yet that I reserved a full option for the recognition of the subjection of the earlier rulers of the line to Greek supremacy.<sup>1</sup>

In addition to this, in the detail of the coins themselves, while speaking of the obverse legend on a coin of Rudra Sáh, son of Jiwa Dámá, as 'a possible corruption of ΔΙΟΝΥΣΙΟΥ,' I added, 'there is a king of this name among the Bactrian Greeks, made known to us by his coins, which, in their types, seem to connect him with Apollodotus.'<sup>2</sup> This notion has been improved upon by Prof. Lassen to an extent that I am scarcely prepared to follow him in. His theory seems to be, that Íswara Datta was invested with the office of Satrap about the commencement of the 4th century of the era made use of on the coins (*i.e.* *circa* 157 B.C.), and that, about this time, Apollodotus must have been king; hence it is inferred that he was the Suzerain who raised Íswara to his local honours. It is further added, 'Dionysios, whose name appears sufficiently clear on

<sup>1</sup> ['Jour. Roy. As. Soc.,' vol. xii., pp. 29, 32, 45, 46.]

<sup>2</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 52. See also Catalogue *infra*; Dionysius Hemidrachma. No. 1.]

Rudra Sinha's money, reigned *circa* 113 B.C.'<sup>1</sup> And, finally, the Professor imagines he detects the imperfect orthography of the name of Hippostratus on the obverse of the coins of Rudra Sinha III.<sup>2</sup> Suffice it to say, that the author, so far from contesting my dates or their attribution, introduces us unintentionally to a new feature regarding them, in a purpose their originators could but little have contemplated—a rectification, by their means, of the epoch of the Greek Suzerains, under whose auspices the coins are supposed to have been issued.

I next pass to Major Cunningham's review of the Sāh period; and, as he contests my inferences, I permit him to state his case, in some detail, in his own way:—

'3rd. The independence of the native princes of Gujrat between 157 and 57 B.C. is completely at variance with the Greek accounts of Menander's conquest of Satiaputa or Surāshtra, between 160 and 130 B.C., which is further authenticated by the long protracted currency of his coins at Barygaza or Baroch.

'4th. The alphabetical characters of the Surāshtran coins are so widely different from those of the Pillar and Rock Inscriptions, and, at the same time, are so much similar to those of the Guptas, that it is impossible not to conclude that there must have been a long interval between Asoka and the independent Sāh kings, and an almost immediate succession of the Sāh kings by the Guptas. . . .

'5th. The author of the Periplus of the Erythrean sea, who lived between 117 and 180 A.D., states that *ancient* drachmas of Apollodotus and of Menander were then current at Barygaza (Hudson, 'Geog. Min.', i. 87); this prolonged currency of the Greek drachmas points directly to the period of the Indo-Scythian rule; for though we have some hundreds of their gold coins, and many thousands of their copper coins, yet only one solitary specimen of their silver coinage has yet been discovered. [A mistake: the coin is copperplated over; see *infra*, Catalogue, under Kadphises]. The Indo-Grecian silver probably continued current until after 222 A.D. when the Indo-Scythian power began to decline. From this period, about 250 A.D., I would date the independence of the Sāh kings, and the issue of their silver coinage, which was a direct copy in weight, and partly in type, from the Philopater drachmas of Apollodotus.'—'Bhilsa Topes,' p. 149.

In regard to the criticism in paragraph 3, I have only to observe that, had I exclusively argued for the absolute and continuous independence of the Sāh kings of Gujarāt, the objections therein advanced might be held to be fairly stated. But even Major Cunningham's own date of 160-130 B.C., if admitted, need not interfere with the concession of a subsequent assertion

<sup>1</sup> ['Indische Alterthumskunde,' vol. ii., p. 794.]

<sup>2</sup> [Rudra Sāh, son of Rudra Sāh. (My No. 5, p. 91, *infra*.)]

of independence on the part of the local governors; and the concluding argument, though the author seems indisposed to allow it, has been refuted in anticipation by Vincent's observations,<sup>1</sup> to which I had given every prominence in my paper which formed the subject of Major Cunningham's comment: had the author printed or even noticed the gist of my argument on the opposite side, and then replied to it, I should have been anxious to have treated his reasoning with more respect than I am able to accord to a mere reiteration of a fact which bears, at the best, an alternative interpretation.

With reference to the ratiocination embodied in the fourth paragraph, I may remark that I have already replied to the chief points involved;<sup>2</sup> but as Major Cunningham and myself differ so completely in our fundamental tests of the progress of writing, and as I am therefore equally unprepared to accept his estimates of similitudes, it would be a sheer waste of time my arguing up from minor details, or attempting to reconcile them, when I have other and less fallacious means of arriving at a judgment.

In respect to the data and inferences embodied in the fifth paragraph, I would simply quote Major Cunningham's own words in regard to the general question between us—'We agree as to the facts, but differ in our deductions.'<sup>3</sup>

My original proposition for the emplacement of the Sâhs contemplated the inclusion of all their dated coins within the fourth century of the Srî Harsha era, and inferentially confined the thirteen kings, whose numismatic testimonies had thus supplied us with epochal records, between B.C. 157 and 57. Among other pure and avowed speculations, which the open nature of

<sup>1</sup> ['That the coins of these princes should pass current at Barugâza is no more uncommon than that the Venetian sequin and the imperial dollar should be at this day current in Arabia, or that the Spanish piastre should pass in every part of India and the East; that is, round the world, from Mexico to Manilla, and in some instances, perhaps, from Manilla to Mexico again.'—Vincent, 'Commerce, etc.' ii. 204.]

<sup>2</sup> ['Jour. As. Soc. Beng.,' vol. xxiv. (1855), p. 90; also 'Jour. Roy. As. Soc.,' vol. xii., p. 25.]

<sup>3</sup> ['Bhilsa Topes,' p. 145.]

the question and the absence of positive information to a certain extent invited, I was led to remark, in referring to the well-ascertained average of the length of Indian reigns, that the thirteen accessions in question 'should, under ordinary circumstances, be represented by a sum of more than two centuries instead of being compressed into less than one ;'<sup>1</sup> and I further added, 'the almost unvarying similitude that pervades the entire suite of the Sáh coins, in its simple mechanical indication, implies a comparatively speedy sequence of fabrication.' In endeavouring to account for the brief duration of the sway of these potentates, I conjectured a possible republican form of government under which 'two or more rájas were simultaneously invested with a share in the conduct of the state, or, if elected as sole rulers for the time being, the periods of retention of authority were limited directly and definitively by law, or terminable at the will of the majority.'<sup>2</sup> However, these difficulties are certainly more simply and satisfactorily explained by the supposition of a nomination of another description originally emanating from some Suzerain authority to delegated Satraps or governors of provinces.

As regards the consecutive succession of these princes, we have hitherto been compelled to rely upon patronymics and other indeterminate vouchers ; and, though it is a question whether our power of defining the values of the date ciphers is sufficiently advanced to authorise our following a serial arrangement based upon their interpretation, we may still profitably test the process with this reservation. The fairly deciphered and reasonably congruous dates determine the order of succession as follows :—

## LIST OF SÁH KINGS.

## DATES.

1. Iswara Datta, son of Varsha <sup>3</sup> .....	None.
2. Atri Dámá, son of Rudra Sáh .....	311, 312.
3. Viswa Sáh, son of Atri Dámá .....	320, 335.
4. Viswa Síinha, son of Rudra Sáh.....	323, 328, 335.
5. Rudra Sáh, son of Rudra Sáh.....	330.

<sup>1</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 37.]

<sup>2</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 40.]

<sup>3</sup> [A private individual.]

LIST OF SÁH KINGS.		DATES.
6. Dámá Jata Sriyah, son of Dámá Sáh.....		344.
7. Vira Dámá, son of Dámá Sáh.....	(no date deciphered).	
8. Dámá Sáh, son of Rudra Sáh.....		345.
9. Vijaya Sáh, son of Dámá Sáh.....		353, 354, 355.
10. Aṣa Dámá, son of Rudra Sáh.....		370.
11. Rudra Sinha, son of Swámí Jíwa Dámá <sup>1</sup>		374, 375.
{ 12. Swámí Rudra Sáh, son of Swámí Rudra		
	Dámá .....	384, 390.
13. Rudra Sáh, son of Vira Dámá .....		387.

It results from these dates, however imperfect in their comprehensive series, that either there was a double appointment of simultaneous effect, or an indeterminate periodical supersession and interchange of office-bearers, obeying the fiat of the feudal lord, in the one case; or, following the constitutional order occasionally interrupted by the revolutionary convulsions of independent government, in the other. We are still unable to identify the Swámí Rudra Dámá, son of Swámí Chandana, of the Gírnár inscription, with any of those monarchs whose mints have supplied us with records of their rule; but looking to the delayed introduction of the extra title of Swámí—as now defined by the list adapted to the dates—we may, for the present, conjecture the individual to have been the father of Swámí Rudra Sáh; and may even, with but slight stretch of imagination, shadow forth an association of the dubious inscription date of \*72, with his fitting place in the order of succession and the independence then achieved, to which he lays claim in his monumental writing.

I next proceed to notice such numismatic novelties of this series as have come to light since Prinsep wrote.


Foremost and most important among these are the coins of Íswara Datta, the son of Varsha, the first Rájá of my list.

The obverse legends of the three specimens I have had an opportunity of inspecting are, like the rest, couched in imper-

<sup>1</sup> [A private individual.]



fect Greek letters, the best representation of which is as follows :

 The exergue is, however, remarkable in its contrast with the subsequent series, in having no cipher date, which would seem to indicate that the system of marking the year of issue was not as yet introduced.

The reverse bears the subjoined legend :

**रञ्जो मह चक्रपस ईश्वर दत्तस वर्ष पुत्र**—<sup>1</sup>

*Rājno mahā Kshatrapasa Iswara Dattasa Varsha putra—*

The coins of Dámá Jata Sriyah are also among our later discoveries. Dr. Stevenson first published a notice of a coin of this prince from the Junir hoard (August, 1846). I have since met with two or three further specimens of these rare coins.

The reverse legend runs—

**रञ्जो मह चक्रपस दमजट ग्रीयः रञ्जो मह चक्रपस दम सह पुत्रस**

*Rājno mahā Kshatrapasa Dāmājata Sriyah Rājno mahā Kshatrapasa Dāmā Sāha putrasa.*

The following readings of the coin legends of Dámá Sáh, the son of Rudra Sáh, are given on the authority of Dr. Bird, who transcribed them for me from the originals in his own possession in 1848.

**रञ्जो मह चक्रपस दम सहस रञ्जो मह चक्रपस रुद्र सहस पुत्रस**

*Rājno mahā Kshatrapasa Dāmā Sāhasa Rājno mahā Kshatrapasa Rudra Sāhasa putrasa.*

Finally, I have to advert to the unpublished coins of another Swámí Rudra Sáh, whose patronymic is only imperfectly retained on the surfaces of the limited number of specimens that have come within my cognisance.<sup>2</sup>

**रञ्ज मह चक्रपस श्वम रुद्र सहस रञ्ज मह चक्रपस श्वम सत्य सह पुत्रस**

*Rājno mahā Kshatrapasa Swāmí Rudra Sāhasa Rājno mahā Kshatrapasa Swāmí Satya Sāha putrasa.*

These coins are chiefly remarkable in their accordance, in the style and fashion of their Sanskrit legends, with the approximate specimens from the mint of Swámí Rudra Sáh, No. 12; and the more extensive debasement of the Greek exergue on the obverse.—E.T.]

<sup>1</sup> [The concluding letter is defective in all the three specimens, the lower portion only being visible in each. What remains seems to form a portion of an ordinary स, with a second line below the ordinary subjunctive sign of that letter.]

<sup>2</sup> [Lieut.-Colonel Bush, Bengal Army—one silver piece. G. H. Freeling, Esq., Bengal Civil Service—one silver and one plated coin.]

Fig. 16. In this silver coin found in Katch in 1837; and presented to me by Mr. Wathen, the central emblem of the reverse is changed to a kind of trident; the legend is also altered from that of a Satrap to one of a paramount sovereign :

**परम भानुवीर राजाधिराज श्री कुमारगुप्त महेंद्रस्य**

*Parama Bhānuvīra Rājādhirāja Śrī Kumāra Gupta Mahēndrasya.*

‘Of the paramount sovereign the heroic king of kings Śrī Kumāra Gupta Mahendra.’

Fig. 17, another of the same kind, having the same Sanskrit legend, but, behind the head, the Greek letters may be read ONONOT, or RAO NANO? it was presented to me with the last by Mr. Wathen.

Figs. 18, 19, 20, and 21, have the same symbol, but the workmanship is very much deteriorated. The legend on them all has at length been deciphered by the collation of several specimens presented to me by Mr. Wathen, and found in various parts of Katch, Kattywār, and Gujarāt, by Capt Prescott, Capt. Burnes, Dr. Burn; as well as the few inserted in the plates of Mr. Steuart’s coins.<sup>1</sup>

**परम भगदत्तम राजश्रीस्कन्दगुप्त क्रमादित्य**

*Parama Bhagadatta ma (ha) Rāja Śrī Skanda Gupta (vi) kramaditya.*

But as I have a larger assortment of the coins of the same king to introduce into a future plate, I will postpone further mention of this series for the present.

[I append to this essay my latest classification of such silver coins of the Guptas as are associated with the types last adverted to by Prinsep.

#### SRI GUPTA.

CLASS A: Silver, weight 31 grains. Mr. G. H. Freeling, Bengal Civil Service. Unique.

OVERSE:—Device, the original type of the Sāh head, apparently unchanged in outline or details.

LEGEND, as usual, in imperfect Greek characters, the concluding six letters of which alone are visible, thus— $\Lambda \Sigma \Theta \Xi \Omega$

REVERSE:—Device, a singular figure that may possibly represent the early design of the Gupta peacock as rendered by the local artists, beneath which is a linear scroll of three semi-circles similar to that

<sup>1</sup> By a letter from Prof. Wilson I learn that Mr. Steuart’s plate is to appear in the Royal Asiatic Society’s Journal; but that it had time to journey to India and back before the outgoing number went to press! I regret I am thus deprived of the power of adding to this note the observations of the learned in England on the Surāshtra coins.—J.P.

seen in continued use on certain silver coins of Skanda Gupta;<sup>1</sup> above the main device are retained the Sáh cluster of stars and a minute half-moon seemingly borrowed from the same source.

LEGEND—

श्रीगुप्तविक्रमेन्द्र श्रीगुप्तकीलालेन्द्र

श्रीगुप्तविक्रमेन्द्र श्रीगुप्तकीलालेन्द्र — — —

Prof. Fitz Edward Hall proposes to amend my transcript, thus—

श्रीनन्दगुप्त विक्रमेन्द्र श्रीगुप्त कीलालेन्द्र — — —

To this he assigns the following translation: “The auspicious, Kílálendra Srí Gupta, son of the auspicious Nanda Gupta, an Indra in prowess.”

If this should eventually prove to be a piece of the Srí Gupta, the founder of the dynasty known by his name, it will establish a claim on our attention, altogether apart from its novelty as the unique representative of the money of that king—in the evidence of the close and direct imitation of the technic art of the Sáh coinages, which it develops in so much more distinct a degree than the local issues of the Gupta family of a later date. Indeed, this association is so striking that I was, at first sight, almost inclined to modify my original impression of a deferred revival of the Sáh coinage by the Guptas, on their possessing themselves of the province of Sauráhstra, and to doubt whether it would not be necessary to approximate the two races more closely in point of time, in order to explain with any plausibility the mechanical coincidences of the coinage; but, though these will be seen to be strongly marked in the case of the obverse, or conventional portion of the die, the reverse, or dynastic stamp, is materially changed, both in the leading device and, more important still, in the shape of the letters—so that, in this respect, all my early arguments still hold good;\*

<sup>1</sup> [‘Jour. As. Soc. Beng.,’ vol. iv., pl. xlix., figs. 4, 5; vol. vii., pl. xii., fig. 19; ‘Jour. Roy. As. Soc.,’ vol. xii., pl. ii., figs. 43, 44; ‘Ariana Antiqua,’ pl. xv., fig. 20. Prof. Wilson, in speaking of the reverse device of this particular coin, describes it as ‘an ornament like a disintegrated Chaitya.’

<sup>2</sup> [‘Jour. Roy. As. Soc.,’ vol. xii., pp. 16, 17.]

and, in regard to the barbarized Greek, the inheritance of Sáh imperfections, there need be no difficulty in recognising thus much of the power of imitation of its letters, when we know that on other mintages the Gupta artists were able to achieve fully intelligible Greek adaptations of Eastern names.

#### KUMÁRA GUPTA.

CLASS B: Pl. xxxvii., figs. 16, 17; 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 39, 40, 41, 42; 'Ariana Antiqua,' pl. xv., figs. 17, 18.

OBVERSE:—Head of the king in profile: the outline and design are nearly identical with the Suráshtran prototype—the mintage of the Sáh kings—at the back of the head is ordinarily to be seen a mutilated portion of the Scythian title PAO NANO. This important legend affords another link in the direct association of the Guptas with the Indo-Scythians, which is here the more marked, in that, while the device itself is servilely copied from the Sáh's, their obverse Greek legends are superseded by this new title.

REVERSE:—It is difficult to determine satisfactorily what the emblem occupying the reverse field may be intended to typify, but the most plausible supposition seems to be that it displays an advance upon the conventional representation of the peacock under Western treatment, following out the artistic notion of that bird given in Srí Gupta's coin.

LEGEND:—

परम भगवत राजाधिराज श्रीकुमार गुप्त महेंद्रस्य

*Parama Bhagavata Rájádhirája Srí Kumára Gupta Mahendrasya.*

The second word of this legend is the only portion of the whole that is at all open to question; it has been read *Bhánuvira* by Prinsep,<sup>1</sup> but this is not by any means a satisfactory interpretation. The first and third letters are fixed and constant in the various examples, and are properly rendered in each case as भ and व; the second and fourth letters vary considerably in outline on the different specimens; the second letter I have never yet met with in its perfect shape as ग when tried by the test of the ग in Gupta, indeed the majority of the coins display it more after the form of a ञ, as that consonant is found later in

<sup>1</sup> [Prof. Wilson ('Ariana Antiqua,') has suggested *Bhattaraka* (?) which the Udayagiri inscription ('Bhilsa Topes,' p. 151) rather recommends to our notice.]

the legend in Mahendrasya. The same remark also applies to the final न. I see that Prof. Mill has conjecturally supplied the word *Bhagavata* in the prefix to Kumára Gupta's titles on the Bhitári Lát ('Jour. As. Soc. Beng.,' vol. vi., p. 4), but Prinsep's facsimile of the inscription, though it accords the needful space for the exact number of letters, gives the final as a manifest न; in saying this, however, I must remind my readers, that in the alphabet in question, the slightest possible inflection and continuation of a line constitutes the essential difference between the two letters न and त, and on the other hand the local copper plates of the Valabhis render the न very much after the shape of the Eastern त, while the indigenous त is but little different from the न of the coins under reference. And finally as the words *Parama Bhagavata* appear in all their indubitable orthography on the succeeding coins of Skanda Gupta, we may fairly assume a mere imperfection in the expression of the individual letters and leave the word as it has been entered in the legend above.

The coins under notice are not always complete in the Sanskrit legends; for instance, an otherwise very perfect piece in the cabinet of the Royal Asiatic Society has the word राजाधिराज abbreviated into राजाध; and No. 39, pl. ii., 'Jour. Roy. As. Soc.,' vol. xii., has the same word contracted to राजाधिर.

#### SKANDA GUPTA.

CLASS C: Pl. xxxvii., figs. 18, 19; 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 43, 44; 'Ariana Antiqua,' pl. xv., fig. 20.

OBVERSE, as in class B, Kumára Gupta, but the execution has greatly deteriorated; on some specimens traces of the word NANO are still to be seen.

REVERSE:—The device in this class of money, appears to offer a more direct imitation of that of the Sri Gupta pieces, than did the intermediate Kumára reverse types, these latter are seen to reject the foot scrolls and to vary the details of the centre figure to a considerable extent.

LEGEND:—परम भगवत श्री स्कन्द गुप्त क्रमादित्य

*Parama Bhagavata Sri Skanda Gupta Kramaditya.*

Prinsep, in his collated reading of the legends on these coins adopted the letter म (for महा) as occurring after the word भगवत [or भगदत्त as he made it], which he found to be followed by the title of राज, which precedes the name of the monarch. This rendering, he would seem to have drawn from fig. 29, pl. ii., Stuart ('Jour. Roy. As. Soc.,' 1837); but as the like letters do not generally recur, I have marked this as the exception rather than the rule.

The weights of these coins vary from 23 to 29 grains.

CLASS D: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 45, 46; *Ariana Antiqua*, pl. xv., fig. 19.

OBVERSE:—Crudely outlined head, with traces of the title NANO in front of the profile.

REVERSE:—Figure of Nandī identical in form and position with the emblem on the seal of the Valabhi family as found attached to their copper-plate grants. ('Jour. As. Soc. Beng.,' vol. iv., pl. xl., and p. 487).

LEGEND:—[Restored.]

परम भगवत श्री स्कन्द गुप्त क्रमादित्य

*Parama Bhagavata Sri Skanda Gupta Kramāditya.*

These legends are frequently very incomplete, varying in the number of letters in each.

The standard of these coins is very uncertain, rising from a weight of 21 to 30 grains.

CLASSES E, F, G. [The references are prefixed to each variety.]

OBVERSE:—The usual head, generally ill-defined, but still identical in many respects with the original device on the obverse of the Sāh medals; it is occasionally also accompanied by distinct traces of the word NANO.

REVERSE:—Central symbol in the form of an altar, which is supposed to represent the common altar-shaped receptacle of the sacred Túlśī tree of the Hindús. Legends restored.

CLASS E: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 49.

परम भगवत श्री स्कन्द गुप्त क्रमादित्य

*Parama Bhagavata Sri Skanda Gupta Kramāditya.*

CLASS F: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 50.

परम भगवत श्री स्कन्द गुप्त परमादित्य

*Parama Bhagavata Sri Skanda Gupta Paramāditya.*

CLASS G: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 51.

परम भगवत श्री विक्रमादित्य स्कन्द गुप्त

*Parama Bhagavata Sri Vikramāditya Skanda Gupta.*

The irregularity in the completion of the legend, noted as occurring on Skanda Gupta's coins with the bull reverse, appears in a still greater degree in those of the present class.

The weight of these coins is more than ordinarily unequal, rising from  $22\frac{1}{2}$  to 33 grains.

Though not properly susceptible of classification with any Gupta series of coins, it is as well to take this opportunity of noticing in connexion therewith a species of money which seems to constitute an independent derivative from the same Saurāshtran type that served as a model for the local currency of the Guptas in certain western provinces of their empire.

I advert to the pieces figured as Nos. 6 to 8 and 9, pl. xxvii.<sup>1</sup> Prinsep, at the moment of their publication (December, 1835), scarcely attempted any decipherment of the certainly very unpromising legends, and was equally at fault in regard to the reverse device which he described as 'a symbol in the form of a trident;' when, subsequently, he came to take up the general subject of the Sáh and Gupta silver coinage in full detail, he still essayed no advance upon the attribution of this offshoot of their common prototype. In my paper on the Sáh kings,<sup>2</sup> I made some slight progress towards the determination of the purport of the legends; and, apart from the typical coincidences, I was able to demonstrate more precisely the Sáh association in the decipherment of the words राज्ञी महा चक्षपस on the margin of the best preserved specimen of the series.

<sup>1</sup> [Other examples of this currency will be found delineated in 'Jour. Roy. As. Soc.,' vol. iv., pl. ii., fig. 30; vol. xii., pl. ii., figs. 35 to 38.]

<sup>2</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 64, 15th April, 1848.]

A coin of Mr. Freeling's, of an early date in the serial issue, presenting a well defined and nearly complete legend, materially advances the inquiry, and furnishes a key to the strangely distorted letters stamped on the later emanations from the parent mint, though it leaves us still far from any conclusive assignment of the class of money to which it belongs. I proceed to describe the piece in the ordinary detail.

Silver, weight 27 grains.

OVERSE :—The usual Sáh head, apparently but little modified. This surface of the coin is damaged, but fully one-half the marginal space, around the profile, remains uninjured, and in the total absence of any sign of a letter confirms my previous supposition,<sup>1</sup> that the use of the Greek legend was not extended to this class of coin.

REVERSE :—Device, a barbarized imitation of the Minerva Prómachos of the Bactrian coinage.

I was once disposed to look upon the singular figure on the reverse of these coins as the Buddhist device of a man : I was led to this conclusion by the similarity of the form of the figure sketched by Jas. Prinsep, in fig. 21, pl. iv., to that occurring on the Behat type of coins ;<sup>2</sup> but I now observe that Prinsep, in his second engraving of the same coin (fig. 9, pl. xxvii.), omits the left arm, in its downward position, which constituted the most essential point of Behat identity.

LEGEND :—मह भुजहरकसरश्च महश्चपरमद्वकक्षमसदमन

OPTIONAL READINGS श्रीः ख ट्ट ह कृ

The configuration of certain letters in these legends demands a passing notice. The character which Prinsep took for *pr*, etc., is now satisfactorily proved to be an मः the form is peculiar, but still it bears sufficient affinity to the general idea of the Gupta म. In the later specimens of the coinage, its upper section is distinguished from the ordinary प by the rounding off of the lower portion of the first down-stroke, while the प itself is

<sup>1</sup> [ ' One item seems safely deducible from the unoccupied margin, to be found around the bust in the broader coins, viz., that the use of Greek or its attempted representation was here discontinued.'—' Jour. Roy. As. Soc.,' vol. xii., p. 63.]

<sup>2</sup> [ Pl. xix., fig. 16 ; pl. xx., figs. 45, 47, etc.]



squared at the base. The nearest approach to identity with this numismatic 𑀘 is to be found in the outline of that character as expressed on the Udayagiri Inscription; but it must be remarked that this similitude affords but little aid towards determining geographical limitation, as the majority of the letters of the inscription itself are exceptional, and do not accord with the characters of the other writings of the same locality. The 𑀘 of these coins takes the same shape as those on Kumára's silver coins, Class B, above adverted to. The remaining letters, as far as they have been definitively identified, seem to follow the ordinary Sáh style.—E.T.]

## XX.—ON THE APPLICATION OF A NEW METHOD OF BLOCK-PRINTING, WITH NOTICES OF UNEDITED COINS.

MAY, 1838.

IN all Muhammanadan countries it is the well-known custom of those who move in the rank of gentlemen to apply their seals in lieu of their written signatures to letters, bonds, and other written documents—not as we are accustomed to do it, by an impression on wax, but by smearing the flat surface of the seal with ink, and printing in the manner of type, so as to leave on the paper a white cipher upon a black field. It may be in consequence of this custom, as much as from religious prejudice, that Muhammanadan seals are almost invariably confined to letter mottos; seldom ornamented, but, if so, merely with flowers, &c., done in outline; because such only can be faithfully portrayed in a type impression, which, of course, cannot at all represent a head or other relieve design.

The money of the Musalmáns was in the same manner generally impressed only with the signet or the titles of the sovereign, well adapted to a flat surface of thin metal.

Seeking an easy and expeditious mode of making public the collection of Muhammanadan coins in my own and my friends' cabinets, it thus occurred to me that by forming from them in sealing-wax, or in type metal, an exact counterpart of the die which had been used in striking these pieces, I should be able to use it, in the native fashion, for producing ink impressions along with the ordinary letter type; while, as the coin itself would in every case furnish the mould, every chance of error in copying would be removed: and, though the elegance of a shaded engraving could not be attained, still this would be more than compensated by the scrupulous fidelity of the representation.

My first trial was so encouraging that I at once resolved on carrying

the plan into execution on an extensive scale, and I have now prepared for the press upwards of two hundred coins done in this novel and exceedingly simple manner.

As, however, it will be in every respect more convenient to present them in a continued series as an accompaniment to my tables of the value of Indian coins already published, I propose merely to introduce into the pages of the Journal a few examples of such coins as are new, rare, or, from other causes, worthy of particular description.

But first, in deference to the established custom in such cases, I must assign to this newly-invented art some Greek polysyllabic appellation; and (without intending the undignified lapsus of a pun) I cannot propose one more expressive of the process than *Rupography*—not from rupee, the common designation of our Indian money, nor yet from the Sanskrit word *rūpa*, 'form, likeness,' but in a genuine and orthodox manner from the Greek *ρῦπος*, *sigilaris cera*, or sealing-wax, the substance upon which the impression of the coin is first received, and which will itself serve as the printing material, if it be not desired to preserve the block in the more durable material of type metal, by a second transfer from the sealing-wax to a clay or gypsum mould, into which the latter substance can be cast in the usual manner. Some sharpness of outline is lost by this triple operation; and where a great many copies are not required, the *rupographical* process may be safely confined to the first stage, or simple impression on sealing-wax.

As a first specimen,<sup>1</sup> then, of the capabilities of this art of *rupography*, I select a coin, or rather medal, purchased by myself some years ago at Benáres. It is of Husain Sháh, generally accounted the last Súfí monarch of Persia; for, after his abdication in A.H. 1135, his son Tamásp held but a nominal sovereignty, the real power being usurped by Mahmúd the Afghán.

Marsden would designate this as one of the medals of the Persian kings properly so called, intended to be hung and worn on the neck. It had, when I bought it, a hasp for suspension; but still I do not imagine it to have been struck for that express purpose, but rather as a crown piece for distribution to courtiers on a birth-day, as is still the custom at Dihli, at Lucknow, and other native courts. It is of nearly pure silver, and weighs 844.3 grains, a little short of five rupees, and somewhat above as much in value.

Marsden gives the drawing of another medal of the same monarch, which has merely the usual coin inscription.

<sup>1</sup> [I have not thought it necessary to reproduce these facsimiles, in illustration of the mechanical process. I have, however, retained the letter-press, as forming a portion of Prinsep's numismatic essays.]

The following is the numismatical description of my medal :—

SULTÁN HUSAIN SHÁH SAFFAVÍ,  
Reigned in Persia, A.H. 1106-1135, (A.D. 1694-1722).

SILVER.

LEGEND OF THE OBERSE.

السلطان العادل الهادي الكامل الولي ابو المظفر السلطان بن السلطان  
*Contre* سلطان حسين شاه ۱۱۱۸ بهادر خان  
الصفوي خلد الله ملكه و سلطانه ضرب اصفهان

REVERSE.

*Area.* لا اله الا الله محمد رسول الله علي ولي الله  
*Margin.* علي حسن حسين علي محمد جعفر موسي علي  
محمد علي حسن محمد

OBVERSE :—The Sultan the just, the spiritual guide, the perfect, the ruler, *Abu'l Muza'far ul Sultán bin ul Sultán*, Sultán Husain Sháh, Behádur Khán, of the Safví race : may God perpetuate his kingdom and his dominion ! Struck at Isfahán, A.H. 1118 (A.D. 1694).

REVERSE :—There is no God but God ! Muhammad is the prophet of God ; Ali is the favorite of God.

*Margin* :—Ali, Hasan,—Hosain, Ali,—Muhammad, Ja'far,—Músa, Ali—Muhammad, Ali—Hasan, Muhammad.

(The twelve Imáms in the order of their succession).

#### SPECIMEN II.

Is a coin presented to me by General Ventura to complete my series of the Pathán sovereigns of Dihlí, being the only one of the founder of that dynasty which I had yet seen. Since then Capt. Burnes has favored me with the sight of a duplicate in less perfect preservation, procured by himself, I believe, at Kabúl. I give it as a specimen of what rupography can do under the most unfavourable conditions.

The form seems imitated from that of the Abbassite khálifs, having the legend in concentric circles written in the Kufic form of Arabic. The facsimile represents exactly by the dark parts where the surface is worn smooth ; however, by carefully comparing the two specimens, the whole has been made out satisfactorily with the aid of my brother, Mr. H. T. Prinsep.<sup>1</sup>

It is curious that the common title of *Shaháb ul dín*, by which Muhammad is generally known in Indian history, does not appear on this Ghaznah dirhem, which gives him the two-fold designation of *Ghids ul dín*, 'the supporter of the faith,' and *Moax ul násir le dín*, 'the humbled of the defender to the faith'—(sc. to the Kaliph of

<sup>1</sup> [ I have slightly modified Mr. Prinsep's reading.]

Baghdád). Probably the patent for the new title of *Shaháb ul din*, 'the flaming sword of faith,' given in honour of his brilliant and destructive expeditions into India, had not yet arrived from the court of the Kaliph.<sup>1</sup> If so, the word *tisain* (90) in the date may be read wrong.

SHAHÁB UL DÍN, MUHAMMAD BIN SÁM,  
Founder of the Ghori dynasty of Dihli. Reigned A.H. 588-602 (A.D. 1192-1206).  
SILVER. Weight, 73.4 to 92.6 grains.

LEGENDS ON THE CONCENTRIC CIRCLES OF THE OBVERSE.

Line 1 هو الذي ارسل رسوله بالهدى ودين الحق ليظهره علي الدين  
كله ولو كره المشركون

2 لا اله الا الله محمد رسول الله السلطان الاعظم

3 غياث الدنيا والدين ابوالفتح

4 محمد بن سام

DITTO OF THE REVERSE.

Line 1 ضرب هذا الدرهم في بلد غزنة سنة ستة و تسعين و خمس  
ماية

2 الناصر لدين الله السلطان المعظم معز

3 الدنيا والدين ابوالمظفر

4 محمد بن سام

[The inscriptions are copied at length in plate xli.]

OBVERSE:—(From the Koran)—'It is he that sendeth his messenger for righteousness,' etc. [Surat, ix. 33, and lxi. 9.]

There is no God but God, Muhammad is the prophet of God!—The mighty sovereign *Ghids ul dunya va u'din*, *Abu'l fateh*, Muhammad bin Sam.

REVERSE:—This *dirhem* was struck in the city of Ghaznah, in the year five hundred and ninety-six.

*Al Nasir le din illah* [the Khalif], the mighty sovereign, *Moaz ul din*, *abu'l Muqaffar*, Muhammad bin Sam.

SPECIMEN III.

Among the coins discovered by General Ventura in the great tope at Manikyála, and described in vol. iii., pl. xxi. [v.] figs. 10 and 11, [Art. VI.], were two of the Sassanian type, having Sanskrit legends on the margin of the obverse. I did not then attempt to decipher them, nor am I aware that their explanation has been since effected elsewhere.

Captain Burnes has been so fortunate as to pick up three more of the same curious coins, in his present journey, which are now in my hands, with other rare antique produce of his successful research.

<sup>1</sup> [The history of this double nomenclature will be found in detail in my *Essay on the Coins of the Pathán Kings of Dihli*. London, 1847.]

They have every appearance of having been extracted from some similar ancient monument ; which is by no means improbable, for we may be very sure that full half of the fruits of the late explorations of the various topes have evaded the hands of their explorers, and are scattered about the country to be hereafter picked up gradually from pilgrims or professed dealers ; for a trade will soon be organized in such articles, if it be not already established. There is no harm in this, as it will tend to preserve such relics from destruction ; but we must for the future be on our guard against spurious specimens, which will multiply daily.

Captain Burnes' discovery has been of the greatest service toward the deciphering of the Sanskrit legend : his coins have helped me to the general purport of the marginal writing, even if they have not wholly explained its contents. I found on collating the five legends now at my command, that three of them (*vide* pl. xli.) were short of the others by two letters, which in the most perfect of Captain Burnes' coins might be clearly read as *nita* नितः. Remembering an analogous omission on one of the Gupta coins of Kanauj, wherein some specimens had the epithet *vijayaja* and others *vijayajanita*—both of the same meaning, I concluded that the preceding anomalous letter on all the coins must be a न, and, indeed, it has no small affinity to the modern Nāgari and Bengālī न. The two preceding syllables, again, there could be no doubt about ; being in all five examples देव *deva*. Now, *devaja* and *devajanita*, 'offspring of the gods,' is the well-known epithet of the ancient Persian monarchs as well as of the Sassanian race. Thus, in the trilingual inscription on the Nakshi-rustam sculpture given in Ker Porter's travels in Persia, vol. i., 548, we have in the Greek character : ΤΟΤΟ ΤΟ ΠΡΟΧΗΘΗΝ ΜΑΔΑΚΝΟΤ ΘΕΟΤ ΑΡΤΑΞΕΡΟΤ ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΑΡΙΑΝΩΝ ΕΚΓΕΝΟΥΘ ΘΕΩΝ ΤΙΟΥ ΘΕΟΤ ΠΑΠΑΚΟΥ ΒΑΣΙΛΕΩΣ, which is repeated below in two forms of Pehlvi.

The same title in Sanskrit, *devaputra shahān shāhi*, it may be remembered, is applied to the king of Persia in the Allahābād pillar inscription, as revised at p. 233, vol. i.

Again, on the Sassanian coins, read by the Baron de Sacy as far as they are published by Ker Porter (for I have not yet been able to obtain a copy of the Baron's work on the subject), the Pehlvi legend runs :

مزدن به شهپور ملکان ملکا منوچتری من یزدان

*Mazdeen beh Shahpura malakān malakā<sup>1</sup> minochatri men yezdan.*

'Adorer of Ormuzd, excellent Shahpur, king of kings, offspring of the divine race of the gods.'

<sup>1</sup> In the examples given, I should read this passage—*Malakān malak Airēnan*, etc. ; but the Sassanian coins require study ere they can be properly made out.

1	ಶ್ರೀನಿವಾಸನವಾಚನವು	} Capt. Burness's coins from Calcutta.
2	ಶ್ರೀನಿವಾಸನವಾಚನವು	
3	ಶ್ರೀನಿವಾಸನವಾಚನವು	
4	ಶ್ರೀನಿವಾಸನವಾಚನವು	} Ventura's from Mandiyala
5	ಶ್ರೀನಿವಾಸನವಾಚನವು	

*Restoration of the legend in the Nūgari of the 5<sup>th</sup> cent.*

[illegible]

## PEHLEVI LEGEND OF THE OBVERSE


ON AREA

ON AREA	ON AREA	ON AREA
فوف	فوف	فوف
فوف	فوف	فوف
فوف	فوف	فوف

*From the Sassanian coins of SHAPUR. Musil. Num. Or.*

סדרת ספרים חדשה בתרגום מלאכותי

Magdalena bei Schaphorn's malkam malkam 2

*Same commencement in the Nākshi Rastam sculpture* — 

On the coin with the winged cup, Marsd. Num. Gr.

1500 1500 1500 1500

4  
DXXK11

*Legend on dirham of Muhammed Bin Sām.*

هذا الخبر صادر في بلاد عمارة	1
السكة السلطانية المحظوظة باللائحة التي في	2
الواو المطبوع التي في واو التي في	3
محمدي في سنة ١٢٩١	centre

هو الذي ارسل رسولك بالهدى ..... ام المصطفى  
السلطان المظفر لا اله الا الله محمد ربه والا  
الواهب عباد الله لا اله الا الله

۳۳۳

**gender**

WHEAT, L.

after 1. Principal

The natural deduction hence was that the rest of the Sanskrit legend would also turn out to be a translation, or an imitation of the Sassanian formula; and thus, in fact, it has proved to be.

INDO-SASSANIAN DIRHEM.

SILVER. Weight, 53 grains.

LEGEND.

OVERSE:—Head of Mithra (Ormuzd); Pehlvi very distinct, but unread; see pl. xli.

REVERSE:—On the field, three letters of an unknown alphabet (like the Armenian?) or perhaps numerals?

Margin:—

श्री हितिविर ऐराणच परमेश्वर श्री फा हितिगान देवजानित

*Sri hitivira Airāna cha parameswara Sri Fāhitigān devajanita.*

In this legend the only actual letters at all doubtful are the *p* and *me* of *parameswara*, and the first and last letters of the name. Indeed, the first letter is different in every example, as will be seen in the lithographed plate [xli.], as though they were all different names of the same family. Now to analyse the sentence:—

*Hitivira* I suppose to be a corrupt writing of ह्रिदिवीर *hridivira*, 'noble in heart,' equivalent to the Pehlvi word *beh*, translated by 'excellent.' *Airāna cha parameswara*, and the supreme lord of Airān or Persia, may be read (perhaps better) *Airān va Pārseswara*, the lord of Iran and Fars. For the name, we have severally *pha*, *cha*, *va*, *gha*, or *há*! followed by *hitigān* or *hitikhān*; and, lastly, *devajanita*, as before explained.

I am quite at a loss to find owners for such names; and although this is the third time I have alluded to this coin, gaining little by little each time, still I fear we have much to learn before we can unravel its entire history. For the present I leave unnoticed the Pehlvi legend, merely placing under view in the annexed plate corresponding passages from regular Sassanian coins, which, being titles, will soon lead to a knowledge of their alphabet and meaning.

[As intimated under Art. XV. (vol. i., p. 410), I have intentionally reserved all notice of the bilingual and trilingual emanations from Indo-Sassanian mints, and their subordinate illustrative varieties, until I could associate my latest tentative readings with Prinsep's closing illustration of this interesting division of Oriental Numismatics.

I have elsewhere (vol. i., p. 65) adverted to the obstacles that present themselves to any precise definition of the permutable



letters of the Pehlvi alphabet, which may not chance to be supported by the context, or some leading indication calculated to assure its exactitude; but, in the present instance, we have to encounter dialectic modifications and transmutations from other tongues, in addition to the ignorant treatment of a language at the best but imperfectly known to us.<sup>1</sup> The legends I have ventured to designate as Scythic, in virtue of their seeming derivation and the assimilation of certain of their forms to the Tartar alphabets, are to this time simply unintelligible.

The classification of these complicated materials will be seen to present somewhat of a difficulty—even if the data permitted it, they could not well be adapted to any epochal order—nor do the medals sufficiently accord to follow suit under the simple typical arrangement. I am, therefore, reduced to group the different series by the linguistic test, as exemplified by the following outline:—

- A. Scythic (two varieties).
  - A *a*. Scythic and Sanskrit.
  - A *b*. Scythic, Sanskrit, and Pehlvi (two varieties).
  - A *c*. Scythic and Pehlvi.
- B. Pehlvi and Sanskrit (two varieties).
- C. Pehlvi, Scythic, and Kufic.
- D. Second variety of unidentified characters with Kufic.
- E. Kufic (alone).

CLASS A: Unidentified characters, supposed to be Scythic; Figs. 9 and 10, pl. xvi., 'Ariana Antiqua.'

I notice the class, represented by the above cited engravings,

<sup>1</sup> [For example, of all those who are learned in Zend and its cognate languages—of the various Professors who edit Pehlvi texts, or who put together Grammars of that tongue—no single individual has to this day been able to add one line of translation to the bilingual inscriptions of Hâjî-âbâd (Ker Porter, pl. xv., p. 513; Westergaard, 'Bundehesh,' p. 83; Spiegel, 'Grammatik,' p. 175, etc.), beyond what De Sacy had already taught us in 1793. In brief, our power of interpretation fails us exactly where the Sassanians have omitted to supply us with the Greek translations they appended to some of the parallel texts, which, however, unfortunately extend but little beyond the titular and dynastic præordium of the inscription more immediately in question. I may, however, notice favourably Dr. Haug's tentative interpretations, confessedly incomplete as they are.]

merely as introductory to the several ramifications of the unidentified alphabet on the coins of later date, which form the subject of my present synopsis. I have to refer, however, momentarily to a still earlier exhibition of the literal series in the degradation and gradual transmutation of the original Greek legends, on the lower Kanerki coins, into the conventional forms and symbols of this system of writing—so that the Greek epigraph of PAO NANO PAO OOHPIK I KOFANO degenerates into the, to us, confused jumble of signs, which the cognate characters on other medals alone teach us to look upon as real and *bonâ fide* vehicles of phonetic expression—now extant upon the pieces engraved as No. 17, pl. xiv., ‘Ariana Antiqua’; No. 6, pl. xxii., *suprà*; and No. 16, pl. xiv., ‘Ariana Antiqua.’

The Sassanian proper money, more especially under reference, exemplifies the free and independent use of the debateable character, as opposed to the possible mere mechanical barbarization of a foreign tongue in the other instance, and would seem to evidence the local currency of the speech it was calculated to embody in one section at least of the dominions acknowledging fealty to the successors of Ardeslín Bálbiek.<sup>1</sup> Next in literal simplicity, though probably of a varied site and but little approximate period, must be quoted the series so peculiarly Indo-Sassanian in their identities, which still restrict themselves to this style of writing—Nos. 19, 20, ‘*Ariana Antiqua*,’ pl. xvi.

The Indo-Sassanian money with unmixed Sanskrit legends has already been adverted to, but further examples of the subordinate classes may be consulted under the following references :—‘*Ariana Antiqua*,’ pl. xvi., fig. 18 (बहि); *ibid*, pl. xvii., fig. 11, and pl. xxi., fig. 20 ; ‘*Jour. Roy. As. Soc.*,’ vol. xii., pp. 341, 342, etc. ; ‘*Ariana Antiqua*,’ pl. xvi., fig. 8.

CLASS A a: (Bilingual Scythic and Sanskrit). Type, fig. 6, pl. xvii., 'Ariana Antiqua.'

<sup>1</sup> [Other specimens of money bearing these peculiar legends may be seen under 'Ariana Antiqua,' pl. xvii., Nos. 12 to 15.]

OBVERSE :—Head facing to the right.

LEGEND in unidentified characters. 'Jour. Roy. As. Soc.,' vol. xii., pl. iii., fig. 21.

REVERSE :—Fire altar and supporters about the pedestal of the altar  
श्रीटटे | वहि श्री ?

CLASS A b : (Trilingual, Scythic, Sanskrit, and Pehlvi?).  
Pl. v., figs. 10, 11; and pl. xli., figs. 1 to 5.<sup>1</sup>

OBVERSE :—Device, as in the plate; the tiger-crest is less obscure on other coins.

Centre :—Unidentified characters.

Margin :—Legend also of doubtful import, but expressed in Sanskrit letters.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25  
श्रीहितिविरखरखाचपरमेश्वरश्रीषाहितियतदेवनारित्

The above transliteration, based upon mechanical configurations alone, gives the preferable reading of each character, deduced from a collation of the legends on the numerous coins extant. As the language this legend embodies is, up to this time, unknown to us, there are no precise means of selecting the intentional as opposed to the technically rendered letters. For instance, it is doubtful whether the 6th form should be taken to stand for ख, ऐ, or वे. The 9th letter may be only one of the frequently recurring व's; but I read it as च, in accord with Prinsep, on the authority of one of Sir A. Burnes's coins (now in the possession of General Fox), which gives the character with more than usual distinctness. In the letters 10 to 14, I again follow Prinsep, on the principle of the probability of the combination rather than upon the positive assurance of the imperfectly discriminated letters which compose the word. And, with some such similar tendency, I formerly proposed the substitution of ष as the modern representative of No. 16, in preference to the optional फ or व of my author's text, a conjectural emendation since amply confirmed by the configuration of the letter in question on one of Colonel Lafont's coins in the British Museum.

<sup>1</sup> [Also 'Journal Asiatique,' vol. vii. (1839), pl. xvii., p. 34; 'Ariana Antiqua,' pl. xxi., fig. 22; 'Jour. Roy. As. Soc.,' vol. xii., pl. iii., figs. 17 to 20.]



## REVERSE :—

To the left . . . افزو = ۱۱۵۷

To the right . . . پون شم دات = ۱۱۵۷

*Margin* :—Legend similar to that on the obverse exergue.

## CLASS A c: (Bilingual, Scythic and Pehlvi).

To complete the classification, I refer to two coins as yet incompletely deciphered in the Pehlvi, and altogether unintelligible in their Scythic legends, a description of which will be found at p. 332, 'Jour. Roy. As. Soc.,' vol. xii.

## VĀSU-DEVA.

## CLASS B: (Bilingual, Pehlvi and Sanskrit).

Prinsep's delineation, pl. vii., fig. 6,<sup>1</sup> sufficiently displays all the typical details of these pieces; I have merely to deal with the legends.

OVERSE :—To the right of the figure is Pehlvi,<sup>2</sup> but illegible in the specimen engraved.

(Increase) افزوت . . . = ۱۱۵۷

To the left . . . ۱۱۵۷

سف ورسو تیف

Or *Siv Varsū tef* for *Sri Vāsu deva*.

*Margin* :

۱۱۵۷ پون شمی دات سف ورساو تیف و همان اچ ملتان ملکا

'In nomine justī judicis,'<sup>2</sup> *Siv Varsāo tef, Brahman, King of Multān.*

<sup>1</sup> [Other engravings and facsimiles may be consulted in 'Ariana Antiqua,' pl. xvii., fig. 9; 'Jour. Roy. As. Soc.,' vol. xii., pl. iii., figs. 9 to 15.]

<sup>2</sup> [The usual formular opening, corresponding with the Arabic بسم الله.]

See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly ۱۱۵۷. M. Spiegel does me but bare justice when he concludes that I was unaware of his previous decipherment of a portion of this marginal legend when I published my first paper on the subject in the pages of the 'Jour. Roy. As. Soc.,' vol. xii., p. 343. In truth, in those days, I was but as little in the way of seeing German books, as I have limited facility of reading them now; but I quoted, with full and deserved commendation, Prof. Olshausen's treatise, and noticed all other continental works, referring to the subject, of which I was able to obtain knowledge. In his 'Grammatik der Huzvāreschsprache' (Wien, 1856), M. Spiegel reclaims the title to priority of interpretation of the opening portion of this sentence, which it seems appeared in May, 1844 ('Jahrb. für wissenschaftl.-Kritik.' Mai, 1844, p. 703). And, further, he desires to





## REVERSE :

To the left . . . .  $\text{دود = شفت سیه}$

(An : 37 of his reign.)

To the right ———  $\text{سلو سکر}$

. . . . ایران افروت

Dr. Mordtmann reads the final word, omitted in the above, as  $\text{𐭥𐭥𐭥}$ , *Uzaina* Chuzistan. I certainly should not thus transcribe the letters as they appear on the *Jahrbücher* coin; and, possibly, if I did so, I might dissent from the present interpretation: however, as I am not prepared to set copies against originals, I abstain from further comment.

CLASS B : Variety. (Bilingual, Pehlvi, with Sanskrit mint-marks?). Plate xxxiii., fig. 3.<sup>1</sup>

## OBYVERSE :

Pehlvi legend  $\text{𐭥𐭥𐭥 = 𐭥𐭥𐭥 𐭥𐭥𐭥}$  or  $\text{𐭥𐭥𐭥 𐭥𐭥𐭥}$

The initial letter is convertible as  $\text{𐭥}$  or  $\text{𐭥}$ , and is frequently either omitted altogether or inserted in the field apart from its succeeding  $\text{𐭥}$ . The  $\text{𐭥}$  itself is often degraded into a double loop, which alters its character completely. The  $\text{𐭥𐭥}$ , or  $k$  with *E final*, there is no doubt about; and the strange combination that follows, which, in many instances, expresses nothing but  $\text{𐭥𐭥 = 𐭥𐭥}$ , proves to be a mere bungling formation of the letters  $\text{𐭥𐭥 = 𐭥𐭥}$ , the  $\text{𐭥}$  being elongated by the addition of the tail stroke, which properly belongs to, and is the distinguishing mark of the  $\text{𐭥}$  as opposed to the old Sassanian  $\text{𐭥}$ . The final  $\text{𐭥}$  of  $\text{𐭥𐭥𐭥}$  usually appears on the left of the bust.<sup>2</sup>

CLASS C : (Trilingual, Pehlvi, Scythic, and Kufic).

I do not design to reproduce any detailed description of the

<sup>1</sup> [‘*Ariana Antiqua*,’ pl. xvii., figs. 5, 7, 10, etc.]

<sup>2</sup> [M. de Longperier attributed one of these coins to Hormusdas III., interpreting the Pehlvi as  $\text{𐭥𐭥𐭥𐭥 = 𐭥𐭥𐭥𐭥}$  (*Médailles de la Dynastie Sassanide*, Paris, 1840, pl. i., fig. 1, p. 56). Dr. Mordtmann, again, assigns a coin, similar in its typical style to No. 10, pl. xvii., ‘*Ariana Antiqua*,’ to Azermidukht, pl. ix., fig. 31, p. 194, *Zeitschrift*, etc.]



coins I would group under this heading; a delineated specimen of the class may be consulted in fig. 4, pl. xvii., 'Ariana Antiqua';<sup>1</sup> and my own attempts at their decipherment, together with facsimiles of the legends, are to be found at p. 329 *et seq.*, vol. xii., 'Jour. Roy. As. Soc.'

I advert to them now merely to complete the reference to the several series connected by similarity of linguistic legends with classes B, and B variety, above noticed.

Silver: weight, 58.4 grains. British Museum.

OBVERSE:—The usual linear imitation of the old Sassanian head, as adopted by the Arabs.

To the left: The standard monogram and **نکام**

To the right: Legend in unidentified characters, of the same style as in classes A, B.

Margin:—In Pehlvi letters **نکام**, and in Kufic letters the words **بسم الله**.

REVERSE:—The ordinary fire-altar and supporters.

To the left . . . **شست** = **دوبدم** = *Sixty-three* A.H.

To the right . . . **خمس** = **سارند** *Khbus*.<sup>2</sup>

Margin:—

Upper compartments: unidentified characters as on obverse.

Lower compartments:

To the left . . . . The standard monogram.

To the right . . . . **افزو** = **نکام**

Doubtful dates, 68 A.H. and 69 A.H.

CLASS D: (Bilingual, variety of unidentified character with Kufic).

To bring under one view the various transitional modifications of Sassanian money that may, by any possibility, bear upon the mixed series already noticed, I would advert to two subordinate classes, the first of which seems in its alphabetical devices to pertain to more westerly nations, though the sites of

<sup>1</sup> [See also Olshausen, German text, p. 56: 'Numismatic Chronicle,' vol. xi., p. 130.]

<sup>2</sup> [Khbus in Kermán, see Ouseley (خبيص) 199; 'Abulféda,' p. 442; Marco Polo *Kobinam*, p. 107.]

discovery connect it with the Central Asian types above enumerated.

Facsimiles of four of these pieces are given in Fræhn's 'Die Münzen (1832) Nos. 434, 435, pl. xvi., figs. 8 and 9; and 'Jour. As. Soc. Beng.,' No. 101 (new series), pl. iii. figs. 6a, 7. Here again the epigraphs are bilingual; the legend on the right appears to read from the outside, commencing at the front point of the tiara, and the forms of the letters give it a decidedly Phœnician aspect, though for the present their elements defy decipherment. The short word on the left of the Sassanian crown is expressed in Kufic letters, its foot-lines being towards the centre of the piece. Professor Fræhn conjectured that the combination on fig. 8 might be resolved into the title of المهدي the Khalif (A.H. 158—169 A.D. 774—785), and this interpretation receives confirmation from a more legible specimen of the coinage lately acquired by the British Museum.<sup>1</sup> On fig. 9 and other coins the word appears to be composed of the letters سعي or سلي; but on an unpublished specimen of Colonel Anderson's the name is fairly legible as محمد which, it will be remembered, was Al Mahdî's proper designation.<sup>2</sup>

Class E: Kufic (alone).

I complete the series with a set of medals having many characteristics in common with the money classified under the heading D, though it is a question whether in point of antiquity they are not entitled to take precedence of their bilingual counterparts. The connexion and association between the two is marked both in the general design of the obverse device, and more distinctly in the distribution of the symbols on the reverse, where Ormazd's head, rising from the flames of the fire-altar, pronounces them either derivatives from a common stock, or imitations the one of the other. The peculiarity of the coins of Class E, however, consists in their having attained to the correct

<sup>1</sup> [Major Cunningham's collection.]

<sup>2</sup> [Price's 'Mahomedan Hist.,' ii. 23. Fræhn, 'Recensio,' p. 24, etc. 'Handbuch zur Morgenländischen Münzkunde,' Stöckel Leipzig (1845), p. 50.]

exhibition of Kufic legends, pure and simple. The earliest published piece of this class is also to be found in Professor Frähn's comprehensive works.<sup>1</sup> The exergue on the obverse was read by that accomplished scholar as

بسم الله محمد رسول الله الخاقان الاعظم جمال امير المؤمنين

To this I am able to add from coins in the possession of Col. Abbott (1), and Capt. Hay (3), the novel, though imperfectly deciphered, legends—

OBVERSE :—

بسم الله محمد رسول الله حمدله مامربه الامير علي سلمن الله

The concluding words on other specimens seem to read . . . سلمر الله ; and in one instance . . . سلمر الله .

On the reverse the pedestal of the altar is formed of the word على .

CLASS E : Variety.

TALHAH BIN TAHIR, A.H. 209 to 213.

Copper : size,  $5\frac{1}{2}$  ; weight, 30 (and 31) grains. A.H. 209.

Two specimens, British Museum (Cunningham collection).

OBVERSE :—

Centre : لا اله الا الله وحده لا شريك له

Margin : بسم الله ضرب هذا الفلوس بعمرة سنة تسع و مائتين

REVERSE :—Central device, a barbarized Sassanian head, to the right, with the usual flowing backhair, and traces of the conventional wings above the cap ; the border of the robe is bossed or beaded.

In front of the profile is the name الطلحة

Margin : محمد رسول الله مامربه الامير طلحة علي ידי عبدالله

I have two difficulties in regard to the above transcript from the original Kufic. The one in respect to the name of the place of mintage, which is visible on only one of the two specimens quoted, and is there somewhat confused in the original definition of the several letters, and otherwise obscured by oxydation. The third and fourth upright lines are opened out, or slanted away from one another, towards the top, which usually indicates

<sup>1</sup> ['Nova Symbolæ ad rem Numariam Muhammedanorum Petrop,' 1819, p. 45, pl. ii., fig. 14.]

the letter ع; though this sloping off may, perhaps, be a mere fortuitous imperfection of the die-engraving, the final letter is best represented by a modern ج, though it may, if needful, be converted into an ج.

The second point is of less consequence, and extends only to the almost invisible outline of the word I have supplied by ידי, under the requisitions of sense rather than on the absolute authority of the single coin which retains in any degree of distinctness that portion of its mint impress.

#### BRÁHMANÁBÁD COINS.

I am anxious to refer, even though momentarily, and in a necessarily imperfect manner, both from the condition of the materials and the want of preparation on my own part, to an interesting series of Indian coins that have only lately been brought to light during the excavation of an inhumed city in the province of Sindh, which Mr. Bellasis, its enterprising explorer, designates, perhaps somewhat prematurely, by the title of the ancient Bráhmanábád.<sup>1</sup>

However, be the site what it may, the laying open of this ruined town has made us acquainted with a class of essentially local money, of which the circle of our Oriental numismatists had previously no cognizance. Unfortunately, for the due and full explication of their historical position, the pieces obtained from this locality are nearly, without exception, of copper; and, in common with their more rare associates of silver, have suffered to an unusual extent during their prolonged entombment.

The general character of the coins, numbering some thousands, and in mere bulk sufficient to fill a 28 lb. shot-bag, is decidedly exclusive, involving Kufic legends with occasional provincial devices, and pertaining, as I suppose, to the Arab

<sup>1</sup> [Its exact position is stated to be 47 miles N.E. of Haidarábád. An account of the city of Bráhmanábád was first published by Mr. A. F. Bellasis in Bombay in 1856. A paper by Col. Sykes, on the same subject, appeared in the *London Illustrated News* of Feb. 21, 1857; and Mr. Bellasis' plans and sections in the number for the 28th of the same month.]

potentates of Mansúrah, who ruled over the lands of the lower Indus after the decay of the central power of Mohammedanism at Baghdád. The money of Mansúr bin Jamhír (منصور بن جمهور الكلي),<sup>1</sup> the last Governor on the part of the Umayyid Khalifs (about 750 A.D.), heads the list. I do not advert to the earlier coinages of central Asia, which have been transported, in the ordinary course, to the site of their late discovery; but commence the series with the coins which bear on their surfaces the earliest extant mention of the celebrated capital Mansúrah, the Arab reproduction of the still more famed Bráhma-nábád of classic renown.<sup>2</sup>

<sup>1</sup> [See 'Baládari,' Reinaud's 'Fragments,' 'Arabes et Persans relatifs à l'Inde,' Paris, 1845, p. 211.]

<sup>2</sup> ['Amrou, fils de Mohammed fils de Cassem . . . . . fonda, en deçà du lac, une ville qu'il nomma Almansoura. C'est la ville où résident maintenant les gouverneurs.'—p. 210. In a previous passage, Baládari tells us, 'Ensuite Mohammed fils de Cassem, se porta devant la vieille Bruhmanabad, qui se trouvait à deux parasanges de Mansoura. Du reste Mansoura n'existait pas encore, et son emplacement actuel était alors un bois. . . . . Mohammed plaça un lieutenant à Bahmanabad; mais aujourd'hui la ville est ruinée.'—Reinaud, p. 198. The Arabic author from whom these facts are derived, named أحمد بن يحيى البلاذري, died in 279 A.H. or 892 A.D. See also Reinaud, quoting Albirání's 'Tárikh-i-Hind Fragments,' p. 113. The MS. of the latter author's *Kaún* has the following:—

بهنموا وهي منه الكبرى وسميت منصوراً لن فاتحها قال نصرت

Jaubert, in his translation of Edrisi, on the authority of the original, states that the local native name of the place was مبرمان. Masúdi tells us, 'I visited Multán after 300 A.H., when أبو الدليات المنبه بن أسد القرشي السامي was king there.'

At the same time I visited el Mansúrah, the king of that country was then أبو المنذر عمر بن عبدالله, [of the family of Habbár ben el Aswad.]—p. 386, Sprenger's Translation. Again, with regard to the extent and importance of the kingdom, we are informed, 'All the estates and villages under the dependency of el-Mansúrah amount to three hundred thousand; the whole country is well cultivated, and covered with trees and fields.'—p. 386, *ibid.* Further references to the geographical and other questions involved will be found as follows:—Vincent's 'Commerce of the Ancients,' London, 1807, vol. i., p. 145. Gladwin's 'Ayn-i-Akbari,' vol. ii., p. 137, *et seq.* 'Marásid-al-Itala,' vol. ii., p. 161. 'Istakri' (A.H. 300 to 309), 'and Sind is the same as Mansúrah . . . . . Mansúrah which they call Sindh.'—pp. 12 and 147. Ouseley's 'Oriental Geography' (London, 1800). 'Ibn Hanka' (A.H. 381 to 366). 'Gildemeister de rebus Indicis' (Bonn, 1838), p. 166. Col. Anderson's Translation, 'Jour. As. Soc. Beng.,' vol. xxi., p. 49. Reinaud's 'Géographie d'Aboulfeda,' vol. i., p. 386, etc. 'Liber Climatum Arabic Text,' J. H. Møller, Gothæ, 1829. Reinaud's 'Mémoire sur l'Inde,' p. 235. 'Ancient Accounts of India and China,' London, 1733; ditto, Reinaud's edition, Paris. Elliot's 'Historians of India,' Calcutta, 1849. Elliot's 'Appendix to the Arabs in Sind,' Cape Town, 1853. 'Ariana Antiqua,' p. 413. 'Jour. As. Soc. Beng.,' vol. vii., pp. 93, 279; vol. x., p. 183; vol. xiv., p. 75. McMurdo, 'Jour. Roy.

I should be disposed to conjecture a considerable interval to have elapsed between the issue of this currency and that bearing devices somewhat in common, which displays the name of Abdulrahman (No 3 *infra*), but I am not now in a condition to enter into any satisfactory speculations as to the precise identity of this monarch, or the dates of any of his successors, whose names can be but faintly traced on the worn and corroded surfaces of the coin, submerged with the town of which it necessarily constituted the bulk of the then existing currency. I await, in short, the further supplies of better specimens, promised me by the energetic antiquarians on the spot,<sup>1</sup> and, individually, more leisure to look up the rather obscure history of the divisional government which these coins represent.

I have one remark to add in reference to the peculiarly local character of these numismatic remains, and the restricted antiquity of the town, as tested by the produce of the habitations hitherto penetrated, in the fact of the very limited number of Hindú coins found among these multitudes of medieval pieces, and that even these seem to be casual contributions from other provinces, of no very marked uniformity or striking age.

#### MANSUR.

No. 1, Copper: weight, 33 grains; size 6.

OBVERSE:—

*Area:* لا اله الا الله وحده لا شريك له

*Margin:* Illegible.

REVERSE:—

*Area:* Central symbol nearly effaced, above which appears the name محمد, and below the words رسول الله.

*Margin:* بسم الله ضرب [هذا الفلاس بالمنصورة مما امر به  
منصور (sic)]

As. Soc., vol. i., p. 23 *et seq.* Burnes' 'Bokhára,' vol. iii., p. 31. 'Jour. Roy. As. Soc.,' vol. i., p. 199. Postan's 'Observations on Sindh,' p. 143. Pottinger's 'Beloochistan and Sindh' (London, 1816), p. 381. Wood's 'Oxus' (London, 1841), p. 20. Mohammed Ma'sûm's 'History of Sind,' A.D. 710 to 1690. 'Bombay Government Selections,' new series, No. xiii. (1855).]

<sup>1</sup> [Messrs. Frere, Bellasis, and Gibbs, of the Bombay Civil Service.]

## No. 2 :

OBVERSE :—Device altogether obliterated.

REVERSE :—

*Area* : Central symbol in the shape of an elongated eight-pointed star : above, محمد ; below, رسول الله .

*Margin* : (sic.) بسم الله [ضرب هـ بالمنصورة مما امر به منصور]

## ABDULRAHMAN.

No. 3, Copper : size, 5 ; weight, 44 grains.

OBVERSE :—Central device, a species of quatrefoil, or star with four points, on the sides of which are disposed, in the form of a square, the words محمد رسول الله عبدالرحمن . The outer margin of the piece is ornamented with a line of dots enclosed within two plain circles, with four small dotted semicircles to fill in the space left vacant by the angular central legend.

REVERSE :—A scalloped square, surrounded by dots, within which, arranged in three lines, are the words بالله عبدالرحمن لسعار ; the concluding word I am unable satisfactorily to decipher, it is possibly the name of Abdulrahman's tribe.

## MUHAMMED.

No. 4 : A unique coin of apparently similar type—though with an obverse absolutely blank—replaces the name of Abdulrahman on the reverse by that of Muhammed. The concluding term is identical with the combination above noted.

## ABDALLAH.

No. 5 : Copper.

OBVERSE :—Device as in No. 3 (Abdulrahman).

LEGEND : محمد [رسول الله] عبدالله

REVERSE :—Blank.

No. 6. Copper : size,  $3\frac{1}{2}$  ; weight, 18 grains.

OBVERSE : Central device as in No. 3, around which in a circular scroll may be partially read the formula لا اله الا الله وحده لا شريك له .

REVERSE :—Centre device composed of the name of عبدالله *Abdallah* ; the two portions عبد and الله being crossed at right angles, in somewhat of accord with the scheme of the obverse device.

The marginal legend is arranged in the form of a square and consists of the words محمد رسول الله [الا] مير .

No. 7. Silver: size, 2; weight, 8·4 grains.<sup>1</sup> Devices are discontinued and replaced by simple Kufic legends, as follows:

OBVERSE:— لا اله الا الله وحده لا شريك له

REVERSE:— محمد رسول الله الامير عبد الله

No. 8. Copper, of similar legends. Other specimens vary in the division of the words, and omit the title of *Al Amir*.

#### OMAR.<sup>2</sup>

No. 9. Silver: size, 1½; weight, 9 grains. Five specimens.

OBVERSE:—No figured device. Legends arranged in five lines.

ب الله محمد رسول الله عمر

Marginal lines, plain or dotted, complete the piece.

REVERSE:—Kufic legends alone in three lines.

ب الله بنو عمروية النصر

No. 10. Copper: size, 4; weight, 35 grains. Common.

Legends as in the silver coins, with the exception that the بنو is placed, for economy of space, in the opening between the ل's of ب الله. The die execution of these pieces is generally very inferior.

No. 11. Copper: size, 3½; weight, 21 grains. Unique.

OBVERSE:—Blank.

REVERSE:—

Centre: بنو — عمروية النصر

Margin: — سن بالمنصورة سنة اربع — ؟

#### OMAR (?)

No. 12. Copper: size, 4½; weight, 36 grains. Mr. Frere, unique.

<sup>1</sup> [Among the silver coins exhumed from the so-called Bráhmañabád some are so minute, as to weigh only 1·2 gr.]

<sup>2</sup> [I am inclined to identify this ruler with the Omar bin Abdallah, above indicated as the reigning sovereign of Mansúrah, at the period of the geographer Masúdí's visit to the valley of the Indus, and of whom he speaks further in the following terms:—'There is some relationship between the royal family of el-Mansúrah and the family of esh-Shawárib, the Kadi, for the kings of el-Mansúrah are of the family of Habbár ben el-Aswad, and have the name of Beni 'Amr ben 'Abd el-Ayiz el-Karshí, who is to be distinguished from 'Amr ben 'Abd el-Ayiz ben Merwán, the Omaiýide (Khalif).—Sprenger's 'Meadows of Gold,' p. 385. See also Gildemeister, quoting 'Ibn Hankál,' p. 166, and Elliot, citing the same author ('Historians of India'), p. 63.]



OVERSE:—Central device, four lines crossing each other at a common centre, so as to form a species of star of eight points; four of these are, however, rounded off by dots.

LEGEND, arranged as a square:

محمد رسول الله

with single dots at the corner angles, and two small circles filling in the vacant spaces outside of each word.

*Margin*: Two plain lines, with an outer circle of dots.

REVERSE: Central legend in three lines within a triple circle composed of dots, circlets, and an inner plain line. I transcribe the legend, with due reservation, as:

بنه بالله عمرويه النصر

XXI.—ADDITIONS TO BACTRIAN NUMISMATICS,  
AND DISCOVERY OF THE BACTRIAN  
ALPHABET.

(JULY, 1838.)

It is not an easy matter to gratify my numismatical readers with a plate of entirely new Bactrian coins so frequently as they would wish ; for, independently of the time and labour requisite for engraving them, the subject, as to new names at least, may be looked upon now as nearly exhausted. Opportunities, however, still occur of verifying doubtful readings, of supplying names where they were erased or wanting in former specimens, and of presenting slight varieties in costume, attitude, and other particulars, which tend to complete the pictorial history of the Bactrian coinage.

For these several objects I enjoyed a most favorable opportunity during the visit of General Ventura to Calcutta last winter ; his second collection, though possessing few types or names absolutely new, boasted of many very well preserved specimens of the small silver coinage of Menander, Apollodotus, Lysias, Antimachus, Philoxenes, etc. The General most liberally conceded to me, from his abundant store, several that were wanting to my own cabinet, both of silver and

copper; and he placed the rest also at my disposal, to draw, examine, and describe, as I might feel inclined. Unfortunately, I refused to take charge of the Indo-Scythic gold series for examination, finding nothing particularly new among them, the consequence of which was that the whole were stolen by some sharper at the hotel where the General was residing, and none have since been recovered! I am now speaking of last January! Since then I have received a coin and drawings of several others from Gen. Court; also two or three from Gen. Allard; and, latterly, the whole produce of Capt. Burnes' search in the neighbourhood of Kábul have been entrusted to my care. It is the very latest arrival from him (or rather from a valuable member of his expedition, Dr. Lord), consisting of two beautiful coins of Eucratides, that stimulates me at once to give forth all that have accumulated in my Bactrian drawer since I last wrote on the subject. I must give Dr. Lord's coins the first place, because one of them is, perhaps, the most curious and important that has yet fallen into our hands.

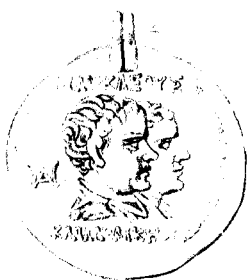
Plate xlii. contains etchings of both of these coins to which I would thus draw prominent attention. Dr. Lord thus describes the place and circumstances of their discovery:—

"I do myself the pleasure to forward two coins, which I have been so fortunate as to find during my late visit to Turkistán. The double-headed coin I found at Tash Korghán, the other at Kundúz."

Fig. 2 I need not particularly describe, as, though new to us, it has been published from other specimens in France. The reverse has a naked figure of Apollo in lieu of the Dioscuri.

Fig. 1 is an unique medallion (that is, a tetradrachma) of Eucratides.

OBVERSE:—A fine youthful head and bust of the king wearing a plain steel helmet, with the bands of the diadem protruding behind.



On the area above and below—**BAZIAETZ MEΓAZ EYKPATIAHZ** in the nominative case.

REVERSE:—Busts of a man and a woman looking to the right: hair simple and without diadem; legend above **HAIOKAEOTZ**, below **KAI AAOAIKHZ**.

Supplying the word *vios*, we have here the parentage of Eucratides developed in a most unexpected way: 'The great king Eucratides, son of Heliocles and Laodice.' The former is a well-known Greek name, but it is evident from the absence of title and diadem that he was a private person, and yet that his son, having found his way to the throne, was not ashamed of his unregal origin.<sup>1</sup>

I have long been pledged to my readers to give them a new alphabet for these Bactrian legends, and I think the time has now arrived when I may venture to do so; or at least to make known the modifications which have been elicited by the abundance of fresh names and finely preserved specimens which have passed under my eye since that epoch. It must be remembered that the only incontestible authority for the determination of a vowel or consonant is its constant employment as the equivalent of the same Greek letter in the proper names of the Bactrian kings. Beyond this we have only analogies and resemblances to other alphabets to help us, and the conjectural assumption of such values for the letters that occur in the titles and epithets of royalty as

<sup>1</sup> [I have omitted some of Prinsep's original speculations in regard to the Indian origin of Eucratides' mother, that he was led into by the faulty drawing of the coin supplied to him by Mr. Masson, and which the sealing wax impression of the original in his possession did not enable him to rectify until new information reached him at the moment of the publication of the current number of the 'Jour. As. Soc. Beng.,' when the error was unhesitatingly corrected by a fly-leaf note.]

may furnish an admissible translate of the Greek in each and every case.

It will be my object presently to show that this can be done, as far as the coins are concerned, by means of the Sanskrit or rather the Pálí language; but in the first place it will be more convenient to bring forward my revised scheme of the alphabet as far as it is yet matured. Unfortunately the exceeding looseness of orthography and caligraphy which could not but prevail when one foreign language (for such it was to the Greek die-cutters) was attempted to be rendered by the ear in another character, equally foreign to the language and to the scribes, with abundance of examples before me, renders it almost impossible to select the true model of some letters for the type-founder!<sup>1</sup>

I begin with the initial vowels :

γ, α. This symbol continues to occupy the place of the vowel α in all the new names lately added to our list, beginning with the Greek Α, of which we have now no less than seven examples. The other short initials appear to be formed by modifications of the alif as in the Arabic, thus :

γ, γ ε, is constantly employed for the Ε of Greek names.

Ϝ u, is found following it in the word Eucratides, as though put for the Greek Ϝ, but other evidence is wanting.

ϝ [with the head-line reversed], ι? though seldom met with on the coins, is common in the inscriptions, and by analogy may be set down as ι.

Ϟ δ [the Numismatic αη, plate xi.], is employed in words beginning with AN.

The mediales seem to be formed in all cases by a peculiar system of

<sup>1</sup> [It will be seen that under the combined poverty and imperfection of the only Bactrian type available in Europe, I have had much difficulty in doing justice to Prinsep's latest revision of this alphabet. As my author's own forms were often faulty and defective, it was of course useless to reproduce the deficient letters, or to do more than indicate as nearly as possible, though necessarily in somewhat of a patchwork manner, the essential position in which he left the study of Arian palaeography.]

diacritical marks; of these the *i* is the best determined, being found applied to almost all the consonants in the form of a small stroke crossing the letter. The *d* is uncertain; it may be a prolongation below in the *r*,—a foot stroke or *mātra*. The *e*, I judge from the Manikyāla inscription, to be a detached stroke behind and above; in a few cases only joined. The *u* may be the loop so often seen at the foot of the written letters. I feel it to be a little premature thus to assign sounds without any positive authority; but it was from a similar assumption of the value of its vowel marks that I was led to the discovery of the Indian pillar alphabet.

With regard to the consonants, I ought, perhaps, to follow the order of the Hebrew alphabet; but, as the language to be expressed is allied to the Sanskrit, it may be more convenient to analyze them in the order of the latter.

ॠ, *ka*. This letter on further scrutiny I find invariably to represent *k*; and its place is never taken on the coins by ॡ, as I formerly supposed. It occurs also with the vowel affix *i*, as *ki*; also, but seldom, with the *u*, as *ku*; and with the subjoined *r*, as *kra*. In the compounds, *kla*, *kli*, a form is adopted more like the Hebrew *q p* (quere *q*). There are two or three examples in support of it.

ॢ, *kh*, is limited as such to the name of Antimachou; but I find it also representing the *g* in Abagasou. In the written tablets we have various forms seemingly identical with it; yet one of these, with the vowel *i*, is used in some places for *dhi* (intended for the inflected *i*?). There is no small affinity between them and ॣ, ।, the *kh* of the old Sanskrit written invertedly.

[1st, see second form of Numismatic ॥; 2nd, the same inflected with *r*; 3rd, the compound represented by the eleventh letter in the inscription from the brass cylinder, pl. vi., vol. i.] I place these forms here because they occur several times in the tablets, and they bear some resemblance to the *g* of the Pehlvi.

Of the Sanskrit palatials neither the Greek nor the Chaldaic alphabets contain any proper examples—the *ch* and *j* are modified to *s* and *ts*—which letters we must expect to find substituted for the Sanskrit class च छ ज झ.

[No. 1, a *v* reversed; 2, a *q* reversed. See Numismatic *chh*, pl. xv.] The first of these forms is found at the close of a series of words terminating each in the same vowel inflection, *i*, *e*; which makes me suppose it to be the Sanskrit conjunction *cha*, uniting a string of epithets in the locative case. As yet I have no stronger argument for its adoption.

॥, or ॣ, *ja* (*tsa*?). The form of the Chaldaic *ts* ॥, agrees well with

the first; indeed, in many coins of Azes, the Bactrian form is identical with the Chaldaic. I find that in every case this letter may be best represented by the Sanskrit ञ, and, indeed, in the early coins of Apollodotus, etc., its duplicated form [the fourth letter in Maharāja, pl. xii.] seems to be copied from the ancient Sanskrit ञ, reversed in conformity with the direction of the writing. The only inflection I have met with of this letter is *ju*.

I can make no discrimination between cerebrals and dentals; because the Greek names translated have of course no such distinctions, but from the variety of symbols to which the force of *d* and *t* must be ascribed, I incline to think the alphabet is provided with a full complement, though it is in the first place indeed almost a matter of option which letter to call *d*, *t*, *r*, or *n*, they are all so much alike—thus for *t* we have 𐎧, 𐎨, 𐎩, and 𐎪, and with the vowel *i*, 𐎫, 𐎬, etc.

As the equivalent of *d* again we have the same 𐎨, 𐎩, 𐎪, and also three other forms [1st, the second of the fifth Tradata, pl. xii; 2nd, the third of Menander; 3rd, the penultimate in No. 32, pl. xii.]: and for *dhi*, [*dhri* and *dhi*] the formerly evidently 𐎫 with 𐎬 subjoined; the latter quasi *tthi* or *ddi*: sometimes it is nearer 𐎫 *ri*.

I do not attribute this ambiguity to the letters themselves so much as to the carelessness and ignorance of the writers, who might pronounce the foreign name Apollodotus, indifferently Apalātada, Apaladata, and even Apalanata. Being obliged to make a choice, I assume as in my former paper—

𐎩 𐎩, for *ta*, whence the various inflections.

𐎪, *tta*, *tha*, commonly used for *dh*, and its inflections.

𐎪 𐎨, 𐎩, for *da*, *nda*.

𐎫, *na*. I do not perceive any indications of the other nasals, and indeed, they seem to be omitted when joined to another consonant: but I find something corresponding to the *anuswara* attached below the vowel *a*, and before consonants it seems represented by *m*.

𐎧 *pa*. The first of the labials is one of the best established letters. It has been discovered also inflected, and united with either *h* or *s* in 𐎧 *pha* or *spha*: also with *li* in *pli*, and in other combinations which will be noticed as they are brought forward.

𐎫, *fa*, *pha* or *fa*? I have no stronger reasons than before for continuing this value to 𐎫:—it seems in some few cases to usurp the place of *v*; it is inflected also.

*Ba*? is still undetermined; in the doubtful name above quoted, ΑΒΑΓΑΞΟΥ, it seems to be replaced by 𐎨 or 𐎩—the aspirate is also unknown.

𐎫 *ma* 𐎫. This letter admits of no doubt whatever; but in the



Menander form,  $\psi$ , I now recognize the inflection *me*, corresponding with the Greek name more closely. The second or what may be called the printed form of *m* has a considerable affinity in form with the old Sanskrit  $\mathfrak{m}$  or  $\mathfrak{z}$ , whence it may be almost as readily derived as the Burmese form of the Páli *m*.

$\Lambda$  *ya*. This letter is unchanged: it invariably replaces *z* and *y*, and sometimes *j* where the latter would be expressed by the Sanskrit  $\mathfrak{y}$  or  $\mathfrak{j}$ . It may perchance have been modified from the letter, for in some examples it is turned up on the sides thus,  $\omega$ ; the inflected form *yi* is of common occurrence: *yu* less common.

$\omega$ ,  $\gamma$ ,  $\delta$ , *ra*. It is necessary to preserve these three representatives of *r*; I incline to think that the prolongation below may be the *mātra* or the long *ā* inflection, *rā*; for the first form is used in Ermaïou where there is no intervening vowel. It is only distinguishable from *d* by the foot-mark of the latter, which seems to be often omitted notwithstanding.

$\mathfrak{r}$ , *la*. Further acquaintance has taught me that this is the only representative of  $\Lambda$  in Greek names: the instances wherein the *l* before appeared to be replaced by  $\mathfrak{r}$  have been disproved by duplicate coins. The inflected form  $\mathfrak{r}$ , *li*, has numerous examples among our new acquisitions.

$\mathfrak{v}$  *va*, and *vi*, rest on strong but not indisputable authority, as will be seen below.

$\omega$ ,  $\mathfrak{v}$ , *ha*, has been removed from its former position as *l* on ample grounds; and the value now assigned has, I think, equally strong support—though as far as Greek names are concerned it rests solely on the initial syllable of Helioeles, *he*. There is, again, a similarity worthy of remark between  $\omega$  inverted, and the old Sanskrit *ha*,  $\mathfrak{h}$ ,  $\mathfrak{z}$ .

$\mathfrak{s}$ , *sa*. To this letter I gave the sound of *o* on the former occasion, because I found it the general termination of nominatives masculine in Zend and Páli—replacing the Sanskrit *visarga*, *ah* or *as*. Since then I have found the same letter (affected with the vowel *i*) in two Greek names as the equivalent of *si*, and I am too happy on other considerations to adopt this as its constant value; whether the dental *s* of the Sanskrit will best represent it remains to be seen, but the nearest approximation in form occurs in the Hebrew  $\mathfrak{s}$ : there are certainly two other characters [one like a *k*, or  $\mathfrak{k}$ ], and  $\mathfrak{s}$ , having the force of *s* or *sh*. The former I should presume to be the Sanskrit *sha*  $\mathfrak{sh}$ , from its likeness to the old form  $\mathfrak{sh}$ . The latter,  $\mathfrak{s}$ , may be a variation of  $\Lambda$ , for which it is sometimes used, but rather by change of the Greek *z* to  $\mathfrak{z}$ , than as being the same letter, for elsewhere it takes the place of the Greek  $\mathfrak{z}$  as in  $\mathfrak{z}$ IAIAI $\mathfrak{z}$ OT, while  $\Lambda$  occurs for *z* in the same word. In

form it seems to be the Chaldaic *n*, or *th* soft. Several inflections of these letters have been observed.

It will be naturally expected that the alterations I have been compelled to adopt in the value of many of the above letters must produce considerable modifications in my former interpretation of the Bactrian legends. Indeed, when I look back at my attempt of 1835, I must confess that it was very unsatisfactory even to myself. I was misled by the Nakshi-rustam trilingual inscription, wherein the title of king of kings has been uniformly read as *malakán malaká*, though I balanced between this and the term *maharáo*, having found PAO on the Indo-Seythic series. But, once perceiving that the final letter might be rendered as *sa*, which is the regular Pálí termination of the genitive case, I threw off the fetters of an interpretation through the Semitic languages, and at once found an easy solution of all the names and the epithets through the pliant, the wonder-working Pálí, which seems to have held an universal sway during the prevalence of the Buddhist faith in India.

The best test of the superiority of a Pálí interpretation\* will be found in its application to the several royal titles of the Greek kings, which were previously quite unintelligible. The first of these is simply ΒΑΣΙΛΕΥΣ, which is constantly rendered by פארו *maharájasa*, the Pálí form of महाराजस्य. It is true that there is some doubt whether the long vowel *á* is here applied to the *h* and *r*; but we have long since been accustomed to the omission of this and even other vowels in the Satrap coins of Suráshtra. The word is often written פארו, whence I have supposed the dot or dash below to stand for *á*.

The next title is ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ, which we find replaced by *maharájasa rájarájasa*, a perfectly sound and proper expression according to the idiom of the Sanskrit. But in one class of coins, that of Azes, there are some very well preserved specimens, in which the second part of the title is פאריארי, which is evidently *rájátirájasa* (or *adhi*, for the letter has a turn at foot, and may be meant for *dhi*), the regular राजधिराजस्य of the paramount sovereigns of India. The syllable *dhi* is often written *ti*, *ri*, or even *ti* or *gi* (?) but the vowel *i* shews what is meant.

To the title of king of kings is generally added on the Greek side the epithet ΜΕΓΑΛΟΤ, for which we have an addition in Bactrian of the word פרו *mahatasa*, one of the forms of the Pálí genitive of *mahán* (or *mahat*) great, which makes only *mahatah* महतः in Sanskrit. The full title then is thus found to be *maharájasa rájadhirájasa mahatasa*, which is far preferable to the clumsy and unsatisfactory *malakao kak-kao malako* of my former paper, now rectified by the rejection of *ka* as *ka*.

The next title in the list is ΣΑΤΗΡΟΞ, for which we have rather a dubious word of four letters, either *dadatasa* or *nandatasa*, the former equivalent to ददतः the bestower of *dāna*, a word comprehending protection as well as charity;—the latter to नन्दतः ‘of the giver of pleasure.’

The epithet of next frequency is ΑΝΙΚΗΤΟΡ, the unconquered, which is translated by *apavihatasa* (Sans. अपविहतस्), the unbeaten or invincible. It is this word principally which leads me to make ρ *va*, and to distinguish it from ϣ *ti* and ϣ *li*, with the latter of which I before confounded it.

Next in order comes the somewhat similar expression ΝΙΚΗΦΟΡΟΤ; but the correct definition of this epithet is preserved in *jayadharasa*, the bearer of victory. In one instance the *dh* is written separately ϣϣϣϣ; in others (like the *dh* of *adhi*) it is *jayadarasa*, but there can be little doubt of the sense; and this word is a strong confirmation of the value of the letter ϣ, or ϣ *ja*.

There is a second epithet of nearly the same signification which is common enough on the Seleucidan coins, but comparatively rare on those of Bactria, ΝΙΚΑΤΟΡΟΞ. This epithet was found on the unique coin of Amyntas, of which Col. Stacy was unfortunately robbed, and on one or two others. In the Bactrian translation the same word is used in every case as for ΝΙΚΗΦΟΡΟΤ, namely, *jayadharasa*, the possessor of victory, or the victorious.

There remains but one epithet to be accounted for (for ΦΙΛΟΠΑΤΟΡΟΞ of the Apoliodotus unique coin does not seem to be translated):—it occurs on the coins of Heliocles, Spalurmes, and Archelies; I mean ΔΙΚΑΙΟΤ ‘the just’—a rare epithet in any but the Arsacidan line of kings. This is everywhere rendered by *dhamikasa* (Sans. धर्मिकस्) the exact expression required, and one constantly applied to Indian kings.

I am wrong in saying that the epithets are here exhausted, for on the unique coin of Agathocleia in Dr. Swiney's possession there is a singular epithet ΘΕΟΤΡΟΠΟΡ, ‘heavenly dispositioned,’ yet unaccounted for: of these, the two or three first letters are lost, and the last two ϣϣ *tasa* may terminate *devamatasa* or some such simple translation. It is a curious fact that the name of the queen does not appear to be feminine in the Bactrian legend; and the title *mahārdjasa* is also in the masculine.

There is another expression on a coin of Spalurmes, viz., ‘king's brother,’ ΣΠΑΤΜΟΞ ΔΙΚΑΙΟΤ ΑΔΕΛΦΟΤ ΤΟΤ ΒΑΣΙΛΕΩΞ, the Bactrian translation of which at first seemed inexplicable; but, by means of



Bactrian Coins.



third), having a Hercules for reverse, commences another series of native names, forming what we have designated the Kadphises or Kadaphes group. After the change from ΕΡΜΑΙΟΤ on the obverse, to ΚΑΔΦΙΖΟΡ, we have still precisely the same reverse as before, and it is preserved through a numerous series;—the title of mahārāja is not to be found, nor is it easy to see where to commence either the Greek reading ΚΟΖΟΛΑ or ΚΑΔΦΙΖΟΡ, or the Bactrian, which may be transcribed *dhama . . rata Kujulakasa sabashakha* (?) *Kadaphasa*:—in this reading, if we can make out nothing else, there are at the least two names, *Kosoula* (also written *Kozulo* and *Kozola*), and *Kadphises* (also written *Kadaphes* and *Kadphises*), accounted for. The distinctions on the small coin of ΚΟΠΑΝΟΡ ΖΑΘΟΡ ΚΑΔΦΙΖΟ I am unable as yet to make out for want of further samples.

Connected with the same family we then come to the long inscription on the Mokadphises coins, which may be read by comparison of a great many examples:—

*Maharajasa rajadhirajasa sabatracha ihacha mahiharasa dhi makadphisasa nandata.*

‘Of the great sovereign, the king of kings, both here and everywhere seizing the earth, etc., Mokadphises, the saviour?’

I do not insist upon any of these epithets, *sabatra mahidharasa*, for in fact they vary in every specimen. The *dhi* also looks in many coins more like *dha*, quasi *dhama Kadphisasa*. On some the reading is rather *sabalasa sariratasa mahichhitasa* महीचितः sovereign?). On some gold coins, again, the name more resembles *vavahima Kadphisasa*, agreeing with the Greek ΟΟΗΜΟ ΚΑΔΦΙΧΗΟ.

It remains only to apply my theory of the Bactrian alphabet to the inscriptions on the cylinders and stone slabs extracted from the tops at Manikyāla, etc., but this is a task of much more serious difficulty, and one not to be done off-hand, as all the rest has been! I must, therefore, postpone the attempt until I am better prepared with my lesson; and, meantime, I will proceed to describe briefly the contents of

#### PLATE XLIII.

Fig. 1 is a small silver Euthydemus in Capt. Burnes' collection: it resembles exactly the medallions already published of the same prince. Weight, 62 grs. See pl. xxv., vol. iv., fig. 1, ‘*Jour. As. Soc. Beng.*’

Fig. 2 is a hemidrachma of Demetrius also belonging to Captain Burnes. See one figured from General Ventura's collection, pl. xiii., fig. 2.

Fig. 3, a silver coin of Antialcidas, presented to me by General Ventura. Execution very good. Weight 10½ grains.

OBVERSE:—ΒΑΣΙΛΕΥΣ ΝΙΚΗΦΟΡΟΤ ΑΝΤΙΑΛΚΙΑΔΟΤ. Head of the king with a flat helmet shaped like a cocked hat:—chlamys on the shoulders, and diadem seen under the hat.

REVERSE:—Bactrian legend, *Maharajasa jayadharasa Antialikidasa*. Jupiter

seated holding a small figure of victory:—at his feet to the right, the forepart of a small elephant with trunk elevated. Monogram on the left composed of P and  $\Delta$ <sup>1</sup>.

Fig. 4, a similar drachma of Lysias, belonging to General Ventura: unique.

OBVERSE:— $\text{ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΑΤΣΙΟΥ}$ . Head of the king, with the Demetrius helmet, shaped like an elephant's head.

REVERSE:—Bactrian legend, *Maharajasa apavihatasa Lisiasa*. (The copper square pieces have *Lisikasa*). Hercules naked standing, with club and lionskin, as on the coins of Demetrius.

Figs. 5, 6. Two varieties of Menander, not yet depicted in the journal, given to me by General Ventura, who has many of a similar nature. In one the prince wears a handsome helmet, in the other he has the simple diadem. The reverse of both agrees with the one engraved in pl. xiv., fig. 1, except that Minerva looks in the contrary direction.

#### HELIOCLES, KING OF BACTRIA.

Fig. 7. The first coin of Heliocles which I have yet seen in India. It belongs to General Ventura. A square copper or bronze piece in excellent preservation.

OBVERSE:— $\text{ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ}$ . Diadem'd head of the 'just king, Heliocles,' somewhat similar in features to Eucratides.

REVERSE. Bactrian legend, *Maharajasa dhamikasa Heliyaklayasa*:<sup>2</sup> an elephant equipped with howdah and trappings walking to the right; monogram  $\Sigma$ .

Fig. 8. A less perfect coin of the same king presented by the General to myself.

In lieu of the head of Heliocles, the obverse bears an elephant, naked, walking to the left, Greek legend as above. The reverse is irrecoverably lost.

It is, perhaps, unnecessary here to retract my former doubts of the existence of a Heliocles in the Bactrian dynasty, since they have long been removed by the account of the silver medals in France. We have as yet seen none but these two copper specimens in India, but the probability is that both silver and copper might be found in Bactria proper, to the north of the Hindu Kush or Imaus.

An opinion has been started by Mionnet, in opposition to many European numismatists, that Heliocles was no other than Eucratides the second, the parricide. The surname of  $\DeltaΙΚΑΙΟΥΣ$ , so unsuitable to such a character, he supposes given through fear or adulation, which I agree with M. R. Rochette in thinking too great an anomaly to be allowable: but without seeking to account for this staggering circumstance, we can now help M. Mionnet to a very powerful argument in his favour from the unique coin of Dr. Lord described in a former part of this paper, which proves that Eucratides' father was a Heliocles; and we know that it was common to call an eldest son by his grand-

<sup>1</sup> N.B. The etching of this coin is a total failure: the plate was laid by for several months and the acid would then barely touch it. In retracing it, the native engraver has quite wandered from my original, and I perceive it too late for alteration on more than half the edition of the plate.

<sup>2</sup> The ante-penultimate letter might be better read *Sra*, or *Sri*: which would give a Sanskrit version of the name,—*hilyasriyasya*, 'having a sun-like prosperity.'

father's name, as is, indeed, universally the custom to the present day both in Eastern and Western countries.

Fig. 9. I have introduced this duplicate of the single mutilated coin depicted in fig. 8, pl. xv., among the then doubtful group, because [General Ventura's present specimen exhibits the name in the Bactrian, *PA*] *ayasa*, and thus proves it to belong to the abundant series of AZES' coins.

Fig. 10 is a square copper coin of Lysias kindly added to my cabinet by General Ventura.

It is in better preservation than any before published.

OBVERSE:—*ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΑΤΣΙΟΥ*. Head of Lysias, with diadem. Mionnet says of a similar coin, 'représenté en Hercule, la massue sur l'épaule gauche'—but I do not perceive these characteristics very distinctly.

REVERSE:—Bactrian legend, *Mahdrajasa apavihatasa lisikasa*, 'of the unconquered king *Lisika*.'

I perceive that both Mionnet and M. Raoul Rochette give to Lysias the square coins of Spalyrices or Spalurmes; though there is no resemblance whatever between them. M. Raoul Rochette writes in the 'Journal des Savants,' Mars, 1836, p. 136:—

'Cette autre médaille de Lysias diffère sous tous les rapports de celles que nous possédions déjà du même prince: elle est restée inconnue,<sup>1</sup> à tous les savants et voyageurs Anglais qui, depuis plusieurs années se sont appliqués avec un zèle si louable à recueillir ces précieux monuments de la civilisation Grecque enfouis dans le sol de l'Inde: et l'exemplaire que nous devons à M. le général Allard, et que je publie, est encore unique. La fabrique, qui ressemble à celle de la médaille du roi anonyme, que j'ai fait connaître,<sup>2</sup> accuse sensiblement une époque de décadence, d'accord avec la forme carrée du □ et de l' □ qui commencent à paraître sur la monnaie des Arsacides, à partir de Phraate III. à une époque qui doit s'éloigner bien peu de l'âge de notre Lysias. On pourrait voir un autre rapport entre cette monnaie Bactrienne et les médailles du même prince Arsacide, dans le titre de juste, *ΔΙΚΑΙΟΥ*, qui se lit habituellement sur les médailles de Phraate III. . . . mais ce qui constitue ici la particularité la plus remarquable et la plus neuve, c'est la qualification d' Adelphe, *ΑΔΕΛΦΟΥ*, affectée par Lysias, &c.'

When the mistake of attributing this coin to the wrong person is corrected, it is curious how perfectly the observations of the learned antiquarian of Paris confirm the conjecture to which I have been led by the deciphering of the Bactrian legend:—the coin is that of the 'son of a king Spalahara or Balahara;' in bearing the effigy of Hercules it agrees with the corrupted coins of Hermæus II. and others

<sup>1</sup> The drawing of the very coin described by M. R. R. was published by myself in June, 1835, but I did not deem the name legible, nor has it proved so at Paris, by their making Lysiou out of Spalurmou. I stated my reason for not publishing earlier to be, that I might not forestal the 'As. Soc. of Paris' in describing General Ventura's splendid collection.

<sup>2</sup> It is not obvious in what this great resemblance consists;—one coin is square, the other round:—one has a Greek legend only; the other a bilingual one—the equestrian figure is the obverse in one, the reverse in the other. The anonymous coin was first published in the 'Asiatic Researches' in 1831, and in the Journal for 1833 and 1834.



of the Pherres or Phrahetasa (Phraates?) type, which appear to belong to one family. M. R. R. agrees with our discoverer Masson in locating them in an Indo-Greek dynasty at Nysa, or near Jelálábád, where their coins are found in the greatest abundance.

I have introduced an engraving of a very perfect specimen of this coin given to me by Mr. Trevelyan, who got it from Mohan Lál, as fig. 3 of pl. xlii.

It may be remembered that the name of Vonones is not found on the Bactrian side of his coins, but a totally different word,  $\text{𑀧𑀲𑀭𑀸𑀓}$  *Balaharasa* as I read it, or perhaps *Baldharasa* ( $\text{बलाहरस}$ ), the patron of champions, a term nearly equivalent to 'Satrap.' Now on all the coins of Spalyries (or Spalurmes) hitherto found, the initial letter has been unfortunately cut off; but the three next are *lahára*, the same as above, wanting only the final genitive inflection: the next letters may be read *putasa*, for ( $\text{पुत्रस}$ ) 'of the son.' Putting the whole together we have ( $\text{𑀧 Ba}$ ) *ldharaputasa dhamikasa Balafaramasa*, 'of Balafurama (either for Balaparama, or  $\text{बसवर्मे}$ , whose strength is his armour) the just, the son of Baláhara.' Therefore, as he was brother of the cotemporary of Vonones, 'the then king' must also have been a son of the same person: and we should expect to find another coin of a somewhat similar type struck by him. These conditions are satisfactorily combined in the rude square coin of Spalirises, depicted in pl. xv. and pl. xxviii., fig. 7. He has the same flowing mantle from the shoulders, the sceptre of royalty, and his native name appears to be Balirishasa: thus the father's native name is Balahára; the eldest son's Balirisha, and the second son's Balavarna, and the copper money of the whole triad is distinguished for its exceeding rudeness no less than its conformability of type! The silver money of Spalurmes and Spalirises has not yet been found, or we might probably find that it maintained the name of Vonones, the Parthian king, or his successor, on the obverse.

The style of these three names commencing with Bala,—and the title in particular of the first, Balahára,—call to mind the Balhára dynasty of north-western India, of which the epoch cannot be said to be yet well defined. One of the earliest foreign authorities, the historian Masoudi, who wrote in 947 A.D., says:—'The dynasty of Phoor, who was overcome by Alexander, (had) lasted 140 years: then came that of Dabschelim, which lasted 120 years: that of Yalith was next, and lasted 80 years, some say 130. The next dynasty was that of Couros: it lasted 120 years. Then the Indians divided and formed several kingdoms; there was a king in the country of Sind; one at Kanauj; another in Kashmir; and a fourth in the city of Mankir

(Minnagara?) called also the great Houza, and the prince who reigned there had the title of Balhára.<sup>1</sup>

$120 + 80 + 120 = 320$  years, estimated from Alexander's time, brings us to B.C. 3, or, allowing a few more years to Porus, say 10 or 20 A.D. Now, the reign of Vonones I. as king of Parthia is dated by Vaillant from A.D. 6 to A.D. 20, so that the accordance of time is here perfect, and we need seek no other explanation of the paramount Persian sovereign's name and effigy on one side, while the other modestly bore that of his tributary, because we have witnessed the same in the Satrap coins of Suráshtra. The native kings were apparently allowed to have the copper coin to themselves. The religion here, however, is polytheistic, the effigy that of Hercules or Baladeva.

Without insisting upon their being the same person, I cannot help mentioning that the name of Balarishi is found as one of four brothers by different mothers, who cut a conspicuous figure in Indian fable. Balarishi, Vikramarka, Bali, and Bhartrihari; the second of these is the celebrated Vikramáditya, whose reign falls 56 years before Christ, and he was the son of one Gandha-rupa, or, as the fable has it, of a *gandhara*, in the mortal disguise of an ass. Wilford interprets the tale by making Vikramáditya the son of Bahram Gor of Persia by an Indian princess, and, to account for the anachronism of 400 years, is forced to imagine there were several kings of the same name,—which would be likely enough if he admitted (as seems certain from our coins) that Vikramáditya is a mere title. We shall presently allude again to this circumstance.

Fig. 11. From General Ventura's collection. A more perfect specimen of a hitherto illegible coin. It is now seen to belong to Mayes.

OBVERSE:— $\text{BAZIAEONZ}$   $\text{BAZIAEON}$   $\text{METAAOT}$   $\text{MATOT}$ . Front figure of the king seated on a chair or throne, a shawl (?) on his shoulders, and a club or knotted sceptre in his right hand like that given to Mokadphises.

REVERSE:—Much worn and indistinct, a female holding some object like a scarf with both hands, and having a flowing robe behind, like that of the Vonones group. Bactrian legend, *rajadhirajasa mahatasa maasa*, and on the field  $\omega\lambda$  used numerically (?).

The discovery of this rare specimen, only the third known of the prince whose name it bears,<sup>2</sup> will be highly gratifying to the numismatists of Paris. It will, in the first place, remove the doubt entertained by M. Raoul Rochette himself whether the un-Greek appellation Mayes might not be used for *Mao*, 'the moon,' as a divinity and not as a king; or whether, united to the title  $\text{BAZIAETZ}$ , the compound may

<sup>1</sup> Wilford's Essay, 'Asiatic Researches,' ix., 181.

<sup>2</sup> I have just received another Mayes of different type from Capt. Burnes too late for insertion here.—J.P.

not be equivalent to the name of Apollodotus: 'ce n'est là, du reste, qu'une conjecture que je soumets avec beaucoup de défiance aux lumières de nos philologues indianistes, desquels seuls il est permis d'espérer la solution de ce curieux problème.'

The problem is now solved so far that we find him an earthly sovereign with similar titles to those of Azes,—and that he is not Apollodotus! The native name, composed of three letters, I should have formerly read MAO, but on the new, and I think correct, system now adopted, it must be read *Má-asa* or *Mayusa*, as near an approach to the Greek, or by the Greek to it, as the relative alphabets would allow. Of the name itself, I am inclined to identify it neither with *Maia*, the mother of Mercury (though the caduceus favors this idea, and the Indian *Máyá* is also the mother of Buddha), nor with *Mao*, as lunus,—though Chandra is a common name enough,—but rather with Máyu (मायुराजः), the son of Kuvera, the god of riches (whose name also is frequently adopted by princes),<sup>1</sup> and it may have been borne by a contemporary or successor of Apollodotus, who swayed the sceptre but a short period in some part of the Panjáb, if it is necessary to suppose them of the same age.

#### PHILOXENES.

Fig. 12. A square copper coin in most respects agreeing with the former one, also of General Ventura's collection, but having apparently a difference in the orthography of the Bactrian name. On comparing the drawing of the silver Philoxenus in the 'Journal des Savans,' with the rapid sketch I had taken of the same coin while in Calcutta, I perceive that I read the name and title wrong; which is my reason for inserting this better preserved coin:—the legend is clearly *maharajasa apavihasasa plijasinasasa* (or *Phildsinasa*). On the silver coin the epithet is *apavihasasa* (quasi अपविहससः)—not to be laughed at! but I think the *s* must be a blunder.

M. Raoul Rochette judges from the military aspect of Philoxenes that he was a satrap placed with a regal title on the north frontier of the Bactrian kingdom when threatened by the Scythians; but the circumstance of none of his coins having been found by Masson in the upper field, while several have come to light in the Panjáb, would tend to contradict this hypothesis, as much as the *Ceres Carpophore*, or abundance personified, and humped bull of his copper coin. This learned critic does not allow that the brahmany bull has any reference to India, because it is seen on the Seleucid coins; but in the only specimen I have in my cabinet of a Seleucus with a bull reverse, the animal is altogether of the European breed.

<sup>1</sup> See notes on the Allahábád inscription, Nov. 1837, p. 972.—*Pilaka Ugrasena, devardshtraka Kuvera*. As the Parthian kings were styled *devajanita*, this country of the devas may have been in the north, as was indeed the fabulous country of Kuvera, the god-king.

## COINS OF THE AZES GROUP.

A great deal remains to be done ere we shall be able to clear the history of this numerous and interesting series of coins. Every day new types and varieties spring up, generally of tinned copper or bronze.

Fig. 13 is a specimen in good relief lately sent down to me by General Allard; there was another in the collection sent home by General Court under care of M. Meifredy, of which I was favored with the sight of the drawing. On this the name on the Greek side was entire, and thence I am enabled to complete my description.

OBVERSE:—BACIAΣHIC BACIAΣHWN MHTAAOV YNAOΦEΠPOV,—rāja in a brahmanical dress, upper part of the body naked,—on the head a turban (?) with flowing fillets. The small figure of victory holding a chaplet over him forms the peculiarity of the device, of which there are yet but three samples. The monogram, which was before so unintelligible to us, I now recognise as a combination of two letters of the old Sanskrit alphabet,  $\text{ṣ}$  and  $\text{ṣ}$ ,  $\text{ṣ}$  and  $\text{ṣ}$ ,  $\text{ṣ}$  and  $\text{ṣ}$ .<sup>1</sup>

REVERSE:—Whether the figure in a brahmanical costume, holding a trident in the right hand and a palm branch in the left, is Neptune, Siva, the river Indus, or the king, I am not sufficiently initiated in the art to determine. No two reverses seem to be exactly alike, though formed of the same materials; the legend on the present in Bactrian is

*Maharajasa rajarajasa nandatasa jayadharasa (?) Farhetasa.*

I do not pretend to be satisfied with the last epithet, nor with the name, which, however, I collate with M. Court's. I have conceived it possible, on a former occasion, that it referred to Phrahates, the predecessor of Vonones, or another of the same name: but there are too many uncertain letters in it to build theories safely upon. At any rate, the same name of five letters, here seen below the figure of Siva, is found on all the rude coins ascribed formerly to *Unad* (now corrected to) *Undo-pherres*, with exception of the penultimate letter, which is there always formed like an *f*. *Fara-elisa* (?), to which *nandatasa* (soteros) is invariably added—on M. Court's coin this epithet may be preferably read  $\text{ṣṣṣṣṣ}$  great!

On the area are two Bactrian letters, which might be profanely taken for 'six shillings' by an uninitiated handler!

Fig. 14. A variety of the same group, in General Ventura's recent collection. In this the horseman looks in the opposite direction, and the beginning of the name TNAOΦEΠPO is visible. The monogram is composed of  $\text{ṣ}$  and  $\text{ṣ}$ ,— $\text{ṣ}$  *mya*.

On the reverse, a well cled female holding still the trident (though it looks more like the cross) walks to the left—a Greek and a Bactrian monogram on either side, of complex form: legend as before, the name below:

Fig. 15. Another novelty from General Ventura's store, of which a duplicate has been sent to France by M. Court.

In all respects but the name the obverse corresponds with the foregoing. The

<sup>1</sup> I may here note that fig. 14, pl. xxxii., is also a coin of *Farheta*, with the letters  $\text{ṣ}$  as a central symbol.

name in the two coins yet brought to light of this species is quite distinctly ΓΟΝΔΟΦΑΡΟΥ, which is either another member of the family or a corruption of the last.

The erect front-faced figure on the reverse is dressed in the Hindu dhoti, and extends his hands over a new symbol of gridiron fashion—in his left hand is the trident. This figure has been conventionally styled 'Siva,' when he appears with his bull on the Indo-Seythic coins. The native name is as before, *Farahetasa*, with the addition of *netadharasa*, 'the bearer of something not very intelligible, unless we make the first syllable  $\Lambda\lambda$  *jaya*, 'victory.'

Referring to the observations in a preceding page about the brothers of Vikramāditya, I cannot forbear mentioning that in Gondophares we might almost recognize the father of Vikramāditya himself; for in the word Gondo-phares we have a signification not very remote from *Gandha-rupa*; *φάρος* being pallium, vestis exterior,—the compound may mean 'having a cloak made of the skin of the *gandha*, *gonda*, *gor*, or wild ass.' Whence may have originated the fable of the Parthian king doomed to assume the guise of an ass during the day.

These are speculations certainly much in the Wilford strain, but the curious coincidence in so many names is enough to lead even a matter of fact man aside from the justifiable deductions of sober reason.

Fig. 16, like the last, adds a new name to the Bactrian list. The coin, a thick copper piece in tolerable preservation, was sent down to me by General Allard a short time ago; it is as yet, I believe, unique.

ORVERSE:—(βασιλεως βασιλεων μεγάλου) ΑΒΑΓΑΣϞΥ—'of the great king of kings, Abagases:' there may, perhaps, be another letter before the Α. The king, known by the flowing fillets of his diadem, seems dressed in a petticoat, *rāja* fashion—and he sits sideways on a richly caparisoned horse, looking to the right. Monogram  $\chi$  as before, but with the Bactrian letter  $\eta$  beneath it.

REVERSE:—The same royal personage (by the fillets) as if performing the functions of high priest. The dress is so precisely Indian, that I feel disappointed in not finding a regular Sanskrit name below; nor can I produce much of accordance between the Bactrian and Greek names—the letters are *abakhafasa*. On the field are various insulated alphabetic symbols,—Bactrian and Greek, and, under the latter, one which looks like a modern Nagari *n*,  $\eta$ , but is more probably a Bactrian letter.

The last figure in the plate (from General Ventura's store) is a duplicate of the Azes coin published as fig. 22 of pl. xvii. Between the two one important fact is established, namely, that at this period of the Azes dynasty the use of the Greek was entirely lost, while the native character was written with greater correctness in the same or rather the inverse ratio. The Greek legend is a mere jumble of letters, but the Bactrian reads continuously—

*Maharajasa mahatasa dhamikasa rijaṭirajasa Ayasa,*

'Of the great king, the mighty, the just, the king of kings, Azes.

The figure of Abundance with her cornucopia has a compound symbol on the left, which might be read *Sri*, her Indian name, and on the right the two letters  $\zeta$ , *S*, *kha* and *dha*, used numerically. (?)

The perfect Greek medals of Bactria proper, however beautiful as works of art, ought not to turn away our attention from these corrupted or 'barbarous' specimens which mark the decadence of Greek dominion and Greek skill. These are the most precious to the student of Indian history: through their native legend he may yet hope to throw light on the obscure age of Vikramāditya, and the Scythian successors of the Greeks on the north of India. Hitherto these classes of rude coins, though very numerous, have been much disregarded, and on that account I now invite attention to them, and promise to return to the task myself when I have fresh materials collected and arranged; my text being, 'those coins on which the native and Greek legends differ, or record different names.'

[ Following out the plan I have adopted on previous occasions, of combining the substance of Prinsep's discoveries with a general outline of the present state of our knowledge of the various subjects embraced under each heading, I subjoin—

1st. A revised plate (xi.), and a cursory letter-press review of the Bactrian alphabet, as elucidated by the latest available evidence, and illustrated by a valuable comparative table of the transitions of the early Semitic Alphabets, furnished me by M. le Duc de Luynes (pls. xi.<sup>a</sup> xi.<sup>b</sup>).

2nd. A brief introductory notice of the Arian nomenclature, and the parallel transcription and translation of the Greek names and titles occurring on the coins.

3rd. An abstract of the leading theories for the epochal and serial distribution of the list of monarchs adopted severally by the authors who have specially devoted themselves to the study so effectively inaugurated by Prinsep.

4th, and finally, I annex an outline but numerically comprehensive catalogue of all the Bactrian coins I have had an opportunity of examining, together with references to the various publications wherein the more important pieces may chance to have been figured and described at large; further, to improve, as far as possible, the general series, I have added such examples as I felt myself justified in citing from Major

Cunningham's inedited plates;<sup>1</sup> and, to complete the typical details, I have compiled from the coins themselves a table of mint monograms (pls. xi.<sup>c</sup> xi.<sup>d</sup>), which I trust will be found to afford a full and exact summary of these important records.

### I.—REVIEW OF THE BACTRIAN ALPHABET.

Whatever of modifications or discrepancies of form may be apparent in the Bactrian character, as opposed to the Semitic alphabets of the West of parallel date, there can be but one conclusion as to their joint derivation from a single parent stem. It would be absurd to suppose that the Phœnician and its cognate ramifications curtailed and yet complicated into the crude signs of their own system the more copious and advanced alphabetical series of the East. Indeed, there is internal evidence to the contrary, and the process of simplification of certain characters by the latter can be traced and detected in the mere mechanical configurations alone, and otherwise most of the changes and adaptations of the Arian scheme can be explained and accounted for by the double action of the needful increase in the total number of letters, and the effect of contact with the independently perfected alphabet of India proper.

The proofs of the common origin of the two styles of writing are to be found in the direction followed by both—from right to left,—in the leading idea of the construction of the majority of the characters of either, and, more definitively, in the approximation and close unity, in each series of the several forms of ב, ג [א], ו, and ה.

<sup>1</sup> [It is perhaps necessary for me to explain more distinctly the reserve I feel called upon to exercise in this regard. Major Cunningham, some years ago, prepared and printed off a series of eighteen plates of Bactrian coins, designed for the ultimate illustration of his long contemplated work on 'The Successors of Alexander in the East.' These lithographs were most obligingly communicated to myself, and others interested in cognate studies in anticipation of the due order of publication. They contain facsimiles of many important coins that I should have been glad to have cited to improve the series now given, but as I trust the author will shortly be enabled to make public his elaborated memoir, I ordinarily abstain from anticipating the novelties he has delineated, even under the full acknowledgment appended on the rare occasions that I have quoted from this source.]

In regard to the date of the elaboration of the improved system, it would be vain to speculate with any pretension to accuracy; but it may be safe to say, while adverting to the internal fixity of the Semitic alphabet and the very remote period at which it can be shewn to have been in free use,<sup>1</sup> as well as to the material progress achieved up to that date, that the Bactrians must have separated and organized their system at an era considerably antecedent to B.C. 250,<sup>2</sup> which is the earliest epoch at which any example of their epigraphy can at present be quoted.

Symptoms of such an independent advance may be tested in the fact, that at the period in question, many of those letters of purely Semitic formation, which were retained comparatively intact as representatives of identical phonetic values, are found to exhibit a far more striking approximation towards the ultimately accepted forms of the modern alphabet than their correspondent characters of the Western system in use under the Seleucidæ.

<sup>1</sup> [For instance, its having formed the model of the Greek alphabet, which itself is admitted to have been employed in the 9th and 10th centuries B.C. Mure, 'Hist. Greek Lit,' iii., pp. 403, 424, 430, 456. M. E. Renan considers that there is evidence authorizing the induction that the Hebrews wrote in the 'phénico-babylonien' alphabet at the time of the coming out of Egypt. 'Histoire Générale des Langues Sémitiques,' p. 108. Paris, 1855.]

<sup>2</sup> [I am not able to discover upon what precise authority M. Renan extends the spread of Semitism to Bactria at the period indicated in the subjoined extract, but I conclude he associates it in some way with the accession of 'la dynastie (d'origine arienne) qui éleva à un si haut degré, au viii<sup>e</sup> siècle, la puissance de Ninive,' and the subsequent establishment of the kingdom of Babylon:—'Un fait beaucoup plus important que tous ceux qui viennent d'être cités, est la transmission qui se fit, vers le viii<sup>e</sup> siècle avant notre ère, de l'alphabet sémitique à tous les peuples du monde ancien, par l'action combinée de la Phénicie et de Babylone. Semé sur toutes les côtes de la Méditerranée jusqu'en Espagne,\* porté vers le Midi jusqu'au fond de l'Éthiopie, gagnant vers l'Orient jusqu'au Pendjab,<sup>b</sup> l'alphabet sémitique fut adopté spontanément par tous les peuples qui le connurent;' p. 195, 'Hist. Gen.']

\* L'alphabet phénicien était devenu, sous diverses formes, l'alphabet commun de tous les peuples méditerranéens, avant d'être remplacé par l'alphabet grec et par l'alphabet latin, c'est-à-dire par deux transformations de lui-même. Dans le monument de Téos, déjà cité, l'expression *τὰ φοινικία* (s. e. *γράμματα*) désigne le texte même de l'inscription.

<sup>b</sup> L'alphabet zend paraît se rattacher aux alphabets araméens. Quant au dévanagari, son origine sémitique est restée très-douteuse, malgré les efforts de M. Lepsius pour l'établir.



Tracing more closely the internal constitution of this adaptive alphabet, we have to allow—(1) for the creation of nearly double the number of letters previously existing in any known Semitic series, incident to the linguistic demands of a more exact language; (2) for a hitherto-unheeded discrimination between consonants and vowels; and lastly, for that strange anomaly in Semitic writing, the introduction of the medial vowels in the body of, or attached to, the covering consonant, which was calculated so seriously to affect the normal form of the latter.

With these ample materials for comparisons and inductive definitions, it may be said that it should be easy to arrive at the truth; but it must be remembered that the very multitude and conflicting nature of the possible causes creates, in itself, a difficulty in selecting the ruling one. And as has already been remarked, we are not by any means in possession of the whole evidence in the case, but have to decide upon the facts presented to us by three literal series at a given point of their several histories, when each had already arrived at advanced maturity.

However, let the special instances be proven or not, thus much may be conceded on the general issue:—1st, That in the formation of the Bactrian alphabet the leading tendency was to follow Semitic tracings; 2nd, That the normal types of the parent stock were altered, adapted, and even devoted to new purposes, as occasion required, for the due exhibition of the more ample and exact speech they were now called on to embody; and 3rd, That the pre-existing and indigenously-matured Pálí alphabet of the South exercised more or less influence in the ultimate determination of many of the forms, more especially in regard to that extraneous element—the definition of the vocalic sounds.

With this limited preface I introduce the detailed examination of such letters of the entire series as seem to furnish data in support of the results above indicated, otherwise avoiding all

notice of those characters which neither illustrate the general derivative question, nor present any difficulties in regard to their own forms and values.<sup>1</sup>

It will be seen that I follow the order of the Lát alphabet, as arranged by Prinsep in his early engravings.

1. Regarding the value of the letter *k* in its leading lapidary form, or its numismatic modifications, there has been from the first but little question. Some apparent anomalies, however, present themselves in the way of a ready determination of the prototype from whence the Arian letter derived its outline. The normal configuration of the Semitic *כ*, *Caph*, seems to have been devoted, in the Bactrian system, to the representation of a new articulation;<sup>2</sup> and the prevailing style of the Phœnician *פ*, *Koph*, was superseded in the Eastern alphabet by the appropriation of an almost identical character as the exponent of *s*. And yet, amid the enigmas of Semitic palæography, it is curious to mark the community of design apparent between the Bactrian *𐎧* of extreme Eastern maturation and one of the Aramæan varieties of the *פ* preserved on the monuments of Egypt.<sup>3</sup>

2. The *kh* of the Bactrian system will be seen to have gone through a succession of forms, whether under its numismatic or lapidary progressional course: this is possibly owing to its infrequent use, whereby it retained a less determinate position in the general alphabet. It is found on the coins of—(1) Antimachus; (2) Archebius; and (3) Kozola

<sup>1</sup> [It is needful that I should specify more precisely the nature of the materials whereby I propose to justify my inferences:—1st, In regard to the lapidary characters. The Kapurdigiri inscription may be examined in Mr. Norris's most scrupulous mechanical transcript, copied from an inked-cloth impression taken from the rock itself, and published in the 'Jour. Roy. As. Soc.,' vol. xii., p. 153; as an additional verification of the facsimile, I have been able to consult the original calico transfer, in some cases available in duplicate, as well as Masson's own eye-transcript, executed with such obvious care and accuracy on the spot; and, finally, advantage has been taken, in the few possible instances, of the seemingly correct outlines afforded by an indifferent Calcutta lithograph, designed by Mr. J. W. Laidlay, and purporting to have been drawn from a facsimile by Captain A. Cunningham, copied *in situ*.—The Maikyála stone inscription is engraved in pl. ix. of this work, and the entire transcript has been compared and tested anew, from the original—now rectified as to its position on the walls of the Bibliothèque Impériale—since my remarks at p. 125, vol. i., were printed off. The Wardak inscription, which may be classed with the monumental rather than with the numismatic section of palæography, is reproduced in pl. x., and the urn itself is before me for reference. The numismatic characters are necessarily gathered from diverse sources, which it would be tedious to expose at large. It may be sufficient to say that the apparent age of the coins has ruled the order of the several exemplars inserted in the plate of alphabets.]

<sup>2</sup> [*J* or *jh*, *infra*.]

<sup>3</sup> [See Gesenius, Carpentras Inscription, tab. 4; and type table of Semitic Alphabets *infra*, series No. 3.]

Kadaphes, in each case in correspondence with the Greek x. Its Kapurdigiri outline is well ascertained, and equally so is its value, as the equivalent of the Páli ḡ = ख. I have not been able to trace it very positively in the Manikyála writing, and the form I adopt from the Wardak urn is likewise only conjecturally inserted in virtue of outline similarities. I have also entered in the plate the most prominent of the numismatic varieties, whose originals seem often to exemplify the mere crudities of imperfect engraving; but the letter, as it appears on one of Archebius' coins,<sup>1</sup> presents a striking peculiarity in the supplementation of a small hook, such as is used to denote the simple ʔ, which would almost seem to indicate an acknowledgment of the necessity of some further means of discriminating a character, in many instances liable to be taken for a t or an r. The precise sound of the ancient Semitic ʔ *Kheth* (*Hheth* or *Cheth*) is not very well determined; and if it were not for the seeming appropriation of the design of the legitimate Phœnico-Babylonian ʔ to the representation of the Arian *ah*, it might be possible to refer the origin of the Kapurdigiri guttural to a reduction of the superfluous lines of the Achæmenian ʔ, to which stage the complicated figure of olden days had already been brought, and whose unchanged outline was finally accepted by the Greeks as their aspirate ʔ.

3. ʔ = א ʔ. This letter, regarding which some doubt at first existed, is now the received exponent of the sound indicated by the characters of the kindred alphabets set against it. The only difficulty connected with it consists in the question which necessarily arises as to what effect the horizontal foot-stroke, occasionally supplemented to its radical form, in common with those of the ʔ j and ʔ t, may chance to have upon its ordinary phonetic value. The Kapurdigiri Inscription, with a single doubtful exception,<sup>2</sup> leaves the original letter unadded to, and the Manikyála stone alike abstains from the augmentation. The Steatite urn (pl. vi.) seems to insert the stroke in the one case in the word भगवान् and to omit it in the second version of the same title.<sup>3</sup> The Wardak Inscription, which, it may

<sup>1</sup> [In the possession of Colonel Abbott.]

<sup>2</sup> [The instance I refer to occurs in the 14th line in the word *gabagarasi*, corresponding with the Gárnár Páli *gabhágáramhi*. The first *g* has the horizontal foot-stroke, which is clearly to be traced in the cloth impression: it is also entered in Mr. Norris's first copy from that facsimile, but it has been omitted in the lithograph. Masson's eye-copy gives it in full distinctness; and Major Cunningham's transcript fully acknowledges the existence of some such mark, though in the Calcutta lithograph the sign is transformed into an *anusvotra*.]

<sup>3</sup> [Prinsep, I see, has given it in both cases; but there is no trace of the line on the lid of the vase itself.]

be added, will be seen to contain a striking number of 𑀧's in proportion to the rare occurrence of the letter in the cognate inscriptions, must be supposed to insert the sign or its substitute, in the form of a back stroke (easily confounded with the subjoined 𑀧 r), in the majority of instances, while, in one case, the *g* is positively deficient in that or any other subjunctive mark.

For the present, therefore, I am disposed to conclude that this line constitutes a mere optional addition to the simple letter, possibly having its origin in a design more completely to distinguish the *g* from some of the literal compounds, with which it was liable to be confounded.

Regarding the origin of the character itself, I should be inclined to attribute its derivation to a semitically outlined and more cursive imitation of the Pálí 𑀧. The proper 𑀧 *g* of the Pálí series, which so nearly corresponded with the Phœnician 𐤂 *g*, will be seen to have been devoted to other purposes in the organization of the Bactrian alphabet; hence a new form had to be found to represent the functions of the *g*, which it is easy to conceive may have been taken from a character of proximate sound in the independent series of the South.

4. 𑀧 = 𑀧 𑀧. The sign for *gh* has been noticed and commented upon under its numismatic aspect, at p. 207, vol. i. It remains for me to confirm the true outline of the character from lapidary sources. The *gh* is not a letter of very frequent occurrence, so that the possible examples in the whole Kapurdigiri Inscription are limited to three. In tablet iv., line 8, the Arian letters that should correspond with the Gírnár 𑀧's in the words *Berighoso* and *Dhammaghoso*, are imperfect, both in the original cloth transfer and in Masson's eye-copy. Mr. Norris transcribed them therefore as simple *g*'s. However, the recurrence of the letter (tablet xiii., line 5), in its full form, and in due correspondence with the Pálí 𑀧 in the word *Upaghatō*, leaves no doubt that the earliest lapidary outline is identical with that employed on coins.<sup>2</sup>


5. 𑀧 *ng*. Major Cunningham claims, among his other discoveries in the Arian alphabet, to have detected the sign employed to represent this sound. I have had occasion to doubt the finality of this assignment (vol. i., p. 102), and for the present am constrained to leave the Arian column of equivalents of this letter unfilled.

6, 7. I pass by the various forms of 𑀧 and 𑀧, which are sufficiently assured in their early demonstration, as well as obvious enough

<sup>1</sup> [Y. No. 26.]

<sup>2</sup> [In addition to the proved example of the letter on the Behat coins, it is occasionally met with in monogrammatic combination on the Azes series. It also occurs in the last line of the Wardak writing (pl. x.), and in Captain Pearse's copper-slip inscription, 'Jour. As. Soc. Beng.', vol. xxiv. (1855), pl. xv., p. 328.]

in their subordinate gradations, as exhibited in the plate, merely noting with reference to what has already been said on the derivation of the Bactrian *kh*, that the simple form of the Achæmenians and Artaxerxes Longimanus, or their joint prototype, may well be imagined to have furnished the model of the less stiffly-fashioned Bactrian *ch*.

8.  $\eta = \varepsilon$  . I proceed to consider the various equivalents of the letter *j*. The Kapurdigiri and Manikyála outlines of the character closely accord with the simple numismatic type, while the dotted inscription on the Wardak vessel develops certain vaguely executed forms, which are scarcely consistent with one another, but which may generally be said to shew a considerable modification of the primary design.

The peculiarities in the numismatic character consist in some cases of an apparent duplication of the letter by the insertion of a second forward limb, and in the nearly uniform addition of the horizontal foot-line noticed as in occasional use in connexion with the normal form of *g*. And in these instances, also, I am almost forced into the conclusion that this extra line was not designed to have any effect upon the articulation of the consonant, as the same word, Rajadirajasa, is written alike, with or without the lower lines of the *j*'s (*ex. g.* Eukratides and Kadphises), though the earlier examples affect the former, while the later<sup>1</sup> return to the monumental outline. In regard to the association of the normal letter with any character of Semitic organization, I may note its near correspondence with some of the secondary forms of the Western  $\beth$ , though it is clear, if any such identity is to be admitted, that the sign must be understood to have been appropriated to the expression of a foreign and very different sound in the Eastern system.

9. The definition of the Indian Páli form of the *jh* was effected by Prinsep in March, 1838 ('*Jour. As. Soc. Beng.*,' vol. vii., p. 272; *supra*, vol. ii., p. 36). As the Kapurdigiri correspondent passages, wherein this letter might have been expected to be met with, were defective in the one place (tablet vi., line 7), and differently cast in the other (tablet xiv., line 2), the Arian configuration of the character has hitherto remained undetermined. The authority for the present assignment rests therefore solely upon the legends on the coins of Zoilus, where the letter copied in the plate is found as the representative of the Greek *z* in the king's name. It will be remembered that the Devanāgarī alphabet possesses no equivalent of the letter *z*;

<sup>1</sup> [Some of the Azes' coins so far modify the shape of this adjunct as to give it a merely forward direction from the base of the letter, in seeming conformity with the parallel simplification noticed under the letter *g*, p. 149.]

and although modern practice, under the necessities of the adaptations of a foreign tongue, may often substitute the simple  $\aleph$  for the Arabic  $\text{ج}$ , this constitutes no obstacle to the free acceptance of the above identification. The Greek  $\aleph$ , it may be noted, is rendered in Arian by the letter  $\text{פ} = \text{S}$  (see Philoxenes). In this instance, as in those about to be noticed under Nos. 11 and 12, a difficulty arises as to whether the simple letter or its aspirate should be accepted as the more direct derivative from the parent alphabet. Gesenius' early forms of the Semitic  $\text{צ}$  *Caph*, as well as the leading column of the Duc de Luynes' alphabets, would favor the claims of the latter, while the Achæmænian and other proximate reproductions of the same letter approach more nearly to the linear rudiments of the former.

10. The Arian letter, answering to  $\aleph$ , seems to have been primarily deduced from a duplication of the upper limb of the ordinary  $\text{נ}$  to meet the requirements of due correspondence with the more exact and ample alphabet of the South. Its use in the Kapurdigiri Inscription is not exclusive in its accordance with the Pálí  $\text{𑀕}$ . It is found in substitution of  $\text{𑀕} = \text{𑀕}$  in *hiranna* (line 17), and (if the word is not misread) as the equivalent of  $\text{𑀕} \text{nj}$  (line 3); but where such strange liberties are seen to have been taken with the orthography in other parts of the writing, these departures from the intentional standard need not disturb the recognition of the leading value of the sign.

11, 12. The Arian cerebrals,  $\text{𑀕}$ ,  $\text{𑀕}$ , in their relative configuration, seem to carry out the general idea of the Pálí alphabetical system, which associated the simple letter and its aspirate under more or less community of form, though in this instance the normal character would appear to have been retained for the representation of the aspirate, while the corresponding simple letter was constructed out of its elements by a slight modification in the arrangement of its original lines. The earliest Semitic  $\text{𐤕}$ , as its name implies,<sup>1</sup> consisted of a simple cross, and in such guise it clearly found its way into the Bactrian literal series. That it should be adapted to the exposition of the Eastern  $\text{𑀕}$ , rather than to that of the simple  $\text{T}$ , to which the Greeks devoted it, need cause no surprise, as it is clear that  $\text{𑀕}$  (as in 'think') was the primary and preferable equivalent of its sound, notwithstanding that the second and more dubiously aspirated  $\text{𑀕}$ ,  $\text{𑀕}$  *teth*, which co-existed in its own alphabet, was converted in the Hellenic system into  $\text{𑀕}$ .

It is curious also to note, in the Kapurdigiri inscription, what may possibly chance to be a parallel simplification of the dental  $\text{𑀕}$  out of the complicated lines of the  $\text{𑀕}$  of the same order of consonants; except

[<sup>1</sup> 'Cujus nomen (𐤕) signum cruciforme significare constat.' Gesenius, p. 47.]

that, if this derivation is to hold good, the supposition of the conversion of the Semitic  $\gamma$  into the former letter must fall through, and to the cerebral  $\dot{d}h$  of the Bactrian scheme must be conceded the title of inheritance of the alphabetical outline of the Phœnician *Daleth*. Though, in this case, as the primary form of the original Semitic  $\beth$  *teth*, like its derivative denomination, is indeterminate, and the Bactrian adaptation is equally uncertain in its point of departure, it will, perhaps, be preferable to adhere to the definition which supposes a construction of the simple  $\gamma = t$ , in unison with the parallel development of  $\beth$  *b* and  $\gamma$  *r*, from the nearly identical rudiments of the simple letters of the earlier series, and consequently to regard the adaptive dental *th* as a linear improvement upon the tortuous form of the Western alphabets, and as based in one portion of its configuration at least, upon the modified representative of its own simple letter.

13. The  $\dot{d}$  is an alphabetical sign of limited use; but it is of consequence correctly to determine its normal form, with a view to the illustration of the history of the associate characters of approximate sound, and the determination of the progressive modifications of the letter itself. Its positive shape in its monumental expression is sufficiently defined (as given in the plate)<sup>1</sup> by the Kapurdigiri Inscription. It would seem to retain its original outline in the Manikyāla writing, and is frequent amid the coin legends, though strange to say, in these instances it never occurs in its full and definite development as an isolated and uncombined letter, but only appears in its true shape in composition with the vowel *i*, to receive which its side limb has to be considerably prolonged: hence a question arises as to whether the radical configuration of the character was not subjected to a modified design in its ordinary expression as a simple letter; as such, it may possibly have furnished the model for the sign usually exhibited as  $\dot{\gamma}$ ; and it is clear that the resulting elongation of the upper line and the rounding off of the angular turning point might easily occur in the ordinary degradation of the character. And this suggestion brings me once more to face an acknowledged difficulty,—the intent and meaning of the horizontal foot-stroke attached. Hitherto I have had to deal with letters that derived little or no advantage from this supplementation; now a new light seems to break upon the subject, and it would almost appear that the foot-line in this case, like the Parthian semicircular dot of *Naksh-i-Rustam*, still extant in the diacritical mark of the Syriac  $\dot{d}$ , was designed to discriminate the  $\dot{d}$ , or at all events to distinguish it from some character

<sup>1</sup> [It is equal to  $\dot{\gamma}$  in tablet iv., line 12, and tablet vii., line 2; but it corresponds with  $\dot{\gamma}$  in tablet vii., line 3, in *ekadesam*.]

nearly allied in shape but differing in phonetic value. As a general rule (for there are few exclusively consistent ones in this series), the character used to express *d* is individualized by the cross-stroke, while the almost identically-formed *t*'s and *r*'s are preferentially left unmarked.<sup>1</sup> The value of the letter  $\gamma$  as *d*, whether doing duty as cerebral or dental, is proved by its alternation and interchange with the true dental *s* in the antepenultimate in the name of Apollodotus, and in the titles Tradatasa and Rajadīrāj. So that, whether we accept it as a derivative from the old  $\psi = \text{𐎧}$ ,<sup>2</sup> or as an ordinary  $\gamma = \text{𐎧}$  *t*, adapted to a modified articulation, its reciprocal value remains much the same.

14. The cerebral *ḍh* is not a letter in frequent requirement, and though the Arian equivalent is freely developed in the lengthened edict of Kapurdigiri, it need cause no surprise that it should not have been met with amid the brief legends on the coins, especially when it is seen how little discrimination was made between simple letters and aspirates, and what scant scruple was exercised by the die-engravers in the interchange of one *d* for another, or the more vague substitution of *t*'s<sup>3</sup> in place of *d*'s.

15. The cerebral *ṇ* well retains its original Kapurdigiri<sup>4</sup> identity in the later Manikyāla lapidary writing, and on the engraved silver disc from the same locality. Among the modified letters of the Wardak inscription it is more difficult to determine its correct correspondent; for, if we are to follow the Manikyāla inscription, the ordinary  $\text{𐎧}$  has now become  $\text{𐎧}$ , which form duly appears on the brass vessel; but the  $\text{𐎧}$  is here so far changed as in some cases almost to look like a return to the model of the early *s* =  $\text{𐎧}$  of the Kapurdigiri legends.

16. The  $\gamma = \text{𐎧}$   $\text{𐎧}$ , is a letter which admits of but little question, from its first appearance on Asoka's monumental edict to its latest use upon coins. Its form is of importance under the comparative palæographical aspect, in that it assimilates so closely in its simple outline to the nearly homophonous Hebrew  $\gamma$  *d* of modern days, thus exhibiting the more speedy advance towards maturity of the Eastern system in contrast to that of the West, whose expression of the letter in 250 B.C. had in most instances diverged but little from the primitive sign.

<sup>1</sup> [*Ex. gr.* Eukratidasa. Tradatasa. Some of Apollodotus' coins mark the penultimate *t*, but in the better executed specimens the foot-stroke appears as an  $\text{𐎧}$ . See note on that name in the Coin Catalogue.]

<sup>2</sup> [Among other inconveniences of imperfect type, it will be seen that I am compelled to use the same sign for *j* and *d*. The real difference between the two is properly discriminated in the plate.]

<sup>3</sup> [Coins of Azes, *et. seq.* 'Wardak,' i., p. 163.]

<sup>4</sup> [Precision in the use of this  $\text{𐎧}$  seems to have been as little regarded as in other cases already noticed. *Ex. gr.* Q = I usually. Q = L, 4, 9.]



17. The letter *th*, in its early lapidary development, likewise admits of but little cavil; but it is doubtful whether its form is to be detected amid any of the inscriptions or coin-legends subsequent to its proved appearance on the Kapurdigiri rock. Its derivation, as well as that of its fellow *t*, has been already commented on in association with Nos. 11 and 12.

18.  $\text{𐎧} = \text{𐎧}$ . Regarding the letter *d* in its isolated aspect but little need be said; its absolute identity, in the earliest form of which we have knowledge, with the ordinary  $\text{𐎧} = \text{𐎧}$  of the same alphabet, is singular, and often proves inconvenient. It appears to be but little changed in the process of time intervening between the endorsement of Asoka's edicts and the engraving of the Manikyāla stone, though the associate  $\text{𐎧}$  in the latter writing seems to have been considerably modified from the old type. On the coins, this *d* remains but little varied, either under the provincial or ordinary progressional influence. I have still to speak of the subjunction of the horizontal foot-stroke. If the theory be sound that this adjunct is attached to *d*'s and other special letters, and is never supplemented to the *n*'s,<sup>1</sup> then the second letter of the ordinary form of the name of Menander must be read as a *d*, which is certainly opposed to the probabilities of orthographical transliteration. If there were any authority for so doing, I should prefer to interpret the single compound as *nan*, assuming the foot-mark to be a mere simplification of the arrow-pointed *anuswāra* of the Kapurdigiri system; but here, again, difficulties present themselves, as the sign can scarcely be uniformly accepted as the mark of *n*, and indeed as a suffix to the *ṛ* *a*'s and *ṣ* *s*'s, it affects another form. It would still be possible to infer that the discriminating sign of the *d* here supplemented to *n* might stand for the duplication of the succeeding *d*, in accord with Pāli requirements of orthographical expression; but I should be sorry to propose so hazardous a conjecture without more definite and positive evidence than I am yet in possession of. To dispose of the succeeding letter in Menander's name, under this, its proper heading, I may note that the character hitherto received as *n*, appears, from an examination of the best specimens of the multitudinous hemidrachmas of this sovereign, to be a combination of the equivalents of *drd*.

19.  $\text{𐎧} = \text{𐎧}$ .<sup>2</sup> The definition of this letter is well ascertained,

<sup>1</sup> [Certainly this latter rule seems to hold good, with the single exception, if such it be, here noted. I have nowhere else succeeded in finding a pointed *n*.]

<sup>2</sup> [For a long time the Parthian *dh* was supposed to be represented by an outline similar to the above. The correct form is given in the plate, under *ṛ*. (See 'Jour. Roy. As. Soc.,' vol. x., p. 118; vol. xii., p. 264.)]

and its outline undergoes but little change throughout the entire period represented by the various Arian writings antiquarians have as yet been able to assemble for scrutiny and comparison. I notice it in this place merely for the purpose of drawing attention to the curious coincidence of its form with that of the Achæmenian letter (522 to 456 B.C.), entered in the Phœnician series of the Duc de Luynes as the equivalent of the *ʾ* *Tsade*. This outline, it will be seen, departs notably from the ordinary run of the derivations from the old *Tsade*; and hence a question might arise as to whether the exceptional letter may not have been borrowed from the independently matured Bactrian series to represent a sound not very dissimilar to its own, but whose precise articulation did not exist in the Arian system.

20. *ʿ* = *ʿ*. The Kapurdigiri *n* of manifest Semitic derivation, which here had to represent the sound of *d* or *n* at will, seems to have preserved its, to us, normal form on the early coins of the Greek monarchs. Menander, at least, uses it in near parallelism with its counterpart *d*, and Philoxenes places its import as *n* beyond a shadow of a doubt, by inserting it as the penultimate letter of his own designation. The character, however, was soon doomed to modification, whether on account of the objection to one symbol having to represent two diverse sounds, we need not stop to inquire; but on the hemidrachmas of Dionysius the *n* has become little more than a perpendicular line, and stands in strong contrast to the initial *d*, which follows the old model. On the Kadphizes' coins (No. xxvi.) the *n* is formed almost like a Greek *ρ* of the obverse legends, and approximates more to the old design of the *ʿ* than to that of the simple *ʿ*. On Kozola Kadaphes' coins the *n* is figured as a perpendicular line with a single arrow-harb on its top like the letter I have transcribed as *ʿ* from the Manikyāla stone and the Wardak urn; and, finally, on some of the Bactrian Satrap coins the letter appears with the full arrow-point, which may either indicate a modification of the form or value of the character, or may simply imply the addition of a short vowel to the original letter.

21. *P*.—The Arian *p* is a letter which presents no difficulty, either in its original ascertainment or its use in its onward course. But it claims special notice, in companionship with the *l* of the same series, on account of its departure from the standard Phœnician type, in the direction assumed by the indicative adjunct, which constitutes the very essence of the character. The Semitic *ʿ* is shaped like a Bactrian *ʿ* *a*: that is, the distinguishing curve from the leading down-stroke is turned to the left, while the letter *ʿ* of the former series produces the side curve to the right. In the Arian alphabet both these methods of formation are abandoned in favour of a directly opposite mode of

definition, which strikingly identifies the resulting characters with the corresponding letters of the Pálí. These coincidences may, of course, be purely fortuitous, but, taken with other indications of connexion between the two schemes of alphabetical notation, I am disposed to accept the double evidence as more distinctly evincing a designed change.

22.  $\text{𑀘} = \text{𑀓}$   $\text{𑀙}$ . The *ph*, unlike the *p*, which maintains its integral identity throughout, is subjected to changes and modifications that demand specification. Its Kapurdigiri indicator is freely developed, and the original idea of its formation, upon the basis of its own simple letter, may be traced in the additional stroke inserted in the onward course of the writing, beyond the perpendicular line of the parent  $\text{𑀓}$ . In its ordinary written form it is with difficulty discriminated from a  $\text{𑀘}$ , and this chance of confusion may possibly have led to the marked alteration which may be observed during its numismatic course to the  $\text{𑀘}$  of Godophares' money, and again to the  $\text{𑀘}$  of Kadphises' mintages.

23. The Arian *b* is the letter of all others that most intimately identifies its own alphabet with the parallel Semitic offshoot of more Western culture. The derivation from some common parent being admitted in each case, it is curious to mark the independent development of the early Bactrian type of 250 B.C., as opposed to the stationary Phœnician  $\text{𐤁}$  in use under the Seleucidæ; and, progressing onwards, it is still more strange to note the large amount of derivative identity the Parthian letter of Ardashîr Bâbegân holds in common with the Bactrian character of earlier days, as well as the close similarity of the joint resultants more definitively exemplified in the Partho-Bactrian coinage. Further, among the coincidences attending the evolution of alphabetical symbols, it is singular to note a parallel advance towards the most approved modern form of the character achieved *proprio motu* by the Palmyrene writing.<sup>1</sup>

24.  $\text{𑀚} = \text{𑀛}$   $\text{𑀜}$ . The shape of this character is as well defined and equally sustained, as its value is undoubted; but little, therefore, need be said in reference to it. It would, indeed, have been a matter of interest to have traced the possible combination of alphabetical rudiments whence it derived its standard configuration; but, as our starting point for all comparisons consists in an already matured literal series of many centuries growth, it would be useless, in the absence of the more primitive forms, to institute any contrasts based upon materials apparently so largely modified from their primary outlines.

25.  $\text{𑀝} = \text{𑀞}$ . At first sight the Bactrian *m* might be pronounced to

<sup>1</sup> [Gesenius, tab. v., pl. xi. a, and Type Table *infra*.]

have nothing in common with the Semitisms of the Western alphabets; but on examining the question more closely, it seems by no means impossible to conceive that the Eastern product retained in effect a portion of the original elements of the ancient character. The rejection of the superfluous down stroke of the Phœnician *m*, which, as it stood, conflicted with the Arian *ḍi*, would reduce the former letter into the Eastern representative of *mi*, and the further necessity of again discriminating the uninflected consonant from this latter combination may reasonably have led to the ultimate simplification of the current form of the *m*, and the reservation of the cross stroke for its own proper purpose, as the sign of the medial vowel *i*.

26.  $\wedge = \text{𐎧}$ . As with the *m*, I was almost on the point of pronouncing against any possible Semitic influence in the formation of the Bactrian *y*; but it is clear that, if the doctrine of intentional simplification of the characters under the needs and requirements of a more perfect language is to be held valid, much of the primary identity of the Phœnician *y* might be traced in the form ultimately adapted to the Arian alphabet: here, again, a rejection of the redundant up-stroke, which in the Eastern scheme constituted the suffix *r*, and the omission of the second down-stroke of the Western palatal, which expressed an *o* in the Arian series, would leave the character very much in the form extant upon the Kapurdigiri rock. Though I confess that, knowing as I do how much mere mechanical comparisons of forms, under imperfect data, are liable to mislead, I am unwilling to press such arguments, or to claim more than a possible association of minor coincidences, where the broad question is supported by such definite evidence.

27.  $\daleth = \text{𐎧}$ . The letter *r* of the Bactrian series, as found in the monuments of B.C. 250, is of high importance in proving at how much earlier a date it had become developed into the since dominant Hebrew form than the same character of the cognate alphabets of the West. That it is fundamentally the same letter in both may easily be conceded; and the manner in which the nearly fellow character, the *t* of one series, the *d* of the other, advanced into maturity, is likewise striking. The same may be said of the  $\daleth = \text{𐎧}$  *v* of the Bactrian and the  $\text{𐎧}$  *wau* of the Western scheme. As a simple letter, the standard *r* remains but little changed. In combination, however, like the *anuswāra* of the Bactrian system, it presents difficulties from the innate obstacles to the conjunction of the literal forms of Semitic alphabets, which, even under the necessities of Arian speech, seem to have progressed but slowly, and by imperfect rules, in this direction. The small back stroke at the foot of the covering consonant clearly

stands for the letter *r*; but it is a question whether the act of subjunction invariably implied the suppression of the short sound of *a* inherent in the leading consonant; and supposing such to be the ordinary intent and purport of the act of combination, it is doubtful whether the brief *a* is absolute after every open consonant. In the incompleteness of literal definition, so characteristic of all Semitic writing, much must necessarily have been left to the reader's knowledge of the speech so symbolized, to supply orthographical deficiencies; and as we find the compounds *San*, *Sin*, etc., so we may fairly assume that the *Dhrama* of Kapurdigiri and the *Dhramika* of the coins were intended to be read as *Dharma* and *Dharmika* (धर्मे); the Southern Pāli of course duplicated the *m* in lieu of the compound *rm*. Major Cunningham has discovered a method of combining the *rm*, subsequently introduced into the Bactrian numismatic alphabet, whereby the  $\gamma$  was run into the  $\cup$  for the apparent purpose of stifling the intermediate *a*; and I am the more disposed to concur in this assignment, since I imagine I observe in all the words representing *Dharma*, wherein this compound is used, that the tail stroke of the usual sub-junct *r* is rejected from its place at the foot of the *dh*.

Among other progressive efforts towards the due discrimination of the superposed *r*, I detect a remarkable, though solitary, instance of its expression by a dot above the succeeding consonant in the name of Arkhabiyas. This means of representing the *r* is somewhat in parallel accord with the system of the South, where the sign was figured as little more than a prolonged dot above the conjunct letter. But even among these Pāli alphabets we have no very positive example of its employment prior to the Sāh inscription at Gīrnār, though there is every reason to suppose that it was in use much earlier than the date of that writing.

28. The formation of the Bactrian *l* presents no peculiarity demanding comment. I may, however, note its representation by the letter *r* on the medals of Heliocles, and I may refer to the substitution of *l* for *r* in the Dhauli inscription, and the parallel interchanges of these letters in the Western languages of Persia. 'Jour. Roy. As. Soc.,' xiii., 375.<sup>1</sup> The Parthian *l*, it will be seen, retained much of the original figure of the Bactrian type, and had nothing in common with any of the direct offshoots from the Phœnician model.

29.  $\gamma$  =  $\text{𐎧}$ . The *v* of the Bactrian system may be fairly taken to correspond with the original idea of a Semitic  $\text{𐤅}$  *vau*; indeed, some of the intermediate forms of the latter consonant-vowel assimilate completely with the outline of the analogous semi-vowel of the Eastern series.<sup>2</sup>

<sup>1</sup> [See also 'Caldwell's Dravidian Grammar,' p. 120.]

<sup>2</sup> [Gesenius, p. 26, and tab. i., 4, 5; Judas, tab. i., and Type Table *infra*, series 1.]

The identities of the 7 *v* have been already alluded to, vol. i., p. 103. The letter is only further remarkable for the difficulty with which it is at times discriminated from the nearly similarly outlined *t*'s and *r*'s. The intentional distinction seems to consist in the more straight formation of the head line, and the angularity given to its point of junction with the down stroke, which also participates in the lesser degree of curvature. At Manikyála a further divergence may be detected in the extra length given to the perpendicular line.

31.  $\text{𐎧} = \text{𐎡}$ . I am unable to detect any direct affinity between the earliest monumental form of the common Bactrian *s* and the antecedent outlines of the Semitic  $\text{𐤓}$ . The nearest approach, indeed, to the ordinary configuration of the Eastern letter is afforded in the  $\text{𐎡}$  of the Western system. The Duc de Luynes enters, under the Seleucidan period, a form of  $\text{𐎡}$  nearly identical with the Arian numismatic symbol, but the ascertainment of the value of the character is marked as doubtful, and even if finally admitted, I should prefer to pronounce in favour of its derivation from the Bactrian exemplar, rather than the indebtedness of the latter to the Western source. The formation of the Kapurdigiri *s* seems to have been effected by the delineation of a downward curve, but little dissimilar to the ordinary *b*, into which was inserted a perpendicular line,—a method of definition which the *Sinaitique*  $\text{𐤓}$  (circa, 18 B.C.) seems singularly enough to have preserved. In progress of time the Arian *s* becomes more cursive, or rather takes such a form as should avoid the necessity of a second application of the pen. Under neither form does it seem to have anything in common with the Pálí  $\text{𑀲}$ .

32.  $\text{𐎧} = \text{𐎡}$ . The second, or palatal, *s* of the Arian series need scarcely be looked for among the signs of strictly Semitic origin, and may be accepted as an independent invention to meet the wants of Sanskrit vocalization.<sup>1</sup> The earliest Pálí form of this  $\text{𑀲}$ , as I have before remarked, seems to have been borrowed from the Bactrian outline which stood for the  $\text{𐎡}$ . The Southern edicts of Asoka make use of but one *s*, and the contrast between the two systems of writing, in this respect, may be readily exemplified in the word  $\text{𐎧𐎡𐎧𐎡}$  *sususha* of the Arian inscription, which is written  $\text{𑀲𑀲𑀲𑀲}$  *susunsá* in the Girnár text (xiii., 3).

33.  $\text{𐎧} = \text{𐎡}$ . The Arian *sh*, unlike the letter last referred to, must under every aspect be supposed to have had a counterpart in the languages of the West, and its identity in shape with the secondary

<sup>1</sup> [I have elsewhere adverted to a possible Parthian derivative from this character, but as the language of the Bilingual inscriptions, wherein the former occurs, is still undetermined, the value and association of the Western form remains purely conjectural. See 'Num. Ch.,' xii., 78.]



letter of the Western series, namely, the **ḍ**. It is possible that this character may have been incorporated from the common stock, and subjected to new duties; but I should prefer to suppose a positive invention of a new character, or a very marked simplification of the complicated cross-strokes of the earliest **ṣ**, rendered requisite, like many of the other changes, by the necessity of avoiding complex outlines among the radical letters, with a view to their facile reception and legible representation of the short vowels in combination.

The radical form of the full or initial Arian **ṛ** = *a* claims extraneous attention, in the fact that its outline constituted the basis for the construction of all the other vowels and diphthongs of its own alphabet, which are severally distinguished by the additional marks supplemented in each case to the normal *a*, while the same discriminating signs suffice, in combination with consonants, to represent the medial form of their several fundamental letters.

An indication of no little importance in the question of derivations, developed by this law, is to be detected in the imitation and simplified extension of the orthographical rule of the Pāli, which took the initial **ṛ** as the basis of certain other vowels and diphthongs, discriminating them from the simple letter *a* by supplemental additions; thus **ṛ a** became **ṛ á**, **ṛ o**, **ṛ an**, etc., while *i*, *e*, *u*, had separate forms. The Arian scheme, following out this notion with more effective systemization, made **ṛ** the groundwork of the entire vocalic series.

38. The vowel *u* demands a passing notice, rather for the modification it undergoes than for any difficulty in its recognition. The initial on the Kapurdigiri rock is formed by the addition of a foot-line to the standard *a*, in the forward direction of the writing; and a similar mark effectively fulfils the duty of the medial vowel in combination with consonants. An optional interchange of symbols for the initial may be observed on the coins of Eukratides, which is instructive as evincing the limited precision of the orthographical science of the period. In some cases the opening syllable of this name is defined by a combination of the medial sign of the *e* prefixed to a squarely-outlined *u* initial; in others, the sound of *eu* is represented by a fully developed initial *e*, followed by an unattached and completely formed initial *u*. The numismatic *u* medial is speedily transformed into a loop, which form it retains throughout its later monumental course.

41. The equivalent of the Sanskrit **म्** *m* is formed in the Kapurdigiri inscription of the subjunction of an arrow-point to the foot of the normal **ṛ a**, and may reasonably be supposed to figure in convenient modification of the standard **ṁ m**, whose sound it convertibly responds to. A similarly outlined suffix is used for the same purpose in com-



bination with consonants, as in Kambayi, Gandharanam (tab. v.). On coins the stiffness of the adjunct is amended by its transformation into a semicircular curve in continuation of the down stroke of the  $\gamma$  a, a symbol which, it may be remarked, still retains the elements of the primary  $\cup$  m. The change may be attributed to the greater facility of expression, incident to the continuous use of the pen in current writing, as contrasted with the earlier chisel sculpture of lapidary epigraphy, which had nothing to gain by uninterrupted lines. This numismatic suffix appears frequently on coins and inscriptions of more recent date conjoined with the letter  $\varphi$  s, in positions, as regards the latter, which clearly necessitate the interpretation of the compound as *san*, 'year;' though I notice an apparent inability to define the requisite *anuswāra* in combination in the names of Menander, Amyntas, and Gondophares, which it is difficult to account for.<sup>1</sup>

32. The *st* of the Bactrian alphabet is remarkable as being the only standard compound consonant in the entire range of the Kapurdigiri edict; the subjunction of the *r* was allowable with any consonant that required the combination; but the suffix of the *t*, or rather its incorporation with another character into a distinct sign, was reserved for the conjunction now cited; and this compound retained so much of the force of a distinct letter that it admitted of the insertion of a vowel or the subjunction of the *r* like any other simple consonant. The divergence from the Kapurdigiri outline in the later examples of its use is limited to a straightening off of the cross-lines, whereby it is conveniently discriminated from the character *i* or *hi*, with which it was otherwise liable to be confounded.

Before taking leave of these imperfect contributions to the

<sup>1</sup> [Colonel Rawlinson attributes these omissions to a general orthographical law common to the Persian cuneiform and the Bactrian systems. His remarks on the subject are as follows:—

'I need not multiply examples of the absorption of the nasal, as the first member of a compound articulation; for I have already, as far as argument is concerned, abundantly verified the existence of such an orthographical law; and it is one, moreover, with which the identical construction of the numismatic Bactrian\* has long ago familiarized Orientalists.'

Colonel Rawlinson is in error in regard to the second and third names quoted, the insertion of the *anuswāra* is palpable and undoubted, and, when looked for, it is visible enough in one instance in Major Cunningham's plates, on whose authority I conclude the author speaks. The Kapurdigiri inscription further evidences that this assumed rule, if sound at all, is, in practice, rather constant to the opposite effect, as I may instance at hazard from the names of Devanāṃpriya, Antiyoke, Antikina, and the words pashanādeshu (tab. v.), athasastiranaya (tab. vi.), etc.]

\* Remark the orthography of the names of Menander, Antimachus, Antialcidas, Amyntas, etc. In Indian Pālī the nasal *r* preserved before the consonants of all classes. See 'Essai sur le Pālī,' p. 80. 'Jour. Roy. As. Soc.,' x., 182.

history of Bactrian Palæography, and terminating these introductory remarks by the exhibition of the positive data of facsimiles, I desire to advert cursorily to the Parthian or Chaldæo-Pehlvi and the cognate Sassanian-Pehlvi literal series, exemplars of each of which have been inserted in pl. ix. The first of these claims its position in the general inquiry, in appropriate elucidation of many of the alphabetical coincidences and derivative identities already adverted to; the second founds its title to notice, in this place, upon its apposite intermediary position in the progressive palæographic development of the writing of Asia and the important part it will be seen to have played in its position, as the sole apparent vehicle of speech, whether official or domestic, under the specially national reconstitution of the Persian empire,<sup>1</sup> and the influence that, even in its official extinction, it carried with it into the learning and literature of the conquering Arabs;<sup>2</sup> while its alphabetical forms and difficultly-comprehensible language survive so largely in their fitting

<sup>1</sup> [I have for long past insisted upon one deduction of high import in the history of the Zoroastrian languages, 'in the significant fact implied in the extensively prevailing use of the Pehlvi character, as *prima facie* evidence of the existence and currency of the language itself, or of its mere dialectic modifications. I would cite the universality of its influence throughout nearly the entire Persian empire; its employment as the vehicle of expression for the monumental records of the kings; its uniform official currency in the numerous mints of the Sassanian empire; and the geographical definition of its boundaries from the Tigris and the Persian Gulf on the S.W., to Merv and Zâbulistân on the N.E., as manifested by the legends on the Arab coins issued within or near those limits. But beyond this I would now exhibit its acceptance in the affairs of private life, as exemplified by the prevalence of its literal forms on the signets and seals of every-day use. And I would claim this much of deduction from the facts available, that whatever other forms of speech may have existed in the land, whatever of more perfect systems of writing may have been known or employed, it is clear that the seventeen letters of the Pehlvi alphabet sufficed to express all that either official routine or ordinary business transactions required. From our inscriptions and coins we can fix with precision the date of the currency of this style of writing, and unhesitatingly claim its dominance in Persia from A.D. 223 to A.H. 76 (A.D. 695). Our new authorities, the gems, do not of themselves similarly define their own epoch; but we may hope, by testing the forms of the alphabet, and observing closely other significant indications, to fix approximately their place in history.'—*Jour. Roy. As. Soc.*, vol. xiii., p. 374 (1852). See also Westergaard, 'Zendavesta,' i. 19 (Copenhagen, 1854).]

<sup>2</sup> [Here is their own testimony to one most important fact in the history of civilization:—در عهد عبدالملک جرید دیوانی از صورت فارسی باعربی  
M.S. 'Târikh Guzîdah.' Even so late as  
318 A.H. the Arabs were still translating Pehlvi books.—See Reinaud, 'Abulféda,' p. xlv.]

places as monumental, numismatic, and personal records, or the more isolated but carefully-guarded religious services, which, in return, have, in these days, led to the comprehension of one section of the historical epigraphy,<sup>1</sup> otherwise, to us, so enigmatically endorsed upon the less perishable materials of metal or gems.

As I have ventured to infer a derivation of the more distantly cultivated and more obviously divergent Bactrian alphabet from a parentage in common with or intermediately through the Phœnico-Babylonian, it is demanding but scant faith to ask for a more direct concession of the influence of the latter upon the Parthian or Chaldæo-Pehlvi of almost indigenous site, and which, epochally speaking, is so limitedly varied from its obvious prototype.<sup>2</sup> The Sassanian hereditative, and for a long time

<sup>1</sup> [J. Olshausen, 'Numismatic Chronicle,' vol. xi., p. 62.]

<sup>2</sup> [It may be as well to indicate, as far as possible, the surface over which there is extant evidence of the spread of this character. Inscriptions graven in its letters, in parallel association with the Sassanian Pehlvi, are to be found—1st, at Persepolis; 2nd, at Shahrzôr (35° 50', 44° 24'); and 3rd, at Pâf Kûlf, within the Turkish frontier southward of Sulimânia, which latter have only recently been discovered by Sir H. Rawlinson, who further states that isolated but earlier varieties of this character are to be found in inscriptions at—1, Amadiâh; 2, Holwân; 3, Shimbor, in the Baktiari mountains; and 4, at Bebahân. Or, to state the case generally, the style of writing has an Eastern limit of 150 miles beyond the Tigris. Further, it is found on certain classes of Imperial Parthian coins ('Vologeses,' iii. etc.), as well as on several varieties of local issues, which up to this time are supposed to be sub-Parthian or Partho-Persian mintages. The most modern date of its use in inscriptions is to be referred to the reign of Shâpûr I. (A.D. 240 to 273); indeed, it would appear to have been speedily superseded by the more readily discriminated Sassanian Pehlvi, in which alone the monumental records (Ker Porter, vol. ii., pl. lxviii.), and the coin legends of his successors are couched. Cf. 'Philosophical Transactions,' vol. xlix., p. 593, pl. xviii. (1756). Pellerin 3me 'Supplément' (1767), pl. i., fig. 13, p. 32. De Sacy, 'Mémoires sur diverses Antiquités de la Perse,' pp. 72, 136, 202, etc. Ouseley, 'Medals and Gems' (London, 1801). 'Mionnet,' v. 686. Millingen's 'Sylloge' (London, 1838), p. 84. Ker Porter, pls. xv., xxii., xxviii., etc. Rich's 'Babylon and Persepolis' (London, 1839), pl. xii. 'Ariana Antiqua,' pl. xv., fig. 23, etc. Rawlinson, 'Memoir on Persian Cuneiform Inscriptions,' Jour. Roy. As. Soc., vol. x., p. 118, *et seq.*; and my Pehlvi Alphabets, 'Jour. Roy. As. Soc.,' vol. xiii., p. 262; and vol. xiii., p. 3. Westergaard, 'Bundehesh,' p. 84 (1851). 'Numismatic Chronicle,' vol. xii., p. 68; and Dr. Scott's papers, vols. xvii. xviii. *ibid.* Lindsay, 'View of the Coinage of the Parthians,' (Cork, 1852). 'Haug. Ueber die Pehlwi-Sprache' (Gott. 1854).

While adverting to Parthian writing, I feel bound to notice a somewhat pretentious article, recently published, which professes to interpret the legends on several classes of sub-Parthian currencies. The paper in question is inserted in the 'Zeitschrift' of the present year (1857), p. 700, under the title of 'Lettre, etc., sur quelques médailles à légendes iraniennes de l'époque Arsacide, par Comte A. de Gobineau' (Téhéran, le 12 Mars, 1857). As the author seems to have been altogether un-

contemporary character, is not perhaps so manifest an emanation from the same source, but of the absolute fact there can be no reasonable question, though the ordinary course of mechanical induction leaves this much doubtful, as to whether the Sassanian was derived by independent action from some purely Semitic stock, or whether it was a local improvement upon the intermediate Parthian character of anterior currency and official prominence in their joint monumental association: I myself should certainly prefer the latter inference.

acquainted with De Sacy's elaborate investigations into the alphabet of cognate type, which appears in the numerous bilingual inscriptions of the early Sassanians, I may be held excused from withholding my general acquiescence in his readings; but, to show how fallacious his system of decipherment has proved, even in his own hands, I may remark that on his coin No. 7 (Numismatic Chronicle, vol. xii., pl. p. 68, figs. 5, 6, 7), he detects the word *malika* (or *meleky*, as he transcribes it), in one portion of the legend, while its repetition in the same epigraph altogether escapes him, as equally do the same duplicate titles on his piece No. 1. The interpretation he assigns to the legend on this latter coin I reproduce, as a test of the probable value of the rest of his definitions.

KYOUVA SETRY VAHYA ARHSAK.

'Le Roi de race pure, Arhsak.'

My own reading of the legend of a similar coin, a facsimile of which is prefixed to the modern transcript, is as follows :—

עוה"מ (ו"א) ע"מ (ו"א) ו"א  
ארתהשתר מלכא ברי כאילך מלכא

See 'Numismatic Chronicle,' vol. xii., pl. No. 8.

While upon this subject, I may take occasion to refer to my original transcription of the legend on the unique coin of Hormuzd II., brought from Persia by Sir H. C. Rawlinson (*Num. Chron.*, vol. xv., p. 180; *Jour. Roy. As. Soc.*, vol. xiii., p. 379). Dr. Scott, in commenting upon my transliteration as opposed to that of Dr. Mordtmann, while confessing that the shapes of the letters on the coin itself better accord with my version than that of the author just named, accepts the interpretation of the latter, or **ורמזד לבני רישאן** ('of Ormuzd, of the god of light,' in preference to mine, in virtue of its having the advantage of 'being comprehensible!' (*Num. Chron.*, vol. xvii., p. 166). As I did not pretend to translate my transcript, which was grounded simply on mechanical data, I could have no objection to so much of condemnation; but, in truth, my version, with the interpretation I now append, not only makes very excellent sense, but it has the higher merit of according far more precisely with the typical indication afforded by the monarch's head-dress, which is formed after the conventional model of the Hercules' head, so frequent on the Greek coins, with the covering of a lion's skin. My transliteration ran—

מזדיסן בני אוהרמזדי לבאכושאן מלכאן מלכא

The **לִּיאָוִן**—the only doubtful portion of the whole—I understand to mean 'lion killing'. The mixture of Aramaic and Persian in the compound need cause no surprise; neither, I am bound to add, is the orthographical expression of the participle in accord with modern Persian grammar; but these objections are infinitesimal in the interpretation of so irregular and little-known a language as that used in the official records of the early Sassanians.]

The next step in the onward course of the Sassanian alphabet, its merging into the Pehlvi of the early Arabs in Persia, which is nearly literatim the same as the Pársis have preserved in Kermán and Gujarát, admits of no possible cavil: how much of the essence of these modified letters the Arabs took into their own superseding Kufic has only been partially investigated, and hitherto insufficiently allowed for; but the number of the normal forms of Pehlvi that have passed into and been reproduced in the so-called Zend alphabet are palpable and manifest on the most cursory inspection; and whatever may be the real antiquity of the language of the Avestá, couched in these letters, there can be but one opinion as to the comparatively recent date at which the characters themselves must have been compounded out of more ancient systems of writing.

I now exhibit the Plate of Comparative Alphabets, which I have prepared in supersession of Prinsep's original plate xi. and to complete the data for testing the rise and progress of the Bactrian alphabet from its Semitic elements, I have appended the two plates of the modifications of that class of literal symbols so obligingly prepared for me by the Duc de Luynes, whose original introductory notice I insert in explanation of the derivation of each.<sup>1</sup>

#### ALPHABET PHÉNICIEN (PHÉNICIE PROPRE).

*Du temps de Sargon.*—Les lettres א, ג, ה, ו, י, ב, ד, נ, פ, sont prises dans les légendes des deux pierres gravées à inscriptions, découvertes par M. Place sous les taureaux du Palais de Sargon.<sup>2</sup> Les autres lettres sont tirées de pierres gravées à

<sup>1</sup> [It is a pleasure to me to record the circumstances under which I have to acknowledge M. le Duc de Luynes as a coadjutor in this Essay. During a passing visit to Paris, I was made aware that he had most liberally permitted the Numismatic Phœnician type, prepared for the illustration of his own privately circulated works, to be made use of in the printed sale-catalogue of the Baron de Behre's coins. Encouraged by this concession, I ventured to solicit a similar favor in my own case, so far as a single elucidatory alphabet was concerned. I need not add that this request was readily complied with; but moreover, on my subsequently addressing M. de Luynes, with a view to obtaining a more precise idea of the epoch and localities to which these specimen letters were due, I was surprised and gratified by a promise of a mature and comprehensive review of the entire question of Phœnio-Semitic Alphabets, of which the present materials exhibit the performance.]

<sup>2</sup> Ces légendes sont: אבדבאל et אבדבאל Obadbaal et Riphthiah.

English	Indian Pehl	Legatory Bactrian	Non-Indo Bactrian	English	Indian Pehl	Legatory Bactrian	Non-Indo Bactrian
t	+	𐭒	𐭒	ph	𐭒	𐭒	𐭒
th	𐭒	𐭒	𐭒	h	𐭒	𐭒	𐭒
g	𐭒	𐭒	𐭒	bh	𐭒	𐭒	𐭒
gh	𐭒	𐭒	𐭒	m	𐭒	𐭒	𐭒
ng	𐭒	𐭒	𐭒	ṃ	𐭒	𐭒	𐭒
ch	𐭒	𐭒	𐭒	r	𐭒	𐭒	𐭒
chh	𐭒	𐭒	𐭒	l	𐭒	𐭒	𐭒
j	𐭒	𐭒	𐭒	ṛ	𐭒	𐭒	𐭒
jh	𐭒	𐭒	𐭒	h	𐭒	𐭒	𐭒
ā	𐭒	𐭒	𐭒	s	𐭒	𐭒	𐭒
!	𐭒	𐭒	𐭒	ṣ	𐭒	𐭒	𐭒
th	𐭒	𐭒	𐭒	sh	𐭒	𐭒	𐭒
d	𐭒	𐭒	𐭒	ṣ	𐭒	𐭒	𐭒
dh	𐭒	𐭒	𐭒	a	𐭒	𐭒	𐭒
n	𐭒	𐭒	𐭒	a'	𐭒	𐭒	𐭒
i	𐭒	𐭒	𐭒	i	𐭒	𐭒	𐭒
th	𐭒	𐭒	𐭒	u	𐭒	𐭒	𐭒
d	𐭒	𐭒	𐭒	e	𐭒	𐭒	𐭒
dh	𐭒	𐭒	𐭒	o	𐭒	𐭒	𐭒
n	𐭒	𐭒	𐭒	au	𐭒	𐭒	𐭒
p	𐭒	𐭒	𐭒	at	𐭒	𐭒	𐭒
				ap	𐭒	𐭒	𐭒

ANCIENT PEHLVI ALPHABETS: (PARTHIAN & SASSANIAN)

Modern Bactrian	Parthian	Sassanian	Modern Bactrian	Parthian	Sassanian	Modern Bactrian	Parthian	Sassanian
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒
𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒	𐭒

Méthode Hébreu	ALPHABET PHÉNICIEN (PHÉNICIE PROPRE)				DÉRIVATION DE L'ALPHABET PHÉNICIEN			
	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600	Des temps d'Épigraphie Roi de Sidon vers 600
Α	Α	Α	Α	Α	Α	Α	Α	Α
Β	Β	Β	Β	Β	Β	Β	Β	Β
Γ	Γ	Γ	Γ	Γ	Γ	Γ	Γ	Γ
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε
Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ
Η	Η	Η	Η	Η	Η	Η	Η	Η
Θ	Θ	Θ	Θ	Θ	Θ	Θ	Θ	Θ
Κ	Κ	Κ	Κ	Κ	Κ	Κ	Κ	Κ
Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
Μ	Μ	Μ	Μ	Μ	Μ	Μ	Μ	Μ
Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ
Ο	Ο	Ο	Ο	Ο	Ο	Ο	Ο	Ο
Π	Π	Π	Π	Π	Π	Π	Π	Π
Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ
Σ	Σ	Σ	Σ	Σ	Σ	Σ	Σ	Σ
Τ	Τ	Τ	Τ	Τ	Τ	Τ	Τ	Τ
Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Φ	Φ	Φ	Φ	Φ	Φ	Φ	Φ	Φ
Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ
Ω	Ω	Ω	Ω	Ω	Ω	Ω	Ω	Ω





légendes plus ou moins longues, dont plusieurs caractères font partie des légendes sur les deux pierres gravées de M. Place et doivent, par là, se rattacher au même alphabet.

*Du temps d'Fomunazar.*—Alphabet tiré de la longue inscription sur le Sarcophage de ce Roi. [‘Journal Asiatique,’ Avril-Mai, 1856.]

*Sous les 1<sup>ers</sup> Achéménides.*—Cet alphabet est formé des légendes sur les médailles les plus archaïques d’Aradus : Tête virile barbue et laurée. Revers, Navire ; au dessus  $\aleph, \omega$ , suivi de lettres numériques variées,  $\eta, \zeta, \chi, \psi, \delta$  ; les lettres  $\gamma$  et  $\varphi$  se trouvent sur des pièces d’argent des anciens Rois de Perse représentant un Roi frappant de son poignard un lion dressé devant lui ; auprès,  $\varphi$ , et au revers :  $N(i)S(i)B$   $\aleph \omega$  au dessus d’une ville à tous crénelées, &c. Cette pièce est au Musée britannique.

*Du temps d’Artaxerxès Longue-main.*—Tiré des médailles d’or et d’argent des Rois de Tyr, de Cittium et des Chittim (cf. mes Satrapies).

*Sous Artaxerxès Mnémon.*—Tiré de la numismatique des Rois de Gebal (Byblos) vivant probablement à cette époque (cf. mes Satrapies), et de médailles encore inédites de cette dynastie dans ma collection.

*Sous Artaxerxès Ochus.*—Tiré des Dariques de mauvais travail frappées sous ce Prince.

*Sous Alexandre et les 1<sup>ers</sup> Séleucides.*—Monnaie d’or et d’argent aux types d’Alexandre frappée sous son règne et sous ses premiers successeurs à Joppé, Acé, Aradus, et Thœma.

*Sous les Séleucides, de 312 à 145.*—Lettres isolées et numériques sur les médailles d’Aradus, de Tyr et de Sidon, frappées sous la domination de ces Princes. Médailles de Tyr frappées sous Antiochus IV. et Demetrius II. et de Laodicée au revers d’Antiochus IV.

*Sous la domination Romaine, depuis l’an 145.*—Monnaie en cuivre d’un travail de décadence frappée à Sidon, Tyr, et Marathus.

#### DÉRIVATIONS DE L’ALPHABET PHÉNICIEN.

*Araméen.*—Manuscrits sur papyrus appartenants au Duc de Blacas. Gesenius paraît croire que ces Manuscrits qui font mention de la captivité d’un peuple en Egypte, sont allusifs à celle des Hébreux et pourraient être contemporains. En tout cas, ils sont très anciens. Cependant, le monument de Carpentras, portant une inscription de même écriture, ne paraît pas remonter à une époque très reculée.

*Palmyrénien.*—La plupart des Inscriptions Palmyréniennes connues ne sont pas plus anciennes que les premiers Empereurs Romains et ne dépassent guères l’époque d’Alexandre Sévère mort en 235 de J. Chr. Cependant, il existe une médaille presque archaïque, frappée à Sidé de Pamphylie, dont la légende est évidemment en caractères palmyréniens (voir mes Satrapies).

*Sinaitique vers l’an de J. C. 18.*—Cet alphabet est tiré de médailles encore inédites de Rois des environs de la mer rouge et de l’Idumée, dont le principal date ses monnaies de l’an 330 (des Séleucides).

*Sinaitique après l’an de J. C. 18.*—Alphabet établi par M. Beer d’après les inscriptions de Gebel Mocatteb. Inscr. veteres litt. et ling. bucuq. incogn. ad mont. Sin. magn. num. repert, &c. Lipsia, 1840, 4to.

#### ECRITURE PUNIQUE.

*Avant 396.*—Médailles archaïques de Motya, Taïta et Aea, frappées en Sicile. Motya fut détruite en 396.

*De 396 à 332.*—Médailles de travail grec avec les types de Cérès et de Proserpine, adoptés par les Carthaginois seulement depuis 396, époque où ils commencèrent à honorer ces Déeses, et pièces frappées avec le type du droit imité des monnaies d'Alexandre.

*Première guerre punique.*—Médailles au type de la tête de Cérès et du cheval ou du Pégase, d'un bon travail, et que l'on trouve en grande abondance en or, argent, et cuivre.

*Seconde guerre punique.*—Les mêmes types ou peu variés, mais d'un travail de décadence et de métaux d'un titre bien plus bas.

*Syphax.*—Médailles de bronze de ce Roi et inscription de Marseille exactement de la même épigraphie que les légendes de Syphax.

*Juda 1<sup>er</sup>.*—Monnaies de ce Prince en argent et cuivre.

*Empire Romain.*—Monnaies puniques d'Espagne et d'Afrique avec des types impériaux en conformes par leur écriture à celles qui portent ces types.

*Satrapies de Cilicie* et particulièrement ceux de Tarse (*cf. mes Satrapies*).

*Cypre vers 424.*—Médailles de Salamine, frappées probablement sous le gouvernement d'Abdemon. La lettre  $\Pi$  appartient à une médaille d'Amathus de la même époque.

*Abdemon, Roi de Salamine.*—Abdemon, Satrape de Cypre, régnait à Salamine. Une médaille de ce Prince, que je possède, porte son nom, עבדמהן.

*Écriture ornée de l'Inscription de Ciltium*, époque incertaine mais probablement reculée.

L'Inscription en question est celle du Musée d'Oxford reproduite par Gesenius dans ses 'Monumenta Phœnicia,' pl. xi., inser. No. ix., 2 n.

## TYPE TABLE OF SEMITIC ALPHABETS.

I have but little to say in commendation of the subjoined type table of comparative Semitic alphabets, the majority of which consist of such reproductions of the materials of early commentators as the German type-founders chanced to have prepared for the use of printers.

The series Nos. 1, 3, and 4, which are based upon Gesenius' plates, were procured for the casual illustration of the general subject, before I was favoured with the elaborate and more mature facsimiles of the Duc de Luynes, which in a measure supersede the less comprehensive alphabets in type metal,<sup>1</sup> though I have permitted these latter to stand in their introductory capacity, for the purposes of facility of reference. The Kufic literal signs are likewise of but limited palæographic

<sup>1</sup> [The fourth or Palmyrene series is peculiarly infelicitous in its rendering of the forms of the originals; however, M. de Luynes' facsimiles will amend its deficiencies.]

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value, as they do not represent the earliest form of that adaptive alphabet.<sup>1</sup> There are, however, two sets of characters (not of German execution) to which I desire to call attention. No. 2 comprises the Numismatic Phœnician cut for the Duc de Luynes, and imitated principally from the forms of letters prevailing on the coins of Cilicia and Cyprus. The alphabet No. 5 is, likewise, a novelty, for which I am indebted to the Rev. W. Cureton,<sup>2</sup> who explains its derivation in the following terms:—

'The type was principally copied from MSS. of the 6th century, and represents the earliest form of the character known to us. It is identical with that of the most ancient MS. in the British Museum, date A.D. 411; but the forms of the letters are made a little more carefully than they were written by the person who copied that MS., and imitate more closely those of some better scribe, although about a century later.'

The alphabet in question claims a double interest, in exemplifying the earliest extant Syriac writing, as well as in its near identity with the Estrangelo graven on the celebrated Nestorian monument of Si gan Fu, dated in the 8th century,<sup>3</sup> while its progress on its Central Asian course, thus clearly marked, illustrates the parentage of the Mongol alphabets, whose derivation from a Syriac source has long been freely conceded.

<sup>1</sup> [A valuable contribution towards the study of the palæography of the Arabs has been furnished by J. C. Lindberg ('Lettre à M. Brøndsted,' Copenhagen, 1830), from whose work I cite the following note on the earlier authorities on the subject:—I. G. C. Adler. 'Descriptio codicum quorundam euficorum in bib. reg. Hauniensi.' Altonæ, 1780. Silvestre de Sacy. 'Mémoires sur l'origine et les anciens monumens de la littérature parmi les Arabes.' 'Mém. de l'Académie,' vol. i., p. 247. The same. 'Notices et Extraits,' etc., vol. viii., p. 209; and 'Journal Asiatique,' 1827. M. Kopp. 'Bilder u. Schriften der Vorzeit,' ii., 287.—To these I may add Marcel's 'Palæographie Arabe,' Paris, 1828. 'Ibn Khallikan,' Orient. Trans. Fund, pp. xv., xvi., etc.; and lastly, I would refer to M. Renan's comprehensive review, p. 320, in his 'Histoire générale des Langues Sémitiques,' 1855. While referring to Kufic writing, I must not omit to call attention to the interesting copper-plate grant to the Christian Church in India—which bears the signatures of attesting witnesses—severally in Kufic, Pehlvi, and Hebrew characters. 'Jour. Roy. As. Soc.,' vol. vii., p. 343. 'Madras Journal of Literature and Science,' vol. xiii. (1845), pl. viii.]

<sup>2</sup> [Or I should rather say my obligations are due to Mr. Watts, of Crown Court, to whom the type properly belongs.]

<sup>3</sup> ['La Chine d'Athanase Kirchère.' Amsterdam, 1670.—'Assemani,' iii., 2nd part, p. 735. Rome, 1728.—M. Huc. 'Christianisme en Chine,' p. 48. Paris, 1847.—'Journal of the American Oriental Society,' vol. v., p. 278.—Reinaud, 'Géogr. d'Aboulféda,' p. 365.—Renan, 'Hist. Gén.,' vol. i., p. 268.]

Finally, I have introduced a set of Zend letters, more with the object of completing the series of cognate alphabets, than for any credence I wish to claim for them among the other palæographic memorials of the ancient currency of which we have good and authentic proof; and, for the purposes of direct comparison, I have prefixed to this enlarged alphabet the several original Pehlvi characters upon which the Zend correspondents seem so obviously to have been formed.<sup>1</sup>

## II. ARIAN NOMENCLATURE.

I do not propose to recapitulate the Arian transcriptions of the Greek names; the details of each, together with the variations in the standard orthography, will be found duly marked in the Coin Catalogue, and most of their peculiarities will have already been considered in the determination of the alphabet in whose literal forms they are expressed. The same may be said of the Oriental names, which in process of time superseded the Greek designations, and where the definition must be supposed to be authoritative under its Arian form rather than in the now imitative transcript in Grecian characters. It may, however, be useful to summarize the Arian titles, whether direct translations or local equivalents of the leading idea of titularization adopted from the conquerors, even if it be merely to avoid the tedious repetition of interpretations on the recurrence of each king's little-varied epithets.

1. The more common indigenous titles of *Maharaj*, 'great king,' and its superlative combinations of *Rajadhiraj*, 'king over kings,' and *Rajaraja*, 'king of kings,' scarcely require notice.

2. The equivalent of the Greek *σωτήρ* is rendered by the word *Tradata*, a provincial derivative from *𑀲𑀸*, 'to preserve'; and here, as in all cases, I adhere to the manifest orthography

<sup>1</sup> [This Zend type, like the early Syriac just acknowledged, is also the property of Mr. Watts. The very excellent Pehlvi fount, as has been already noticed, belongs to Messrs. Harrison and Co., St. Martin's-lane.]

# ZEND ALPHABET.<sup>1</sup>

## VOWELS.

SHORT VOWELS, <i>Pehlvi</i> ,	𐬀 a.	𐬁 i.	𐬂 u.
„ <i>Zend</i> ,	𐬀 a.	𐬁 e.	𐬂 i.
LONG VOWELS, <i>Pehlvi</i> ,	𐬀 ai.	𐬁 i.	
„ <i>Zend</i> ,	𐬀 á.	𐬁 í.	𐬂 ú.
„ <i>Zend</i> ,	𐬀 o.	𐬁 ó.	𐬂 áo.

## CONSONANTS.

GUTTURALS,	<i>Pehlvi</i> ,	𐬀 k.	𐬁 hu.	𐬂 g.
„	<i>Zend</i> ,	𐬀 k.	𐬁 kh.	𐬂 q.
PALATALS,	<i>Pehlvi</i> ,	𐬀 ch.		𐬂 j.
„	<i>Zend</i> ,	𐬀 ch.		𐬂 j.
DENTALS,	<i>Pehlvi</i> ,	𐬀 t.		𐬂 d.
„	<i>Zend</i> ,	𐬀 t.	𐬁 th.	𐬂 th.
LABIALS,	<i>Pehlvi</i> ,	𐬀 p.		𐬂 b.
„	<i>Zend</i> ,	𐬀 p.	𐬁 f.	𐬂 b.
SEMI-VOWELS,	<i>Pehlvi</i> ,	𐬀 i or y.	𐬁 r.	
„	<i>Zend</i> ,	𐬀 𐬀 (𐬀 med.) y.	𐬁 r.	𐬂 (𐬀 med.) v.
„	<i>Pehlvi</i> ,	𐬀 v. or w.	𐬀 h.	
„	<i>Zend</i> ,	𐬀 w.	𐬀 h.	
SIBILANTS,	<i>Pehlvi</i> ,	𐬀 s.	𐬁 sh.	𐬂 z.
„	<i>Zend</i> ,	𐬀 s. (ç.)	𐬁 sh.	𐬂 s.
NASALS,	<i>Pehlvi</i> ,	𐬀 n.		𐬂 m.
„	<i>Zend</i> ,	𐬀 n.	𐬁 ñ.	𐬂 an.

<sup>1</sup> The definition of the Zend Alphabet is adopted from Spiegel's 'Grammatik der Pârsisprache;' the Pehlvi series is confined to the older and unpointed forms.

of the original, without attempting to reconcile the deviations from the laws of Sanskrit grammatical construction, or to trace the process of vernacular degradation ; it is sufficient to say that, having the Greek counterpart, and ordinarily an appropriate Sanskrit root, we must remain content to take the inflections and orthographical variations the die engravers have left behind them.

3. The *δικαιος* of the coins is represented by the term *Dhamika*, or rather *Dhramika*, from धृ, 'to hold, to maintain,' whence धर्म, 'virtue,' etc.

4. The term *νικηφόρος* appears under the optional forms of *Jayadhara* and *Jayata*, the derivation of which, from जि, 'to conquer,' जय, 'conquest,' is sufficiently obvious.

5. The counterpart of *ἀνκλητος* appears in parallel accord as *apadihāta*,<sup>1</sup> for अप्रतिहत, 'unrepulsed' (from हन, 'to strike or hurt').

6. *Mahata* and *Mahataka*, of obvious derivation, occur as the representatives of the Greek *μεγας*.

7. The title *Pradicha*, otherwise *Praticha*, which stands as the indigenous representative of the Greek *ἐπιφάνης*, may readily be identified as the vernacular form of प्रतिष्ठित *Pratishthita*, 'renowned.'

8. The transcripts of the Greek *σατράπης* and *σατρηγός* seem sufficiently assured, as likewise does the translation of 'ΑΔΕΛΦΙΔΕΥΣ' in the local *Brada-putrasa*, 'brother's son.'

### III.—THE EPOCHAL AND TERRITORIAL DISTRIBUTION OF THE BACTRIAN MONARCHY.

I have already intimated that I am not in a position, either as regards preparation or present opportunity, to review, with the deliberation the subject demands, the classification of the long list of Bactrian kings, the sole witnesses of whose rule, in the majority of cases, exist in the emanations from their mints

<sup>1</sup> [On Gondophares' coins, *apratihata*.]



exhumed from time to time in and around the ancient seats of government.

In other cases credit is claimed for coins under their faculty of illustrating written history: in this instance they comprehend the sole data for history itself; at least, from their records alone must be drawn, with scant exception, all testimony at present available of the survival, re-institution, and extinction of the dominant Hellenic element on the site of Alexander's furthest conquest in the East. In the almost total absence of annals, whether Occidental or Oriental, it is from the legends stamped upon the public money that we must reconstruct the story of the otherwise unrecorded potentates who swayed the destinies of these lands for upwards of two centuries.

For such tales as these medallic memorials may tell, I must refer to the works of those authors who from time to time have treated this section of numismatics in detail; contenting myself, for the present, with reproducing, with but scant comment, the matured results arrived at by each.<sup>1</sup>

<sup>1</sup> [*Independent Works*.—'Historia regni Græcorum Bactriani, in qua simul Græcarum in India coloniarum vetus memoria explicatur, auctore Theophil. Sigeff. Bayero,' Petropoli, 1738. Mionnet, 'Supplément,' vol. viii. (1837). Lassen, 'Zur Geschichte der Griechischen und Indoskythischen Könige,' Bonn, 1838. 'Coins of Greek, Parthian, and Indo-Scythian Kings of Bactria and the countries on the Indus,' by Dr. C. Grotefend, Hanover, 1840. 'Ariana Antiqua: a descriptive account of the Antiquities and Coins of Afghanistan (with a memoir on the buildings called Topes,' by C. Masson), H. H. Wilson, London, 1841. 'Historical Results, deducible from recent discoveries in Afghanistan,' by H. T. Prinsep, Esq., London, 1844. 'Indische Alterthumskunde,' von Ch. Lassen, Bonn, 1847.

*Calcutta Asiatic Researches*.—'Description of select coins from originals or drawings in the possession of the Asiatic Society,' by H. H. Wilson, Esq., vol. xvii., p. 559 (1832).

*Journal of the Asiatic Society of Bengal*.—'Note on Capt. Hay's Bamian Coins,' by H. Torrens, Esq., vol. ix., p. 70. 'Points in the history of the Greek and Indo-Scythian Kings in Bactria, Cabul, and India, as illustrated by decyphering the ancient legends on their coins,' by Christian Lassen, Bonn, 1838, vol. ix., p. 261; continued, pp. 339, 449, 627, 733. 'Notice of some counterfeit Bactrian Coins,' by Captain Alexander Cunningham, vol. ix., p. 393. 'Notes on Captain Hay's Bactrian Coins,' by Capt. A. Cunningham, vol. ix., p. 581. 'Description of, and deductions from, a consideration of some new Bactrian Coins,' by Capt. A. Cunningham, vol. ix., p. 867; note to ditto, p. 1008. 'Second notice of some forged coins of the Bactrians and Indo-Scythians,' by Capt. A. Cunningham, vol. ix., p. 1217. 'A sketch of the second Silver Plate found at Badakshān,' by Capt. A. Cunningham, vol. x., p. 570. 'Second notice of some new Bactrian Coins,' by Capt. A. Cunningham, vol. xi., p.

## No. 1.

## GREEK DYNASTIES.—GENERAL LIST.

PROF. H. H. WILSON.

	B.C.		B.C.
Theodotus I. . . . .	250	Philoxenes . . . . .	130
Theodotus II. . . . .	240	Antialkides . . . . .	135
Euthydemus . . . . .	220—190	Archebius . . . . .	125—120
Demetrius . . . . .	190	Menander . . . . .	126
Eukratides . . . . .	181	Apollodotus . . . . .	110
Heliokles . . . . .	147	Diomedes . . . . .	100
Lysias . . . . .	147	Hermæus . . . . .	98
Amyntas . . . . .	135	Agathokles . . . . .	135
Agathokleia . . . . .		Pantaleon . . . . .	120
Antimachus . . . . .	140		

## BARBARIC KINGS.

SU-HERMÆUS, KADAPHES, KADPHISES.

Mayes . . . . .	100	Azilises . . . . .	60
Palirius . . . . .	80	Azes . . . . .	60
Spalyrius . . . . .	75	ΣΩΤΗΡ ΜΕΓΑΣ, <i>King of Kings</i> .	

130. 'On the Gem and Coins figured in the preceding plate,' by H. Torrens, Esq., B.C.S., vol. xi., p. 137. 'Coins of the Indo-Scythian Princes of Cabul (translations of some uncertain Greek legends),' by H. Torrens, Esq., B.C.S., vol. xx., p. 137. 'Coins of Indian Buddhist Satraps, with Greek inscriptions,' by Major A. Cunningham, vol. xxiii., p. 379.

*Transactions of the Royal Asiatic Society of Great Britain and Ireland.*—'An account of Greek, Parthian, and Hindu medals, found in India,' by Major James Tod, vol. i., p. 313.

*Journal of the Royal Asiatic Society.*—'Observations on some ancient Indian Coins in the cabinet of the Royal Asiatic Society,' by Prof. H. H. Wilson, vol. iii., p. 381.

*Journal Bombay Branch of the Royal Asiatic Society.*—'Observations on the Bactrian and Mithraic Coins, in the cabinet of the Bombay Branch of the Royal Asiatic Society,' by James Bird, Esq., vol. i., p. 293.

*Journal des Savants.*—M. Raoul Rochette, A.D. 1834, pp. 328, 385. Supplément, 1835, pp. 514, 577; note, 640, (Dr. Honigberger's coins). 2me Supplément, A.D. 1836, February; Allard's (i.e. Ventura's) collection. 3ème Supplément, A.D. 1838, p. 736; M. Court's collection; ditto, A.D. 1839, p. 89, ditto.

*Journal Asiatique.*—M. E. Jacquet, Feb. 1836, 3ème série, vol. i., p. 122; Sept. 1836, vol. ii., p. 234; Nov. 1837, vol. iv., p. 401; Feb. 1838, vol. v., p. 163; May, 1839, vol. vii., p. 385.

*Revue Numismatique, Blois.*—'Collection Numismatique du Général Court: Rois de la Bactriane,' par Ad. de Longperier, p. 81 (1839).

*Numismatic Journal* (London).—'Græco-Bactrian Coins,' by Professor Wilson, vol. i., p. 144 (1837). 'Proceedings of the Numismatic Society' (London). 'Memoir,' by Professor Wilson, on the recently discovered Græco-Bactrian Coins, 14th Dec., 1837.

*Numismatic Chronicle.*—Major Cunningham, 'Monograms, etc.,' vol. viii., p. 175. W. C. W. Vaux, Esq., on Bactrian Coins, vol. xvi., p. 108.]

## INDO-PARTHIAN DYNASTY.

Vonones . . . . .	Kodes . . . . .
Undopherres . . . . .	Miscellaneous Arsacidan
Gondophares . . . . .	Kings . . . . .
Abagasus . . . . .	

## INDO-SCYTHIAN PRINCES OF KABUL.

Kadphises . . . . .	Oerki . . . . .
Kanerki . . . . .	Baraoro . . . . .
Kenorano . . . . .	Sassanians . . . . .

## CONTEMPORARY CLASSIFICATION.

Euthydemus.	
Demetrius . . . . .	Enkratides.
Lysias . . . . .	Heliokles.
Amyntas . . . . .	Antialkides . . . . .
Agathokleia . . . . .	Antimachus . . . . .
	Agathokles
	Pantaleon
	Apollodotus
	Diomedes
	Hermæus
	Su-Hermæus (?)
	'Ariana Antiqua,' p. 267 (1841).

## No. 2.

## M. DE BARTHOLOMÆI'S LIST.

1. Défection de la Bactriane et commencement du règne de Diodote, vers 256 av. J. C.
2. Agathoclès succède à son père, vers 240 av. J. C.  
Euthydème s'empare du trône de la Bactriane par le meurtre d'Agathoclès 215 av. J. C.
4. Pantaléon se maintient dans le Kaboulistan oriental contre Euthydème jusque, vers 214 av. J. C.
5. Guerre d'Euthydème avec Antiochus après 210 av. J. C.
6. Traité de paix, conclu avec le Roi de Syrie, vers 206 av. J. C.
7. Euthydème fait des conquêtes dans l'Ariane et l'Arachosie, vers 200 av. J. C.
8. Demétrius fils d'Euthydème succède à son père, vers 190 J. C.
9. Eucratides s'empare de la royauté dans la Bactriane, Demétrius fonde une monarchie dans l'Arachosie et dans les contrées de l'Inde qui avaient été conquises par son père vers 181 av. J. C.
10. Eucratides fait pendant plusieurs années la guerre à Demétrius et finit par s'emparer de ses états, vers 164 av. J. C.
11. Eucratides étend ses conquêtes dans l'Inde, vers 160 av. J. C.
12. Meurtre d'Eucratide, par son fils Heliocles, qui s'empare de la couronne en Bactriane, vers 155 av. J. C.  
Ici commence le démembrement graduel de la monarchie, et les données historiques semblent nous manquer pour tenter même un ordre chronologique quelconque.
13. Antimachus fonde un royaume dans la Drangiane?
14. Antialcides réunit sous sa domination l'Arachosie et la Kaboulistan oriental.

15. Ménéandre fonde un puissant royaume dans l'Inde.  
 16. Arsace VI., Mitridate 1<sup>r</sup> roi Parthe, envahit la Drangiane, vers 145 av. J. C.  
 17. Chûte complète de la Monarchie grecque-bactrienne, proprement dite, vers 139 av. J. C. 'Köhnes Zeitschrift,' 1848, p. 76.

The subjoined list has been abstracted from Major Cunningham's lithographed table inserted in the eighth volume of the 'Numismatic Chronicle,' 1843. It will be found to enter into an elaborate detail of the epochal and territorial distribution of the various divisions of the Bactrian empire. The assignment of the geographical boundaries is understood to have been primarily based upon the author's interpretations of the mint monograms discovered on the coins of the different kings. It is needless to add that these results must be received with considerable caution, as most of my readers will appreciate the ordinary difficulties environing the resolution of monogrammatic combinations, as well as the obstacles that exist to the application of the preferable readings under even a well-defined system of comparative geography, a department in which we are sadly deficient in regard to the countries in question.

## No. 3.

## MAJOR CUNNINGHAM'S TABLE.

NO.	B.C.	
1	256	Diodotus I. }
	243	Diodotus II. } Bactriana (including Sogdiana, Bactria, and Margiana).
2	247	Agathocles }
3	227	Pantaleon } Paropamisadæ and Nysa.
4	220	Euthydemus—Bactriana, Ariana (including Aria, Drangia, Arachosia, and Paropamisadæ), Nysa, and subsequently Gandharitis, Peukelaotis, and Taxila.
5	198	Demetrius—ditto, ditto; and, later in his reign, Patalene, Syrastrène, Larice
6	190	Heliocles—Bactriana and Paropamisadæ.
7	190	Antimachus Theos—Nysa, Gand., Peuk., and Taxila.
8	185	Eucratides—Bactriana, Ariana, besides Patalene, Syrastrène, and Larice, as well as Nysa, Gand., Peuk., and Taxila.
9	173	Antimachus Nikephoros—Nysa, Gand., Peuk., and Taxila, contemporarily with Eucratides' retention of the rest of his dominions.
10	165	Philoxenes—succeeds to Antimachus Nikephoros' kingdom
11		Nicias—ditto, with the exception of Taxila.
12	165	Apollodotus succeeds Eucratides in Ariana, as well as Pata., Syr., Lag.
13		Zoïlus }
14		Diomedes } follow Apollodotus in Ariana alone.
15		Dionysius }
16	159	Lysias—succeeds these in Paropamisadæ, and obtains Nicias' dominion of Nysa, Gand., and Peuk.; while Mithridates I. possesses himself of Ariana, having previously gained Margiana from Eucratides.

NO. B.C.

- 17 150 Antialcidas—succeeds to Lysias' kingdom.  
 18 Amyntas } follow Antialcidas.  
 19 Archebius }
- 20 161-140 Menander—reigns in Paropamisadæ, Nysa, Gand., Peuk., Taxila, Por. Reg., Cath., Patalene, Syr., Lar.  
 21 135 Strato—succeeds, with the exception of the countries of Pata., Syr., Lar., which fall to Mauas.  
 22 Hippostratus } follow Strato.  
 23 Telephus }
- 24 126 Hermæus—rules over Parop., Nysa, Gand., Peuk. (The Su-Sakas obtain Aria, Drangia, and Arach., from the Parthians).  
 25 Mauas—has Taxila, Por. Reg., Cath., Pata., Syr., Lar.  
 26 105 Kadphises—(*Yuchi*)—takes possession of Hermæus' kingdom, and Taxila from Mauas (*Kozola Kadaphes*).  
 27 Vonones }  
 28 Spalygis } Paropamisadæ.  
 29 Spalirises }
- 30 110 Azas—succeeds Mauas, obtaining also, in 90 B.C., Nysa, Gand., and Peuk.  
 31 80 Azilisas—succeeds Azas in the three latter, adding Taxila, and the Paropamisadæ.  
 32 80 The Soter Megas obtains the dominions of Azas, and subsequently those of Azilisas.  
 60 The Yuchi again possess Parop., Nysa, and Tax., etc.  
 33 26 Gondophares—reigns in Ariana.  
 34 Abdagases (and Sinnakes or Adinnigaues)—ditto in ditto, less the Parop.
- A.D.  
 35 44 Arsaces (Ornospadæ or Orthomasdes)—ditto, ditto.  
 66 107 Pakores Monnesses—ditto, ditto (*Hiâtheleh* in Bactriana. [36<sup>a</sup> *Orthagnes*.])  
 207 Artemon—in Aria, Drangia, Arachosia.  
 Sassanians.

'Numismatic Chronicle,' vol. viii., p. 175 (1842).

No. 4.

## M. LASSEN'S LIST.

## DIE GRIECHISCH-BAKTRISCHEN UND GRIECHISCH-INDISCHEN KÖNIGE.

## 1. DIE GRIECHISCH-BAKTRISCHEN.

Diodotus I., vor 250 vor Chr. G.

Diodotus II., seit 237 . . . . . Agathokles, in Badakshan und am obern Indus seit 245.

Euthydemus, unabhängig seit 245;

in Baktrien seit . . . . . 222; Pantaleon.

Demetrios, seit 205; beseigt um 165.

Eukratides, nach 180.

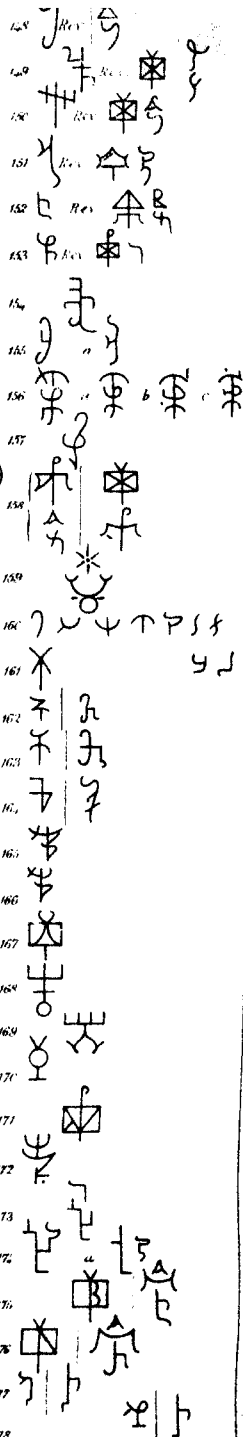
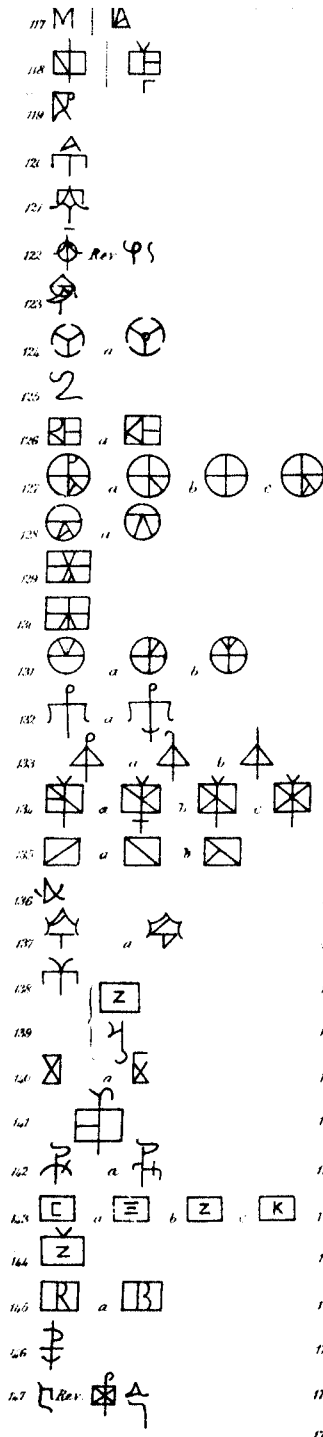
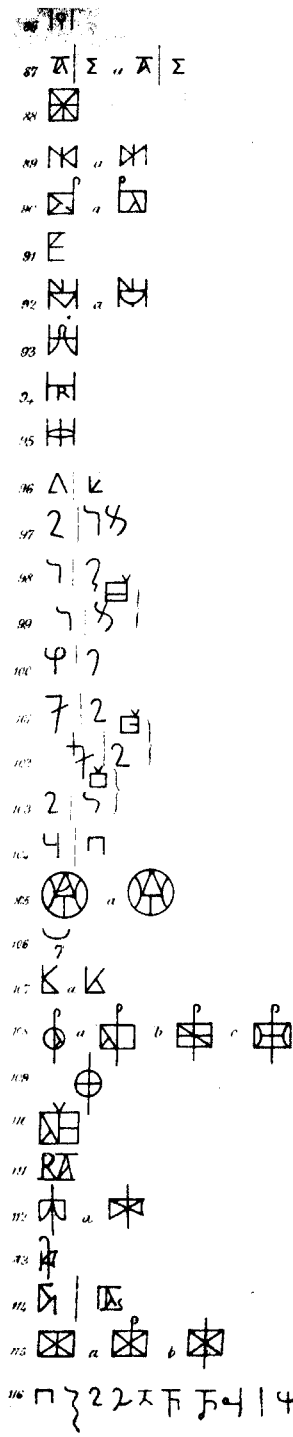
Heliokles, seit 160; Lysias, nach 165; Antimachos, seit 170

Archebios, 150-140; Antialkides; . . Philoxenos, um 160,

Amyntas.

A a b c d   
 B   
 C a   
 D   
 E a   
 F a   
 G a   
 H a b c d   
 I a b c d   
 J a b c d   
 K a b c d   
 L a b c d   
 M a b c d   
 N a b c d   
 O a b c d   
 P a b c d   
 Q a b c d   
 R a b c d   
 S a b c d   
 T a b c d   
 U a b c d   
 V a b c d   
 W a b c d   
 X a b c d   
 Y a b c d   
 Z a b c d

27 a b c d   
 28 a b c d   
 29 a b c d   
 30 a b c d   
 31 a b c d   
 32 a b c d   
 33 a b c d   
 34 a b c d



## 2. DIE GRIECHISCH-INDISCHEN KÖNIGE.

Apollodotos, nach 160.

Zoilos und Dionysios.

Menandros, seit 144.

Straton, um 124.

Hippostratos, nach 114.

Diomedes, Nikias, Telephos, zwischen 114 u. 100.

Hermaios, 100—85.

## No. 5.

## DIE INDOSKYTHISCHEN UND PARTHISCHEN KÖNIGE.

## 1. ÇAKA-KÖNIGE.

Mayes, nach 120 vor Chr. G.

Vonones, kurz vor u. nach Chr. G.

Asilises, um 100.

Spalygis.

Azes, seit 95.

Yndopherres, um. 90.

Spalirises, um 60.

Abdagases, von 40 bis 30.

## 2. JUMITCHI-KÖNIGE.

Kadphises I., nach 85 vor Chr. G.

Kadaphes, und seine namenlosen Nachfolger etwa bis 60 v. Chr. G.

Kadphises II., seit 24 vor Chr. G., bis etwa 1.

## 3. TURUSHKA-KÖNIGE.

Huashka oder Oerki, von etwa 10 vor bis 5 nach Chr. G.

Gushka, bis 10 nach Chr. G.

Kanishka, oder Kanerki, bis 40.

Balan, bis 45.

Oer Kenorano, bis 60.

‘Indische Alterthumskunde,’ vol. ii., p. xxiv., published 1862.

IV.—As I am compelled to avoid entering upon any such comprehensive revision of the general subject as should justify my attempting to recast the order of succession of the Greek princes of Bactria and Northern India, it becomes necessary that I should adopt, for the moment, some one of the lists above quoted, to serve as a basis for the arrangement of the annexed catalogue. I have therefore selected for the purpose that of Major Cunningham, as being more full in names, more facile of reference, and as grounded upon an examination of by far the most ample series of original specimens.

This outline, it will be seen, was published many years ago, and I have no doubt its author would now be prepared to subject it to extensive modifications. I shall perhaps be pardoned, therefore, for anticipating some of the more obviously needed emendations. In regard to the tables of monograms which accompany this catalogue (pls. xi. c and xi. d), it may be necessary to explain that a degree of difficulty has been experienced in the allocation of the several varieties of these enigmatical compounds. Some examples, that depart but slightly from combinations previously entered, have been inserted in



the plates independently in their modified form, in order to avoid the risk of the omission of what might eventually prove to be a separate symbol. And, further, some few monograms have been intentionally repeated, with a view to bring more distinctly together the complete group pertaining to a given monarch.

The perpendicular lines dividing the associate ciphers (60 *et seq.*) are inserted to mark the position in the field of the piece, in reference to the main device, occupied by each.

## I. DIODOTUS.

### 1.—Gold.

OBVERSE :—Head of the king, with fillet, to the right.

REVERSE :—Erect figure of Jupiter, in the act of hurling the thunderbolt; *Ægis* on the left arm; eagle in front of the left leg; a chaplet in the field; *no monogram*.

LEGEND :—*ΒΑΣΙΛΕΩΣ ΔΙΟΔΟΤΟΥ*.

R. Rochette, 'Jour. des Sav.'; 'Bibliothèque Impériale,' Captain Hay. (This last most perfect coin has, in addition to the other symbols, a spear head in the field under the left arm); 'Ariana Antiqua,' p. 218; 'Trésor de Numismatique,' pl. lxxii, 4.<sup>1</sup>

### 2.—Tetradrachma. Similar types (Cunningham, 'Numismatic Chronicle,' vol. viii., p. 178, and unpublished plates).

Monogram, No. 1, with *Γ*. The chaplet is omitted.

### \*)—Drachma. Similar types.

M. de Bartholomæi, 'Köhnes Zeitschrift,' 1843, p. 75, pl. fig. 1.  
Monogram, No. 2, with *C.α*; chaplet, etc.

Mr. Stokes' and British Museum Coins, Monograms indistinct.

Major Cunningham further cites in his table the Monogram No. 2<sup>a</sup> from the Coins of Diodotus ('Num. Chron.,' vol. viii., p. 179).

## II. AGATHOCELES.

### 1.—Tetradrachma (weight, 4 drachmes 14 grains Fr.)

OBVERSE :—Head, with fillet, to the right. *ΔΙΟΔΟΤΟΥ ΣΩΤΗΡΟΣ*.

REVERSE :—Erect figure of Jupiter, as in Diodotus' coins.

LEGEND :—*ΒΑΣΙΛΕΥΟΝΤΟΣ ΑΓΑΘΟΚΛΕΟΥΣ ΔΙΚΑΙΟΥ*.

Monogram, No. 3 (with chaplet).

M. de Bartholomæi, 'Köhnes Zeitschrift,' 1843, pl. iii., fig. 2, p. 67.

An equally perfect coin of similar types, in the possession of Mr. J. Gibbs, Bombay Civil Service, has the monogram No. 4. The piece in question is stated to weigh 270 grains.

<sup>1</sup> Coins bearing similar devices, from the mint of Antiochus II., may be referred to in pl. ii., fig. 1, p. 25, vol. i. of this work; Burnes's 'Bokhârâ,' pl. iii., fig. 8; 'Ariana Antiqua,' p. 219; 'Trésor de Numismatique,' lxxii, 3.—Monograms: Mr. Gibbs' coin (Tetrad.) A: (see pl. xlii., fig. 1 of this work); 'Bibliothèque Impériale,' B.; Captain Hay (Drachma) C; Mr. Freres' coin (Drachma) C.α associated with D.

- 2.—Tetradrachma. Plate xiii., fig. 3. (These leading numbers refer, in each case, to the plates inserted in this work.)

OBVERSE:—Head of king.

REVERSE:—Jupiter, with the left hand resting on a spear, and the right holding a figure of Diana Lucifera.

LEGEND:—ΒΑΣΙΛΕΥΣ ΑΓΑΘΟΚΛΕΟΥΣ.

Monogram, No. 5. Mr. Gibbs.

'Ariana Antiqua,' pl. vi., fig. 3; 'Jour. des Sav.,' 1836, pl. ii., fig. 1;  
'Trésor de Numismatique,' lxxiv.

- a) — Drachma. Similar types.

Monogram, No. 3.

'Jour. des Sav.', June, 1834, pl. fig. 2. 'Grottefend' (1839), p. 29.

'Ariana Antiqua,' pl. vi., fig. 4. 'Bibl. Imp.,' Monogram, No. 5.

- ### 3.—Drachma.

OBVERSE:—Head of Bacchus, to the right.

**REVERSE:**—Panther, to the right, with a bunch of grapes in his fore-paw.

LEGEND :—ΒΑΣΙΛΕΥΣ ΑΓΑΘΟΚΛΕΟΥΣ.

**No Monogram.**

'Jour. des Sav.', 1834, pl. fig. 1. 'Ariana Antiqua,' pl. vi., fig. 5.

'Trésor de Numismatique,' lxxiv., 2.

- 4.—○ Copper. Types as in No. 3, with the exception that the spear which appears doubtfully on the obverse of the former class is here distinct and positive, while, in lieu of the bunch of grapes, a small vine is introduced in front of the panther on the reverse.

Monogram, No. 6.                      ΑΡΑΧΩΣΙΑ (?)

'*Ariana Antiqua*,' pl. vi., fig. 6. 'Num. Jour.', vol. vii., pl. iii., 80.

Mr. G. H. Freeling, Bengal Civil Service, has a cast (in silver) from an apparently genuine original of this coinage, which bears the detached letters  $\Phi$  in place of a monogram.

- 5.—□ Copper. Plate xxviii., fig. 9.

OBVERSE:—Panther to the right.

LEGEND.—ΒΑΣΙΛΕΩΣ ΑΓΑΘΟΚΑΕΟΥΣ.

REVERSE:—Bacchante.

LEGEND, in Indian Pālī,  $\text{𑖦𑖳𑖫𑖜𑖞𑖪}$  *Agathuklayesa*.

'Ariana Antiqua,' pl. vi., figs. 7, 8, 9.; and 'Jour. des Sav.,' 1885, pl. i., fig. 1.

Some varieties of these coins display mint marks or letters on the right of the Bacchante. The character is usually formed like a modern Hebrew ב; it may be either an Arian γ or a Páli 1 ne; at times, again, it takes the form of an Arian γ te or re. An analogous piece, in the British Museum, exhibits the Greek letters ΞΗ, on the obverse.

### III. PANTALEON.

- 1.—(c) Debased silver (unpublished).

OVERSEER:—Type similar to No. 4. Agathocles.

REVERSE :—Ditto.

LEGEND :—ΒΑΣΙΛΕΩΣ ΠΑΝΤΑΛΕΟΝΤΟΣ.

No monogram.

Mr. H. Brereton, Bengal Civil Service.



- 5.—○ Copper. Pl. xxxii., fig. 4.  
 OVERSE:—Boarded head, to the right.  
 REVERSE:—Horse, free. 'Ariana Antiqua,' pl. i., figs. 13, 14, 15.
- 6.—○ Copper (small).  
 OVERSE:—Head indistinct.  
 REVERSE:—Erect figure of Apollo to the left, with arrow in the right and bow in the left hand. 'Ariana Antiqua,' pl. ii., fig. 1.
- 7.—○ Copper.  
 OVERSE:—Head as in No. 4.  
 REVERSE:—Tripod.  
 Monogram, No. 5a. Captain Hay; 'Trésor de Numismatique,' lxxii. 11 ;  
 also 'Köhler,' pl. i. 3.<sup>1</sup>

## V. DEMETRIUS.

- 1.—Tetradrachma. Head of king with fillet, to the right.  
 REVERSE:—Minerva armed, to the front.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ.  
 Monogram, No. 13, with the letter Δ above the figure.  
 'Jour. des Sav.,' 1835 (Hönigberger's coin), vol. i., p. 4, 1835; re-engraved in 'Ariana Antiqua,' pl. ii., fig. 3. 'Trés. de Num.,' lxxii. 14.
- 2.—Tetradrachma.  
 OVERSE:—Head of king, to the right, with helmet fashioned like an elephant's head.  
 REVERSE:—Hercules, like No. 3, Euthydemus' device, but his right hand is upraised in the act of placing the chaplet on his brow.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ.  
 Mr. Gibbs' coin, monogram, No. 5. 'Köhler,' p. 321.  
 Monogram, No. 8a. R. Rochette, 'Jour. des Sav.,' 1838, p. 743.  
 B.M. coins, monograms, Nos. 5 (weight, 263·6 grs.), 8a, and 14 (inferior execution, weight, 236 grs.)
- \* )—Oboli. Plate xiii., fig. 2. Similar devices. 'Ariana Antiqua,' pl. ii., fig. 5.  
 Monogram, 5. M. Raoul Rochette notices a Triobolus of this type, 'Jour. des Sav.,' Deux. Supp. 16. 'Trésor Numismatique,' p. 149.  
 Other monograms, 5b, 6, and 8a.
- b )—No. 4, pl. ii., 'Ariana Antiqua,' has the neck of the king bare.  
 A second unpublished coin E. I. H. has the monogram No. 15 (OZ).
- 3.—○ Copper.  
 OVERSE:—Head of Hercules.  
 REVERSE:—Apollo (?)  
 Monogram, No. 15. 'Ariana Antiqua,' pl. xxi., fig. 3.

<sup>1</sup> [I have not been able to obtain a sight of Köhler's work; I quote his coins from Grotefend, 'Die Münzen der Könige von Bactrien,' 1839. The original seems to have appeared under the following title: 'Köhler, Médailles grecques de Rois de la Bactriane, du Bosphore,' etc. Petersbourg, 1822, 8vo. 'Supplément à la suite des Méd. des Rois de la Bactriane,' *ibid.*, 1823.]

## 4.—Copper.

OBVERSE as No. 3.

REVERSE:—Hercules; the right arm is upraised towards the head of the figure.  
Cunningham, 'Jour. As. Soc. Beng.', vol. xi., pl. fig. 1.

## 5.—○ Copper.

OBVERSE:—Elephant's head.

REVERSE:—The Caduceus.

'Jour. As. Soc. Beng.', vol. ix., p. 69; and vol. xi., pl. fig. 2.

## VI. HELIOCLES.

## 1.—Tetradrachma.

OBVERSE:—Head of king to the right.

REVERSE:—Jove, standing to the front, with spear and thunderbolt.

LEGEND:—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ.

Grotefend, p. 30, quoting 'Catalogue d'Ennery,' p. 40.<sup>1</sup>

'Trésor de Numismatique,' lxxiii., 15.

Monogram, No. 16.

'Ariana Antiqua,' pl. ii., fig. 6.

British Museum coins, monograms, Nos. 11a, B (weight of piece, 259·6 grs.)

Mr. Gibbs' coin, monogram 17. Mr. Brereton, ditto. Lady Sale, No. 16.

A cast in the possession of Mr. Freeling has the letters ΠΓ (No. 19) below the word ΔΙΚΑΙΟΥ on the reverse.

\*)—Drachma, similar types. 'Bibl. Imp.' Monogram, 11b.

## 2.—Tetradrachma.

OBVERSE:—Helmeted head.

REVERSE:—Jupiter seated: the right hand holding a small figure of victory, the left resting on a spear.

LEGEND:—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ.

Capt. Hay.

## 3.—○ Plated copper (Drachma?).

OBVERSE:—Helmeted head, closely resembling that of Eukratides, within a marginal border of alternate drops and beads.

REVERSE:—Jove seated.

LEGEND (blundered):—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ.

Mr. E. C. Bayley; also, Capt. Hay.

\*)—Drachma. Similar types.

Monogram Ω.

Capt. Hay.

## 4.—Hemidrachma.

OBVERSE:—Head of king.

LEGEND:—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ.

REVERSE:—Jove, as above, No. 1.

LEGEND, in Bactrian-Pāli or Arian characters, *Māhārājasa Dharmikasa Heliyakreyasa*.

'Ariana Antiqua,' pl. xxi., fig. 8. Monogram Σ.

The orthography of the name in the Arian varies at times to *Heliyakresasa* and *Eliyakreyasa*; the former occurs on a coin in the E. I. H., with the monogram No. 8a. Other hemidrachmas have monograms No. 20 and 20 with Σ.<sup>1</sup> ['Catalogue des Médailles du Cabinet,' de M. d'Ennery. Paris, 1788.]

- 5.—□ Copper. Pl. xliii., fig. 7.

OVERSE :—Head.

REVERSE :—Elephant to the left.<sup>1</sup>

'Ariana Antiqua,' pl. ii., fig. 7, monogram Σ. Other monograms,

Nos. 8a, E. I. C. coin, 21. Mr. Frere, monogram No. 22.

These coins also differ occasionally in the expression of the Arian version of the name, exhibiting it as *Heliyakreyasa* and *Heliyakraasa*.

- 6.—□ Copper. Plate xliii., fig. 8. As No. 5, but the elephant on the reverse is to the right.

- 7.—□ Copper.

OVERSE :—Elephant, to the right.

REVERSE :—Bull.

Capt. Hay.<sup>2</sup>

- 8.—Copper. Plate xxviii., fig. 4. Degraded type.

OVERSE :—Head.

REVERSE :—Figure as in No. 1. Legends corrupt and imperfect.

- 9.—Copper. Plate xv., figs. 12, 13, 14. Degraded type.

OVERSE :—Head.

REVERSE :—Horse, free, to the left. Legends corrupt and imperfect.

## VII. ANTIMACHUS ΘΕΟΞ.

- 1.—Tetradrachma.<sup>3</sup> (Cast.)

OVERSE :—Head with fillet.

LEGEND :—ΔΙΟΔΟΤΟΥ ΣΑΤΡΑΠΕΩΣ.

REVERSE :—Standing figure of Jupiter, as in the gold coinage of Diodotus.

LEGEND :—ΒΑΣΙΛΕΥΣ ΑΝΤΙΜΑΧΟΥ ΘΕΟΥ.

Monogram, No. 12.

Capt. Hay. Mr. Brereton has a similar forgery with the same monogram.

- 2.—Tetradrachma.

OVERSE :—Head of king, to the right, with Causia.

REVERSE :—Neptune, to the front, with trident and palm-branch.

LEGEND :—ΒΑΣΙΛΕΥΣ ΘΕΟΥ ΑΝΤΙΜΑΧΟΥ.

'Köhler,' i. 10, reproduced by 'Mionnet,' sup. viii. 466.

Monogram, No. 23. British Museum coins, monogram No. 8a and 23.

Lady Sale and Mr. Brereton, also No. 23.

- \*)—Drachma. British Museum, monogram No. 23.

<sup>1</sup> [The Arian legends, like the Greek, are ordinarily omitted after one insertion; where not otherwise noted, therefore, the succeeding coins are to be understood to bear similar epigraphs.]

<sup>2</sup> [I am indebted to Mr. E. C. Bayley, of the Bengal Civil Service, for most of these notices of Captain W. E. Hay's coins. I myself have seen only the silver pieces of that officer's valuable collection.]

<sup>3</sup> [It is needless to say that this important piece, which, though a cast, is evidently taken from a genuine antique, necessitates the promotion of Antimachus Theos to a close proximity, if not to a contemporaneous existence, with the founder of the Bactrian independence. This coin was not known in England when Art. iii., vol. i., went to press.]

- b)—Hemidrachma (31·7 grs.). British Museum coin, monogram No. 9a. A second, monogram No. 23.

Major Cunningham ('Jour. As. Soc. Beng.', vol. ix, p. 372) describes a 'plated' hemidrachma of Antimachus Theos, with the monogram 'Xo.'

- g).—Obolus. 'Ariana Antiqua,' pl. xxi., fig. 12. Monogram 8a.

### VIII. EUCRATIDES.

- 1.—Tetradrachma. Pl. xlii., fig. 2.

OBVERSE.—Bare head of the king, with fillet.

REVERSE.—Apollo, bow in the left, and arrow in the right hand.

LEGEND:—ΒΑΣΙΛΕΥΣ ΕΥΚΡΑΤΙΔΟΥ.

'Köhler,' 'Ariana Antiqua,' pl. iii., fig. 4, monogram No. 9a.<sup>1</sup>

Lady Sale, same monogram. See also 'Jour. des Sav.,' Sept., 1835, i. 5;

'Mionnet,' sup. viii.; British Museum coins, monograms Nos. 10, 24, 25;

'Bib. Imp.,' No. 26; M. le Duc de Luyne, No. 5a.

- a)—Drachma. Similar types. Pl. xlii. 6. General Fox, monogram 29.

- 2.—Obolus. Plate xxxii., fig. 10.

OBVERSE.—Bare head of king.

REVERSE.—Caps and palm-branches of Dioscuri. Same legend as No 1. Monograms, Nos. 8a, 13a, 27, 28, 28a.

- 3.—Obolus.

OBVERSE.—Helmeted head of king.

REVERSE.—As in No. 2.

'Ariana Antiqua,' pl. iii., fig. 5. Gen. Fox, monogram No. 13a.

E. I. H., 13a, M, and 19a. British Museum, monog. 12—i.e. N.

- 4.—Tetradrachma.

OBVERSE.—Bare head of king, to the right, with fillet.

REVERSE.—Dioscuri, charging.

British Museum. Monogram 8a.

- a)—Drachma. Pl. xlii., fig. 6. Similar types.

'Jour. des Sav.,' 1836, ii., 3. 'Trés. de Num.,' pl. lxxiii. fig. 2. B.I., monogram 11.

- 5.—Tetradrachma. Pl. xlii, fig. 4, p. 126. (Weight of E. I. H. coin, with suspending loop, 255·7 grs.)

OBVERSE.—Helmeted head of king.

LEGEND:—ΒΑΣΙΛΕΥΣ ΜΕΓΑΣ ΕΥΚΡΑΤΙΔΗΣ.


REVERSE.—Male and female heads, uncovered and unadorned with fillets.

LEGEND:—ΗΑΙΟΚΛΕΟΥΣ ΚΑΙ ΛΑΟΔΙΚΗΣ.

Monogram, No. 13a. 'Jour. As. Soc. Beng.,' vol. vii., pl. xxvii., fig. 1. Re-engraved in 'Ariana Antiqua,' pl. xxi., fig. 7, from the original coin.

Col. Sykes' cast, from a possibly genuine coin of this class, and a second reproduction from the same or a similar original, in the possession of Mr. Brereton, both have the monogram No. 5a.

<sup>1</sup> [Where the monogram facsimiles in the plates differ from the published specimens, it must be understood that my copy has been taken anew from the original piece, and does not follow the engraving, cited for the mere illustration of the numismatic classification.]

- 6.—Tetradrachma. Plate xiii., fig. 5. (Weight of selected specimens in the British Museum, 258 and 259 grains.)  
 OVERSE:—Helmeted head, to the right.  
 REVERSE:—Dioscuri, charging.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΤΚΡΑΤΙΔΟΥ.  
 'Ariana Antiqua,' pl. iii., figs. 1, 2, 3. Monograms 13a, 27, 29.  
 British Museum. Monograms, Nos. 5c, 11c, 13a, 29, 30, 31. Lady Sale, No. 28a.  
 B. I. Monograms, M, 29. Mr. Bayley. Monogram,  with HT in the field.  
 Capt. Robinson. Monograms 13a, 28a.  
 \*)—Drachma. 'Jour. des Sav.,' 1834, pl. fig. 5: 1835, pl. i., fig. 6. 'Trés. de Num.,' lxxiii. 6. British Museum, monogram N. B. I. 28b. Hay, 5c.
- 7.—Tetradrachma.  
 OVERSE:—Helmeted head of the king, to the left, with a portion of the bust displayed; the right arm raised in the act of darting a javelin.  
 REVERSE:—Dioscuri.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΤΚΡΑΤΙΔΟΥ.  
 Monogram 5b (?) 'Köhler,' i. 8. 'Trés de Num.,' pl. lxxiii, fig. 7.
- 8.—○ Copper.  
 OVERSE:—Head of Apollo to the right.  
 REVERSE:—Horse, free, to the left.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΕΤΚΡΑΤΙΔΟΥ. 'Ariana Antiqua,' pl. iii., fig. 7.
- 9.—○ Copper. Pl. xiii., fig. 7. Of similar devices and legends to No. 6.  
 'Ariana Antiqua,' pl. iii., fig. 8, monogram, No. 21. Mr. Bayley, No. 40.
- 10.—□ Copper.  
 OVERSE:—Helmeted head, to the left, with javelin.  
 REVERSE:—Dioscuri.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΤΚΡΑΤΙΔΟΥ.  
 'Köhler,' 'Mionnet,' viii. 470. British Museum, monogram 32.
- 11.—○ Copper. Size, 3. British Museum.  
 OVERSE:—Helmeted head to the left.  
 REVERSE:—A single horseman at the charge.
- 12.—□ Copper. Small coin. Pl. xxxii., fig. 11.  
 OVERSE:—Bare head of king to the right.  
 LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΤΚΡΑΤΙΔΟΥ.  
 REVERSE:—Caps and palm-leaves of the Dioscuri.  
 LEGEND IN ARIAN:—*Mahdrajasa Eukratidasa*.  
 'Ariana Antiqua,' pl. iii., fig. 12. 'Trés. de Num.,' lxxiii. 13.
- 13.—□ Copper. Pl. xiii., figs. 8–10.  
 OVERSE:—Helmeted head, as in No. 6.  
 REVERSE:—Dioscuri.  
 LEGEND IN ARIAN:—*Mahdrajasa Eukratidasa*.  
 Monograms, 17a, 21, 27, 28a, 31 with E, 33, 33a, 34, 34a, 35, 35b, 36, 37, 38, 39, 41, 43, 44, 46.  
 'Ariana Antiqua,' pl. iii., figs. 9, 10. 'Jour. des Sav.,' 1835, pl. i., fig. 7.



## 14.—□ Copper.

OBVERSE:—Helmeted head to the right.

REVERSE:—Seated figure to the left, with a small elephant at the side (as in Antialkides' coin, No. 1).

LEGEND indistinct.

'Ariana Antiqua,' pl. iii., fig. 11.

## 15.—□ Copper.

OBVERSE:—Helmeted head of king to the left, with javelin.

REVERSE:—A winged figure of Victory to the right, with chaplet and palm branch.

LEGEND defective.

'Ariana Antiqua,' pl. xxi., fig. 5, monogram 13a.

## 16.—□ Copper.

OBVERSE:—Helmeted head of king to the right.

REVERSE:—Victory to the left, extending a chaplet.

ARIAN LEGEND:—(*Maharajasa*) *Eajadivrajasa Eukratidasa*.

'Ariana Antiqua,' pl. xxi., fig. 6, and British Museum, monogram 40a. Mr. Bayley, monogram, 40.

Additional monograms of Eucratides, Nos. 8c, 27a, 33b, 42.

## IX. ANTIMACHUS ΝΙΚΗΦΟΡΟΣ.

## 1.—Hemidrachma. Plate xv., fig. 3.

OBVERSE:—Winged figure of Victory, to the left, with palm branch in her right, and fillet in her left hand.

LEGEND:—ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΜΑΧΟΥ.

REVERSE:—King on horseback, to the right.

ARIAN LEGEND:—*Mahdrājasa jayādharsa Antimakhasa*.

'Ariana Antiqua,' pl. ii., fig. 16.

Prof. Wilson was under the impression that all these coins bore the same monograms, Nos. 31a ('Ariana Antiqua,' 274); they are now found to include the symbols classed under the following numbers, 27, 31, 46, and 46a.

## 2.—□ Copper. Pl. xv., 4.

OBVERSE:—Demeter, to the front; cornucopia on her left arm. Legend imperfect.

REVERSE:—Winged figure of Victory, to the left.

ARIAN LEGEND:—*Mahdrājasa* . . . . *Antimakhasa*.

'Ariana Antiqua,' pl. ii., fig. 16. Monogram 2

## 3.—□ Copper.

OBVERSE:—The skin of an animal (?)

LEGEND:—ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΜΑΧΟΥ.

REVERSE:—Wreath and palm-branch.

ARIAN LEGEND:—*Mahdrājasa* . . . . *Antimakhasa*.

'Ariana Antiqua,' pl. xxi., fig. 11. Monogram 47.

A silver cast of a genuine coin, in the possession of Mr. Bayley, definitely determines the attribution of this piece, contributing the full counterpart names as inserted above. It bears the monogram No. 27.<sup>1</sup>

<sup>1</sup> [See also Cunningham, 'Jour. As. Soc. Beng.,' April, 1840, p. 392.]

## X. PHILOXENES.

## 1.—Didrachma. Plate xv., fig. 1.

OBVERSE:—Helmeted head of king, to the right.

LEGEND:—ΒΑΣΙΛΕΥΣ ΑΝΙΚΗΤΟΥ ΦΙΛΟΞΕΝΟΥ.

REVERSE:—Horseman with helmet, as on the obverse of Antimachus Nikephorus' coins.

ARIAN LEGEND:—*Maharajasa Apadhatasa Pilasinasa.*

'Jour. des. Sav.,' 1836. ii., 5. 'Ariana Antiqua,' pl. ii., fig. 17.

Monogram No. 22a.

a) —□ Hemidrachma, of similar devices. Monograms No. 48a, with Σ.

Mr. Bayley.

b) —□ Obolus (?). Types and legends as above. The Arian name is written, *Phalasinasa.* Monogram No. 35c. Captain Robinson.

Mr. Frere has a silver cast of an apparently authentic didrachma, which supplies us with a variety of this obverse type. The king's head is here uncovered. On the reverse, traces of the monogram 31a are visible. The Arian transcript of the name commences with the letter *Phi*.

## 2.—□ Hemidrachma.

OBVERSE:—Bare head of king with fillet, to the right. Legend as above.

REVERSE:—Device and legend as in No. 1.

Monogram No. 48a, with Σ.

'Ariana Antiqua,' pl. xxi., fig. 13.

Colonel Abbott. Monograms, Nos. 22, 8.

## 3.—□ Copper. Plate iii., figs. 6, 7; plate xv., fig. 2.

OBVERSE:—Demeter, with the ordinary Greek legend.

REVERSE:—Humped bull, with the usual Arian legend; the initial of the name is indifferently expressed by *Pi* or *Phi*.

'Jour. des. Sav.,' 1836, ii., 6. 'Ariana Antiqua,' pl. ii. fig. 18.

Monogram Nos. 48a, 48a with Σ on reverse, 48, 49, 50. B.L., 51 (?) with a Bactrian γ r on reverse. Mr. Brereton. Monograms 22a, with an Arian υ on reverse, 48a and 48b, with Σ on reverse.

## 4.—□ Copper.

OBVERSE:—Crowned figure, with a long spear.

LEGEND:—ΒΑΣΙΛΕΥΣ ΑΝΙΚΗΤΟΥ ΦΙΛΟΞΕΝΟΥ.

REVERSE:—A figure of Victory.

Captain Hay.

X<sup>a</sup>. ARTEMIDORUS.1.—Hemidrachma.<sup>1</sup>

## 2.—□ Copper.

OBVERSE:—Erect figure, with the right arm upraised.

LEGEND:—ΒΑΣΙΛΕΥΣ ΑΝΙΚΗΤΟΥ ΑΡΤΕΜΙΔΟΡΟΥ.

REVERSE:—Bull, as in Philoxenes' copper coins.

ARIAN LEGEND:—(M)*aharajasa Apadhatasa A)ti(midarasa).*

Mr. Bayley.

These legends have been completed from a more perfect coin figured and assigned by Major Cunningham ('Jour. As. Soc. Beng.,' 1854, p. 668).

<sup>1</sup> [Mr. Brereton deposes to the discovery of a coin of this description, which has passed from his own possession to that of Major Cunningham. He is under the impression that the types are—Obverse: King's head. Reverse: Minerva Promachos.]

I conclude that this Artemidorus is the monarch styled Artemon in Major Cunningham's list above cited; but if so, the style and fabric of his coinage must very materially alter his assumed date and position in the general list as determined by that numismatist.

Cun-

## XI. NICIAS.

- 1.—□ Copper. Plate xlii., fig. 5.

OBVERSE:—Head of king, to the right.

LEGEND:—βα[ΙΛΕΥΣ] ΝΙΚΗΡΟΣ ΝΙΚΙΟΥ.

REVERSE:—Horseman, as in No. 1, Philoxenos.

ARIAN LEGEND:—*Maharajasa Tradatasa* . . . KIASA.

Colonel T. Bush. See also Cunningham, 'Jour. As. Soc. Beng.', vol. xi., p. 136.

## XII. APOLLODOTUS.

- 1.—○ Hemidrachma. Plate iii., fig. 4; also pl. xiv., fig. 4.

OBVERSE:—Head of king.

LEGEND:—ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΚΑΙ ΦΙΛΟΠΑΤΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ.

REVERSE:—Thessalian Minerva to the left.

ARIAN LEGEND:—*Maharajasa Tradatasa Apaladatasa*.<sup>1</sup>

Monograms, Nos. 38a, 38b, 51, 51a, 51b, 52, 53.

'Ariana Antiqua,' pl. iv., fig. 13.

- 2.—□ Hemidrachma. Plate xiv., fig. 5.

OBVERSE:—Elephant.

LEGEND:—ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ.

REVERSE:—Humped bull.

Legend as in No. 1.

'Ariana Antiqua,' pl. iv., fig. 14.

Monograms 22b, and the entire suite, together with the combinations indicated under each number, from 54 to 59, both inclusive.

- 3.—○ Hemidrachma. Types and legends as No. 2.

'Ariana Antiqua,' pl. iv., fig. 15.

<sup>1</sup> [The Arian orthography of the name of Apollodotus varies considerably in the different specimens of his extensive mintages. I notice in some instances a dot at the foot of the initial α, which elsewhere constitutes the sign of the long sound of that vowel. This is the solitary occasion upon which I have observed its use in defining more precisely the power of the ordinary ῥ initial. And, however little, to our ideas, the exact definition of the phonetic elements of the name may require the hard α in this place, we can scarcely understand the sign as purporting anything else, especially when we observe the lax method of insertion or omission of the same quantitative mark in other words. The antepenultimate δ is used indifferently in its simple form, or with the additional horizontal foot stroke, the precise import of which is yet undetermined; and, finally, the δ occurs in its normal shape, with the dot of a following hard α. The penultimate is also subject to modification, usually appearing under the form of the proper ϣ = t, but at times bearing the foot stroke ordinarily reserved to distinguish the ϣ = δ, of assimilate outline; but to show the irregularities practised in this respect, this extraneous mark is added to the t in the name, while on the same coin the special definition is rightly reserved to discriminate the ϣ = δ from the ϣ = t in Tradatasa. It must be added, however, that in some instances the superfluous foot stroke, in the penultimate of apaladatasa takes the form of an equally needless hard α medial.]

## 4.—□ Copper. Small coin.

OBVERSE:—Figure of Apollo, with bow and arrow, to the right.

Legend as in No. 1.

REVERSE:—Tripod. Legend as usual. Monogram, No. 38a.

Captain Robinson. Mr. Brereton, monogram 37 (?)

## 5.—○ Copper. Large coin. Plate xiv., fig. 6.

OBVERSE:—Apollo, with arrow, to the right. Legend as in No. 2.

REVERSE:—Tripod. Legend as in No. 1.

'Ariana Antiqua,' pl. iv., fig. 16. 'Jour. des Sav.,' 1834, pl. fig. 6.

Variant. ○ Copper. Coin of inferior execution. Legends arranged on three sides of a square, instead of in the usual marginal circle.

Bactrian monogram, *gi*, with *d* or *n*.

Cunningham, 'Jour. As. Soc. Beng.,' vol. ix., p. 867.

## 6.—□ Copper. Similar devices and legends to No. 5.

Monograms 63, 64.

## 7.—□ Copper. Plate xiv., fig. 7.

OBVERSE:—Apollo to the front, with the bow in the left and the arrow in the right hand. Legend as usual.

REVERSE:—Tripod. Legend as usual. 'Jour. des Sav.,' 1835, i. 7.

Variants. Small coin. Pl. xiv., fig. 8; also 'Ariana Antiqua,' pl. iv. figs. 17, 18, and small coin No. 19.

Monograms Nos. 8, 8a, 21, 52a, 57, and the entire suite 65—75.

## 8.—□ Copper. Middle size.

OBVERSE:—'Figure of Apollo standing to the left, clothed in the anaxyris, with chlamys behind, a quiver at his back; an arrow in his right hand, his left resting on his bow; inclosed in a frame of oblong globules, ΒΑΣΙΛΕΩΣ ΒΑ [?] . . . ΑΠΟΛΛΟΔΟΤΟΥ.'

REVERSE:—'Tripod; in the field, a symbol which seems to be a military ensign.' Arianian inscription imperfect [*Apaladutasa*].

'Ariana Antiqua,' 291, quoting 'Jour. des Sav.,' Dec. 1838, p. 752.

B. I. Monogram 38b. Small coin, 38a. Col. Bush. Arian Monogram, No. 76.

## 9.—□ Copper. Small coin. Plate xlii., fig. 6. Unique.

OBVERSE.—Apollo as in No. 8. Legend altogether wanting.

REVERSE:—Symbol figured in the plate.

ARIAN LEGEND:—*Maharajasa Tradatasa Apaladatasa*. Col. T. Bush.

## 10.—□ Copper. Small coin.

OBVERSE:—Bull.

REVERSE:—Tripod, surrounded by a bossed margin. No Legends. B. I.

## 11.—□ Copper (middle size), indifferent execution.

OBVERSE:—Apollo (?) seated, to the right, a bow in left hand.

LEGEND:—ΒΑΣΙΛΕΩΣ ΣΟΤΗΡΟΣ . . . . . οΔΟΤΟΥ.

REVERSE:—Tripod, within a frame. Legend imperfect, . . . *paladatasa* (?).

Monogram, No. 77.

Mr. E. C. Bayley.

## XIII. ZOILUS.

## 1.—Hemidrachma.

OBVERSE:—Head of king, to the right, with fillet.

LEGEND:—ΒΑΣΙΛΕΥΣ ΔΙΚΑΙΟΥ ΖΩΙΛΑΟΥ.

REVERSE:—Hercules, as in Demetrius' coins, but the right hand holding the chaplet is not upraised.

ARIAN LEGEND:—*Mahdrajasa Dhramikasa Jhoilasa.*

Monogram, No. 30.

Lady Headfort, No. 31. Captain Robinson, No. 46. Colonel Abbott, No. 78. Mr. Bayley, No. 79.

2.—Hemidrachma.<sup>1</sup> These coins have a great similitude, in their die execution, to the small Philopator coins of Apollodotus.

OBVERSE:—As No. 1.

LEGEND:—ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΖΩΙΛΑΟΥ.

REVERSE:—Thessalian Minerva.

ARIAN LEGEND:—*Mahdrajasa Tradatasa Jhoilasa.* Monogram No. 60.  
Colonel Abbott. Mr. Bayley, No. 80.

## 3.—□ Copper.

OBVERSE:—Head of Hercules covered with the lion's skin, to the right.

LEGEND:—ΒΑΣΙΛΕΥΣ ΔΙΚΑΙΟΥ ΖΩΙΛΑΟΥ.

REVERSE:—Club, with bow in its case, surrounded by a chaplet.

ARIAN LEGEND:—*Mahdrajasa Dhramikasa Jhoilasa.*

Monogram No. 79.

Lady Headfort.

## 4.—○ Copper. Similar types to the Apollodotus coin, No. 5, with the addition of a small elephant at the back of the figure, in the field of the obverse. Legends as in No. 2, but the Greek epigraph is less correctly rendered. Monograms Nos. 81, 82, 83.

## 5.—○ Copper (small coin).

OBVERSE:—Elephant, to the right. Epigraph illegible.

REVERSE:—Tripod.

ARIAN LEGEND:—*Mahdrajasa Tradatasa Jhoilasa.*

Arian Monograms, *dhi*, *Bh*, and *a* with *t*.

Colonel Bush.

## XIV. DIOMEDES.

## 1.—□ Copper. Plate xxviii, fig. 3.

OBVERSE:—Dioscuri standing, to the front.

LEGEND:—ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΔΙΟΜΗΔΑΟΥ.

REVERSE. ARIAN LEGEND:—*Mahdrajasa Tradatasa Diyamedasa.*

Monograms Nos. 31, 31 with  $\Sigma$ . Mr. Brereton. 48a with  $\Sigma$ .

'Ariana Antiqua,' pl. v., fig. 1.

<sup>1</sup> [Major Cunningham has published a degraded type of this class, which he supposes to have formed part of 'a coinage (that) was re-issued and perhaps imitated by the native chiefs in their own names.' 'Jour. As. Soc. Beng.,' (1864) p. 692, and pl. xxxv., fig. 11.]

## XV. DIONYSIUS.

- 1.—Hemidrachma (of inferior execution, similar in its aspect to the Philopater coins of Apollodotus).

OBVERSE:—Head with fillet, to the right.

LEGEND:— $\text{ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΔΙΟΝΥΣΙΟΥ}$ .

REVERSE:—Thessalian Minerva.

ARIAN LEGEND:—*Māhārājasa Tradatasa Dianisiyasa.*

Monogram (as in Apollodotus' coins), No. 60, standard type. Col. Abbott.

A second specimen gives the  $\Sigma$  in the name more after the form of a proper *sigma*. The outline of the *Ni*, in the Arian legend, is also modified in the duplicate coin, which, however, bears the same monogram.

- 2.—□ Copper.

OBVERSE:—Apollo, to the right, as in Apollodotus' coins.

LEGEND:— $\text{ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΔΙΟΝΥΣΙΟΥ}$ .

REVERSE:—Tripod. Arian Legend imperfect.

Monogram No. 84, consisting of Arian letters, *Sh* and *A*. B.I., mon. 85.

British Museum. 'Num. Chron.,' xvi., plate p. 108, fig. 6.

- 3.—□ Copper. Plate xlii., fig. 7. Unique.

OBVERSE:—As in No. 8, Apollodotus. No legend.

REVERSE:—Device, as represented in the plate.

ARIAN LEGEND:—*Māhārājasa Tradatasa Diyanisiyasa.*

Colonel Bush.

## XVI. LYSIAS.

- 1.—Hemidrachma. Plate xliii., fig. 4.

OBVERSE:—Head of king, with helmet in the shape of an elephant's head: similar to the Demetrius' type.

LEGEND:— $\text{ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΛΥΣΙΟΥ}$ .

REVERSE:—Hercules standing, to the front, as in the Demetrius' prototype.

ARIAN LEGEND:—*Māhārājasa Apaḥitasa Lysikasa.*

'Ariana Antiqua,' pl. ii., fig. 9. Monogram 86. 'Ariana Antiqua,' pl. xxi., fig. 9. Monogram 87. B.I., monogram 85. Colonel Abbott. Monograms 8a, 86, 87.

- 2.—Hemidrachma.

OBVERSE:—Head of the king, with the ordinary helmet.

REVERSE:—Hercules, as above. The legend varies in the Arian definition of the name, which at times exhibits the initial vowel *a*, and at others the letter *k*, as the penultimate.

The seven specimens of this mintage that I have had an opportunity of examining all have the monogram No. 86. 'Num. Chron.,' xvi., plate p. 108, fig. 1.

- 3.—□ Copper. Plate xiv., fig. 12.

OBVERSE:—Bust of king, to the right, head uncovered, with a club resting on the shoulder.

REVERSE:—Elephant, to the right, as in Heliocles' coins. Legend as above, the name being usually spelt with a *k*.

'Ariana Antiqua,' pl. ii., fig. 10. 'Num. Jour.,' vii., pl. ii., 22.

Monograms Nos. 8a, 22, 88a.

## 4.—○ Copper.

OBVERSE:—Bust of the king, as in No. 3.

REVERSE:—Elephant, to the right. (*Lisiasa*.)

Monogram No. 24a.

Colonel Bush.

## LYSIAS AND ANTIALKIDES.

## 1.—□ Copper.

OBVERSE:—Bare head of king, to the right.

LEGEND:—ΒΑΣΙΛΕΩΣ ΝΙΚΗΤΟΥ ΑΥΣΙΟΥ.

REVERSE:—Caps and palm-branches of the Dioscuri.

ARIAN LEGEND:—*Maharajasa Jayadharasa Antialikidasa*.

Captain Hay.

## XVII. ANTIALKIDES.

## 1.—Tetradrachma.

OBVERSE:—Bare head of king.

LEGEND:—ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΑΛΚΙΔΟΥ.

REVERSE:—Jove enthroned, with a small figure of Victory in his right hand ; minute elephant in front, etc.

ARIAN LEGEND:—*Maharajasa Jayadharasa Antialikidasa*.

Monogram No. 86.

Colonel Abbott.

## a).—Hemidrachma. Similar types.

'Ariana Antiqua,' pl. ii, fig. 12.

Monograms No. 86, 22, 86.

## 2.—Drachma.

OBVERSE:—Head of king, with Causia.

REVERSE:—As in No. 1.

Monogram No. 31. B.I.

## a).—Hemidrachma. Plate xxviii, fig. 2.

In some specimens the small elephant faces the seated figure.

Monograms Nos. 86, 22, 31, 86.

'Ariana Antiqua,' pl. ii, fig. 11.

## 3.—Hemidrachma.

OBVERSE:—Head, with the ordinary crested helmet.

REVERSE:—Device as usual.

Monograms 86, 86.

'Ariana Antiqua,' No. 3, p. 277.

## 4.—○ Copper.

OBVERSE:—Bust, with uncovered head. The right hand grasps the thunderbolt.<sup>1</sup>

REVERSE:—Caps and palms of the Dioscuri.

Monograms 8, 31, 86, 87.

'Ariana Antiqua,' No 6, p. 279.

## 5.—□ Copper. Plate xiv., figs. 9, 10, 11.

Similar devices.

These two classes of coins vary occasionally in the subordinate typical details,<sup>2</sup> and the Arian definition of the name is irregular in the general series, in the interchange of the dental and cerebral *d*, as the penultimate consonant. Monograms, Nos. 8a, 22, 30 (?), 49a, 87, 87a.

<sup>1</sup> [Major Cunningham supposes this to be the head of 'Jupiter Nicephorus.' 'Jour. As. Soc. Beng.,' vol. ix., p. 874.]

<sup>2</sup> [Ex. Gr., 'Num. Chron.,' vii., pl. ii., fig. 21.]

## XVIII. AMYNTAS.

- 1.—Didrachma. Much damaged. (Weight, 128 grs.)  
 O<sup>VERSE</sup>:—Helmeted head, to the right.  
 L<sup>EGEND</sup>:—ΒΑΣΙΛΕΩΣ ΝΙΚΑΤΟΡΟΣ ΑΜΥΝΤΟΤ.  
 R<sup>EVERSE</sup>:—Thessalian Minerva, to the left.  
 A<sup>RIAN</sup> L<sup>EGEND</sup>:—*Mdhdrājasa Jayadharasa Amitasa.*  
 British Museum. Monogram No. 20a.  
 'Num. Chron.,' xvi., plate p. 108, fig. 2.
- 2.—□ Copper. Plate xxxii., fig. 1.  
 O<sup>VERSE</sup>:—Head of king, to the right.  
 R<sup>EVERSE</sup>:—Minerva armed, to the left.  
 Monogram No. 88. 'Ariana Antiqua,' pl. ii., fig. 14.

## XIX. ARCHEBIUS.

- 1.—Tetradrachma.  
 O<sup>VERSE</sup>:—Bare head.  
 L<sup>EGEND</sup>:—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΤ ΝΙΚΗΦΟΡΟΤ ΑΡΧΕΒΙΟΤ.  
 R<sup>EVERSE</sup>:—Jupiter standing to the front, with spear and thunderbolt.  
 A<sup>RIAN</sup> L<sup>EGEND</sup>:—*Mdhdrājasa Dhramikasa Jayadharasa Arkhabiyasa.*  
 Monogram No. 89. Colonel Abbott.<sup>1</sup>
- \*)—Hemidrachma. Plate xxviii., fig. 1.  
 Similar types and legends.  
 'Ariana Antiqua,' pl. ii., fig. 8. Monogram No. 85.
- 2.—Tetradrachma.  
 O<sup>VERSE</sup>:—Helmeted head.  
 R<sup>EVERSE</sup>:—As No. 1.  
 Monogram No. 20a. Colonel Abbott.
- 3.—Hemidrachma.  
 O<sup>VERSE</sup>:—Bust of the king with bare head, to the left, a javelin in the right hand, as in one of the common classes of Menander's coins (No. 2.)  
 R<sup>EVERSE</sup>:—Jove (Neptune?) as above.  
 Monograms, No. 8a with 90. 'Ariana Antiqua,' pl. xxi., fig. 10.
- 4.—○ Copper.  
 O<sup>VERSE</sup>:—Victory, to the right, extending a chaplet.  
 R<sup>EVERSE</sup>:—An owl. Monogram 89.  
 R. Rochette, 'Jour. des Sav.,' 1839, p. 104. 'Ariana Antiqua,' p. 280.
- 5.—□ Copper. Similar devices. British Museum monograms, Nos. 89 and 89a.  
 'Num. Chron.,' vol. xvi., pl. p. 108, fig. 3.

<sup>1</sup> [I regret to say that my available notes on the typical details of Colonel Abbott's coins are very imperfect. I was greatly pressed for time on the only opportunity I had of inspecting his rich and varied collection; and, at the moment, entertained no design of publishing the result of my scrutiny; hence my memoranda refer to doubtful and difficult readings, special coincidences of design, and monogrammatic data, rather than to the *die* specifications ordinarily demanded by exact numismatic science. Further, I have to note, that my compulsory haste denied me even a bare sight of the copper series of a cabinet whose silver specimens promised so much; and, indeed, whose contents in that metal, whether in regard to discretion of selection or perfection of preservation, are unequalled by any public or private collection I have hitherto examined.]



## XX. MENANDER.

- 1.—Didrachma. (E. I. C. coin. Weight, 151·0 grs.)  
**OVERSE**:—Bare head of king, to the right.  
**LEGEND**:—ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΥ.  
**REVERSE**:—Thessalian Minerva, to the left.  
**ARIAN LEGEND**:—*Mhdrajasa Tradatasa Menadrdaa*.  
 Monograms,  $\Sigma$  and 30. Mr. Brereton, monogram, 8*b*.  
 'Ariana Antiqua,' pl. iii., fig. 13.
- a) —Hemidrachma. Plate iii., fig. 5. Same types. Monograms, 18*a*, 18 associated with 93 on the same field, 22*c*, 31, 46*a* repeated on the same coin, 79, 86 repeated, 86 with  $\Gamma$ , E, and  $\Sigma$ , severally associated on the same field, 91, 92, 93, 94, 95.  
 'Ariana Antiqua,' pl. iii., fig. 14.
- 2.—Didrachma (cast). British Museum.  
**OVERSE**:—Bare head of king, to the left; the right hand grasps a javelin.  
**REVERSE**:—Minerva to the left. Monogram 27.
- a) —Hemidrachma. Same types. Monograms, 8*b*, 22, 27, 31, 46, 46*a*, 86 with  $\Sigma$ .
- b) —Hemidrachma. Pl. xiv., fig. 1. Similar devices, but Minerva faces to the right, and the legends are arranged in one continuous circular scroll.  
 Monograms, 27, 31*a*, 46.
- 3.—Didrachma.  
**OVERSE**:—Head of king with helmet, to the right.  
**REVERSE**:—Minerva. Lady Headfort.
- a) —Hemidrachma. Monograms, 8*b*, 22, 22*c*, 27, 31, 46*a* repeated, 86, with  $\Sigma$ , 91.  
 'Ariana Antiqua,' pl. iii., fig. 15.
- 4.—Hemidrachma.  
**OVERSE**:—Head of king, to the left, with helmet and javelin.  
**REVERSE**:—Minerva.  
 Ariana Antiqua,' pl. iv., fig. 2.
- 5.—Hemidrachma.  
**OVERSE**:—Helmeted head, as in No. 3.  
**REVERSE**:—An owl. Monograms, 27, 31.
- 6.—□ Copper. Large coin. Weight, 550·5 grains.  
**OVERSE**:—Helmeted head of king, to the right.  
**REVERSE**:—Horse, free. Monogram, No. 30 (?). Mr. Brereton. Brereton.
- 7.—□ Copper. Weight, 316 grains.  
**OVERSE**:—Bull's head, to the front.  
**REVERSE**:—Tripod.  
 Monograms, 8*a*; another coin (in weight, 228 grs.), 8*a*; a third, No. 31*a*, with an Arian *m* in the field. Mr. Brereton.
- 8.—□ Copper. Plate xxxii., fig. 8. Weight, 342 grains.  
**OVERSE**:—Bare head, to the right.  
**REVERSE**:—A dolphin. Monogram 30, with H on the field.  
 'Ariana Antiqua,' pl. iv., fig. 3.

## 9.—□ Copper.

OBVERSE:—Bare head, to the left, with javelin, as in No. 2.

REVERSE:—Minerva, to the right. Monograms, 27, 31, 71.

‘Ariana Antiqua,’ pl. iv., fig. 7.

## 10.—□ Copper. Plate xiv., fig. 3.

OBVERSE:—Helmeted head, to the right.

REVERSE:—Winged figure of Victory, to the right, with palm-branch and wreath. Monograms, 27, 31, 46, 71, 93.

‘Ariana Antiqua,’ pl. iv., figs. 5, 6.

## \*)—□ Copper.

REVERSE:—Victory, to the left.

Monograms, 31*a*, with B. Another coin has B alone.

‘Ariana Antiqua,’ pl. iv., fig. 4.

There are other subordinate varieties of these coins, see ‘Ariana Antiqua,’ p. 285.

## 11.—□ Copper. Plate xxxii., fig. 6.

OBVERSE:—Helmeted head, to the right.

REVERSE:—Owl.

‘Ariana Antiqua,’ pl. iv., fig. 8.

## 12.—□ Copper. Plate xxxii., fig. 5.

OBVERSE:—Helmeted head, to the right.

REVERSE:—Shield of Minerva. Monograms, M (?), 46, 46*a*.

‘Ariana Antiqua,’ pl. iv., fig. 12.

## 13.—□ Copper. Plate xxxii., fig. 9.

OBVERSE:—Bour’s head.

REVERSE:—Palm branch.

Monogram, H.

‘Ariana Antiqua,’ pl. iv., fig. 9.

## 14.—□ Copper. Plate xiv., fig. 2.

OBVERSE:—Elephant’s head.

REVERSE:—Club of Hercules.

Monograms, 27, associated in the several instances with the isolated letters

A Δ; 31, ditto, A Δ. Colonel Bush, *Arian monogram*, *San*.

‘Ariana Antiqua,’ pl. iv., fig. 10.

## 15.—□ Copper. Plate xxxii., fig. 7.

OBVERSE:—Wheel.

REVERSE:—Club.

‘Ariana Antiqua,’ pl. iv., fig. 11.

## 16.—□ Copper.

OBVERSE:—Minerva to the left, with a spear resting on her left arm—shield in front of the knee—right hand extended.

LEGEND:—ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΤ ΜΕΝΑΝΑΡΟΤ.

REVERSE:—Indian lion, to the left.

ARIAN LEGEND:—*Mahdrajasa Dhramikasa Menandrasa*. British Museum.Quoted also by Wilson, ‘Ariana Antiqua,’ p. 217, from an imperfect coin described by M. R. Rochette, ‘*Jour. des Sav.*,’ Dec. 1838, p. 751.

## 17.—□ Copper.

OBVERSE:—Elephant, to the left.

Legend imperfect, but exhibiting traces of the name of Menander:—

ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΝ.

REVERSE:—An ankus (or elephant-goad).

Arian Legend imperfect:—[*Mahdra*]jasa Trada[*tasa*] . . . .

Monogram, No. 56.

Mr. Bayley.

## XXI. STRATO.

## 1.—Didrachma. (Cast).

OBVERSE:—Helmeted head of the king, to the right.

LEGEND:—*ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΥΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ*.

REVERSE:—Thessalian Minerva, to the left.

ARIAN LEGEND incomplete:— . . . *Pratichasa Tradatasa Stratasa*.

Monogram, 20a.

Capt. Hay

## 2.—Hemidrachma.

OBVERSE:—Bare head, to the right.

LEGEND:—*ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΥΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ*.

REVERSE:—Minerva.

ARIAN LEGEND:—*Maharajasa Pratichasa Tradatasa Stratasa*.

Two specimens. British Museum. Monogram, No. 8a.

## 3.—□ Copper.

OBVERSE:—Apollo, as in Apollodotus' coin, No. 7.

REVERSE:—Tripod.

E. I. H., monogram, No. 8a.

## 4.—□ Copper.

OBVERSE:—King's bust, with club resting on his right shoulder.

LEGEND:—*ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ*.

REVERSE:—Victory.

ARIAN LEGEND:—*Maharajasa Tradatasa Stratasa*.

Monograms, No. 22c (?), 22e.

Mr. Bayley.

## 5.—□ Copper.

OBVERSE:—Type as in No. 4.

LEGEND:—*ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΔΙΚΑΙΟΥ ΣΤΡΑΤΩΝΟΣ*.

REVERSE:—Type as in No. 4.

ARIAN LEGEND:—*Maharajasa Tradatasa Dhramikasa Stratasa*.

Monogram No. 22e. British Museum. Other monograms, Nos. 22 and 22b.

## 6.—○ Copper.

OBVERSE:—Bare head of king to the right, as in the silver hemidrachmas.

LEGEND, imperfect:—*ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΥΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ*.

REVERSE:—Victory with (palm branch ? and) chaplet, to the right.

ARIAN LEGEND:—*Maharajasa Pratichasa (Tradatasa) Stratasa*.

Monogram 108a. ?

Colonel T. Bush.

XXI<sup>a</sup>. AGATHOCLEIA

(WIFE OF STRATO).

## 1.—□ Copper. Plate xxxii., fig. 2.

OBVERSE:—Female head, helmeted.

LEGEND:—*ΒΑΣΙΛΙΣΣΑΣ ΘΕΟΤΡΟΠΟΥ ΑΓΑΘΟΚΛΕΙΑΣ*.

REVERSE:—Hercules with club, seated.

ARIAN LEGEND:—*Maharajasa Tradatasa Dhramikasa Stratasa*.

Monogram No. 22b.

Mr. Bayley.

'Ariana Antiqua,' pl. vi., fig. 10.

I notice in this place, irrespective of the order of time, a series of debased derivatives from the normal type of Strato's hemidrachmas (No. 2 *supra*), which are peculiarly identified with the original mintage, not only in obvious imitation, but in

the progressive degradation of certain associate pieces bearing that monarch's name, which have been found in company with the only considerable hoard of these coins that has as yet been discovered.<sup>1</sup>

The serial class is remarkable in that, while continuing the same standard devices as the prototype, it eventually lowers the title of *Mahārāja*, on the reverse, into that of *Satrap*; and it is further interesting in the exemplification of the speedy obscuration of the Greek legends, while the Arian writing remains well-defined and intelligible, as in the parallel instance of the money of the Śāh kings, where the local Pālī appears in the highest perfection in the presence of the meaningless repetition of Greek outlines on the obverse. In its local aspect also, this particular hoard is instructive, as, although solitary specimens of these and kindred issues may have found their way to other parts of the country, yet the collection of so many successional coins, unmixed with foreign currencies, would seem to indicate an ordinary accumulation of every-day life, either made on the spot or gathered from the circulating medium of no remote locality.

Major Cunningham, in a paper in the 'Journal of the As. Soc. Beng.' (1854, p. 679), with persevering assiduity, endeavours to reconcile the degraded Greek legends with the indigenous inscriptions on the reverse, and essays to discover owners for the names—which read but vaguely even in their Arian form—amid the Hindū dynasties of Hustināpur and Dehli.<sup>2</sup>

Passing over the progressive steps of barbarization in the jumbled Greek legends of all those coins that bear the name of Strato on the reverse, and rejecting unconditionally the claim of Major Cunningham's ΠΟΣΑ ΣΤΑΤΩΝΟΣ to any separate identity, I come to the class of pieces which bear on their obverse variously the titles of ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ and ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ, followed by portions of a name or title which reads as PAZ and PAZIOBA. On the reverse this money exchanges the legend of *Mahārājasa Tradatasa Stratasa* for *Chatropasa apraticakrasa Ranjabalasa*.<sup>3</sup> Whether the PAZIOBA of the obverse legend be an imperfect attempt at a Greek rendering of the native name is of but little consequence, as we can hardly reconcile Ranjabala's humble titles on the reverse with the higher designation applied to Strato himself, or the more pompous ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ, assumed by that monarch's successors, which figure indifferently in contact with and contrast to the grade of *Satrap*, to whose dignities alone the former limits his claim. In brief, the coins would merely seem to exemplify an oft-recurring phase in Indian Imperialism, where the decline of the central power encourages, and at times necessitates, the effective assertion of independence by the local rulers, however much they may avoid or delay the overt act of positive disavowal of allegiance.

The monograms on the debased coins of Strato are entered under Nos. 97 to 99. Those on Ranjabala's money are reproduced as Nos. 100 to 104.<sup>4</sup>

<sup>1</sup> [Major Cunningham observes: 'The greatest number were procured at Mathura, on the Jumna, and were said to have been found in the ruins of the city, along with some rude hemidrachmas of Strato' ('Jour. As. Soc. Beng.,' vol. vii., 1854, p. 681). I do not know how many of these mixed pieces Major Cunningham obtained on this occasion, but my native coin-collector, who gleaned part of the remainder, brought me 84 coins, more than half of which number were Strato's.]

<sup>2</sup> [See Useful Tables *infra*. Table xix. *Rajapala*.]

<sup>3</sup> [Major Cunningham makes it *Rajabalasa*, but the better preserved coins give the suffix *n* in full distinctness. His translation of *Apraticakra*, as 'invincible with the the discus,' is satisfactory.]

<sup>4</sup> [No. 101 is interpreted by Major Cunningham as *Hasti* for *Hastindapura*, the ancient Hindu capital on the Ganges above Meerut.]

## XXII.—HIPPOSTRATUS.

## 1.—Didrachma.

OBVERSE:—Bare head of king, to the right, with fillet.

LEGEND:—ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΙΠΠΟΣΤΡΑΤΟΥ.

REVERSE:—Standing figure of Demeter, with crested helmet, right hand extended, the left supports a cornucopia.

ARIAN LEGEND:—*Maharajasa Tradatasa Hipastratasa.*

Monogram, No. 85.

Mr. Bayley and B.M. 'Num. Chron.,' vol. xvi., pl. p. 108, fig. 5.

\*)—Hemidrachma. Similar types. Monogram, No. 85. Captain Hay.

## 2.—Didrachma. (British Museum coin, weight 139 gr.)

OBVERSE:—Bare head of king, to the right, with fillet.

LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΣΩΤΗΡΟΣ ΙΠΠΟΣΤΡΑΤΟΥ.

REVERSE:—Helmeted figure on horseback, to the right; horse in motion.

ARIAN LEGEND:—*Maharajasa Tradatasa Mahatasa Jayatasa Hipastratasa.*

Monogram, No. 105.

Mr. Bayley, No. 105, with Arian *to* on the field. Captain Hay, 105*a* with *to*, and No. 106. M. N. (?) Col. Abbott, 38*a*. British Museum, No. 47*c*. 'Num. Chron.,' vol. xvi., pl. p. 108, fig. 4.

\*)—Hemidrachma. Similar types. Monogram, 105*a*. Mr. Brereton.

## 3.—Didrachma. (British Museum coin; weight, 144·5 grains).

OBVERSE:—Device and legend as in No. 1.

REVERSE:—Horseman, motionless. Legend as in No. 2.

Monogram, No. 105, with the several adjuncts of No. 106, and the detached

Arian letters *to* and *pri*.

Mr. Bayley, British Museum, etc.

## 4.—□ Copper.

OBVERSE:—Apollo standing, to the right. Legend as in No. 1.

REVERSE:—A tripod. Legend as in No. 1.

Monogram, 85.

Mr. Bayley.

## 5.—□ Copper.

OBVERSE:—Jove enthroned. Legend as in No. 1.

REVERSE:—Horse, standing, to the left.

ARIAN LEGEND:—*Maharajasa Tradatasa Jayatasa Hipastratasa.*

Cunningham, 'Jour. As. Soc. Beng.,' vol. xi., pl. fig. 9.

## XXIII. TELEPRUS.

## 1.—Major Cunningham has made public the only known coin of this king, ('Jour. As. Soc. Beng.,' vol. xi., p. 133), which he describes as follows:—

OBVERSE:—'An ancient giant, full front, with snaky legs, which curl upwards on each side.'

LEGEND:—ΒΑΣΙΛΕΩΣ ΕΤΕΡΙΕΤΟΥ ΤΗΛΕΦΟΥ.

REVERSE:—'A draped male figure standing, to the left, his head crowned with rays, and holding in his right hand a spear; to the right, a clothed female figure, with a crescent on her head.'

ARIAN LEGEND:—*Maharajasa . . . Ramasa Taliphasa.*

Monogram, No. 107.

## XXIV. HERMÆUS.

- 1.—Didrachma. Plate xviii., fig. 1. (Selected British Museum coins; weight, 140 and 144 grains).

OBVERSE:—Head of king, to the right.

LEGEND:—ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ.

REVERSE:—Jove enthroned, right hand extended.

ARIAN LEGEND:—*Mahdrajasa Tradatasa Hermayasa.*

Monogram, E. I. C., Nos. 17*b*, 36, 108*b*.

'Ariana Antiqua,' pl. v., fig. 3.

British Museum monograms, 32*a*, 108, 108*a*, associated with 110. Mr. Brereton, 109. Colonel Bush, 108*c*.

- <sup>a</sup>)—Hemidrachma. Similar types. Monograms, British Museum, 21, 33*b*, 48*c*, 90*a*, 111, 112. B. I. 113. Mr. Brereton, 22*b*. Captain Hay, 114. Mr. Freeling, 53*a*.

'Jour. des Sav.,' 1835, i. 13. 'Ariana Antiqua,' pl. v., fig. 3.

## HERMÆUS AND CALLIOPE.

- 2.—Hemidrachma.

OBVERSE:—Male and female heads, to the right.

LEGEND:—ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ ΚΑΙ ΚΑΛΛΙΟΠΗΣ.

REVERSE:—Horseman, as in Antimachus' coin.

ARIAN LEGEND:—*Mahdrajasa Tradatasa Hermayasa*; and at the bottom, in the reverse direction, *Kaliyapaya*.

'Ariana Antiqua,' pl. xxi., fig. 14. Capt. Robinson, Mr. Bayley, Mr. Brereton, etc., all have the same monogram, No. 108*a*.

- 3.—○ Copper. Plate xviii., figs. 2, 3, 4. Identical in type and legends with No. 1.

'Ariana Antiqua,' pl. v., figs. 4, 5, 6.

Monograms, No. 115, with Bactrian letters *lv*, and No. 115*a*, with the several Bactrian letters classed under No. 116.

- <sup>a</sup>)—○ Copper. Small coins. Similar types.

- 4.—□ Copper. Plate xxviii., fig. 11.

OBVERSE:—Bust of king, with curiously arranged head dress.

LEGEND:—ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ.

REVERSE:—Horse standing to the right.

ARIAN LEGEND:—*Mahdrajasa Tradatasa Hermayasa.*

Monograms, 31, 109.

'Ariana Antiqua,' pl. v., fig. 7.

- <sup>a</sup>)—Variety. 'Ariana Antiqua,' pl. xxi., fig. 15. Head-dress as in Amyntas' coin, pl. xxxii., fig. 1, monogram 109.

Extra Monograms of Hermæus:—20*b*, 24*b*, 36*a*, 38, 108*b*, with Arian letters *k*, *s*; 115*a*, with elongated downstroke of *r* (or 115*b*), associated with the Bactrian letters *trā*, *v*, *dā*, *sh*, and *n* (?); also 117 to 119 inclusive.

## XXIV\*. SU-HERMÆUS.

- 1.—○ Copper. Plate xviii., fig. 9; and pl. xxviii., fig. 10.

OBSERVE:—Head of king, to the right.

LEGEND, imperfect:—ΒΑΣΙΛΕΩΣ ΣΤΗΡΟΣ ΣΤ ΕΡΜΑΙΟΥ.

REVERSE:—Hercules standing with his club resting on the ground.

ARIAN LEGEND:—*Dhama Phidasa Kujula Kasasa Kushanayatugasa.*

'Ariana Antiqua,' pl. v., figs. 8, 9, etc.

These coins are usually deficient in monograms. In one case I notice the Bactrian combination No. 63 on the reverse field.

Major Cunningham conjectures these mintages to have formed a portion of the issues of Kozoula Kadphises (No. xxvi.), struck during the lifetime of Hermæus.—'Jour. As. Soc. Beng.,' 1854, p. 709.

## XXV. MAUAS.

- 1.—Didrachma. (Weight, 161·4 grains).

OBSERVE:—Male figure, to the front; right arm extended, the left supports a spear.

LEGEND:—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΜΑΤΟΥ.

REVERSE:—Victory, with chaplet, to the right.

ARIAN LEGEND:—*Rajadirajasa Mahatasa Moasa.*

Monogram, No. 38b.

British Museum, 38b. Capt. Robinson, No. 38a. Lady Sale's coin (weight, 143 grains), monogram, No. 89.

- \*)—Hemidrachma. Similar types.

Capt. Robinson, monogram 38a. Capt. Hay, No. 64.

- 2.—Didrachma.

OBSERVE:—A biga, with horses at speed. The driver wears a helmet; the chief figure holds a spear, a nimbus surrounds his head.

REVERSE:—Jove enthroned, as in Hermæus' coins, with triple-pointed spear (trident?),

Monogram, No. 107a.

Capt. Robinson.

- 3.—○ Copper. Plate xiii., fig. 4.

OBSERVE:—Elephant's head.

REVERSE:—Caduceus.

LEGEND:—ΒΑΣΙΛΕΩΣ ΜΑΤΟΥ.

Monogram, No. 89.

British Museum. 'Ariana Antiqua,' pl. viii., fig. 11.

- 4.—□ Copper (small coin).

OBSERVE:—Apollo, to the front, as in Apollodotus' coins: arrow in the right, and bow in the left hand.

LEGEND:—ΒΑΣΙΛΕΩΣ ΜΑΤΟΥ.

REVERSE:—Tripod.

ARIAN LEGEND:—*Mahdrasasa Moasa.*

British Museum. Mr. Brereton.

## 5.—□ Copper.

OBVERSE:—Female figure, to the front, with spear; crescent above the head.  
Two six-pointed stars or constellations appear in the upper part of the field, one on each side of the figure.

LEGEND:—ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΤ ΜΑΥΟΤ.

REVERSE:—Victory with chaplet, to the left.

ARIAN LEGEND:—*Rajadivrajasa Mahatasa Moasa.*

Monogram, No. 120. British Museum, and less perfect coin B. I.

## 6.—□ Copper.

OBVERSE:—Jove enthroned, with small figure at the side.

REVERSE:—Female figure, as on the obverse of No. 5.

Monogram, No. 120.

'Ariana Antiqua,' p. 315.

Variety.

REVERSE:—Figure as above; but the crescent is strangely transformed, and the stars on the field are wanting.

Monogram 120.

Mr. Brereton.

7.—○ Copper.<sup>1</sup>

OBVERSE:—Figure clothed in skins, with nimbus.

REVERSE:—Indian bull, to the left.

British Museum. Monogram, No. 89.

Monogram, No. 52.

Mr. Bayley and Capt. Robinson.

## 8.—□ Copper. Plate xliii., fig. 11.

OBVERSE:—Male figure, with club and trident, flowing robes, etc.

Monogram, No. 121.

REVERSE:—Victory, with loose garments (similar to the figure on the obverse), and a varied style of chaplet.

'Ariana Antiqua,' pl. viii., fig. 10. Monogram, 122. B. I.  
Monogram, 123.

## 9.—□ Copper. Pl. xv., fig. 11.

OBVERSE:—Elephant.

REVERSE:—Seated figure.

Monogram, No. 115*b*.

Mr. Frere.

'Jour. des Sav.,' 1839.

## 10.—□ Copper. Pl. xv., fig. 7.

OBVERSE:—Male figure, to the left, in flowing garments, holding a chaplet.

REVERSE:—Indian lion, to the right.

B. I. Monogram, 112*a*.

## 11.—○ Copper.

OBVERSE:—Hercules to the front, with club and lion-skin, the right hand rests upon the hip.

REVERSE:—Indian lion, to the left.

Monogram, No. 89.

Mr. Brereton.

<sup>1</sup> [A coin of this type is engraved in Mr. H. T. Prinsep's 'Historical Results,' pl. v., fig. 1.]



## 12.—□ Copper.

OBVERSE:—Neptune, with trident, treading upon a prostrate figure.

REVERSE:—Figure surrounded with branches.

Monogram, No. 120.

Colonel Nuthall. Mr. Brereton, and 'Ariana Antiqua,' p. 314.

## 13.—□ Copper.

OBVERSE:—Neptune, with the right foot placed on a prostrate figure as in No. 12; the left hand rests on a trident, while the right is raised in the act of hurling the thunderbolt.

REVERSE:—As in No. 12. Monogram, illegible.

Lady Elliot.

## 14.—□ Copper.

OBVERSE:—As No. 13, except that Neptune holds a palm-branch in the left hand in lieu of the trident.

REVERSE:—As No 13.

Monogram, a modification of No. 115*b*.

Mr. Bayley.

## 15.—□ Copper.

OBVERSE:—Horseman, with a fold of his dress flying loose behind him.

Monogram, illegible.

REVERSE:—Helmated figure, in loose garments, moving to the right, holding a garland in the right and a spear in the left hand.

Monogram, *mi*.

Mr. Bayley.

## 16.—□ Copper.

OBVERSE:—Horseman, with spear.

REVERSE:—Winged Victory, to the left, holding a chaplet in the right hand.

Monogram, No. 115*b*.

Mr. Bayley.

## 17.—□ Copper..

OBVERSE:—Standing male figure, to the front; right arm uplifted, in the left a club.

Monogram, No. 115*b*, with an Arian *ti*.

REVERSE:—Indian bull, to the right.

Monogram, No. 115*a*.

Mr. Bayley.

A second coin, in the possession of Mr. H. Brereton, gives the name clearly as MATOY.

## 18.—□ Copper.

OBVERSE:—Elephant.

REVERSE:—Indian bull.

Mr. Brereton. Capt. Hay.

## XXVI. KADPHISES.

## 1.—Copper. Plate xxviii., fig. 12.

OBVERSE:—Head as in the Su-Hermæus' coins.

LEGEND:—KOPHΛO [Variety, KOPONAO] KOZOTAO KAAΦIZOT.

REVERSE:—Hercules as above.

ARIAN LEGEND:—*Dhama Phidasa Kujula Kasasa Kushanayatusasa*.<sup>1</sup>

Monograms, Arian *dñ* with *r*. 'Ariana Antiqua,' pl. xi., figs. 10, 11.

<sup>1</sup> [Major Cunningham, in the 'Jour. As. Soc. Beng.', vol. vii. of 1854, p. 709, transcribes this legend as follows:—*Kujula Kasasa Kushanga Yathagasa Dhamapidasa*.

XXVI<sup>a</sup>. KOZOLA KADAPHES.

- 1.—○ Copper small coin. Plate xviii., figs. 13, 14, 15; and pl. xxviii., figs. 13, 14.  
 OVERSE :—Youthful head.

LEGEND :—KOZOAA KAAΔAΦEE XOPAN CT ZAOOT.

REVERSE :—A Scythic figure.

ARIAN LEGEND :—*Khashunasa Yauasa Kuyula [Kuyanta?] 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.

XXVI<sup>b</sup>. KODES.

- 1.—Hemidrachma. Plate xiii., figs. 11, 12, 13.

OVERSE :—Barbarously executed head of king.

LEGEND :—KωΔOY.

REVERSE :—Erect figure, with flames issuing from the shoulders; the right hand rests upon a spear.

LEGEND :—PAHOPOT MAKAP.

‘Jour. des Sav.’ 1834, pl. fig. 8; ‘Ariana Antiqua,’ pl. ix., figs. 1, 2, 3, 5.

- 2.—Hemidrachma. Plate xxxii., figs. 16, 17, 18.

OVERSE :—Head as above.

REVERSE :—Horse’s head. KωΔ.

‘Jour. des Sav.’ 1834, pl. fig. 9. ‘Ariana Antiqua,’ pl. ix., figs. 4, 6, 7.

## XXVII. VONONES (AND AZAS).

## CLASS A.

I understand that Major Cunningham has discovered coins with the above combination of names. The specimens are engraved in his unpublished plates, but I do not consider myself authorized to quote them in any detail beyond this notice of the interesting historical fact they suffice to substantiate.

## VONONES (AND SPALAHORES).

## CLASS B.

- 1.—Didrachma.

OVERSE :—Azas’ horseman with spear at the charge, to the right.

LEGEND :—BAZIAEONΞ BAZIAEON MEΓAOT ONONOT.

REVERSE :—Jupiter with spear and bolts.

ARIAN LEGEND :—*Maharaja Bhata Dhramikasa Spalahorasa.*

Monogram, No. 53b.

Capt. Robinson.

- \*)—Hemidrachma. Pl. xv., fig. 5. Similar types and legends.

Monograms, 53b, 126.

‘Ariana Antiqua,’ pl. viii., fig. 8.

The nearly parallel epigraph on Kozola Kadaphes’ money is transliterated and translated thus—*Kushanga Yathasa Kujula Kaphsasa Sachha dharmapidasa*, ‘Coin of the king of the Khushang Kujala Kaphsa, the crown of the true Dharma.’]

## 2.—□ Copper. Plate xv., fig. 10.

OBVERSE:—Hercules, with club and lion's skin, right hand raised to the head.

LEGEND:—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΟΝΟΝΟΥ.

REVERSE:—Minerva, to the left, armed with shield and spear, right arm extended.

ARIAN LEGEND:—*Māhārāja Bhrata Dhramikasa Spalahorasa.*

Monograms, No. 126. B.I. 126a.

'Jour. des Sav.,' 1835, pl. ii., fig. 20. 'Ariana Antiqua,' pl. viii., fig. 9.

## 3.—□ Copper.

OBVERSE:—As in No. 2.

REVERSE:—Device as in No. 2.

ARIAN LEGEND:—*Spahora Bhrata Dhramikasa Spalahorasa.*

Monogram, 126.

Mr. Brereton.

## VONONES (AND SPALAGADAMES, SON OF SPALAHORES.

## CLASS C.

## 1.—Hemidrachma.

OBVERSE:—Azas' horseman, with spear.

LEGEND:—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΟΝΟΝΟΥ.

REVERSE:—Jupiter, with spear and bolts.

ARIAN LEGEND:—*Spalahora Putrāsa Dhramikasa Spalagadamasa.*

Monograms, British Museum coin, 127. Col. Sykes, 132a. Mr. Breveton, 4Sc, 128, 128a.

## 2.—□ Copper.

OBVERSE:—Hercules, as in No. 2, class B.

LEGEND:—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΟΝΟΝΟΥ.

REVERSE:—

ARIAN LEGEND:—*Spalahora Putrāsa Dhramikasa (Spala) gadamasa.*

Monogram, 128.

Mr. Brereton.

## SPALIRISES AND AZAS.

## CLASS D.

## 1.—Didrachma.

OBVERSE:—Azas' horseman.

LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΠΗΛΙΠΙΟΥ.

REVERSE:—Jove, as above.

ARIAN LEGEND:—*Māhārāja Mahātakasa Ayasa.*

Monogram, 130.

Mr. Frere.

## \*)—Hemidrachma. Similar types.

Monogram, 129, with Bactrian letters, *si*.

Mr. Brereton.

## 2.—○ Copper.

OBVERSE:—Azas' horseman.

LEGEND:—ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΠΗΛΙΠΙΟΥ.

REVERSE:—A bow and arrow.

ARIAN LEGEND:—*Māhārāja Mahātakasa Ayasa.*

Monogram, 127b.

Mr. Bayley.

## CLASS Ca.

## XXVIII. SPALYRIOS OR SPALAGADAMES (alone).

THE BROTHER OF THE KING.

- 1.—□ Copper. Pl. xv., fig. 9; pl. xxviii., fig. 6.

OBVERSE:—Azas' horseman.

LEGEND:—ΧΑΛΤΡΙΟC ΔΙΚΑΙΟΤ ΑΔΕΛΦΟΤ ΤΟΤ ΒΑCΙΑΕΩC.

REVERSE:—Hercules seated on a rock.

ARIAN LEGEND:—*Spalahora putrdsā Dhramiasa Spalagudamasa*.

Monograms, Nos. 48c, 127c, 128. 'Ariana Antiqua,' pl. viii., fig. 13.

## CLASS Da.

## XXIX. SPALIRISES (alone).

- 1.—Hemidrachma.

OBVERSE:—Azas' horseman; spear at the charge.

LEGEND imperfect:—ΒΑCΙΑΕΩΝ ΒΑ . . . . ΠΠΑΑΙΠΙC ov.

REVERSE:—Neptune to the front, with trident and bolts.

ARIAN LEGEND:—*Māhārajasa . . . . Spalirīgasa*.

Monogram, 48c.

Capt. Hay.

- 2.—□ Copper. Plate xv., fig. 6; pl. xxviii., fig. 7.

OBVERSE:—Female figure, to the left.

LEGEND:—ΒΑCΙΑΕΩΝ ΒΑCΙΑΕΩC ΜΕΓΑΛΟΤ ΠΠΑΑΙΠΙC OT.

REVERSE:—Jove enthroned.

ARIAN LEGEND:—*Māhārajasa Māhātakasa Spalirīgasa*.

Monograms, Nos. 131, 131a, and 131b.

'Ariana Antiqua,' pl. viii., fig. 12.

## XXX. AZAS.

- 1.—Didrachma.

OBVERSE:—The standard Azas' type of horseman, to the right; the spear point slightly depressed.

LEGEND:—ΒΑΣΙΑΕΩΣ ΒΑΣΙΑΕΩΝ ΜΕΓΑΛΟΤ ΑΖΟΤ.

REVERSE:—Female figure, with palm-branch in the left, and a four-pointed object in the right hand, somewhat after the nature of the Scythian monograms, No. 169, etc.

ARIAN LEGEND:—*Māhārajasa Rajarajasa Mahatasa Ayasa*.Monogram, Captain Robinson, 132, with Arian letters, *mi*.'Ariana Antiqua,' pl. vi., fig. 12. 'Jour. des Sav.,' 1835, ii., 16, monogram, 133 with *san*.

- \*).—Hemidrachmas.

Monograms, No. 133, with Arian letters *hh* and *dh*; No. 133, with the word *san*; No. 38a, with severally *53b* and an Arian *t*; No. 38a, with a Greek A and an Arian *t*; No. 38a, with an Arian *t* alone; No. 134, with an Arian *si*; No. 134, with *dh* and *mi*.

'Ariana Antiqua,' pl. vi., fig. 18.

- 2.—Didrachma.

OBVERSE:—Horseman, as above.

REVERSE:—Minerva Promachos, to the left.

Monograms 85; 85, with Arian *s* on obverse; 85 simple with 132; 133, with the Arian word *san*, and No. 63a.

## a).—Hemidrachma.

Monograms, British Museum, 85 ; Captain Robinson, 85 simple with 132.

## 3.—Didrachma.

OBVERSE :—Horseman, as above.

REVERSE :—Jupiter, with spear and bolts.

Monograms, Capt. Robinson, 132*a* with *bh*. British Museum, 132*a* with *dh*.

## 4.—Variety of No. 3. Didrachma.

OBVERSE :—Horseman, as above, with the Arian letters *Pri* below the horse.

REVERSE :—Jove, with the spear or sceptre, triple-pointed, the points diverging from one centre ; nimbus encircles the head.

Monogram, No. 85.

## 5.—Hemidrachma.

OBVERSE :—As above.

Monogram, Arian letters *ti*.

REVERSE :—Jove, with triple-pointed sceptre ; but the right hand is elevated in the act of throwing the thunderbolt.

Monograms, No. 85*a*, with an Arian *a*.

Captain Robinson.

## a).—Hemidrachma. Variant.

OBVERSE :—As above.

REVERSE :—Jupiter rayed, to the front, leaning on a spear ; the bolts are held in the right hand low down.

Monogram, No. 135.

Captain Robinson.

## 6.—Didrachma.

OBVERSE :—The Azas' horseman, to the right, without the spear ; the right hand of the figure is extended above the horse's head.

Monogram, an Arian *s*.

REVERSE :—Minerva, to the right, helmeted and armed with buckler ; right hand extended.

Monograms, Captain Robinson, 52, with *a*. Lady Elliot, double monogram, 138 and 139, without the Bactrian adjunct of the latter. Mr. Carne's collection, monogram, No. 141, with the several Arian letters *san*, *si*, *pi*, or *dh*.

## (6).—Variety.

OBVERSE :—Horseman, as above, with whip in the right hand and bow behind the saddle.

REVERSE :—As in No. 6.

Monogram, 85 simple, with 133*b*.

## a).—Hemidrachma.

Monogram 85.

Mr. Bayley.

## b).—Variety.

REVERSE :—Minerva, to the left.

Monograms, obverse, Arian *so* ; reverse, 85.

Mr. Brereton.

## 7.—Didrachma. Plate xvii., fig. 17 (?).

OBVERSE:—Horseman, as above, with whip in the right hand, bow at the back of the saddle.

REVERSE:—Standing figure, with spear, holding a small statue of Victory.

‘Ariana Antiqua,’ pl. vi., figs. 15, 16 (?), 17.

British Museum, monograms, 38*a* with 53, and Arian letters *t*, *bu*, *dh*, etc.; others, with *t*, omit No. 53. B.I., monogram, obverse, Arian *ji*; reverse, 134*a* associated with 53*b* and 63; a second, reverse, No. 42 with 136, and an Arian *dh*. Mr. Brereton, obverse, monogram, *san*; reverse, as in the first cited B.I. coin.

## a).—Hemidrachma.

Monograms, No. 137, with *san*; a second; No. 138, with *dh* and *s*. Lady Elliot. Mr. Brereton, 38*a* with Arian *t*; a second, obverse, Arian *s*; reverse, 38*a* with 139.

## 8.—Didrachma. Plate xvii., fig. 15.

OBVERSE:—Horseman, as above.

Monogram, Arian *ti*.

REVERSE:—Minerva, with spear, to the right; bare head, and right arm extended.

Monogram, 85 simple with 133*a*. B.I., obverse, monogram, Arian *ti*; reverse, 85*b* with 133*b*.

‘Ariana Antiqua,’ pl. vi., fig. 13.

## (8).—Variety. Billon.

REVERSE:—Similar figure, with triple-pointed spear.

Monogram, Arian *si* and 134*b*.

## 9.—Didrachma. Billon. Plate xvii., fig. 16.

OBVERSE:—As above.

REVERSE:—Neptune, with trident, to the front.

Monogram, No. 140, with *si*.

‘Ariana Antiqua,’ pl. vi., fig. 14.

## 10.—Hemidrachma. Plate xvii., fig. 18.

OBVERSE:—Horseman, as above, with bow and whip.

REVERSE:—Minerva, to the front, armed with spear and shield, the right arm upraised.

Monograms 135*a*, with *seh*; 135*b* and Arian monogram 142, *sa shi*? 135*b* with 39*a*. Another: obverse, monogram *a*; reverse, 140*a*, with an indistinct symbol like 132. Miscellaneous: obverse, mint-marks Arian letters *s*, *l*, *g*, and *sd*.

135S

‘Ariana Antiqua,’ pl. vi., fig. 19.

## 11.—Drachma.

OBVERSE:—King, standing, to the left; right hand extended, and sloped spear on his left shoulder.

REVERSE:—Winged figure of Victory, to the right, holding out a chaplet.

Monogram, No. 64.

## 10.—□ Copper. Plate xvii., fig. 14.

OBVERSE:—Neptune, treading on a prostrate figure. Legend as above.

REVERSE:—Female figure, surrounded by branches. Legend as above.

Monogram, No. 64.

‘Ariana Antiqua,’ pl. vii., fig. 5.

Mr. Brereton has a superstruck piece of this class, offering the peculiarity in that the obverse legend exhibits portions of the epigraph of two distinct dies: it may be represented in its present state thus— $\Sigma\Theta\Theta\text{P}\Theta\Xi$   
 $\text{Bac}\alpha\Delta\text{E}\Theta\text{N}$   $\text{ME}\text{P}\alpha\alpha\text{O}\text{T}$   $\text{AZO}\text{T}$ .<sup>1</sup>

11.—□ Copper.

OBVERSE:—King, riding on a Bactrian camel.

REVERSE:—Thibetan yâk (or long-haired bull).

'Ariana Antiqua,' pl. vii., fig. 6.

12.—□ Copper. Plate xvi., fig. 9.

OBVERSE:—King on horseback, with spear sloped.

REVERSE:—Indian bull, to the right.

Monograms, No. 85; 85 simple, with *t*, and the four variants classed under

No. 143. Another: obverse, *san*; reverse, 134 with *si*.

'Ariana Antiqua,' pl. vii., fig. 12.

13.—□ Copper. Plate xv., fig. 8.

OBVERSE:—Hercules, to the front, with chaplet upraised in his right hand, and club in the left, after the manner of the reverse devices of Demetrius.

Monogram, 536.

REVERSE:—Horse, free, to the right.

Monogram, *mi*.

'Ariana Antiqua,' pl. vii., fig. 7.

14.—○ Copper. Plate xvi., figs. 4, 5.

OBVERSE.—Elephant, to the right.

REVERSE:—Indian bull, to the right.

Monograms, Nos. 52 with Arian *a*; 85; 85 simple with 142*a*; 85 simple with 132.

'Ariana Antiqua,' pl. vii., fig. 10.

15.—○ Copper. Plate xvi., figs. 1, 2, 3.

OBVERSE.—Humped bull, to the right.

REVERSE:—Indian lion, to the right.

ARIAN LEGEND:—*Maharajasa Rajadirajasa Mahatasa Ayasa*.

Monograms, 132 with 145*a*, 135*a* with 39*a*, 135*b* with 39*a*, 143*b* with 39*a*, 144 with 138, 145 with 138, 145 with 146, 135*b* with 142, 85*b* with 133, 134*b* with *si*.

'Ariana Antiqua,' pl. vii., fig. 8.

a) —Small coins. Similar types.

'Ariana Antiqua,' pl. vii., fig. 9.

b) —□ (?) 'Ariana Antiqua,' pl. vii., fig. 3. Monogram, *a*. Rev. monogram, *pr*.

16.—○ Copper. Plate xvi., fig. 10.

OBVERSE:—Demeter, seated on a throne.

REVERSE:—Hermes, standing.

Arian legend as in No. 1.

Most common monogram, No. 135*b* associated with 142.

'Ariana Antiqua,' pl. vii., fig. 12.

<sup>1</sup> [Some months ago (1857) Mr. Bayley read an interesting paper, on the subject of the superstruck coins of Azes, at one of the meetings of the Numismatic Society.]

## 17.—○ Copper. Plate xvi., fig. 12.

OBVERSE:—Figure, seated cross-legged.

REVERSE:—Hermes, standing.

ARIAN LEGEND, as in No. 15.

Monograms, the combinations entered in plate xi.c from No. 147 to 153.

'Ariana Antiqua,' pl. vii., figs. 13, 14.

\*)—Small coins, ditto.

'Ariana Antiqua,' pl. vii., fig. 15.

## 18.—○ Copper.

OBVERSE:—Female figure, clothed in Indian garments, standing to the front; the right arm is raised towards the head, and the left hand rests upon the hip.

REVERSE:—Humped bull, to the right.

Mr. Brereton, monogram 154. Mr. Bayley, monograms indistinct.

## 19.—○ Copper.

OBVERSE:—A lion, sejant.

LEGEND, blundered and unintelligible.

REVERSE:—Rude figure of Demeter, seated.

ARIAN LEGEND:—*Māhārājasa* . . . . . *Ayasa*.Monogram, No. 31a, with *ti*.

Mr. Bayley.

## 20.—○ Copper. Minute coin. Types similar to No. 7.

Monograms, Obv. No. 155, and *mi*. Rev. No. 38a and *san*. Mr. Bayley.

## 21.—○ Copper. Types similar to □ Copper, No. 12.

Monogram 85.

Mr. Brereton.

## 22.—□ Copper.

OBVERSE:—King on horseback, with the right hand extended.

Monogram 124a.

REVERSE:—Indian lion to the right.

ARIAN LEGEND, imperfect:—*Māhārājasa Mahatasa* . . . . *Ayasa*.

Monogram indistinct.

Col. T. Bush.

## 23.—○ Copper.

OBVERSE:—Azas' horseman with whip and bow.

Monogram, 157.

REVERSE:—Minerva, to the right; with sloped spear and right hand extended.

ARIAN LEGEND, as in No. 15.

Monograms, group 158.

## 24.—○ Copper. Plate xvii., fig. 22.

OBVERSE:—Horseman, with right hand raised.

Monogram 124a.

REVERSE:—Demeter, standing, to the front; right arm extended, the left supports the cornucopia.

ARIAN LEGEND:—*Māhārājasa Mahatasa Dhramikasa Rajudirajasa Ayasa*.Monograms, No. 156, 156 with *dh*, 156a, 156b, 156c, with variants of miscellaneous Bactrian letters on the field.



25.—Plate ii., figs. 11, 12.

OBVERSE :—Indian lion, to the right.

REVERSE :—Demeter, standing, to the left.

ARIAN LEGEND :—*Maharajasa Rajatirajasa Mahatasa Ayasa.*

'Jour. As. Soc. Beng.,' vol. ix, p. 876.

### SUB-AZAS (ASPAVARMA).

1.—○ Copper.

OBVERSE :—Azas' horseman, with right hand holding a whip.

LEGEND :—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΤ ΑΖΟΤ.

Monogram, No. 157 (*Agaj*?).

REVERSE :—Minerva, helmeted, with spear and shield, to the right; the right hand supports a small figure of Victory.

ARIAN LEGEND :<sup>1</sup>—*Indra Varma Putrasa Aspavarmasa Strategasa Jayatasa* (General Aspavarma, son of Indra Varma, the victorious).

Monograms, No. 159, with 132, and the several Arian letters entered in the plate under No. 160.

As this catalogue does not profess to follow any authoritative serial distribution of the monarchs comprehended in the general list, I insert in this place, as most suitable, in obedience to typical order, certain obvious derivatives from the standard devices of Azas' mintages, which bear exclusively the names and titles of Satraps who may be supposed to have succeeded to the possession of local divisions of his once extensive dominions, but who refrained from arrogating to themselves the style and dignity of absolute monarchy.

### ZEIONISAS.

1.—Didrachma. Plate xxviii., fig. 5.

OBVERSE :—Azas' horseman, with right hand extended, and bow at the back of the saddle.

LEGEND illegible. Monogram 159.

REVERSE :—King, standing, to the front; supported by two figures in the act of placing a chaplet on his head.

ARIAN LEGEND, imperfect at the bottom :—*Jihaniasa.*

Monogram 161.

'Jour. des Sav.,' 1839, p. 102. 'Ariana Antiqua,' pl. viii., fig. 17. Cunningham, 'Jour. As. Soc., Beng.,' 1854, pl. xxxv., fig. 1.

2.—Hemidrachma. Unique.

OBVERSE :—Horseman as above.

LEGEND, corrupt :—ΟΝΝΙΛΑΙΤ ΤΙΟΤ ΕΑΤΡΑΠ ΖΕΙΩΝΙΕΟΤ.

Monogram 159.

REVERSE :—Standing figure of the king receiving a chaplet from Demeter?

ARIAN LEGEND :—*Manigulasa Chatrapasa Putrasa, Chatrapasa Jihaniasa.*

Monogram, No. 162.

Mr. Bayley. See also Cunningham, *loc. cit.*, pl. xxxv., fig. 2.

<sup>1</sup> [Cunningham, 'Jour. As. Soc. Beng.,' 1854, p. 696. *Strategas* is identified with the Greek *στρατηγος*.]

## 3.—○ Copper.

OBVERSE:—Indian bull, to the right.

LEGEND, corrupt and imperfect:—YI:AIT YIT CATFAN.

Monogram, No. 159, with *san*.

ARIAN LEGEND:—... *gula Putrasa Chatrapasa JIHANAYASA*.

Monogram 163.

British Museum, two coins, from Major Cunningham's collection.

## 4.—□ Copper. Unique. Plate xlii., fig. 8.

OBVERSE:—Elephant.

LEGEND, corrupt and imperfect:—AHIZIOAAI . . . . . ZēIWNIC.

Monogram, P.

REVERSE:—Bull, to the left.

ARIAN LEGEND.—*Moni* . . . . . (Ji)*haneasa*.

Monogram as in the plate.

Col. T. Bush.

## 5.—□ Copper.

OBVERSE:—Azas' horseman.

LEGEND, imperfect. Combination obtained from six specimens gives no more satisfactory result than the following:—IATOT TOT XAPANWC

A - EICA.

Monogram indeterminate.

REVERSE:—*Sinha*, or Indian lion, to the right.

ARIAN LEGEND, likewise imperfect and incomplete:—*Chatrapasa Bhrata Daophasa Akasa Putrasa*.

Monograms, *pra*, X, etc.

'Ariana Antiqua,' pl. viii., fig. 2; and Cunningham, 'Jour. As. Soc. Beng.,' 1854, p. 695.

## XXXI. AZIUSAS.

## 1.—Didrachma. Plate xvii., fig. 27.

OBVERSE:—Azas' horseman, with spear.

LEGEND:—BAZIAEQZ BAZIAEQN MEFAAOT AZIAIEOT.

Monogram, *ti*.

REVERSE:—Figure, to the left, holding the four-pointed object in the right, and palm-branch in the left hand.

ARIAN LEGEND:—*Māhārājasa Rajarājasa Mahatasa Ayileshasa*.

Monograms, British Museum, 133 with *san* and *bh*; ditto, 134 with *si*.

British Museum monogram, *Σ* with *si* and *g*. Capt. Robinson, monogram 134 with *si* and *s*. B. I. Miscellaneous Arian letters, *san*, *si*, *bh*, *dh*, with *ti*, and A with *san*.

'Ariana Antiqua,' pl. viii., fig. 5.

\*)—Hemidrachma. Similar types. British Museum monogram, 132*a*, with *i*. Capt. Robinson, monogram *Σ*, with an Arian *h*.

## 2.—Didrachma.

OBVERSE as above, with Arian letter *s* in the field.

REVERSE:—Female figure, to the left, with chaplet and palm-branch.

Monogram, No. 77.

'Ariana Antiqua,' pl. viii., fig. 6.

## 3.—Didrachma. (145 grs.)

OBVERSE :—Azas' horseman, to the right, with whip and the bow fixed behind the saddle.

Monogram, No. 137.

REVERSE :—Dioscuri, standing to the front, leaning on their spears.

ARIAN LEGEND :—*Maharajasa Rajadirajasa Mahatasa Ayilishasa.*

Mr. Bayley. Col. Nuthall, Obv. monogram, 137 with *b*, and Rev. 164.

## 4.—Didrachma. (142 grs.)

OBVERSE as No. 3.

Monogram, 137*a*.

REVERSE :—Single figure, bearded, clothed in skins, to the front; the right hand grasps a spear, the left rests upon the sword hilt.

Monogram, No. 165.

Mr. Bayley. Mr. C. M'Leod.

## 5.—□ Copper.

OBVERSE :—Standing figure, to the front (indistinct), with right arm extended, and mantle on the left.

Monogram, 30*a*.

REVERSE :—Lion, as in Azas' coins.

Monogram, No. 166. A second coin has *mi* (?)

Mr. Bayley. Capt. Robinson.

## 6.—□ Copper.

OBVERSE :—Azas' horseman, with spear sloped downwards.

REVERSE :—Bull, to the left. Arian legend as in No. 1.

British Museum monogram, 132 with *mi*, and traces of monogram 125*c*.

## \*) —Plate xvii., fig. 28.

REVERSE :—Bull, to the right.

## 7.—□ Copper.

OBVERSE :—Azas' horseman.

REVERSE :—Elephant.

ARIAN LEGEND :—*Maharajasa Mahatasa Ayilishasa.*

Monogram, variety of No. 124, with *si*.

'Ariana Antiqua,' pl. viii., fig. 7.

## 8.—□ Copper.

OBVERSE :—Horseman.

REVERSE :—Hercules, seated, with club, and as in Spalyrios' coins. (C *a*)

ARIAN LEGEND, as in No. 7.

Monogram, No. 134.

Mr. Bayley.

And a second piece, 167. Ordinary monogram, No. 124, with Arian *s*, *si*, or *ti*.

## 9.—□ Copper.

OBVERSE :—Standing figure, to the right, with the right arm extended horizontally, and holding a chaplet.

REVERSE :—Figure in short tunic, with loose veil-like garments around the head, etc.

ARIAN LEGEND, imperfect :— . . . *jasa Mahatasa Ayilishasa.*

Mr. Bayley.

## XXXII. SOTER MEGAS.

## 1.—○ Copper.

OBVERSE:—Bust of king, with crested helmet, to the left; the right hand holds an arrow.

Monogram, No. 168, with the Arian letters *ti*, in front of the profile.

REVERSE:—Azas' type of horseman, elevating a small object like a cross.

LEGEND:—BACIAEY BACIAEYON COTHP MEGAC.

Monogram, No. 168.

Mr. Bayley.

'Ariana Antiqua,' pl. ix., figs. 8, 10.

## 2.—○ Copper. Plate xvii., fig. 26.

OBVERSE:—Bust of king, with rayed head; the right hand holds either a javelin with pennons, or a simple dart.

Monogram, No. 168.

REVERSE:—As above.

Monogram, No. 168.

'Ariana Antiqua,' pl. ix., figs. 11 to 19.

There are numerous subordinate varieties of this type of coin, which it is needless to particularize in this place. But I may notice that the degraded Greek sigmas, which have heretofore usually been rendered by a square  $\Sigma$ , are, in these mintages, indifferently interchanged with the equally debased C on the different specimens.

## 3.—○ Copper. Plate xvii., fig. 23.

OBVERSE:—King on horseback, to the right.

LEGEND:—BACIAEY BACIAEYON COTHP MEGAC.

REVERSE:—A male figure, with flat helmet and fillet, casting incense upon a small altar.

ARIAN LEGEND:—*Māhārājasa Rajadīrajasa Mahatasa Tradatasa.*

Monogram, *ti*.

'Ariana Antiqua,' pl. ix., figs. 20, 21, 22.

## 4.—○ Copper.

OBVERSE:—Head, with fillet, to the right.

Monogram, No. 168.

REVERSE:—Standing figure, to the left, holding a staff or spear in the left hand, and what may possibly be intended for the thunderbolt in the right.

GREEK LEGEND (imperfect).

Mr. Bayley.

XXXII<sup>a</sup>. KADPHISES.

## 1.—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:—BACIAETC OOHMO KADΦICHC.

Monogram, 169.

REVERSE:—Siva and his bull (Nandi); flames rise from the divinity's head; he holds a trident in his right hand.

ARIAN LEGEND:—*Māhārājasa Rajadīrajasa sarvaloga Imastasa Mahimastasa hapinasasa.*

Monogram, 169.

Captain Robinson.

## 2.—Gold.

OBVERSE:—King, seated on an Eastern throne, with a flower in his right hand.  
Legend and monogram as above.

REVERSE:—Device as No. 1.

Monogram, ditto.

'Jour. des Sav.,' 1834, pl. fig. 7. 'Ariana Antiqua,' pl. x., fig. 5,  
and pl. xxi., fig. 17.

I do not propose to enter into any detail of the coins of Kadphises in this place, as they scarcely belong to the Bactrian series. It will be sufficient to refer to the types already figured and described by Prinsep,<sup>1</sup> and the additional specimens engraved in the 'Ariana Antiqua.'<sup>2</sup> It is to be noted that these and other Indo-Scythian coins are known only in gold and copper, the single supposed silver specimen in the E.I.H.<sup>3</sup> having proved to be of copper plated over!

XXXIII. GONDOPHARES.<sup>4</sup>

## 1.—○ Copper. Plate xliii., fig. 15.

OBVERSE:—Azas' horseman, to the right.

LEGEND:—BACIAEΘC BACIAEΘN ΓCΝΔCΦΑΡCΤ.

Monogram, No. 170.

REVERSE:—Figure, with trident.

ARIAN LEGEND:—*Maharaja Rujaraja Mahatasa Gadapharasa.*<sup>5</sup>

British Museum coin. Monogram, No. 171.

'Ariana Antiqua' (billion coin), pl. v., fig. 16.

<sup>1</sup> [Pl. viii., fig. 4; pl. xxii., figs. 1, 2, 3.]

<sup>2</sup> ['Ariana Antiqua,' pl. x., figs. 7 to 21.]

<sup>3</sup> ['Ariana Antiqua,' pl. xi., fig. 9.]

<sup>4</sup> [An enquiry of considerable interest has been raised with reference to the name preserved on these coins, so long veiled from European intelligence, in virtue of the almost literal identity it bears to the designation of the king mentioned, in certain old church legends, as the ruling potentate of India at the period of the mission of St. Thomas the Apostle. The coincidence in the appellation is certainly remarkable, though there is a defect in the primary authority for the statement, a difficulty in regard to the correspondence of the site of the kingdom, and a doubt as to the needful accordance of the epochs of the legendary and the numismatically-certified monarchs, the latter of whom seems to belong to a date prior to our era; but, for the reconciliation of this last obstacle, there is a fairly open margin afforded by the successional coins, which in themselves suggest the question as to whether the name of Gondophares was not posthumously elevated into the rank of a dynastic title. The following heads of sentences will indicate the leading combinations deposed to by the 'Legenda Aurea,' p. 33:—'Thomas apostolus cum esset apud Caesaream, apparuit ei dominus dicens: rex Indiae Gundoferus, etc., p. 35. Post hæc autem apostolus et Abbanes ad regem Indiae pervenerunt . . . Gad frater regis, etc., p. 37. Post hoc autem in superiorem Indiam abiit'.—'Jacobi a Voragine Legenda Aurea.' Dresden, 1846. Cf. also 'Lombardica Historia' (1490), Kercher; pp. 122 and 91 severally of the French and Latin editions of his 'China,' etc.; also Assemain's erudite rectifications, pp. 30 and 591, vol. iii. (2nd part).]

<sup>5</sup> [The Arian orthography of this name varies considerably, not only in the different mintages of diverse types, but even in pieces having similar standard devices: among the latter, belonging to class No. 1, I note *Gandaphrata*—*Gudapha*, etc.]

## 2.—○ Copper.

OBVERSE:—As above.

LEGEND:—ΒΑΪΙΑΕΩC ΒΑCΙΑΕΩΝ ΜΕΓΑΛΟΤ ΤΝΔΟΦΕΡΡΟΤ.

REVERSE:—Minerva, armed, to the right.

ARIAN LEGEND:—*Maharaja Rajadirajasa Tradata . . . Gadapharasa.*

Monogram, No. 134c with 172.

Mr. Brereton. 'Ariana Antiqua,' pl. v., fig. 17.

## 3.—○ Copper.

OBVERSE:—As above.

REVERSE:—Male figure, with spear, to the right.

Monograms, No. 134c with 173 (*t* and *phre*), No. 171 with 155a.

'Ariana Antiqua,' pl. v., fig. 18.

## 4.—□ Copper. (Type as in pl. xxviii., fig. 15; and pl. xxxii., fig. 14).

OBVERSE:—King, on horseback; to his front is seen Victory, presenting a chaplet.

LEGEND:—ΒΑCΙΑΕΟ . . . . . ΦΑΡΟΤ (P). ['Ariana Antiqua' coin, ΦΑΡΟΤ  
μεΓΑΛΟΤ ΓΟΝΔΑ.]REVERSE:—Centre device, the monogram figured under No. 170, pl. xi*d*.ARIAN LEGEND:—*Mihd . . . Dhaga . . . sa Apratihata Ja . . . . sa  
Gudapharasa.*Monograms, Arian letters, No. 63 and *san*.

Mr. Bayley. 'Ariana Antiqua,' pl. xxi., fig. 16.

5.—○ Copper.<sup>1</sup>

OBVERSE:—Head of king, to the left; the contour similar to the Pakores' busts.

LEGENDS imperfect. B. B., etc.

REVERSE:—Victory, with chaplet.

ARIAN LEGEND:—*Maharajasa Rajadirajasa Mahatasa Gudaphara . . . .*Monogram, *gu*, and an indistinct Arian letter.

Mr. Bayley.

## 6.—○ Copper. Plate xviii., figs. 5-8.

OBVERSE:—Head of king, to the right, greatly barbarised. [ΤΗΡΟC ΤΝΔΟΦΕΡΡ.]

REVERSE:—Victory, as in No. 5.

ARIAN LEGEND:—*Maharajasa Godapha . sa Tradatasa.*

Mr. Brereton.

## 7.—○ Copper. Small barbaric coin.

OBVERSE:—Rude filleted head, to the right.

Abbreviated Greek legend, ΒΑCΙ ΒΑC . . . Τ.

REVERSE:—Rude figure of Thessalian Minerva, to the right.

ARIAN LEGEND:—*Rajadirajasa Mahatasa Godapharasa.*Monogram, Arian *stri* and *hd* or *ho*.

## XXXIV. ABDALGASES.

## 1.—○ Copper.

OBVERSE:—King's bust to the right, as in the Pakores' type.

LEGEND:— . . . ΙΑΕΩC ΚΩΤΗΡΟC Α . . .

REVERSE:—Figure of Victory, to the right (of good execution).

ARIAN LEGEND:—*Tradatasa Maharajasa Abdagajasa.*

Mr. Brereton.

<sup>1</sup> [There is an interesting coin in the British Museum, brought from India by Captain Hollings, typically connected with the above, which deserves mention in this place.—○ Copper. *Obv.*—Bust of king to the left, wearing the Parthian tiara. Imperfect legend, in corrupt Greek, ΒΑCΙΑΕΤ. *Rev.*—Figure of Victory, as in No. 6. Greek

## 2.—○ Copper.

OBVERSE:—Azas' horseman, to the right, with flat cap and flowing fillet; hand upraised.

LEGEND, corrupt:—**ΒΑΣΙΛΕΥΟΝΤΟΙ ΒΑΣΙΛΕΥΟΝΤ ΑΒΔΑΓΑΣΟΤ.**

Monogram, 170.

A coin in the B. I. gives the name **ΑΒΑΔΓΑΣΟΤ.** Rev. monogram, 39b with 174b, etc.

REVERSE:—Erect figure, to the right; head-dress as on the obverse, with spear, hand extended.

ARIAN LEGEND:—*Godophara Bhrada Putrasa Māhārāja Abdagāsa.*

[Coin] 'of Gondophara's brother's son, Māhārāja Abdagases.'

Capt. Robinson, 39b with Arian monogram, No. 174 (*Sakre* or *Saphre*).

Some of the coins of this series modify the obverse legend. It is usually in corrupt and bungled Greek, and difficult to make sense of; but it clearly accords with the substance conveyed in the Arian legend above transcribed, in defining the nepotal relationship of Abdalgases. A collation of three specimens (B. I.) produces the following imperfect version—**ΒΑΣΙΛΕΥΟΝΤΟΙ ΑΒΔΑΓΑΣΟΤ.** The Reverse legend is also uncertain in the different specimens, adding, at times, the titles of *Tradutasa* and *Dhramiasa* after the Māhārāja. Monogram, 176.

## 3.—○ Copper. Similar types.

LEGENDS, imperfect [**ΙΟΙΦΕΡΟ ΑΔΕΑΦΙ**] with the addition of the title of *Tradutasa* before the name on the reverse. Mr. Brereton.

## 4.—○ Copper.

OBVERSE:—Horseman, to the left.

REVERSE:—Figure as in No. 1, without the cap. Major Cunningham.

\*)—Small coin. Mr. Bayley.

## 5.—○ Copper.

OBVERSE:—As No. 2. Monogram, No. 145 with *t*.

REVERSE:—Erect figure, holding a small statue of Victory, to the left.

Monogram, No. 134c, with Greek **ΔΡ** and Bactrian *t*. Mr. Bayley.

## SUB-ABDAGASES SASAN.

## 1.—○ Copper.

OBVERSE:—Horseman, as in No. 2. Legend imperfect.

Monogram, No. 170, with *p*. My 'Cabinet,' 170, and *b*.

REVERSE:—Figure as above, No. 2.

ARIAN LEGEND:—*Māhārāja Mahatasa Tradatasa . . . .*<sup>1</sup> *Godaphrasa Sasasa.*

Monogram, No. 159, with **γ** and small letters, *p*, *sh*, etc. in the field. Mr. Bayley, *p*, *pi*, etc. 'Ariana Antiqua,' pl. v., fig. 20.

legend imperfect, but the name or title reads clearly **CANABAPOT.** Cf. *Ælii Spartiani*—Lugduni Bat. MDCLXI, p. 23; and Kercher, pp. 80, French edit., 59, Latin edit. *Psammossires*?

<sup>1</sup> [Major Cunningham renders the doubtful word here omitted as *Deva-hadasa* (Sanskrit, **देव हृद्य** *Deva-hridya*), God-hearted, *Єєтпопос*. 'Jour. A. Soc. Beng.,' 1854, p. 713.]

## 2.—○ Copper.

OBVERSE:—Azas' horseman.

REVERSE:—Jupiter, holding a figure of Victory, to the left.

ARIAN LEGEND:—*Māhārājasa Saccha Dha* (*mapidasa*) *Sasasa* [Cunningham].

Monogram, No. 134c, with Greek ΔΡ and Arian *t*.

'Ariana Antiqua,' pl. v., figs. 19, 20.

## XXXV. ARSACES.

I extract the following notice of the coins of Arsaces from Major Cunningham's paper in the 'Jour. As. Soc. Beng.,' vol. xi., 1842, p. 135.

## 1.—○ Copper.

OBVERSE:—A horseman, to the right.

LEGEND:—BACIAEVONTOC BACIAEON AIKAIOT APCAKOT.

REVERSE:—Type obliterated.

ARIAN LEGEND:—*Māhārājasa Rajarājasa Mahatasa Ashshakasa Tradatasa*.

## 2.—○ Copper.

OBVERSE:—A horseman, to the right.

LEGEND, imperfect;—BAZI . . OT APZAKOT.

REVERSE:—Male figure, to the left, holding a small figure in his right hand.

ARIAN LEGEND:—*Māhārājarājasa* . . . *A* (*shshakasa*).

## XXXVI. PAKORES.

## 1.—○ Copper.

OBVERSE:—Bearded head, to the left; the hair is elaborately curled and arranged after the Persian fashion.

LEGEND:—BACIAETC BACIAEON ΠAKOPHC.

REVERSE:—Victory with chaplet, to the right.

ARIAN LEGEND:—*Māhārājasa Rajadirājasa Mahatasa Pakurasa*.

Monograms, Nos. 177, 178, composed of Bactrian letters, with the additional foot-stroke peculiar to the style of writing in use on these coins.

'Jour. As. Soc. Beng.,' vol. xi., pl. fig. 11.

## XXXVIII. ORTHAGNES.

## 1.—○ Copper.

OBVERSE:—Head of king, to the left; the hair is arranged after the Persian fashion on the Pakores' device. \*

LEGEND (corrupt):—BACIAETC BACIAEON METAC OΘAΓNH.

REVERSE:—Victory, to the right, holding out a fillet.

LEGEND (imperfect):—(*Māhārājasa* ?) *Mahatasa Gudupharasa* . . .

British Museum. Bactrian monograms, *gu* and *go*.



## COINS AND RELICS FROM BACTRIA.

[Article XXI. completes the series of James Prinsep's original essays. The subjoined paper by his brother, Mr. H. T. Prinsep, is reproduced from the 'Journal of the Asiatic Society of Bengal,' December, 1838, as introductory to, and partially illustrative of, my author's latest artistic contribution to Indian numismatics,—an engraving which he himself was not spared to comment on in the text of the Journal for whose pages it was designed.<sup>1</sup>]

<sup>1</sup> [The severance of this connexion, at the time deemed only temporary, is recorded in the subjoined proceeding of the 'Asiatic Society of Bengal,' which, however intentionally complimentary, does but scant justice to the position James Prinsep achieved for the Society itself, in association with the journal of which he is here recognised as the editor].—

Extract from the proceedings of the 'Asiatic Society of Bengal,' Wednesday evening, the 14th November, 1838. The Hon. Sir Edward Ryan, President, in the chair.—Before proceeding to the general business of the meeting, the President rose and stated that he held in his hand a letter from the Secretary, Mr. James Prinsep, the substance of which must be a source of deep regret to every member of the Society, for every one must feel the loss the Society had suffered in the departure of its Secretary, Mr. James Prinsep. He assured the meeting, however, and he spoke on the authority of a conversation he had with Mr. Prinsep, before his departure, that this gentleman's absence from India would be but for a short period, and that on his return he would be ready to take the same interest, and to display the same zeal and anxiety, which had so honorably distinguished his discharge of the important duties he had undertaken in connexion with the Society. The President said that the objects of the Society had, under Mr. Prinsep's able superintendence, been prosecuted with a vigour which had added largely to its credit and reputation; and that the results produced in every department of science and literature, for which the Society was indebted chiefly to its Secretary's activity and varied powers, had sustained its character in a manner rivalling the periods when it derived renown from the labours of a Jones, a Colebrooke, and a Wilson. The President took occasion to add, that, in the time of Mr. James Prinsep, and on his proposition, the name of the Society had been associated with a monthly periodical, established by the late Captain Herbert, originally under the name of 'Gleanings in Science.' The work was afterwards extended and ably conducted by Mr. Prinsep himself; and at his suggestion it was resolved, in 1831, that so long as this periodical should be conducted by a Secretary of the Society, it should bear the title of 'Journal of the Asiatic Society;' under that name it had been since continued by Mr. Prinsep with very distinguished success to the present day. The Society had no property in the 'Journal,' and no right to prevent Mr. Prinsep from separating it again from the Society, and conducting it on his own account; but he had no such intention. He (Sir E. Ryan) had ascertained that Mr. James Prinsep had made arrangements for its being continued to the end of the present year from materials in hand; and after that he meant that *his* series should be closed; but he had no objection to the Society's continuing the periodical by the same name, under other management, as a concern quite inde-

It has been already announced in the pages of this Journal, that the extensive collections of coins and other relics made by Mr. Masson, by Sir Alexander Burnes, and Dr. Lord, were on their way to Calcutta, and were likely to fall shortly under the examination of the Editor. He felt it as a great compliment that was paid to his efforts to restore the lost portions of Indian and Bactrian history by means of the coins and inscriptions still extant in the language and with the superscriptions and dates of the rajas of those times, that collectors in all parts of India were in the habit of submitting to his inspection whatever they lighted upon as unusual, and sought his reading and interpretation of the legends, emblems, and inscriptions, which baffled the learning and ingenuity of the pandita and antiquarians of the vicinity. As a consequence of the happy discoveries made by him in this line, coins and transcripts of inscriptions came in from all quarters, from Assam and Ava to Bokhara and Sindh, and from Ceylon northward to Nepal. The possession of the rich store of materials thus accumulated gave facilities

pendent. Now, he (the President) believed that all the members of the Society would regret exceedingly that a periodical so established, and which had acquired such credit and consideration, should be discontinued. He trusted that it would be resumed by Mr. J. Prinsep himself when he returned to India; but, in the meantime, he should submit to the meeting the propriety of taking into consideration the possibility of making some arrangement to carry it on during Mr. Prinsep's absence. Having premised thus much, the President stated that he should read to the meeting Mr. James Prinsep's letter, placing the situation of Secretary at their disposal: but, as he had no doubt it would be the unanimous feeling of the meeting to desire to retain Mr. Prinsep in official connection with the Society, he should not consider this letter as an absolute resignation, but should propose a resolution, and submit arrangements founded upon it, which would enable Mr. Prinsep to resume the office on his return to India. The President then read the following letter:—

*To the Hon. Sir EDWARD RYAN, Kt., President of the Asiatic Society.*

HON. SIR,

Being compelled by ill-health to proceed to sea and eventually to Europe, I have taken my passage on board the 'Herefordshire,' with the intention of being absent from the country for two or perhaps three years. I am thus under the necessity of placing at the disposal of the Society the situation of its Secretary, which I have filled for five years.

It is with great reluctance and regret that I thus separate myself from a body with whom I have been associated in labours of much interest and utility, whose favour has encouraged my zeal, and through whose credit and reputation in the world I have obtained the means of making generally known my own humble efforts in the cause of science, and my not unsuccessful endeavours to explore the antiquities of the country to whose service we are devoted.

But the disability of sickness is an accident to which we are all liable, and from which there is no resource, but in temporary departure to a better climate. I am thus compelled to leave my incomplete labours to be perfected by others, and to relinquish the place I have held in the Society, that provision may be made for its competent discharge under the failure of my own power of longer rendering useful service.

I have the honour to be, etc.

1st November, 1838.

(Signed)

JAMES PRINSEP.

Proposed by the President, seconded by Mr. Curnin, and unanimously resolved: That the resignation of Mr. James Prinsep be not accepted; but the Society hope that he will return to resume the situation of Secretary, which he had filled so much to the credit of the Society for a period of five years.—Resolved: That the President communicate to Mr. James Prinsep the desire of the Society, that he shall not consider himself as having vacated the situation of Secretary; and express the hope that, on his return to India, he will resume the situation of Secretary.

of comparison and collation which were doubtless a main cause of his success; but the study and exertions required for the satisfaction of these numerous references to his individual skill, although entered upon with a zeal participated only by those who have achieved much, and feel that there is yet more within their reach which ought to be the result of their own discoveries, were too severe for the climate of India, and the Editor's robust constitution sunk at last under the incessant labour and close attention given to these favorite studies at the very moment when the richest collection of inscriptions, coins, and relics, that had ever been got together in India, were actually on their way to Calcutta, as materials for maturing the results he had achieved. The collections of Mr. Masson were forwarded from Bombay in the *John Adam*, which reached Calcutta only in the course of the past December. There are of these coins from four to six thousand, besides the contents of several topes, and casts of figures of *Buddh*, with various other remains of the period antecedent to the *Muhammadan* invasion of Bactria and Afghanistan. The whole of this collection was by order of Government laid upon the table of the Asiatic Society at the meeting of January, 1839; but the members present felt that, in the absence of their late Secretary, and likewise of *Capt. Cunningham*, *Mr. V. Tregear*, and *Colonel Stacy*, there were no persons in Calcutta to whom the examination, arrangement, and report upon the coins and relics could be committed with confidence. They came therefore to the unanimous resolution to recommend their being forwarded without delay to England, where the Honorable Court would have the opportunity of submitting them to the inspection of the late Secretary of the Asiatic Society, jointly with *Dr. Wilson*, the librarian at the East India House, and so the ends of science and of antiquarian research would be most effectually answered.

The care of this magnificent collection, which is large enough to supply all the museums in Europe, has been kindly undertaken by *Mr. Cracroft*, a very zealous member of the Asiatic Society, and there is ground for hoping that under his superintendence a catalogue may yet be made before he takes his final departure for England. The articles have come round in bags without any separate lists, and in one bag there are about two thousand copper coins.

But, independently of *Mr. Masson's* collection, another numbered by thousands has been brought to Calcutta by *Dr. McLeod*, the Inspector General of Hospitals to Her Majesty's forces in India. This consists partly of coins of all metals, but there are also several seals and gems of different stones cut with a great variety of emblems and devices. All these are the property of *Sir A. Burnes*, and have arrived

for deposit and custody as well as for inspection; they are therefore still available for the curious, and will continue so until Sir A. Burnes shall send instructions as to their disposal. We cannot ourselves undertake the particular examination of these relics so as to give the detailed description they deserve. A selection from the coins had, however, previously been made at Simla, and those deemed most curious being forwarded by the dawk arrived fortunately before the departure of our Editor. Amongst them is that most curious coin of Dr. Lord, with the head of Eucratides on one side, and of both his parents on the other, a drawing of which is exhibited in plate xlii. From the other selected coins thus transmitted, a plate was prepared by the Editor, which was intended to be illustrative of an article he designed giving in our last October number. The plate remains, and we attach it to this article, that the curious who have followed our Editor to the length of his past researches may see the objects which he deemed worthy of fresh illustration in the field of Indo-Bactrian numismatology. If the 'Herefordshire,' the ship in which he took passage, had touched at Madras, or had put into Mauritius, or had met a vessel at sea, we might have hoped for the comments promised on this, as on two other plates which we also intend to give, and shall separately refer to. But the time approaches when the issue of the last number of our series will be expected, and we can no longer defer the publication, under the doubtful expectation of receiving the desiderated paper from the Cape of Good Hope. Of the coins and gems therefore in Sir Alexander Burnes's collection we can at present make no use, but we hold them in deposit for the examination of others, and to await his further instructions. We must be content at present to give the plate referred to, which it will be seen is numbered xliii., together with such brief reading of the names, as a Tyro of Indian numismatics might be expected with the aid of the alphabets to supply. The plate is of Indo-Bactrian coins of date antecedent to the introduction of Grecian art, with the Grecian alphabet, into the mints of that country. The legends are in the ancient No. 1 character of the then universal Pálí language, with Bactrian characters in some instances on the obverse, or intermixed. The names and emblems on these coins are well worth the study of the learned.

Along with Sir A. Burnes's coins, Dr. McLeod brought to Calcutta a very singular relic obtained by Dr. Lord at Badakhshán, and which is, we believe, destined for the British Museum. The relic in question is an ancient patera of silver, embossed in the interior in very high relief, and representing, with all the usual adjuncts of classic mythology, the procession of Pacchus. The god himself sits in a car drawn by two

harnessed females with a drinking cup in his hand. A fat infant, Silenus, stands in front, and there is a female figure sitting on the after corner of the car, which, from its disproportionate size, we imagine to be the carved elbow of the seat on which the god reclines. There are also two winged cupids in attendance, one flying with a wand in his hand, to which a fillet is attached, the other end of which is held by the infant Silenus; and the other on the foreground behind the wheel of the car, as if employed in pushing it on. The car is followed by a dancing Hercules, distinguishable by the club and lion skin. The heads of this figure and of the Bacchus are both wanting, owing probably to their having been of gold, or thought so, while the rest of the patera, being only of silver gilt, has escaped similar violation. The gilding, however, is mostly worn away from long use, and in one part the side of the cup is actually worn through. Independently of the circumstance of the main figure being represented with a cup in hand, its identity with the Grecian Bacchus is proved by the vines circumpendent, and by the figure of a tiger standing prominently out in the fore-ground and drinking out of a wine jar.

This patera is the property of Dr. Lord, who is also the fortunate owner of the double-headed coin of Eucratides, the original apparently from which the plate of a similar coin is given in Dr. Vincent's 'Periplus;' but the double head is there represented as being on both sides of the coin. With a liberality deserving of particular notice, both these unique relics have been gratuitously appropriated by the finder, or are intended to be so, in the manner deemed by him most conducive to the ends of science, Dr. Lord not desiring to retain them as isolated trophies of his own good fortune in the field of research and discovery.

I fear we must not look upon this piece of plate as affording evidence of the state of the arts in Badakhshán, where it was found, at any particular epoch. That it is of high antiquity is quite apparent from the condition of the metal, as well as from the design; but in the Periplus of the Erythrean sea, published amongst Arian's works, it is distinctly stated that ἀργυρώματα, *i.e.* articles of silver plate, were a staple import from the west, for exchange against the productions of India. At Minnagarh, upon the Indus, it is further stated by the author of that treatise that he himself presented to the rāja Βασιρυα ἀργυρώματα, valuable pieces of plate, in order to secure his favor, and the grant of certain privileges of trade. There is thus reason to believe that the patera must have been brought from Greece or Asia Minor, and either presented in like manner, or sold to some sovereign of Bactria, by a merchant desiring similar privileges of trade in that country. That it has been in use for centuries is evident from the

worn condition it now presents; but for how many it was in use, and for how many it lay treasured in royal or other repositories, is more than may now be conjectured.

#### INDO-BACTRIAN COINS.

Specification of coins in plate xlv.

1. **OBVERSE**: Armed figure standing with a club or spear; no inscription.  
**REVERSE**: Elephant with rider. Bactrian inscription, *Rajasa*; rest not decipherable.
2. **OBVERSE**: Woman and deer, with inscription not legible: emblem, etc.  
**REVERSE**: Tree and mountain; with emblems. [See *ante*, vol. i., p. 201.]
3. **OBVERSE**: Man and bull; same emblem as No. 2; and *Mahardjasa Mahadhatasa* in old Pāli clearly legible, but the name to the left baffles us.  
**REVERSE**: Same device and emblems as No. 2, and *Mahardjasa* clearly legible in Bactrian at the bottom.
4. **OBVERSE**: Same device as No. 2, and same emblem; *Rajna Rajasa Maghadatasa* in old Pāli.  
**REVERSE**: Same device and emblems as No. 2; *Mahardjasa* in Bactrian; the rest not legible.
5. A larger coin; the same device on both sides as No. 3; obverse defaced.  
**REVERSE**: *Mahardjasa* in Bactrian characters.
6. **OBVERSE**: Bull and emblem; no letters.  
**REVERSE**: Same emblems as Nos. 2, 3, and 4, with addition of a wheel: very peculiar.
7. **OBVERSE**: Deer and man, with emblems; *Rajna Kunandasa* in old Pāli.  
**REVERSE**: Same as Nos. 2, 3, 4, etc.
8. **OBVERSE**: Deer and woman; *Mahardjasa* in Pāli.  
**REVERSE**: Same as No. 2; no inscription.
9. **OBVERSE**: Deer and man; *Kunandasya* in Pāli.  
**REVERSE**: Same as No. 2.
10. Same precisely. Pāli inscription, *Nandasā*, the last letter being an initial *ṇ* *ā*.

#### BUDDHIST SATRAP COINS.

11. **OBVERSE**: Horse caparisoned.  
**REVERSE**: *Rajasa*, in Bactrian, with various marks.
12. **OBVERSE**: Horse.  
**REVERSE**: Standing figure with bow. Inscription in Pāli, *Sarba tūpasa patamapasa*. [*Khatrapasa P(H?)agdmashasa*.]
13. The same indistinct.
14. **OBVERSE**: The same worn.  
**REVERSE**: Inscription in lines. *Tamapasa* legible in Pāli. [*Khatrapasa pagdmasa P(H?)agdmashasa*.]
15. Nothing distinct.
16. **OBVERSE**: Horse's tail and hind quarter.  
**REVERSE**: Figure standing. *Lagdmapasa* in Pāli.
- 17, 18, 19. **OBVERSE**: Bull.  
**REVERSE**: Standing figure, with inscription *Rajnapadusa*. Centre one in Bactrian.

20. **OBVERSE:** Standing figure. Páli inscription, *Paghugapasa*. [*Khatapasa Raja* . . ]

**REVERSE:** Figure. No inscription.

21. Nothing made out.

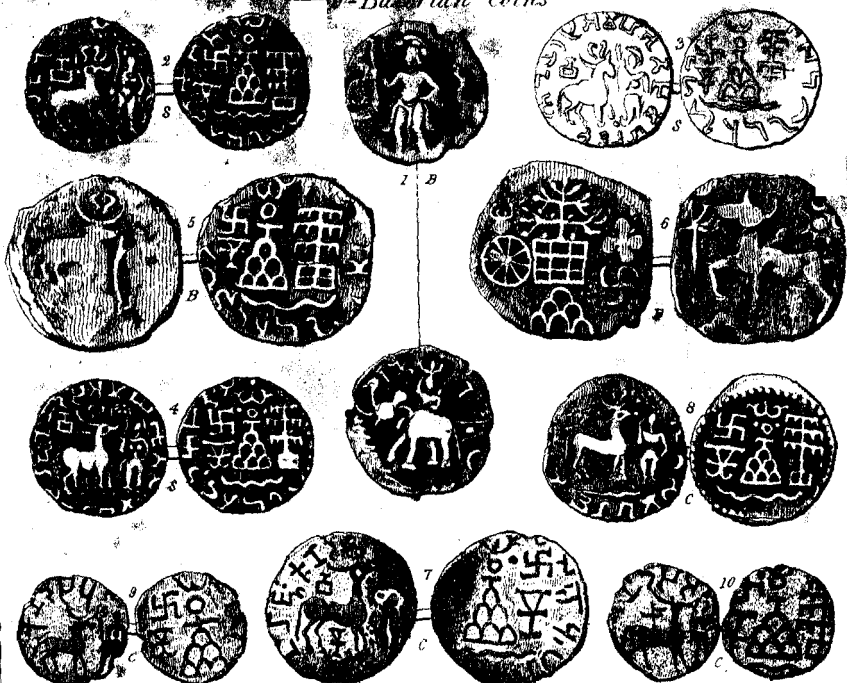
22. **OBVERSE:** Figure in speaking attitude. *Rajna Raghunám*

23, 24, 25. Not deciphered.

N.B.—These latter are classified as of the Satrap group—first, because of the title Rája or Mahárája not being found in any of them; secondly, because of the names having so evidently an ancient Persian aspect; and lastly, because of the horse emblem, which probably had its origin in the circumstances which attended the accession of Gushtasp, Darius Hystaspes.

END OF ESSAYS.

### 1-Bavarian Coins



*Buddhist Satrap Coins.*





USEFUL TABLES,  
ILLUSTRATIVE OF  
THE COINS, WEIGHTS, AND MEASURES  
OF  
BRITISH INDIA;

TOGETHER WITH  
CHRONOLOGICAL TABLES AND GENEALOGICAL LISTS,  
HAVING REFERENCE TO  
INDIA AND OTHER KINGDOMS OF ASIA.

BY THE LATE  
JAMES PRINSEP, F.R.S.,  
SECRETARY TO THE ASIATIC SOCIETY OF BENGAL.

EDITED,  
WITH NOTES, AND ADDITIONAL MATTER,

BY  
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LONDON, AND PARIS.

LONDON:  
JOHN MURRAY, ALBEMARLE STREET.  
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## PREFACE.

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IN putting forth this New Edition of Prinsep's Useful Tables, I may confidently appeal to the sterling value of the work, and the appreciation with which it has previously been received by the public in India, as evinced in reprints, partial and entire, issued at Calcutta and elsewhere.

My task as Editor has been limited to bringing up the Monetary Tables to the latest possible date, the occasional insertion of Notes, and the incorporation of such additional Dynastic Lists as chanced to be accessible in this country. The orthography of the Oriental names has usually been reproduced literatim after the original printed text, wherein they are found to vary to the extent that might have been anticipated consequent on the assemblage of the component materials from the works of various European commentators, who each followed his own method of transliteration, and who, for the most part, wrote before we had arrived at even the present indeterminate stage in the system of the transcription of Eastern tongues which Sir William Jones so meritoriously inaugurated.

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# USEFUL TABLES,

ETC.

## BRITISH INDIAN MONETARY SYSTEM AS ESTABLISHED BY REGULATION VII. OF 1833 [OF THE BENGAL GOVERNMENT.]

Silver is the legally constituted medium of exchange in all money transactions throughout the British Indian possessions. Gold coin is a legal tender, at a fixed value of sixteen rupees<sup>1</sup> for the gold muhr<sup>2</sup> of Calcutta, and fifteen rupees for the gold muhr of Madras and Bombay; but it is not demandable in payment, and is left to find its current value in the market. Copper coin is only a legal tender at the established rate of sixty-four paisá<sup>3</sup> to the rupee, on payments falling short of one rupee.

The rupee is, then, the unit or standard measure of value throughout India, and by the Regulation lately passed, a perfect assimilation in weight and fineness has been effected in this unit of currency of the three Presidencies, so that the rupee of Upper India, of Madras, and of Bombay are now identical in value. From this uniformity are excepted the three provinces of Bengal Proper, Bahár, and Orissa; in which the Murshidábádí or sikká<sup>4</sup> rupee still continues to be the legal currency; but the relation of one coin to the other is now reduced to great simplicity, one Farrukhábád, Madras, or Bombay rupee being precisely equal to fifteen ánáś<sup>5</sup> sikká.

<sup>1</sup> روبيه *rupiya*. s رُپْیَا *rupya*, 'silver.' <sup>2</sup> مھر *muhr*, 'a seal.'

<sup>3</sup> پيسا *paid*. <sup>4</sup> P A سِکْکَا *sikka*, 'a coining die.' H סִכְכָּה.

<sup>5</sup> S اَنَاس *and*. \* اَنَاس *and*.

The following table exhibits the scheme of the British Indian monetary system :

GOLD MUHR.	RUPEE.	ÁNÁ.	PAISÁ.	PÁ'Í. <sup>1</sup>
CALCUTTA ..... 1	16	256	1024	3072
MADRAS AND BOMBAY.... 1	15	240	960	2880
	1	16	64	192
		1	4	12
			1	3

Small shells, called *kaupís*,<sup>2</sup> are also made use of for fractional payments, and are reckoned as follows: but their value is subject to considerable fluctuation, and they are now nearly superseded by the copper currency.

4 Kaurís make .....	1 Gaṇḍa. <sup>3</sup>
20 Gaṇḍas .....	1 Pan. <sup>4</sup>
5 Pans.....	1 Áná.

#### DESCRIPTION OF THE CURRENT COINS.

##### GOLD AND SILVER.

The inscriptions upon the Company's gold and silver coins are in Persian, as follows :

OVERSE of the sikká rupee struck at the Calcutta mint.

حامی دین محمد سایه فضل اله سکه زد بر هفت کشور شاه عالم بادشاه

"Defender of the Muḥammadan faith, Reflection of Divine excellence, the Emperor Sháh 'Álam has struck this coin to be current throughout the seven climes."

REVERSE : ضرب مرشد آباد سنه ۱۹ جلوس میمنت مانوس.

"Struck at Murshidábád in the year 19 of his fortunate reign."

The rupee of the Western provinces, coined at the late mints of Farrukhábád and Benáres, and now at the mint of Sagar, bears the same inscription on the obverse. On the reverse the date and place of coinage are different :—

ضرب فرخ آباد سنه ۴۵ جلوس میمنت مانوس

"Struck at Farrukhábád in the year 45 of his prosperous reign."

The several varieties of coin, produced by modifications of weight, standard, or die, from time to time in the Calcutta and subordinate mints of the Bengal Presidency, from their all bearing the same legend and date, are not easily recognized but by an experienced money-changer. As, however, different regulations regarding deficiency of

<sup>1</sup> ه پائی *pa'í*.    ه पाइ *pāḍa*, 'a quarter.'    <sup>2</sup> ه کوری *kauri*.

<sup>3</sup> ه گنده *ganda*.    गण्डक (Elliot.)    <sup>4</sup> ه پن *pan*.    ه पण *pana*.

weight, etc., apply to the coins of the old and new standard, it is convenient to point out a mode of discriminating them.

1. The old standard sikká rupee of 1793-1818 has an oblique milling.

2. The new standard sikká rupee of 1818-1832 has a straight milling.

3. The new sikká rupee, struck under the present regulation, has a plain edge, without milling, and a dotted rim on the face.

The distinctions of the oblique and straight milling apply also to the old and new gold muhr. Of the up-country or Farrukhabád coins:—

4. The old standard Farrukhabád rupee (or '45th Sun Lucknow rupee' of Reg. XLV. 1803) has an oblique milling.

5. The Benáres rupee, coined 1806-1819, has also an oblique milling.

6. The new standard Farrukhabád rupee, coined at the Farrukhabád mint, 1819-24, and at the Benares mint, 1819-30, and now at the Sagar mint, has an upright milling.

7. The Farrukhabád rupee, coined under the new regulation at the Calcutta mint, has a plain edge, and a plain rim on the face.

The coins struck before 1793, at the old mints of Patna, Murshidábád, and Dacca, the Benares rupee anterior to 1806, and the coins of all the Native independent states, are known by their having no milling. The Company's coin up the country is thus generally called *kaldár* 'milled, or made by machinery', in contradistinction to the unmilled or native coins, which are fashioned and stamped with the hammer and anvil.

The Madras rupee has a dotted rim on the face, and an indented cord-milling: that coined in Calcutta has an upright milled edge: it has the symbol of a rose on the obverse. The inscriptions are as follows:—

سکه مبارک بادشاه غازي عزيزالدين محمد عالم گير

"The auspicious coin of the noble Monarch, Azíz-ud-dín Muhammad 'Álamgír!" (the father of Sháh 'Álam.)

ضرب اركات سنه ۲۰ جلوس میمنت مانوس

"Struck at Arkát in the 20th year of his propitious reign."

The Bombay coin has now a plain edge and the following legend:

سکه مبارک شاه عالم بادشاه غازي ۱۲۱۵

"The auspicious coin of the great Emperor, Sháh 'Álam, 1215."

ضرب سورت سنه ۴۶ جلوس میمنت مانوس

"Struck at Súrat in the 46th year of his propitious reign."

کلدار *kaldár*.

## COPPER COINS.

The inscription on the Calcutta paisá is, on the **OBVERSE**:

سنه جلوس ۳۷ شاه عالم بادشاه

"In the 37th year of the reign of the Emperor, Sháh 'Álam."

On the **REVERSE**: एक पाई सिक्का याक پای سکه

"One pá'í sikká."

In Bengálí, Persian, and Nágari characters. Serrated rim on the face and plain-edge milling.

The new double-paisá or half-áná piece has on one side merely the words 'half-áná,' in English and Bengálí: on the reverse, the same in Persian and Nágari. The pá'í or third of a paisá has in the same manner merely the name 'one pá'í,' which makes it liable to be confounded with the 'one pá'í sikká,' and on this account, perhaps, it has not found ready currency. The natives reckon only sixty-four paisá to the rupee, while English accounts divide the áná into twelve pá'í; to distinguish them, this latter (hitherto an imaginary coin), was called the pá'í of account.

At Madras and Bombay an English device has been introduced for the copper coinage; on one side, the East India Company's arms; on the other, in the Bombay coin, a pair of scales, surmounted with the name of the coin in English; below, the word عدل *'adal*, 'justice,' in Arabic, and the Hijra date also in Arabic numerals. The Madras paisá coined in England in 1803, has, on the reverse, its value according to the old system 'XX. cash;' and in Persian, بیست کاس چهار *bist kás chahár* *salús ast*, 'twenty kás make four fals.' It weighs 180 grains (one tolá<sup>2</sup>), and the half and quarter in proportion.

The principal object in this place being to shew the present state of the currency and the existing mint regulations, it is unnecessary to detail the various alterations which have been made from time to time in the monetary systems of the three Presidencies, of which a sketch will hereafter be given as an introduction to the General Table of Indian Coins.

The adoption of a general pictorial impression for all the coins of the British possessions in India, in lieu of the present anomalous system, has frequently engaged the attention of the Government here and at home; and it is hoped, now that the new mints of Calcutta and Bombay are perfectly capable of executing such a design, and the prior measure of equalizing the standards of the three Presidencies has been carried into effect, that the unhappy tissue of mis-statements as to

<sup>1</sup> १ कांस or कंस *kānsya* or *kans*.

<sup>2</sup> ۲ تولا *told*. (توبه)

names, places, and dates, exposed in the above list, will give place to a device at once worthy of the British name, and affording better security against fraudulent imitation.

## WEIGHT AND ASSAY OF THE COINS.

## GOLD COINS.

The privilege of coining gold in the Bengal Presidency is limited to the mint of Calcutta, where gold muhrs of two standards are now coined: the ashrafi<sup>1</sup> or Murshidábád gold muhr, which maintains a high degree of purity ( $99\frac{1}{4}$  touch) has a weight of 190.895 grains troy. The new standard gold muhr of 1819 contains one-twelfth of alloy. The absolute quantity of pure metal was then reduced in a trifling degree to adjust the ratio of its value to that of silver as fifteen to one.<sup>2</sup> The new gold muhr therefore weighs sixteen-fifteenths of a rupee, and passes by authority for sixteen rupees, but the ratio of gold to silver has been of late years higher in the Calcutta market, especially for the purer coins, so that the new muhr generally passes for sixteen

<sup>1</sup> P اشرفی *ashrafi*.

<sup>2</sup> In the English coins the ratio is 14.287 to 1—in the French money as 15.5 to 1.

[In continuation of this subject, I extract from the 'Numismatic Chronicle' some remarks of my own, in regard to the relative value of gold and silver in India, at the commencement of the Moghul rule: 'The authoritative reform of the coinage, effected by Shīr Shāh (A.H. 946—952=A.D. 1539 to 1545), appears by internal evidence to have been accompanied by a revision and re-adjustment of the relative value of the lower metals, silver and copper. There are no positive data to show at what rate silver exchanged against gold in the time of Shīr Shāh; but an examination of Abūl-fazl's description of the coin rates of the great Akbar, who succeeded to the throne in 1556, A.D., discloses the very unexpected proportion of gold to silver as 1 to 9.4! I obtain this result from a comparison of the intrinsic contents assigned to four several descriptions of gold coins in the 'Ayin-i Akbari,' as contrasted with the corresponding total weight of the silver money defined by the same authority as their exchangeable value. I understand both gold and silver to have been pure. Actual assay shows Akbar's gold coins to have been totally unalloyed, and Abūl-fazl himself directly asserts that the silver used in his master's coinage was pure.

I append an outline of my data on this head:—

1st.—Chagal, weight in gold T. 3, M. 0, R.  $5\frac{1}{4}$ =30 Rs. of  $11\frac{1}{2}$  máshas each : 549.84 ::  $172.5 \times 30$  (5175.0) : 1 :: 9.4118.

2nd.—Áftábi, gold, weight T. 1, M. 2, R.  $4\frac{1}{2}$ =12 Rs. : 218.90 ::  $172.5 \times 12$  (2070.0) : 1 :: 9.4563.

3rd.—Iláhi, gold, weight M. 12, R.  $1\frac{3}{4}$ =10 Rs. : 183.28 ::  $172.5 \times 10$  (1725.0) : 1 :: 9.4118.

4th.—'Adl Gutkah, gold, weight 11 máshas=9 Rs. : 165 ::  $172.5 \times 9$  (1552.5) : 1 :: 9.40909.

(The common tolá of 180 gr., másha of 15 gr., and rati of 1.875 gr. have been used in these calculations).

Annexed are the relative proportions of these several denominations of coins, as given by Abūl-fazl—extracted verbatim from an excellent MS. of his 'Ayin-i Akbari.' And to complete the original details of the entire subject for those who may desire to

to seventeen, and the old gold muhr for seventeen to eighteen, sikká rupees. When originally coined, both of these moneys were at a discount.

The proportion of fifteen to one is also adopted in the gold rupees of Madras and Bombay, which are coined of the same weight as the silver money of those Presidencies, and pass current for fifteen silver rupees.

The weights and purity of the gold coins are as follows:—

DENOMINATION.	Pure gold.	Alloy.	Weight in gold.	Weight in tolas.	Legal value.
Old Calcutta muhr, <sup>1</sup> with an oblique milled edge	189.4037	1.4913	190.895	1.060	} 16 sikká rupees.
New standard gold muhr, with a straight milling	187.651	17.059	204.710	1.137	
Madras and Bombay new gold rupee	165	15	180	1.000	15 rupees.

examine them, I also subjoin the Rupee equivalents, further determining the actual value of the silver coins.

چگل بضم چیم وکاف فارسی و سکون لام چهار گوشه سه تولاچه  
و پنج سرخ و ربع قیمت سے روپیہ  
آفتابے گرد - بوزن یکتولچه دو ماشہ و پنج سرخ ربع کم \* بها \*  
دوازده روپیہ

الہی [لعل جلالی and] گرد \* دوازده ماشہ دو سرخ ربع کم  
آفتابے منقوش اربع دہ روپیہ

عدل گتکہ بفتح عین و سکون دال و لام و ضم کاف فارسی و سکون  
تای فوقانے ہندی و فتح کاف و ہاء مکتوب یازده ماشکی قیمت نہ روپیہ  
روپیہ سیمین نقدیست گرد یازده و نیم ماشکی در زمان شیر  
خان پدید آمد \* \* از چهل دام اگرچہ نرخ افزون و کم شود  
لیکن در مواجب این قیمت اعتبار رود

جلالہ چهار گوشہ \* \* در وزن و نقش چون نخستین  
روپیہ سه گونه روای داشت اول چهار گوشہ پاک سیم بوزن  
یازده و نیم ماشہ جلالہ نام ارز چهل دام [E.T. . . . .]

<sup>1</sup> This coin is inserted, contrary to rule, because its fabrication is still permitted at the Calcutta mint, for the convenience of the merchants; as it bears a higher value, proportionally, in the market than the new muhr.



Half and quarter gold muhrs are coined of proportionate weight to the above.

The pagoda of Madras and the old gold muhr of Bombay will find their place in the General Table of Coins.

## SILVER COINS.

The weight, fineness, and relative value of the silver coins established by the new regulation are as follows:—

DENOMINATION.	Pure silver. Troy grains.	Alloy. Troy grains.	Weight in troy grains.	Weight in tola.
Calcutta sikká rupee.....	176	16	192	1.0666
Farrukhabád, Sonat, <sup>1</sup> Sagar, Madras, or Bombay rupee .....	165	15	180	1.000

Eight-áná pieces (*dth-anní*<sup>2</sup>) and four-áná pieces (*súki*<sup>3</sup> or *chau-anní*<sup>4</sup>) are struck of proportionate weight to each of the above coins.

The standard quality of the metal is eleven-twelfths of pure silver to one-twelfth of alloy.

The conversion of sikká into Farrukhabád rupees and *vice versa* may be effected in the simplest manner by the following rules, which obviate the necessity of providing tables for the purpose.

**RULE FIRST.**—To convert Farrukhabád rupees into sikká rupees:—Deduct one-sixteenth of the amount of the Farrukhabád rupees from that amount, and the result will be their equivalent in sikkás.

**RULE SECOND.**—To convert sikká rupees into Farrukhabád, Madras, or Bombay rupees:—Add one-fifteenth of the amount of the sikkás to that amount, and the result will be the equivalent in Farrukhabád, Madras, or Bombay rupees.

To avoid confusion here, the weights and values of the former currencies of the Company, which differ in a small degree from the foregoing scale, as well as those of the existing currencies of the Native States, will be inserted in the General Table before alluded to:

All silver money of the new standard (with a straight milling or a plain edge), is considered by law as of full weight until it has lost by wear or otherwise two pá'i in the rupee; or, in round terms, one per cent.

<sup>1</sup> سنوآت *sanawát*, pl. of سنة *sanat*, 'year.'

<sup>2</sup> آٹھ آنی *dth-anní*. <sup>3</sup> سوکی *súki*, or سوکا *súka*. <sup>4</sup> چو آنی *chau-anní*.

Coins of the old standard (with the oblique milling) remain subject to the provision of Regulation LXI., 1795, which allows them to remain a legal tender until they have lost only six *ánas* per cent.

The limits of weight are, therefore, as follows :—

	Original weight.	Allowance for wear.	Minimum weight.	Min. weight of 100 rupees.
Old sikká or Murshidábád rupee	179.666 grs.	6 <i>ánas</i> per ct.	179 grs.	99.44 <i>tolás</i>
New sikká rupee...	192 grs.	2 <i>pá'i</i> p. rup.	190 grs.	105.55 <i>tolás</i>
Farrukhábád, old rupee .....	173 grs.	6 <i>ánas</i> p. ct.	172.352	95.75 <i>tolás</i>
„ new rupee .....	180 grs.	2 <i>pá'i</i> p. rup.	178.125	99. <i>tolás</i>

Light-weight rupees are received by Government officers as bullion, the deficiency from standard weight being made good by the payer.

#### COPPER COINS.

The copper coins of Bengal and Bombay are now equalized in weight, and are as follows :—

	Troy grains.	Value.
The half- <i>áná</i> piece .....	200	6 <i>pá'i</i> of account
The <i>paisá</i> (marked one <i>pá'i</i> sikká).....	100	3 ditto
The <i>pá'i</i> of account .....	33½	1 ditto

By Regulation XXV. of 1817, Sect. 5, copper *paisá*, struck at the Benares mint, weighing 98½ grains, which were intended at first (*vide* Reg. VII. 1814), for circulation in the province of Benares only, and were distinguished with a trident or *trisul*,<sup>1</sup> the symbol of Siva, were made current throughout the Bengal provinces at par with the Calcutta and Farrukhábád *paisá*.

#### COINAGE DUTY OR SEIGNORAGE.

All the Company's mints are open to the reception of gold<sup>1</sup> and silver bullion for coinage on private account. The following is the course of proceeding adopted in the Calcutta mint: —after examination by the processes of cutting and burning, to ascertain that there is no fraudulent admixture, the proprietor takes a receipt from the Mint-Master for the weight of his bullion.—A specimen is then taken for assay, and after that operation the mint receipt is exchanged, at the Assay Office, for a certificate of the standard value of the bullion in gold or silver money. This certificate is convertible into cash at the Treasury as soon as the new coin may be transmitted thither from the mint.

<sup>1</sup> ترسول (बिसूल)

<sup>2</sup> Except the Sagar Mint, which coins silver only.

A deduction is made from the assay produce of bullion to cover the expenses of coinage, which vary at the different mints as follows :

	On Gold Bullion.	On Silver Bullion.
At the Calcutta mint.....	2 per cent.	2 per cent.
At the Sagar mint.....	2 ditto.	2 ditto.

[If required in halves and quarters, an additional duty of one per cent, is levied at these Mints.]

At the Madras mint <sup>1</sup> .....	3 per cent.	4 per cent.	} now 2 per cent.
At the Bombay mint <sup>1</sup> .....	2½ ditto.	3 ditto.	

On the re-coinage of rupees struck at the Company's mints of the Bengal Presidency, a charge of one per cent. only is levied.

The rates of seigniorage at Bombay and Madras include the charge for refining; for which a separate charge is made in the Calcutta and Sagar mints, on under-standard bullion only, at the rate of 0.4 per cent. per pennyweight of worseness in the assay: (unless such inferior bullion is required for the purposes of alligation at the mint, when the charge may be remitted on the authority of the Mint Master).

The following is a table of refined charges :—

Assay.	Refining charge per cent.	Assay.	Refining charge per cent.	Assay.	Refining charge per cent.	Assay.	Refining charge per cent.
<i>dwts.</i>		<i>dwts.</i>		<i>dwts.</i>		<i>dwts.</i>	
0½ Wo.	0.02	6½ Wo.	0.26	12½ Wo.	0.50	18½ Wo.	0.74
1 Wo.	0.04	7 Wo.	0.28	13 Wo.	0.52	19 Wo.	0.76
1½ Wo.	0.06	7½ Wo.	0.30	13½ Wo.	0.54	19½ Wo.	0.78
2 Wo.	0.08	8 Wo.	0.32	14 Wo.	0.56	20 Wo.	0.80
2½ Wo.	0.10	8½ Wo.	0.34	14½ Wo.	0.58	20½ Wo.	0.82
3 Wo.	0.12	9 Wo.	0.36	15 Wo.	0.60	21 Wo.	0.84
3½ Wo.	0.14	9½ Wo.	0.38	15½ Wo.	0.62	21½ Wo.	0.86
4 Wo.	0.16	10 Wo.	0.40	16 Wo.	0.64	22 Wo.	0.88
4½ Wo.	0.18	10½ Wo.	0.42	16½ Wo.	0.66	22½ Wo.	0.90
5 Wo.	0.20	11 Wo.	0.44	17 Wo.	0.68	23 Wo.	0.92
5½ Wo.	0.22	11½ Wo.	0.46	17½ Wo.	0.70	23½ Wo.	0.94
6 Wo.	0.24	12 Wo.	0.48	18 Wo.	0.72	24 Wo.	0.96

And so on for silver of inferior quality. By the practice of the Calcutta mint, the charge for refining is usually remitted up to 6 Wo.; at the Sagar mint, it is levied on all denominations of bullion inferior to standard.

The next two tables, for calculating the intrinsic or assay produce of bullion, are applicable to all the Company's mints, where the tola weight has been adopted.

<sup>1</sup> These two are inserted on the authority of Kelly's 'Cambist'; it seems very advisable that the charges should be equalized at the three Presidency mints, as otherwise the desired uniformity of value cannot be maintained.

TABLE of the Intrinsic or Assay Produce of Silver Bullion in Farrukh-  
abdd and Calcutta rupees, from the 1st of May, 1833.

Weight of bullion in tolas or new weight.	Assay Report.	Touch, or fine silver, in 100 parts.	Produce in Farru- khābād, Madras, or Bombay Rs.	Produce in Calcutta or sikkā rupees.	Weight of bullion in tolas or new weight.	Assay Report.	Touch, or fine silver, in 100 parts.	Produce in Farru- khābād, Madras, or Bombay rupees.	Produce in Calcutta or sikkā rupees.
100	<i>dwts.</i>				100	<i>dwts.</i>			
	20 Br.	100.000	109.091	102.273		5 Wo.	89.583	97.727	91.689
	19½ Br.	99.792	108.864	102.060		5½ Wo.	89.375	97.500	91.406
	18 Br.	99.583	108.636	101.846		6 Wo.	89.167	97.273	91.193
	17½ Br.	99.375	108.409	101.633		6½ Wo.	88.958	97.045	90.980
	17 Br.	99.167	108.182	101.421		7 Wo.	88.750	96.818	90.767
	16½ Br.	98.958	107.955	101.208		7½ Wo.	88.542	96.591	90.554
	16 Br.	98.750	107.727	100.994		8 Wo.	88.333	96.364	90.341
	15½ Br.	98.542	107.500	100.781		8½ Wo.	88.125	96.136	90.127
	15 Br.	98.333	107.273	100.568		9 Wo.	87.917	95.909	89.915
	14½ Br.	98.125	107.045	100.355		9½ Wo.	87.708	95.682	89.702
	15 Br.	97.917	106.818	100.142		10 Wo.	87.500	95.455	89.489
	14½ Br.	97.708	106.591	99.929		10½ Wo.	87.292	95.227	89.275
	14 Br.	97.500	106.364	99.716		11 Wo.	87.084	95.000	89.062
	13½ Br.	97.292	106.136	99.502		11½ Wo.	86.875	94.773	88.850
	13 Br.	97.083	105.909	99.290		12 Wo.	86.667	94.545	88.636
	12½ Br.	96.875	105.682	99.077		12½ Wo.	86.458	94.318	88.423
	12 Br.	96.667	105.455	98.864		13 Wo.	86.250	94.091	88.210
	11½ Br.	96.458	105.227	98.690		13½ Wo.	86.042	93.864	87.998
	11 Br.	96.250	105.000	98.437		14 Wo.	85.834	93.636	87.784
	10½ Br.	96.042	104.773	98.225		14½ Wo.	85.625	93.409	87.571
	10 Br.	95.833	104.545	98.011		15 Wo.	85.417	93.182	87.358
	9½ Br.	95.625	104.318	97.798		15½ Wo.	85.208	92.955	87.145
	9 Br.	95.417	104.091	97.585		16 Wo.	85.000	92.727	86.932
	8½ Br.	95.208	103.864	97.372		16½ Wo.	84.792	92.500	86.719
	8 Br.	95.000	103.636	97.159		17 Wo.	84.583	92.273	86.506
	7½ Br.	94.792	103.409	96.946		17½ Wo.	84.375	92.045	86.292
	7 Br.	94.583	103.182	96.733		18 Wo.	84.167	91.818	86.079
	6½ Br.	94.375	102.955	96.520		18½ Wo.	83.958	91.591	85.867
	6 Br.	94.167	102.727	96.306		19 Wo.	83.750	91.364	85.654
	5½ Br.	93.958	102.500	96.094		19½ Wo.	83.542	91.136	85.440
	5 Br.	93.750	102.273	95.881		20 Wo.	83.333	90.900	85.227
	4½ Br.	93.542	102.045	95.667		20½ Wo.	83.125	90.682	85.015
	4 Br.	93.333	101.818	95.454		21 Wo.	82.917	90.454	84.801
	3½ Br.	93.125	101.591	95.241		21½ Wo.	82.708	90.227	84.588
	3 Br.	92.917	101.364	95.029		22 Wo.	82.500	90.000	84.375
	2½ Br.	92.708	101.136	94.815		22½ Wo.	82.292	89.773	84.162
	2 Br.	92.500	100.909	94.602		23 Wo.	82.083	89.545	83.955
	1½ Br.	92.292	100.682	94.389		23½ Wo.	81.875	89.318	83.736
	1 Br.	92.083	100.455	94.176		24 Wo.	81.667	89.091	83.523
	½ Br.	91.875	100.227	93.963		24½ Wo.	81.458	88.864	83.310
	Standard.	91.667	100.000	93.750		25 Wo.	81.250	88.636	83.097
	¼ Wo.	91.458	99.773	93.537		25½ Wo.	81.042	88.409	82.884
	1 Wo.	91.250	99.545	93.323		26 Wo.	80.833	88.182	82.671
	1½ Wo.	91.042	99.318	93.111		26½ Wo.	80.625	87.955	82.463
	2 Wo.	90.833	99.091	92.898		27 Wo.	80.417	87.727	82.244
	2½ Wo.	90.625	98.864	92.685		27½ Wo.	80.208	87.500	82.032
	3 Wo.	90.417	98.636	92.471		28 Wo.	80.000	87.273	81.819
	3½ Wo.	90.208	98.409	92.258		28½ Wo.	79.792	87.045	81.605
	4 Wo.	90.000	98.182	92.046		29 Wo.	79.583	86.818	81.392
	4½ Wo.	89.792	97.955	91.833		29½ Wo.	79.375	86.591	81.179
						30 Wo.	79.167	86.364	80.972

And so on of bullion of inferior quality.

TABLE of the Intrinsic or Assay Produce of Gold Bullion in Calcutta gold muhrs and Bombay gold rupees.

Weight of bullion in tolas.	Assay in carats and grains.	Tough, or pure gold in 100 parts.	Intrinsic produce in tolas, or in Madras and Bombay gold muhrs.	Produce in new Calcutta gold muhrs of 204.710 grains.	Produce in old gold muhrs of 180.875 grains.	Weight of bullion in tolas.	Assay in carats and grains.	Tough, or pure gold in 100 parts.	Intrinsic produce in tolas, or in Madras and Bombay gold muhrs.	Produce in new Calcutta gold muhrs of 204.710 grains.
100	c. 2 0 Br.	100.000	109.091	95.923	95.085	100	c. 1 0 Wo.	87.500	95.454	83.681
"	1 3 3 Br.	99.740	108.861	95.674	94.787	"	1 0 1 Wo.	87.289	95.170	83.683
"	1 3 4 Br.	99.479	108.523	95.423	94.540	"	1 0 2 Wo.	86.979	94.886	83.433
"	1 3 4 Br.	99.219	108.239	95.173	94.293	"	1 0 3 Wo.	86.719	94.602	83.183
"	1 3 Br.	98.958	107.954	94.924	94.045	"	1 1 Wo.	86.458	94.318	82.933
"	1 2 3 Br.	98.698	107.670	94.674	93.798	"	1 1 1 Wo.	86.198	94.034	82.683
"	1 2 4 Br.	98.437	107.386	94.424	93.550	"	1 1 2 Wo.	85.937	93.750	82.434
"	1 2 4 Br.	98.177	107.102	94.174	93.303	"	1 1 3 Wo.	85.677	93.466	82.184
"	1 2 Br.	97.917	106.818	93.924	93.055	"	1 2 Wo.	85.416	93.182	81.934
"	1 1 3 Br.	97.656	106.534	93.675	92.808	"	1 2 1 Wo.	85.156	92.898	81.684
"	1 1 4 Br.	97.396	106.250	93.425	92.560	"	1 2 2 Wo.	84.896	92.614	81.434
"	1 1 4 Br.	97.135	105.966	93.175	92.313	"	1 2 3 Wo.	84.635	92.329	81.185
"	1 1 Br.	96.875	105.682	92.925	92.065	"	1 3 Wo.	84.375	92.045	80.935
"	1 0 4 Br.	96.615	105.398	92.675	91.818	"	1 3 1 Wo.	84.115	91.761	80.685
"	1 0 4 Br.	96.354	105.114	92.426	91.570	"	1 3 2 Wo.	83.854	91.477	80.435
"	1 0 4 Br.	96.094	104.829	92.176	91.323	"	1 3 3 Wo.	83.594	91.193	80.185
"	1 0 Br.	95.833	104.545	91.926	91.075	"	2 0 Wo.	83.333	90.909	79.936
"	0 3 3 Br.	95.573	104.261	91.676		"	2 0 1 Wo.	83.073	90.625	79.686
"	0 3 4 Br.	95.313	103.978	91.426		"	2 0 2 Wo.	82.812	90.341	79.436
"	0 3 4 Br.	95.052	103.693	91.177		"	2 0 3 Wo.	82.552	90.057	79.186
"	0 3 Br.	94.792	103.409	90.927		"	2 1 Wo.	82.291	89.773	78.936
"	0 2 3 Br.	94.531	103.125	90.677		"	2 1 1 Wo.	82.031	89.489	78.687
"	0 2 4 Br.	94.271	102.841	90.426		"	2 1 2 Wo.	81.770	89.204	78.437
"	0 2 4 Br.	94.010	102.557	90.177		"	2 1 3 Wo.	81.510	88.920	78.187
"	0 2 Br.	93.750	102.273	89.928		"	2 2 Wo.	81.250	88.636	77.937
"	0 1 3 Br.	93.489	101.989	89.678		"	2 2 1 Wo.	80.990	88.352	77.687
"	0 1 4 Br.	93.229	101.704	89.428		"	2 2 2 Wo.	80.729	88.068	77.438
"	0 1 4 Br.	92.969	101.420	89.178		"	2 2 3 Wo.	80.469	87.784	77.188
"	0 1 Br.	92.708	101.136	88.928		"	2 3 Wo.	80.108	87.500	76.938
"	0 0 4 Br.	92.448	100.852	88.679		"	2 3 1 Wo.	79.948	87.216	76.688
"	0 0 4 Br.	92.187	100.568	88.429		"	2 3 2 Wo.	79.687	86.932	76.438
"	0 0 4 Br.	91.927	100.284	88.179		"	2 3 3 Wo.	79.427	86.648	76.189
"	Standard.	91.667	100.000	87.929		"	3 0 Wo.	79.166	86.364	75.939
"	0 0 1 Wo.	91.406	99.716	87.679		"	3 0 1 Wo.	78.906	86.079	75.689
"	0 0 1 Wo.	91.156	99.432	87.430		"	3 0 2 Wo.	78.646	85.795	75.439
"	0 0 1 Wo.	90.886	99.148	87.180		"	3 0 3 Wo.	78.385	85.511	75.189
"	0 1 Wo.	90.625	98.864	86.930		"	3 1 Wo.	78.125	85.227	74.940
"	0 1 1 Wo.	90.365	98.579	86.680		"	3 1 1 Wo.	77.864	84.943	74.690
"	0 1 1 Wo.	90.104	98.295	86.430		"	3 1 2 Wo.	77.604	84.659	74.440
"	0 1 1 Wo.	89.844	98.011	86.180		"	3 1 3 Wo.	77.344	84.375	74.190
"	0 2 Wo.	89.583	97.727	85.931		"	3 2 Wo.	77.083	84.091	73.940
"	0 2 1 Wo.	89.323	97.443	85.681		"	3 2 1 Wo.	76.823	83.807	73.691
"	0 2 1 Wo.	89.062	97.159	85.431		"	3 2 2 Wo.	76.562	83.523	73.441
"	0 2 1 Wo.	88.802	96.875	85.181		"	3 2 3 Wo.	76.302	83.239	73.191
"	0 3 Wo.	88.541	96.591	84.932		"	3 3 Wo.	76.042	82.954	72.941
"	0 3 1 Wo.	88.281	96.307	84.682		"	3 3 1 Wo.	75.781	82.670	72.691
"	0 3 1 Wo.	88.021	96.023	84.432		"	3 3 2 Wo.	75.521	82.386	72.442
"	0 3 1 Wo.	87.760	95.739	84.182		"	3 3 3 Wo.	75.260	82.102	72.192
"						"	4 0 Wo.	75.000	81.818	71.942

Gold of inferior quality is not receivable for coinage in old standard muhrs.

And so on of bullion of inferior quality.

The refining charges on under-standard gold as applied at Calcutta are as follows:—

	car.	gr.		car.	gr.	
From .....	0	0½	Wo.	to	1	1 Wo. ½ per cent.
From .....	1	1	Wo.	to	2	2 Wo. 1 per cent.
From .....	2	2½	Wo.	to	3	3 Wo. 1½ per cent.
From .....	3	3½	Wo.	to	5	0 Wo. 2 per cent.
From .....	5	0½	Wo.	to	7	2 Wo. 2½ per cent., etc.

For old standard muhrs, merchants are obliged to bring their gold already refined to the requisite degree of purity.

The produce of any weight, in tolás, of assayed bullion is found by multiplying it by the number opposite to the assay in the proper column (of sikká or Farrukhábád rupees, or new or gold muhrs, as the case may be), and dividing by 100. To find the pure contents, the number in the third column 'or touch,' must be taken as the multiplier. For example:—

I. 5432 tolás of refined cake silver reported, on assay, to be 16½ dwts. Br. yield in sikká rupees,  $5432 \times 100.355 \div 100 = 5451.254$ , or sá. rupees 5451 4 1.

II. 1200 tolás of dollars at 5 Wo. contain of pure silver  $1200 \times 89.583 \div 100 = 1075$  tolás pure.

III. 100 twenty franc-pieces, weighing 55.319 tolás, at 0 1½ c. grs. Wo. yield  $55.319 \times 86.430 \div 100 = 47.812$  new gold muhrs.

These tables, and, indeed, all that are inserted in the present paper, express the fractions of the rupee, or of the tolá, in decimals. For converting this expression into the ordinary division of áná's and pá'is, and *vice versa*, the following table will be found very convenient, and of constant application in monetary calculations.

TABLE for reducing Áná's and Pá'is into decimal parts of a Rupee.  
1 áná = 0.0625.

ÁNÁs.	0	1	2	3	4	5	6	7	8	9	10	11 pái
0	.0000	.0052	.0104	.0156	.0208	.0260	.0312	.0365	.0417	.0469	.0521	.0573
1	.0625	.0677	.0729	.0781	.0833	.0885	.0937	.0990	.1042	.1094	.1146	.1198
2	.1250	.1302	.1354	.1406	.1458	.1510	.1562	.1615	.1667	.1719	.1771	.1823
3	.1875	.1927	.1979	.2031	.2083	.2135	.2187	.2240	.2292	.2344	.2396	.2448
4	.2500	.2552	.2604	.2656	.2708	.2760	.2812	.2864	.2917	.2969	.3021	.3073
5	.3125	.3177	.3229	.3281	.3333	.3385	.3437	.3489	.3542	.3594	.3646	.3698
6	.3750	.3802	.3854	.3906	.3958	.4010	.4062	.4115	.4167	.4219	.4271	.4323
7	.4375	.4427	.4479	.4531	.4583	.4635	.4687	.4740	.4792	.4844	.4896	.4948
8	.5000	.5052	.5104	.5156	.5208	.5260	.5312	.5365	.5417	.5469	.5521	.5573
9	.5625	.5677	.5729	.5781	.5833	.5885	.5937	.5990	.6042	.6094	.6146	.6198
10	.6250	.6302	.6354	.6406	.6458	.6510	.6562	.6615	.6667	.6719	.6771	.6823
11	.6875	.6927	.6979	.7031	.7083	.7135	.7187	.7240	.7292	.7344	.7396	.7448
12	.7500	.7552	.7604	.7656	.7708	.7760	.7812	.7865	.7917	.7969	.8021	.8073
13	.8125	.8177	.8230	.8281	.8333	.8385	.8437	.8490	.8542	.8594	.8646	.8698
14	.8750	.8802	.8854	.8906	.8958	.9010	.9062	.9115	.9167	.9219	.9270	.9323
15	.9375	.9427	.9479	.9532	.9583	.9635	.9687	.9740	.9787	.9844	.9896	.9948

## EXCHANGES.

For the conversion of the rupee into the equivalent currency of other nations, it is necessary to take into consideration the fluctuating relative value of the precious metals *inter se*, from the circumstance of gold being in some, and silver in others, the legal medium of circulation.

It is also necessary to take account of the mint charge for coining at each place, which adds a fictitious value to the local coin. The 'par of exchange' is, for these reasons, a somewhat ambiguous term, requiring to be distinguished under two more definite denominations. 1st, the 'intrinsic par,' which represents that case in which the pure metal contained in the parallel denominations of coins is equal. 2nd, the 'commercial par,' or that case in which the current value of the coin at each place (after deducting the seignorage leviable for coinage) is equal: or in other words, 'two sums of money of different countries are commercially at par, while they can purchase an equal quantity of the same kind of pure metal.'<sup>1</sup>

Thus, if silver be taken from India to England, it must be sold to a bullion merchant at the market price, the proprietor receiving payment in gold (or notes convertible into it). The London mint is closed against the importer of silver; which metal has not, therefore, a minimum value in the English market fixed by the mint price: although it has so in Calcutta, where it may always be converted into coin at a charge of two per cent. On the other hand, if a remittance in gold be made from this country to England, its out-turn there is known and fixed: each now Calcutta gold muhr being convertible into 1.66 or  $1\frac{2}{3}$  sovereigns nearly; but the price of the gold muhr fluctuates as considerably in India as that of silver does in England, the natural tendency of commerce being to bring to an equilibrium the operations of exchange in the two metals.


The exchange between England and India has, therefore, a two-fold expression; for silver, the price of the sikká rupee in shillings and pence:—for gold, the price of the sovereign in rupees. To calculate the out-turn of a bullion remittance in either metal, recourse may be had to the following

## TABLES OF ENGLISH AND INDIAN EXCHANGES.

The data for the calculation of these tables are:—

1st. One *man*<sup>2</sup> (or 100 lbs. troy) of silver (one-twelfth alloy) is coined into 3,200 Farrukhábád rupees, or into 3,000 sikká rupees, of which sixty-four and sixty respectively are taken as mint duty, being at the rate of two per cent.

<sup>1</sup> Kelly's 'Cambist,' iii., 13.

<sup>2</sup> A  *man* or *mann*. מנה

2nd. 100lbs. troy of English standard silver (18-240ths alloy) are coined into 6,600 shillings, of which 400 are taken as seignorage or mint duty, being 4s. per lb., or nearly six per cent.; but the mint is not open to the holders of silver bullion, which is only purchased through the bank when required for coinage.

3rd. The sovereign (1-12th alloy) weighs 123.25 grains troy, and no duty is charged on its coinage. 100 lbs. of pure gold yields 5098.3 sovereigns, = 3069.5 new gold muhrs, = 3041.4 old gold muhrs, = 3490.9 Madras and Bombay muhrs.

TABLE showing the produce of 100 sikká rupees and of 1 sikká rupee in shillings sterling at London, for different quotations of the price of silver in the London price current.

At the London price of silver per troy ounce.		100 sikká rupees will produce	Exchange per sikká rupee.		Remarks.
s.	d.	Shillings.	s.	d.	
at 5	6	218.018	2	2.2	Intrinsic par of coins.
5	6	214.714	2	1.8	{ (2s. 1.64d.) Calcutta
5	4	211.411	2	1.4	{ mint price of silver.
5	3	208.108	2	1.0	{ (2s. 1.07d.) commer-
5	2	204.805	2	0.6	{ cial par of exchange.
5	1	201.501	2	0.2	{ (2s. 0.58d.) London
5	0	198.198	1	11.8	{ mint price of silver.
4	1	194.895	1	11.4	{ (5s. 2d.)
4	10	191.591	1	11.0	
4	9	188.288	1	10.6	
4	8	184.984	1	10.2	
4	7	181.681	1	9.8	
4	6	178.378	1	9.4	

TABLE showing the produce of 100 Farrukhabád, Sagar, Sonat, Madras, or Bombay rupees (or 100 tolás) of Bengal standard silver (one-twelfth alloy), in shillings and the consequent rate of exchange.

London price of silver per troy ounce.		100 Farrukhabád, Madras, or Bombay rupees will produce	Exchange per Farrukhabád rupee.		Remarks.
s.	d.	Shillings.	s.	d.	
5	6	204.390	2	0.5	Intrinsic par of coins.
5	5	201.293	2	0.15	{ (2s. 0.04d.) Calcutta
5	4	198.196	1	11.8	{ mint price of silver.
5	3	195.099	1	11.5	{ (1s. 11.51d.) commer-
5	2	192.002	1	11.1	{ cial par of exchange.
5	1	188.905	1	10.7	{ (1s. 11.04d.) London
5	0	185.809	1	10.3	{ mint price of silver.
4	11	182.712	1	10.0	{ (5s. 2d.)
4	10	179.615	1	9.6	
4	9	176.518	1	9.2	
4	8	173.421	1	8.8	
4	7	170.324	1	8.44	
4	6	167.228	1	8.06	



The exchange which a bullion remittance from England to India will yield at the London prices of the first column may be found by adding two per cent. to the columns of produce: thus, at 5s. an ounce,  $185.8 + 3.7 = 189.5$  shillings invested in silver bullion, will produce 100 Farrukhabád rupees, and give an exchange of 1s. 10 $\frac{3}{4}$ d. per Farrukhabád rupee. The same remark applies to the above table for sikká rupee exchanges.

TABLE shewing the produce of a remittance to London in gold bullion or coin, and the corresponding exchange in Calcutta, Farrukhabád, Madras, and Bombay rupees.

Calcutta price of Gold Muhr.		Calcutta price of English Sovereign.	Calcutta price of standard Gold Bullion per 100 tolas.	Intrinsic produce of 100 Ságar rupees thus invested in England.	Intrinsic produce of 100 Farrukhabád, Madras, or Bombay rupees ditto.	Exchange per sikká rupee.	Exchange per Farrukhabád, Madras, and Bombay rupee.
Rs.	Án.	Sd. Rs.	Sd. Rs.	Shillings.	Shillings.	s. d.	s. d.
16	0	9.633	1406.868	207.616	194.640	2 0.91	1 11.35
16	2	9.708	1417.859	206.006	193.131	2 0.72	1 11.17
16	4	9.783	1428.850	204.422	191.646	2 0.52	1 10.99
16	6	9.858	1439.841	202.861	190.183	2 0.33	1 10.82
16	8	9.934	1450.832	201.325	188.743	2 0.15	1 10.64
16	10	10.009	1461.823	199.811	187.323	1 11.97	1 10.48
16	12	10.084	1472.814	198.329	185.924	1 11.79	1 10.31
16	14	10.160	1483.805	196.850	184.547	1 11.62	1 10.16
17	0	10.235	1494.797	195.403	183.190	1 11.44	1 9.98
17	2	10.310	1505.788	193.977	181.853	1 11.27	1 9.82
17	4	10.385	1516.779	192.571	180.535	1 11.10	1 9.66
17	6	10.462	1527.770	191.185	179.236	1 10.94	1 9.50
17	8	10.536	1538.761	189.820	177.956	1 10.77	1 9.35

[The old Calcutta gold muhr is omitted in this table, because it bears an artificial value, 14 or 15 ánáas higher than the new standard muhr.]

The above tables give intrinsic results; that is, they exclude all calculation of charges, insurance, freight, commission, etc., which are of a variable nature. It may be generally assumed, however, that four per cent., or one penny in the rupee, will cover all expenses of remittance to England, from which may be deducted a saving of six months' interest, when comparing the transaction with mercantile bills of twelve months' date.

The par of exchange with other countries may be estimated from the intrinsic and mint produce of their coins, thus:—assuming the Spanish dollar to weigh 416 grains troy, and to be five dwts. worse in assay, we have for

#### SPAIN AND AMERICA.

100 DOLLARS { = 231.111 tolas in weight,  
 { = 225.868 Fd. rupees, } or deducting duty (221.341 Fd. rupees.  
 { = 211.742 sikká rupees, } of 2 per cent. { 207.508 sikká Rs.

The Spanish dollar forms also the currency of the Straits of Malacca

and of Manilla; and it is extensively known in the colonies of England, Ceylon, the Cape, Australia, etc.

For the British colonial possessions, however, an Order of Council was promulgated on the 23rd March, 1825, extending to them the circulation of British silver and copper money, and directing all public accounts to be kept therein. Where the dollar was, either by law, fact, or practice, still a legal tender, it was to be accounted equivalent to 4s. 4d., and *vice versâ*. For the Cape of Good Hope, where the circulation consisted of paper rix-dollars;—and Ceylon, where it consisted of silver and paper rix-dollars, as well as a variety of other coins;—it was provided that a tender and payment of 1s. 6d. in British silver money should be equivalent to the rix-dollar. The sikkâ rupee was to be allowed circulation at 2s. 1d. and that of Bombay at 1s. 11d., and the five-franc piece at 4s. These regulations are still in force in Ceylon, Australia, Van Diemen's Land, the Cape, Mauritius, and St. Helena.

## FRANCE.

The French kilogramme of standard silver (1-10th alloy) is coined into 200 francs, and the kilogramme weighs 85.744 tolâs; therefore

100 FRANCS	{ = 42.872 tolâs in weight,	{ or deducting duty { 41.250 Fd. rupees. of 2 per cent. { 38.673 sikkâ rupees.
	{ = 42.092 Fd. rupees,	
	{ = 39.462 sikkâ rupees,	

The coinage duty on silver at Paris is  $1\frac{1}{2}$  per cent., or  $\frac{1}{2}$  per cent. less than in India; hence it will be found that,

100 sikkâ rupees realize almost precisely 250 francs at the Paris mint.

Minted gold in France is worth  $15\frac{1}{2}$  its weight of minted silver, or the kilogramme is coined into 155 napoleons or twenty-franc pieces: the seignorage on gold is only  $\frac{1}{3}$  per cent.

One kilogramme of pure gold yields 81.457 gold muhrs, or (deducting 2 per cent. mint duty) 79,828 ditto, therefore

100 NAPOLEONS	{ = 55.319 tolâs in weight,	{ or deduct- { 46.369 old gold mrs. ing duty { 46.802 new ditto. of 2 per { 53.227 Madras and cent. { Bombay gold rupee.
	{ = 47.315 old gold muhrs,	
	{ = 47.757 new ditto,	
	{ = 54.313 Madras and Bom- bay gold rupee,	

## CHINA.

As the Chinese have no gold or silver coins, but make payments in those metals by weight, it is sufficient to state the value of the tael of the sycee and dollar silver usually current with them.

100 tael of	{ = 322.135 tolâs in weight = (120 oz. 16 dwts. English).	
Sycee silver av.	{ = 344.108 Fd. rupees,	{ or deducting duty { 337.226 Fd. rupees.
15 dwts. Br.	{ = 322.602 sikkâ rupees,	{ of 2 per cent. { 316.150 sâ. rupees.
100 tael of	{ = 314.811 Fd. rupees,	{ or deducting duty { 808.515 Fd. rupees.
dollars 5 Wo.	{ = 295.135 sâ. rupees,	{ of 2 per cent. { 289.233 sâ. rupees.

The par of exchange with other places may in a similar manner be found from the table of coins.

## GENERAL TABLE OF INDIAN COINS.

When it was said, at the commencement of this paper, that the rupee was the universal unit of currency throughout India, a reservation should have been made for those parts of the Peninsula where the Pagoda and Fanam still circulate. There are, in fact, two distinct systems still prevalent, the Hindú and the Musalmán; and although the former has become extinct throughout the greater part of Hindústán by the predominance of the Muhammadan power, it is traceable in the old coins found at Kanauj, and other seats of ancient Hindú sovereignty, which agree nearly in weight with the coins still extant in the several petty Hindú States of Southern India.

## HINDU SYSTEM.

The unit of this system was of gold, and the old specimens found are of sixty or one hundred and twenty grains in weight: showing an evident connection with the Grecian drachma and didrachma of gold (or χρυσος and διχρυσος) and confirming the testimony afforded by the device and symbols of old Hindú coins, of a direct descent from their Bactrian prototype.

As the Muhammadan power never gained an entire ascendancy in the Peninsula, the same system of currency continued to be issued from the mints of a number of petty Rájships in Malabar and the Carnatic. The principal of these were at Bangalor and Maisúr, under the Ikkerí Rájá, who coined the Sadasiva huns,<sup>1</sup> so called from a former Rájá. They bore the figures of Siva and Párvatí on one side, and a temple on the reverse. During the usurpation of Hyder 'Alí and Tipú, Bahádurí and Sultání huns were struck in Maisúr; the former are distinguished by a ح the initial of Hyder's name. At Travancore also a mint has existed for a very long period, coining Ánandrái huns, so called from a prince of that name. The Ikkerí and Travancore mints are the only two now in existence.

The name of this coin among Europeans is 'Pagoda,' a Portuguese appellation derived from the pyramidal temple depicted on one side of it. The proper Hindú name is Varáha,<sup>2</sup> 'wild boar,' and doubtless originated in a device of the Boar Incarnation, or Avatár, of Vishnu upon the ancient coinage of the Carnatic; for the same figure appears as the signet of the Rájás of that country, on some old copper grants of land in the Mackenzie collection.<sup>3</sup> The Hindú name probably

<sup>1</sup> هون<sup>2</sup> वराह<sup>3</sup> The Varáha also appears on some ancient silver coins of Orissa. See Wilson's account of coins of this type, 'Asiatic Researches,' vol. xvii. p. 586.

varied according to the image on the coin; thus we find the Rámatanka having the device of Ráma and his attendants; and the Matsya<sup>1</sup> hún of Vijayanagar with four 'fish' on the obverse. Other pagodas have Vishnu, Jaganáth, Venkateswar, etc. on them; those with three Swámis, or figures, are of the best gold, and are valued ten per cent. higher than the common pagoda.

'Hún' is the common term used by the Muhammadan writers, and indeed generally by the natives, for the pagoda. It signifies 'gold' in the old Carnatic language.

The hún was subdivided into 'fanams' and 'kás.' Fanam, or more properly panam,<sup>2</sup> is identical with the word pan, known in this part of India as one of the divisions of the Hindú metrical system, now applied chiefly to a certain measure of kaurís and copper money. The old fanam was of gold only, and was one-sixteenth of a hún. In the 'Lilávati' we find sixteen pana = one dharan,<sup>3</sup> sixteen dharan = one nishk;<sup>4</sup> where the dharan (or dharam) seems to accord with the hún, which, as before said, is identical in weight with the Greek drachma. The Ikkerí pagoda still contains sixteen fanams: that of Vírarái and Anandrái, fourteen; and the Kalyan pagoda, twenty-eight. The division adopted by the English was forty-two.

'Kás' may be a corruption of the Sanskrit word Karsha,<sup>5</sup> which is mentioned in Colebrooke's 'Essay on Indian Weights,' as the same with the pan: 'a Karsha, or eighty raktikás<sup>6</sup> (ratís) of copper is called a pana, or Karsha-pana.' It is now the eightieth part of a pan, but similar discrepancies are common throughout, and the simple word is all that can be identified as having survived the changes of system.

As accounts were formerly kept at Madras in this currency, the following particulars extracted from Kelly's 'Cambist' will be found useful for reference:

'According to the old system, accounts are kept in star-pagodas, fanams, and kás.

8 kás = 1 fanam.

336 kás = 42 fanams = 1 pagoda.

The Company reckon twelve fanams to the Arcot rupee, and three and a half rupees to the pagoda. The bázár exchange fluctuates from thirty-five to forty-five fanams per pagoda, the latter being a gold coin, and the former of silver; but fanams were also coined of base gold. Copper i-, v-, x-, and xx-, kás pieces were coined in England, by contract, for Madras so early as 1797; the xx-kás is also called 'dodo' and 'falús.'<sup>8</sup>

The star-pagoda weighs 52.56 grains, and is nineteen one-fifth carats fine: it is, therefore, intrinsically worth 7s. 5½d. sterling; but it is commonly valued at 8s. Many varieties of the pagoda circulate on the Coromandel coast, which will find their places in the General Table.

<sup>1</sup> मत्स्य

<sup>2</sup> पणं

<sup>3</sup> धरन्

<sup>4</sup> निष्क

<sup>5</sup> कर्ष

<sup>6</sup> रक्तिका

<sup>7</sup> कर्षपण

<sup>8</sup> فلوس plural of فلس

In 1811 a coinage from Spanish dollars took place, consisting of double rupees, rupees, halves, and quarters; and pieces one-, two-, three-, and five-, fanams; the rupee weighed 186·7 grains. A silver coinage of half- and quarter-pagodas of dollar fineness also then took place; the half-pagoda weighed 326·73 grains troy, and was equal to  $1\frac{1}{2}$  Arcot rupees. By a proclamation of 7th January, 1818, the silver rupee of one hundred and eighty grains was constituted the standard coin, and all accounts and public engagements were ordered to be converted at the exchange of three hundred and fifty rupees per hundred pagodas.

The proportion between the old and new currency is therefore now  $3\frac{1}{2}$  rupees per pagoda; and in copper seventy-five kás old currency = fourteen paisá new currency.'

## MUSALMÁN SYSTEM.

The Musalmán system, of which the muhr and the rupee are the characteristic denominations of coin, assumes at the present day a multifarious appearance from the great variety in weight and value of the rupees current in different parts of India. That they have a common origin; and, in fact, that most of the rupees now issued from the Native mints of Central India are of modern date, is easily proved, since they almost all bear the impress of Sháh 'Alam, like our own coin.

The silver rupee was introduced, according to Abú'l-fazl, by Shír Sháh, who usurped the throne of Dihlí from Humáyun in the year 1542. Previous to his time, the Arabic dirham<sup>1</sup> (silver drachma), the gold dínár<sup>2</sup> (denarius auri), and the copper falús<sup>3</sup> (follis) formed the currency of the Moghul dominions. Shír Sháh's rupee had, on one side, the Muhammadan creed; on the other, the emperor's name and the date in Persian; both encircled in an annular Hindí inscription. Since 'the same coin was revived and made more pure' in Akbar's reign, we may assume the original weight of the rupee from Abú'l-fazl's statement, to have been eleven and a quarter máshas<sup>4</sup>; Akbar's square rupee, called from its inscription the Jalálí,<sup>5</sup> was of the same weight and value. This coin was also called the Chahár-yári,<sup>6</sup> from the four friends of the prophet, Abu-bakr, Omar, Osman, 'Alí, whose names are inscribed on the margin. This rupee is supposed by the vulgar to have talismanic power.

Concerning the weight of the másha some difficulty prevails, as this unit now varies in different parts of India. Mr. Colebrooke makes it seventeen grains and three-eighths nearly; but the average of several gold and silver jalálís of Akbar's reign, found in good preservation, gives 15·5 grains, which also agrees better with the actual másha of

<sup>1</sup> درهم

<sup>2</sup> دینار

<sup>3</sup> This name is still preserved on the Madras paisá or Kás pieces.

<sup>4</sup> ماشه

<sup>5</sup> جلالي

<sup>6</sup> چهار ياري

many parts of Hindústán.<sup>1</sup> By this calculation the rupee originally weighed 174.4 grains troy, and was of pure silver (or such as was esteemed to be pure). The same standard was adopted by the Emperor Akbar, and accordingly we find coins of Akbar's reign dug up in

<sup>1</sup> The following are the másha weights sent home for examination in 1819, as published in that highly useful work, Kelly's 'Cambist':

Jálma másha .....	15.373 grs.	The Patna másha is called ...	18.5 grs.
Bellary .....	14.687	The Benáres from several	
Málwá .....	15.833	specimens .....	17.7
Súrat .....	15.600	The Calcutta másha, by	
Ahmadnagar .....	15.700	Kelly .....	32.0
Puna .....	15.970	But probably this was a double másha.	

The average of all these agrees nearly with the Akbari másha.

A gold jalálí of Láhor, rather worn, weighs 186.6: this may be the 12½ másha coin mentioned by Abú'l-fazl, which would give fifteen grains for the másha.

[I annex some incidental information on the subject of Shír Sháh's coin-weights and values, which I had occasion to draw up some years ago. I insert the entire passage in this place as further illustrative of the true weight of the másha.

"I have previously ('Coins of Pathán Kings of Dehli,' Preface, p. vii.) assumed, from existing specimens of the silver money of Shír Sháh, that the original mint standard of his rupees was calculated at an average weight of 178 grains, if not more. Abú'l-fazl's statement on the point, scrutinized more critically than it has heretofore been, affords a singularly close confirmation of this inference. I find it recorded in no less than four excellent copies of the original Persian 'Ayin-i Akbari,' that the rupee of Akbar, which was based upon that of Shír Sháh, weighed eleven and a half máshas; the same weight is assigned in these copies of the MS. to Akbar's jalálí, which is avowedly identical in value with the former.\* I mention this prominently, as Gladwin, in his translation (I. pp. 29, 35, etc.) has given eleven and a quarter máshas as the weight of each of these coins; and Prinsep, in accepting Gladwin's figures, was led to place the weight of the old rupee at nearly four grains below its true standard.

"There is some doubt as to the exact weight we are to allow to the másha, which varied considerably in different parts of India. Prinsep has determined the Dehli másha to be 15.5 grains, and admitting this, the result shows Shír Sháh's rupee to have weighed 178.25 grains of what was esteemed pure silver.

"The assignment of 15.5 grains to the Shír Sháhí másha is equally well borne out in the test afforded by Akbar's own coins. In order to avoid the very probable error of mistaking the identical class, among three but little varying denominations of the gold coinage, to which any given specimen within our reach should belong, I confine my reference to the silver money of Akbar, which, though differing in its various mintages, in types and legends, was preserved, in effect, uniform in weight and value. Marsden has contributed an example (No. DCCCXXIV.) of a square jalálí of this Padsháh, weighing 176.5 grains: had the tolá at this time been fixed at 180 grains, this coin would contain four grains more than the law required; as it is, even allowing for wear, it shows a return of 15.3 grains to each of the 11½ máshas of 15.5 grains, which should, under the higher scale of weights, originally have constituted its total on issue from the mint.

"The adoption of this 15.5 grain másha as a standard, necessitates a concurrent recognition of a proportionately increased weight in the tolá as then in use; we can scarcely suppose the twelve máshas composing the tolá to have aggregated 186 grains, while the tolá itself remained at the 130 grains modern usage has assigned it. We have fortunately at hand a second means of proving the question, in the due determination of the intrinsic contents of the pieces composing the lower currency of the period, and the result will be found to show sufficient confirmation of the theory which places the másha of Shír Sháh at 15.5, and the tolá at 186 grains troy.

\* Gladwin, 'Ayin-i Akbari,' I. 62, 59, 70. See also note <sup>2</sup>, p. 5.

various places, and worn, weighing from one hundred and seventy to one hundred and seventy-five grains.

Cabinet specimens of the coins of Jahángír, Sháh Jahán, and Aurang-zib have also an average weight of one hundred and seventy-five

Forty dams of copper, we are told, were in Akbar's time equivalent in account, and ordinarily in exchange, to one rupee, and the dam of copper is itself defined at 5 tanks, or 1 tolá 8 máshas and 7 ratis in weight. The measure of value thus specified is likewise distinctly stated to be a continuation of a previously existing species of money, which at the moment when Abú'l-fazl wrote, went by the name of 'Dám.' There can be but little hesitation in admitting, almost *prima facie* on the evidence available, that the copper pieces classed under Nos. 185, 186, Vol. xv., 'Numismatic Chronicle,' were the identical coins of Shír Sháh, to which the succeeding dams of Akbar were assimilated; or, in other words, that they were in weight and value (whatever their name) the dams of the Afghán Sultán. It is a nicer point to determine the precise contents in grains attending the original mint issue of these coins; but first taking the figures now proposed for máshas and tolás, we obtain from 1 tolá 8 máshas and 7 ratis, at 186 per tolá, a sum of 323.5625 grains; and then testing this return of the actual present weight of extant coins, we obtain a very reasonably close approximation to our figured result. It is true that the general average of the various existing provincial coins of this class minted during the reigns of Shír Sháh and his Afghán successors, would necessarily run somewhat below the rate of 323.5 grains; but we have to allow a considerable per centage for loss by wear in such heavy coins, especially composed as they are of copper, which metal would always continue more freely current, and consequently suffer far more from the abrasion incident to frequent transfers, than the more carefully guarded and less readily exchanged silver and gold. However, we may, without claiming too much margin on these grounds, fairly consider ourselves within the mark in identifying the general series of coins under review as having originally an intentional standard of 323.5 grains, inasmuch as we can at this day produce several specimens of the coinage weighing 322 grains, and in one instance of a Hissár coin, we can reckon no less than 329 grains. Added to this, we have the evidence of Ferishta that in his day there was a paisá! (or fixed weight? پول) which was rated at 1½ tolás, which, at 186 grains the tolá, gives even a higher return of 324.5 grains.

"At the same time, on the other hand, it would be impossible to reduce the coins that furnish our means of trial, to anything like so low a general average as would admit of 314 grains (or the produce of the simple 180 grains total) being received as the correct issue weight.

"Adopting, then, the rate of 323.5 grains as the legitimate weight of these copper pieces, forty of which exchanged against a rupee, we have a total of 12,940 grains of copper as equal to 178 grains of silver, which determines the relative value of silver to copper as 1 to 72.7. If this be a correct estimate, there were in each dam 9.29 chittas,\* and in the Shír Sháhi rupee 371.8 chittas, instead of the old 320 divisional coins of that name and value, which went to the lighter silver piece of former days, when also the comparative value of silver and copper stood at a more favourable ratio for the latter."—E.T.]

[Colonel William Anderson, C.B., an officer who has had extensive experience in

\* "پول (Pehliv, پول Pāst, puhāl); 2) Obolus et res quævis obolo similis, nt squama piscis, simil. (نلوس) Borhāni Kātiū. Inde بي پلي n.c. Pecuniae defectus."—Vullers. See also 'Journal of the Asiatic Society of Bengal,' vii. 898, and Fræhner's 'Recensio,' p. 207, etc. Abú'l-fazl says the پل of olden days was equal to four tolás.—Gladwin's 'Ayin-i Akbari, iii. 89. Ferishta again gives 1 or 1½ tolás!

grains pure, and the same prevails with little variation, up to the time of Muhammad Sháh, in the coins of opposite extremities of the empire ; or struck in the Súbahs of Súrat, Ahmadábád, Dihlí, and Bengal.

The following are a few examples of this agreement :

Akbart, of Láhor.....	175·0 grains.	Sháh Jahání, of Agra .....	175·0 grains.
———— Agra .....	174·0 do.	———— Ahmadábád.	174·2 do.
Jahángiri, Agra .....	174·6 do.	———— Dihlí.....	174·6 do.
———— Alláhábád	173·6 do.	———— Súrat.....	175·0 do.
———— Kandahár.	173·9 do.	———— Láhor .....	174·0 do.

To which may be added from the Table of Coins assayed at the mint, reckoning pure contents only :

Dihlí Sonat .....	175·0 grains.	Dacca, old.....	173·3 grains.
———— 'Alamgír ...	175·5 do.	Muhammad Sháhí .....	170·0 do.
Old Súrat rupee .....	174·0 do.	Ahmad Sháh .....	172·8 do.
Murshidábád .....	175·9 do.	Sháh 'Alam (1772) ..	175·8 do.
Persian rupee of 1745	174·5 do.		

The above quotations are sufficient to show that the Moghul emperors maintained a great uniformity in the currency of their vast empire. They were also tenacious of their privilege of coining, and we find from Abú'l-fazl that gold was only allowed to be minted at Agra, Bengal, Ahmadábád (in Gujarát), and Kábul. Ten other cities were allowed to coin silver, namely, Allahábád, Súrat, Dihlí, Patna, Kashmir, Láhor, Multán, and Tándá : while, besides the former, twenty-eight towns of minor note were permitted to fabricate copper money, viz., Ajmír, Oudh, Attak, Alwar, Badáon, Benáres, Bhakar, Bhara, Patan, Jaunpúr, Jálándhar, Saháranpúr, Sárangpúr,

connexion with Indian weights and measures, has favoured me with the subjoined independent results of his calculations on the general question.

"I am inclined to consider that the weight of the rati may be assumed, perhaps as an extreme proportion, as high as 1.93 grains, and the másha at 15.44 grains, which will give the following return for the gold, silver, and copper coins of Akbar's time :

Aftábí .....	225 grains.
Jalálí .....	187 do
Round muhr .....	169 do
Rupee (silver) .....	177 do
Dám (copper).....	307 do "

The result tabulated in correspondence with these data appears as follows :

1 Rati =	1.93 grains.
8 Ratis = 1 Másha =	15.44 "
4 Máshas = 1 Tánk =	61.76 "
3 Tánk <sup>a</sup> = 1 Tolá =	185.2 "
1.666 Tolás = 1 Dám <sup>b</sup> =	307.4 "
30 Dáms = 1 Ser =	9222.0 "
40 Sers <sup>c</sup> = 1 Man =	368,880.0 "

The relative values of the metals are estimated by Colonel Anderson—

Gold to silver .....	9.4 to 1
Silver to copper .....	70.0 to 1 —E.T.]

‘‘ टङ्क ‘ also ‘ تنكه ‘ gold, money, a particular species of coin.’

‘‘ دام

‘‘ سير (سيڑھ)



Sambhal, Kanauj, Rantanbhor, Hardwár, Hissár, Kálpí, Gwáliár, Gorakhpúr, Kalánor, Lukhnow, Mandau, Nágor, Sirhind, Stálkot and Saronj.<sup>1</sup>

The whole of the discrepancies which we now find in the rupees of various places seem to have arisen out of the disturbances and breaking up of the empire in the reigns succeeding Muhammad Sháh, when numerous mints were established by ministers and by the viceroys of the principal Súbahs who were assuming independence; and the coin was gradually debased as the confusion and exigencies of the time increased. The Maráthí and other Hindú states also established mints of their own, retaining, for form's sake, however, the Emperor's name and superscription, as a titular avowal of Dihlí supremacy.

We may thus trace with tolerable accuracy the causes of the difference in the currencies of our own provinces, and the happy chance which brought those of Madras, Bombay, and Farrukhábád to such close approximation.

The extent to which the irregularities of the mints had proceeded in the turbulent reign of Sháh 'Alam is thus described in the preamble of Regulation XXXV., 1793, the first which treats of mint matters:— 'The principal districts in Bengal, Behar, and Orissa had each a distinct silver currency, consisting either of nineteenth sun Moorshedabadees, or old or counterfeit rupees of various years coined previous or subsequent to the Company's administration.' The circumstance of the date of coinage being inserted on the coin enabled the shroffs<sup>2</sup> to recog-

<sup>1</sup> [As likely to assist those who would desire to trace these names on the original coins, I subjoin an alphabetical list of Akbar's mints in the Persian character, extracted from MSS. of Abú'l-fazl's 'Ayn-i Akbari.'

33 کلانور	23 سرونج	12 بهکر	1 اٹک
34 گوالیار	24 سرهند	13 بهره	2 اجمیر
35 گورکھپور	25 سنہل	14 پٹن	3 احمد آباد
36 لاہور	26 سورت	15 پٹنہ	4 آگرہ
37 لکھنؤ	27 سہارنپور	16 ٹانڈہ	5 الور
38 مٹھرا	28 سیالکوٹ	17 جالندھر	6 الہ باس
39 ملتان	29 قنوج	18 جونپور	7 اودہ
40 منڈو	30 کابل	19 حصار (فیروزہ)	8 اوجین
41 ناگور	31 کالپی	20 دہلی	9 بداون
42 ہردوار	32 کشمیر	21 رنتھپور	10 بنارس
		22 سارنگپور	11 بنگالہ

[E.T.—

<sup>2</sup> صرف parraf, 'a money-changer.'

nize each, and so to apply the battá<sup>1</sup> to which the known debasement of each entitled it: it was rather a convenience therefore to restrict the circulation of one species to one district, although so much deprecated in the Regulation in question. In exchanges from one place to another, there however, might be, as stated, room for much abuse among the money-dealers. The Company resolved to remedy this evil in 1793, by declaring that all rupees coined for the future should bear the impression of the nineteenth year of Sháh 'Alam, and thus, by its adoption at that early period, it has happened that the sikká rupee is the only one of their coins which retains the full value of the original Dihlí rupee at the present day.

The Súrat rupee of the Moghul Emperor was in like manner about the same time adopted as the currency of the Bombay Presidency: it weighed 178.314 grains, and contained 172.4 pure, being thus nearly equal to the Dihlí rupee. By an agreement of the English government with the Nawáb of Súrat, the rupees coined by both were to circulate at par, and they were mutually pledged to preserve its standard. The Nawáb's rupees, however, were soon found to contain 10, 12, and even 15 per cent. of alloy; in consequence of which, the Bombay rupees were melted down and re-coined at Súrat; the coinage of silver in the Bombay mint was suspended for twenty years, and the Súratís alone were seen in circulation. At length, in 1800, the Company ordered the then Súrat rupee to be struck at Bombay, and thenceforth it became fixed at 179 grains weight, 164.74 pure. The muhr was also equalized in weight thereto.<sup>2</sup> Lastly, in 1829, under orders from the Home Government, the currency of the West was equalized with that of Madras, by the adoption of the one hundred and eighty grain rupee and muhr.

The Arcot rupee, according to our Assay Tables, in 1788, still retained one hundred and seventy grains of pure silver, and subsequently, when coined at the mint of Fort St. George, it had a weight of 176.4 grains, or 166.477 grains pure, until the new system was introduced in 1818, and the Madras one hundred and eighty grain rupee was established. From some reason or other, perhaps from commerce between the places, the Chittagong and Dacca currency formerly consisted of Arcot rupees; and they were for some time coined expressly for those districts at the Calcutta and Dacca mints; the average of many of various denominations still circulating in Chittagong agrees closely with the Farrukhábád rupee.

It would be a difficult task to unravel the progress of deterioration of the currency in the Upper Provinces, the more immediate seat of revolutions in the eighteenth century. But one instance may be given,

<sup>1</sup> बट्टा battá, 'difference or rate of exchange.'

<sup>2</sup> Kelly's 'Cambist,' vol. i. p. 94.

in the Najibábád rupee, as an example of the conduct of all the other mints. One hundred specimens of this species of rupee, of different dates, now current in Murádábád, were selected by the Collector of Bijnor for examination, in 1832. It may be observed, *en passant*, that many of the discrepancies in our Tables between coins of one denomination are doubtless owing to the neglect of noting the dates of their fabrication when sent for assay; the knowledge of the variation in value of the coins of various years, as before stated, led to the system of battá early introduced and fostered by the money-changers, to the perplexity of accounts and money transactions, and the nullification of legislative enactments.

The Najibábád mint was established by Najib-ud-daula, the Rohilla chief who exercised so powerful a sway on the fortunes of the last monarchs of Dihlí. The Bareilly and Chandausi mints were also under his control. The rupees struck by him and by Zábita Khán were originally of the Dihlí standard: few of these are now met with, as they are in demand for silver ornaments, etc. From the year 26 of Sháh 'Alam (1784-5) to 43 (1801-2) they evince a gradual deterioration, both in weight and fineness. The province of Rohilkhand was, during the whole of this time, annexed to the Súbah of Oudh, as shewn by the symbol of a rohu<sup>1</sup> fish on the field of the coin. The three first assays in the list are from single coins, the remainder are averages.

*Weight, Assay, and Value of the Najibábád rupee, from A.D. 1778 to 1801-2.*

Inscription, the usual Sháh 'Alam distich, year of reign, and Hijra date. Symbols, a fish on the obverse, a crescent on the reverse.

By whom coined.	San or year of reign.	Weight Troy.	Assay.	Value of 100 in Fd. Rs.
Najib-ud-daula.....	20	173.8	11½ Br.	101 9 8
	22	173.6	13 Br.	102 2 4
	23	172.2	15½ Br.	102 2 6
	24	173.3	12 Br.	101 8 6
Zábita Khán.....	25	172.4	10 Br.	100. 2 0
	26	172.4	9 Br.	99 11 0
	29	171.1	10 Br.	99 6 0
	30	171.0	5½ Br.	97 10 6
Ghulám Kádir .....	32	169.5	8 Br.	97 9 6
	33	170.0	7 Br.	97 7 0
	34	170.2	5½ Br.	96 14 8
	36	170.0	7 Br.	97 10 0
	37 39 40	171.1	5 Br.	97 3 6
	41	169.5	3 Br.	95 7 2
	42	169.3	1 Br.	94 7 9
	43	169.0	Stand.	93 14 3

<sup>1</sup> रोहित, روهو

Thus, in the course of twenty-three years, a deterioration of nine per cent. was effected. So gradual a change, however, should rather be ascribed to the malpractices of the mint officers, than to any fraudulent intention of the government.

The Nawáb-Vazír of Oudh had mints also at Lukhnow, Benáres, and Farrukhábád: in these the same process was going forward, until arrested by the successive acquisitions of the English.

The Benáres mint had been established by Rájá Balwant Singh, under a Sanad<sup>1</sup> from Muhammad Sháh, in 1730. It remained under Native management for twenty years after the province was ceded to the Company in 1775. The rupee had the full weight of one hundred and seventy-five grains, and was  $2\frac{1}{2}$  per cent. better than the present rupee, or about equal to the Dihlí rupee of that date. It fell in value subsequently about four *ánás* per cent., and there, of course, remained under English management until it was abolished in 1819, and the Farrukhábád rupee substituted in its stead.

The Lukhnow rupee struck at the Fatehgarh mint had in like manner gradually diminished to 165.2 grains pure, when the Doáb was ceded to the British in 1802, and when it was assumed as the standard rupee of the new territory<sup>2</sup> under the designation of the Lukhnow forty-fifth *san sikká*, more commonly called the Farrukhábád rupee.

We have thus endeavoured to trace briefly the origin of the three, or rather four, coins chosen for the circulation of the Company's territories, and have explained how it happened fortuitously that the Bombay, the Madras, and the Farrukhábád (or Sonat) rupee are nearly of the same intrinsic value.

	Pure contents.
Arcot rupee .....	165 grains.
Bombay .....	164.7 „
Farrukhábád .....	165.2 „

The alteration of the standard of purity, in 1818, did not affect the proportion of pure metal, but the facility of equalizing the three coins had been observed both in England and in India; and had been the subject of frequent Minutes by the Court, by the Indian Government, by the Mint Committee, and the officers of the mint; and when Sagar mint was established in 1825, it was ordered to coin new Farrukhábád rupees of one hundred and eighty grains weight, the same as the standard of Madras, or containing one hundred and sixty-five grains pure.

The Benáres mint alone continued to coin Farrukhábádis of 180.234 grains until its abolition in 1829: and the Calcutta mint since coined

<sup>1</sup> *sanad*, 'a grant, warrant, charter.'

<sup>2</sup> Reg. XI. 1805.

them of the same weight, until the opportunity was taken finally of equalising the whole by Regulation VII. 1833.

A few words are now necessary to explain the progress of debasement in the coinage of Haidarábád, Nágpúr, Ságar, the Rájput and other states of Central India, as far as the imperfect data at our command will permit: they are chiefly derived from the reports of the government officers in Ajmír, Málwá, and the Narbadda provinces, to queries circulated through the Mint Committee in 1818 and 1823, when the important question of equalising the coinage of Central India was under agitation.

We have before remarked, that none of the coins now forming the circulation of Hindústán bear any other name than that of Sháh 'Alam, and although we have no perfect information of the origin or date of the mints of Puna, Nágpúr, or of the principal states of Rájputána, still we may safely assume that, until the authority of Dillí was annihilated, the representative of the monarch in the various Súbahs, or provinces, alone exercised the privilege of coining: and that even when it was assumed by chieftains already in actual independence, the form of a sanad or permission from the Emperor was obtained by purchase or extortion. The petty Rájá of Dattiah, for instance, was indignant at the supposition that he had opened his mint without authority,<sup>1</sup> and of all the chiefs within Lieut. Moody's agency, Rájá Pratáp Singh of Chatrapúr was the only one who could not produce his authority. The chiefs of Jhánsí and Jálaon cited the sanction of the Peshwá: the Tahrí Rájá, the tacit permission of the English. No notice, however, of mints was found in any of the sanads or treaties to which that officer had access.

When first established, the mints were no doubt in most cases made the source of fraudulent profit to the government, by the issue of a debased coin, which was supported at an enhanced nominal value, through the interdiction of the purer standards of neighbouring districts. A Hindú prince, or the minister who rules for him, is in general a money-dealer; thus at Kotá the executive authority has a shroff in each town, and participates in all the benefits arising out of money operations in the market. In Jaipúr and Kotá there exists an usage that the currency should suffer a depreciation of one per cent. on the third year after its issue, and continue at that rate during the reign of the sovereign: on the accession of his successor, it suffers a further annual fractional depreciation, which operates to bring the whole of the circulating medium into the mint for re-coinage.<sup>2</sup> This rule does

<sup>1</sup> Report of Lieut. T. Moody, agent at Bangál and Kantál, 17th February, 1284.

<sup>2</sup> Major J. Caulfeild, Political Agent in Haroutí, 1st August, 1823.

not, however, extend to the other Rájput states, nor does any debasement appear in the Kotá rupee to warrant a censure of the system there prevailing. It is such a measure as Tantia Sindia's, who abolished the standard Ajmír currency, and instituted the debased Srisáhi rupee in 1815, on a false supposition of increasing his revenue, that is so pernicious in its effects: or the more inexcusable conduct of the Gwáliar government, which, while maintaining the currency of the capital at a good standard, issues inferior coin at its provincial mints of Chándéri, and even coined debased Bálásáhi rupees at Garrah-Kotá, in imitation of the currency of Sagar.<sup>1</sup>

The list of mints which have sprung up in central India is so formidable that it is difficult to attempt any classification of them.

Mr. Wilder, in 1819, enumerates the following rupees current in Ajmír: old Ajmír, Srisáhi, Kishnagarh, Kochanam, Chittor, Jaipúr, Háli, Jodhpúr, Oudipúr, Sháhpúrah, Pratápgarh, Kotá, Búndi, and Bhilwára. Mr. Maddock furnishes an equally long list from the Nabadda: — Panná, Chatrapúr, Saronj, Jhánsi, Chanda, Srínagar, Nág-púr, Garrah-Kotá, Bálásáhi, Ráthgarh, Tahri, Bhopál, Sohágpúr, Sudhauráh, Jálaon, Ujjain, Isagarh. The difficulty is also increased by the threefold appellations given to coins: first from the place of fabrication, as Indor, Ujjain, Sagar proper, etc.; second, from the person issuing them, as Sindiasáhi from Sindia; Bálásáhi, from Báláji Pandit; Gaurasáhi from 'Alí Gaur, afterwards Sháh 'Alam; Mutí-sáhi, a well-known Allahábád coin of Mr. Achmuty; third, from some distinguishing symbol impressed on the field, as Trisúli, from the 'trident' of Siva; Shamshíri, from the figure of a 'sword' on the Haidarábád coin; the Machhlísáhi, and Shírsáhi, from the 'fish' and 'tiger' of the old and new Lukhnow rupee, etc. There are also other titles common to different localities, as Chalan, 'current'; Háli 'of the present time'; and the distinction into Sans, or different years of Sháh 'Alam's reign. It should be remarked that Sháhi and Sáhi attached to the designation of a coin have totally different meanings; the former denoting 'king,' the latter merely 'impress or stamp.'<sup>2</sup>

The following notes concerning the origin of particular mints, and the amount of their issue, are derived, as before stated, from the reports of Messrs. Wellesley, Molony, Wilder, Maddock, Macdonald, Caulfeild, and Moody, between 1819 and 1823.

In Ajmír the Srisáhi rupee, coined by Tantia, formed in 1815 the principal currency; it has been partially supplanted by the Farrukh-

<sup>1</sup> Maddock, 12th June, 1819.

<sup>2</sup> It is, however, doubtful whether the terminal *sáhi* is not a mere vulgar application of *sháhí*, the original distinction of rupees being solely into those of different sovereigns.

ábád rupee since the province came into our possession. In Kotá there are three mints, at Kotá, Jantia Patan, and Gangroun, coining on an average thirty-six lákhs per annum : the currency is not debased.

The Holkar currency of Indor, Hardá, and Maheswar, and the Ujjain rupee, are nearly at par with the Farrukhábad, but they maintain an unequal contest with the Sálimsáhi rupee, coined by the Rájá of Pratápgarh, of which there are three kinds, the jurmurea, 150 grs. pure ; the murmurea, 145 grs. pure, coined in 1810 ; and the melah of 1820, only 137 grs. pure.<sup>1</sup> The Rájá engaged in 1821 to reform his coinage, but it has never been done.

The Búndí debased rupee is also current about Ujjain. It seems by the Assay Table to have been reformed in 1825.

The northern parts of the Narbadda territories were supplied with a base currency struck at Jabalpúr, by Nána Ghatka, in 1800 ; this mint was suppressed on cession to the English. The southern part (Dakhantír) had a rupee of still lower value struck at Sohágpúr, where a mint was established in 1810 ; it was abolished in 1818 by Mr. Molony.

These rupees passed at par with Chanda and Nágpúr rupees, the chief issue of Berár.

The Ságar mint was set up in 1779, by the Peshwá's officer at Garrah Mandlah, and coined about seventeen lákhs of Bálásáhi rupees per annum. Its operation continued under Mr. Maddock, who, to counteract the forgery going on at Garrah, inserted the word 'Sagar' in small English characters on the die. The new Ságar mint, erected in 1824, is now rapidly removing all the old coins from circulation.

The standard of the Maráthí Government of Nágpúr, to which all the neighbouring mints were, doubtless, intended to conform, presents, itself, one of the worst examples of irregularity and depreciation. Even after the establishment of a British Residency, having a nominal control over such matters, a further debasement to the extent of eight per cent. is proved to have been effected, owing to the vicious policy of farming the mint to a native contractor for an annual sum of 35,000 rupees.

In the Haidarábád country, the government of the Nizám, or of his Hindú minister, has not been behind hand with its Maráthí rivals in the adulteration of the local currency. The weight of the rupee (174 grains) shews its original agreement with the Dihlí standard, but the pure metal is gone down to 147 grains ; and by way of introducing greater confusion and vexation, there is a superior currency for the Palace and the Residency, an inferior for the city, and a hukm chalaní,

<sup>1</sup> A. Macdonald, 13th August, 1823.

or forced token, the precise nature of which is dubious; the worst species are struck at Nārāyanpat.

In Bandalkhand, the circulation consisted chiefly of Bálá Ráo's rupee, struck at Srinagar, near Panná. This mint issued at the time of its institution, in 1794, about eighteen lákhs per annum; but after 1819, the coinage fell to four lákhs. The same prince set up a mint at Jálaon, his capital, in 1809: its issue was, at first, six lákhs, and is now diminished to one-third of that amount.

The Hansí mint of Ráo Rám Chand dates from 1780: it issued three lákhs. Kuár Pratáp Singh's at Chatrapúr dates from 1816. It is said that Chatra Sál used formerly to coin there.

The mints of Panná (1780) and Samter (of 1808) were on a most insignificant scale, and have been put down. The Dattiah mint, already mentioned, dates from 1784.

With a view to the reform, in part, of this complicated system, of which a few points only have been brought to view, the Government resolved on the 10th September, 1824, to abolish the Panná, Hansí, Jálaon, Urcha, and Chatrapúr mints, and to effect a reform of that of Pratápgarh; the order was enforced in December, 1826. The Bhopál Nawáb also engaged to equalize his rupee with that of Indor and Ujjain, and to abolish the Bálásáhi mint. It was thought too great a step to attempt a restoration of the Nágpúr and Haidarábád currencies; and as the silver in them averaged 144 grains, while that of our rupee was 165, it was proposed to engage the Nágpúr Rájá to coin fourteen-áná pieces; and the Nabadda Commissioner was empowered to do the same for Jabalpur and Sagar: but he had already made an arrangement,<sup>1</sup> which, while it relieved the ryots, served to introduce the new sixteen-áná rupee with facility: this was to receive, for all settlements made in the local currency, 100 Farrukhabád rupees for every 120 Nágpúris<sup>2</sup>; their intrinsic equivalent being 118½. Were the same principle acted upon in the Nágpúr and Haidarábád states, there could be no difficulty in accomplishing the object so much desired. As for the numerous tributary and subsidiary states, there could be no injustice in refusing them the privilege, which is of little profit, and which is in general a modern usurpation on their parts: at any rate they might be obliged to conform to the universal standard. 'We are too apt,' says Mr. H. Mackenzie, 'to let the mere exemption from the printed code be taken as an exemption from all law, and to deny to a large portion of India the benefits it would derive from the just discharge of the duties belonging to the paramount power.'<sup>3</sup>

<sup>1</sup> Maddock, 3rd February, 1827.

<sup>2</sup> The same rate is used in paying the Bombay troops at Aurangábád, in the Govind Bakhsh, or Haidarábád currency.

<sup>3</sup> Mint Committee Records, September, 1824.



The standard of Panná, under the Peshwá, was called the *Ankus* rupee, from *ánkus*,<sup>1</sup> the instrument used by the mahout to guide the elephant; probably a symbol marked on the coin. This rupee appears from Kelly's tables to have been extensively adopted as an unit in the estimation of value and weight, probably wherever the Maráthí ascendancy prevailed. It is current through the Dakhan and the Konkan. The Chanda rupee of Khándish circulates at par with it. In Gujarát there are several denominations of rupees, but the principal is the *Bálásáhi*, coined at Baroda.

It is not necessary to allude to the *Patiyálá*, *Bhartpúr*, *Díg*, and many other rupees, the names of which denote their origin and their place in the General Table. Still less need we advert to the *Korá*, *Allahábád*, *Agra*, *Saháranpúr*, *Barellí*, *Kálpí*, *Atáwi*, *Mathurá*, *Pánipat*, and other rupees, which belong more immediately to the *Dihlí* group, coined only on particular occasions or for short periods, and the mints of which have long since disappeared from our list.

There are, however, to the eastward in Assam a distinct class of coins bearing, in a Bengálí inscription, the name of the *Rájás* of that province, since the time of *Rájá Rudra Singh*. They present an example of good faith in these rude people, being in weight and purity equal to the former *Arcoot* rupee of *Dacca*, and some degree better than the present *Farrukhábád* rupee.

The circulating medium of *Nepál* is also essentially *Hindú*, and of such interest on that account, that we gladly avail ourselves of the permission to insert an account of the coinage of that state, drawn up by Doctor J. M. Bramley, in 1831.

#### COINAGE OF NEPÁL.

"The conquest of *Nepál* by the *Goorkhas* took place in the *Newar* year 888, corresponding with A.D. 1768. Prior to this epoch, the valley of *Kathmandu* was divided into three sovereignties, *Patan*, *Bhatgaon*, and *Kathmandu*, each governed by a *Rájá*: hence on the *Newar* coins the three series of *Rájás'* names are found. Those of *Bhatgaon* are generally (though not always) distinguished by a shell, those of *Patan* by a *tirsool*, and those of *Kathmandu* by a sword.

"It was formerly the custom for all money current north of the valley of *Nepál*, so far as the boundaries of Chinese Tartary, to be coined by one or more of the *Nepál Rájás*, which was a source of considerable profit to them: the *Bhoteahs* giving them weight for weight in silver and gold dust; but this was discontinued during the reign of

Ranjit Mal, the last reigning Rájá of Bhatgaon, who sent them such base coins as to occasion a decrease of nearly one-half of their intrinsic value, which was no sooner discovered by the Bhoteahs than a desertion of the mint took place, and there has been no more Bhote coinage made in Nepál.<sup>1</sup> The amount contracted for on this occasion was ten lákhs of silver mohurs, exactly similar to those current in Nepál. The Bhoteahs, who now visit Nepál for trade, profit by this spurious coin, which they take in exchange for their goods at five gandas per muhr, and they pass off in their own country as of full value, or ten gandas. As the Bhoteahs have no other currency, they are compelled to cut them into halves, quarters, and eighths. They are the only coin current in Lassa.

"The old coins of the 'Mals,' or Newar Rájás, are much valued for their purity, and are worn by the women, strung to necklaces or armlets, as tokens in memory of their ancestors.

"Since the Goorkha conquest, the Vikrama era has superseded that of Newar for ordinary purposes; and the Sáká, commonly used in Hindústán, has been introduced upon the coins. Rájá Pritinaraín is the first Goorkha sovereign, from whose accession a regular series may easily be obtained. The inscriptions on the present prince's coins are *Sri Sri Sri Rájendra Vikrama Sah Deva*, 1738; and on the reverse, *Sri Sri Sri Gorakhnáth Sri Bhavaní*.

"The gold and silver coins have the same names and divisions differing only slightly in weight.

Takka.		Mohur.		Sooka.		Annee.		Pysa.		Dam.
1	=	2	=	4	=	16	=	80	=	400
		1	=	2	=	8	=	40	=	200
				1	=	4	=	20	=	100
						1	=	5	=	25
								1	=	5

"The mohur or eight-anna piece is the principal coin in use: it weighs 87 grains, and is therefore evidently identical with the Muhammadan half-rupee, but the quality of the metal has been much adulterated.

"The Nepálese procure all their silver from China, in the form of stamped lumps, as they are current in Lassa: for the Tibetans generally follow the Chinese custom in their money transactions of paying and receiving by weight, and the merchants carry scales with them for the purpose."

There are a few specimens, however, among Dr. Bramley's collection

<sup>1</sup> Mr. Csoma de Kőrös states that the English rupee circulates freely through Western Tibet.

of a Tibetan silver coinage struck at Lassa, having an inscription in both Chinese and Tibetan characters. Mr. Csoma de Kőrös interprets the purport of the Tibetan legend on one of these to be *G'tsang pahu*, 'pure piece;' or, as 'G'tsang' is the name of a large province in Tibet, lying next to Nepál, it may mean 'Tsang money.' It likewise bears a name, variable on different specimens, of former Emperors of China, B'chah-H'chhin and Chhan-lung. Besides this, in letters also, the date (25, 59, 60, etc.) of the Tibetan or Chinese cycle of sixty years.

The common Chinese brass money, with a square hole in the centre, is likewise current in Lassa, as generally through the whole of the Chinese empire.

Although not quite relevant to the subject of Indian coin, still, as Chinese silver forms so considerable a portion of the bullion importation of Calcutta, we may be permitted to insert a brief account of the Chinese system, from that useful compendium, the 'Companion to the Anglo-Chinese Kalendar,' for 1832.

## CHINESE CURRENCY.

Sycee silver, in Chinese 'Wan-yin,' is the only approach to a silver currency among the Chinese. In it the government taxes and duties, and the salaries of officers, are paid; and it is also current among merchants in general. The term Sycee is derived from two Chinese words, *Se-sze*, 'fine floss silk,' which expression is synonymous with the signification of the term 'Wan.' This silver is formed into ingots (by the Chinese called shoes'), which are stamped with the mark of the office that issues them, and the date of their issue. The ingots are of various weights, but most commonly of ten taels each.

Sycee silver is divided into several classes, according to its fineness and freedom from alloy: the kinds most current at Canton are the five following:—

1st. Kwan-heang, 'the Hoppo's duties,' or the silver which is forwarded to the imperial treasury at Peking. This is ninety-seven to ninety-nine touch. On all the imperial duties, a certain per-centage is levied for the purpose of turning them into Sycee of this high standard, and of conveying them to Peking without any loss in the full amount. The Hoppo, however, in all probability increases the per-centage far above what is requisite, that he may be enabled to retain the remainder for himself and his dependants.

2nd. Fan-koo or Fan-foo, 'the treasurer's receipts,' or that in which the land-tax is paid. This is also of a high standard, but inferior to that of the Hoppo's duties, and being intended for use in the

<sup>1</sup> By the natives of India  *khuri*, or 'hoofs.'

province, not for conveyance to Peking, no per-centage is levied on the taxes for it.

3rd. Yuenpaou or Une-po, literally 'chief in value.' This kind is usually imported from Soochow, in large pieces of 50 taels each. It does not appear to belong to any particular government tax.

4th. Yen or Eem-heang, 'salt duties.' It is difficult to account for these being of so low a standard, the salt trade being entirely a government monopoly. This class is superior only to

5th. Mut-tae or Wuh-tae, the name of which, signifying 'uncleansed or unpurified,' designates it as the worst of all. It is seldom used, except for the purpose of plating, or rather washing, baser metals.

The tael of Sycee in the East India Company's accounts is reckoned at 6s. 8d. sterling. When assayed in London, this metal is frequently found to contain a small admixture of gold. Mercantile account sales give the following average out-turn of China bullion remittances to London, Calcutta, and Bombay; that

100 taels of Sycee yield { £ 316., at 5s. an oz. (including  $1\frac{1}{2}$  per cent. for gold.  
 { 3078 sikká. Rs., or with charges 3062 Rs., at Calcutta.  
 { 3335 Bombay Rs., or „ 3302 Rs., at Bombay.

#### AVA SPECIE.

The Burmese, it is well known, have no coined money, but, like the Chinese, make their payments in the precious metals by weight. Like the latter nation, also, they make use of decimal divisions in estimating the value or purity of gold and silver, and their systems of weights and measure follow the same convenient scale. We are indebted to Major Burney, Resident at Ava, for the following particulars:

Vis, T'ikal, and Moo are the general terms used in the transactions of commerce and accounts: their subdivisions and multiples are—

1 pe or be.

2 = 1 moo.

$2\frac{1}{2}$  = 1 mat.

5 = 2 = 1 hkwe.

10 = 4 = 2 = 1 kyat or tikal.

1000 = 400 = 200 = 100 = 1 peiktha or vissom.

(100 tikals are precisely equal to 140 tolas).

The expressions employed by the goldsmiths in declaring the quality of bullion require a knowledge of the Burmese numerals, and a few other words:

NUMERALS.		METALS.	ASSAY TERMS.
1. Ta.	6. Khyouk.	Shwe, gold. (Shwenee, red	Det, better or above.
2. Nheet.	7. Khwon.	or pure gold.)	Mee, differing $\times$ or $-$ .
3. Thoun.	8. Sheet.	Ngwe, silver.	Meedet, better in assay.
4. Le.	9. Ko.	Ge or khe, lead or alloy.	Mee shyouk, worse ditto.
5. Nga.	10. Tshay.	Nee, copper. Byoo, tin.	Ma, adulterated.

The usual weight of the small lumps of silver current in the place of coin is from twenty to thirty tikals (thirty or forty tolás): they bear a variety of names from their quality and appearance, the figures given by the action of the fire upon a thick brown coating of glaze (of the oxydes of lead and antimony) answering, in some degree, the purpose of a die impression.

*Ban*<sup>1</sup> signifies 'pure' or 'touch,' and is the purest obtainable of the Burmese process of refinement.

*Kharoobat*, 'shelly' or 'spiral circled,' is applied to a silver cake, with marks upon its surface, produced by the crystallization of the lead scoria in the process of refinement: it is supposed to denote a particular fineness, which, by Burmese law, ought to be ten-ninths yowetnee in value, i.e., nine tikals of kharoobat pass for ten of yowetnee silver; or it should contain nineteen and a quarter ban and three-quarters copper.

*Yowetnee*, 'red-leaved' flower or star, silver, is so named from the starry appearance of the melted litharge on its surface. Yowet is a corruption of *rowek*, 'leaf,' and the word is sometimes written by Europeans rowanee, rouni, roughanee, etc. Yowetnee is the government standard of Ava, and contains by law eighty-five ban and fifteen alloy per cent. Taking it at nine-tenths of purity of kharoobat, which last is 94.6 touch, its quality will be 85.2 fine; which closely accords with the legal value. The average of 60,000 tolás of yowetnee in the late Ava remittance turned out two dwts. worse (90.8), but there was a loss of more than one per cent. in melting, from the exterior scoria.

*Dain*, the most common form of bullion met with in circulation, is so called from an assessment, levied during the late king's reign, upon villages and houses: *dain* signifying 'a stage,' or distance of two miles. These cakes also weigh from twenty to thirty tikals each. Their prescribed legal quality is ten per cent. better than yowetnee, which puts this species of silver on a par with kharoobat. In practice, however, the quality varies from one to ten per cent. better (five Br. to thirteen and a half Wo.) than Calcutta standard. The average of fifty-two lákhs of dain turned out three pennyweights Br.

There is an adulterated dain silver, stated by Major Burney to be similar in quality to yowetnee, but in reality much worse (forty-two and a half pennyweights worse) lately introduced and extensively circulated: it is made by admixture of lead, and is called Ma-dain.

The following will serve as examples of the mode of evaluating bullion:

<sup>1</sup> This word is synonymous with the 'Bani' of the 'Ayin-i Akbari': Banwari is the Indian name of the touch needles used in roughly valuing the precious metals.

Dain, ko-moo-det, is Dain nine per cent. better. (See previous explanation.)

„ nga-moo-det, „ five per cent. better.

Yowetnee, „ standard. (Eighty-five touch.)

„ Kyat-ge, or ta-tshay-ge, one tikal or tenth of alloy (meaning one-tenth weight of alloy added to standard).

„ Kyouk-tshay nga-kyat-ge, six tens five tikal alloy (meaning sixty-five per cent. of alloy added).

„ gyan, half yowetnee (and half alloy).

**GOLD.** The purity of gold is expressed by moos or 'tenths' only: ten moos, 'tshay moo,' (one hundred touch) being esteemed pure gold.

'King's gold,' or standard, is called Ka-moo-ta pe-le-yowe (nine moos, one pc, four seeds), or nine and three-quarter moos fine.

'Merchants' gold' is Ko-moo-ta-be, nine and a half moos fine. Gold muhrs are called eight and a half moos fine by the Ava assayers.

The out-turn of the Ava specimens will be given as an Appendix to the General Table.

Having now adverted to most of the groups and denominations of money, which are comprised in the following tables, it remains merely to explain the sources whence the materials for them have been collected. For the coins of the West of India, Mr. Noton's table, published at Bombay, in 1821, has been consulted, and, for India generally, the table published in Kelly's 'Cambist,' from the assays of Mr. Bingley, at the Royal Mint; but the principal portion is derived from the table printed, but not published, by Mr. H. H. Wilson, Assay Master at Calcutta, in 1833, from his own assays: indeed, almost all the coins inserted in the table have been frequently assayed, and generally in large parcels, at the Calcutta, Benáres, and Ságar mints.

As Mr. Wilson's table gives the value in sikká rupees (of 191.916 grains troy), it has been necessary to recalculate the whole column of produce, which now, in the Silver Table, expresses the value of one hundred of each species of coin in the general standard British rupee of one hundred and eighty grains. To find their value in sikká rupees (of one hundred and ninety-two grains) it is only requisite to divide the Farrukhábád value by sixteen, and deduct the product, as explained in page 7.

The weight and pure contents are expressed in troy grains. The standard or assay is given both according to the decimal system and in the usual terms of assaying; viz., in carats, grains, and quarters, for gold,—and in pennyweights and halves for silver,—better or worse than the standard of the Company's coins, namely, eleven ounces fine and one ounce alloy.

The silver pound is divided into twelve ounces, or two hundred and forty pennyweights, or four hundred and eighty halves.

The gold pound into twenty-four carats, or ninety-six carat grains, or 384 quarters.

The 'intrinsic value' of the coins is the relative value of their pure metal, as compared with the pure contents of the gold muhr and the rupee. The mint price is two per cent. less, besides the charge for refining, according to the quality of metal, as stated in pages 9 and 12.

To find the value of any number of rupees, follow the rule before laid down; namely, multiply by the figures in the column of produce and divide by one hundred. For gold coins, if required in rupees, multiply further by the Regulation value, sixteen for the Calcutta, or fifteen for the Madras muhr; or if the bazar price be wanted, by the bazar price of the gold muhr for the time being. The decimal parts of the muhr and rupee may be converted into *ánás* and *pá'ís* by the Table, page 12.

It should be remarked, that the following tables are not intended as an authoritative list of the rates at which the various coins are received by Government, but solely to shew their average intrinsic produce when brought to the mint as bullion to be converted into Farrukhabád rupees. Particular rules have been at different times promulgated, fixing the exchange at which military and other payments were to be made, and revenue to be received, in different currencies.

Such was the list published in Regulation III., 1806, which is now obsolete, being inconvenient in application, from its specifying the value by weight, and not by tale.

The following rules are still in force at the Government treasuries of the Bengal Presidency: the first has reference to the old current rupee of account, of which one hundred and sixteen were equal to one hundred *sikkás*: this imaginary money is now disused, except in the valuation of some few articles of the English market in the price current.

In the payment of troops and others connected with the Military Department,

111 *sikká* rupees, = 116 Sonát or Farrukhabád rupees.

325 " = 350 Madras and Bombay rupees.

In payments to others not in the military service,

100 *sikká* rupees, = 104½ Farrukhabád or Sonát rupees.

The established rates of battá on local currencies, fixed for the guidance of revenue officers, are as follows:

Benáres and Gaursháhi rupees, at par with Farrukhabádis.

104 Bareilly rupees, = 100 Farrukh. Rs. under Gov. Orders, 1st July, 1833

103½ Old Farrukhabád, = 100 " " " 29th Jan. 1833

103½ Dihli, 38th san, = 100 " " " "

101 Muhammadsháhi, = 100 " " " "

101 Old Lukhnow, = 100 " " " "

106 Najibábád, = 100 " " " 1st July, 1833

106 Chandausi, = 100 " " " "

120	Chanda rupees,	= 100 Farrukh. Rs. ....	Under Government
120	Nágpúr Rs. viz.	$\left\{ \begin{array}{l} \text{Mehrá,} \\ \text{Nishandár,} \\ \text{Dobúndyá,} \\ \text{Jabrá,} \\ \text{Manjhúla, 7 san,} \\ \text{Chhapá,} \\ \text{Old Biná-san,} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{= 100 do.} \\ \text{Orders, 19th August,} \\ \text{1833. The receipt of} \\ \text{these coins at this rate,} \\ \text{however, is limited to} \\ \text{the public treasuries in} \\ \text{the Baitál, Seoni, and} \\ \text{Hoshangábád districts.} \end{array} \right\}$
120	Jabalpúr rupees,	= 100 Fd. rs. ....	
100	Arkát rupees,	= 88½ sikká rupees, ....	$\left\{ \begin{array}{l} \text{For Chittagong and} \\ \text{Balláh, 22nd Jan.,} \\ \text{1833.} \end{array} \right\}$
120	Haidarábád rupees,	= 100 Bombay rupees, for payment of troops, etc.	
100	„	= 83 r. 14 a. 3 p. sikká, ...	$\left\{ \begin{array}{l} \text{For adjustment of} \\ \text{accounts of Haidarábád} \\ \text{Residency.} \end{array} \right\}$
100	The Ikkerí, Bhol, Bholpádi, Baháduri, and Farrukhí pagodas are taken at 387.2 Ankusí rupees at the Púna treasury. <sup>1</sup>		
100	Gaddopádi, Tadak, Kadvanajá, Hálí, Modápadi, and Bangalore pagodas, at 375 Ankusí rupees.		
100	Muhammadsháhi and Venkatapati, at 337.2 ditto.		
100	Rájáram Ikkeri pagodas,	= 381 „	
100	Bhatorí .....	= 325 „	
100	Tomanecín .....	= 203 „	
100	Harpanhálí .....	= 343.3 „	

## NATIVE COPPER COINS.

Our information regarding the copper coin in circulation throughout Central India is very limited, but it is well known that as much perplexity exists in the varieties of paisá, and in the greater range of their value, as in the coins of the more precious metals; so that every town and village almost has its separate currency, and its established nirkh,<sup>2</sup> or, rate of exchange, with the rupee, to the great inconvenience of the traveller and of the poorer classes. In weight they vary from 280 grains (the Jaipurí, etc.) to 34 grains (the Maiwári): the former passing at about 35, the latter at 378, paisá for a rupee. From the small advantage of melting up copper money, it happens that much of the circulation in this metal is of very great antiquity; and not only many ancient Hindú coins are met with, but Bactrian and Roman copper coins are also frequently procurable at fairs and in the neighbourhood of old towns in Upper India.

The paisá was in some cases adopted as the unit for determining the larger weights of the bázárs, as the Gorakhpúr paisá, of which 530 were held equal to a passeri<sup>3</sup> (five sers) at Gházípur, and generally through the Benáres province. 2881 'chalans'<sup>4</sup> of Fatehgarh in like

<sup>1</sup> Noton's table, 4th Aug., 1821. He states, however, that the rates may have varied since 1812, when they were established.

<sup>2</sup> P. نرخ

<sup>3</sup> پانچ سیر

<sup>4</sup> س. चलन