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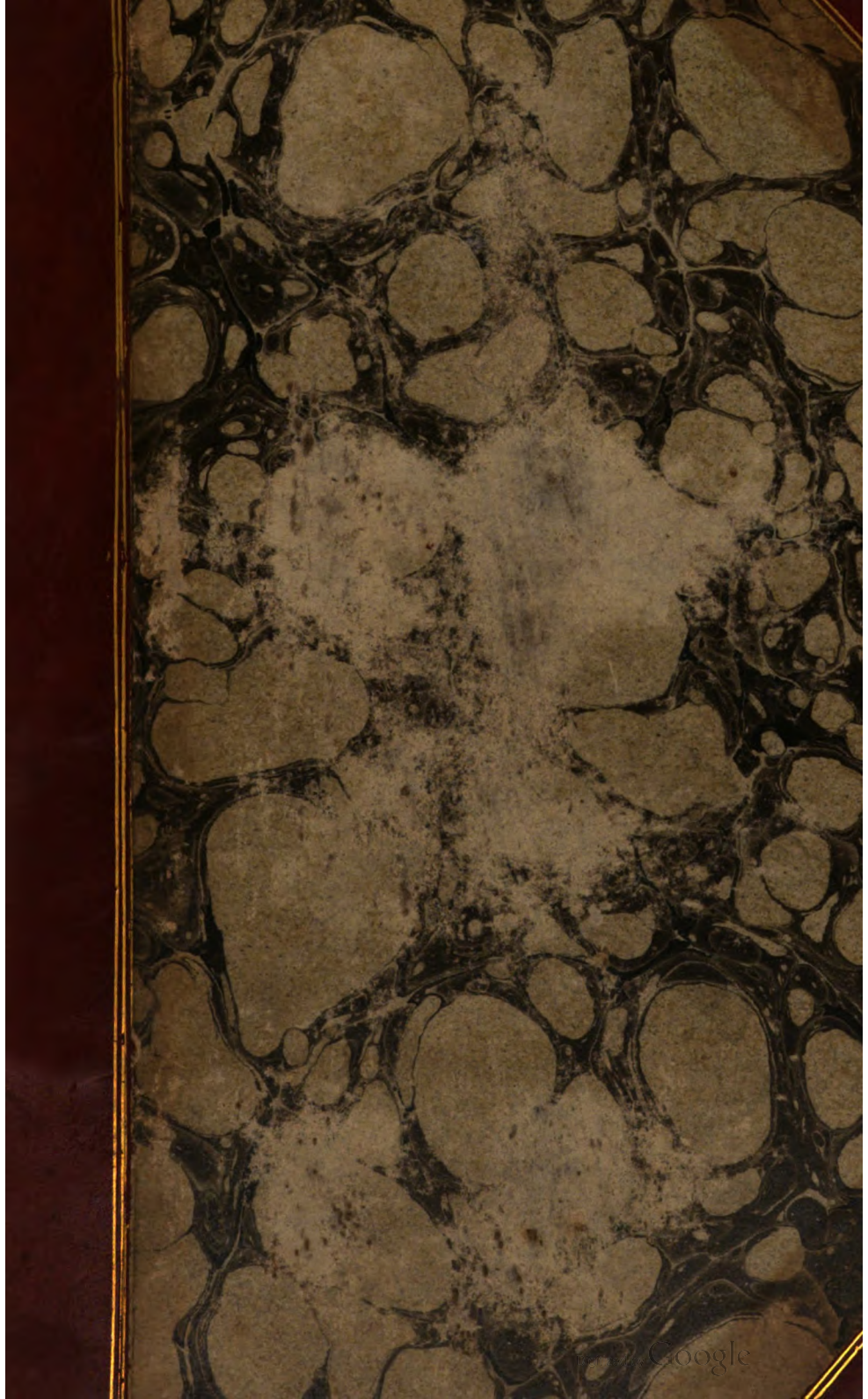
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THE JOURNAL

OF THE

ASIATIC SOCIETY

OF

BENGAL.

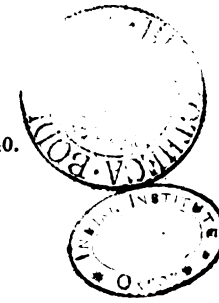
EDITED

BY THE SECRETARY.

VOL. IX.

PART II.—JULY TO DECEMBER, 1840.

NEW SERIES.



"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science, in different parts of Asia will commit their observations to writing, and send them to the Asiatic Society in Calcutta; it will languish, if such communications shall be long intermitted; and will die away if they shall entirely cease."—Sir Wm. Jones.

CALCUTTA:

BISHOP'S COLLEGE PRESS.

1840.

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JOURNAL

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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.[1]

Character of the Alphabet.

The rule for reading the Alphabet is the Semitic, and this fact is the more remarkable, as the Indian characters of the immediate neighbourhood, as well as those occurring upon Greek coins, coeval with the most ancient coins on which the Cabulian characters occur, have never assumed this direction in all the varieties which the Indian alphabet has gone through within India and out of its confines.

The arrow-headed inscriptions too have the same direction with the Indian, and though at least one variety of them does not express the a, following consonants, yet it has not, as the characters of the coins have, signs of the shortened vowels i and u.

On the other hand, there is evidently in the legends a certain approximation to the Indian system of vowel-writing, not especially by the fact, that i and perhaps also u, even when short, are not denoted by marks on the consonants, nor by the other similarity, that they are not represented, even when long (with u however this is mere conjecture) by the corresponding quiescent semivowels j and v; for the first may occur in

[1] Continued from p. 488. vol. ix.

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Semitic alphabets, the latter may be omitted in them, especially if they be applied to a foreign language; but this approximation of the vowel system is made remarkable by the peculiarity, that a is not treated in the same manner with i, but is considered inherent as in Indian languages. Whenever any Semitic language expresses the short vowels by smaller signs, it does so with a as well as with i and u: whenever it denotes the long vowels by quiescent consonants, similar to vowels, it applies for this purpose א as well as י and ו. But all Indian alphabets represent, as our coins do, A, I, U, by their own signs only as initials to syllables, but never A, when following a consonant, and the other vowels only by abbreviations.

The diphthongs, at least ô, do not follow the Indian system, according to which ते तै *te, tai,* तो, *to,* as well as तु *tu,* are written by abbreviated signs, they do not follow a Semitic system; but the diphthongs are placed in the line with the other letters, and ô has in the writing no reference to u; ê has it not to ee; while instances of the uncontracted diphthongs *di* and *du* are wanting. The instance of Eukratides can decide nothing as to the system of orthography peculiar to the language.

As the diphthongs are written in this language, so were all the vowels in Zend; but that language distinguishes between long and short vowels, though the former are but amplifications of the latter.

Now supposing that the characters on the coins were a Semitic alphabet applied to an Indo-Iranian dialect, the shapes of the consonants, and the initial vowels, might be considered as of Semitic origin, the principle for the medial vowels would have been borrowed from the Indian system of orthography, while an independent principle was invented for the diphthongs; and if the orthography of the Zendic language were likewise of Semitic origin, the principle adopted on the legends for only ô, (and ê) would have been extended in this language to all vowels.

This conjecture embraces the postulate, that at the period when the characters on the coins were introduced, the Indian alphabet had already completed the system upon which its peculiar mode of representing the vowels is founded.

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This supposition may, I think, be proved correct.

Let us first of all dismiss any consideration of the Semitic origin of both alphabets, and look to the reference they have one to another. If in the one, the system of vowels be of Indian origin, and in the other original (and peculiar to the language,) as above supposed, there can be no point of comparison. But with regard to the diphthong ô, it is worth remarking, that 𐬉, ô, has the form 𐬊 on later coins, but slightly differing from 𐬋, and hence it would appear as if the Zendic alphabet had borrowed this ô from the alphabet on the coins. This, however, does not hold good with ê.

By comparing the consonants, we find resemblances perhaps only between r and w, (not v, of the Zend alphabet), and n, in which, however, the similarity is very obvious, though we in fact are comparing two extreme points only, viz. the characters on the coins in their most ancient form, and the Zendic character of wholly modern manuscripts. With other letters we only require a common medium of comparison to ascertain their relation, as for instance with m, dh, and others.

I do not propose to carry this comparison further, which to afford satisfactory evidence, would require us to obtain in the first instance the characters of the coins in their latest shapes; and would also necessitate us to point out in the Zendic alphabet, what characters were subjected to a change of shape, to which the nasals are especially liable. Lastly, it would not be sufficient to confine our comparison to these two alphabets; all other alphabets must be similarly considered, which in a geographical and historical point of view are included in the same circle as these, viz. the Pehlvi characters of the books of the Parsees, so intimately connected with the Zendic character, as well as the various characters of the Sassanian monuments. All of them are closely connected, first, in a geographical point of view, as they are the native tongues in the countries west of the Indus, and east of the Euphrates, viz., in Iran, probably so called; and secondly, in an historical point of view, as they came into use in the period intervening between Alexander the Great and the invasion of the Mahomedans.

Without at all deciding on the time when the Zendic

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works were first composed, it is certainly evident, that the characters of the coins, appearing before the dominion of the Sassanians, were the most ancient of the alphabets of Central Iran.

The characters on the coins are therefore of special importance with regard to their relations to Semitic alphabets, before proposed as a mere conjecture, and if we do consider that it was during the dominion of the Seleucides, and their successors, in use in Bactria and Parthia, we must look for the model upon which they are formed, in the capitals of the Seleucidian power, if their origin from the west be admitted. The comparison must consequently specially include all that may be most likely to afford us an idea of the Syrian alphabet, as it was in use under the Seleucides, such as the inscriptions of Palmyra, though the most ancient of them is nearly a century and a half later than the characters on the coins.

These conjectures pretend to no more authority than is implied in them as mere suggestions, and they must not hinder us from determining more exactly the alphabet on the coins in a geographical and chronological point of view.

Its geographical limits are connected with the extent of the Greco-Bactrian and Indo-Scythian power southward from the Indian Caucasus. None of the Greek kings who reigned in Bactria only has made use of this alphabet on his coins, and even of those who have adopted them, *Eukratides* perhaps alone possessed territories in Bactria, as well as southward from the Caucasus.

To this we must add the following: the Kanerkis, who, while passing towards India, must have lingered longer in Bactria than other Scythians, because they appropriated to themselves in preference Bactro-Persian gods, have, like the Greek purely Bactrian kings, never adopted this alphabet.

This being so, we cannot help supposing, that the characters of the coins were not indigenous to Bactria, that is to say, that they existed to the south only, and not to the north of the Caucasus.*

* A short inscription, a word from Bamian, which Mr. Masson had read according to their alphabet, is quite uncertain, As. T. v. 188.

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They are discovered to the east in topes, near Jelalabad, and between the Indus and Hydaspes in Manikyâla, but further eastward than this, they have not been met with. We also do not know yet whether they extend to Kandahar, in a more westerly direction. To the north of the Cabul river those characters are met with in Kapurdigarhi, in the ancient Peukelaotis. As. Trans. v. Pl. XXVIII.

As the matter therefore rests at present, we may assert, that these characters were geographically limited to the country about the Cabul river, and we will term the characters on the coins THE CABULIAN ALPHABET.

Menandros, or Eukratides, is the first who made use of the alphabet. That we may not pretend to fix the time more exactly than the facts admit, we shall assign their first occurrence to the years 180—170 (B. C.) It existed in use, as has been already noticed, till within the Sassanian era, and is therefore coeval with the character found further west on the monuments and coins of the Sassanides.

The latest occurrence of these characters is perhaps found in the report of Hiuan Thsang, when he says, that in *Thsaokiutho* other characters than the Indian were in use; now there, in the country to which our alphabet was indigenous, about the Panjhir, a tributary of the Cabul, it appears hardly possible to allude to any other characters than to these.

But it was, on the other hand, also cotemporary with the Indian alphabet, which appears as early upon the coins of Agathokles and Pantaleon, and proves entirely different, both by its opposite mode of writing and by the shape of its characters. This Indian alphabet occurs immediately before this date on the columns of Azôka (260—219. B. C.)* and continues under the Indian kings of the Maurja dynasty.† As now the empire of Azôka extended to the Indian Caucasus (I shall hereafter recur to this) and as it would appear preposterous that he should have introduced an alphabet foreign to him upon the *stupas* which he is said to have built there,‡ as on the contrary the

* Zeitschrift fuer die Kunde des Morgenlander, As. Trans. VI. 791.

† As. Trans. VI. 678.

‡ Foe K. p. 395.

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Cabulian characters on the coins disappear in western India, together with the dominion of the foreigners, the following conclusions seem still to result. First, the Cabulian characters on the coins occur in the Punjab, not because a native alphabet was unknown there, but in consequence of the foreign dominion, which transplanted thither from Cabul, carried on its coins along with it, to the east, its peculiar characters. Secondly, it is doubtful, whether the dominion of the foreigners descending from the Caucasus, found in western Cabulistan, this alphabet alone in use, or employed in common with an Indian one. To us it appears probable, from the foregoing remarks, that these foreigners did not import the alphabet with them from Bactria. At the very place where the intercourse of trade brought into contact the east and the west, India and Iran, it was most easily possible that an alphabet, introduced from the west, such as we must admit the alphabet on the coins on our previous investigation to be, may have been in use in common with Indian letters, unless we be disposed to attribute to the Paropamisades the invention of an alphabet of their own. Whether there were indeed an Indian alphabet there, we shall not question; the coins of Agathokles and Pantaleon, however, prove, that an Indian alphabet, if not in western Cabulistan, prevailed at least more to the eastward; had this not been the case, why should they have used Indian characters? But these characters disappear with those kings, and retreat proportionately with the extension of the dominion of Menandros to the eastward.

I do not here extend these remarks, as the era and the abode of Agathokles and Pantaleon are still uncertain; I shall only add, that I can place them neither with Mr. Raoul-Rochette in Bactria at the head of all those princes, nor with Mr. K. O Mueller remove them to India Proper.

But the following fact will prove, how correct it is to consider the characters on the coins as foreign to India. Upon the ancient Buddhist coins, discovered* in the ruins of the town Behat on the banks of the Jumna, there occurs the title טוראנ

* As. Trans. III. 227.

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Mahárájó, in Cabulian characters, and on the reverse the same words in the old Indian characters of the Agathokles coins, and the Azôka columns.* By this fact it is quite evident, that the Cabulian alphabet on the coins was not in use in India Proper, and this at the period when the most ancient form of the Devanagari, which we as yet know, was still prevailing. Those Buddhist kings whom we otherwise do not know, must have employed the Cabulian characters only for the use of their subjects on the banks of the Indus.

It does not follow from the foregoing remarks, that the characters are not more ancient than the coins upon which they occur. If no coins were previously struck there, the characters could not indeed be used for numismatic purposes, but they would be in the transactions of other business. When Pânini (IV. I. 49) informs us, that by the affix *ani* to the word *Javana*, the writing peculiar to this nation *Javanani* यवनानां लिपिः यवनानी is represented, he perhaps points at the Cabulian alphabet. According to Indian tradition, Pânini is placed immediately before Chandragupta, (therefore during the reign of Alexander the Great); it is more certain, however, that his native country was the ancient Gandhara, where he would be certainly enabled to become familiar with the characters of the *Javanas* of that country.

I have taken it for granted in the course of the preceding remarks, that the Indians were already possessed of an alphabet of their own, at the period when the Greek kings first extended their dominion to the south of the Caucasus; some of my inferences are mainly founded upon this view.

* I owe this important fact to communications Mr. Prinsep made me by letter. The proper names are not yet read, as far as I know, upon the coins of this kind, with duplicate legends; those that are read, are only in old Indian characters and Indian. As. Trans. VI. 464. As those others are ancient, I presume, that on these very coins, monuments of the dynasty of the Buddhist Khanishka will be brought to light; for he must have reigned a short time before or after the commencement of our era; he ruled Gandhara, Kazmira, and the country Keenaputi 500 lis to the eastward from Vipâzâ, (Foe K. p. 381). This lies in the nearest neighbourhood of Behat, and the use of the two-fold characters for the same language is exactly suited to these countries.

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But now I perceive, that an erudite person whose views must be of great weight with all those that have occupied themselves with his writings, draws from the newest inquiries into Indian coins, the conclusion, that the Indian alphabet is derived from the Grecian.

Mr. Prinsep in decyphering these Indian characters, written in a peculiar manner on the coins of Saurashtra, asserted, that the more ancient the Nagari, the more similar become the characters to the Grecian ones. Upon this he had grounded the conclusion,* that the most ancient Greek characters are but the Indian turned upside down.

Mr. Mueller, who did not of course require proof of the invalidity of this view, takes the converse of the assertion.† "If," says he, "the relation of the ancient Nagari to the Greek alphabet is closer than can be explained by the common derivation of both from Phœnician language, we are forced into the conclusion, that the Greeks introduced this alphabet to the Indians, and that in consequence, the heaven-born alphabet of the Brahmins is not older than Alexander."

Now this is no casual remark, such as sometimes occurs in a journal, and which we may put aside without notice, but it is, if not a view deliberately considered, still an opinion positively pronounced and hopefully cherished. He says (p. 249,) "We must, however, confess that our hopes as to the historical connexion between Indian and Grecian civilization, go far beyond this fact," (that the Indians have borrowed their shapes of coins from the Indo-Scythians) "and extend over the whole history of art and letters."

It is therefore a favourite opinion of this celebrated scholar, the correctness or incorrectness of which must be of vital importance in Indian antiquities. For if the Indians had no alphabet before Alexander, all the writings that we have hitherto considered the subject matter of as genuine sources for the knowledge of India from the most ancient days, were penned after Alexander's time, or more correctly speaking, after the

* As. Trans. VI. p. 390.

† Goett. Gel. Anz. at other places, p. 252.

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establishment of the dominion of the Bactrian kings in Cabul and on the Indus, as no sound critic can assign such an influence as consequent on Alexander's momentary sojourn in India.

Bayer had discovered from some Indian words, communicated to him, that a striking similarity obtained between the Greek and Indian numerals; hence he concluded, that the Indians had borrowed these words from the Greeks. The affinity was ingeniously discovered, while the inference not too bold, as he at the same time admitted, that the Indians possessed other and more ancient native numerals; none, however, will probably in our days earnestly undertake to refute Bayer's opinion; but in his time he could hardly draw any other conclusion from the reports at his disposal.

Mr. Mueller's conclusion, however, appears to me much bolder, and whatever species of criticism he may meet with from others, I for my part shall refute him in good earnest.

Supposing, there exists in very deed a similarity between the Greek and the Indian characters on the Saurashtra coins, as Mr. Prinsep has maintained; granting also, that they were imitated after Parthian and Indo-Scythian models, it will be asked, what inference can be hence derived? Certainly only this, that the characters on those coins are of Greek origin. Mr. Mueller* places a date to these coins, subsequent to the first century of our era; the age of the Indian alphabet cannot therefore be traced with certainty prior to this period.

Whether this similarity do exist, or not, is here wholly beside the question; I think it fallacious, but I shall here drop the subject.

Mr. Mueller will have it for granted, that the older the Indian characters are, according to his conjècture, the closer must be their similarity with the Greek.

Now he assigns himself the coins of Agathokles and Pantaleon to the year 200—160 B. C. Their coins, having exactly the same alphabet as employed but a short time before on Indian monuments, was undoubtedly the form, then adopted, of Brahminical Debnagari. This character has been now decyphered with full

* p. 248.

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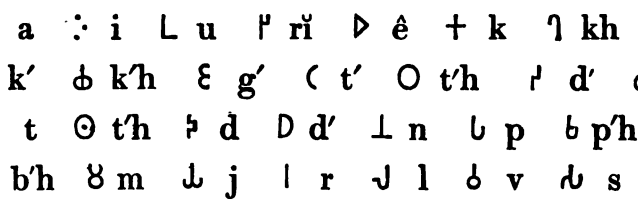
authenticity by Mr. Prinsep, as is the most ancient from the Indian characters hitherto discovered.

I shall here copy this alphabet, (and ask), whether the hopes, above alluded to, of tracing the sources of the Indian alphabet to the Greek, are likely to be much favoured by this discovery? I must strongly doubt it.



It may be added, that this alphabet had already the junctions of consonants, and the representative marks for shortened vowels, such as we find them to this day in the Indian orthography.

To prove the desired derivation of the Indian alphabet from the Greek, it will be necessary to point out, as existing between the era of Alexander the Great, and the grandson of Chandragupta, Azôka, a form of Indian characters, marking the progress of transition from the Greek alphabet to the Indian, above exhibited. Till this has been effected, we may be allowed to keep in store (as reserve artillery), the remaining arguments in favour of the originality of the Indian alphabet, which are to be discovered in the grammatical system, in the history of the language, in the substance of the inscriptions, and, lastly, in the reports of Megasthenes and Nearchos.

The time has been, when every invention of the human mind must have passed from the East into Greece; but the philologists of classic antiquity would like to establish the converse of this view on every subject. The hope of advancing science is most laudable, but most fallacious, if cherished for a favourite system, since it impedes the judgment in forming clear and impartial conclusions. How otherwise could a man of so clear a mind, as is Mr. Mueller, fail to perceive, that he clung to a predilection, while neglecting the most important facts?

It seems to me, I confess, a pleasant accident, that this latest effort at Indian conquest, made by Greek philology, may be

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refuted by the mere agency of a petty monument of Grecian art.

§ 13.

The Language.

That the language of the legends in the Cabulian character belongs to the widely extended family of the Arian languages, is so evident from the foregoing disquisition, as to render it unnecessary to dilate on the subject; a few words only on the latest coins of the Kadphises dynasty, constitute the only exception to this fact.

The language on the coins also remains at all periods unaltered; in the word *tâdârô* alone is an alteration affected to *dhâdhârô*, giving evidence of a later variety in pronunciation.

I do not include in this assertion the language of the Kanerki-coins; they refer to another dialect, on the position of which, as to local use, a conjecture can only be formed hereafter. From the discussions, as to the country to which this alphabet was indigenous, the natural inference ensues, that the language, expressed in these letters, may be assigned to the same country; all peculiarities hitherto discovered, as to the system of sounds in the language, tend to the same conclusion.

The language is not Zend, for this does not absorb the consonants; the Zend has *puthra*, not *putta*, and retains even on the Kanerki-coins, *athro*, *mithro*, *ardethro*; the language of the coins, on the contrary, reads, *Minadhô*, *Eikatidô*; Zend again retains n before t, but not the language on the coins; Zend does not exclusively express its nominative in the termination ô, and it alters an Indian H into Z, while the language of the coins has *mahatô*. Zend has no L, while with our language it is a favourite letter, as for instance, *prati* becomes *pati*, and even *pali*. A Zendic, or more correctly speaking, an Iranian affinity, appears only in the substitution of k (i. e., q or kv) for *sp* identical with *sv*. This fact, and the correspondence with the old Persian in omitting the nasal before dentals, are the only peculiarities which refer to Iran.

Other facts have been noticed, with regard to the language, as common to the Indian dialects of Prâcrit, viz. the absorption

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of consonants, the alteration of hard into soft roots, and the l for t. The word *Dharma* has a decided relation to India, being all a doctrinal term, which cannot be declared as such with reference to Iran; again, *râjan* for *king*, and *gaja* for *victory; tâdârô* too is also Indian,—though we will not deny its also belonging to Zend. These indications lead us to a country, immediately bordering upon India, and the language of which, though not entirely Indian, and rather forming a transitional dialect in some respects between the Indian and Iranian languages, still did not very materially differ from an Indian dialect; in saying which, I allude to the language in daily use with the common people, and not to Sanscrit, which was then already, in all probability, the language of the learned castes, and of the great. The existence of the dialects of Prâcrit, as in common use with the people, is ascertained by their occurrence on the Buddhist monuments of this time; the Prâcrit, or what eventually is the same, the Pali, could not have been raised by the Buddhists to the dignity of a religious language, unless it had existed aforetime among the people. Now as about the period of the first of the Greco-Indian kings, Prâcrit was used on monuments in India itself, at least by the Buddhists, there is no occasion for wonder, if we meet with a popular dialect in Cabulistan, especially on coins: the Sanscrit would have only been in use there under a Brahminical influence.

The country of the language on the coins may therefore with certainty, I think, be looked for westerly from the Indus, and to the south of the Indian Caucasus; but it is very difficult to define its limit more exactly; for though we have already proved, that the influence of Indian dialects extends to the westward of the Indus, even to the Cabul river beyond Jelalabad, still it does hence not follow, that to the country west of that, the same language existed. It is true, we found also, that the Paropamisades were represented as being Indians, and a later notice extends the term *Indian* even to Arachosia;* but reports of only a little later date, have limited the influence of the

* Isidor. Charac. with Huds. p. 8.

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Indian language to a point beyond Jelalabad. To arrive at a conclusion, would involve the necessity of acquaintance with the more minute peculiarities of those languages in their ancient condition.

Again, the existing relics of the ancient languages in these countries, admit the inference of no deduction. The Deggani language in Lamghan, as well as the spoken language of Kaferistan, may still be recognised as remnants of old Indian dialects, but we do not know them so well, as to be able to make use of them here. The language of the remaining ancient races of western Cabulistan, the Kohistan of the present day, is entirely unknown. We can therefore only say generally, that in one of those dialects the remnants of the ancient Cabulian language must exist, the oldest traces of which occur on the coins, but without being able to decide ourselves in favour of any particular dialect among them, as being the receptacle of those remains. I indeed know, that some have pretended to recognise the Afghans in eastern Cabul, even as early as Alexander's time; not so Mr. Elphinstone,* who rather proves their immigration into Cabul at a much later period; this conjecture has originated with Professor Wilken, who thinks, he recognises the Afghans in the Assakanes.† If these were indeed Afghans, the Afghan language would have been spoken throughout Cabul, and the language of the coins must be the sources of the Pushtoo. Without observing, that neither ancient authorities nor modern Afghan history, admit or require this supposition, the correct assertion of the learned academician himself, that the Afghans belonged to the Medo-Persic tribe, is at variance with it; the Assakanes inhabited a country, where even in the 7th century A. D., an Indian language was spoken. The language of the Afghans, moreover, shows an evident difference from the language on the coins; as, for instance, it substitutes like Zend, z for the Indian h, *zumy*, winter, for *hima*, and this z is altered in the western Afghan dialect into *gh*, *urighu* (rice) for *urizu*, for *vrihi*.‡

* Account, &c. II, 10. 33. 44. 50. 56. &c.

† Abhandlg. der Berl. Acad. 1818-19 p. 261.

‡ Ὄρυζα has been introduced through Persian into Grecian language.

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Though I cannot therefore discover the Afghans on the Indian frontier at so early a period, yet I willingly allow, that the original seats of the Afghans, may have had a situation sufficiently near Cabul. On this supposition, it would by no means be surprising, if their language were not a purely Iranian dialect, but rather like that on the coins, forming the transitional dialect between the Iranian and the Indian, but approaching (in point of locality), the west, with a prevailing affinity to Iranian peculiarities. I dare, however, not indulge myself by pursuing this interesting investigation.

§ 14.

The Kings. Classes of coins, and places of their discovery.

There is much more difficulty in obtaining for the seat of the different empires, established by the coins, and for the series of their kings, even that degree of probability, which we have, I think, succeeded in arriving at for both the language and alphabet.

It will here be necessary, first to have before us the materials to be arranged; I shall accordingly enumerate the names of the kings according to the coins, adding the facts, which hence result, as regard the æra, the succession, or any remarkable circumstance with respect to each of those kings. I have invariably noted the places, where the coins have been discovered, if it appeared to be instrumental in determining the native country of the kings. The classes I have adopted, are founded on the language and alphabet, and their sub-divisions upon the numismatic inquiries of Mr. Raoul-Rochette, and upon the titles of the kings.

Concerning this catalogue, I must premise, that it has been only made with a view to facilitate succeeding investigations, and that it does not pretend to giving a numismatic description.

I. *Coins with merely Greek characters.*

§ 1. *Greek characters, and purely Greek names and titles.*

Euthydemos. Head with diadem; on the reverse Hercules, either standing with the club raised in his left hand, the lion's skin over the arm, and in the right hand a crown, or else a common Hercules, seated, leaning on his left hand, in the right the

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club placed on a rock.* The coins presenting Hercules in a standing position, exhibit the youthful head of the king, which indeed differs from the head of Euthydemos, as ordinarily represented, and rather resembles that of Agathokles; hence Mr. Raoul-Rochette's conjecture, that Euthydemos may have succeeded Agathokles, and may at first have retained on his coins the portrait of his predecessor.† The resemblance with that king, however, appears not striking enough, and the connexion between both of them could be only admitted in the reversed succession. Lastly, a coin has been discovered, the reverse of which represents a horse without trapping, and galloping;‡ one legend occurs invariably. ΒΑΣΙΛΕΩΣ ΕΥΘΥΔΗΜΟΥ. Bronze coins with an Apollo, crowned with laurel, and the reverse with the tripod. R. R. II. 60. J. d. S. p. 387.

We may get some single specimens of these coins, which are distinguished for their beauty, from the south of the Caucasus; but they come in course of trade from Balkh; there occur too in Bokhara many coins of Euthedemos, barbarously executed, with an almost illegible legend, which sometime eluded all attempts at reading it.§ These latter are imitations, originating with the Scythians of the north, whom we cannot call Indo-Scythians, as they had not arrived yet in India.

Demetrios, son of Euthydemos, a fact confirmed by the coins.‖ Beardless, diademed head; reverse, helmeted Minerva, standing, with a long tunic, and a shorter one over it, the left hand leaning on the shield; in the right a spear. Another reverse with Hercules standing, either similar to the coins of the father,¶ or crowning himself with his right hand; and the head of the king, elegantly adorned with the trunk and tusks of an elephant. This latter emblem, evidently refers to his Indian conquests. Mr. Raoul-Rochette infers from the similarity of the other type with that on the coins of the Eukratides, that these

* R. R. J. des Sav. p. 328. p. 386. I. p. 7. A. T. IV. pl. XXV. No. 1. V. pl. XLVI. No. 3.

† I. 8.

‡ As. T. V. pl. XLVI. No. 4.

§ R. R. I. 3. II. 12.

‖ R. R. J. des Sav. p. 330. I. p. 3. II. 17.

¶ R. R. I. p. 7. &c. II. p. 16.

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coins of Demetrios were struck, while he was unexpelled as yet from Bactria by Eukratides, and infers, that Demetrios had therefore also reigned in Bactria, though but for a short time.* That he laid claims to Bactria, is certain enough. These coins are likewise of superior workmanship, and in most elegant taste. Legend ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ. The coins are rare, and have been partly transmitted to us through India, partly through Bokhara. Their proper place of discovery is perhaps not yet exhausted (discovered?) On this hereafter. Mr. Mionnet (VIII. 473) pretends to infer from these coins the existence of two Demetrii; till this new fact in history is more surely proved, we may be allowed to treat this second Demetrios as "a king of shadows."

Heliokles.—Known only by his coins, and first embodied in the series of Bactrian kings by Mionnet, then by Visconti.† Mionnet asserted, that he was the son of (or of an) Eukratides, while Mr. R. R. thinks him his predecessor.‡ A specimen has been brought from the city of Cabul by Mr. Honigberger,§ Type; Jupiter standing, with the thunderbolt, and the legend ΗΛΙΟΚΛΕΟΥΣ ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ. On account of the epithet (*just,*) Mr. R. R. puts Heliokles in connexion with other kings, who likewise style themselves *just,*‖ as the founder of a separate branch; but Lysias, whom he had in mind, in forming his opinion, is a Spalyrios, and of the other Grecian kings, only one has the same epithet, viz. Archelios, a later discovery, he has indeed as well the Jupiter type, but he in addition calls himself ΝΙΚΗΦΟΡΟΣ, and has a native legend. A copper coin of Heliokles, the first specimen of this kind, has been discovered of late in the Punjab, (As. Trans. Vol. VI. 987,) it is not stated, whether with a native legend or not. I may be hereafter allowed to propose a conjecture on historic grounds concerning his era.

Eukratides. Mr. Raoul-Rochette¶ distributes the coins bearing this name, between two Eukratides, father and son, on the precedent of Bayer, who maintained, that some things

* I. p. 10. As. T. IV. pl. XXV. No. 2.
† R. R. J. des Sav. 1834. p. 329. ‡ R. R. I. p. 34. II. p. 26.
§ R. R. I. 3. ‖ I. p. 26. ¶ T. der Sav. p. 387.

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were mentioned of Eukratides, not in correspondence with the victorious king of this name; hence he concluded, the name of his son, successor, and murderer, was the same.* But that the son and parricide did bear the same name, is not conclusively established by authorities (of which hereafter); while Mr. Mueller† objects to this view from the very reason, that, according to the arrangement of M. R. R., this very Eukratides, known to us as a parricide, was called "the Great." There occur indeed two specimens, one of which has also native legends. I here describe the purely Greek one alone, postponing my own view for the historic examination.

Diademed head of the king; reverse, a naked Apollo crowned with laurel, standing with one hand leaning on a bow, in the other an arrow. Legend ΒΑΣΙΛΕΩΣ ΕΥΚΡΑΤΙΔΟΥ.‡ This type never has a native legend. On other coins a head of Apollo with a laurel wreath; on the reverse, a horse with the same legend in Greek alone.§

The coins with the Dioscuri on horseback, with the title of "Great King," and which are partly of purely Greek and some with a native legend, are assigned to Eukratides II.

This type of the Dioscuri, however, likewise occurs with the simple Greek legend, ΒΑΣΙΛΕΩΣ ΕΥΚΡΑΤΙΔΟΥ,‖ and without the native character, which only appears, when the Greek has the word ΜΕΓΑΛΟΥ. The Dioscuri on horseback have sometimes a helmeted, and sometimes a diademed head of the king; those with the caps of the Dioscuri only a diademed head, with the title either simple, or at length.¶

It is evident, that neither the difference between "king" and "Great King," nor the native legend, affords any criterion for assigning the type of the Dioscuri to the son. There remains the difference in the features of the king, which may be laid to a difference in age. On the native legend we shall remark hereafter.

* p. 95. † p. 205

‡ J. des Sav. p. 386, I. No. 5.

§ R. R. II. 60. ‖ A. T. IV. pl. XXV. No. 6. 7.

¶ A. T. V. pl. XLVI. No. 10. No. 11.

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Masson found 107 coins of Eukratides in Beghram, he does not, however, distinguish them according to the types.*

There occur also coins of Agathokles, with a purely Greek legend; but as nobody would adopt the idea of *two* Agathokles, we shall postpone the investigation of this point.

§ 2. *Purely Grecian characters, the kings not Greek, having, however, no barbarian titles.*

The following coins present a singular phenomenon. Mr. Masson discovered at Beghram,† in the space of three years two hundred and fifty-seven specimens of a coin with the legend ΒΑΣΙΛΣΕΥΣ ΒΑΣΙΛΕΩΝ ΣΩΤΗΡΜΕΓΑΣ, but without a proper name. The Greek legend being sometimes corrupted, we observe either ΒΑΣΙΛΕΥ or ΒΑΣΙΛΕΥΩΝ.‡ Bags full of these may be had in Affghanistan, and in the Punjab. The similar coins with a native legend, never have the bust of the nameless king. Mr. Raoul-Rochette describes them in this manner: "Bust of a king, the head encircled by a diadem and a nimbus; with his left hand holding an iron spear; no legend. Reverse, a man on horseback with the Greek legend, above mentioned. The head of the bust helmeted, occurs too as a variety."§

The large number of these coins proves that this king possessed an ample empire, and did not reign for a short time; he must have governed Cabul, and a part of the Punjab. The corrupt Greek suggests an era, more recent than that of many other Indo-Scythian coins. The title σωτὴρ seems to connect him to the Greek Soter family, which may have concluded with Hermaios. This is the remark of Mr. Mueller, and I am only prevented from adopting it, because the Kadaphes coins are apparently still nearer related to one or the other Hermaios, and all the other Soters have likewise native legends. M. Raoul-Rochette‖ accounts for the want of the name by (the supposed existence of) an agreement, with regard to the currency, to the effect, that in order to put the coins into common circulation in neighbouring states, the name of none of the kings of those states was

* A. T. V. p. 547. † A. T. V. p. 547.

‡ R. R. I. p. 26. As. T. IV. 345.

§ R. R. I. No. 17. No. 18. No. 19. As. T. IV. pl. XXIII. No. 26 (Among the Azes' coins.)

‖ II. 38.

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used on the coins. The nameless king, however, appears to have been too powerful to acquiesce in such a stipulation. According to Mr. Mueller, his name, on account of its dissonance, could not be well expressed in Greek. People, however, who were not offended at the nominative βασιλευ, or the genitive βασιλευων, would not have hesitated at obtruding a name as barbarian as possible, on the Greek letters, and if the attempt were unsuccessful in Greek, why was not given recourse to native letters?

I cannot explain, why there is no name; but from the use of Greek characters alone, it becomes probable, that the Soter belonged to a certain Scythian horde, which had for some time their abode in a country, where purely Greek, and not native characters, were adopted for the coins. The nameless king, who perhaps first settled his horde in Cabul and about the Indus, perhaps adhered at first to the established custom by not adopting native characters on his coins. At an after period, however, he perhaps used them; if indeed the coins with native legends, which M. Mionnet assigns him, be really his.*

There exist besides, coins of some other Indo-Scythian kings, with regard to which it is doubtful whether they have native or purely Greek legends. They bear the title "King of Kings," and some of them have a horse, others an elephant, and they reigned therefore partly in Bactria, partly in India. As the names are illegible, we shall here only refer to the engravings and descriptions of these coins; for we must at first leave even this undecided, to which of these kings the native legends belong, and whether we have to adopt a separate series of Indo-Scythian kings, who admitted purely Greek letters and titles, whilst the Kanerki dynasty adhered to Greek characters to express barbarian words. If the assertion, that to the north of the Caucasus the characters on the coins were not used, be well founded, we might presume, that those Indo-Scythian kings held fixed dominion in Bactria alone. Now those coins yield no other historical result, than that the Indo-Scythians were divided into

* VIII. p. 505. pl. x. No. 85.

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a number of dynasties, and that we are far from knowing the whole series of their names.*

Lastly, we have yet to mention here the king Mayes.

Type a Caduceus; legend ΒΑΣΙΛΕΩΣ ΜΑΥΟΥ. Reverse, the head of an elephant from which a bell hangs, of beautiful Grecian workmanship and with good Greek characters; according to M. R. R., contemporary with Menandros and Apollodotos, as the same head of an elephant occurs on their coins; his conjecture, that the name may be a variety of Apollodotos, has hardly any support whatever.† Mr. Mueller thinks these large copper coins to be the most ancient monuments of the Indo-Scythian dominion in India.‡ The elephant alludes indeed to a campaign against India. Being taken from the collections of the Generals Ventura and Allard, they refer to the Punjab. M. Mionnet ascribes to Mayes, moreover, a native legend, which consists of two signs.—This legend as given by Mr. Prinsep, is scarcely to be taken as letters; M. R. R. has not noted it at all; the pretended legend stands besides between βασιλέως and Μάνου; the name must have been expressed by ƤΛU, which does not appear with Mr. Mionnet. How then has this king used a native legend? As respects this king also, I must leave it to numismaticians to make a historical application.

§ 3. *Pure Greek characters; barbarian names and words.*

Kodes. Small silver coins. A head, the hair wreathed with fillets, and descending to the neck; it would appear, that the face is different (on different specimens); one has mustachoes, but all of them have suffered much. Legend, ΚΩΔΟΥ, complete on but one coin.§ Reverse, a figure standing, the right hand lean-

* As. Trans. v. pl. xxxv. No. 4, iv. pl. xxi. No. 12. No. 13. No. 14. Then iv. pl. xxi. No. 7 and 8, lastly iv. pl. xxi. No. 11. Compare Mionnet viii. p. 504. No. 135, No. 136, No. 141, No. 142. I shall not undertake to read the native legends, represented x. No. 88.

† II. p. 49. The coins R. R. II. No. 18. As. Trans. iv. pl. xxv. No. 4. New varieties of them are discovered of late in the Punjab. As. Trans. vi. 987. ‡ 228.

§ As. Trans. v. pl. xlvi. No. 16, No. 17. No. 18. iv. pl. xxv. No 11. No. 12. No. 13. R. R. J. d. S. 1834. No. 8. No. 9. p. 389.

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ing on the hip, in the left a spear, indistinct head dress, flames behind the shoulders. Legend according to Mr. Prinsep's conjecture: (A)PΔHΘPOY MAKAP(OΣ). The Greek letters terminate in points; upon No. 13 there is perhaps the name of another god. A second variety, has the anterior half of a horse. They come from Cabul and western India; but likewise through Bokhara to Russia.

The horse refers to Bactria, as do the purely Greek characters and the god of fire, with whom the names of gods on the Kanerki coins are connected.

Kodes is perhaps the very same king, who went southwards over the Caucasus, and founded an empire on the banks of the Indus and of the Cabul, for the Kanerkis.

Kanerki coins. I shall not repeat the remarks above made on the legends, the words PAO NANO PAO and KOPANO, and the names of gods. Kanerki is represented in a standing position, with a long Usbek coat, pointed Tartar cap, the right hand leaning on a spear (and a bow over the back, T. A. V. XXXVI b. 9.) with the left making an offering over an altar. The figures of gods on the reverse are already described. In the note I shall mention the coin,* some from the topes in Manikyala, Jellalabad, and from Cabul and the Punjab, from Benares, and likewise from the Ganges.†

Ooerki. Bust of the king, adorned with a tiara, holding with the hand a plant which he contemplates.‡ The same places of discovery. No coins having Greek words, or the god of the sun.

A man mounted on an elephant; his name illegible, only PAO NANO PAO-KOPANO.§

On the coins of another king of this series, a female figure

* T. As. III. pl. XII. pl. XXV. IV. pl. LI. V. pl. XXXVI. Trans. R. As. Soc. I. pl. XII. R. R. J. des Sav. 1834. and I. pl. II. and the authorities. I. 57.

† As. Trans. III. p. 443. IV. p. 631. R. R. II. p. 4.

‡ As. Trans. III. pl. XXI. No. 2. XXII. No. 24. IV. pl. XXXVIII. No. 9. No. 7. V. pl. XXXVI. No. 3. No. 7. R. R. II. p. 58. J. des Sav. 1834. No. 10. As. Trans. III. p. 445.

§ A. T. III. pl. LI. No. 10. V. pl. XLVI. No. 13. No. 12. IV. pl. LI. No. 10. A. T. V. p. 722.

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with a glory, seated on a couch; one foot on the ground, the other, on the couch.* Here also the name is illegible.

There is another type of a figure sitting in a cross-legged position; some other varieties may probably be still discovered.

The most ancient specimens of these coins have a tolerably good style, and distinct letters; both become gradually worse, and lastly deteriorate into a chaos; then follow the Indian imitations. The places of discovery prove, that the Kanerki dynasty possessed, at least at the commencement of their rule, a large territorial dominion; from the traces of the Shiva worship, we may conclude that the Kanerkis added to the worship of Mithra, introduced by them from Bactria, the worship of Shiva, as it occurred with the Kadaphises.† Hence they must (partly at least) have taken possession of the dominions of the Kadaphises. We may consider their dialect either as a more modern one, or as a provincial variety. It is evident from the coins, that they out-lasted the Kadaphises, who never sunk into the same barbarism.

It will remain doubtful, whether the Kanerkis maintained themselves till within the Sassanian period, unless it be decided, that the topes must be ascribed indisputably to the Kanerkis. They certainly reigned in India before the time of the Sassanians. Lastly, the opinion, that the Kanerkis were Buddhists, or in other words, that we have to recognise Kanishka in Kanerki,

* A. T. III. pl. XXII. No. 29. IV. pl. 21. No. 9.

† The worship of Shiva appears to have prevailed in Cabul in the first centuries of our era, and beside it, pure Buddhism was widely diffused. Hiuan Thsang at least mentions a temple of Bhîmâ, viz. of Pârvatî or Doorga, in Gandhâra, p. 379. But Megasthenes appears to have already corrected this mistake. For if he reported, according to Arrian and Strabo, that the Indians of the plains worshipped Hercules (whereby Mathura is made mention of) and that the mountaineers, on the other hand, adored Dionysos, these latter must be probably understood to be the inhabitants of the mountainous districts about the Cabul, and below Kazmira, in the Punjab, while the plains are those of the inner country, and on the borders of the Jumna and Ganges. It is true, it has been of late doubted, whether Hercules be Krishna, but I hardly think, one acquainted with these subjects, will doubt it any more, than that Dionysos cannot be but Shiva.

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must continue to be improbable, until Kanerki be also discovered on Buddhistic monuments.

II. *Greek, and Indian characters.*

The coins of Agathokles and Pantaleon alone as yet compose this class.

Agathokles. Diademed head of the king; reverse, a standing Jupiter, with the left hand leaning on his sceptre, holding on the right a small three headed Artemis, bearing a torch. Legend, ΒΑΣΙΛΕΩΣ ΑΓΑΘΟΚΛΕΟΥΣ.* Tetradrachma of very superior workmanship.

M. Raoul-Rochette has proved, that the figure on the legend is the Persian Artemis Hecate, the Ζαρῆτις or Ζάρα, whose worship Artaxerxes Mnemon was endeavouring to propagate within his empire, and Bactria is especially mentioned† with regard to this. Male head, with Dionysos' crown of grapes. Reverse, a panther walking, holding with his fore claw a grape. The same legend as above mentioned. Tetradrachma.‡

Square copper coins with the same legend. On the obverse, a female Bacchanal, flourishing the thyrsus, and the legend above represented, in old Indian characters. Eleven specimens have been discovered, all from Cabul.§

M. Raoul-Rochette has tried by a vast display of learning to establish his conjecture, that Agathokles was the first king of Bactria, he having been the Eparch of Persia under Antiochus the second, who is called Pherekles by others, and whose pederasty is said to have excited the Parthian revolt.‖ Not to mention other objections, this conjecture falls to nothing owing to the Indian letters, which Agathokles cannot have used for his Bactrian subjects. But previously to Euthydemos, no Bactrian king made conquests southwards from the Caucasus. As copper coins are less likely to go by trade into other countries than gold and silver (coins,) the place of discovery of the

* R. R. J. des Sav. 1834. p. 332. No. 2. II. No. I. p. 12 A. T. IV. pl. XXV. No. 3. from the Punjaub.)

† (J. des S. at other places, p. 340. II. p. 13.)

‡ (J. des S. No. I. by the way of St. Petersburg.)

§ R. R. II No. I. II. p. II. A. T. V. pl. XXXV. No. 9.

‖ (J. d. S. p. 336.)

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Agathokles' coins points out an empire on the borders of the Cabul river.

The worship of the Persian Artemis must not appear surprising on the coin of a king, who, though not reigning in Bactria, yet started from that country. The Bacchanal symbols certainly allude to an Indian expedition; but it is surprising, that Agathokles and Pantaleon, almost coeval with him, should alone parade these symbols of Dionysos. Going a step further, we dare assert, that Agathokles reigned immediately over those districts, where the traces of the expedition of Dionysos were fancied to be extant; viz. over the country of the Nisaeans. But it is not India Proper, but Cabul, that is celebrated for her grapes; in Cabul too, are the copper coins of Agathokles discovered, and instead of the nation of the Nisaeans (a somewhat fabulous race) of Alexander's period, we observe in the late report of Ptolemy, the well defined town of Nagara, surnamed Dionysopolis, which denomination can have been only given by a Greek king, probably by Agathokles. His use of Indian, and not Cabulian characters, leads to the conclusion, that his reign succeeded a previous use of Indian characters; viz. it argues a former Indian domination in these districts. I therefore think he is the same, who first brought Grecian arms down the Cabul river. According to Mr. Mueller,* he reigned about the Upper Ganges. In this case he must before Menandros have advanced beyond the Hyphasis to the Jumna, and even further, which is at variance with Strabo's explicit statement. His coins, exhibiting a much better style in art than those of Menandros, he must have reigned before this king. Strabo would likewise mention him as the first, who crossed the Hyphasis.

Pantaleon. Square copper coins, exactly like those of Agathokles, before described as from Cabul and the Punjab.† Legend, ΒΑΣΙΛΕΩΣ ΠΑΝΤΑΛΕΟΝΤ(ΟΣ) and the other legend in Indian characters, above mentioned. From the small number of coins it becomes probable, that Pantaleon did reign but for a short time; the dominion, founded by Agathokles, must on the whole have been of short duration. We shall hereafter recur to this subject.

* p. 213. † As. Trans. III. p. 168. v. p. 552.

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III. *Greek and Cabulian characters.*

§ 1.—*Greek Kings.*

Eukratides. I assign to this place the coins bearing the title "Great King," as they certainly mark an epoch in the life of the one Eukratides, even if they should not belong to a second of the same name. The Cabulian legend never occurs unaccompanied by the word ΜΕΓΑΛΟΥ in the Greek legend; hence it follows, that the title, "Great King" was first adopted in the south of the Caucasus.

Helmeted head of the king. Reverse, the Dioscuri on horseback, with spears couched, holding branches of palms above the shoulders. Legend: ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΥΚΡΑΤΙΔΟΥ.*

The same with Greek legend on the obverse; on the reverse, *Mahârâjô Eikatidô.*†

The same reverse with ΒΑΣΙΛΕΩΣ ΕΥΚΡΑΤΙΔΟΥ, and on the reverse with the helmeted‡ or diademed § head of the king; no Cabulian legend.

Diademed head of the king; legend, ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΥΚΡΑΤΙΔΟΥ. Reverse, caps of the Dioscuri with palms, of the native legend only *Maharajô.*‖

According to Mr. Prinsep's statement,¶ the complete legend is 𐨨𐨪𐨿𐨪𐨪𐨿𐨪𐨪𐨿𐨪𐨪𐨿𐨪𐨪𐨿𐨪 *mahârâjô rajâ râjô Eikatidô.* This legend however appears only to occur upon one coin, on which the helmeted head of the king on the reverse has a female figure, seated, with the turret-like crown of the Cybele.¶¶ The word is *rajâ râjô;* it can hardly have occurred upon the other coins. As it cannot be, however, adopted by mere chance, we must ascribe the complete title to that as yet single coin alone. It is the only instance in which a Greek king of Bactria styles himself *king of kings,* and this only in Cabulian language, as it were, not venturing to obtrude this ostentatious title on his Greek subjects. Likewise Eukratides alone calls himself in

* J. des Sav. No. 5. As. Trans. IV. pl. xxv. No. 5.

† As. Trans. IV. pl. xxv. No. 8. 9. 10. R. R. I. No. 7.

‡ As. Trans. IV. pl. xxv. No. 7.

§ As. Trans. IV. pl. xxv. No. 6. R. R. I No. 6. II. No. 3.

‖ As. Trans. V. pl. xlvi. No. 11.

¶ As. Trans. IV. p. 338.

¶¶ According to the description. As. T. III. p. 164.

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Greek letters *great king*, while the others adopt the simple βασιλεύς as equivalent to *Mahârâjó*. It therefore almost appears, as if Eukratides first used Cabulian legends, without properly attending to the comparative value of the different terms; since the same etymological value of two words in different languages is in many cases not the same in the real acceptation of the words.

Mithridates VI. of Parthia, had adopted the title *king of kings*; and Eukratides seems to have imitated his contemporary in assuming this title.* Coins of Eukratides are frequently met with in Cabul.†

On account of the dispute of numismaticians, we shall postpone the decision, whether we must adopt two or only one Eukratides, to the examination of the historic authorities.

Antimachos. Head of the king with the Macedonian hat, (*kausia*), and Neptune with a palm on the reverse. Epithet of the king, Θεὸς. A coin, published by Köhler, obtained through Russia, which refers to a victory at sea.‡ Victory dressed and winged, in the right hand a palm. Legend, ΑΝΤΙΜΑΧΟΥ ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ. Reverse, the king on horseback galloping. Cabulian legend, 𐨨𐨪𐨁𐨫𐨪𐨁 𐨟𐨪𐨫𐨟, *Mahârâjó gajavatô Atimakhó*.§ From Cabul. M. R. R. has proved, that these coins are an imitation of those of the Seleucidian Antiochos IV., who likewise styled himself Θεὸς. Antiochos reigned 176—164. B. C., and Antimachos therefore about the same time. The correspondence of these coins with the tetradrachmas of Heliocles will also give evidence, that Antimachos was his contemporary. On this supposition, it becomes difficult to place both of them before Eukratides. The Cabulian legend points to an empire to the south of the Caucasus, but perhaps not in Cabul itself, as the Antimachos' coins are scanty in Beghram. I beg to direct the attention to two points: the equestrian coins form a separa-

* Visconti. Iconogr. Grecque. III. 76.

† As. Trans. III. 164. v. 547.

‡ R. R. J. des Sav. p. 329. II. p. 18.

§ R. R. II. No. 4, p. 17. A. T. IV. pl. XXI. No. 3. at the same place No. 4 has 𐨟 for 𐨪, therefore perhaps a 𐨪, or k for kh.

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ted class, and Antimachos has strengthened his dominion by a victory at sea.

Philoxenos. Bust of the king; the bow of the diadem projecting from under the helmet. Legend, ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΦΙΛΟΞΕΝΟΥ. Reverse, king on horseback galloping. Cabulian legend: *Mahárájó apalihatő pilashinő (*or *pilushino).**

Demeter Karpoforos; in the right hand a crown; in the left a cornucopia; the foregoing Greek legend; reverse, the bull with the hump. The same Cabulian legend.†

The same obverse, with the reverse of a victory with crown and palm (only described).

M. Raoul-Rochette takes him for a king, who reigned in the neighbourhood of the Scythians, and valiantly fought against them on horseback. The Cabulian legend prevents us from acceding to this. Philoxenos wears a *kausia*, as Eukratides and Antimachos do, and as a horseman, moreover, is analagous with them. The bull with the hump is correctly interpreted as referring to a particular country, but to what country, will be evident from the coins of Azes. In Beghram no coins of Philoxenos have been discovered by Mr. Masson.

Archelios. Diademed head of the king. Legend, ΒΑΣΙΛΕΩΣ (ΔΙΚΑ)ΙΟΥ ΝΙΚΗΦΟΡΟΥ ΑΡΧΕΛΙΟΥ. Reverse, Jupiter, seated on a throne, the sceptre in the left hand, the thunderbolt in the right, and the legend, 𐨪𐨁𐨫𐨯 𐨪𐨗𐨟𐨁𐨟 𐨪𐨮𐨤 𐨪𐨁𐨗𐨗𐨿, *maharajó, dhamikó, gajavatő Achilijó.* From Beghram.

I have given him this place, because the epithet "victorious" puts him into comparison with Antimachos; Antialkides, however, bears the same epithet, and has besides, the Jupiter.

Antialkides. Uncovered head of the king, with the branch of a palm, crossing the field. Legend, ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΑΛΚΙΔΟΥ. Reverse, the Dioscuri caps with palms, as upon the coins of Eukratides. Legend, *maharajó gajavatő Atialikadő.*‡

* R. R. II. No. V. A. T. No. IV. pl. xxi. No. 1.

† R. R. II. No VI. As. T. IV. pl. xxi. No. 2.

‡ R. R. II. No. 7. I. No. 15. A. T. IV. pl. xxvi. No. 9. 10. 11.

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M. Raoul-Rochette assigns to him with certainty a place immediately following Eukratides, in a neighbouring country, which we cannot, however, look for with him to the North of the Caucasus.* On account of the title Nikephoros, he has some analogy with Antimachos.

There exists another coin of this monarch with the head of the king, with the *kausia* and the same legend; the reverse represents Jupiter, seated on a throne, with a sceptre and a winged victory in his right hand. The same native legend.† All these coins are from Cabul or the neighbouring districts.‡

Lysias. Uncovered head of the king, the palm crossing the field as with Antialkides, the bust partly given. Legend, ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΛΥΣΙΟΥ. Reverse, elephant.§ Legend, *Mahârâjô apalihatô lisijô* (lisajô.)

M. R. R. pronounces him with full confidence successor of Antialkides;‖ here likewise follow the titles *Aniketos* and *Nikephoros*, one after the other, as above mentioned, with Philoxenos and Antimachos. Coins of Lysias and of Antialkides are found in Cabul; ¶ the elephant alludes to an Indian expedition. The dynasty to which Antialkides and Lysias belonged, seems therefore in fact to have had their site in Cabul, and their empire was probably established upon the ruins of one more extensive.

I here insert a coin, for which I cannot discover a proper place.

Amyntas. Bust of the king with indistinct head-dress; legend, ΒΑΣΙΛΕΩΣ ΝΙΚΑΤΟΡΟΣ ΑΜΥΝΤΟΥ. Reverse, helmeted Minerva, with shield and lance, extending her right hand. Legend, *Maharajô, gajavatô amitô.* From the Punjab.¶¶

We now come to a longer series, bearing the title "deliverer."

Menandros. Helmeted head of the king with the upper part of the bust, and the chlamys; legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΥ. Reverse, Minerva πρόμαχος. R. R. I. No. 8. Legend, *Maharajô tâdârô Minadhô.*

* II. p. 23. † As. Trans. V. pl. xxxv. No. 2. ‡ R. R. II. p. 22.
§ R. R. II. No. 18. As. Trans. IV. pl. xxvi. No. 12. ‖ II. p. 24.
¶ R. R. II. p. 24. ¶¶ A. T. V. pl. xlvi. No. 1.

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Helmeted head of the king, with the same Greek legend. Reverse, a clothed victory, with wings, palm, and crown. The same Cabulian legend.*

Head of an elephant, with the same Greek legend. Reverse, a club, with the Cabulian legend.†

Uncovered head of the king, with the upper part of the bust dressed in the chlamys; the right hand raised to throw a lance. The same Greek legend. Reverse, Thessalian Minerva, protecting herself with the shield; in the right hand the thunderbolt raised. The same Cabulian legend.‡

Head of the king in a helmet, and the Greek legend. Reverse, Ægis, and Cabulian legend.§

The same obverse; upon the reverse an owl, and the Cabulian legend.‖

Obverse, wheel with eight spokes, and the Greek legend. Reverse, branch of a palm, and the Cabulian legend.

Uncovered head of the king, with the Greek legend; reverse head of an animal, which Mr. Prinsep, with probable correctness describes as an elephant, though Mr. Masson has drawn a dolphin. The same Cabulian legend.¶ Lastly, head of a boar, with the Greek legend. Reverse, branch of a palm surrounded by the native legend.**

Coins of Menandros have been frequently discovered in Beghram by Mr. Masson, so many even as one hundred and fifty-three specimens up to the year 1835; they are likewise met with in Agra, on the borders of the Jumna, and near Mathura.†† These were probably the extreme points of his empire. We have shown, that his reign extended to the Jumna, and the elephant on his coins corroborates this extent of his dominion. Whether he also ruled in Bactria, we shall hereafter inquire into; the native legends rather disprove than confirm this opinion.

* R. R. I. No. 9. 10. As. Trans. IV. pl. xxvi. No. 3.

† R. R. I. No. II. p. 17. As. Trans. IV. pl. xxvi. No. 2.

‡ R. R. II. No. 12. As. Trans. IV. pl. xxvi. No. 1.

§ As. Trans. V. pl. xlvi. No. 5. ‖ At the same place, No. 6.

¶ At the same place, No. 8, as the preceding copper coin; according to M. R. R. II. 34. a club. ** At the same place, No. 9.

†† As. Trans v. p. 547. 722. Trans. of the R. A. S. I. 315.

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For the historical arrangement of all those kings, it is of vital importance to ascertain the era of Menandros. M. Raoul-Rochette has most plausibly assigned to Menandros a later period than to Eukratides.* The inference he further draws from this position of Menandros, that he first took possession of the Indian empire of Demetrios, and afterwards of the Bactrian dominion of Eukratides, is hardly to be reconciled with the authorities of written history; we do not understand, in fact, how Menandros could dethrone Demetrios, since Eukratides had done it; we shall therefore hereafter lay hold of the only fact which is proved with probability by numismatic inquiry, viz. that Menandros seems to have reigned subsequently to Eukratides.

Apollodotos. Apollo standing, leaning his left hand on the bow, holding a lance with his right. Legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ. Reverse, a tripod: legend, *Maharajó Apaladató tadaró.* †

Uncovered head of the king, with diadem and upper part of the bust, and the chlamys. Legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣΚΑΙ ΦΙΛΟΠΑΤΟΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ. Reverse, Thessalian Minerva, as upon the coins of Menandros, covering herself with the Ægis instead of the shield. The same native legend, without φιλοπάτωρ, *tádárô* alone preceding the name.‡ Elephant in motion. Legend as before mentioned: reverse, the humped bull, and the same native legend. §

The coins are discovered at the same places with those of Menandros, and M. Raoul-Rochette deserves the merit of having proved, with the utmost probability, that Apollodotus was the son of Menandros.

Diomedes. The Dioscuri, standing, and with lances. Legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΔΙΟΜΗΔΟΥ. Reverse, the humped bull, and the native legend, which he probably thus restored:

* II. p. 32. 33.

† R. R. I. No. 12. As. Trans. IV. pl. xxvi. No. 6. No. 7. No. 8.

‡ R. R. II. No. 13. As. Trans. IV. pl. xxvi. No. 4.

§ R. R. II. No. 14. As. Trans. IV. pl. xxvi. No. 5. See. R. R. II. p. 18.

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אשרד דרדקו (צ)ך (ט) *Maharajó tádáró Dijamidó.** Only one specimen from Beghram. The humped bull, and the epithet, prove the right of position as here given.

Agathokleia. Helmeted head, which must be the head of a woman, with the upper part of the bust, and of the dress. Legend, ΒΑΣΙΛΙΣΣΑΣ ΘΕΟΠΡΟΠΟ(Υ) ΑΓΑΘΟΚΛΕΙΑΣ. Reverse, Hercules seated, in the right hand the club, placed on his knee, with the left supporting himself, as on the coins of Euthydemos. Legend, *Maharajó tádáró Mikonidó.*†

Howsoever we may read the name, it is certain, that we have here a new king, whose epithet assigns him a place among the successors of Menandros. The place of discovery is not mentioned; the coin is, however, found in India. If any relation is to be admitted between Euthydemos and Agathokles, we may perhaps recognise another analogy in the fact, that Agathokleia exhibits a type of the Euthydemos' coins. She is certainly, however, the wife of the new king, mentioned only in this place; perhaps a heroine of masculine character, like Eurydike (the niece of Alexander, and grand-daughter of Philip), whom her husband honored by associating her with himself upon his coins. May not the unusual epithet perhaps allude to this fact? ‡

Hermaios. Uncovered diademed head of the king. Legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ. Reverse, Olympian Jupiter, seated on his throne. Legend, *mahárájó tádáró, hirmajó.*§

Uncovered head of the king, with diadem, the upper part of the bust, and of the chlamys. Reverse, Olympian Jupiter seated, and extending his right hand. Legend as above described.‖

Head of the king, probably with diadem, the same Greek legend; the reverse has a horse; and the native legend as above described.¶

* As. Trans. V. pl. xxv. No. 3. † As. Trans. V. pl. xlvi. No. 2.

‡ I find θεότροπος to be authorized by one passage alone in Heliodor. Carm. v. 250, as an epithet to ξῆλος. Only one Greek king of these provinces, Antimachos, has styled himself God.

§ R. R. I. No. 13 (where the initial letter in tadaro is misdrawn). As. Trans. IV. pl. xxiv. No. 1.

‖ R. R. I. No. 14. p. 21. As. Trans. IV. pl. xxiv. No. 2. No. 3. No. 4.

¶ As. Trans. V. pl. xxxv. No. 11.

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In Beghram so great a number of the coins of Hermaios have been discovered, that no doubt can be entertained of the seat of his empire. Mr. Masson thought he might adopt, according to the difference of the types, three different kings of this name, an opinion, rejected by M. Raoul-Rochette.* There is no doubt the coins, above described, with the bust, and the name of Hermaios on the obverse, and with Hercules, standing and leaning on the club and the curious native legends on the reverse,† do not belong to the Greek Hermaios himself, as in the Greek legend the name of Kadaphes is substituted for that of Hermaios, without any alteration of the type. Those only upon which ZAΘOY occurs, have perhaps a title in another type; all the coins, however, that are published, are very indistinct.‡

As these coins prove that a Kadaphes took possession of the empire of Hermaios, so other facts concur in giving evidence, that Hermaios concluded the series of the Soter dynasty. His coins represent a rapid decline of art, and are partly excelled by those of the more ancient Indo-Scythians. M. R. R. has also here the merit of having proved, that the type of the Olympian Jupiter is an imitation of the coins of Alexander II. of Syria,§ and that Hermaios must have accordingly reigned after the years 129—23. B. C.

With Kadaphes, above mentioned, Kadphises is connected by name; but as previously to him, other Indo-Scythians must have ruled in the country on the borders of the Cabul, we shall first insert them here.

Barbarian Kings.

Azes. King on horseback, in his right hand a lance. Legend, BAΣIΛEΩΣ BAΣIΛEΩN MEΓAΛOY AZOY. Reverse, Minerva, with the Ægis on her arm, in the left hand the lance, the right raised. Legend, *mahârâjô rajârâjô mahatô Ajô.*‖ Or reverse, Minerva clothed, holding shield and spear in a moving

* As. Trans. III. p. 162. v. p. 547. R. R. II. p. 37.

† R. R. II. p. 36.

‡ As. Trans. V. pl. xxxv. No. 13. new coins of this class have been lately discovered, VI. 987.

§ I. p. 19. ‖ R. R. II. No. 15. As. Trans. IV. pl. xxiii. No. 18.

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position.* Or, reverse with a male figure in a tight tunic; tiara with ribbands hanging down, and bearing on the right hand a winged Victory. On both of them the same native legend, which is but seldom completely preserved.†

Or, the same obverse; reverse, a male figure, standing, with the tiara, and long stole, holding in the right hand an idol.‡ As far as traceable, the same native legend. Or, reverse with an Abundantia,§ standing and holding a cornucopia. Native legend, *maharajó, maható, dhamikó rajádirajó Ajó.* This complete legend is on the reverse not discernible.‖ Obverse, Ceres, seated on a throne, in the left hand a cornucopia, the right raised; reverse, Hercules standing, and leaning on his club.¶ As far as legible, the simple native legend.

The following coins are of importance, as they mark the provinces, which were under Azes' dominion.

Obverse, the king on horseback. Reverse, the humped bull; on others, a Bactrian camel.** Obverse, elephant; reverse, the humped bull.††

Obverse, humped bull; reverse, lion without mane,‡‡ or Bactrian camel.§§ The Greek legend always the same, and the simple native legend ("without *dhamiko*") on some, *rajarajó*; on others, *râjâdirâjó.*

Obverse, Neptune clad in the pallium, standing, with the left hand leaning on the trident, the right foot placed on the figure of a man, as if swimming. Reverse, a female figure in a long robe.‖‖ M. R. R. has proved, that these symbols allude to

* R. R. II. p. 40. As. Trans. iii. pl. xi. 45. No. pl. xxiii. No. 15.

† R. R. II. No. 19. As. Trans. at the same place xxiii. No. 17, No. 19.

‡ R. R. II. No. 16. As. Trans. iv. pl. xxiii. No. 24. perhaps also No. 20. No. 21.

§ So in original. Goddess of Plenty.

‖ R. R. II. p. 43. As. Trans. IV. pl. xxiii. No. 22. The legend v. p. 549.

¶ R. R. II. p. 45. As. Trans. iv. pl. xxii. No. 10. No. 11.

** R. R. II. p. 43. As. Trans. IV. pl. XXII. No. 9.

†† R. R. II. p. 44. As. Trans. IV. pl. XXII. No. 4, 5.

‡‡ At the same place No. 1, 2, 3.

§§ No. 6, 7, 8.

‖‖ R. R. II. No. 17, As. Trans. IV. pl. XXIII. No. 14.

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the Indus river, and to India conquered. Legends, as above described.

As now by these coins Azes lays claim to having conquered the Indus, so the four animals evidently point out the extent of his dominion. The Bactrian camel requires no interpretation, nor the maneless lion, which undoubtedly alludes to an Indian district, and though in our time the lion is only met with in Guzerat,* they must in Azes' time not have been confined to that province. I would rather presume, that by the adoption of the lion, the Sinha, the subduing of the lions among Indian men, viz. the Narasinha, Rajaputra was to be represented, therefore the subjugation of the warlike tribes in the modern Rajpootana, which moreover lies beyond† Guzerat. The Indus subjected, refers certainly to the districts towards its mouth, to Pattalene, which on the west is bounded by Guzerat. As now, the elephant likewise points to Indian provinces, a question arises as to what particular province this refers. It must of course allude to that part of India, which must have been likewise under Azes' dominion, viz. to the country to the north of Rajpootana, the Punjab; yet I confess, I know not why the elephant, which might obviously be used as an emblem for the whole of India, should be made to refer to this part of India alone. A glance

* Mr. Lassen is not aware, of how valuable an argument he has deprived himself in not having ascertained the existence of the lion in our days in Hurriana, where they were a few years ago plentiful; they are now more rare, being driven into the desert by sportsmen, and the gradual settlement of the country. Lions have been shot within the last fifteen years on the banks of the Chumbul, not more than fifty miles from Dholepore.

† I have already observed, that the lion even in our days is known to exist at no great distance from the Indus. It is perhaps worthy of remark in this place, that ample evidence is extant as to the great changes which must have taken place in the localities of wild animals in India, on the testimony of Baber, who mentions killing the rhinoceros on the banks of the Sind and Behreh. "There are numbers in the jungles of Pershawur and Hashhagar," according to Baber, (A. D. 1526), whereas in our own days that animal is not found to frequent any part of upper India above the Pillibheet forests in Rohilkhund; under these circumstances, it is hard to fix a location for the lion in the days of Azes.

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at the map must give evidence, that Azes could not allude to any other country.*

It will be proved hereafter, that the Greek kings also, who have chosen the emblem of the elephant for their coins, must have especially referred to the Punjab.

If then the elephant and the lion allude to India, and if Azes also possessed Bactria, he cannot have typified by the humped bull any other country than that on the Cabul. This interpretation is also very well adapted to the other instances in which this symbol occurs; moreover, the Chinese mention the very same humped bull as an animal they for the first time met with in Kipin ;† the names of Cabura (*gopura*, town of cows,) Kophen, and Koas, are perhaps allied to the name of the animal; on this point, however, the native orthography of these names alone can decide.

Azes, moreover, proclaims himself the possessor of so many provinces, upon those coins, where, besides the ordinary reverse of the king on horseback, the reverse exhibits a Victory,‡ having in the left hand a palm, in the right an indistinct effigy, probably bearing a trident. The native legend is *mahârâjô râjarâjô mahatô Ajilisô*. Of this hereafter.

We first mention the coins on which he is seen seated cross-legged, a sword across the knee, while the reverse has a four-armed male figure.§ I think, it certainly represents the Indian god Shiva. He had therefore adopted the Indian worship, as did after him Kadphises, and in some degree the Kanerkis. Azes was either also called *Azilises*, or this was the name of his son and successor. This fact is proved not only by the coins, already mentioned, but also by the following:

King on horseback, with lance depressed, and the Greek legend, ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΑΖΙΛΙΣΟΥ.

* We have an excellent dissertation by Mr. Ritter, on the extreme boundary within which the lion is found in India, Erdkunde VI. p. 709, to which I willingly refer.

† Ritter, Erdkunde, VII. 684.

‡ R. R. I. No. 16.

§ As. Trans. IV. pl. XXII. No. 12, 13. R. R. II. p. 46.

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Reverse, Victory with a palm in her left hand; in the right a trident; native legend, *Mahárájó rájárájó maható, Ajilisó.**

The same obverse, with the reverse of the humped bull, and with the same legends.†

Azilises therefore claims Cabul and the country on the Indus to the sea, and if he were another king than Azes, as I think he was, he must have been his successor, on account of the exact correspondence in their coins.

It is, however, of far greater importance, to determine the period of those kings.

The coins of Azes are so closely connected with Greek types, that he must undoubtedly be a proximate successor of the Greek kings and their dominion.‡ Kadphises and the Kanerkis are at a greater distance. Kadaphes alone pretends to have conquered the empire of Hermaios; and yet, this Kadaphes must have lived, according to the coins, at a later period than Azes. But if then Hermaios reigned about the year 120 B. C., Kadaphes must be of almost the same period; Azes would be, on this supposition, an earlier successor to the other Grecian thrones; he preceded Kadaphes therefore, and must be considered as a cotemporary of Hermaios. We shall hereafter state, to what conclusion the examination of the historic accounts must lead us. As to the matter in hand, M. Raoul-Rochette maintains, that the Minerva type of Azes was imitated after that of Vonones; for as the titles and the monagrams on the coins of both kings correspond with each other, Azes must be taken for the successor of Vonones.§

If I be allowed to object to the opinion of so solid as cholar, I venture the following remarks:—

First, the connexion between both of them being ascertained, why does it follow, that Vonones preceded Azes? Certainly neither from the execution of the coins, nor from the historic accounts, would he do so. The Indo-Scythians decidedly reigned

* R. R. II. No. 20. As. Trans. IV. pl. XXIII. No. 27.

† At the same place, No. 28.

‡ R. R. II. p. 47, p. 41.

§ R. R. II. p. 30, 41.

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on the Indus, previously to Vonones, even if he were the first of this name. Secondly, how can M. Raoul-Rochette reconcile the facts, that Azes was the immediate successor of the Greeks, and was still preceded by Vonones, obviously of Parthian origin. The monograms decide nothing as to the succession. Parthian kings, even Arsakes VI, had, a long time previously to Vonones, the title of "great king of kings." The epithet "just," assumed alike by Azes and Vonones (this escaped the notice of M. R. R.) also occurs much earlier in Parthian history, even in the time of Arsakes VII.* Why must Azes have borrowed these titles from Vonones? As Archelios among Greek kings already styled himself "just," why cannot Azes have adopted this title from him? Lastly, the Minerva type, upon which the whole argument is based, already occurs with Amyntas; why should it not have descended thence to Azes?

The Vonones under consideration, can hardly be the first of this name, and if M. Raoul-Rochette be right, we must assign Azes to a still later period. I think, however, I have proved, that we shall proceed with more certainty in determining Azes' place by historical accounts, independent of any connexion whatever with Vonones.

It is probable, that such an extensive empire as that of Azes, was not at once overthrown; thus we observe, besides those of Azilises, coins, apparently belonging to successors (of his dynasty); the emblems of the various provinces, however, viz. camel, humped bull, lion, and elephant, do not recur; hence we may conclude, that the successors were not powerful enough to maintain the whole empire.

Some of the coins above (see As. T. 1840, p. 645.) mentioned, perhaps, belong to this class; we would still add the following:

An equestrian coin with ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ; reverse, king holding a spear, with a Kaftan,† and *mahárájó*. Azes never has this dress himself; a name is not traceable.

Another coin of a horseman, with illegible Greek legend, and the monogram of the Kadphises' coins. Reverse, two male

* Visconti. Iconogr. III. 76, 80.

† As. Trans. IV. pl. XXIII. No. 25.

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figures crown the king, who stands between them, and leans on a club. On the native legend are only the initial letters of *Mahárájó* discernible, and of the name, ‏ר——מאו; the three middle letters should be, according to Mr. Prinsep ‏וזדר; according to the coin, however, this is hardly clear.*

There is a third equestrian coin, on which a figure of indistinct shape delivers to the horseman a diadem. Greek legend effaced. On the reverse, according to Mr. Prinsep, a Caduceus; the name indistinguishable; we can only read *Mahárájó*.†

Of the following king, we know but the name of his brother; and even with this clue, his era has not been ascertained. It is Spaliryos, likewise represented as a horseman. The reverse seems to have been much disfigured; the well known type of Hercules seated. The legends are above described.‡

On account of the similarity of the name, we place after him Spalirisos, with Tartarian Kaftan, and a palm over his left shoulder. The reverse is apparently a disfigured form of Jupiter,§ seated, as occurring on the coins of Hermaios. This king appears to have reigned in Laghman, and perhaps also in some neighbouring districts.

As these last mentioned sovereigns still preserve the relics of Grecian art, so also Vonones, who belongs to this class as being a horseman.

The king on horseback, with depressed lance. Legend, ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΟΝΩΝΟΥ. Reverse, Jupiter, clad in the pallium, leaning on the sceptre, in the right hand the thunderbolt.‖ On the reverse, a Victory without wings, in the left hand a palm, in the right something indistinguish-

* As. Trans. V. pl. XXXV. No. 5. from the Punjab. The position of the horseman is quite the same with the Parthian Artaban III.

† As. Trans. V. pl. XXXV. No. 15. pl. XLVI. No. 14. V. XXXV. perhaps belongs too, to this king.

‡ See As. Trans. IV. pl. XXI. No. 9. V. pl. XXXV. No. 6. R. R. II. No. 9. From the Punjab and Beghram. R. R. II. p. 26. As. Trans. V. p. 551.

§ R. R. I. No. 21. As. Trans. V. pl. XXXV. No. 7. IV. pl. XXI. No. 7, six specimens from Manderor in Laghman. As. Trans. V. p. 551.

‖ R. R. II. No. 10.

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able.* The same Greek legend; the native one has been already mentioned.

Lastly, Hercules, the lion's skin in the left hand, the club on his arm, crowning himself with the right; reverse, Minerva, νικηφόρος, with a helmet; on her left hand the shield, and holding on her right hand a winged Victory.† According to the native legend, the word ΔΙΚΑΙΟΥ must have occurred here instead of ΜΕΓΑΛΟΥ

I think I have already proved, that the name Vonones cannot have occurred in native characters on the reverse of these coins, but probably the name Volagases; and further, that this Vonones need not have been, according to the coins, a predecessor of Azes. On comparison with other Parthian coins, it is likewise evident, that Vonones, in striking coins for his Cabulian subjects, followed the coinage of Cabul, and not of the Parthians. To trace the period of Vonones from coins, purely Parthian, would therefore be fallacious.

Another fact to determine the era of Vonones offers itself in the following. The initial letter of the Parthian coin, above described, is M. The Roman Victory on this coin, renders it necessary to assign to this king a later period than to Vonones I. who first of the Arsacides adopted this type.‡ This also leads to Meherdates, who was educated in Rome, and the initials of the name are more like ME than MO; but this does not decide the question, whether it were Vonones the First or the Second.

As we have now to admit among the sovereigns of Cabul, not Greeks, but Parthians also, who probably reigned after Azes, (on this hereafter), so a dynasty succeeded the great Indo-Scythian, which assumed the Soter-title of the Greeks. As Azes does not bear this title, they are probably not his descendants.

First, a nameless king, a horseman like Azes, with the legend [ΒΑΣΙΛΕΥΣ] ΒΑΣΙΛΕΥΩΝ (sic) CΩΤΗ[Ρ] the name is effaced. The reverse presents a male figure walking, with the left hand extended; in the right an elevated spear, with a pecu-

* R. R. II. No. 14. of the coin. As. Trans. IV. pl. XXI. No. 15. I do not venture to trace the reverse.

† R. R. II. p. 30. I. No. 20. As. Trans. IV. pl. XXI. No. 10.

‡ Visconti Iconogr. III. 146.

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liar head-dress, the left shoulder naked, otherwise clad in a robe after the fashion of the Gods on the Kanerki-coins. Legend, 𐨟𐨪𐨿𐨟𐨁 𐨟𐨪𐨁𐨯𐨿𐨟𐨁 𐨟𐨪𐨿𐨟𐨪𐨁𐨪𐨚𐨪𐨿, *mahatô tadharô maharajô*; the name is also here effaced.*

The monogram on this coin is now the very same with that of the nameless Soter-megas, and we must recognise here, if not himself, yet a near successor of his. The Greek characters do not allow us to connect this king, or the nameless Soter, with the Greeks.

This Scythian Soter dynasty, however, prove themselves as of the same period, or as directly succeeding, the Arsacides above-mentioned, by the following coins, namely by those of Yndopherres. Having the same title, the same Greek characters, and, besides, the Victory of the Arsacides, he is allied to them. He is a complete barbarian in comparison with Azes, and if Yndopherres indeed succeeded the Parthians, Azes may claim an earlier era. Yndopherres, however, endeavours to keep the Greek style of the stamp, while the Kadphises, about to be mentioned, has removed every trace of Grecian art, save the characters, on which he also obtrudes words of his language.

Kadphises. The king on a low seat, bearded, in a high Tartar cap in the form of a cylinder, from which flowing ribbands descend, in a Kaftan and Tartar boots, holding a branch in his hand. In the space below, a club. Reverse, Siva in a light dress, the left hand on the bull Nandi, in the right the trident. There occurs the complete native legend above described; the Greek is the short one.†

The king standing in the same dress, the left hand on his hip, holding the right over a small altar, above which, a trident; in the left space a club (or a sceptre) the long Greek legend; the reverse as above described.‡

Bust of the king, in the right hand sceptre or club; above the cap, the moon-formed sickle (of Siva); in the left a small

* As. Trans. IV. pl. XXIII. No. 23.

† R. R. Journal des Sav. No. VIII.

‡ Trans. of the R. A. S. I. No. 10. R. R. I. No. 23. p. 30. As. Trans. III. pl. XXVI. No. 4. No. 5. V. p. 547. From Balkh, from Beghram and Manykyâla.

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hammer, short Greek legend. Reverse, Ardhanari, holding in his right hand a long trident, in the left the discus and pasa of Siva; the complete native legend.* The same reverse; the bust facing the right.†

Lastly, the king on a carriage with two horses; over the shoulder the club, in no proportion with the charioteer; the short Greek legend. Reverse, Ardhanari with the native legend.‡

As copper coins of Kadphises are dug out even near Benares,§ he must have reigned from Beghram to a great distance in India Proper. The execution of these coins is indeed still Greek, but whenever the worship of Siva is represented, the types have become purely Indian. This worship first appears, though not frequently, with Azes, is exclusive with Kadphises, and is joined by the Kanerkis with Bactrian gods, who have the same monogram with Kadphises, and are found together with his coins.‖ There is scarcely any doubt, that Kadphises was a near predecessor of the Kanerkis. His relation to Kadaphes is more obscure. It is clear, that Kadphises has some reference to him, save that the former is more ancient, because he is immediately connected with Hermaios. This king (or the last of his name) was limited to Beghram, and this must have been the principal seat of Kadaphes, though his dominions were of further extent. Now it is a singular fact, that according to the Chinese accounts, the ancient (Scythian) empire of Gandhara was situated in Kiapiche (Capissa), and therefore just beyond Beghram, while the native legend expresses the name Kadphises by Kapisa; this is accordingly the name of the country in the form of pronunciation delivered to the Greeks and Chinese, which name, however, appears to be an absorption from Kadphisa. If the name however be a geographical determination, a new enigma is given, and Uhavima must be understood in this case

* R. R. I. No. 22. From Cabul in a tope. R. R. I. 28. II. 4. 56. J. des Sav. p. 390.

† As. Trans. IV. pl. XXXVIII. 4, No. 2, 3.

‡ The same No. 1.

§ As. Trans. p. 631.

‖ As. Trans. IV. 631.

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as a proper name. But it is at variance with this supposition, that Kadaphes should bear the same name. Or is this perhaps a title, and the same case with the nameless *Soter-megas*.

It would be also desirable to ascertain in an approximative degree the relation of Kadphises to the Scythian Soter family. Yndopherres, like Kadphises, appears to have reigned in Beghram;* but the former is allied to the Parthians, the latter to the first Azes; the first has ruder coins, though a classic style; the second, types of a better, although of entirely Indian execution, with an assimilation to Azes by the Siva-worship, while his relation to Kadaphes places him nearer Hermaios; he appears therefore more ancient than Yndopherres. The only objection would be, that the latter in this case is thrown between Kadphises and Kanerki. If the equestrian coins allude, as I presume, to a more westerly country than Gandhara, the solution is perhaps given by the conjecture, that Yndopherres and the Soters, closely allied to him, reigned as horsemen in a more westerly direction than Kadphises and Kanerki; they might therefore rather be placed near either of them, than between them; but I willingly abandon this uncertain base of argument.

It will be proper to look out for firmer grounds upon which we may classify the many dynasties, above enumerated.

§ 15.

Greco-Bactrian Kings.

Let us turn now to the examination of the written accounts of the history of the Greeks in Bactria. Bactria continued under the dominion of the Seleucides to the period of Antiochus II. (262—247. B. C.) when Theodotus took advantage of the weak government, and probably of the wars of that monarch with Ptolemy II. to render himself independent. This separation of Bactria from the monarchy of Antiochus happened a short time before the declaration of independence by the Parthians, or previously to 256 B. C. as appears from the fact, that Arsaces,

* According to the number of coins, there discovered. As. Trans. V. p. 547.

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the founder of the Parthian empire, had fled from the increasing power of Theodotus.*

We do not know how far the power of Theodotus extended. Sogdiana was perhaps subjected to him, but it is hardly credible that the thousand towns which Justin attributes to him, to show his power, really existed in his dominions. Bayer plausibly conjectures, that these thousand towns were erroneously transferred by Justin from a notice on Eukratides, to the founder of the Bactrian empire.† The passages show only that Theodotus contrived the conquest of Parthia, while the aggrandisement of the Bactrian power is ascribed to Euthydemos.

In opposition to the explicit authority of these authors, M. Raoul-Rochette has endeavoured to establish Agathokles as the founder of the Bactrian empire.‡ It is true, the eparch of Persia under Antiochus II. is called sometimes Agathokles, and sometimes Pherekles; but our Agathokles reigned in a province of India, and previously to Euthydemos the Bactrian dominion did not extend so far southward.

* Prolog. Trog. Pomp. XLI. "In Bactrianis autem rebus, ut a Diudoto rege constitutum imperium est." Just. xli. 4. On Arsaces: "Non magno deinde post tempore Hyrcanorum quoque regnum occupavit, atque ita duarum civitatum imperio præditus, grandem exercitum parat, metu Seleuci et Theodoti, Bactrianorum regis. Sed cito morte Theodoti metu liberatus, cum filio ejus et ipso Theodoto fœdus ac pacem fecit. Strabo xi. c. 2. p. 515 "Νεωτερισθέντων δὲ τῶν ἔξω τοῦ Ταύρου διὰ τὸ πρὸς ἀλλήλους εἶναι τοὺς τῆς Συρίας καὶ τῆς Μηδίας βασιλέας, τοὺς ἔχοντας καὶ ταῦτα, πρῶτον μὲν τὴν Βακτριανὴν ἀπέστησαν οἱ πεπιστευμένοι, καὶ τὴν ἐγγὺς αὐτῆς πᾶσαν οἱ περὶ Εὐθύδημον." § 3. p. 515. on Arsaces, "οἱ δὲ Βακτριανὸν λέγουσιν αὐτόν. φεύγοντα δὲ τὴν αὔξησιν τῶν περὶ Διόδοτον, ἀποστῆσαι τὴν Παρθυαίαν.

But there was no long interval between both insurrections. Justin, xii. 4, fixes the defection of the Parthians as under the consulate of L. Manlius Vulso, and M. Atilius Regulus; "eodum tempore etiam Theodotus, mille urbium Bactrianarum præfectus, defecit, regemque se appellari jussit. Quod exemplum sequuti, totius orientis populi a Macedonibus defecere." But who were they, unless the Parthians?

† p. 47. ‡ J. des Sav. 1834. p. 334.

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There have not yet been discovered coins of Theodotus and his son of the same name, and they can only come from Bactria.

Whether another king reigned between Theodotus II. and Euthydemos, is unknown, but not improbable; the one fact is certain, that the latter sovereign dethroned the family of Theodotus, for he alleged this very act in order to obtain the favour of Antiochus III.*

Upon Strabo's authority, above mentioned, Euthydemos took possession of the districts adjacent to Bactria; Parthia cannot be understood by this, he must have meant Aria and Margiana; he had at least collected against Antiochus an army of horsemen on the borders of the Arius,† and had already fought against the northern nomades, he must have, therefore, certainly possessed Sogdiana, and to him probably refers the notice, that the Greek kings of Bactria divided their empire into Satrapies.‡

We owe to the expedition of Antiochus against upper Asia, a clearer insight into the circumstances of those countries at that period. This war, and the negotiations between the Syrian and the Bactrian kings belong to the years 208-5. B. C. From Polybios' account, which is extant, it follows, that the Parthian

* Polyb. Fragm. xi, c. 34. Schw. III. p. 379. γεγονέναι γὰρ οὐκ αὐτὸς ἀποστάτης τοῦ βασιλέως, ἀλλ' ἑτέρων ἀποστάντων, ἐπανελόμενος τοὺς ἐκείνων ἐκγόνους, οὕτω κρατῆσαι τῆς Βακτριανῶν ἀρχῆς

† Polyb. x. 49.

‡ Strabo, xi. 11, 2. οἱ δὲ κατασχόντες αὐτὴν Ἕλληνες, καὶ εἰς σατραπείας διῃρήκασιν· ὧν τήν τε Ἀσπιώνου καὶ τὴν Τουριούαν ἀφῄρηντο Εὐκρατίδαν οἱ Παρθυαῖοι.· Ἔσχον δὲ καὶ τὴν Σογδιανὴν κ. τ. λ. The two satrapies mentioned, evidently lie toward the northerly Scythian country, the frontier of Sogdiana. The Ἀσπασιάκαι (Strabo, xi. Scyth. 8.) to whom Arsaces fled, belonged to the Chorasmians and Attasians, who have likewise the name Ἀυγάσιοι; perhaps we ought to read Ἀσπάσιοι. Polyb. (x. 48.) calls all Nomades about the Oxus *Aspasiaces*, which is therefore a general term for the nations of horsemen (*Aspa*, horse). Mr. Burnouf undoubtedly explains with propriety Turiana by the word of the Zend Tûirja; it is the Turan of Firdusis; the Turanian satrapy of Bactria, according to Strabo.

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empire, at that period, was still limited to Hyrcania and Parthia, and the Scythian nomades to their northerly heaths, though even menacing invasion. Among the conditions of peace occurred likewise the following stipulation,—that Euthydemos was to surrender his elephants; hence we may presume, that although he had made no expedition on the south beyond the Caucasus, yet, he must have entered upon connexions with India. At that time he had not yet a firm footing southward of the mountains, as we find there the king Sophagasenos, who concluded an alliance with Antiochus, delivered over to him some elephants, and agreed to pay him a certain sum of money. The Indian king apparently engaged in this league as a protection from Euthydemos, whose power had already manifested itself in the south of the Caucasus. As it is called a renewed treaty, this Indian king must have belonged to the dynasty of the Palibothrian princes, who had always been in friendly relations to the Seleucides. We can indeed prove hereafter, that from the time of Seleukos Nikator, those Indian kings possessed the country west of the Indus to the Caucasus,* and hence it arises, that the Bactrian kings, down to the time of this peace, had no possessions in the south of the Caucasus, and only when Antiochus entangled himself in disputes with Egypt, and thereby with Rome, were they at liberty to engage in plans for an invasion of India; that is therefore about the year 203 B. C.

Antiochus effected his retreat through Arachosia and Drangiana, and there is no reason to doubt, that both countries were still under the dominion of the Seleucides.†

Demetrios, the son of Euthydemos, then a youth of remarkable beauty, had a principal share in concluding the peace with Antiochus, whose daughter was given him in marriage.

This Demetrios however is afterwards not mentioned as king of Bactria, but of India ("Demetrii regis Indorum"‡)

* De Pentap. Ind. p. 42—45.

† By the notice, that Seleukos had also yielded Arachosia to Kandragupta, we have certainly to understand but the district eastward of the sources of the Helmund and the Lora. ‡ Justin. xli. 6.

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fighting with Eukratides for the dominion of Bactria, and eventually conquered and deprived of India by this king. We do not know, whether he originally succeeded his father in Bactria, and was expelled from thence, and limited to his Indian possessions, being eventually deprived of them also, or whether some one embraced the opportunity of his absence from Bactria, while he was perhaps engaged in an expedition against India, after the death of his father, to take possession of the Bactrian throne.* Nor do we know, whether Eukratides or a predecessor of his, expelled the family of Euthydemos from Bactria.

The opinion which most naturally suggests itself is, that Eukratides expelled them; up to this time, however, Menandros has been ordinarily considered as king of Bactria before Eukratides, though some say, Apollodotos, probably the son of Menandros, or, lastly, Heliokles, whom we know only from the coins. The opinions maintained as explanatory of these different successions to the throne of Bactria, must exceedingly differ one from another, on account of our defective information; and were we to examine these opinions, it would be evident, that all of them are more or less artificial and forced, and even dogmatical. But instead of subjecting them to a critical review, it will suffice our purpose to refer (Bayer, p. 85—89. R. R. I. 34. II. 33,) to them, and to attempt arranging the facts in the way in which, from our own comparison of the respective passages, and the new results derived from the coins, we think we must needs consider them.

First; the conjecture of adopting three kings in Bactria between Euthydemos and Eukratides, appears somewhat improbable. Menandros is among them, whose reign cannot have been a short one, since we know that he had made great conquests in India, and gained by his justice the general attachment of his

* M. R. R. infers from the coins, that Demetrios, although for a short time, did also reign in Bactria. This conjecture is not improbable, though the conclusion of R. R. does not appear to me to be founded on a firm basis.

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subjects. On this fact we have the authority of Plutarch and Strabo.*

Secondly; the respective passages, more carefully considered, do not render it necessary to consider Menandros as a king of Bactria, but they are rather at variance with this view.

Plutarch makes no mention of Menandros but accidentally; and the great conqueror is so little known to him, that he calls him, "*one Menandros.*" As now even Strabo, though he had before him the book of Apollodoros of Artemita, the very best authority for this history, does not distinguish in a remarkable manner the separated dominions of the Greeks in India, a fact fully established by the evidence of the coins; we cannot be surprised, that Plutarch in later days, confounded the separate Indian empire with the Bactrian one. The expression he uses, does not therefore oblige us to consider Menandros as king of Bactria.

Strabo, when summing up in his passage the greatest extent of power on the whole, any where attained by those Greeks who rendered Bactria independent, mentions Menandros as the sovereign who advanced farthest towards India; but he is not named there as king of Bactria, nor does this follow from a passage conceived in such general terms as this is. If we do not explain this passage as intended to give a general view, but rather limit the facts mentioned to Menandros and Demetrios, they would be considered by Strabo as those that stirred up Bactria against the Seleucides, and who had also possessions in the country of the Scythian nomades; now the first statement would be false, and the second improbable.

Lastly; the following passage, (Prolo. Trog. Pomp. XLI) "*Indicæ* quoque res additae, gestae per Apollodotum et Menandrum, reges eorum. *Bactria* was, it is true, already mentioned, but why should this prevent a suspicion, that in such an extract the expression was too concisely given, and that instead of explaining "eorum" by "*Bactrianorum,*" we should not rather supply "*Indorum*" from "Indicæ?"

* Plutarch de Rep. Ger. p. 821.

Μενάνδρου δέ τινος ἐν Βάκτροις ἐπιεικῶς βασιλεύσαντος, εἶτα ἀποθανόντος ἐπὶ στρατοπέδου κ. τ. λ.

Strabo. XI. p. 516. We shall hereafter examine this passage.

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I infer from this discussion, that none of the passages cited necessitate our considering Menandros as a Bactrian king, and still less Apollodotos. It is only certain, that Menandros made great conquests in India; we must therefore have recourse to the coins.

Thirdly; these coins always exhibit Cabulian letters as their symbols, and their places of discovery, moreover, refer to an Indian empire, and we may justly assign Menandros and Apollodotos to the history of the Indo-Grecian kingdoms.*

Now as to Heliokles:—

This king, mentioned by no author, must have his place assigned him on numismatological grounds alone; but different conclusions have been drawn from them by different writers. Visconti, and M. Raoul-Rochette think him earlier than Eukratides; in this case he might be the very same who removed the Euthydemides from the throne, and the epithet, "the just," might allude to his retributive justice towards the family of the usurper Euthydemos. M. Mionnet takes him for the successor, and even for the murderer, of his father Eukratides. In this case he was perhaps the last Greco-Bactrian king. The numismaticians may settle this dispute among them. There is ample room for him, as well before as after Eukratides, if even *two* Eukratides be adopted. †

* See Mr. Mueller, p. 208.

† Visconti. Icon. III. p. 253. R. R. II. p. 20. p. 26. Mionnet VIII. p. 470. M. R. R. concedes (p. 20) that Heliokles was coeval with his Eukratides II.; but supposing now, that there were *two* Eukratides, or say even, there were only one, how can Heliokles, who has no claim whatever to having possessed any empire save Bactria, have been coeval with Eukratides, unless he were his immediate predecessor or successor? The numismatological reason for assigning to Heliokles an earlier era, seems not to be very evident, as M. R. R. does not mention any certain fact. Visconti's inference, drawn from the epithet, is wholly inconclusive. But how can we reconcile, that in vol. II. p. 20, M. R. R. should make Heliokles a contemporary of Eukratides, while in vol. I. p. 33, he is considered the successor of Demetrius, predecessor of Antimachos, and pre-predecessor of Eukratides I? M. Mionnet explained the epithet of Heliokles, by the passage of Justin, in which he prides himself on the murder of his father as of a good deed. If he were indeed the son and successor of Eukratides, this interpretation of

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However Demetrius may have been deprived of the Bactrian throne, it is established, that he founded an Indian empire; thence attacking Eukratides in Bactria, he was conquered by this king, who then took possession of India also.*

Let us first settle where we have to look for the empire of Demetrius. Strabo, in the passage where he takes a general view of the conquests of the Greek kings, mentions two of them, Demetrios and Menandros, as the greatest conquerors. These conquests included partly Ariana, by which Strabo means the country of the Paropamisades, Arachosia, and Gedrosia; and partly countries to the north of Sogdiana. The mention of the Serians does not lead us to *China*, as has been objected to that reading, but to the *Issedon Serica* of Ptolemy, on the borders of the Achardus, whether it be Yarkiang or Kaschgar, and where indeed is the improbability of this supposition? This is the construction of the geographer, Dionysios (p. 752,) Καὶ Τόχαροι, Φρούγοι τε, καὶ ἔθνεα βάρβαρα Σηρῶν." These conquests lastly included districts towards India, and this in two directions, in India Proper, beyond the last river reached by Alexander, beyond the Hyphasis to the Jumna, and down the Indus to the sea, comprising the Delta of Pattalene, and further to the east Surastra or Guzerate, extending along the shore.†

the epithet would be most acceptable, were it not wholly preposterous; for M. R. R. says, (II. p. 20.), "Cette idée est si extraordinaire, qu'elle ne comporte pas une discussion serieuse. Jamais en aucun temps et dans aucun pays du monde on n'a bravé l'opinion publique, ni outragé la raison et l'humanité au point de pretendre couvrir un parricide par le titre *Juste*." I however will not venture "tantas componere lites." It affords me extreme pleasure to learn, that the science of Numismatics is the only one which does not submit to force, and pay homage to crime, that it has even necessitated such an abominable monster as the son and murderer of Eukratides to preserve upon his coins, that respect for public opinion, which he elsewhere so boldly violated!

* Justin. XLI, 6. Strabo XI. 1, p. 516.

† Τοσοῦτον δὲ ἴσχυσαν οἱ ἀποστήσαντες Ἕλληνες αὐτὴν (Bactria) διὰ τὴν ἀρετὴν τῆς χώρας, ὥστε τῆς Ἀριανῆς ἐπεκράτουν, καὶ τῶν Ἰνδῶν, ὡς φησιν ὁ Ἀπολλόδωρος ὁ Ἀρταμιτηνὸς, καὶ πλείω ἔθνη κατεστρέψαντο ἢ Ἀλέξανδρος, καὶ μάλιστα Μέ-

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It has not been noticed, what direction the conquests of Demetrius followed; those of Menandros, it is said, were directed against India Proper. But who then conquered Ariana? Who Pattalene? Who the country of the Serians? Strabo makes no distinctions there, and the last country at least, could have been hardly conquered by Demetrius or Menandros, though we must probably ascribe the conquest of Pattalene to either of both kings. But to which?

νανδρος. εἴγε καὶ τὸν Ὕπασιν (edd.—*νιν*) *διέβη πρὸς ἕω, καὶ μέχρι τοῦ Ιομάνου* (edd. *Ἰσάμου*) *προῆλθε, τὰ μὲν γὰρ αὐτὸς, τὰ δὲ Δημήτριος ὁ Εὐθυδήμου υἱος τοῦ Βακτρίων βασιλέως. οὐ μόνον δὲ τὴν Πατταληνὴν κατέσχον, ἀλλὰ καὶ τῆς ἄλλης παραλίας τήν τε Σαριόστου* (or *Σαραόστου*) *καλουμένην, καὶ τὴν Σιγέρτιδος βασιλείαν. Καθ' ὅλου δέ φησιν ἐκεῖνος τῆς συμπάσης Ἀριανῆς πρόσχημα εἶναι τὴν Βακτριανήν. Καὶ δὴ καὶ μέχρι Σηρῶν καὶ Φρυνῶν ἐξέτειναν τὴν ἀρχήν.* The alterations *Ὕπασιν* and *Ἰομάνου*, "are perhaps necessary." *τε Σαριόστου* occurs together with *Τεσαριόστου* in the manuscripts. Mr. Prinsep (As. Trans. VI. p. 390) first noticed, that by this Surâshtra was to be understood. Apollodoros has perhaps mentioned a king, who was named after his country, as Taxiles was already before named in the same manner. Ptolemy has *Συραστρήνη*; according to him, it is the country between Cutch and the river Mahi, therefore Guzerate, Sigertis (in Sanscrit perhaps Srigarta) must be the coast round Barygaza; Ptolemy has, on the south of the Nerbudda, the town Siripala (Sripala) which perhaps denotes the same name. In Sanscrit this coast has the name of Lata (pronounced Lara) whence the Larice of the ancient authors.

"It is also called Surashtra, and its inhabitants *Surashtras*, the royal and excellent royal offspring. Another name for it is *Gurjjara-rashtra*, or kingdom of the *Gurjjaras* or *Gurjjas* in conversation. Hence it is called the country of *Gourz* or *Giourz* by one of Renaudot's Musalman travellers in the ninth century. From Surashtra and *Gujjara-rashtra* they have made, in the spoken dialects, Surat, and Gurjjarat, and even Gujjerat." Essay on the ancient Geography of India, M.S.S. No. 277. Library As. Soc. of Bengal.

(To be continued.)

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Abstract Report of the Proceedings of the Committee appointed to superintend the Boring Operations in Fort William, from their commencement in December, 1835, *to their close in April*, 1840.

Several attempts have at different times been made to supply the deficiency of good water in Fort William, by boring through the strata on which it stands, in search of subterranean springs. The present operations, which form the most recent of the series, were originally commenced in December, 1835, but the site then selected was shortly afterwards abandoned in consequence of the operations having been impeded by a dislocation of the joints of the metallic tubes lining the bore. As all attempts made to rejoint the dislocated tubes proved unsuccessful, the Committee selected a new locality closely adjoining, however, to that of the original bore, no advantage being anticipated from any change of site within the limits of the Fort, the succession of strata, and the circumstances of their disposition, being alike within so small a space.

On the 2nd of April, 1836, the operations of the Committee were resumed, by commencing the excavation of a shaft, ten feet in diameter, ten feet in depth, interiorly rivetted with good masonry, and having its bottom strongly planked, with masonry continued over the planking. A boarded floor with a central trap door moving on hinges so as to admit of access to the shaft, as occasion might require, covered the top. A large gin (Sketch No. 1) filled with the necessary tackling for working the rods and tools, and having a wooden platform supported by massive timber uprights, on which a heavy weight of guns was placed to give the requisite stability, was erected over the shaft. The rods, &c. were originally worked with ropes, but the expenditure of these became so serious as to lead to their being replaced by strong chain cables, which were found in every respect superior. Two chains attached to the ring of a brace-head passed subsequently through a triple block fixed to the apex of the gin, and were then led to two powerful crabs, firmly bolted to large fixed sleepers, at about fifteen or eighteen feet from the gin. A chain was attached to each crab, and on the screw of the upper rod being entered into the brace-head, the crabs were worked simultaneously, and the power of both thus brought to bear in raising the mass of the rods, or in any other necessary manner.

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On the 28th of April the actual excavation of the bore was commenced with a six inch auger, being that adapted to the tubing it was intended to employ. On the depth of 120 feet being attained, the quicksand, which had rendered the first attempt abortive, was again met with. The experience of its previous effects had rendered apparent the necessity of securing firmly the joints of the tubes, which was accordingly done by means of four short, but strong screws, in the manner represented in sketch No. II. To this precaution the success of the work so far was undoubtedly to be attributed, as the difficulties were found most serious from the loose, even semi-fluid, consistence of the sand, which on the removal of a portion of the water, then standing in the tubes within 15 feet of the surface, immediately rose to seventeen feet, and though the work was continued night and day, actually rose faster than its removal could be effected, so that at the end of eleven days and nights of incessant toil, it had risen from 124 to 103 feet.

Hence it became evident, that the only mode of overcoming the obstacles presented by the sand, was to force the tubes down till coming in contact with some firm stratum, the sand should be excluded; by unrelaxing perseverance and much labour, frequently with an advance of not more than a few inches in the day, the tubes at length attained a depth of 157 feet. The sand was then perceptibly gained upon, and at 159 feet a stiff clay was reached, and the borer which during the prevalence of the sand was always behind the tubing, now passed it, and in twenty-four hours attained a depth of 175 feet.

The open auger it was found could not be used with effect except in working through clay; a valved instrument, therefore, called the "Mudshell," had hitherto been employed for raising the sand. This tool however here became useless, from some defect in the action of the valve, which failed either to admit or retain the sand, now coarse and gravelly, and in consequence it was found impracticable to penetrate with it beyond 175 feet. One of the augers however being fitted with a valve, and otherwise altered so as to retain the sand, was employed with partial success, but not to an extent sufficient to prevent the sand rising in the tubes, since after working twenty-one days, and the tubing having been forced down to a depth of 177 feet 2 inches, it was found impossible to work the auger

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lower than 167 feet 10 inches; occasionally a partial advance was made, but it was neither permanent nor certain, from the constant variation of the height of the sand in the tubes.

On entering the stratum of stiff clay, above alluded to, the night-work had ceased, but it was again found necessary to resume it, as the only means of overcoming the existing difficulties. The effect of this was to carry the bore successfully to a depth of 182 feet 8 inches by the 27th of July, when a temporary suspension of the operations took place, from the supply of rods having become exhausted. It may be mentioned, that for some days prior to this date considerable inconvenience had been experienced by the stoppage of the borer, both in its ascent and descent, by some obstacle, the nature of which could not be ascertained. Had it been constant in its position, it might have been anticipated that the tubing had again been dislocated or forced from the perpendicular, but so far from this being the case, the borer occasionally descended and was brought up without the least difficulty; this temporary intermission was followed by the re-appearance of the impediment; again it intermitted, and latterly disappeared altogether.

A further supply of the rods having been obtained from Delhi, the boring was resumed on the 13th October, 1836.* During this interval of suspension, however, it was found that the tubes had

* The following singular circumstances connected with these Delhi rods, may here be placed upon record, though it has been found impossible to obtain any satisfactory explanation of their origin or cause.

1000 feet of rods, in lengths of 20 feet each, were received from the Court of Directors at one time; 500 feet of these were taken indiscriminately for the Fort Operations, and the remaining 500 feet were forwarded to the Magazine at Delhi. On the occasion of the supply in the Fort becoming exhausted, a portion of those sent to Delhi were called for, and 200 feet were in the first instance received, subsequently followed by the remaining 300. On working the two sets together a remarkable difference was observed between them. Under equal strains the rods obtained from Delhi twisted and bent with the utmost facility, while those employed in the Fort operations continued rigid and straight, so that ultimately the latter alone could be used in the daily work, the others being laid up in store as useless. Had this flexibility been confined to a portion of the Delhi rods, it might have been explicable on the supposition that some flexible rods had been intermixed with the rigid ones, but it was equally observable in the whole 500 feet of them, so that this explanation can scarcely be admitted, especially when it is remembered that in the first instance no sort of selection was employed. The strength of the Delhi was however considerably greater than that of the Fort rods, the former bearing a strain of 19.6 tons on the square inch, without breaking; while the latter yielded to a strain of 16.2 tons per square inch.

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sunk by their own weight from 183 to 187 feet, and the bore could now be worked to the depth of 189 feet. By the 10th November following, a depth of 238 feet 5 inches had been attained, the chief difficulty in prosecuting the work arising from the imperfect action of the instrument employed in raising the sand, in consequence of which the whole contents of the shell were frequently removed during its passage to the surface. To the construction of the valves of such instruments, much attention ought therefore to be paid, as on the effective action of these, the progress of the operations is most essentially dependant.

On the 15th November, an attempt was made to bring up some water from the bottom of the bore by lowering a bottle with a large brass plummet attached to it, to cause it to sink; but unfortunately before it could be raised, the connecting string broke, and the plummet was left below. Considerable anxiety was excited by this, from the anticipation (subsequently realized) of the auger coming in contact with the plummet, and being jammed within the tubing. On arriving at the depth of 271 feet, the lower part of the mudshell, including the valve, from some unknown cause broke off, and remained at the bottom of the bore. This accident caused much trouble, but after various attempts to extricate the fractured shell, the perforation of an aperture in it, by the use of a jumper, admitted of a strong conical worm auger being screwed into it, and by the hold thus obtained, it was successfully raised to the surface.

At the depth of 324 feet the borer came in contact with the long lost plummet, and became so firmly jammed between it and the tubing as to foil every effort made for its extrication, though the force applied at one time was so great as to raise the whole body of the tubing about 4 inches, the weight of this being certainly not less than 7½ tons, exclusive of friction. To guard against the inconvenience of an accidental fracture of the rods at any considerable distance beneath the surface, while they were subject to such strains, Captain Thomson of the Engineers suggested that the uppermost rod should be made *thinner* and *weaker* than those within the bore (so as to give way first) but yet capable of bearing a strain of 25 tons. The force subsequently applied caused the rods however to break at their connection with the mudshell, and though they were all brought

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up, the tool remained below. A new operation therefore became necessary for extracting the shell, and first the upper portion of it was considerably widened by the use of a jumper. A drill was then introduced, and after several day's labour a hole, sufficiently large to admit of the conical worm auger being screwed into the shell, was drilled. The entire shell was immediately brought up, bearing ample indications of having been in contact with the plummet, but leaving it still at the bottom of the bore.

On the first of October, 1837, the depth attained by the tubing was 431 feet, while the depth of the bore varied from 418 to 426 feet, according to the height of the sand. The water stood from ten to twelve feet from the surface, according to the seasons. By the 30th of April, 1838, the bore was 460 feet deep, and by the 18th September following, a total depth of 481 feet was reached. Just prior however to that depth being attained, the progress of the tubing was arrested by large stones requiring the use of the jumper. By its aid the tubing was again set free, but at 481 feet again arrested, and a repetition of the employment of the jumper became necessary. As the tool originally employed proved insufficient to fracture the stones then met with, a larger and heavier one was attached to the rods, and after a few blows, seemed to have effected its purpose; but on attempting to raise it again it was found to be so firmly jammed that every attempt at dislodging it proved fruitless. A great power was simultaneously applied to raising the rods, and forcing down the tubes, but with no other effect than the perceptible elongation of the former. About 150 blows of a ram, weighing 2½ cwt., with a fall of fifteen feet, were then given to the head of the rods, in the hope that the vibration thus communicated to them would tend to loosen the jumper from its hold. The large accumulation of sand over the tool and round the rods rendered it however problematical if the vibrations ever reached the jumper; and if they did, there can be little doubt that the above cause tended most materially to diminish their intensity, as no useful result followed the trial of this experiment. Again, and as a final effort, the tubing was securely held down, and four powerful jack-screws were applied to raise the rods, which after stretching two feet six inches, and thereby affording a gleam of hope that the difficulty was vanquished, unfortunately broke off at

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one of the connecting joints, 160 feet from the surface, the remaining 320 feet attached to the jumper, being left within the bore.

Under these circumstances the only hope of being able to continue the operations lay in the practicability of unscrewing and raising the rods, and this after much difficulty was at length so far satisfactorily effected by the use of an ingenious instrument designed by Captain John Thomson, that 290 of the 320 feet of the rods were successfully extracted. This instrument consisted of three steel arms rivetted to an iron bell, in the manner shewn in sketch No. III, and subsequently welded to the end of the undermost boring rod. The interior surfaces of the steel arms were cut in grooves so inclined, that on the head of the rod to be extracted being grasped within them, and a rotatory motion communicated to the instrument from above, the teeth cut into the soft iron, and by the hold thus obtained, the unscrewing and raising were effected. The bell acted as a guide, and was made of diameter just sufficient to admit of the instrument being readily worked within the tubing. It became necessary to pass iron pins through all the connecting joints of the rods, otherwise the rotatory motion would have unscrewed them.

On the 16th of February, 1839, the instrument above described was again successfully employed in unscrewing twenty feet more of the fractured rods. After this a single rod, only ten feet in length, remained attached to the jumper, and repeated attempts were made to effect its extrication, till at length during one of these, its joint unfortunately broke off, leaving the difficulty greater than ever. The only remedy which presented itself, was to construct a second instrument of which the steel arms would be long enough to lay hold of the shoulder strap in the centre of the rod. This instrument, after several unsuccessful attempts had been made with it to unscrew the broken rod, also gave way, the upper part appearing with one arm attached to it, while the other two arms attached to the bell remained below. By the use of the conical worm auger the broken instrument was occasionally raised as high as thirty feet, but the hold of it could never be retained to any greater height, some obstacle to its further progress upwards invariably meeting it there, and effectually preventing its removal.

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From the 10th to the 15th February, 1840, the work was prosecuted night and day without intermission, as a final effort to remove the sand which had accumulated over the broken instrument, rod, &c. and thus to admit of another tool (designed by Sergeant Longhurst, Sappers and Miners) to be used with greater facility. This tool shewn in sketch No. IV. consisted of an iron rod with four strong palls attached to it, and so constructed, that while the tube was passing down the tubing, or within the bell of the broken instrument, they lay close to the rod, but on its passing completely through, they moved on their axes and caught underneath the tubing or bell, so as to give fulcra for the force from above to act upon. In this instance, however, as before, the attempt terminated in disappointment, for though the broken instrument was occasionally raised a few feet, every exertion failed in raising it to the surface.

A long continuance of unceasing exertion on the part of those employed having thus proved insufficient for the removal of these obstacles, the Committee considered it their duty to discontinue, and were on the eve of communicating to Government their unanimous opinion that a further prosecution of the boring operations would only be incurring expense, for which there was no prospect of any adequate return, when it was suggested to them that some good effect might result from the explosion of a charge of powder, contained in a water-tight case, in the immediate vicinity of the broken tool and jumper. The Committee deeming it possible that the concussion thereby caused might loosen the hold of the jumper, or fracture the broken tool, so as to admit of its fragments being raised to the surface, and willing to adopt any expedient which promised them the power of continuing their labours, determined to make the proposed experiment. There was reason to believe that the steel arms of the lifting tool were considerably expanded and in contact on each side with the tubing, it was therefore desirable that the powder should be lodged within the arms, so that they at least might be broken in pieces by the first explosion. With this view a strong tin case, carefully soldered and terminating in a pointed extremity, was prepared for the reception of about 15 lbs of powder, but preparatory to charging it for explosion it was filled with dry sand, firmly plugged up, covered with water-proof composition, and lowered to the bottom of the bore. On raising it

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again, the original cylindrical case was found to have been compressed by the water, into the shape of an octagon, acute ridges, about ¼ of an inch in height, alternating with the flattened sides (sketch No. V.) The pressure had ruptured the tin at the edge of the top of the case, and the sand was saturated with the water. A double case was then constructed, having interior cross pieces to strengthen it, but a similar result to the preceding followed the lowering of this, and for it also the pressure (upwards of 5,000 lbs.) was found too great. A cylinder of wrought iron was then prepared, and on sending it down the bore it was found so far capable of resisting the pressure of the water as to retain its shape, but the sand was still damped. Since however the water had only partially wetted the sand, it seemed probable that additional care in soldering and in applying the water-proof covering might exclude it altogether, and accordingly it was determined to make the first attempt with this wrought iron case.

The depth of water being about 465 feet, the galvanic battery was of course the only igniting agent which could be employed and the following are the details of the arrangements adopted. A wooden plug was turned somewhat larger at one extremity than the collar of the cylinder into which it was subsequently to be driven. On opposite sides of this plug, grooves were prepared for the reception of the interior conducting wires. Considerable difficulty was experienced in making the grooves perfectly impervious to water under great pressure, in consequence of the wires being twisted, but ultimately the following means were employed with entire success. The grooves were first filled with fine Europe sealing wax, and the wires being previously made very hot, were forced into and completely imbedded themselves in it. Subsequently a red-hot iron was held near the wax of each groove, till it boiled freely, and a strip of wood was then forced in over the wire so as effectually to close every aperture. The interior extremities of the wires were as usual connected by a short piece of thin platinum, in contact with which a cartridge of dry fine powder was placed. The main conducting wires were one-sixth of an inch in diameter, and their entire length was nearly 1003 feet. As the bore was lined to the bottom with iron tubing, it appeared essential to insulate the conductors as perfectly as possible, and each wire was accordingly first cased in hempen

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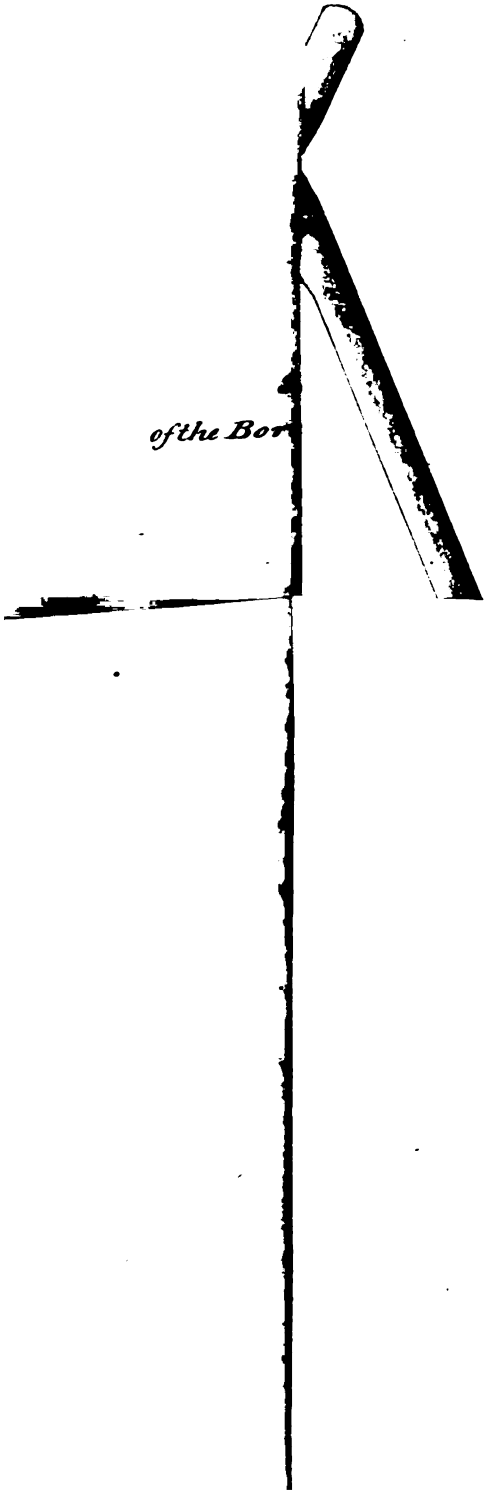

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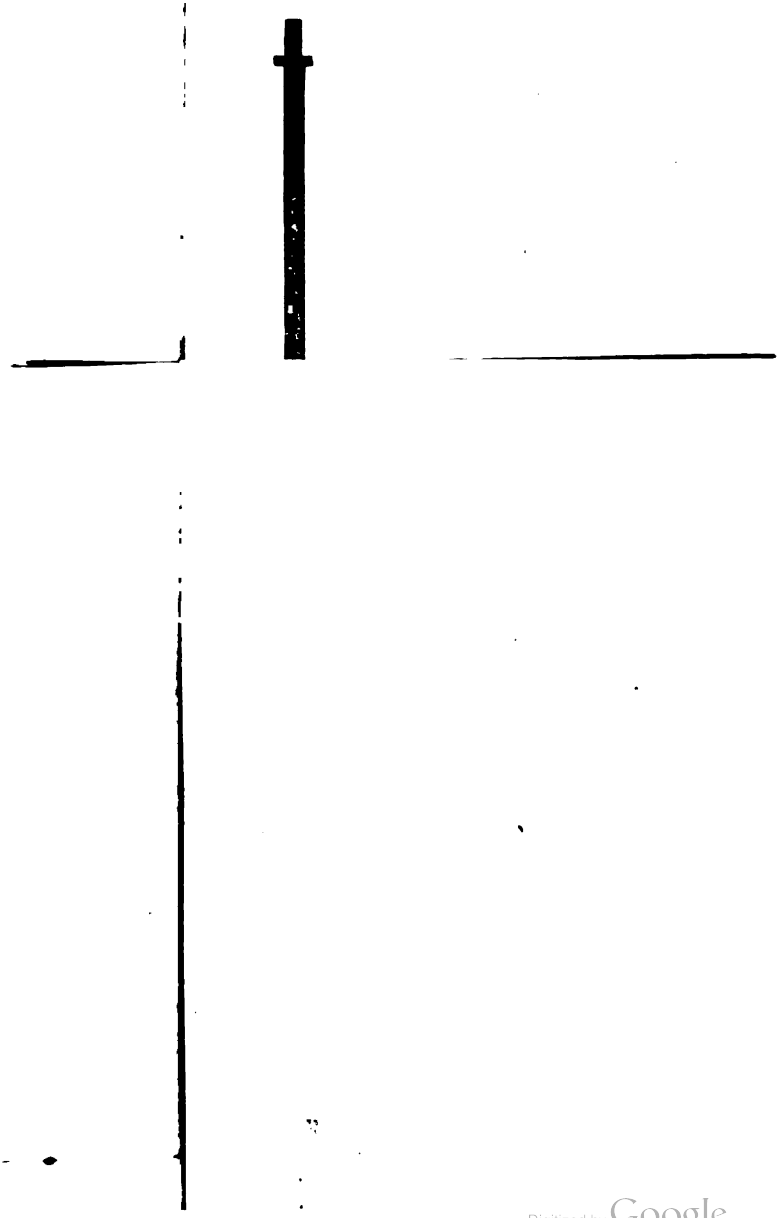
N°. IV

Steering Tool with moveable Falls
by Serg.t Longhurst



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strands, over which a thick coating of pitch and grease was applied, and then the two wires were lashed together by similar strands, and again covered with pitch and tallow. A single rope, about an inch in diameter, was thus formed, and on immersing the whole in water, its action was tested, and a battery of twelve indifferent plates sufficed to effect the ignition of powder.

On the charge being placed in the cylinder, and the platinum wire protected by means of a small tin priming tube, the plug was driven into the collar. Over it, and for the purpose of preventing the water forcing its way through the wood, a tin cap, having two holes for the conducting wires to pass through, was carefully driven down and soldered. In order to prevent this cap establishing a metallic communication between the wires, and thus preventing the passage of the galvanic fluid to the platinum wire, the diameter of the apertures for the wires was made considerably larger than that of the wires themselves, and the top of the plug covered with sealing wax. The application of a red hot iron melted the sealing wax, and on the cap being driven down it rose through the apertures and formed an insulating collar round each wire. These arrangements being complete, and the battery of 24 cells, 14 inches × 14 inches, in action, the main conductors were connected to those of the cylinder, and the insulating covering continued over the junction, when the cylinder was lowered to the bottom of the bore. On its reaching this, the circuit was completed, but no explosion followed, and on examination it was found that from the smallness of the priming tube the platinum wire had come in contact with the metal, by which of course its *ignition* was prevented. It was also found that though the priming powder was dry, the water had reached the main charge, and completely spoiled it. Further precautions being taken, several attempts were made, but all with the same result, and it became evident that the wrought iron case could not be rendered water-tight. Recourse was then had to casting a cylinder of iron half an inch thick throughout, and on trial this was found to be perfectly capable of resisting the pressure of the water, and preserving the charge dry. The first attempt with this failed from some unascertained cause, and as it was thought possible that some portion of the conductor might have come in contact with the iron tubing, an additional covering of lashings, with pitch and grease, was applied for a second attempt.

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This also failed, and unfortunately in raising the cylinder, to endeavour to discover the cause of failure, the lifting rope gave way, and it became necessary to haul on the conductor. This had been done once or twice before, without any bad effects, but on this occasion the junction of the wires at the collar of the cylinder was not sufficiently strong to bear the weight, and the case after being raised for some distance dropped back to the bottom of the bore. All hopes of benefit from this expedient being thus summarily disappointed, it only remains to be stated, that the operations of the Committee were finally closed on the 20th of April, 1840.

Throughout the course of the preceding narrative, all reference to the geological information the labours of the Committee have been instrumental in eliciting, has been avoided, from a desire to render the mechanical details as continuous as possible, but as few such opportunities as the present have ever been given for observing the structure of alluvial DELTAS, a condensed summary of the various points of interest to the geologist is now appended.

After penetrating through the surface soil to a depth of about ten feet, a stratum of stiff blue clay, fifteen feet in thickness, was met with. Underlaying this was a light coloured sandy clay, which became gradually darker in colour from the admixture of vegetable matter, till it passed into a bed of peat, at a distance of about eighty feet from the surface. Beds of clay and variegated sand, intermixed with kunkur, mica, and small pebbles, alternated to a depth of 120 feet, when the sand became loose, and almost semifluid in its texture. At 152 feet the quicksand became darker in colour and coarser in grain, intermixed with red water-worn nodules of hydrated oxide of iron, resembling to a certain extent the laterite of South India. At 159 feet a stiff clay with yellow veins occurred, altering at 163 feet remarkably in colour and substance, and becoming dark, friable, and apparently containing much vegetable and ferruginous matter. A fine sand succeeded at 170 feet, and this gradually became coarser and mixed with fragments of quartz and felspar to a depth of 180 feet. At 196 feet, clay impregnated with iron was passed through, and at 221 feet, sand recurred, containing fragments of limestone with nodules of kunkur and pieces of quartz and felspar; the same stratum continued to 340 feet, and at 350 feet a fossil bone, conjectured to be the humerus of a dog, was extracted. At 360 feet a

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piece of supposed tortoise shell was found, and subsequently several pieces of the same substance were obtained. At 372 feet another fossil bone was discovered, but it could not be identified, from its being torn and broken by the borer. At 392 feet a few pieces of fine coal, such as are found in the beds of mountain streams, with some fragments of decayed wood, were picked out of the sand, and at 400 feet a piece of limestone was brought up. From 400 to 481 feet fine sand, like that of a sea-shore intermixed largely with shingle, composed of fragments, of primary rocks, quartz, felspar, mica, slate, limestone, prevailed, and in this stratum the bore has been terminated.

In conclusion, the Committee have much pleasure in acknowledging the valuable aid derived by them on many occasions of difficulty from the advice and ingenuity of Captain J. Thomson of Engineers; and they desire also to express their entire approval of the zeal and intelligence uniformly displayed by Sergeant Thomas Longhurst of Sappers and Miners, during the whole time he was in charge of the details of the boring operations.

D. McLeod *Col. and Presdt.*
A. Irvine, *Major.*
F. P. Strong.
W. R. Fitzgerald.

Fort William,
Chief Engineer's Office,
May 15th, 1840.

P.S.—Since the above Report has been signed by the Members, I have recollected a most unintentional omission, for which I am entirely responsible, and which I am therefore desirous of supplying.

It is due to Lieutenant Richard Baird Smith of Engineers, to state that he has not only taken a great interest in all our proceedings, but has rendered great assistance in carrying them on during the most difficult period of the operations, since he has resided in Fort William; moreover, the employment of the Galvanic Battery to blow up the lower portion of the tubing, &c. was suggested to the Committee by him, and the apparatus applied in that process, as above described, was entirely on his design. I may add, that his intelligence and knowledge of the subject, enabled him to give essential aid in arranging the materials for the above Report.

D. McLeod, *Colonel,*
Chief Engineer.

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Report on a line of Levels taken by order of the Right Honorable the Governor General, between the Jumna and Sutlij rivers. By Lieut. W. E. BAKER, *Superintendent of Canals West of the Jumna.*

Preliminary Observations.

The subject of inquiry proposed, having been to ascertain the practicability of establishing a water communication for the passage of boats between the Jumna and the Sutlij; I considered that the best preliminary measure would be to take a cross section, fixing at certain points the relative levels of those rivers and of the intermediate hill torrents, and the greatest height attained by the intervening ridges.

Selection of a line.

The line (viz., one between Kurnaul and Loodiana) which I selected for this section, was recommended by the following considerations:—

1st. It connects the highest points of both rivers to which boats of considerable burthen habitually resort.

2nd. It lies in a South-east and North-west direction, parallel to that of the Sub-Himalayas, and consequently perpendicular to the general lines of drainage.

3rd. It crosses each of the considerable mountain torrents before its junction with the Cuggur; and, lastly, its length was well suited to the time (about three weeks) to which, having no Assistant, I was obliged to limit my absence from the canals under my charge.

Irregularities and inequalities accounted for.

Having no accurate map of the country, I had merely a general idea of the direction from Kurnaul in which I should strike Loodiana, which will account for the deviations from a straight course observable in the accompanying map. My object being to note the general features of the country, I took no pains to avoid merely local inequalities, and my Section therefore exhibits much greater irregularities of surface than it need have done, had I had leisure previously to examine the ground ahead of my levelling instrument. The hollow in the neighbourhood of Puttiala, for instance, might have been in a great measure avoided by a more northerly course.

Nature of the information required.

The information thus obtained is necessarily incomplete, and though it has in my opinion proved the practicability of the contemplated measure, it has not furnished data for a detailed project, and still less for an estimate of the probable

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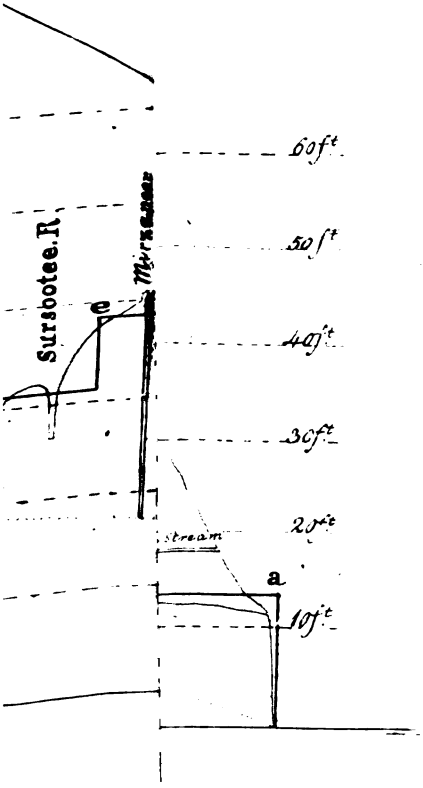

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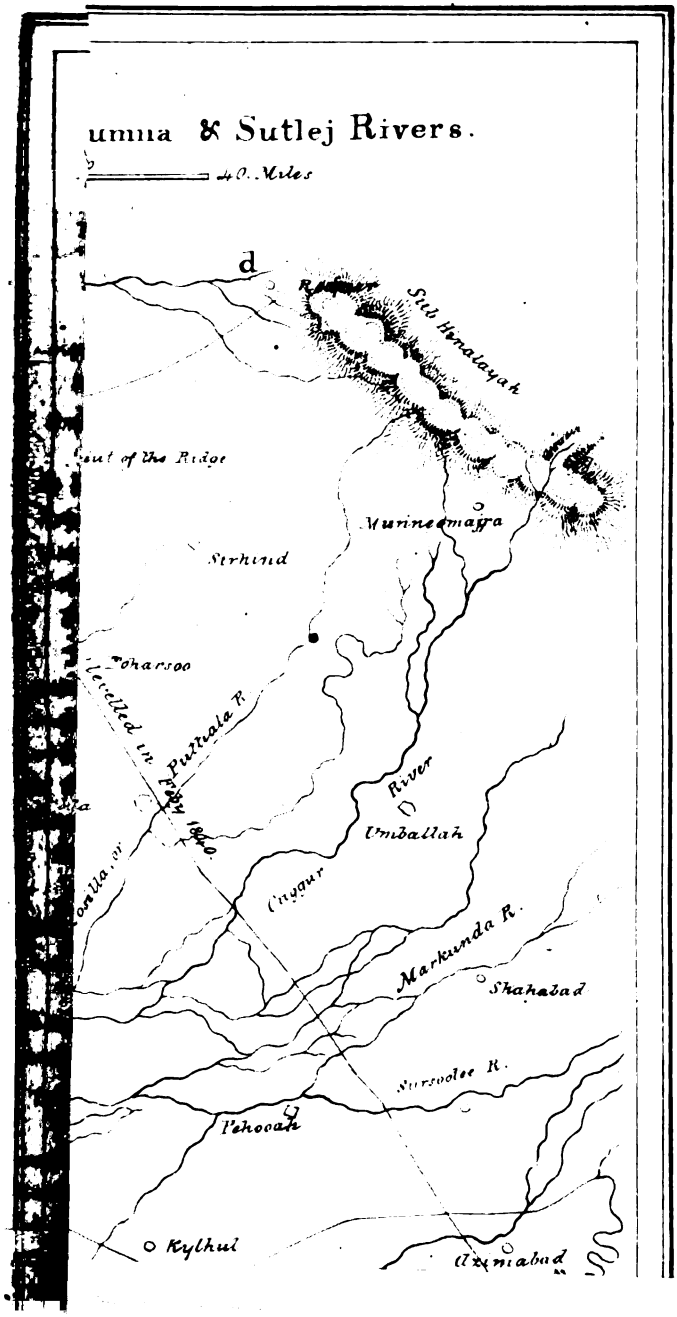

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cost of the undertaking; such as it is, however, I have judged expedient to communicate it at once, both as a report of progress, and to enable Government to decide whether or not it be advisable to prosecute the inquiry further.

Why now submitted.

The cost of the present survey amounts, as per contingent bill, submitted to the Military Board, to Company's rupees 74 : 9 : 0.

Cost of the survey.

In the accompanying Skeleton map and section, I have endeavoured to condense most of the information obtained, and to show at one glance the result of my inquiry. In this it will be seen, that from the level of the Jumna to the town of Pahul, near which the greatest elevation (67 feet, 11 inches, 25) is attained, there is a general rise, partially interrupted by the beds of intervening rivers, which may be thus particularized :—

Reference to the Map and Section.

The Chittung — an inconsiderable nulla, has no defined valley. Of its surplus waters, spreading out during the rainy season, right and left over the country, but little returns into its contracted channel; and of late years, no considerable flood has reached even as far as Dhatrut, in the Jheend territory, from whence to Buhadera, in the Bikuneer State, the ancient bed of this river is occupied by the Canal of Feroze Shah.

The Chittung river.

From the ridge dividing the Chittung and the Sursootee, there is a considerable descent to the bed of the latter river, which may almost be said to have already joined the Markunda and the Cuggur at the point where I crossed them. From near Thanesur to Konaheree, the whole tract of country (with the exception of village sites) is liable to inundation from the Sub-Himalayan torrents, diffused over its surface by means of a net-work of natural and artificial water-courses, of which some are supplied from more than one of the rivers above named; others, again, flow from one river into another, and during great floods (as I was given to understand) all three are frequently united. The inhabitants avail themselves largely of the inundation for rice cultivation, though during the present season at least, little advantage appeared to have been taken of the facilities afforded for irrigating Rubbee crops, which, where they existed, were

The Valley of the Sursootee, the Markunda, and the Cuggur rivers.

Their peculiar character.

Their use for irrigation.

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generally watered from Wells. I had not leisure to ascertain, by personal examination, whether the first diffusion of these rivers (which I have myself seen nearer the hills in single and separate streams) were caused by natural or artificial means, but it is probably attributable to both. The slope and evenness of the country, are calculated to favor even the rudest attempts to divert the streams from their original beds, and the same circumstances would also render it easy, were it desirable, to confine them again to one or two principal channels. What I have designated as the "main branches" of the Markunda and Cuggur, are distinguished from the others, not so much by their superior size, as by the presence of a small thread of running water.

Their diffusion accounted for.

The valley of the Sursootee, Markunda, and Cuggur, such as I have described it, though extending to a width of twenty-nine miles, would present no insurmountable obstacle to the formation of a navigable Canal across it, though the expense attendant on the provision of the necessary embankments and aqueducts, would be considerable. And on this account, as well as for other reasons, to be noted hereafter, a more advantageous line for the Canal would probably be found further to the south-west, below the town of Sumana.

Their importance as an obstacle to the Canal.

The river which flows past Puttiala, has a different character from the preceding. Its channel at the point where I crossed it, is so deep, that I could not have supposed its waters would ever be capable of spreading out over the country, had not the construction of an embankment between the stream and the city (said to be for the protection of the walls), proved that it is sometimes liable to overtop its banks. At this point, in consequence of its deep narrow section, it would be easily crossed by a short aqueduct.

The Puttiala, or Kosila river.

Immediately beyond the city of Puttiala, I encountered several ridges of sand, which would most likely be avoidable on another line, but if not, it would merely be necessary to puddle the Canal bed throughout their extent, to prevent heavy loss of water by absorption.

Sand ridges.

The Sirhind Nulla, which I crossed about sixteen miles beyond Puttiala, flows in one or more channels through a valley 500 or 600 yards in width, having but a

The Sirhind Nulla.

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Its character and uses for irrigation.

slight depression below the adjoining country. Its flood waters could, with very little labour and skill, be let out by side cuts to inundate the lands lying on its east bank, and I therefore conclude that such a practice is adopted, as the natives of this province are fully aware of the value of that peculiar system of irrigation, which consists in flooding the land once a year.

From the West bank of the Sirhind Nulla to a few miles beyond

Sand ridges.

Pahul, the land is generally level, but intersected by a few sand hills, one of which, between the villages of Bishnpoor and Kuddoo, may be considered the crest of the ridge, dividing the Jumna from the Sutlij.

From Doorai-ki-Serai westward, the descent is rapid, and the fall

Descent to the Sutlij.

appears to be broken in a remarkable manner into steps, ending in an abrupt cliff of 30 feet, on the western continuation of which stands the fort and town of Loodiana. At some former period this cliff was evidently the eastern boundary of the Sutlij, and even yet, as I am given to understand, the waters of that river when swelled by the monsoon floods, frequently reach its base.

The remaining tract of seven and a quarter miles, intersected by

Valley of the Sutlij.

branches of the Sutlij, is proved by its loose sandy soil, as well as by its topographical position, to be an alluvial deposit of the river; and were the canal to join the Sutlij at this point, it would be more advisable to deepen the Nulla which flows under the Fort, than to make a new excavation through such unfavorable soil.

As my commission did not include an examination of the Sutlij, I

Capabilities for navigation near Loodiana.

may perhaps not be expected to offer an opinion on its navigable capabilities; but I may be permitted to remark, *en passant*, that the stream near Loodiana appears to have two characteristics decidedly unfavorable to navigation; viz. a sandy

Shifting sands.

bed, and a considerable fall; a combination of circumstances which cannot fail to produce shifting and uncertain shoals.

With a view of ascertaining the level of springs along the line of my

Depth of wells throughout the line.

section, I measured the depth of 156 wells between Kurnaul and Loodiana, and the average result is shewn in the profile by blue dotted lines. In this I had two objects; first to ascertain whether, as some suppose, measurements of the level of springs would give data for an approximate calculation of the

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profile of a country; and, secondly, to obtain one element for calculating the amount of absorption in a standing canal, for which it would be necessary to provide a daily compensation. In the former respect my present observations, as well as those made with the same view in other localities, shew that the level of springs is too much affected by the vicinity of streams, the degree of permeability of soils, and other local circumstances, to admit of any accurate conclusion being drawn from them, regarding the profile of the surface. But with reference to the second object of my inquiry, it is satisfactory to find that the wells measured, have generally so little depth, as the waste by absorption in the contemplated canal, will be relatively much less. In illustration of this point I may mention, that in the Paneeput district, where before the introduction of the Delhi canal the springs were from thirty to forty feet below the surface, they are now from fifteen to thirty feet; whereas in Hurriana the springs have been raised since Feroze's canal was opened, in some instances, as much as sixty feet.

No sure index of superficial inequalities.

Effect on the amount of absorption.

On the accompanying profile I have sketched out what I consider to be a possible section of a still water canal, from the highest level of which, between Pahul and Doorai-ki-Serai, the westward descent of sixty-three feet to the level of the Sutlij, is made by means of seven locks; while to the eastward a descent of thirty and a half feet to the valley of the Markunda and Sursootee, is effected in five locks, after which a partial rise of six and a half feet is necessary to cross the ridge separating these rivers from the Chittung, followed by a descent of thirty-eight feet, by four locks to the level of the Jumna. Water sufficient for the westward lockage, as well as to compensate for waste by absorption and evaporation, could be supplied at the highest level by a cut taken from the Sutlij, at the point where it debouches from the lower hills, and conducted along the crest of the ridge; and on the eastern extremity of the canal, we might obtain water for the same purposes by a water-course from the Delhi canal above Indree. In sketching out this project, I would be clearly understood not to recommend it as an advisable one. The number of masonry aqueducts required here, the necessity for which

Practicability of the measure illustrated by a possible Section.

Water for lockage and wastage, how obtained.

The possible Section not recommended as an advisable one.

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Its object.

would be obviated by a more southerly course, would alone point out the latter as preferable; but if it can be shewn that the scheme is feasible on a line taken at random, the probable existence of one decidedly favorable, will readily be admitted.

Utility of the measure considered with reference to the future trade of the Upper Provinces.

Whether the construction of such a work would be eventually as beneficial to the country as it appears practicable as an engineering operation, the Government are doubtless in possession of better information to guide their judgment, than any which I could afford them. At the present time it might facilitate the transport of military stores required for warlike operations westward of the Sutlij, but this inducement will fail whenever Magazines may be formed on the banks of the Indus, and their contents transported by water from Bombay. As regards the public interest, however, the case is different, attention being now so universally attracted towards the shorter communications with Europe, whether by the Mesopotamian route or that of the Red Sea, it cannot be supposed that the use of these means will long be restricted to the conveyance of mails; the more valuable description of merchandise will soon follow, and shipments for Europe will be made from some port to be established near the mouths of the Indus. The North-western provinces of India will abandon the present circuitous route by Calcutta, and send their exports by the more direct one of the Indus, and the deserts bordering the east banks of that river, which will then be the only obstruction, may be turned by the contemplated canal.

Its obvious advantages.

Though fully aware of the more than apathy which exists in this country towards any thing involving a change of established usage, and but little acquainted with the nature and amount of produce exchanged between the several provinces of India, yet I can scarce suppose that the community would not avail themselves of the facilities for the circulation of trade, which would be afforded by a communication between two such rivers as the Ganges and the Indus, embracing such an extent of fertile country, and entering the sea at such distant points.

A plausible objection answered.

If it be urged that the construction of a canal would be premature before the full establishment of the trade which is to give it employment, I would reply, that the formation, or at least the certain prospect of a canal, would be one

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great inducement to the establishment of trade. No merchant, for instance, would bring European stores to Ferozepore for supplying the stations of Kurnaul, Meerut, and Dehli, with a prospect of 200 or 300 miles of land carriage, rendered peculiarly difficult by the nature of the country, and the scarcity of all means of transport.

A new line recommended for future examination.

Should Government decide on the further prosecution of this inquiry, I beg to recommend for examination the lines tinted blue in the annexed sketch map; that marked *a. b. c.* is calculated to cross the Cuggur below the junction of its tributaries, and to avoid a spur of high land, which I am led to believe, crosses the direct road from Kurnaul to Ferozepore. The line *d. b.* would be that of the supply channel from the Sutlij.

Field book and original protractions available.

In conclusion, I beg to state that the field book and original protractions of my survey and levels, on a scale of one mile to an inch, are at the disposal of Government for any purpose.

Memoir on the Hodésum (improperly called *Kolehan*).—*By Lieut.* TICKELL.

Colonies of people speaking the same, or nearly the same dialect as the Hos, or Lurka-koles of Singbhoom, but of whose customs and history we are ignorant, may be traced from the jungles of Ramgurh (near Hazareebaugh) to the south and southward along Moherbunj, Keonjur, Gangpoor, down to the confines of Buna Nagpoor, where they are distinguished from the Gōnds (in Gōndwana) by the name of "Kirkees." Those colonies described to me by Gōnds are insulated, semi-barbarous, and confined to the wildest parts of that country. The country lying north and north-east of Gōndwana, and west of Gangpoor, and south of Surgoojia, are in all probability inhabited by the main stock, from whence these small settlements have wandered. These regions have never been explored, and are wrapped in the greatest obscurity. We only know that they are traversed by large streams. The Koil, the Hutsoo, the east and west Shunk, and the Brahminee, which flow into the sea, north-east of Kuttuck, or join

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the Mohanuddee. The Shunk is said to be navigable above Gangpoor for tolerably large boats, and may therefore be presumed to become a considerable river in its passage to the southward; watered by such fine streams, it is difficult to imagine the whole of those regions, to be mere wastes of jungle, which would not repay the trouble of exploring them. But they must ever remain unknown, so long as the inhabitants retain their primitive habits, and aversion to visiting other countries, and until more enterprising people than the timid Hindoos, settle in their vicinity.

These remarks, vague as they are, may serve to define the limits of this wild and aboriginal race; for beyond the precincts thus roughly sketched, I am unaware of their language extending. It must be remembered that the inhabitants of Chota Nagpoor, although indiscriminately called Koles, are a totally distinct race, having different languages, manners, and origin. These latter, properly named "Oraóus," were the first known inhabitants of Roidâs (Rotâs) and parts of Reewa. Their sudden transmigration across the Soane, and which is ascribed by them to inroads of Hindoos from the vicinity of the Ganges, may be attributed to the expulsion of the latter by their Moohomedan conquerors, but at what precise epoch, it is difficult to determine.

It is these Oraóus who first give us accounts of a people called Moondas, whom they found in possession of Chootia* Nagpoor at the time of their flight into it. They state them to have been a wild people, living chiefly by hunting, and who offered no opposition to the Oraóus settling in the fine open tracts to the northward of Sonepoor, and cultivating lands of which they themselves scarcely knew the value. Being a peaceable, industrious race, the Oraóus gave no umbrage to their hosts, and very shortly after, the entire residue of the immigrants, who had for a time taken refuge in the uninviting jungles of Palamoo and Burhwé, passed over into Chota Nagpoor, where they remained in great harmony together, until the Hindoos came spreading further in, and attracted by the beauty and fertility of the country, by degrees made themselves masters of the soil. A Bramin from Benares, imposed upon the credulous Oraóus, by

* Misnamed "Chota."

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trumping up a story about a child, which had been discovered on the banks of a tank at the town of Pittooreea, guarded and shaded from the sun by a Covra, or Nâg, and which he presented to them as their king. This is the present reputed origin of the "Nagbunsees," who to this day are the Rajas of the country; the Raj Gadee, or Paíetukht, was first at Chootia, a town about ten miise south of Pittooreea, from whence the name of the country, "Chootia Nagpoor." What it was called by the Moondas before this event, is not known.

As the Hindoos spread and prevailed, the effect of their tyranny and extortions was to reduce the Oraóus into complete slavery, and drive the Moondas into open revolt. After a long struggle, the latter were compelled to confine themselves to the jungles of Sonepoor to the south, and the wooded slip of land which to the east raises Chota Nagpoor Proper above the rest of Central India. Wandering south-eastward, many settled themselves in the wild hilly tracts, now known as Kœhang, and in the immense jungles and mountains to the south and west of the present village of Porahaut. Numbers passed over into the low country, east of Nagpoor, now comprised in the zemindarees of Rahé Boondoo and Tamar, subservient to Chota Nagpoor, where mixing with the lowest classes of Bhoornijes and Bhooians, (supposed aborigines of Bengal) they merged into a mongrel race, known as "Tamarias;" and a great proportion traversing the hills and forests of Kœhang, passed out eastward, into the open tract now called Singbhoom and the Kolehan.

The last are the subjects of the present memoir.

It appears that the Moondas, or as they now call themselves, the Hos, found Singbhoom on their arrival to be peopled by Bhooians, an inoffensive, simple race, but rich in cattle, and industrious cultivators, who first allowed them to form settlements in the neighbouring woods, and afterwards permitted them to reside in the central open tracts. Here they remained together for some time, when the country appears to have passed into the hands of "Surawuks," a race of Bengalee Bramins, now almost extinct, but then numerous and opulent, whose original country is said to be Sikrbhoom and Pachete. Their arrival produced a repetition of the scenes which had forced the Moondas, or Hos, from Chota Nagpoor. But in the latter instance, the oppressions of the Surawuks ended in their total expulsion from the

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Kolehan—in what direction is wholly unknown, though it may be conjectured they retraced their steps, for the name of Surawuk, is now unknown except in Tamar and Pachete, and then only used by the jungle people occasionally in speaking of Bengalees.

The Kolehan continued after this much in its pristine state, and only known to others by its lying in the route of hosts of pilgrims from Patna and Benares, &c. to Juggernath. The lands, broad and fair, excited the cupidity of many of these travellers, but their dread of the Hos deterred all thoughts of settling, until a party bolder than the rest, journeying from Marwar, took up their residence as guests at the house of a Bhooian Mahapattor, or Zemindar, where they remained on various pretexts, astonished the Bhooians with a display of their riches, superior knowledge, and by descriptions of their country; and ended by reproving them for living on terms of equality with a people who were Mlechis, or unbelievers, and as fugitives from another country, should be considered as subservient to them. The Bhooians desirous of having their own Raja, and emulating their councillors, entered into a league with the Marwarees, who procured a number of their countrymen to assist in establishing the supremacy of the Bhooians. In this they were totally unsuccessful, and the result of a long struggle, the details of which are handed down disguised with much fable in the traditions of the Ooria Bramins of the country, ended with the total discomfiture of the Bhooians, and the coalition of the Marwarees with the Hos. The former established themselves in Porahaut and the rich open plains to the northward, now called Singbhoom; the Hos withdrawing from this part occupied the remaining tract of open land, whose limits, described hereafter, constitute the Hodésum, or Kolehan of the Hindoos.

Up to this epoch no dates can be obtained, as the narrators of the above events, Oraóus and Hos, keep no account whatever of time. But from the introduction of the Marwaree Singbhunsees, and other Rajpoots who came to settle with them, a regular chronological history has been preserved in the Madela, or records of the Porahaut family; unfortunately I am now unable to apply to these for any information on these points.

It appears that these settlers electing a chief, whom they styled 'Raja,' and took up their abode for five or six generations at Porahaut,

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after which a general division was made of the rest of the country the Bhooians had retired to, among the Hissadars or brethren of the Raja; the eldest brother took Anundpoor (or Sumijgurh); the second, Seryekela; and the youngest, Kera. The Raja also gave as pykallee, or service tenures to some of his subordinates, the Talooks of Bundgaon, Khursawa, Koryekela, and Chynpoor; of these Khursawa has become in a manner hereditary and independent.

In process of time the brothers managed to get into quarrels with neighbouring Zemindars; the Gangpoor walla (of Keonjur) and the Baboo of Anundpoor recriminated each other, about mutual depredations committed (by their orders) in their dominions, by the Koles; the Porahaut Raja's pykes harried Sonepoor; the Kera Baboo plundered Tamar and Chota Nagpoor; and the Koonwr of Seryekela and Raja of Mohurbunj found a bone of contention in the little but fertile tuppah of Koochoong, before alluded to.

In these contentions the services of the Hos were brought into requisition; promises of booty lured them into becoming stedfast allies of those chiefs who had won them over, and thus incited, they commenced a series of depredations on the surrounding country, which soon brought them into note. In return for the plunder which they acquired, they were induced to pay rent in the shape of occasional salamees, in different taxes, or "Russoomat," at periods of Hindoo festivals, &c. and the Kolehan was divided into Peers or Pergunnahs, twenty-four in number; of these the Moherbunj Raja through his Dewan at Baumenghattee secured four, viz. Aulapeer, Burburriapeer, Toëpeer, and Lalgurh, placing a Zemindar or Mahapattor in the latter. The Singbhoom Raja, together with the younger branches of his house, allied themselves with the remainder, and this order of things continued until 1831-32, when the Mahapattor of Lalgurh, disgusted with the exactions of the Moherbunj Raja, broke out into open rebellion, which led to a series of such contentions and outrages (especially as the Raja's emissaries artfully induced the ignorant Koles of the Mahapattor to plunder our territories of the Jungle Mehals, and incommode our communications to the westward, by cutting of the dâks) that Government was at length obliged to interfere, and in 1836-37 effectual measures were taken to prevent disturbances of the kind, by taking the Hos under our immediate control, and

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withdrawing them from all allegiance to the Rajas of Moherbunj and Singbhoom.

Singbhoom, including the Kolehan, lies between 21° 30′ and 23° north latitude, and 85° and 86° east longitude; it is bounded to the north by Chota Nagpoor and Patkoom; to the east by the Jungle Mehals and Baumunghatte; to the south by petty states, or tuppahs, subservient to Moherbunj, and by Keonjur; and to the east by Gangpoor and Chota Nagpoor. These limits comprise a fine open tract of country, in most parts exceedingly productive, in others stony and barren, and separated from the circumjacent countries, above enumerated, by rocky hills and jungles. Singbhoom Proper consists of an extent of fine open arable land, to the north of the Kolehan, above 45 miles east and west, and about 18 in breadth, comprising the talooks of Khursawa, Kera, and Seryekela, also a portion of similar land, about 20 miles square, to the north-east, called Koochoong, attached to Seryekela, and along the west of the Kolehan, an imperfectly defined extent of mountains and jungles, including Porahaut and Anundpoor.

The Kolehan as now constituted, comprehends a tract of open undulating country, averaging from sixty miles in length north and south, from thirty-five to sixty in breadth. It is divided into two departments by a step about 500 feet high, running east and west across it. The southern part is rich in soil, and beautiful in appearance; but an absence of inhabitants, and proper culture, gives it an air of desolation. This happily is becoming fast remedied by the return of large families of Bhooians, former inhabitants, who had been expelled by the Hos. The lower country north of the step is exceedingly populous, but in many parts stoney and barren. The westerly Peers are situated among hills and vast jungles, containing a few fertile vallies; and Sarnda in the far south, is one mass of mountains, clothed in forests, where the miserable inhabitants, few and solitary, can scarce struggle for mastery with the tiger.

The Peers are twenty-six in number, Anjoodhia, Assuntullia, Anla, Burkela, Burburria or Birwarpeer, Burpeer or Jyntpeeree, Cherye, Chynpoor, Goomwa, Govindpoor, Gopinathpoor, Jamda, Kaïnawa, Kooïlda, Kotegurh, Lota, Natooa, Lalgurh, Purliong, Rajabapa, Oonchdee, Rengra, Rela, Sath Buntria, Toë, and Sarnda.

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I unfortunately neglected taking any census of the people, while assessing them, and when I had an easy opportunity of so doing. But the uniformity and simplicity of their mode of living, enables a rough estimate to be formed of their numbers, from the amount of the annual rack rent, which by way of Malgoozaree, has been levied on them, and the calculation I should think would be found on closer inquiry to be pretty near the truth.

The amount of Malgoozaree for 1838-39 was in round numbers

Co's. Rs. 6,500 at 0/8 per plough,	=13,000 ploughs or men	
of these at least $\frac{7}{8}$ths are married,	=11,375 women,	
Average of 3 children to each family,	=33,825 children,	
Aged people, mendicants, orphans, &c. $\frac{1}{6}$th.	= 2,166	
		60,366
Gwallas, Taunties, Lohars, & other castes, $\frac{1}{6}$th	=2,166	
Wives of these $\frac{3}{4}$ths,	1,624	
Children 3 to each family,	4,872	
		8,662
Ploughs concealed at assessment about $\frac{1}{8}$th,		1,625
	Total population,	=70,653

The whole of this country is traversed by numerous streams of great beauty, but useless as water carriage, being almost dry in the hot weather, and rapid torrents in the rains. The *Sunjye* separating the Kolehan from Singbhoom, rises to the north-west of Porahaut, and enters the Kurkye, near the junction of that river with the Soobum-rekha; the Roro, twelve miles south of the former, a narrow, but deep and swift stream, and the Eeleegarra and Toorul still further south, take a like course above the step; the Dés Nye runs westward, and falls into the Kolekaro, near its confluence with the Koïl; and near the southern limits of the Kolehan, the different streams take a south and west direction, falling into the Bhundun and Byturnee, which last, running through vast and lonely forests, separates the Kolehan from Jushpoor and Rorwan, in Moherbunj, and Kalkapershaud in Keonjur. There are two water-falls on the borders of the Kolehan, which I have never visited, but which, by the description of the natives, must be well worth seeing. The Bunnye, running between Sonepoor and Singbhoom, is said to roll its waters into a

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profound cave, from which spot it pursues its course underground, and is supposed to join the Kole Káro. The fall is called Paraś-ghag, and is a tiruth, but so remote from habitation, and buried in such deep woods, as to be seldom visited, except by the Sonepoor Koles, and Bhooians of Porahaut and Bundgaon. On the confines of Baumunghattee also, is a singular cascade, described to me as a single thread of water pouring down a walllike precipice of 2 or 300 feet in height. It is called by the Baumunghattee Oorias, Muchkandnee Jhurna; and by the Koles, Hakoo-yâmdah, meaning in either language, "The fall of the weeping fish," from some whimsical story of the fish complaining of the impossibility of scaling the cataract, to emerge from the dreary abyss, through which the stream winds below. The peculiar distribution of the hills in this country, running in parallel ranges, precludes the formation of lakes, which are unknown.

These ranges are not of very great height, the loftiest, which are in Saruda, not appearing above 1000 feet above the plain. They are however intersected in parts by profound vallies, which give the hills, from that side, an appearance of great magnitude. They are chiefly quartz, in all stages of decomposition, permeated by limestone rocks; smaller detached ranges issuing at right angles to these, are commonly of micacious slate. From Chyebassa, proceeding easterly into Koochoong, are low ridges perfectly parallel, about half a mile to a mile apart, gradually increasing in height till the series is closed by the Choivria hills in Koochoong. They are composed of loose rocks, resembling (if they are not) clink stone; but the larger ridges are of coarse granite. The northern part of the Kolehan consists in a great measure of sterile plains, scattered with quartz boulders, stones, and pebbles, some crystalized. The beds of the nullahs are a shingle composed of jasper (of all hues) green stone, quartz pebbles, and flint. The bed of the Byturnee is lined with flattened pebbles and lumps of jasper, of bright yellow, red, purple, and black, disposed in parallel streaks, or ribbands, as if artificially inlaid. The corundum is found in great quantities at Juggernathpoor on the upper step of the Kolehan, and several nullahs run through beds of argillaceous earth, from the brightest scarlet to pure white, which are highly in request among the natives. The whole of these streams wash down more or less gold, but the Koles know not how to collect it. In Singbhoom a

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tolerable quantity is gathered by Hindoos, but of a third or fourth rate quality, also excellent iron; of coal I never found any traces.

The open parts of the Kolehan are here and there scattered with a scrub jungle, composed chiefly of the Polass and Assun, on which latter the tusser silk worms are bred. The southern parts, where not cultivated, are covered by extensive plains of grass, interspersed with bushes; entirely along the west boundary, are forests of saul trees, small and meagre on the hills, but reaching in the low rich vallies to a size perfectly prodigious. In Anundpoor, towards Gangpoor, are tracts covered entirely with the wild plantain, and many of the hills are clothed densely with bamboos. In marshy spots a strong serviceable species of cane or ratan is found. The wild mangoe tree is also very common in these forests, yielding a fruit far preferable to the common kind found in the "topes" throughout India; it is small, round, and full of juice, as sweet as honey. The date and palm trees are not cultivated by the Koles, but are to be found near Hindoo villages in Singbhoom; cheretta, wild indigo, and arrowroot are very common in the jungles. But to enumerate all the beautiful flowers which enrich these green retreats—the fruits and roots, to every one of which the natives attach some specific virtue or harm; the inexhaustible variety of plants, shrubs and fungi, ferns, creepers, &c. which clothe in all varieties of fantastic imagery the shady dells; or the cool banks of foliage-canopied streams,—would be a task far exceeding my powers, or the limits of this memoir.

The animals found in the Kolehan are the same as in other parts of central India, but not nearly so abundant as in better watered jungles, besides which the Koles and Oorias are inveterate hunters, and their attacks on game of all kinds are pursued on an exterminating scale (a description of their hunts is hereafter given). The elephant, which is numerous in parts of the Jungle Mehals, comparatively close to Medneepoor, is, strange to say, unknown among the remote and wild regions of west Singbhoom; the gowér is common in this latter region—two species are described by the natives, a red and a black kind; the urna, and smaller wild buffalo are very numerous about Anundpoor; great varieties of deer haunt the hills, the saumúr (C. rusa), neelgye (Dalmalis picta) spotted deer (C. axis) barking deer, or Muntjac (C. muntjac), chikerac or four horned

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deer (C. chicquera), all these species, though so shy when sought after as to be seldom met with, must be tolerably numerous, from the depredations they commit on the fields of gram, boot, moong, oorid, &c. which are planted near the jungles. The memina, a species of mouse deer, is also found among rocks, and underwood. The antelope is confined to the wide open plains of Chynpoor in Singbhoom, and very limited in number. Tigers and leopards abound. Bears infest almost every clump of rocks throughout the plain; they are all of the long-lipped species (Ursus labiatus). Hyænas inhabit similar localities, but are rare. There are no *wolves*, but there appear to be two distinct species of the jackal (C. aureas), one of which is much larger, stouter, and ruddier than what I remember of the jackal of Bengal. The cry also is different, and is a wailing sound not much unlike, though infinitely louder, than the mewing of a cat. At all events the Koles distinguish the two animals, calling the large kind (from its cry) *Tow Koola*, and the common jackal "*Kurmcha*." The little Bengal fox or Corsac (Cynalopex insectivorus) is very numerous, yapping all the clear nights long, during the cold season. The Indian badger or Ratel (Ratelus melivorus) is found in the woods, but rarely. Porcupines (Hystrix) are numerous, but being nocturnal, are seldom seen. The short-tailed marus (M. crassicandata) is met with among rocks, but is one of the rarest animals known. There are three kinds of squirrels, the common palm squirrel (Sciurus striatus), the great red squirrel (Sciurus macronnus), and a large grey flying squirrel, peculiar, I believe, to the Kolehan and the Jungle Mehals. This last is exceedingly rare, as it lives on lofty trees in profound forests, and only moves forth at night. The wild dog (Canis primævus), *Koohia* and *Sona-kookoor* of the Orias, and *Tannee* of the Koles, roams through the jungles in packs, occasionally visiting the flocks and herds on the plains. Their ferocity, speed, and cunning, have gained them a superstitious veneration among the Koles, and dread of their retaliating on their cattle, deters the villagers from killing them. Of these also there are said to be two kinds, a large dog, in shape and colour like a Scotch greyhound or lurcher, which hunts by sight, and a smaller, red, bushy tailed dog, which follows the other in packs of five to twenty, is less speedy and hunts by scent. The hare is larger than that of Bengal, inhabits gravelly ravines in scrub jungle,

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and never takes to grass. Of monkeys there are only the two common species, the Lungoor and Mâkor or Bunder (*Sara* and *Gye* of the Koles); the former live among rocks, the latter in dense thickets. Wild hogs are very numerous in some parts, but so wary as to be seldom killed. The rhinoceros is not known.

Birds of all kinds are scarce and wild, especially those fit for food, on account of the keenness with which the Koles pursue, trap, hawk, and shoot them. The double-spurred partridge is found among rocks, but is one of the most difficult birds to shoot, as it seldom takes wing, but creeps into caves and fissures. The deep moist woods afford immense varieties to the ornithologist, an enumeration of which would be useless.

Being a dry and stony country, the Kolehan is peculiarly prolific in snakes of all varieties; the covra is not so common as another species, the *Siarbinja* of the Oorias, and *Pàgo jarras* of the Hos (Cophias Russelii), which is supposed to be equally deadly, and far more vindictive; it is a subgenus of rattle-snake (without the rattle). A large and beautiful snake, coloured with black and yellow rings, the *Sakom bing* (Pseudoboa fasciata) is met with in ploughed fields; a long thin green whip-snake, infests the rank grass jungles at the bottoms of hills; the hartoo, a slender, agile species, coloured like a ribbon with yellow, and coppery purple, infests trees. All these are venomous. The Python or Ujgur, (*Toonil bing*) is found in every jungle; it attains to dimensions which I have heard described, but which would sound too marvellous to be recorded without better proofs. Throughout Singbhoom, Chota Nagpoor, and the surrounding countries, a belief is current of a monstrous species of snake, the "*Garra bing*," infesting rivers swollen by torrents, which destroys both men and cattle, should they venture in. I mention it, as the opinion is so general, but it is probable that the sudden and mysterious deaths which occur in these mountain torrents, are occasioned by what seamen call the "under tow" and "back water," caused by the violent passage of water over rocks and deep holes. The body of a person thus carried away is never seen again, at least in the neighbourhood, and this total disappearance naturally strengthens the idea of his having been swallowed up by some huge animal.

An entomologist would find an exhaustless field of research and discovery in the jungles of this country. The decayed saul trees are

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tenanted by magnificent species of Prionus and Cerambyx; the rocks contain endless beautiful varieties of Coleoptera; the deep woods, every where during the rainy season brilliant with odoriferous flowers, are enlivened by Lepidoptera of the gaudiest colors, and numberless varieties of grotesque shapes in the Mantides, Phyllia, and Grilli, infest every thicket; while tribes of ants, bees, and wasps, attract attention by the beauty and ingenuity of their habitations and nests in the forests. Of the former, one of the commonest species is remarkable for traversing the jungles, and marching along the paths in procession two or three abreast, and of prodigious extent. Scorpions and centipedes are fearfully common; of the former, a species infests caves and fissures in rocks, and attains such an enormous size, that had I not heard the animal described by several people (of different classes), and had reason to be satisfied of the general truth of their assertions, I should have looked upon the whole as a chimæra. In dry, konkerous soils, the white ants are a scourge. They appear, in woods, to be a kind of vegetable scavenger, reducing to powder the logs which lie on the ground in a short space of time.

Fish are abundant in every largish stream, retiring in the dry season to the deep pools, which are left when the main channel has run dry; but the Koles, by poisoning the water, destroy inordinate quantities. The mahseer, and the little fly-taking Cyprinus, miscalled 'trout' in Upper India, are not found in these lower latitudes. Doubtless these running jungle streams produce many undiscovered varieties of fish, but unfortunately, to this branch of natural history I turned no attention during my stay in the country.

The climate of the Kolehan has been found to be on the whole healthy, although the station of Chyebassa, which was unfortunately selected hurriedly, and without sufficient examination and comparison with surrounding spots, is not a favourable sample, situated on a barren, gravelly plain, interspersed with brushwood, and near piles of bare rocks. The heat during the day is excessive, but the nights are invariably cool, and the air invigorating and exhilerating, in spite of the temperature, owing probably to its peculiar dryness. A mile only to the south-east, at the village of Tambore, the country rises in undulating meadows, beautiful in appearance as an English park, and infinitely cooler than Chyebassa. These advantages in forming the

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cantonment were either overlooked, or thought of less note than the nearer vicinity of water, Chyebassa being on the banks of the Roro. The Hos are more free from disease than any other people, in consequence of the precautionary measures they take—their nutritive food and drink, and the open airy positions they build in. As a guard against infection or fire their villages are small and scattered, and on the first appearance of any epidemic, they leave their houses and flee into the jungles, living apart from each other. Singbhoom, on the contrary, from the obverse manners of the Oorias, is yearly scourged by cholera, fevers, and small-pox. This latter disease, propagated by the Bramin inoculators, has within the last year spread with fearful havoc into the Kolehan, and most unfortunately simultaneously with the introduction of vaccine, to which the evil has alone been attributed. The rains are not heavy in the Kolehan, but the moonsoon is accompanied by violent storms of wind from the north-west, with severe thunder and lightning, causing many fatal accidents. None of that sultry oppression incident to Bengal is felt at that time of year. The cold season is truly luxurious—"a nipping and an eager air" without fogs or mists. March, April, and May are generally the only unpleasantly hot months of the year; during this period not a drop of water falls occasionally for upwards of six weeks; the aspect of the country loses every trace of verdure, and the dried stony soil reflects with unbearable force the rays of the sun. Vegetation is vigorously restored on the commencement of the rains, and as these are not accompanied by the gloomy sky and unceasing torrents which fall in the plains of India, the landscape is pleasingly checquered by passing showers, and the tender foliage of the forests glistens alternately with golden breaks of sunshine, or mellowed shades of green. To the south and east of Singbhoom, and in the most dreary and deserted parts of the country, are remains indicative of the former presence of opulent and industrious people, but so decayed by time, and engulphed in the labyrinths of untenanted forests, as to be unmarked by any record or history, save that they must have been of prior origin to the first known Bhoojans of the country. In Lalgurhpeer, the remains of a square brick fort well ditched round are still visible; it is said by the Bramins to have been the seat of a Raja of the Raj Dom tribe, who with all his people, houses, and riches, were destroyed by fire from heaven, for having slain

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a cow and wrapped a Bramin in the hide, which tightening as it dried, squeezed him to death. Only one man, a *taunty*, escaped, who was warned by the bullocks he was ploughing with, of the fate which impended over the place; it is called Kesnagurh to this day. In Anlahpeer, to the far south, and on the borders of Rorwan, a few Koles of the poorest kind, have built a wretched straggling hamlet near the banks of what once was a truly magnificent, tank. It is called "*Benoo Saugur*," and is said to have been built by one Raja Benoo, who fled from the place owing to the incursions of the Mahrattas. This was probably during the days of the celebrated "Morari Rao," for judging by the trees which now luxuriate amidst the buildings, the place must have been deserted and in ruins full 200 years ago. The tank which I paced, as well as the jungle allowed me, is about 600 yards square. On the east bank are the remains of a handsome stone ghaut; the west side may be similar, but was inaccessible, by reason of thickets; on the summit of the ample bund surrounding the water, lie stones richly carved; it is probable they once constituted small temples ranged around. In the centre of the tank is an island, crowned by a temple, now almost a shapeless mass. On the south-east corner of the tank are the debris of a gurhee or small fort, which appears to have been a parallelogram of about 300 by 150 yards, enclosed by a massy wall, with towers at the corners. In the centre are two sunken platforms, with stone steps descending into them, in which lie idols in all stages of decay; some of these were buried many feet under a loose reddish soil, having the appearance of decayed bark. Among several Gunnèshes, Parbuttees, Mahadeos, and other gods of modern Hindoo mythology, were others which my informants, the Mohurbunj Raja's Mookhtar, the Burkoonwr of Rorwan, and several of their Bramin attendants, could give me no history of. Three of the best preserved of these I took away with the help of some Nagpoor Dhangars, not one of the people of the country daring to touch them. About 300 yards to the south of the gurhee is another mound or hillock of broken bricks, which I was told was the "Kutcherry" of the Raja. To the west of this, and all along the bank of the Tâlab, the plain now covered with jungle grass, and here and there cultivated with *gora dhan* by the Koles, is scattered with bricks, shewing that a substantial town or bazar must have existed here.

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Still further southward, about eight miles, and two miles beyond Rorwan, these remains occur in greater number, and better preservation, and the road leading to them is replete with debris of the most melancholy and dreary nature, rank grass waving over tanks, some of great magnitude, which lie on every side. Thickets and briars matting over richly carved ghauts and temples; old avenues and plantations whose symmetry can now scarcely be detected amidst overwhelming jungle, offer a vivid picture of what these deserted tracts once were; and the mind instinctively pictures to itself a once opulent and prosperous people, whose forgotten dust rests perhaps within the funereal shades of these ancient forests, as their fates and fortunes, alike unknown, lie buried in the elapsed vastness of time!

The temples at Kiching are still resorted to by pilgrims from the south, and kept in tolerable repair. There are two of them, but only one made use of in offering sacrifices, &c; it is in an unfinished state, the materials for the dome lying on the ground round about, as if they had been hastily abandoned. A narrow path winds up to the temple now in use, through dense thickets and forest trees, among which lie, thickly scattered, portions of elaborate sculpture, idols, and alto-relievo figures of men in armour on horseback, nauchnees, jugglers, servants, &c. &c. These two temples are part of a circle of sixty similar ones (according to the Déoree, or high priest of the place) which with sixty corresponding tanks are placed two miles a part, in a circle of forty miles in diameter. Of these, the temples at Kiching and some others at Odeypoor, on the banks of the Byturnee, are alone visited. A superstitious dread deters access to the others, and in truth they are buried in such awful wilds, as naturally to excite the fears of such a credulous race. The tank at Kiching lies to the north of the temple, and appeared to be about 300 yards long, and sixty or seventy in breadth; it is said to be of masonry, but I did not examine it.

In the vast saul forest which spreads over the boundary of the Kolehan and Baumunghattee, and about twelve miles from the nearest village, are two extraordinary pools of water, evidently artificial, called the "*Soormee* and *Doormee*." The former is about 300, the latter 200 yards long, dug in a perfectly straight line, and separated by a bund or causeway, so that they appear to have

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formed a long water chaussee, or avenue, leading to the Kurkye river, which is not above half a mile off. No traces of paths or buildings or artificially planted trees were here discernible. Absurd stories are told of the fatal effects of the water on man and beast, by the Bhoomijes, who are the exorcisers of unclean spirits in the jungles, and the spot is carefully avoided by the superstitious Koles. I visited the "*Soormee Doormee*" while laying down the boundary in 1838-1839; we had great difficulty in forcing our way through the dense jungle, not the trace of a path existing, and I verily believe we were the first party, for many generations, who had intruded on this abode of utter silence and seclusion. There were fine fish swimming in the water, and the traces of deer in numbers round the bank, as they come nightly to drink there. It was with difficulty however I could prevail on a few to follow my example in taking a draught from the pool.

In none of these places could I perceive inscriptions of any kind, and I cannot here avoid expressing a regret, that my ignorance of Indian antiquities prevented my throwing any light on the history of these truly interesting, relics;—Interesting, as being situated in such unknown wilds, as indices of the entire revolution that has taken place in the political history of the country, and as proofs of these untrodden jungles having once been the seat of opulence, industry, and power, so utterly decayed, so long departed, as not to have left a record behind.

(To be continued.)

Note.—Although it is very improbable that any of our readers should be enabled to visit the Hodesum, with sufficient time at their disposal to examine closely, and carefully, the ruins at Kiching, and Lalgurhpeer, I cannot help requesting particular attention to Lieut. Tickell's notice of these interesting remains, with a view to our procuring at some future time a more detailed account of them. The best thanks of all interested in the study of Indian History, are due to the author of the excellent paper now under publication, for his having (I believe I am right in saying) discovered in the wilds of the trackless forests of Chootia Nagpore, these singular traces of a people, and a power, whose name lives hardly preserved by even local tradition. His ample, and able statistical account of Hodesum is of real utility, and we must acknowledge that he has done well in foregoing a possibly fruitless search for antiquarian remains, which would necessarily have diverted his attention from more

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important objects. As these however have been fully accomplished in the paper before us, I trust that, should opportunity offer, search may be made in the vicinity of these deserted cities for any traces which may enable us to arrive at conclusions regarding their history. A paper which I hope soon to publish (Journal of an expedition to the Naga Hills, by Lieut. Grange) will prove the value of similar research in a historical point of view, by the result of that officer's observations on Dhemapoor Nuggur, now like Lalgurhpeer a mass of ruins in a wild forest, but formerly the residence of the Cacharee Rajas.

Sketch of the Physical Geography of Seistan, by Captain Edward Conolly, *6th Cavalry.*

The southern limit of the lower ranges of that portion of the great Caucasian chain of mountains which lies between the 62nd and 65th meridians of east longitude, is well defined by the lower, or Dilaram road from Girishke to Furrah. From this line a vast desolate tract extends, part of that great desert, named rather loosely by Malcolm, the Salt Desert. Sloping gradually to the south-west, it descends, like the plains of Tartary, in steppes, till its progress is arrested, on the south, by a high sandy desert, and on the west by a broad and lofty chain of hills (1) which stretches in a south-west direction from probably near Ghorian to the Surhud, and thus perhaps connects the Parapomisan mountains with the Southern Kohistan. The south-west corner of this thus interrupted plain, the last and lowest steppes, are Seistan (2).

Position.

The country so named, of which the length may in round numbers be estimated at 100 miles, and the breadth at 60, is entirely composed of flats, with the exception of one hill, (3) (the Koh-i-Zor) and in its whole extent, not a stone is to

Nature of the country.

1. This range is known by different names; in the latitude of Killah Rah, it is called, from a celebrated hill, Atishana near Bundau, Koh-i-Bundau—and opposite Zirreh Koh-i-Pulung,—the hill of leopards.

2. That is modern Seistan. In ancient times, the country known by this name was only bounded on the north by Ghare and Zemindawer, in the latter of which a learned orientalist has recognised Zabul. As the present sketch is intended solely to explain the map, and the ancient history and geography of Seistan and the countries around it will form the subject of a separate memoir, no allusion to the latter will be found here.

3. In the Univ: Gazetteer, 1837, you read, "The country is generally mountainous"? There is a small hill called Kohga, on the north-west of the Hamoon, which is sometimes surrounded by the water of the lake; at present it belongs to the chief of Laush.

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be met with, except a few rounded pebbles in the beds of rivers. The soil is either the light and soluble earth of the desert, or the still lighter alluvial deposit, and there is hardly one tree, and not one of any size, in the whole country. From the north and north-east, it receives the waters of numerous rivers, which partaking of the nature of mountain torrents, at one time of the year rush down with great violence, almost black with mud, and at others are either quite dry, or flow in a clear, languid and shallow stream.

Effect of the rivers.

It requires but little knowledge of Physical Geography, to judge of the effect of a large body of water discharged in this manner, with varying velocity, into a basin, incapable, from its nature, of offering the slightest resistance to its progress. The water hurries away to the lowest spots, and there, when its turbulence has subsided, drops its loads of earth, till in process of time these low spots have become elevated, and the water is driven to some other place. It necessarily results, that the level of the country must constantly be altering, and that as the whole bed of the lake is thus gradually filling up, the waters spread themselves over a large surface every year. This extension is much assisted by the deposits which take place in the beds of the rivers at their mouths, which deposits are of course ever on the increase as the current becomes less rapid, when layer after layer of settling earth diminishes the slope. In consequence of this filling up of their beds, nearly all these rivers overflow their banks on entering Seistan.

Ancient appearance of the country.

Of the correctness of these views, the whole country exhibits many proofs, even to the passing traveller; and a scientific resident might probably be able to develop much of the interesting history of the progressive changes. For a long period of years, however, Seistan would seem to have presented much the same general appearance as is attempted to be delineated in the annexed sketch.

The violent action of the swollen streams was in a great measure moderated by large bodies of water being drawn off in canals, which were conducted, in some places, as far as forty miles, through dry and sandy tracts. Massive embankments had been also constructed by rich and enlightened governments, which prevented the water from flowing without controul, and confined it within certain bounds for the purposes of cultivation.

It is only of late years that a very remarkable change has taken place in the aspect of the country, to explain which it will be necessary to say a few words on the geography of its lakes and rivers, at the period represented in the sketch, when Captain Christie visited Seistan.

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The Helmund.

The lake, which stretched in a direction parallel to the Bundau hills, was about seventy miles long, and had an average breadth of eighteen miles. Its principal feeder, the Helmund, is not inaccurately laid down in our maps, with the exception, that the Khash-rood is not one of its tributaries, and that the Arghandab enters it just below, and not above, Killah Beest. This river, in the dry season, is never without a plentiful supply of water; during the swell, it comes down with astonishing rapidity, equal in size to the Jumna. As soon as it has left the hills, its bed is generally four or five miles in breadth, the water more easily penetrating the readily yielding sides than the bottom, converted into a sort of pavement by the stones rolled down from the mountains. The stream has not however of late years occupied the whole breadth, though in former times, before it had cut itself so deep a bed, it would appear to have done so near Girishke; for example, there are ruins at opposite sides of the river of forts known to have been contemporaneous, and under which the water must have flowed (for they are built in a semicircle, without a wall on the river face) though there is a space of four miles between them.

The stream now hugs its left bank, above which rises in vast mounds the sandy desert. The ancient right bank is well marked by the high cliffs of the plain before mentioned, which are every where hollowed and indurated by the action of water. The rich space between this bank and the modern channel, of which the average breadth is rather more than two miles, is the country of Gurmsehl.

The Helmund receives the waters of one or two small streams from the desert on the west, which will be mentioned in the description of that tract.

The Furrah-rood.

The three rivers next to be described, have experienced little change since 1810. The first, the Furrah-rood, passes a little to the north of the fort of Furrah, and runs close under Laush, about twenty miles south of which it enters the Seistan lake. I am not aware of this river receiving any tributaries in the lower part of its course. (4) The Furrah-rood is nearly dry for the greater part of the year, water is however confined in many places by bunds or natural hollows, and is always to be found by digging a few feet into its bed, which is the case with the Helmund, and most of the rivers of eastern Asia. (5) During the spring it is a broad and rapid river, but not half the size of the Helmund.

4. The Gizea found in Arrowsmith's Map of Central Asia, 1834, must be either erroneously laid down, or is some insignificant stream.

5. Baber remarks this in his memoirs.

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About twelve miles west of the mouth of the Furrah-rood, a river discharges itself into the same lake, which though equal in size to the last named, has nearly escaped the observation of geographers (6): this is the Adrascund, which crosses the high road, some fifty miles south of Herat, near a place where it is joined by the Rod-i-Gez, celebrated for the sweetness of its waters. After flowing east by south, through the plain of Subzawar, it sweeps round to the west, runs down a narrow valley called Jaya, and passes a little to the south of the valley of Pomegranates,(7) where Capt. Christie crossed without recognising it. Of the course of the stream for a short distance after this, I am doubtful, but its further progress to the west must be soon arrested by the inclination of the ground from the western range of hills before mentioned. Entering the tract, from its extreme barrenness called the Waste of Despair, (Tug-i-Noomed) (8) its name, which since leaving Subzawar has been changed to Jaya, is again altered to that of the fallen angel Haroot. It then flows a little to the west of Killah Rah, the northern part of which it waters, and with a nearly southerly course empties itself into the lake of Seistan. A few miles above its mouth, the Herat receives a small salt river, the Khash Koduk, which has water only in the spring, when it drains the marsh of Furrah.

The Adrascund.

During the wet season, a mountain torrent, rather than a river, flows S. E. into the lake from Bundau, by the name of which place it is known. The Bundau has a course of less than 50 miles, and only deserves notice as being, as far as our knowledge extends, the solitary stream which enters Seistan from the west.

The Bundau river.

The Khash-rood has for so long a period occupied an erroneous position on our maps, that its real course deserves particular attention. After crossing the Herat road, it travels south-west to Seistan, but in 1810 it did not enter the lake; its waters just below Chukhnasoor, having spread themselves out over a low tract called from a species of marshy grass (aishk) which abounds there, Aishkineik. That the Khash-rood has been stated to empty itself into the Helmund at Kona, sheea, may perhaps be accounted for, by supposing some confusion between the name of that post and of Chukhnasoor, of which the more correct appellation is said to be Khanehsoor, or the house of marriage, it being there, according to tradition, that Giu married a daughter of Roostum.

The Khash-rood.

6. Gerard first traced its course from the Herat-rood to Anardureh.

7. Anardureh.

8. I do not exactly understand the limits of the plain known by this name. North of it is a great salt tract, the Nimuksar.

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The Khash is a much smaller river than the Furrah; a large proportion of its waters are drained off for cultivation, and during the greater part of the year its channel, which is never of any great width, only contains waters where it has been banked in, or in a few deep pools. On its banks and in Seistan, the Khash is always called the Khoosh, and in some geographical works is written Khooshk, or the dry river. The Aishkineik was a marsh during the swell, and dry in summer.

The Ibrahim Jooi is made in our maps to fall into the Khash, but in reality a little below Bukheva, it spreads itself out and forms a marsh also called Aishkineik, which is, however, usually dry, there being little water lower than the Ismail Khan. I know of no stream flowing into the Khash from the west, except a small river which commences, I was told, somewhere below Bukheva; from the east it receives the Rod-i-Reghi, the direction of which will be seen in the map; but of the early part of its course I am doubtful.

Other smaller rivers.

To the west of the Khash three smaller streams flow into Seistan from the north-east; the Rod-i-Khar, the Chabulk, and the Koospas. The first and least, at the period of which we are speaking, discharged itself into the Aishkineik above Chukhnasoor.

Of the other two, the Chabulk rises in a spring called Chusmeh Meshak, about six miles south-east of Toojk, below Furrah; the second at Siah-ab, a hill between Koormalik and Bukheva, celebrated as the spot where the Vuzeer Shah Wulee was put to death. These two rivers formerly debouched in a lake some miles east of the principal one, and known by the name of Duk-i-Teer, a promontory on its eastern bank, famous in the fabulous history of Seistan, as the place from whence Roostum procured the arrow with which he killed Isfundear.

Of the extent of this lake I have no very precise information. On the north it reached to within eight miles of Jowaine; it was probably connected with the Aishkineik on its south, and when swelled by extraordinary floods, may have even been united with the lake of Koh-i-Khwajeh, as a high bank prevents its extension to the eastward.

It also received some of the waters of the Helmund by branches striking off north and east from that river, after it had passed Rodbar. Of these the principal, which left the parent stream near Deh-i-Nusser Khan, was called the river of Ilumdar, and another of smaller size, but since become remarkable, went off from Khwajeh Ahmed.

Such was Seistan for a long time. The Helmund glided along each succeeding year in nearly the same channel it had occupied the year before, and the inhabitants on its banks were too ignorant to remark or to care to counteract the consequences they could have hardly failed to fore-

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see, of the change which was gradually preparing by the annual deposition of alluvial matter. The great embankments, whose ruins still record the names and wisdom of kings of yore had been neglected or destroyed, and the canals which enriched more than one desert district, were dry, and the fields they had watered a waste. Zirreh, so celebrated in history, which defied the arms of Chengiz and Timour, did not boast one inhabitant. Of Tragu, Killah Put, and Pshaweroon, and of other great cities, through the ruins of which the traveller wanders for days, all that remained were the walls and the name.

Change in the aspect of the country.

About nine years ago an unusually large inundation changed the whole face of the country. The main stream of the Helmund deserted its old bed, and cutting for itself a wide channel out of that of the small branch which went off from Khwajeh Ahmed, carried the greater part of its waters to the Duk-i-Teer. This lake was insufficient to contain so large an accession to its mass; the superfluous waters forced themselves a passage through a narrow and low neck of land to the westward, and discharged in this manner into the old lake, thus connected, and made the two one.

The inhabitants of Seistan were at length roused from their indifference by a disaster which threatened their very existence, as it deprived them of the means of irrigating their fields. United by the common danger, a large body of men of the different tribes assembled together, and in the course of the ensuing summer raised an immense mound across the river, near the place where the waters had diverged; but through their ignorance of physics, their labour was thrown away. The next flood turned the embankment, and the river, as in the preceding year, passed away from Seistan. Since that time the Seistanis despairing of success, have made no further effort to reclaim their river. The greater part of the water of the Helmund is discharged into the Duk-i-Teer by several mouths, and the now scanty stream of the old bed, confined by numerous bunds, hardly suffices to water the lands it formerly overflowed, and is a never ending source of contention, between the various tribes which inhabit its banks.

Name of the lake of Seistan.

Geographers have been at a loss to account for the many different names which have been given to the lake of Seistan. The solution of the puzzle is very simple.

The Persian word Hamoon حامون signifies a plain level ground. (9) The Seistanis apply the term to any expanse of water.

9. It is frequently found in this sense in Persian authors, as in the Bostan :—

Ze deria amá bur amud Ruse,
Sufur Kurdáh deria wo Hamoon buse.

I know of no instance of any author having used the term to express an expanse of water. The similar sounding name of the Oxus, Amoo, is probably descriptive of its periodical swell.

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During the swell, as before observed, the Helmund overflows its banks, and water is sometimes carried into low spots, from which some ridge intercepts its retreat, when the river again retires to its bed. In this manner numerous small lakes were formed, and each of them was called a Hamoon, and was distinguished by its particular appellative. The united waters are styled the Hamoon without any distinctive adjective. The old lake also was in former times known as the Hamoon, though sometimes, as now specified by the name of the celebrated hill in the midst of it, the Koh-i-Zor, or Roostum, or as it is more generally called from a modern saint, Koh-i-Khwajeh.

Zirreh.

The Hamoon of Zirreh was some miles to the south the Hamoon of Koh-i-Khwajeh, and was perhaps formed in the manner above described, from the overflow of that lake; though it is not improbable that a natural or artificial branch of the Helmund went direct to Zirreh. This Hamoon will be mentioned in the sequel. The lake of Zirreh, and many smaller ones, some of which are marked on the map, are either dry, or are drying up in consequence of the diversion of the Helmund. On the site of one, Boorj, one of the four capitals of Seistan has been built, and the place of water is supplied by corn-fields.

I cannot learn that the principal Hamoon, or any of the smaller ones were ever styled in Seistan, Loukh; I suppose therefore, that title to be a Persian or Afghan fabrication, or it may have obtained currency through some misconception of the meaning of the person who originally employed it to designate the lake, to many parts of which the name would be sufficiently appropriate, "Loukh" in Persian and Pushtoo signifying "rushes:" but this word is not known in Seistan, where a rush is invariably called "Toot."

Description of the lake.

The most fitting appellation of the Hamoon is the classical one of Aria Palus, for it is in reality almost every where a mere marsh. It has rarely a depth of more than from three to four feet, and is almost entirely covered with reeds or rushes. There is however a considerable difference in the appearance of the old and new lake, particularly in the dry season.

Of the Duk-i-Teer, I have only seen the south part; there it is a large sheet of water, thickly studded with reed-topped islands, its depth averaging about four feet, and having a very muddy bottom. The reeds are tall and close together, but you can walk through them without difficulty. To the north there is probably less water, and the reeds are not in patches, but cover the whole surface. In the old Hamoon, on the contrary, the reeds are in most places stiff and thick with age, and stand so close together in clumps, their roots being united by little hillocks of encrusted earth, that quadrupeds even are unable to force their way through them.

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This is particularly the case round the hill of Roostum, the only mode of reaching which in the summer is by a ditch two or three feet wide, and having an average depth of three feet of water, very salt, rank with putrifying matter, and nearly as black as ink.* Men, horses, and cows wade through the slime, people of the better classes are conveyed to and fro in a species of canoe called Tootee, and peculiar, I believe, to Seistan. Four or five bundles of reeds are fastened together by rushes, or by the flexible tops of reeds, the cut edges forming a square stem, the upper ends being tied in a point for a prow. The passenger seats himself in the middle, one man pushes from behind, and another pulls at the front. During the wet season the tootees are made of larger size, so as to admit of as many as four men sitting in them, and are propelled by paddles and long poles, but they are rarely taken into the deeper water, where the waves would wet and sink them. These boats last only for a few days, for the wet reeds soon become rotten and heavy; they are made and navigated by a particular class of men called Syads, a word which expresses their profession of fowlers. The ditch road I have mentioned has to be renewed every year when the waters have subsided.

Navigating the old lake.

The old Hamoon can be seen to the greatest advantage from the tops of the hill of Roostum, from which elevated position the eye travels uninterrupted over a plain bounded only by the horizon, except on the west, where, at fifty miles distance, rises the chain of the Bundau hills.

View from Roh-i-Khwajeh.

It was in September that I took my station on this hill; immediately beneath me lay a yellow plain, as level as a calm sea, formed by the tops of reeds, and extending north and south long beyond the reach of vision. On the east it was bounded by a strip of paler yellow, marking the borders of the lake, where the less thickly growing reeds are annually burnt down, and a few poor Kheils clear away the ground for the cultivation of water-melons. Beyond again, in this direction, appeared the dark green of the tamarisks, whole forests (11) of which fringe the lake. Here and there as we looked around on every side, were seen patches of blue water, and on the west a large clear lake stretched away till out of sight. All seemed waste, but the towers of Chuling and Sekoha showed like white specks in the distance; and winding and shining through the tamarisks, you might trace the course of several streams, which once formed the delta of the Helmund, and in which water is still retained at intervals for the purposes of agri-

11 Lest I be accused of a contradiction, as it has been said that there are no trees in Seistan, I may mention, that the tamarisks rarely, if ever, attain any great size in that country.

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culture. The water of the Hamoon is salt (12), but not at all places equally so, the intensity varying according to the depth, nature of the soil on which it rests, and the proximity to the mouths of the rivers. The Seistanis boast that the water of their country is the best in the world, that it gives an appetite, and promotes digestion; even when most distasteful, it is said not to be injurious, and the garrison of Koh-i-Khwajeh drank no other than that of the ditch path, described above, which is so brackish that none of our horses after a fatiguing march in the sun could be induced to drink it.

Saltness.

It has been stated that the Hamoon is every year spreading over a large superficies, which requires explanation, since it seems at variance with the received theory of the other inland lakes, the Caspian, Aral, &c. all of which are said to cover a less space now, than they did in former times. With only a general knowledge of the geography of those seas, it is dangerous to hazard a conjecture regarding them, but it seems by no means improbable that much of the land which is represented as shewing traces of having once formed part of the lakes in question, was covered with water before those lakes had occupied their present beds, proving therefore no more than that the water has changed its position, not that it is less in extent. The Caspian on the north, where traces of inundation on lands now dry are the most remarkable, is shallow, marshy, and covered with reeds, as if the water was gradually deserting it. It must however be borne in mind, that as the lake spreads, it offers a large surface to the action of evaporation, and that in proportion to the apparent increase, there is a real diminution in bulk.

On the increase or diminution of the waters.

The evaporation in Seistan must be very great. The heat in summer is said to be more oppressive than that of Candahar, and for half the year, a strong steady wind blows from the snowy mountains above Herat, to compensate the exhaustion of air in the burning desert to the south. This wind, which is called the "Bād i sud o bist roz," "a wind of 120 days," is confined to a breadth of about 80 miles, being bounded on the west by the Bundau hills, and extending no further east, it is said, than Khash.

Evaporation.

I should have desired here to give some account of the natural history of Seistan, but of the study itself I am nearly ignorant; the field is, I suspect, a barren one, and the season at which I visited the country was

12 Nothing but common salt is found in Seistan itself. The plain of Furrah is a saltpetre marsh. Salt is found in patches in various parts of the desert, that of Peer i Rizre in the Gurmsehl is celebrated for its whiteness.

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unfavourable to the prosecution of it. A description of the Hamoon however would be incomplete, without some notice of the more common animals to which the lake gives birth or affords nourishment.

The marshy and reedy parts of the lake shelter innumerable wild hogs.

Natural History.

In a small history of Seistan written by a native, it is stated, that when a man cultivates a piece of ground, he calculates on losing half the produce by their ravages. The villagers,

Wild Hogs.

as may be supposed, spare no means to destroy these destructors; they lay snares for them, shoot them, and hunt them down with dogs. The dogs are large, strong, bold animals, resembling the Bhil dogs of India, and are regularly trained to hunt. Accompanied by a dozen or more of these you sally out, and as soon as you approach the reedy grounds which the hogs frequent, you perceive on all sides the earth ploughed up with their tusks. The Seistanis, who are eager sportsmen, strip, and wade nearly naked through the mud. Soon a bark is heard, the note is immediately taken up, and all the dogs join in the cry like a pack of English hounds. After a due quantity of holloing and splashing the game is brought down, or if of large size, is held at bay till the huntsmen come up and despatch it with their matchlocks. The Seistanis though Sheeahs, and like all Sheeahs full of prejudices, do not object to handle the hog: the nearest huntsman cuts up the carcase and gives slices of it to the dogs, and the rest is brought home as food for them.

When the waters are rising in the spring, herds of thirty or forty are to be seen swimming one behind the other from island to island. Large numbers are thus sometimes collected into a small spot, and the hunting then becomes most dangerous; hardly a year passes without lives being lost in the sport.

The hogs are however a trifling nuisance compared with the hosts of

Insects.

insects bred in the stagnant waters. The mosquitoes are so troublesome, that in the spring, the poorest villager is obliged to make a small room of a coarse open cloth called "kirbas," into which he retires with his family as soon as the sun sets. "Clap your hands together," said a man whom I asked to give me some idea of their number, for when we passed through Seistan there were none, "and the palms will be covered with blood." Fleas are said to be no less numerous, and from them there is no escape; but the worst plague of all are the flies. I had been sometime in Seistan before I understood why the inhabitants complained so much of these insects; a few would now and then settle on the inside of our horses thighs, (every other part of the body being always protected by cloth) and where they bite a small stain of blood is

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left, so that the animal was marked as if leeches had been applied to it; but this was all, and though every one said, "You have not seen the flies, a cold night killed them just before you arrived, &c.," I began to suspect that the reports I had heard on the subject were fabrications, or at least exaggerations. I was mistaken: it was our last march in Seistan; we were approaching Chukhnasoor, and our road lay over some soil which the water of the lake had lately left, and which was hard, dry, and broken into innumerable small cracks: from these cracks such swarms of flies issued, that I can only give an idea of their numbers, by comparing them, to bees near a hive which has just been disturbed. They buzzed round our faces, and bit us in every less protected part, as the ancle above the shoe, the neck, &c. When we reached our halting ground, Peer i Risri, on the bank of the river Khash, their numbers were incredible; the horses were nearly maddened, and the servants declared they would all be killed. We lighted fires on the windward side of every horse, smothering the flame to make the smoke rise: this was not sufficient; we could not drive away the flies from our own persons, and the heat was too great to allow of our covering our faces with a cloth. On the opposite bank was a thick jungle of dry reed, we set fire to it, and huge volumes of smoke driving over us, we escaped our tormentors at the expense of sore eyes, and being blackened with ashes. During the night, afraid to face another day here, we hurried away to Ruddeh, glad to be quit of the flies and Seistan.

The Seistan fly resembles the common fly, but is twice as large. In the spring it is of a pale brown with dark spots; as the year closes the colour turns black, and soon after the insect dies. The bite is painful, but less so than the sting of a wasp, and the pain is only momentary.

Horses.

To the annoying attacks of the flies, is generally attributed the remarkable mortality which prevails among horses in Seistan, and it is not improbable that the irritation produced by their bites may have considerable effect in promoting the evil. There is hardly a horse in the country. Of more than 5,000 brought by Kamran in his expedition, about four years ago, not one is said to have been alive six months after the return of the army to Herat. This is of course a gross exaggeration, but there is no doubt that the loss was immense. The few horses which the Seistan chiefs keep for state, are tended with the greatest care in dark stables, from which they never issue, unless on some important occasion, except during the winter. When brought out their whole bodies are covered with cloth, particular care being taken to protect the belly, for a bite in that part is considered fatal; they are never galloped, for it is believed that if a horse sweats, he is sure to die. I bought a horse from a Belooch chief, which Rhohundil Khan of Candahar

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had sent down as a present four years before. The beast had never been mounted, had hardly left the stable, and the owner was glad to accept any trifle for it to escape the expence of its keep.

Disease of the horse.

The symptoms of the fatal disease, which is called "Soorkh surgeen," or red dung, are as nearly as I could collect from inquiries among the natives, and my own observation, as follows. First, the hind legs swell. The Seistanis then say "Bad gerift," "the wind has seized him," an expression applied commonly to a rheumatic complaint. One of my riding horses refused its food; we were standing by inquiring the cause, when a man who was looking on, came up, opened the mouth of the animal, and exclaimed, "Your horse will die—he has got white gums:" this is the second symptom. The dung now turns of a vermillion colour, the skin is frequently covered with pimples, the urine is bloody, and at last a paralysis seizes on all the limbs, and soon after death ensues. The eye during the progress of the disease is of a pale yellow colour, only a few specks of white remaining, and it is said that the "tail dries up," so that you can pull out the hairs by hands full. The disease in some cases I witnessed, killed in three days; but horses passing through Seistan generally live for a few months, dying however in certainly two cases out of five, within the year. The Seistanis having found all their remedies fail, now generally abandon a horse to its fate as soon as it is taken ill. Bleeding, the most obvious treatment, is, I was assured, useless, and the only mode of cure recommended to me, (warm goat's blood) is evidently absurd. This epidemic is confined to Seistan; it is not known at Jowaine, or Neh, or even Kuddeh. The Seistanis pretend that it has only appeared in their country of late years, but the ancient Zarangeans, and the armies which fought against Timoor, were foot soldiers, which argues the contrary.

Camels.

The climate is unfavourable, but in a less degree, to camels. Both these animals and sheep die in great numbers from eating the leaves of a plant called Trootk. Not more than 3 or 4000 camels could be procured in Seistan; when required, they are brought from Gurmsehl, or the sandy desert to the S.E. Sheep. Sheep feed generally on a small creeping plant called Boonoo, which abounds in the salt grounds, and which tastes like salt itself. Boonoo is sometimes used for horses' food, but it is first washed, by which process it loses much of its bitterness. There are many varieties of grasses all over the country, but several of them were said to have noxious qualities. (13) The only domestic animal which thrives well except

13. I collected specimens of them which are not at present available for verification. The most common is called Kirta, when we passed through Furrah, that whole plain was covered with it, and resembled a rich English meadow, sheep and cows thrive on Kirta, but it acts on horses as an aperient.

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the mule and ass,—the latter of which is very common and useful, is the cow, which is much valued in the neighbouring countries. People send their cows from a distance to pasture on the reeds of the Hamoon, which soon bring them into condition, but a cow thus fattened, though looking sleek and plump, does not yield the same quantity of milk as the Candahar cow, which revels on artificial grasses; for the first, six seers of milk is considered a fair supply; at Candahar twelve seers are commonly drawn. The Seistan cows are exported, three or four hundred every year, to Candahar, Persia, &c. I heard a well attested story of one which had returned by itself from Teheran.

Cows.

Cows are put to a singular use in this country (14); they are taught to hunt. In the spring, when the lake is covered with water-birds, the cow quietly crops the reeds, and the birds used to its presence, do not rise at its approach. Behind it skulks the huntsman, his matchlock resting on its back. The cow moves along very quietly, first lifting one leg and then after a pause another, every now and then stopping and feeding, till it comes to within a few feet of a dense mass of fowls. The hunter then fires, picks up his prey, and continues his sport as before.

Stalking.

Many cows are said to die from a disease called "Murk," (a corruption perhaps of "Murg," death) when you are told, a maggot is always found in the liver.

The water-birds of Seistan I did not see, but I could well credit the reports of their extraordinary numbers by the appearance of many parts of the grounds which had been lately deserted by water; in some places the marks of feet were so numerous as to remind us of an etching. Geese, ducks, and teal, are tamed. A very fine species of tame duck is brought from Bunpore, and is commonly offered as a present in Seistan.

Birds.

A famous shot, a cousin of the principal chief in Seistan, Mahomed Reza Khan, wrote out for me a long list of all the birds with which he was acquainted, with remarks on their habits, &c. but his notes are more amusing than instructive.(15)

There are probably few fish in the lakes, or rather few varieties of fish. In all the rivers we crossed from Girishke to Herat, though we frequently threw in poison, and caught fish in hundreds, we only found two species, a carp and a silurees. The Heri-rood has

Fish

14. The same custom is known in Afghanistan; see Elphinstone.

15. Thus he speaks of the Kohtan, or pelican, the water-carrier of the birds, which fills its bag with water, and flies far away into the thirsty desert, where the little birds exchange the food which they have collected, for a drink of his water. Or of the "Furdeh begirum," or "I'll catch him to-morrow," a kind of bastard hawk. Every morning it resolves to go a hunting, but scarcely has it made two circles in the air, when a piece of cow-dung attracts its eye, "Well never mind," it exclaims, settling down on the cow-dung, "*I'll catch to-morrow.*"

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also the dace, and in the Hamoon there is a small fish much esteemed, called Aujuk; it was not in season, and I did not see one.

The more common wild animals are wolves (which will attack cows and even men) jackalls, hyænas, foxes, porcupines, hedge-hogs, the kangaroo-rat, otters, &c.

The skins of the last are exported to Bokhara, and sell even in Seistan for three or four rupees. The leopard, or as a native described it to me, "the tiger's younger brother," is found in the western hills, to which it gives a name.

Wild asses and deer abound in the desert which lies between the Helmund and the Bundau hills. This tract differs much from the sandy desert south of the river. Little sand is found on it, except in strips of no great width. For the most part it consists of a hard, compact, light-coloured clay, over which a few shrubs, tamarisks, and grasses are thinly scattered, but sometimes it is perfectly destitute of vegetation for miles. Large spaces are found covered over with rolled stones, nor could we in every case assign a plausible explanation of their presence. The few isolated hills are marked on the map.

Deer.

Water is procured by digging wells in the beds of one or two small rivulets, such as the Murja and Tagrish, which are dry except after a fall of rain, and a tract runs through the desert, called Shund, where water can always be found within a few feet of the surface. Formerly brick wells were to be met with at every 10 or 12 miles on the caravan routes, but they are now almost all of them purposely destroyed by the Afghans, that the plundering Belooches may be prevented by want of halting places from invading them. From the scarcity of water in the interior, it is almost destitute of animal life; the deer are found near the rivers, but chiefly, and in immense herds, at a distance of generally 7 or 8 miles from the Helmund, where they are almost intermixed with large flocks of sheep, which are sent there from the banks of the river to fatten on a grass called Muj. The mode of catching the deer is curious. The canals for irrigation are always cut as closely as possible to the cliffs of the desert, a narrow space only being left for a high road. The traveller in the Gurmsehl will remark the outer or desert edge of the canals lined for miles with a slight railing of threads raised on small pieces of stick; at every one or two hundred yards a gap is left. Here in a pit dug for the purpose on the inner side of the canal, sits crouching the hunter, the muzzle of his matchlock, which rests on the edge of the pit, being concealed by a parapet of small stones.

In the twilight, either morning or evening, the deer steal from the dry desert to slake their thirst in the canal, sometimes singly, sometimes in

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herds, one walking quietly behind the other. A troop is seen approaching; on reaching the edge of the water the white line is perceived, and the leader afraid to cross it, turns, and followed by the rest walks trembling along side of it till the spot is reached where the hunter lies concealed. This is an anxious moment; the deer pauses as if to consult with his brethren. Frequently the marksman in his eagerness moves, a stone falls down from the parapet, and the startled herd scamper off to the desert again; but they must soon return. As the poor animal which has been once scared returns half dead with fear and thirst to the dangerous spot, you can hear its heart beating. Slowly, and step by step, frequently stopping and looking round, it at length has neared the water: it stoops to drink: the muzzle of the gun is within a few inches of its head: before one sip has been taken, a bullet has pierced its brain.

Wild asses are not common in that part of the desert I traversed; they are said to be found in great numbers, in herds of two or three hundred, on the plains west of Seistan.

Soil.

The soil of Seistan is celebrated for its richness, and many incredible stories were told me of its productiveness. From this fertility it might be supposed that Seistan was a garden,—it is a desert rather. With the exception of wheat, cotton (the plant of which is not half the height of the Indian one, but which bears a large pod) and in some places rice, and a little ill flavoured tobacco, and a few of the coarser grains, bajra, &c. almost the only plants found there are grasses and water-melons. The latter are singularly fine and large, and of several kinds; there are no artificial grasses, no vegetables, nor flowers. The largest tree is a sickly pomegranate. If a Seistani is asked "why don't you make gardens?" he will answer, "We don't know how." Were the people less ignorant and lazy, their country would produce every plant which grows in Candahar or Persia, besides probably sugar-cane, and many of the productions of Hindoostan; there is no reason why trees should not flourish here. The Gurmsehl was equally destitute of them a few years ago, but some 1200 young mulberry trees were imported there by a chief, and the country is now well stocked with them.

Climate.

The climate of Seistan is decidedly unfavourable to human life, and the small proportion of old men struck us forcibly. Fever and ague is the prevailing disease, as might be expected from the immense quantity of stagnant water, to which is superadded the bad effects of hot days and generally cold nights. From the constant high wind and the dust it raises, mixed with particles of salt, or from general ill health, consequent on malaria, one man in five throughout the country has diseased eyes. Nature indeed, as respects comfort, has little favoured

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Seistan, and for three months of the year only, the cold months (16), can life in it be said to be enjoyed.(17)

Note on the Map.

Any merits, which the map may be judged to possess, should be attributed to Sergeant Cameron, who surveyed the whole route, except that part of it which lies between Seistan and Killah Beest, for the errors of which I alone am responsible.(18)

The survey has been made only with the compass, but a flat country, with hills interspersed at long intervals is so easily laid down, we had so many well determined points d'appui, and our numerous bearings answered so perfectly, that I feel confident of there being no error of consequence in the portion of the map over which our route lay.

From Gerishke to Herat the route has been taken from Capt. Lander's survey.

The villages in the valley of Furrah are placed from native information. During our stay in that valley there was a thick haze which prevented the taking of a bearing.

The determining what shape to give to the Hamoon, which has a different shape every month of the year, was a point of much doubt and difficulty; the one adopted is that we believe the lake to assume in June, when the water retires from overflowing the surrounding country to its more natural and proper bed. Under these circumstances all that can be hoped for, or expected, is an approximation to the truth, but the only part

16 The cold weather is very pleasant, and similar to that of the north-west of Hindoostan. Snow has been known to fall in Seistan, but it is a rare and remarkable occurrence. Snow lies for five or six days during the winter at Herat. Its boundary is said to be the height of Shah Bed, but it not unfrequently snows at Hilzawar. About two years ago an army from Candahar invaded Herat; while it was encamped at Jaja a fall of snow surprised them, which was so severe that they lost several hundred horses.

17 In apology for the many omissions of this imperfect paper, I may mention that it is only a part of a more comprehensive memoir, which I am drawing up on the subject of Seistan.

18 The untimely end of Sergeant Cameron has been already made public. This man, the son of a respectable builder of Perth, after his return from Seistan accompanied me in a journey through some before unexplored parts of the Eusafrye country. I cannot speak too highly of his zeal for science, industry, ready talents, and gentlemanly deportment. His health failed him in Seistan, from whence to the Helmund, we were obliged to have him carried on a bed. Afterwards he rallied again, but his disease, consumption, was latterly gaining upon him, and I do not think that under any circumstances, he could have lived many months longer. As he was too weak to travel except slowly, I left him at Peshawur to follow at his leisure, and myself went on in advance with a few horsemen to Jelalabad. He had a strong guard with him, and had nearly reached the end of the Khyber pass. Unsuspicious of danger, he had dropped a little in rear of his party, when on a sudden he found himself surrounded by sixty men, while sixty others appeared on the hill above him. Seeing that resistance was hopeless, he dismounted, and drawing his sword, presented it to the nearest of the robbers. Just at that moment a stone struck him on the head and knocked him down; the ruffians in their blind fury rushed on him, and cut him to pieces with their knives.

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of the Hamoon regarding which I do not feel satisfied, is to the south, where we have fewer opportunities of checking our information.

It is a source of much regret that we did not visit Zirreh; ignorant of the geography of the country, we were not aware of our having travelled away from it, till it was too late to repair the error; and as that part of Seistan is now uninhabited and rarely visited, it was difficult to get any satisfactory account of its present condition.

Of all the places inserted in the map which did not come under our personal observation, the relative positions alone can be depended on. The distances from one spot to another are in many instances doubtful, if not conjectural.

Proceedings of the Asiatic Society.

(*Wednesday Evening, 7th October*, 1840.)

The Honorable Sir E. RYAN, President, in the Chair.

The following gentlemen proposed at the last Meeting, were elected Members of the Society:—

M. P. EDGEWORTH, Esq.	Capt. W. LOVEDAY, ditto.
Capt. T. HUTTON, 37th Regt. N. I.	Dr. J. D. D. HÆBERLIN.

Library and Museum.

The following Books, &c. were presented:—

Lardner's Cabinet Cyclopædia; History of Denmark, Sweden, and Norway, vol. 3.

Edinburgh New Philosophical Journal, by Professor Jameson, 1840, No. 56.

London and Edinburgh Philosophical Magazine and Journal of Science, No. 104, May 1840, London, 3d Series.

Yarrell's History of British Birds, London, May 1840, 18.

Oriental Christian Spectator, August 1840, 2nd Series, vol. 1st, No. 8th.

Journal des Savans, Janvier, Fevrier, Mars. 1840, Paris.

Bulletin de la Societe' de Geographic, Paris, 1839, 2nd Series, Tome 12, 8vo.

Christian Observer, new Series, vol. 1st, No. 10.

Journal Asiatic Society of Bengal, New Series, vol. 9th, No. 17.

Sketch of the Country between Kurrachee and the Aghar River, MSS.

Sketch shewing the situation of the Coals found in the Tenasserim Provinces.

Sree Vhagavat (Purana) in Deva Nagari, 4to.

Corrected Copy in Deva Nagari Character from the original in the Journal.

Four Pooties in Sanscrit.

A tin box of forged Seals presented by A. GRANT, Esq. Collector of Delhi, forwarded by H. M. ELLIOT, Esq.

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Catalogue of the Birds of the Peninsula of India, by T. C. JERDON, Madras, 1839.

Rapport fait a L'Academic Royale des Inscriptions et Belles Lettres (Institut de France) au subject du pied Romain, Juin 1835.

A Code of Laws extracted for the Armenians of the province of Ararat in Armenia, in Armenian, presented by J. AVDALL, Esq.

Annals of Natural History, or Magazine of Zoology, Botany, and Geology, No. 31, June 1840.

Vishnu Purana, translated by H. H. WILSON, London, 1840, 4to.

Les Sultans Mamlouks de Makrize traduction de M. Quatremere. Paris 1840, Tome 1st. Liv. 2nd, 4to.

Museum.

Skeleton of an Ostrich, presented by the Honorable Sir JASPER NICOLLS, prepared in the Museum.

Ditto of a Vulture, purchased, and prepared in ditto.

Specimens of Sponge, presented by Col. D. MACLEOD.

Several impressions of Seals.

The following Works were presented.

Memoir on the length of an ancient Standard measure of the Roman foot, discovered at Candabie, in Normandy.

Notices, of the Galla Tribe at Limmon, on the frontier of Abyssinia,
also presented to the Society by M. JOMARD, President of the Royal Geographical Society at Paris, and Member of the French Institute, were forwarded by Major T. B. JERVIS, of the Bombay Engineers. That officer in forwarding them, writes—"Which gives me an occasion of offering a few words on the importance to British interest of securing the good will of a people situated so favourably for throwing in supplies in any case of emergency into Aden, and the facilities the country affords of providing suitable cattle (a large and powerful description of mules) at a very reasonable rate, for the Horse Artillery of India.

"I cannot but express my surprise, that so little concern has been given to the country which several foreign powers are striving by any means, and no doubt with other than mere commercial views, to preoccupy.—The French Government, as may be judged from this little notice, have long had their eye on it; and since that period Messrs. D'ABBADIE, freres, have been deputed to explore its resources, and are now in or about the neighbouring coast. Messrs. ISENBERG and KRAPFT, Germans of the London Missionary Society, have their residence in Abyssinia, and a Mr. AYRSTON is also exploring the country on his own, or what account I know not. It would be well to occupy it by some moderate, able person in the capacity of British Agent, were it only for the purpose of protecting a lucrative trade that might be carried on by British subjects, and which is now altogether in American hands; while it would serve as a general sort of watch tower to keep an eye on the iniquitous traffic in slaves from Zanguebar, Mozambique, and Madagascar, with the shores of Arabia and Egypt. Moohummud Alee, who draws thence the larger portion of the slaves sold in the markets of Cairo and Alexandria, was not insensible to the political importance of the Galla country, and the shores to the east of it."

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A memorandum of assets was submitted by the Officiating Secretary, as prepared by Mr. W. H. Bolst, Assistant and Accountant, shewing at credit of the Society in the Bank of Bengal, ... Rs. 3,916

Outstanding bills to the 2nd quarter of 1840 for contributions from members, ... Rs. 5,096

Doubtful—Parties being absent in England, &c. .. .. 1,168 ——

Irrecoverable—Parties being dead, ... 304 1,472

Rs. 3,624

Add contributions for the 3rd. quarter of 1840, just due and realizable, about,.. Rs. 2,400

In course of realization, Rs. 6,024

Read the following letter and list of land and fresh water shells for the East India Company's Museum, by Dr. J. T. Pearson.

To the Officiating Secretary to the Asiatic Society.

"Sir,—Having seen in the Journal of the Asiatic Society, an extract of a letter from Dr. Horsfield, in which he states that the Museum of the E. I. Company contains but few specimens of the Zoology of the continent of India; I have the honour to request you will obtain for me the favour of the Society transmitting to that gentleman, the accompanying fifty species of the land and fresh water shells of this country; to be presented on my part to the above mentioned Museum.

"I am induced to prefer this request, from the bad fortune which has hitherto attended my private efforts to send specimens to England; having had no news of not less than three consignments to the late Secretary to the Zoological Society, Mr. Bennett (in his private capacity, however,) to Mr. Swainson, and to Dr. Traill, from which circumstance I am induced to think they were not delivered.

"Accompanying the specimens is a list, with such remarks of their locality, &c., as I thought might be useful.

"As the specimens are for the most part fragile, you will oblige me by taking great care in handling them, should they be inspected by the Society. I must also add, in excuse for the few specimens of each species, that I lost a considerable portion of my collection; but hope to be able hereafter to forward a greater number.

"If the Society will allow me, I propose to forward through them, a series of specimens of the other branches of the Zoology of these mountains to the E. I. Company's Museum, as I have opportunity for collecting them. I have, &c. &c.

J. T. PEARSON.

List of land and fresh water shells for the E. I. Company's Museum, from Assistant Surgeon J. T. Pearson.—*Darjeeling, 10th April,* 1840.

1.—Unio bilinearis—Benson.—Found in a tank on the Esplanade of Fort William.

2.—Unio favidens—Benson.—Found in running streams, and common in most rivulets in India.

3.—Unio maigmalis.————Common in tanks of stagnant water, and less so in rivulets.

4.—Cyclostoma involvalus.—Soverly.—Common in the Rajhmahl hills, and at Midnapore.

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5.—Cyclostoma involvalus.—Soverly.—Found at Cherra Poonjee, and in the Darjeeling district of the Himalya mountains. At Darjeeling it is of the smaller size, but lower down, at an elevation of not more than 2,500 to 4,000 feet, they are much larger—as large again as those sent; but I have not a good specimen of this large variety. Mr. Benson is of opinion this species is the same as No. 4.

6.—Cyclostoma ——— Found also at Darjeeling, but not very common.

7.—Pterocyclos hispidum peaugo.—From the Garrow Hills. I described this and the following shell in the Journal of the Asiatic Society for November 1833, under the name of *Spiraculum hispidum;* a generic name, which out of deference to Mr. Benson's authority as a conchologist (independent of his prior claim) I think it right to withdraw.

8.—Pterocyclos parvus.—Pearson.—Locality as the last species.

9.—Pterocyclos rupestris.—Benson.—Found in the Rajhmahl hills. The first species of the genus discovered by Mr. Benson.

10.—Helix ——— Found at Darjeeling. The only live specimen I have yet met with.

11.—Melania varialilis.—Benson.—Found in Tolly's Nullah, near Calcutta. It was also in the Sylhet and Cherra Poonjee collection, which I purchased jointly with the Asiatic Society.

12.—Melania stephanus.—Benson.—In the above mentioned collection.

13.—Melania zonata.—Benson.—In the above collection.

14.—Melania coricea?—Gray.—ditto, ditto.

15.—Melania ——— Found in tanks and rivulets of Bengal.

16.—Melania ditto, ditto, ditto.

17.—Melania ditto, ditto, ditto.

18.—Melania ditto, ditto, ditto.

19.—Paludina bengalensis. ditto, ditto.

20.—Paludina crassa.—Inhabits the rivers &c. of India.

21.—Paludina pulchella.—From the Sylhet collection.

22.—Paludina ——— ditto, ditto, ditto.

23.—Lymnœa ——— I discovered this species in a tank on the road from Howrah to Bishop's College, near Calcutta.

24.—Lymnœa ——— Common in stagnant waters all over India.

25.—Planorbis indicus.—ditto, ditto, ditto.

26.—Vitrina gigus.———From the Sylhet collection.

27.—Helix ——— Bengal.

28.—Helix ——— From the Sylhet collection.

29.—Helix ——————— ditto, ditto, ditto.

30.—Helix ditto, ditto, ditto.

31.—Helix ditto, ditto, ditto.

32.—Helix ditto, ditto, ditto.

33.—Neritina depressa.—Benson.—Found on the piles on the banks of the river Hoogly at Calcutta.

34.—Neritina tigrina.—Benson.—Locality as the last species.

35.—Neritina —— I am not sure that this species is described. I found it adhering to stones, at low water, in Tolly's Nullah.

36.—Assaminia fusicata?—Common on the banks of the Hoogly.

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37.—Nematura?—Found in the aqueduct leading from the Hoogly to the Course, Calcutta.

38.—Scarabus triangularis.—BENSON.—On the banks of the Hoogly at Calcutta.

39.—Clausilia loxastonia.—BENSON.

40.—Pupa————Found in advance in the sands on the banks of the Ganges near the mouth of the Goorutee, but I did not meet with a single live specimen. They appear to have been washed down and cast among the weeds, &c.

41.—Bulminus. ———— Found at Darjeeling.

42.—Achatinia. ———— Common in Bengal. I regret I have not a better specimen than the one sent.

43.—Navicella compressa.—BENSON.—Found on the piles on the banks of the Hoogly near Calcutta. I have but one specimen left, which will account for the injured state of that sent.

44.—Navecella tessellata.—LEMARCK.—Locality as the last.

45.—Cerithissa sulcatum.—LEMARCK.—Estuaries of the rivers of Bengal.

46.—Cerithissa ———— ditto, ditto, ditto.

47.—Cerithissa ———— ditto, ditto, ditto.

48.———— Found in the aqueduct mentioned under 37.

49.—Modiola ———— Found in Tolly's Nullah, adhering to stones, &c., by a string byssus. I think it a new and undescribed species.

50.————Found in the sands of the Ganges, &c. Besides the above, a bottle containing the shells with the animals of Cyclostoma incrolubus, Heritina depressa, and Tigrina and Pteroclos rupestris.

Read a letter from J. H. BATTEN, Esq. of the C. S. enclosing one from Captain HUDDLESTONE, giving copies of an apparent inscription engraved on a Chobootra at Dewulghur in Ghurrawul, with a drawing of the Chobootra. Dewulghur is situated about 10 miles east from Sreenuggur, at some height above the valley of the Ulluknunder river, and possesses a rather handsome temple and establishment. Next to the showy shrines of Buddinath, Kedranath, &c. Dewulghur, is the chief religious establishment in Ghurrawul.

The character of this inscription, which is represented by Captain HUDDLESTONE as extending throughout the whole of the Chobootra, and the carving is said to be exceedingly elaborate, appears to be a *Toghra* in the Sanscrit character, but none of the Pundits to whom it has been shewn, nor Mr. CSOMA DE KOROSI have as yet succeeded in decyphering any portion of it. The character would appear to be unique, and should the specimen now furnished continue to baffle our attempts at its interpretations the Officiating Secretary proposes to publish a facsimile of it, and invite the attention of the readers of the Journal to a consideration of this curious variety of character.

Read a letter from Dr. CHAPMAN, H. M's. 16th Lancers, on the subject of the reading to be adopted on the legend of the so-called Demetrius Mayes' Coins. The Officiating Secretary expressed his regret at not having been able to publish some very interesting speculations by Dr. CHAPMAN on Bactrian numismatics, in consequence of his unfortunately not having it in his power to procure accurate and creditable lithographs of the casts of coins which accompanied that gentleman's paper. The same impediment had prevented him from publishing a collection of gems by the same contributor; but he trusted to be able very shortly to overcome this difficulty.

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Read a letter from Captain T. S. BURT, of Engineers, of which the following is an extract:—

"On the third page I have the pleasure to send you some information which the Rev. Mr. PRATT has kindly favored me with; by noticing the existence of the pillar in your Journal, it may be discovered and an old character on it besides, for I should doubt any one having dug down to its base, buried as it is 21 feet below ground, notwithstanding what the Oriental Repository says on the subject. I brought to notice a pillar at Patna *with* some antique writing upon it in the March number of the Journal Vol. III. for 1834, but I cannot think it means this one. Sir Charles WILKINS found one some where in the neighbourhood of Patna also, and translated the inscription found upon it in, *I think*, the 1st Vol. A. R. but as well as I recollect, that was at Buddal not Singea.

"*Extract from Oriental Repository, Vol.* 2, 1808.

"The plate of an *ancient column near Singea in Bahar*, was obligingly communicated by Mr. THOMAS COLLINSON. In the letter dated 15th February 1793, he says—This singular column is situated on the site of an obscure village in the neighbourhood of Singea in the province of Bahar, of which no traces whatever with respect to its establishment are to be derived either from oral tradition or the existing legends of former times; nor is there any inscription discoverable on any part of the column, though it has been carefully examined many feet below the surface of the earth.

"Note.—Some foolish travellers have cut their names upon it, but it is to be hoped this impertinence will be soon effaced from the column, and I would not let the copper plate be a record of their folly. The whole of the shaft is said to be one entire piece. It is of greyish stones or marble (?) The *lion* on the capital is of the same material, but what renders the subject still more extraordinary, is, that there is not a stone to be found within 150 miles of the spot, or such an animal as the one described within the circle of our dominions—consequently, but little known to the natives. The sculptural decorations bear no similitude to the works either of the Hindoo, or Musulman artists.

"*Dimensions.*

	ft.	in.
Shaft, an entire stone, ...	44	0
Ditto sunk, ...	21	0
Ditto above ground, ...	23	0
Diameter at ground, ...	4	1
Ditto under capital, ...	3	5
Height of capital without the lion, ...	3	0
Table on which the lion sits, ...	0	10
Ditto long, ...	4	6
Ditto broad, ...	3	10
Height of lion from paw to ear, ...	5	4

"Lion and Capital one stone,

("1792. Signed) D. C."

It was suggested that early occasion should be taken to invite research upon the interesting subject mentioned by Captain BURT.

Read a letter from Dr. H. FALCONER, with impressions of gems from Affghanistan.

Read a letter from J. AVDALL, Esq. forwarding a Memoir of Mechithar ghosh, the Armenian Legislator for the Journal of the Asiatic Society.

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Read a letter from Captain T. P. CAUTLEY, forwarding a Memorandum on the Fossil Camelidæ of the Sewalik range. This paper was published in No. 102 of the Journal.

Read a letter from Captain F. MACGRATH, Commanding the Arracan Local Battalion to the address of the Secretary, apprizing him of his having dispatched to his address, to be disposed of as would appear most expedient, a fine specimen of that rare and curious animal, the Sand Hog of Arracan. This animal was taken in the hills above the Koladyne river (vide Dr EVANS' Memoir Asiatic Society's Journal, August, 1838, No. 80.) Captain MACGRATH, gives the following account of the local name of the animal, and the habits of this specimen now supplied by him—

"The Mugs call this animal Quado Waitdoo, this interpreted signifies an animal between a pig and a dog, or more literally partaking of the character of both. I got this creature about two months since, when he had not a tooth, and was fed on milk with cotton; as he grew up he took to eating cooked fish and even meat, also getting under the Bungalow and groping for worms and insects. He used to run about the house quite tame, and has never been confined day or night; his courage is great, and indeed if it is not guarded against, he will be meeting his death in consequence, for he will attack a dog, who with one gripe would destroy him; in fact he has no fear."

The Officiating Secretary informed the Meeting that he had taken upon himself to present the animal to the Menagerie at Barrackpore in the name of the Society, to whom he considered it had been virtually presented by Captain MACGRATH, and he had great satisfaction in stating that the animal had thrived exceedingly well where he was now placed, and that there was every reason to anticipate his attaining his full growth without accident.

It was proposed by the Honorable W. W. BIRD, and seconded by Dr. WALLICH, when the subject of the choice of a permanent Curator was agitated, that Mr. BLYTH, in whose favor Professor WILSON had furnished Sir E. RYAN with the highest testimonials, should be invited to this country for the purpose of assuming the permanent duties of the Office, and that in the mean time arrangements should be made for securing efficient supervision over the affairs of the Museum, by employment of a gentleman of due qualifications, whose services might be now available in Calcutta. In pursuance of this determination, arrangements were made subsequently to the Meeting by which the services of Mr. H. PIDDINGTON were secured as temporarily in charge of the Curatorship.

It was proposed by Sir E. RYAN that a Standard Barometer among the collection of Instruments belonging to the late Mr. JAMES Prinsep, his Cabinet of Minerals, his Comparative Barometer, and instrument for effecting correction of atmospheric changes, should be proposed to Government as proper to be purchased for the general purposes of science, and placed in the Society's Rooms for general reference by the public, and the Officiating Secretary was directed to address Government on the subject accordingly.

For the above presentations and contributions the thanks of the Society were accorded.

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JOURNAL

OF THE

ASIATIC SOCIETY.

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.[1]

Here we must try to supply Strabo's brevity by other accounts. I ascribe to Menandros the subduing of Pattalene and Syrastrene. Strabo makes no mention of these districts as conquests of Menandros beyond those of Alexander's expedition, because Alexander had advanced to Pattalene, therefore in this direction to the sea-coast. This interpretation is proved probable by the well known passage in the Periplus,* according to which, coins of Menandros and Apollodotos were still in use during the Roman era in Barygaza. To Demetrius we must assign the conquest of Ariana, viz. the country of the Paropamisades and Arachosia; this is the opinion already formed by Bayer,† on the authority of Isidor of Charax, who mentions among the towns of Arachosia, Φάρσαγα πόλις, καὶ Δημητριὰς πόλις, εἶτα Ἀλεξανδρόπολις, μητρόπολις Ἀραχωσίας, ἔστι δ' Ἑλληνίς. This (town of Demetrius) was probably built by him. But when Bayer thinks Demetrius also founded a town on the borders of the Hydaspes, because Ptolemy says of Σάγαλα ἡ καὶ Εὐθυμηδία

[1] Continued from p. 676. vol. ix.

* p. 17. Huds. † p. 84.

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(ed-μεδία) the clue is fallacious. We shall not indeed reject the excellent conjecture, that Εὐθυδημία is to be read, and that the town was named after Euthydemos, but why should no one except Demetrius so name a town?

If our remarks above made to the effect, that the Greeks in Bactria previously to the year 200 B. C., possessed no territory whatever to the south of the Indian Caucasus be correct, the following arrangement of our known facts suggests itself. When Euthydemos was relieved from the attacks of Antiochos, he made an invasion, either in person or through his son, Demetrios, of the countries to the south of the Caucasus; here he must have first encountered the Paropamisades. Arachosia bounds on them on the westward, and from thence Demetrios most probably endeavoured to reconquer his paternal inheritance. That here was the main site of his power, is confirmed by the name of the town, Demetrias, and this likewise explains why we have but so few coins of his; they must be looked for in Candahar.

His dominion in western Cabulistan and Arachosia sufficiently explains the title, "King of the Indians." Demetrios, however, pretends, by the adoption of elephants as trophies, to victories over India Proper, and we have no ground for denying his right to them.

It is true, those victories would prove hardly probable, if Menandros were his cotemporary, as Mr. Mueller thinks.* But he takes Strabo's words in a too literal sense, while they, as the passage plainly shows, are intended only as general expressions. The coins at least afford no proof that both were cotemporaries.†

The chronological tables to be obtained for the history of Bactria, can only result from a comparison of all the passages relative to this inquiry.

* p. 209.

† I drew no conclusion for my assertion from the non-existence of the Cabulian letters on the coins of Demetrios, as this may be accounted for by his governing countries more to the westward, where the use of those letters was not so common as in Cabul. It is, however, the most probable supposition that he did not use Cabulian letters, because his successors had the first idea of adopting them (on their coins.)

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The principal passage on Eukratides is the following, Justin XLI. 6. " Eodem ferme tempore, sicuti in Parthis Mithridates, ita in Bactris Eucratides, magni uterque viri, regna ineunt. Sed Parthorum fortuna felicior ad summum hoc duce imperii fastigium eos perduxit. Bactriani autem, per varia bella jactati, non regnum tantum, verum etiam libertatem amiserunt; siquidem Sogdianorum, et Arachotorum, et Drangianorum Indorumque bellis fatigati, ad postremum ab invalidioribus Parthis, veluti exsangues, oppressi sunt. Multa tamen Eucratides bella magna virtute gessit, quibus attritus, quum obsidionem Demetrii regis Indorum pateretur, cum trecentis militibus sexaginta millia hostium assiduis eruptionibus vicit. Quinto itaque mense liberatus, Indiam in potestatem redegit. Unde quum se reciperet, a filio, quem socium regni fecerat, in itinere interficitur, qui non dissimulato parricidio, velut hostem, non patrem, interfecisset, et per sanguinem ejus currum egit, et corpus abjici insepultum jussit."

First we remark on this passage, that the whole does not refer to Eukratides, namely not that part in which the reasons for the decline and the downfall of the Bactrian empire are enumerated. Throughout the whole passage one idea pervades, viz. that the fate of both empires, the Parthian and the Bactrian, was identical in the simultaneous accession to power of two great monarchs, but opposite in the simultaneous progress of one, to the highest pitch of power; of the other, to total destruction. Under the impression of this leading idea, the author suddenly turns to relate the circumstances which weakened and eventually ruined the empire of Bactria, namely, the wars with the neighbouring nations; this is an important notice, as involving a fact hitherto entirely overlooked, which is, that the detached kingdoms of Drangiana, Arachosia, and India, existed cotemporaneously together with that of Bactria. But it does not follow, that all the wars Eukratides was engaged in, must be the very same, which the Bactrians waged with the Drangians, Arachosians, and Indians, or, in other words, it is not necessary, that the three nations, now mentioned, must have formed independent states before Eukratides, as they may also have become independent after his murder. Moreover, if we may be allowed to follow a

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clue not wholly authentic, these kingdoms must have originated after Demetrius; for supposing Demetrius king of Arachosia, and that he was here called king of the Indians also, Justin could not separate Arachosia from India in speaking of a time when both countries still obeyed Demetrius. I therefore suspect, that immediately after the overthrow of this king, Eukratides took possession of Demetrios' Indian dominions, while Arachosia and Drangiana, likewise subject to Demetrios, became independent states under their own Satraps. On this supposition the wars by which Bactria was so much disorganized as to fall an easy prey to the Parthians, would have been carried on by the son of Eukratides against the attacks of the united Drangians, Arachosians, Indians, and Sogdians.

Under this view the aspect of Bactrian history is so much changed, that I shall directly mention some facts corroborative of the above.

First. We know, that Eukratides after having conquered Demetrios, turned* his arms against the Indus and Hydaspes, probably therefore, against countries belonging either to Demetrios himself, or to a king allied to him.

Secondly. Two kings laid claim to having reigned immediately after Eukratides, though not in Bactria itself, viz. Antialkides in western Cabul, and Antimachos in Drangiana; this latter on the authority of the coins, which point to a victory at sea.

* Strabo XV. § 3. Ἀπολλόδωρος γοῦν ὁ τὰ Παρθικὰ ποιήσας, μεμνημένος καὶ τῶν τὴν Βακτριανὴν ἀποστησάντων Ἑλλήνων παρὰ τῶν Συριακῶν βασιλέων τῶν ἀπὸ Σελεύκου τοῦ Νικάτορος, φησὶ μὲν αὐτοὺς αὐξηθέντας ἐπιθέσθαι καὶ τῇ Ινδικῇ, οὐδὲν δὲ προσανακαλύπτει τῶν πρότερον ἐγνωσμένων, ἀλλὰ καὶ ἐναντιολογεῖ, πλείω τῆς Ἰνδικῆς, ἐκείνους, ἢ Μακεδόνας, καταστρέψασθαι λέγων. Ἐυκρατίδαν γοῦν πόλεις χιλίας ὑφ' ἑαυτῷ ἔχειν, ἐκείνους δ' αὐτὰ τὰμ εταξὺ ἔθνη τοῦτε Ὑδάσπου καὶ τοῦ Ὑπάνιος, τὸν ἀριθμὸν ἐννέα, πόλεις τεὲ σχεῖν πεντακισχιλίας, κ. τ. λ. This cannot be but a contradiction of Apollodoros himself. Groskurd's Erdbeschr. Strabo III. 109.

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In these countries this could have only taken place on the great lake of the Drangians. Both kings first assume the title νικηφόρος, and are founders of empires by successful wars; chronology therefore admitting, (on this hereafter,) we may justly attribute to Antimachos the foundation of the Drangian, and to Antialkides that of the Arachosio-Cabulian empires; the foundation of the Indian empire must then belong to a third king.

If there were only one Eukratides, the coins with Cabulian legends, and the title of great king, must be ascribed to the fortunate, though short, epoch of his life, when his reign extended to the Hydaspes. I say short, because he fell by the hand of his son at the very moment of his return. If there were two Eukratides, those coins belong to the second.

We have before this, doubted the existence of Eukratides II, as far as it was inferred from the coins. We have now to examine the passages of authors adduced in his favour. According to Bayer's assertion, Eukratides is spoken of in a way unsuited to the victorious king of this name; he thinks, that the son had put to death his father, because he protected the Parthians, who assisted him against Demetrius. But all that we learn concerning the relations of both empires, never shows a friendly, but on the contrary an entirely hostile intercourse. We will not lose our time in conjectures as to the motives of that crime.

The passages which are said to afford the argument mentioned, are the following:—Strabo xi, 9, 2. ἀφείλοντο (the Parthians) δὲ καὶ τῆς Βακτριανῆς μέρος βιασάμενοι τοὺς Σκύθας, καὶ ἔτι πρότερον τοὺς περὶ Εὐκρατίδαν.

This passage must be explained by the statement, above mentioned, that the Parthians had deprived Eukratides of two of the Bactrian Satrapies, Turiva and the Aspiones; they afterwards took from the Scythians either this or another northern part of the Bactrian empire; they took it therefore from the very same Scythians, who under Euthydemos already threatened an irruption into Bactria, and who must afterwards have found an opportunity of invading this country. Why might not Mithridates VI. have availed himself of the siege of Eukratides by Demetrios, in order to subdue the Turanian Satrapies? Beyond this passage

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there is no mention whatever of Eukratides, and we are evidently not necessitated to adopt two kings of this name.

It remains to ascertain the mode of the downfall of the Bactrian empire. It is ordinarily ascribed to the Scythians, according to Prolog. Trog. Pom. XLI. "Deinde quo repugnante Scythæ gentes Sarancæ, et Asiani Bactra occupavere, et Sogdianos." But it is not borne in mind, that while Mithridates reigned in Parthia, the Scythians had not power sufficient to enable them to advance southwards; under Arsakes VII. indeed, or Phrahates II, who was killed by the Scythians, this conquest of Bactria by them may have occurred, whether Arsaces himself or another Greek king, who re-established himself in Bactria, be understood under the term of the epitomator: "*quo repugnante.*" I say *who re-established himself*, as it is certain, that Mithridates the Great, had before taken possession of the Bactrian empire, and governed it till his death. "Bactriani, per varia bella jactati, non regnum tantum, verum etiam libertatem amiserunt, siquidem—ad postremum ab invalidioribus Parthis, veluti exangues, oppressi sunt". The term "*weaker*," refers to the remark Justin had previously made, that the Parthians were in the beginning of their power much *weaker* than the Bactrians. Mithridates therefore is the real subverter of the Bactrian empire.

There exist some passages on the conquests of Mithridates towards Bactria and India, but they require a critical examination.

According to Diodorus,* who perhaps imagined that king to have taken possession of the Indian dominion of Eukratides, he conquered the empire of Porus. Independently of the little authority of Diodorus, Porus was considered since Alexander's time as a mere representative of Indian sovereignty, generally speaking, and it must depend upon other passages, whether those words mean any more, than that Mithridates extended his power in that direction. Of much less weight is Orosius, a still later

* Fragm. ed. Bip. X. p. 91. ὁ Ἀρσάκης ὁ βασιλεὺς τὴν βασιλείαν ἐπὶ πλεῖον ηὔξησε. μέχρι γὰρ τῆς Ἰνδικῆς διατείνας, τῆς ὑπὸ τοῦ Πώρου γενομένης χώρας ἐκυρίευσεν ἀκινδύνως.

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authority; (V. 4) "Omnes præterea gentes, quæ inter Hydaspem fluvium, et Indum jacent, subegit Mithridates, ad Indiam quoque cruentum extendit imperium." Orosius was possessed of a laudable piety, of no great understanding, and rather of a passion for rhetorical flourishes, than of any desire to attempt critical exactness. What were the many nations between the Hydaspes and the Indus, and what were they in comparison to the great empires Mithridates possessed? The only exact authority, that of Trogus, certifies merely that Mithridates' dominion extended to the Indian Caucasus. Justin XLI. 6. "Imperiumque Parthorum a monte Caucaso, multis populis in ditionem redactis, usque flumen Euphratem protulit."*

If Mithridates had reigned to the south of the Hindookoosh, coins of him would also have been discovered in the rich mine at Beghram, moreover the continuance of the Grecian empires in Cabul and about the Indus, discourages this opinion.

We have above attributed to the Parthians the overthrow of the Greco-Bactrian empire; the time of this event may be determined with tolerable exactness; Justin XXXVI. 1, says of Demetrios Nicator. "Bellum Parthis inferre statuit, cujus adventum non inviti Orientis populi videre, et propter Arsacidæ regis Parthorum crudelitatem, et quod veteri Macedonum imperio assueti, novi populi superbiam indigne ferebant. Itaque quum et Persarum, et Elymaeorum, Bactrianorumque, auxiliis juvaretur, multis proeliis Parthos fudit. Ad postremum tamen, pacis simulatione deceptus, capitur, etc." This captivity happened during the year 140 B. C. and as Mithridates died only a few years after this event, and as to him is expressly ascribed the conquest of Bactria, this must have occurred about the year 139 B. C. In the foregoing passage, Bactria appears then, for the last time, as an independent empire in alliance to the Seleu-

* The same is stated in an account, which, though of a later date, is derived from good authority. Acct. Sancct. ad XXX. Sept. vol. VIII. 3 20. Πάρθοι ἐν εὐτυχίᾳ μεγίστῃ ὄντες καὶ κρατοῦντες τῆς τῶν Περσῶν βασιλείας καὶ Ἀρμενίων καὶ Ἰνδῶν τῶν γειτνιαζόντων τοῖς ἑῴοις Πέρσαις, ἔτι δὲ τῶν σκληροτάτων Μασσαγετῶν.

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cides against Parthia, whether it were under a son of Eukratides, or a successor of this king. As Elymais and Persis alone are mentioned, and not Drangiana and Arachosia, the inference may be admitted, that the two latter empires were already occupied by the Parthians.*

One datum only for the more early Bactrian history, may still be derived from extant authors, the accession of Eukratides.

According to Justin, Eukratides ascended the throne at the same time with Arsaces VI.; but the statements and opinions on this very point are unfortunately very uncertain. Bayer upon his investigations places the commencement of the reign of both about 181 B. C.

According to Visconti, Mithridates' accession occurred 165 B. C. (Bayer p. 86, Visc. Iconogr. III. 70) Here are indeed to be found reasons for the probability only of the fact, and they apparently are in Bayer's favour. We perhaps fall into the less error of the two by adopting the medium between both dates, 175 B. C.† The first expeditions against India under Euthydemos, his death, the foundation of an independent kingdom by his son Demetrios, the expulsion of the Euthydemides from Bactria, either by Eukratides, or by a predecessor of his, all those events must be assigned to the years 200

* Bayer (p. 90) has thoroughly reviewed a difficult passage of Orosius referring to this place.

† Mithridates' accession must not be placed too far down, as he died at an advanced age "gloriosa senectute," and it is likely ascended the throne early. Another reason for the determination of the foregoing date, is that the war of Demetrios with Eukratides, must not be fixed at too late a time. The former, was at the conclusion of a peace between his father and Antiochus, a youth, about 20 years old. If he now fought in the 55th year of his age with Eukratides for the possession of Bactria, this war happened 30 years after, 200 B. C. or 170. If our conjecture were correct, that Antimachos could only have acquired his empire in Drangiana and in its neighbourhood after the overthrow of Demetrios, this would be another confirmatory reason. It is not necessary to bring him in direct parallel with Antiochus IV.; yet the commencement of his reign cannot be traced to a later period than 164, but rather to an earlier one; M. R. R. adopted the year 170.

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—175 B. C. Between 175—140, according to our foregoing review of the facts, occurred the overthrow of Demetrios, the murder of Eukratides, and the reign of his son, or of his successors. All is here uncertain, save that the reign of Eukratides must not be extended too far, as he fell in the midst of his victorious career, and appears to have made only one campaign in India.*

§ 16.

The Scythians in Bactria.

Euthydemos mentioned to Antiochos as a reason for not overweakening his power, that in this case he would not be able to repel the northern barbarians, and that Antiochos' own provinces would run the risk of being inundated by the invading current of the barbarian hordes. (Polyb. XI, 34.)

The Bactrian kings had in their palmy days possession of the country of the Scythians in two directions; to the east, beyond the Mustag, the provinces of the Phrunians and Seres, and on the north towards the Caspian the Satrapies of Turan, and another named after Aspiones. Mithridates had taken the latter, probably when Eukratides fought with Demetrios.

Among the nations in warring with which the Parthian empire became exhausted, the Sogdians are mentioned; they can hardly be Sogdians properly speaking, but rather the Saces, who had invaded Sogdiana; Strabo represents them as of that nation, when he says on the occasion of the great irruption of the Scythians, that they had started from the country beyond the Jaxartes, "τῆς κατὰ Σάκας καὶ Σογδιανούς, ἣν κατεῖχον Σάκαι."

They are probably the same Saces from whom Mithridates took away a part of Bactria† occupied by them, and who already so early as the days of Herodotus (VII. 64) bordered on Sogdiana, and whose name was given to all nomad tribes and

* There will be found a great difference between my numbers and those given by Mr. Mueller (at o. p. 218.) This is no place for a critical comparison of both statements; I beg only to remark, that the reign of 20 years (160-40) Mr. Mueller assigns to Eukratides in India, is as improbable as the reign of 40 years, generally ascribed to him.

† XI, Scyth. § 2.

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people of equestrian habits in Turan. They appear the foremost in the series of invading hordes.

The great inroad of these nations is noticed in two passages. Prolog. Trog. Pompei XLI. "Deinde quo repugnante Scythiæ gentes Sarancæ et Asiani Bactra occupavere, et Sogdianos." Strabo XI. § 2. "Μάλιστα δὲ γνώριμοι γεγόνασι τῶν νομάδων οἱ τοὺς Ἕλληνας ἀφελόμενοι τὴν Βακτριανὴν, Ἄσιοι, καὶ Πασιανοὶ, καὶ Τόχαροι, καὶ Σακάραυλοι, καὶ ὁρμηθέντες ἀπὸ τῆς περαίας τοῦ Ἰαξάρτου, τῆς κατὰ Σάκας καὶ Σογδιανοὺς, ἣν κατεῖχον Σάκαι."*

If I now maintain, notwithstanding this latter passage, that it was not these Scythians, but the Parthians, who destroyed the Grecian empire in Bactria, the reasons are quite evident. The Scythians could not conquer it during the reign of Mithridates, and when they took possession of Bactria, the country was no longer under the dominion of the Greeks, but of the Parthians, as the irruption of the Scythians happened at the death of Phrahates, about 126 B. C.

Of the four nations mentioned by Strabo, we know nothing of the Pasians; the Sakaraules seem to have been a separated tribe of the Saces; the Tochares received their kings out of the nation of the Asianes. (Trog. Pomp-prolog. XLII. "Additae res Scythicæ, Reges Thocharorum Asiani, interitusque Sarducharum.)"

We have then more particularly to deal with two nations, with the Saces and Tochares.

The gradual progress of these nomads over eastern Iran, can be traced in the Parthian history; having been taken into pay by Phrahates against Antiochus of Sida, they arrived too late. As now they received no compensation whatever, and they were led against no foe, they commenced plundering the Parthian provinces, and Phrahates fell in a battle against them, 126 B. C. (Justin XLII. 1.) This year is the real date of the Scythian inroad. The next king of the Parthians, Artaban, II. (Arsaces VIII) we find again engaged with the Tochares, and dying of a wound receiv-

* The following words καὶ τῶν Δαῶν κ. τ. λ. does evidently not further refer to this subject.

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ed in this war.* His son Mithridates fought again, and with more success, against the Scythians. Under his reign commenced the struggle of the Parthians against Rome, and supposing the Scythians up to that time able to maintain themselves in Bactria and Sogdiana, they were then doubtless at full liberty to assume unrestrained dominion. Nor do we find, that the Parthians attacked them any more. Sanatroikes, 77 B. C., is placed on the throne by the Scythians, viz. the Sakaraules; as was the case with Phrahates IV. when expelled by his subjects, in the year 37 B. C. †

Ancient writers do not give us the whole detail of the Scythian settlement in Bactria, nor do we know the name of any of their kings, any more than the manner in which they divided among themselves the conquered provinces. Only one notice which is in fact important, has been preserved; Isidor of Charax, says, (p. 9) Ἐντεύθεν Σακαστανὴ Σάκων Σκυθῶν, ἡ καὶ Παραιτακήνη.

We observe, as the Saces were the foremost of those nomades, so did they advance farthest to the south and west; they had occupied the Drangian Praitakene, while the Tochares, under the Asianian kings, settled themselves perhaps nearer to the eastern and northern frontier.‡

We must not here neglect receiving such illustrations as we are offered by Chinese authorities on the emigration of these Scythians, although the author of this treatise could not directly compare those authorities, and is aware of the confusion caused by Chinese misconstruction of names. But these ac-

* I. C. XLII. 2. As the Thochares are distinguished from the Scythians, these latter appear to be the Sakaraules. Scythæ, depopulata Parthia, in patriam revertuntur. Sed Artabanus bello Thogariis (sic) illato, etc.

† I. C. XLII. 5. Appian. Mithrid. 104.

‡ A Median Paraitakene was between Persepolis and Ecbatana, Arrian. Anab. III, 19. Ptolm. VI, 4. Diodor. XIX. 34. Strabo XVI, init. Beside this a Sogdian town of the same name, Arrian IV, 21, which was also named Gabasa and Babakene. Curtius VIII, 14, 17. Zmpt. eastwards of Karatag towards the lofty Belurtag. Thirdly, that above mentioned between Drangiana, Cabul, and Arachosia. Ptolemy calls it Tatakene, perhaps country of the Tatas? VI, 19. In Paraitakene lies the old Persian *Paruta, hill*, these hills are the Kohistan of modern Persian geography.

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counts however afford the great advantage of having originated with a nation, which had entered upon various relations with those Scythians, and was informed by embassies of their circumstances.*

These accounts however require a critical examination in various points, and even here, though only limiting myself to the most remarkable facts, I cannot quite omit this task.

The Yuetchi, a nomad tribe of inner Asia first appear in the upper Hoangho, whence they are repelled by the growing power of the Hioungnus; one sept called *the little*, turn southwards to Tibet; the larger division bearing the name of *the great*, set out farther westwards to the countries beyond the Jaxartes; this event happened in the first half of the second century before our era.† This division originally consisted of five hordes.

In the country recently occupied by them, they fall in with the people of an earlier emigration, called the *Szus*, *Sais*, *Ses*, also nomades under some petty chiefs. This tribe is forced to retire further west, and as the Yuetchis conquered new pastures on the borders of the Ili, the Szus must have been removed to the Jaxartes. In these *Szus* the Saces have been long ago recognized; this corresponds with the fact, that the Saces had

* The most important facts are already put together by De Guignes: "Sur quelques événements qui concernent l'histoire des Rois Grecs de la Bactriane et particulièrement la destruction de leur Royaume par les Scythes, etc" in Mémoires de l'Academie Royale des inscriptions et belles lettres. Tome XXV. II. p. 17. Abel Rémusat has supplied information of this kind in some writings, viz. in the "Récherches Tartares," in his "Mélanges," in his "notes to Foĕ Koue Ki". Klaproth in the "Tableaux Historiques de l'Asie." It is true, great mistakes have been pointed out in the work of De Guignes with respect to his interpretation of Chinese names; but he is not prepossessed, as his successors are, by the monomania of recognising in the Chinese accounts German tribes in inner Asia, as Goths, Getes, Jutes, Juetes, Jits, and Jats. The reading *Yueti* instead *Yuetchi*, originates in this visionary idea, and the Russian Sinolog, father Hyacinth, who was not acquainted with this beautiful discovery, quietly continued writing *Yuetchi*.

† De Guignes, p. 21. Klaproth, p. 57. p. 132. Rémusat to Foĕ K. p. 83. The year 163 B. C. is mentioned.

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already, before the destruction of the Parthian empire, taken possession of a part of Sogdiana. This era likewise agrees with the fact above mentioned, that the Sogdians had contributed their share in weakening the power of the Bactrian empire; this event must therefore have happened in the latter days of Eukratides, or in the time of his successor, posterior to 160 B. C.

The Yuetchis remained not long in the possession of their new country; another nation, the *Ousun*, flying from the *Hioungnus*, deprived them of those districts; the Yuetchis ejecting the *Szus*, occupied the provinces possessed by them; the *Szus*, pushed to the south, find an opportunity of taking possession of the country *Kipin*; the Yuetchis, following in their wake, take the country of the *Tahia*.* A Chinese general, *Tchamkiao*, accompanied this expedition of the Yuetchis, and the well ascertained event occurred immediately previous to the year 126 B. C.

This is the very year in which Phrahates was killed by the Scythians; the Yuetchis and the Szus flying from them, are therefore the Tochares and Saces of western writers, whom Phrahates is reported to have taken into pay. These mercenaries were perhaps at first the Szus, and we indeed find Artaban opposed to the Tochares. Whether the Szus were driven into Bactria, according to the Chinese account, or called into that country as according to Justin, both statements may be right as regards their immediate narrative. Phrahates wished to avail himself of the Scythians, pressed into his neighbourhood, to strengthen his army. While Mithridates, "ultor injuriæ parentum," arrested for some time, it appears, the progress of those Scythians.

The Yuetchis divided the conquered districts according to the number of their hordes, into five parts; they had the country of the *Asi*, or *Ansi*, whom De Guignes reads *Gansi*, as their western frontier; it is as appears probable correctly interpreted as the country of the Parthians.†

* De Guignes, p. 22. p. 23. Kl. p. 133. Rém. p. 83.

† Rém. p. 83. De Guign. p. 23. Kl. p. 133.

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Turning to the Szus who had conquered Kipin, we have already defined generally the situation of this country, which will become still clearer from the reports on the Szus. (De Guign. p. 29.) The country Kaofu, it is said, is very extensive; the inhabitants resemble the Indians in manners, and character, being rather mercantile, than warlike. Previous to their latter subjection under the Yuetchis, one part belonged to the Indian kings, another to the Ansi (Parthians); a third to the kings of Kipin (viz. the Szu-sovereigns of his account). Hence it clearly appears, that Kipin is the country in the west of Cabul below the Kohi Baba to the westward. Combining with this, the statement that Sakastane received its name from the Saces, we find, that the Kipin of the Chinese is the country of the western Paropamisus, the pastures of which are moreover occupied by a Mongolian tribe of nomades, the Hezarehs.* "Kipin" however is a political not a geographical term, and may on occasion also embrace portions of Cabul, Arachosia, and Drangiana.

What the Chinese mention of the productions of art in this country, as silks, gold, and silver vessels, refers of course to the dexterity of the subjugated inhabitants, or those articles were imported by trade. A notice of much importance, is the following, that they struck gold and silver coins; on the obverse the effigy of a horseman, on the reverse, of a man.†

As the Chinese had commercial intercourse with the empire Kipin, the names of some kings are mentioned. During the reign of the emperor Woo-ti, (died 87 B. C.) *Utolao* (or *Ontheoulao*) reigned in Kipin. His son was killed by a certain *Inmoffu*, who usurped the throne 30 B. C. Kipin is still spoken of at a much later time, but it is not noticed, whether it continued under its kings from the people of the Szus; this is,

* To this passage refers the misplaced and apparently absurd remark with Steph. De urb. 5. v. Ἀραχωσία, πόλις οὐκ ἄπωθεν Μασσαγετῶν. How comes Arachosia to the country of the Scythes? However, the Scythes are meant possessing Kipin.

† De Guign. p. 25. He knew of the Eukratides' coins only those with the type of the Dioscuri, and referred this notice to them.

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however, improbable, as it is stated, that the Yuetchis took afterwards possession of this country likewise.*

Now leaving the Szus for the present, we will recur to them, when in the progress of our research we have to consider the countries south of the Caucasus.

The Ansi, having their abode to the west of the Yuetchis, were a powerful nation with many towns; they had gold and silver coins, bearing on the obverse the image of the king, on the reverse a male figure. When a king died, his successor struck new coins. The Ansi wrote on hides, in horizontal lines (not in vertical, as the Chinese), carried on an extensive trade, and had conquered many countries.† De Guignes justly compares the constant type of the more ancient coins of the Arsacides with the portrait of the king, and the reverse of a Parthian bending a bow.

But how to explain the fact, that the Chinese term the same people Yuetchis, while the Greeks call them Tochares. Who are the Tahias? who the Ousuns? De Guignes, with whom I agree, holds the latter as the Asiani; they may have given kings to the Yuetchis, in the same manner as so many Turkish hordes stood afterwards under the dominion of the successors of Gengis Khan. The Tahias are taken for the Dahes, the Δααὶ, and the Yuetchis on their irruption into Sogdiana must have indeed met with tribes of this people.‡ When it is said, however, that the Yuetchis conquered all the countries of the Tahias, the Dahes had either spread themselves over Bactria to the southward, or the name of the country first conquered was transferred to those afterwards subjugated.

The name Tochares afterwards occurs with the Chinese under the form *Thuholo*, as they could not otherwise express it.§ We still recognize Tocharestan, which has received the name from them. But it need not be the same people; the Tochares of our

* De Guign. p. 27. Hyacinth in Ritter's "Erdkunde" VII. 682. etc.

† De Guign. p. 28.

‡ According to Strabo XI. Scyth. § 2. Καὶ τῶν Δαῶν οἱ μὲν προσαγορεύονται Ἀπαρνοι, οἱ δὲ Ξάνθιοι, οἱ δὲ, Πίσσουροι.

§ Neumann. Asiat. Studien. I, 179.

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time are Turks; for I think I may venture the conjecture, that this name in the Perso-Indian languages denoted the inhabitants of the cold snowy table land of the Belurtag; this nation may therefore have had the name of Yuetchis, or a similar one, and yet have been called Tochares, by the Bactrians, as they arrived from those snowy districts.*

Following the farther fate of the Yuetchis in Bactria, there afterwards appears a king named *Khieout-Sieouhi*, who uniting the other hordes, makes war on the Parthians, takes Kaofu from them, then also conquers Kipin, and Hantha; but he more likely took Kipin and Kaofu from the Szus. Klaproth places this event in the year 80 B. C.; Rémusat in the first century of our era; De Guignes 100 years after their first settlement in Bactria, therefore 26 years B. C.; so likewise does an anonymous translation of Chinese history.† The Chinese accounts certainly correspond, and we owe this pleasing incertitude only to our European chronicles. We hope to be excused ascribing the greatest negligence to our countryman, Klaproth. But we must continue; Khieout-Sieouhi is said to have died aged 80 years. His son *Yenkaotching* (the commencement of whose reign, would therefore have been about 30 A. D.) conquered India, advancing far to the south and to the east. The Yuetchis having become powerful, waged a war even against the Chinese under their governor *Pantchao*, in the

* *Tushara*, and with the pronunciation *kh* for *sh*, *tukhara*, denotes in Sanscrit *snow*, *ice*, *frost*, and so is named in the old Indian geography a people in the north of the Hindookush. A king of Kashmir, of the family of the Thuholos, 600 years after Buddha, (therefore 56 A. D.) is mentioned by the Chinese Buddhists; this was long before the Chinese knew Thuholo, and a proof, that the Yuetchis, to whom this king must have belonged, were named *Tukhara* in India. The Yuetchis however, or a neighbouring people of them in India, are also called *Turushka*, since Kanishka is said to have belonged to this nation, 500 years after Buddha.

† De Guign. p. 27, who read Tata instead of Hantha, Klaproth. p. 133, has Pouta; Rém. p. 83. Hantha. As. Trans. VI. p. 63. "the Chinese general Chang-keen (Tcham-kao) was sent as ambassador to the Yuetchi by the emperor Woote (B. C. 126.) And about a 100 years after, a prince of this nation subjected the Getes in Kophene (Szu in Kipin) and India was again subjugated by the Yuetchis."

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westerly tributary provinces of China; this was carried on in Khoten, in the year 98 A. D., and gave occasion for the discovery of the Caspian Sea.* Yenkaotching is however not said to have made this war, and it is very improbable, that he did so, as it occurred between the years 75-98.

The greatest power of the Yuetchis obtained therefore in the first century of our era. The father, Khieoutsieouhi, had engaged in hostilities with the Parthians; if this were the same in which Prahates IV. expelled Tiridates by the assistance of the Scythians (Justin XLII. 5,) it commenced about the year 40 B. C., and his son would be more correctly placed in the years beginning from 20 or 25 A. D.†

The power of the Yuetchis continued to the third century.‡ After this time it was weakened by new hordes of northern barbarians. Still however their empire maintained itself; and Chinese history in the beginning of the fifth century makes mention of a king *Kitolo*, who again undertook an expedition against India. India appears therefore meanwhile to have been taken from the Yuetchis. Kitolo is said to have conquered Balkh, Gandhara, and five other provinces. According to others, Kitolo's son founded the empire of "The Little Yuetchis" in *Foeleoucha*; here is some confusion, at least in the translations.§

Let us now sum up these facts. First, we have an empire, founded in Kipin by the Saces, commencing about the year 126 B. C. This may have maintained itself till the Yuetchis advanced southward, therefore almost to the beginning of our era. It embraced a part of Cabul, and we must hereafter examine, whether their kings did not also reign on the borders of the Indus.

Secondly, an empire of "The Great Yuetchis," or Tochares, in Bactria and Sogdiana, divided into separated hordes, to the

* De Guignes, p. 30. Rémusat, Remarques sur l'extension de l'empire Chinois, p. 120. Mr. Ritter, Erdkunde VII, p. 554. has translated Rémusat's term 75 A. D. by 75 B. C.

† De Guignes, p. 28. But he certainly makes an improper use of this notice.

‡ De G. p. 31. R. to F. p. 83. Kl. p. 133. As. Trans. VI. 63. where the year 222 A. D. is stated.

§ De G. p. 31. R. to F. p. 84. Kl. p. 134.

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year 40 B. C., and limited to the north of the Caucasus, thence conquering to the south of the mountains, Kipin, Kandahar, Cabul, including a large portion of India. The subversion of this empire coincides with the accession of the Sassanians.

Thirdly, the empire of "The Little Yuetchis" in Gandhara and India, at the commencement of the fifth century.

It is uncertain, whether we still have coins belonging to the Yuetchis, whose dominion was only in the north. We could only be inclined to assign to them those having on the reverse a horse, and not Cabulian legends.

Euthydemos and Eukratides as sovereigns of Bactria, famous for the fine breed of its horses, appear to have likewise adopted this symbol on their coins. And supposing even that coins with elephants belonged to the earlier period of the Yuetchis, we must ascribe this to the fact, that some of their hordes boasted of having penetrated to India.

Numismatology apparently profits us more for the history of the Scythians in the south of the Caucasus; but we must first take up again the thread of the Greek dynasties.

§ 17.

Greco-Indian empires.

We first call to mind, that the campaigns of the Greek kings from Bactria against India, can have but commenced about 200 B. C; that they originated with Euthydemos or his son Demetrios, and were directed against the power of the kings of Palibothra, the descendants of Chandragupta. This latter assertion must be more exactly detailed.

We know from ancient writers, that Chandragupta in his conclusion of peace with Seleucos Nicator acquired parts of Gedrosia, Arachosia, and of the country of the Paropamisades, and that their friendly relations continued under the sons of both kings, Amitrajâtâ and Antiochos Soter.* The third king of the Indian dynasty, Dharmazôka, is a name very celebrated with

* De Pentap. Ind. p. 44. Zeit-schrift fuer die Kunde des Morgenlandes i. 109.

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the Buddhists, because he afforded a general patronage to their religion, a fact now undoubtedly confirmed, as the inscriptions are decyphered, by which Azôka throughout his whole empire invited the adoption of the doctrines of Buddha.*

We may therefore rely upon the statement in the Buddhist annals, that Dharmazôka enjoyed a long, peaceful reign during the years 260—219 B. C.

To corroborate the fact, that the dominion of Azôka, like that of his predecessors, extended to the Caucasus, it may be mentioned, besides the absence of reports stating the contrary, that the Chinese pilgrims also met with in the valley of the Panjhir monuments erected by Azôka for the glory of his religion.†

As another confirmation may be adduced the circumstance, that Antiochus in the year 205 *renewed* the confederacy with the king of the Indians, which could be only the case with a king of the Maurja-dynasty of Palibothra.‡ The king then mentioned, Sophagasenos, appears to be a son of Azôka.§

Contrary to this opinion, the successor of Azôka is named Sujazas (*"of good renown"*) in the Brahmanic genealogies; but we can hardly be deterred by this from comparing him with Sophagasenos (Subhagasena, *"of the victorious army"*‖) as these kings even publicly substituted their titles of honour for

* As. T. VI. p. 472. 791.

† Foĕ K. K. p. 395.

‡ Also this name was known to the Greeks; see the interpretation of the word Μωριεῖς in my Prâcrit grammar, p. 247.

§ Zeitschr. I. 110.

‖ M. de Schlegel, Ind. Bibliothek I. p. 258. The Chinese traveller Fahian also proves, that the son of Azôka reigned in Gandhara, Foĕ K. p. 67. If Rémusat has correctly translated the Chinese word "Fai," the Buddhists have called him "Dharmavardhana." The son of Azôka, who also reigned in Kazmira, is called Ialôka in the annals of the country, (RâJ. Tarang. I. 107) a reading, which is hardly correct. It is evident from the succeeding verse, in which is certainly a play on the word *Jazas*, fame, that in the former text, this word also occurred in his name. He is said to have cleared the country from invading barbarians. At the same place, p. 115. His successor is a king of another family. From these traditions I shall only retain, that inroads of barbarians are mentioned immediately after Azôka, and that with his son the empire of the kings of Palibothra in Kazmira found its termination.

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their original names, as *Aśóka styles himself Pijadasi* on the columns.

The successor of Sujazas, Dazaratha, is confirmed by the inscriptions in the Buddhist temples at Gaja, in Magadha,* (Behar.)

I think it is by no means a rash attempt to connect these Indian reports with our investigations. Thence would result the following arrangement, viz., that Sujazas, who must have died at the commencement of the second century B. C. if he had reigned twenty years (on this we have no information), is the very same Palibothrian king with whom Antiochus renewed the confederacy; secondly, that the barbarians, who under his reign invaded India, are the Bactrian Greeks themselves; and, thirdly, that he or his successor, despite of Indian accounts to the contrary, was expelled by them from the westerly parts of his empire.

From our previous inquiry, it was evident, that Demetrios undoubtedly reigned in Arachosia, and thence more westward; whether his rule extended in an easterly direction, was left uncertain. We must now, however, appropriate to Agathokles also a share in the first expedition of the Bactrians against India, for by the beautiful execution of his coins he is coeval with Demetrios; he claims a purely Indian country as his dominion, and especially eastern Cabul; lastly, by the adoption of the old Indian letters he shows, that he succeeded in these provinces the kings of Palibothra, who used the very same alphabet. Nor do I know how Agathokles can obtain any other classification either at a later or earlier period, unless immediately before Eukratides and coeval with Demetrios. I shall not waste our time by conjecturing in what relation they stood together, how Agathokles commenced his career, and whether he belonged to the family of Euthydemos, or not.†

* This also is a discovery, made by Mr. Prinsep, As. Trans. VI. p. 677.

† It might even be maintained, that by a confusion in the catalogues of names, Agathokles had been received as Sujasas into Indian history, as both words denote the same, and as both kings, according to the comparison of facts, above given, would be of the same period. It is evident, that we have not to recognise the Indian king on the coins, because

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Pantaleon, with whom this Greco-Indian empire terminated, must have succeeded Agathokles, whom I therefore hold as king of Nagara Dionysopolis. Both of them have only Indian letters on their coins, and with them too Dionysos disappears.

If we thus have correctly determined the empire of Agathokles and Pantaleon, it must be one of the districts of which Eukratides took possession on his Indian expedition; for after the victory over Demetrios, he carried his arms against the Indus and Hydaspes. We have already noticed, that he probably did not reign there for a long time.

I have above explained my idea, how by the division of Demetrios' power the independent Grecian dominions of Drangiana and Arachosia, referred to by historical authority, had been formed; the Indian empire, mentioned by the same authority, was, if not actually formed, yet first consolidated after the murder of Eukratides. At least the conjecture is natural, that the abhorrence of such a deed must render it easy to an enterprising governor to find ready assistance in a revolt against the parricide. The first Greek king of this Indian empire was certainly Menandros, let the various dates given for his era and his accession differ as they may from mine. Here conjecture must be set against conjecture, and I do not think myself the supposition sound, that Menandros may have acquired the title of *deliverer*, peculiar to this country, by delivering it from the hateful dominion of the son of Eukratides.

On these three Indo-Grecian empires we may make the following conjecture. We assigned to Antimachos an empire

he would have called himself in this case Sujasas, and not Agathuklajô. But if Agathokles deprived the Indian Subhagasêna of the provinces on the Indus, and in the catalogues of kings was mentioned as his cotemporary under the name Sujasas, he might be easily confounded with the name of the Indian king, especially as the son of Asôka had at least two names, a Brahmanical and a Buddhist, like his father, and perhaps his grandfather (Zeit-schrift I. 109.) This explanation is not quite satisfactory to me; the coincidence of both names, above mentioned, is however, hardly accidental; and it is scarcely an objection, that Pantaleon, who probably reigned but a short time, has not left a similar trace in the Indian annals; he must be looked for in Dasaratha, which is impossible.

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in Drangiana, as here only a maritime victory, of which he boasts, can have taken place.* To this may be added the following:—The Chinese, by reporting, that the kings of Kipin represented a horseman on their coins, alluded probably themselves only to the Scythian kings; these, however, had certainly adopted the custom from their predecessors.

As now Antimachos, as well as his successor Philoxenos, represent themselves as horsemen, we venture to refer them to Kipin; likewise the humped bull of the latter king alludes to Kipin. This country moreover is Sakastane, or Segistan of a later period.

Antialkides† and his successor Lysias lay claims to having reigned in Cabul and in its neighbourhood; if we have correctly interpreted the report of Justin, they must have possessed, besides Cabul, a part of Arachosia.

Amyntas and Archelios must perhaps also be classed in these two kingdoms.

The empires founded by Antimachos and Antialkides, probably existed but a short time; the first seems to have originated at the death of Demetrios, the second after the murder of Eukratides. We can assign to them no longer existence than to the year 126 B. C., when the Saces settled themselves in Kipin; and scarcely even to that period, as the Parthians had already taken possession of the Bactrian empire. In the passage in which the last struggle of the Bactrians against the Parthians is mentioned, Elymeans are indeed only noticed besides Syrians, and no Drangians or Arachosians. The small number of royal names also corroborate this short duration.

It would be too doubtful a measure to extend the use of Cabulian letters to Drangiana.

* Mr. R. R. p. 18, thinks, he may have assisted Antiochus IV. on occasion of a victory over the Egyptians; but this appears hardly possible, even if he had reigned on the Indus.

† Mr. Mionnet has published (VIII. 483, 520,) a coin of Antialkides, before unknown. Obverse: image of the king with the Causia, and the upper part of the Chlamys. Reverse: Jupiter seated, holding in his right hand a Victory with a Palm, in the left hand a spear, placed across the shoulders; on the right hand near his seat an elephant, who holds a crown in its elevated trunk. Antialkides perhaps obtained the crown by his participating in an Indian expedition.

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Still we must here keep in view, that the alphabet on the coins, if indeed derived from the west, must have been imported to Cabul through Candahar and Drangiana, as it did not come to Cabul through Herat and Bactria. Besides this however Antimachos and Antialkides may have imitated the example of Eukratides.

The Greco-Indian empire of Menandros must have existed longer. The number of the names Menandros, Apollodotos, Diomedes, Agathokleia, Hermaios, renders the assumption necessary. I have proved it probable that this line of kings was not encroached upon by the Parthians. The last coins, those of Hermaios, refer to the very same time, when expeditions against the Soter-dynasty may have been first planned by the Scythians. The widely extended empire of Menandros seems under Hermaios to have been limited to Beghram; Menandros must have possessed a kingdom eastward of Cabul, if Antialkides, as it appears, ruled then immediately after Eukratides. It would be, however, too bold to determine any thing concerning the mutual contests of these powers.

From the great number of the Hermaios coins, it is not improbable, that he either himself reigned long at Beghram, or that his dynasty continued there at least for some time; in the mountain country, easily defended, a smaller kingdom might maintain itself with more ease for a longer time. If the relation Kadaphes holds towards Hermaios be correctly stated, the Grecian dominion was here overthrown by an attack from the north, i. e. from the country of Kapisa; the power of Kadaphes itself, however, appears to have been of no great importance or long duration. A greater Indo-Scythian kingdom, as for instance that of Azes, may have absorbed it.

§ 18.

The Saces, the Tochares, and Parthians in Cabul and India.

We have above left the Saces in the country Kipin, where they settled themselves, about the year 126 B. C., while the Tochares, following them, roamed throughout Bactria, from whence

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they, half a century afterwards, united in one power, and penetrated beyond the Indian Caucasus to the southward. Looking for historical authorities of the further fate of the Tochares and Saces, I find, that they are brief and meagre, and it appears hardly possible to derive from them any certain results; they must however be examined.

If the geographer Dionysios composed his poem as early as it is ordinarily apprehended, he would have been the first who made mention of the Scythians about the Indus. v. 1088. Ἰνδὸν πὰρ ποταμὸν νότιοι Σκύθαι ἐνναίουσιν.

Eusthathius makes the just remark, that they were Indo-Scythians, as this name could not have been given them previously to their arrival in India. The era of Dionysios being however very uncertain, nothing can be inferred from his passage as to the time of the first advancement of the Scythians to the Indus.

The Periplus of the Erythræan sea, as well as Ptolemy, enable us to determine the extent of the Indo-Scythian empire, although this determination can only refer to a considerably later time than the first appearance of the Scythians on the Indus.

Indo-Scythia embraces, with Ptolemy (VII, 1), the following provinces:—In the direction nearest to the south and the east, Surashtra or the Peninsula Guzerat; then the delta of the Indus or Pattalene; further the country Abiria,* situated above it; he includes in the Scythian empire a small district, and some towns on the eastern bank of the river; most of them lie however on the western bank. How far up the Indus the Scythian dominion extended, is not quite evident; but Artoartar, above held by us to be a Scythian town, is mentioned as situated in the near

* This, and not Sabiria, is to be read, any more than Iberia in the Periplus. They are the Abhîra of Indian geography. De Pentap. Ind. p. 28. The passage in Periplus p. 24, must perhaps be written: Ταύτης τὰ δὲ μὲν μεσόγεια τῆς Σκυθίας Ἀβηρία καλεῖται, τὰ δὲ παραθαλάσσια Συνραστρήνη for Ἰβηρία, καλεῖται δὲ τὰ κ. τ. λ. The delta of the Indus is ascribed to the Scythians in the following passage of the Periplus, p. 22, on the emporium on the mouth of the Indus: πρόκειται δὲ αὐτοῦ νησίον μικρόν· καὶ κατὰ νώτου μεσόγειος ἡ μετρόπολις, αὐτῆς τῆς Σκυθίας Μινναγάρ. βασιλεύεται δὲ ὑπὸ Πάρθων, συνεχῶς ἀλλήλους ἐκδιωκόντων.

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neighbourhood of Peshawur. Hence it follows, that Indo-Scythia at that period, or rather a little earlier than Ptolemy, included Peshawur, the country on both banks of the Indus from Attock to its mouth, and Guzerat. The Punjab did not belong to it, as the Kaspireans occupied this province, as well as the country up to the Jumna and Vindhia,* neither did Barygaza. The mountains to Arachosia, and the desert on the eastern bank of the river form the other boundaries.

It is therefore evident, that this empire is very small in proportion to what Azes claims on his coins.

We rather have in the limited extent above stated, a dissolved Indo-Scythian empire before us. The Periplus partly explains this decline of the Indo-Scythian power by mentioning that the capital, Minnagar, was in the writer's time in the possession of the Parthians, and that both nations continually expelled one the other.

Let us now inquire into Parthian history, whether it yields us some illustrations.

From our examinations, above effected, of the relations of the Parthians to the Scythians, it resulted, that since the arrival of the Scythians in Bactria and Segistan, to the year 37 B. C. no report shows that the Parthians had regained such ascendancy over the Scythians as to rise against them as conquerors. The same refers also to Artaban III. (died 41 A. D.), who more than once must have had recourse to the Scythians in the north. There is least of all any trace that Vonones I. during his short and troubled reign, may have made the conquest in the east, which we must ascribe to him, if the coins, above mentioned, belonged to him.

Of Bardanes (died 47) a successful campaign is mentioned against the Dahes. What we know of his successor Gotarzes (died 50) does not entitle us to attribute to him any new aggrandisement of the Arsacidian empire. Then come we to Vonones II. who reigned but a few months; after him to his son Volagases. His reign was a long and happy one,† and

* μέχρι Οὐινδίου ὄρους and because Μύδουρα ἡ τῶν θέων therefore Mathura belonged perhaps to the Kaspireans.

† 50—85. A. D. Visconti, Iconogr. III. p. 173.

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though he was neither indolent nor of unwarlike disposition, yet he lived in peace with the Romans. It is therefore also on the authority, though only implied, of history, that we assign to his reign the conquests of the Parthians in Cabul, of which the coins with the names of Vonones and Volagases bear witness.* Nor do we think ourselves mistaken in tracing from this settlement in Cabul the Parthian irruptions into India, mentioned in the Periplus.

The circumnavigator of the Erythræan sea tells also of these inroads as an eye-witness, in which will be discovered another reason against placing him so low as the era of Augustus.

Be it as it may, if Azes be taken for the successor of Vonones, and therefore of Volagases, he is placed in so late a period, that the close resemblance of his coins with Grecian patterns is quite inexplicable. Considering the extent of the countries which are under the sway of Azes, no other has a juster title to be identified with him than the Yankaotching of the Chinese annals. The time would correspond, as we have to look according to those accounts, for the flourishing power of the Yuetchis just in the years 20—50. (A. C.)

Two facts, however, are at variance with this view. First, the difference of the name, too palpable even for Chinese corruption of sounds, and then, that of the coins.

They are so closely allied to Greek types, that we must connect Azes immediately with the Greeks, and in this case we must likewise expect coins of Indo-Scythian kings who preceding Azes, existed between his time and that of the Greeks, and of this description we found only Mayes. Nor does our numismatological guide, M. Raoul-Rochette doubt in the least as to this earlier era, and accordingly places him immediately after Hermaios (II. 42).†

But if Azes reigned so early, he belonged to the Saces, and not to the Yuetchi. This supposition is supported by the figure of a horseman, which he adopts on his coins; for the equestrian

* Lastly, Volagases I. has styled himself "the just," as the Cabulian. Mionnet VIII. 448. Vonones I. does not bear this epithet.

† II. 42.

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coins come from Kipin, where the Saces, and not the Yuetchis, had settled themselves.

Now it is true we have not observed that the Saces as well as the Yuetchis have made any conquests in India; but it seems to follow, first, from the fact, that the empire of Hermaios apparently was on the eve of its destruction at the very time (120 B. C.) to which we may assign the inroads of the Saces in India, immediately after 126 B. C.: secondly, because the capital of the Scythian empire of a later time, was named Min,* and as this name occurs in Sakastane itself, it must have come thence, and not by means of the Yuetchis to the Indus. It would be, lastly, implied in the Chinese chronology, if correctly translated,† that the Yuetchis reconquered India; and before them, who but the Saces in Kipin could have conquered it? However little confidence we can put on these discussions, yet we must at once adopt the supposition, that the empire of Azes existed about 100 B. C.

Azilises declared himself as successor of Azes; as the Chinese mention two names of these kings of Kipin, we shall perhaps in time obtain coins of theirs, by which the era of Azes may be determined with greater certainty.‡ The coins above described, can only be hypothetically taken for the coins of such successors of Azes.

If Azes, however, be considered as the founder of an empire of the Saces in India, either Kadphises or the nameless Soter-Megas, must be held as the great conqueror under the Yuetchis.

Among them the king last mentioned appears to have most claims, in virtue of the remark, already made, that he seems to have founded a new dynasty, which was established from Bactria in Cabulistan and the Punjab, and again assuming the

* Nagara, Sanscrit town; Μὶν πόλις in Sakastane with Isidor, p. 9. De Pentap. Ind. p. 56.

† As. T. VI. p. 63.

‡ I would even conjecture, that Ontheoulao was Azilises, if I were persuaded that the Chinese express a Z by th. They place him 87 B. C., and this statement is indeed in a striking manner corresponding with the place given by the coins to Azilises.

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name Soter of the Greek kings, maintained itself up to the period of the Parthian relations with India.

The monogram of the nameless king, and the epithet of *deliverer*, recurs as well on the coins of Kadphises as on those above described; it occurs last on those of the Kanerkis. Azes has not this monogram;* it seems therefore to be the monogram of the Yuetchis. In all of them are probably to be recognized successors of the nameless king of the Yuetchis, but it remains doubtful, how we have to place them before and after the Parthian epoch of those provinces, and whether they succeeded to the same throne, or reigned at the same time in neighbouring countries.

Ptolemy's description of Indo-Scythia, like that in the Periplus, shows a smaller Scythian empire on the Indus, together with which more than one kingdom may have subsisted in western Cabulistan. The author of the Periplus mentions besides those, an independent kingdom of the very warlike Bactrians (p. 27); the Yuetchis alone can be understood by this. These intimations point to a Scythian monarchy in a dismembered condition at the period to which they refer.

We may assign Yndopherres with more confidence to the Parthian period. On a general view we run no risk of ascribing Kadphises, the Parthians, and Yndopherres, to the last half of the first century (A. D.), but to give more exact definitions would be too dangerous.

Lastly, the Kanerkis, who are allied to Kadphises, and who are the last of these leaders of hordes, probably belong to the commencement of the second century; but they rather represent a new horde of the Yuetchis, advanced from Bactria, than a direct continuation of the former hordes, for they are distinguished from them, as well as Kadphises from still earlier tribes, by his position, represented as going in a carriage, while previously to him the Scythian kings were represented as horsemen. The Yuetchis are indeed said to have ridden in a carriage, however it is added, in one drawn by oxen.

We have already observed, that the Chinese identified the end of the power of the Yuetchis in India with the beginning of the

* R. R. II. p. 48.

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Sassanians, and we have had no reasons to assign to the Kanerkis a later period. If they be referred to a later date, they must be "the Little Yuetchis," who founded a new empire in Gandhara in the fifth century, but such a great interval between Kadphises and the Kanerkis would hardly be admitted.

Other monuments seem to belong to "the Little Yuetchis," on an examination of which we cannot however enter. The history, like that of the Sassanians in Cabul, of the white Huns in India, mentioned by Cosmos, and lastly of the Murundas, of whom Indian inscriptions from the Sassanian time bear witness, would require new preparations far beyond the scope of this essay.

Here we shall therefore add only this, that Fahian being in the year 400 in these countries, mentions the power of the Yuetchis as having passed away (S. Foe. K. p. 766.)

If we be not mistaken, the inquiry leads without compulsion to the probable result, that between the empire of Azes and the renewed power of the Scythians under the king of the Yuetchis, an interval took place in the dominion of the countries on the Indus. This has been already previously* deemed to be a corroboration of the Indian account, according to which the epoch of Vikramaditya, which commences with the year 56 B. C. was founded on the occasion of a victory over the Saces gained by this king. In this case Indian tradition, which may certainly adduce in its favour the use still existing, and to be traced to a very early period, of counting from that epoch, would be in perfect correspondence with what has been the result of our inquiry into the Scythian history. Vikramaditya reigning in Ujjajini, and therefore a direct neighbour of the Scythian empire, which under Azes extended to the boundaries of Malwa, would, on this supposition, have repelled the successors of Azes to the Indus. After Vikramaditya we hear nothing of the empire in Ujjajini, and this silence finds its explanation in the growing power, soon after the commencement of our era, of the Yuetchis, whose kingdom Ptolemy described as still extending

* As. T. VI. p. 63.

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on the Indus to Guzerat. By this power Malwa must accordingly have been confined to narrow limits.*

It would be rather imprudent to venture any conjecture on the distribution of the countries on the Indus and Cabul among

* Having given this explanation, I leave it to the judgment of the reader, whether there be a reason in the account of the Periplus, of the empire of the Indo-Scythians, to bring down, according to the view of M. K. O. Mueller, by some centuries, the epoch of Vikramaditja. If he takes the Vikramaditja, now known to us by old Indian coins, for the real conqueror of the Scythians, his choice is evidently very unfortunate, as this king belongs to the dynasty of the Guptas in Kanôje, contemporaneous with the Sassanians. If there be any correspondence in the accounts on Vikramaditja, it is, that he reigned in Ujjajini. I have already discovered a reference to the empire of Vikramaditja in the passage of the Periplus on the Ozene, viz. that the ancient royal residence was there (de Pentap p. 57), being at that time in a very declining state; and I have no reason whatever to change my view there set forth. It is well known, that Vikramaditja afterwards became the hero of a great number of fabulous tales; he has become the Carolus Magnus of Indian poetry, and is as far removed from firm historic ground as Carolus Magnus would be if we had to take our information of him merely from the chivalrous novels; but for Vikramaditja, save poetry, no prose, on chronicle, has been preserved to us. The early adoption of the epoch of Vikramaditja by the ancient astronomers, might be here of far greater importance than all those tales from which Wilford has endeavoured to construe a history of Vikramaditja, and of the second founder of an Indian epoch, Ialivahana. To render complete this confusion, it must be added, that the name was afterwards often adopted by Indian kings; one of them seems even to have waged war with the Scythians. The annalist of Kashmir, who had, so to say, sufficiently respectable authorities, is doubtful whom of two Vikramaditjas he must take for the real Sakari (enemy of the Saces) Raj. Tar. II., 5. III, 125. He decides himself on the second, (not to put down the epoch, which is clear to him) but because in order to follow the Cashmerian chronology for the Buddhist part of his history, he is necessitated to carry back some centuries all ancient dates, and even to admit afterwards a great gap in the series of the kings. We must therefore accede, contrary to the view of the annalist, to the opinion represented as the common one, in holding the first Vikramadijta as the founder of the epoch. It is now a curious fact, that between him and the second, the reigns numbered together, fill out 286 years. The second reigning 236 A. D. would coincide with the end of the Yuetchi empire and the commencement of the Sassanians, it is therefore probably founded on a historic date, if the second Vikramaditja is likewise represented as fighting with the Saces.

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the different dynasties of the Scythians and Parthians, as neither historic accounts assist us, nor are the coins so completely put together, and explained, that the several families can be properly arranged. This is perhaps a fact, that a frequent change of dynasties happened, and a speedy decomposition of the greater into smaller kingdoms. This fact is supported by the nature of those countries, the lawless manners of the nations, and the analogy of Turkish and Mogul history.

Another part of the history of these Scythians is left in the dark. The Chinese annals describe to us the Yuetchis as zealous Buddhists, hence rises the question, whether there still exist with the Yuetchis monuments of this religion.*

We can now take it for granted, that from Azôka's period Buddhism was widely diffused through Cabul; the fathers of the Church also know the Samaneans in these countries;† and the Chinese pilgrims as eye-witnesses, speak, of the great number of Buddhist cloisters and monuments found there; Buddha images are likewise lately dug out in Cabul itself. There is accordingly no want of Buddhist monuments, but it is the question, whether we must attribute them to the Yuetchis.

We must here refer to the coins, and one class of them, that of Behat, must indeed be considered as Buddhist. However it is only probable that those with duplicated legends belong to a Scythian dynasty, but to this are limited the Buddhist numismatological monuments of the Yuetchi kings; and of Azes, Kadphises, the Kanerkis, no really Buddhist coin has been discovered. It must therefore be left undecided, whether the Chinese reports did transfer to all Yuetchis what was only correct to maintain as of a part of them.‡ But while I must leave this point undecided, I am reminded at the same time that I have given all that from the examination of the coins appears to

* Thus the passage, As. T. VI. 63. At the period when all these kingdoms belonged to the Yuetchi, the latter put their kings to death, and substituted military chiefs. They enjoined all their people to practise the doctrine of Fuh-too-chi.

† See my treatise, in the Rhenish Museum, for Philology, 1832. vol. I., p. 171.

‡ From Professor Ritter's book, the Stupas, etc. Berlin, 1838, which I received when printing my book, I fully understood his view on those monuments, and its reasons. I am sorry to say, that I cannot be persuaded into the Buddhist origin of the topes. I have already above separated

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me a certain or a probable result. The field of conjecture is already too richly cultivated, for me to add arbitrarily to what has been done therein. In conclusion, I shall sum up in a table the historic results of my investigation. I need hardly tell the reader, that although in the table the facts are placed together with apparent claim to equal authenticity, they occupy in the book itself, and in reality, all the different places which on a large scale are intermediate between certainty and conjecture in its various degrees, according to individual views.

Separation of Bactria from Syria under,

Theodotos I. soon before	256 B. C.
Theodotos II. his son and successor, ...	
Euthydemos expels the family of Theodotos, and himself ascends the throne of Bactria before, ...	209
Concludes peace with Antiochus the Great, 205, makes conquests in Ariana and India after	200
Agathokles founds an empire in eastern Cabul, about	190
Demetrios succeeds his father in Bactria, about ..	185
Eukratides takes possession of Bactria. Demetrios maintains himself in Arachosia, ..	175
Pantaleon succeeds Agathokles, ...	170
Eukratides dethrones Demetrios, and conquers the Indian empire of Pantaleon, about ..	165

the inquiry into the nature of the topes, from the examination of the coins, and postponed it to another time; I maintained at the same place, that as yet no Buddhist coins had been discovered in the topes. Mr. Ritter on the contrary states, that they are met with (p. 207). But he erroneously says, that Mr. Prinsep has recognised among the coins from Manikyala some Buddhist; in the passages quoted he certainly mentions nothing of this kind. Then continues Mr. Ritter (p. 238) "As we now possess ascertained chronological determinations of the Buddhist religion in the Mokadphise's, Kanerki's, and Azes' coins." The four Buddhist coins alluded to by Mr. Ritter, occur As. T. III. pl. XXII. No. 28. till No. 32. They are coins of the Kanerki dynasty, therefore Mithra gods on Buddhist coins? Then III. pl. XXVI. No. 2, No. 3, IV. pl. XXII. No. 12, No. 13, or with him plate VIII. No. 2—4. Therefore Siva on the obverse, while Azes is represented as Buddha seated on the reverse? If Mr. Ritter does not know any other coins out of the topes which escaped my knowledge, I shall not be necessitated to give up my previous assertion, which was here my only purpose to vindicate.

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Foundation of a Grecian empire in Drangiana by Antimachos, about 165
Murder of Eukratides by his son, about 160
His son (Heliokles) succeeds him in Bactria, Antialkides founds an empire in Arachosia and western Cabul, Menandros a large kingdom in India, after .. 160
Philoxenos succeeds in Drangiana, Lysias in Arachosia, afterwards Apollodotos in India, Archelios and Amyntas succeed in the western empires, ...
Mithridates I. of Parthia conquers Drangiana about 145
Destroys the Grecian-Bactrian kingdom, 139
Succession of Diomedes, Agathokleia and Hermaios in the Greco-Indian empire to 120
Inroads of the Saces and Tochares in Bactria .. 126
The Saces occupy Drangiana, the Tochares Bactria, the Grecian empire of Hermaios subverted by Kadaphes about .. 120
Great empire of the Saces under Azes after .. 116 B. C.
Azilises his son, succeeds about, ... 90
Expulsion of the Saces from the Indus countries by Vikramaditya king of Malwa .. 56
Division of the empire of the Saces, ...
Khieoutsieouhi unites the tribes of the Tochares and conquers the possession of the Saces after 40 B. C.
Yeukaotching his son, makes great conquests in India about .. .. 20 A. D.
Under Volagases conquests of the Parthians in Cabul, and inroads into the countries on the Indus, after 50
Kadphises' empire on the Indus and in upper India to the Ganges, the dynasty of the Kanerkis succeeds in his empire, 100
Downfall of the Arsacians in Parthia, conquests of the Sassanians in Cabul; restoration of Indian power in Upper India by the dynasty of Kanoja, after 226

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Paper on Ancient Land Grants on Copper, discovered in Assam. Communicated by Major F. JENKINS, *Governor General's Agent N. E. Frontier.*

A putter of three copper plates, joined by a large copper ring to a seal, containing within a raised rim a figure of Ganesh, was lately dug up near the station of Tezpore, in the Durrung division, and I have the pleasure to enclose a copy of the inscription.

A similar grant of two plates was lately produced by a Brahmin in the Kamroop Courts, to substantiate a claim to some Lakhiraj lands; at the time it was first brought up, there was no person in the province who could read the inscription, but having given to a Pundit the alphabets of ancient forms of Sanscrit writing, published by Mr. James Prinsep to illustrate his discoveries, he was soon able to make out the inscription.

It was a grant of land as Burmuttur, by Durmpal, in the year* 36, without any mention what era, to three Brahmins, and detailed the boundaries of the grant. That inscription was not very legible, the letters in some places being much rubbed, but the letters in the present Putter are quite distinct, and I hope they have been correctly copied.

The Dewali which was formed by this grant, viz. Maha Rudra Dewali, is still in existence, though in a very dilapidated state, and has given its name to the Mowza on which it stands.

Of the extent of the country under the Pal dynasty on this frontier, or of any particulars of their family or history, I fear we are not likely to find any records in Assam. The only mention of the Pal Rajahs that I have met with, is a very ancient looking chronicle possessed by a Brahmin, the first leaf of which is apparently lost. It now begins thus:—

Lakhipal,
Subabu,
His minister Sumati,
Then follow the names of
Khetrijetari,
His son Subalik,
and seven names, ending in Narain, and after them is the name of Ramchandra, then intervenes the word,
Jaintee,
probably meaning the country we call Jainteah; and after it follows the names of the following Pals:—
Japandu Pal,
Hari Pal,
Dhamba Pal,
Ram Pal,
Pakhya Pal,
Chandra Pal,

As being the Rajahs or rulers of "Burcherides," Perhaps the present districts of Chooteya, Chardoar, Noadoar, Chudoar.

* Note. Capt. JENKINS had the kindness to send me subsequently the plates themselves, which were exhibited at a recent Meeting.

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Narain Pal,
Amar Pal,
Mantri Pal,
Haina Pal,
Syama Pal,
Mactya Pal,
See Pal,
Gandha Pal,
Madhrub Pal,
Lahikya Pal,

After these follow:—

Minangka,
Gujangka,
Sukanangka,
Mrinangka,
Phinjua,
and others.

These are the names given in page 117 of Prinsep's Tables, but in a different order; but no further notice is taken of any of the Pal race.

There is little doubt but these last named Rajahs were rulers over a part of the north bank, of which Beshnath was probably the centre, as some very extensive lines of fortification are universally attributed to them; and the Pals preceding them, notwithstanding the word Jaintee alluded to, were likely Rajahs over the same country. They may have been a branch of the family of Bupal, who reigned over a district of the empire formerly governed by their ancestors. The succeeding Rajahs were probably Chooteah Cocherees, who are supposed in Assam to have been of the Shan race.

स्वस्ति श्रीमान् प्राग्ज्योतिषाधिपान्वयो
महाराजाधिराजश्रीवनमालवर्म्मदेवः

स्वस्ति । श्रीमत्कैलासभूभृत्पृथुकनकशिलासंगमाम्होजनोत्थैरा
सारैर्हेमपंकाविलतुहिनकरैः सिक्तवैश्वारिसार्थः । अम्भः क्षीरत्
(सुभृष) प्रवरसुरवधूकेशहस्तच्युतैर्वोनाकेशदुग्रसूनैरवणितसलिलो
ऽद्यात्सखौहित्यसिन्धुः ॥१॥ स पुनातु पिनाकी वो यच्छीर्षे स्वर्धु
नीजलं । कीर्णं रेचकवातेन तारकाप्रकरायितं ॥२॥ नरक इति
सूनुवासीदादिवराहस्य भुवितदुद्धारे । अदितेः कुण्डलहरणे प्रता
पमपि यो हरेरहरत् ॥३॥ कृष्णेन तं निहत्य च सुष्टो भगदत्तवध
दत्ताक्षोतस्वसुतौतदनिताकरुणविलापहृतहृतदुर्दवेन ॥४॥ सम्मा

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ये भगदत्ते श्रीमत्प्राग्ज्योतिषाधिनाथत्वं । विनयभरोपितदेत्यप्रा
राधयदीश्वरं तपसा ॥५॥ तुष्टेन तेन तस्मै दत्ते सुपरिपन्थनाधि
नाथत्वं । प्राग्ज्योतिषाधिराज्यं काखेन नदन्वयस्यापि ॥६॥ तस्या
न्वये भूत्क्षितिपालमौलिमाणिक्यरोचिस्फुरितांघ्रिपीठः । प्राग्ज्यो
तिषेशः क्षतवैरिवीरः प्रालम्भ इत्यद्भुतनामधेयः ॥७॥ स पूर्व्व
नृपतिगुणसम्बन्धौघरागानुरंजितदिगन्तःसाखस्तम्बप्रमुखैः श्रीहरि
षान्तैर्महीपालैः दिवमारूढैराद्यस्य भूभुजोर्थैकवैरिवीरोभूत् ॥८॥
भ्राताश्रौर्य्यत्यागैरसन्मानाग्रारथोतिनृपः । श्रीजीवदेतिसंज्ञारा
ज्ञी हृदयानुगाभवत्तस्य ॥९॥ वज्रजनवन्द्यामहतः प्रभातसन्ध्येव।
तेजसोजननी । तस्यास्तस्यतुराज्ञः सुतोभवन्नृपशिरोर्चितांघ्रियुगः ।
श्रीहजरोनृपेन्द्रः श्रिया स्वयं यः समुपगूढः ॥१०॥ धर्म्मप्रवादेषु
युधिष्ठिरो यो भीमोरिवर्गे समरेषु जिष्णुः । एकोप्यनेकैरिति संग
तो यो निःशेषकल्पीतनयत्वमेतः ॥११॥ गोपीजनानन्दितमानसस्य
देव्येव वक्षः परिहृत्य विष्णोः । निःशेषरामाजनदेहसंस्थमादाव
सौन्दर्य्यमिहाजगाम ॥१२॥ वर्णाद्यशेषगुणजातमयम्बभार पत्युर्म
मातुलबलस्य रथांगपाणेः । तेनाहमयमहिषीजगतीभुजोस्यभूता
जनेन खलु लाघवमभ्युपैमि ॥१३॥ इति यस्य महादेवी विलोक्य
मनोनुगाभवल्लक्ष्मीः श्रीमत्तारामिधानाग्रमहारत्नोत्तमा नृपतेः ।
तस्याशेषक्षितिपमुकुटोद्घृष्टपादाब्जपीठस्यभूत् सूनुर्नृपगुणमहा
रत्नमालाविभूषः । तस्यां देव्यामखिलभुवनानन्दको यः सुधीव
श्रीमान् ख्यातो जगति वनमालाभिधानः क्षितीशः ॥१४॥ अस्य
निधितटवनमालासीमावधिमेदिनी पतित्वस्य योग्य इति नाम
धाताचक्रे वनमाल इति यस्य ॥१५॥ प्रबला राति मत्तेभघटा
ध्वान्तोरुसंघतिं । दिवाकरायितं येनविद्वार्य्यरणभूमिगां ॥१६॥ क्षि
तितनयनृपतिवंशप्रभवनरेन्द्रामलाम्बरेयेन । स्फुटमेव मृगांकायितम
त्यायारातितिमिरौघं ॥१७॥ भूरिद्विपरिपुवीरवाहिनीशैवयशस

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विक्रमाश्रिना। येन राजकमलेषमस्यताश्रीरकारिचिरमेकभर्तृका ॥ १८॥ यस्य प्रतापभीत्या वङ्गरिपुजयिनोपि मेदिनीपालाः। केचि दिह्नो विजयङ्कः प्रसभमालयाम्बरायन्ये ॥१९॥ राज्ञामन्येषां ये निश्चितानाजाविषूत्पृषा मुमुचुः। यस्मात्ततो विभीत्या भूमिं दूरंनि जांते विजङ्कः ॥२०॥ वैरभिमुखंरिपूणामाघटितं मत्तकरिघटाटोपैः। विक्रमैकहेतोस्तैर्यस्यांजलयः कृताः क्षितिपैः ॥२१॥ धूरुहेनङ्कस्य काह्ना

येन पतितंकालान्नराद्दालयंसौधंभक्तिनवाखिलामरवरव्रातार्चितां ध्रेः पुनः। प्राक्षेयाचलशृंगतुंगमतुलग्रामेभवेश्याजनैर्युक्तं हेतुकभूषिनः क्षितिभुजाभक्त्या नवं चक्रषा ॥२२॥ यस्यानन्तद्युतिमतिसितानाग लोकेशसन्तीर्दिङ्नागानां यशसितजनितां श्रीकरालीं च दिक्ष। सं पूर्णेन्दोर्विवयति विमलामंशुमालां विचित्रां राज्ञोनल्पाविचरतितरां कीर्त्तिरद्याप्यजस्रं ॥२३॥ सत्यगाम्भीर्य्यतुंगत्वप्रतापत्यागविक्रमैः। योजयन्धर्म्मआरुध्यद्रिभानुकर्णमरुत्सुतान् ॥ यस्य यज्ञः अग्निनेदं भुवनं धवलीकृतं विलोक्य दृशासवीर इवोदेति प्राक्षेयमरीचिरद्या पि ॥२४॥ देवागारं वाद्यगीतप्रणादैर्नानारामान् सचिवां व्याकृतौ च। गायन्त्यद्याप्यवजरव्याः खवाप्यो देशे देशे प्राक्षिनीं यस्यकीर्त्तिं ॥२५॥ वङ्गहेमरौप्यगजवाजिमहीप्रमदादिरत्ननिचयं वङ्गराजः। प्रद दवारमनिशं निगदं प्रमिताक्षरोपि वङ्गवागभवत् ॥ प्रप्रीतसमस्त वर्णाश्रमादपरिमितशुभगसाधुविद्वज्जनाधिष्ठानाद्विचित्रगजतुरग शिविकाभिरुद्यैर्महानरपतिभिरवनिपतिसेवार्थं गच्छद्भिःप्रत्यागच्छ द्भिश्चसदलंमहाराजमार्गादसंख्यगजतुरगपदातिसाधननिरन्तरनिरु द्धसकलदिगन्नरादुदयवेलाचलोत्थितोत्तुंगतरुकुलविश्रान्तमत्तव र्हिणकेकारवोद्भान्नभुजगव्रातमुक्तफुत्कारप्रकम्पितानेकताविगलित कुसुमनिकरपरिमलसुरभिसलिलेनतदुपवनसमुदावानलदह्यमान कालागुरुधूमसम्भवाम्बुधरवृन्दसुगन्धिजलौघप्रवाहिणा। उदयतटम हीधरोपवनगन्धिपूर्णांकुरभुजांङ्कचित् स्वयंमृतानामन्यच्चप्रणयव

न्धुकुलयूथानामपरमतृलसंघविनिहतादभिवतमांसोज्ज्वलानां क
स्तूरिकामृगमाणांमदगन्धेनमोदितसकलतीरोपकण्ठनिवासिजनपदे
नसकलतुरासुरमुकुटमणिमयूखमंजरीरंजितचरणपीठाभ्यां श्रीकामे
श्वरमहागौरीभट्टारिकाभ्यामभिष्टितशिरसः कामकूटगिरेः सतत
नितम्बचालनादधिकतरपवित्रपवःसम्पूर्णस्रोतसा । मज्जद्दिग्ग
सिनीकुचकलशतटाश्लिष्टमदपंकाविलसुगन्धाम्भसा । वेषयंमणाभि
रिव नानाभरणशोभितप्रकटावयवाभिर्वालकुमारिकाभिरिव क्वणत्
किंकिणीभिः कार्णाटीभिरिव कठिनाभिघातसम्वर्द्धितवेगाभिर्व्वार
स्त्रीभिरिव चामरधारिणीभिर्दशवदनान्तःपुरिकाभिरिवघटितस
न्ततदशनाभिः पवनकामिनीभिरिवात्यन्तवेगवतीभिः रमणीयदशु
द्धांगणाभिरिव सकलजनमनोहारिणीभिर्नटीभिरिव नर्तकपुरुषाक्र
मणसम्वर्द्धितोत्कम्पाभिर्दुर्गतदेवपालिभिरिव सततोत्तानस्थानका
भिनीभिरसंक्षतोभयतीरोपान्तदेशेन श्रीलोहित्यभट्टारकेण सनाथ
श्रीहरयेशनात् सपरममाहेश्वरो मातापितृपादानुध्यातपरमेश्वर
परायणचित्तको महाराजाधिराजश्रीवनमालदेवः कुशली: * बभूव
ब्राह्मिडल्यकुलप्रदीपो वेदार्थविद्विज्जटनामधेयः । सांगंयजुर्व्वेदम
धीतवान् यस्त्यागी शुचिर्देवगणोपपन्नः ॥ शौचविप्रगुणोपेता पत्नी
सभ्राविकाभिधा ब्राह्मेण विधिनासम्यक् परिणीताकुलोद्भवा सूनु
स्तयोर्वेदविद्यजन्मा दुन्होकनामा गुणवान्वरिष्ठः । तस्मै ददौ
श्रीवनमालदेवो ग्रामं स्वमातापितृपुण्यहेतोः ॥ चिलोतायाः पश्चि
मतः सजलस्थलसंयुतं । अभिभूरवाटकाख्यमष्टसीमापरिच्छदं ॥ पूर्व्वे
णदशलांगलसभसीमापूर्व्वदक्षिणेनचन्द्रपरिसभसीमा दक्षिणेन अवा
रिसभसीमा । दक्षिणपश्चिमेन पुष्करिणीसभसीमा पश्चिमेननौकुवा
सभसीमा ॥ उत्तरपूर्व्वेणदशलांगलसभसीमा अष्टौसीमापरिच्छदाः ॥
सम्वत् १९ छभिकाकछि ॥

(२ एवंचिरंतच

चक्रमेतोर्ध्वतो हित्वे तस्मिन् प्राग्ज्योतिषेश्वरः। तद्गजानीकतां प्राप्तैः सहस्रकाष्ठागुरुद्रुमैः। न प्रसेहे स दुर्द्धर्षमनध्वमयदुर्दिनं। रथ वेगरजोप्यस्य कुत एव पताकिनीं। तमीशः कामरूपाणां मत्वाख खलविक्रमं। भेजे भिन्नकठेर्नागैरन्यानुपरोध यैः॥ कामरूपेश्वर मत्यहैमपीठाधिदेवतां। रत्नपुष्पोपहारेण ध्यायमानचरणाद्वयोः।

श्रीमद्भागवतदशमस्कन्धनवपंचाशत्तमाध्याये

राजोवाच। यथाहतो भगवता भौमो येनच ताः स्त्रियः। निहत्यच तदाचक्ष विक्रमं शार्ङ्गधन्वनः। शुक उवाच॥ इन्द्रेण सुतहत्येन सुत कुण्डलबन्धुना। सुतामराद्रिस्थानेन स्थापितो भौमचेष्टितं। इत्या दिना प्राग्ज्योतिषाधिपभूमिपुत्रनरकात्तुरधधो वर्णितः

अत्र प्रथमः श्लोकः खग्धरा तत्तृतीयचरणे अभ्रः क्षीरदित्युत्तरं अक्षरत्रयं नास्ति तत्रभूवेति दत्त्वा पूरितं। एतन्मध्ये सर्व्वत्र उका रस्थाने रेफः तद्देशीयानांउकारोच्चारणसामर्थ्याभावात् यथोच्चारणं तथालिखनं। श्रेषे चिक्षोताया इति तत् कर्त्तुर्भ्रान्तिः चिक्षोतस इतिसाधुः। प्राग्ज्योतिषाधिपस्य वनमालवर्म्मणोराज्ञो गंगातीरेऽपि अधिकारःस्थितः गङ्गातीरे बागं दत्त्वा वाश्चिकाचार्य्याय गंगा पश्चिमतटे भूमिदानं दत्तं ताम्रशासनेन भूमिदानं हि बागदत्त्विणा रूपमेव प्रसिद्धं वर्णितं च जिष्णुषाखवधादौ॥

आदिवराहात् भूमेः पुत्रोभूत् नरकः स कृष्णेन हतः तस्य पुत्रौ भगदत्तवज्रदत्तौ नरकपत्न्याः करुणायुतरोदनेन करुणहृदयः कृष्णो भगदत्ताय प्राग्ज्योतिषाधिपतित्वं ददौ प्राग्ज्योतिषा धिपस्य भगदत्तस्य वंशे प्रालम्भः प्राग्ज्योतिषाधिपोभवत्। तस्य पत्नीजीवदा राज्ञीजीवदायां प्रालम्भादजनिहजरः तस्य पत्नीतारा तयोः पुत्रो वनमालदेवः॥

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Literal Translation, by Pundit SARODA PROSAD CHUCKERBUTTY.

SUCCESS.

1. May the Louhetya Sindha, (Brahmaputra river) wherein the fish are abundantly supplied with water, and whose stream is ruddy with the dashing spray, turbid with golden mud mingled with ice, splashing up as the waves fall on the golden rocks of the beautiful *Kailasha* mountain, ruddy too with the heavenly flowers dropped from the hair and hands of the goddesses who come down to sport therein, protect you!

2. May the *Pinákapání (Siva)* on whose head the *Gangá* waters cast up by the wind, are, as it were, the stars on the firmament, sanctify you!

3. The first Baráha (the incarnation of the Boar) had a son named *Naraka*, from the Earth (his wife), at the time of her delivery; who (Naraka) robbed *Aolite* of her earrings,* and Harí (Indra) of his power.

4. *Krishna* having slain him *(naraha)* felt excessive grief by the lamentations of his wife, and could not therefore refrain from creating his two sons, named *Bhagadatta* and *Vajradatta*.

5. Bhagadatta; who was modest, having succeeded to the guddee of *Prágjyotisha*, (Kamroop) devoted himself to the adoration of him (Krishna) the supreme Deity.

6. Krishna being pleased with him, made him master of another good territory; but in time the sovereignty of *Prágjyotisha* was after him governed by his posterity alone.

7. From his line was born *Prálambha*, whose name was wonderful to all. He was the Lord of *Pragjyotisha*, and destroyer of his enemies. His footstool was illuminated by the light of the crest-jewels of all Rájás.

8. He was against those who were enemies to his ancestors from *Sálastambha* down to *Sríharisha*, who are all deceased, and who, with all their noble and royal qualities, delighted all the extreme regions.

9. His *(Prálambhá's)* brother, greatest of all Rajas, abandoned his valour with indignation, but not his car (? indignantly resigned the fight, yet left not his car ?)

10. His queen, named *Jívadá*, was dearly beloved by him; like *Prabhata Sandhyá*, (morning twilight) she was *vándyá*† of all, and the source of great *tejas*.‡

11. From her he *(Prálambhá)* had a son named *Hajara*, who was the king of kings, and was embraced by *Lakshmí* (the goddess of fortune) herself, and whose feet were worshipped by every *Raja*.

12. He (Hajara) was like *Yúdhísthira* in truth; like *Bhima* to his enemies; and like *Jishnú* (Arjúna) in battle; who,§ though alone, yet was victorious over all his rivals that stood against him.

* Note.—Particularly described in the Sreemutt Bhagavut, ch. 59.

† The word *Vandyá* when connected with *morning*, means adorable, and praiseworthy, as applied to the queen.

‡ *Tejas* has two meanings; the *light* and *spirit*, or vigour, or vigourous persons; the former relates to the word morning, and the latter to the queen.

§ This sentence is applicable to both Arjuna and the Rájá.

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13. Lakshmí being as it were disliked by Vishnú (her husband) whose mind was in love with the Gopás (the wives of the cowherds) forsook his breast and came down to this individual with all the personal beauty of her sex.

14. "This Lakshmí, as it were, determined in her mind that "because this conqueror is possessed of all personal beauty, as well as noble qualities of my husband (Vishnu), who has matchless might and a car-wheel or his hand, I shall surely become his chief queen, though I shall undergo degradation."

15. Lakshmí having ascertained this, as above, transformed herself into his chief and beloved queen, whose name was *Tárá*, and who was like a jewel of superior quality among all the females of her time.

16. From her (Tárá) he (Hajara) had a son named *Vanamála*, the king, who was prosperous, renowned, like the moon the source of the universal delight, and adorned with the jewel-wreath of all noble and royal qualities, and his footstool was borne by the crowns of numerous Rájás.

17. Because he was the worthy master of the territories that extended as far as the Vanamálá (lines of forest) near the seashore, the Creator caused him to be named Vanamálá.

18. He (Vanamála) resembled the *Sun* in the field of battle, by reason of his driving forth the darkness of the furious elephants of his vanquished foes.

19. Further, he was like the moon on the clear sky of the Naraka line, from which were sprung many kings, by removing the darkness of his enemies.

20. He (Vanamálá) who had by the force of his mighty scymetar been expelling all the Rájás, who were like thunder to the mountains of the powerful army of their respective enemies, made *Sree* (Lakshmi) the wife* of one husband.

21. Some Rájás, who though they were conquerors of their many rivals, yet from the fear of Vanamála's power took refuge with precipitation in extreme regions, and others in the heavens†.

22. The rest, who were forward to throw their sharp shafts over him in battle, far abandoned their lands in consternation.

23. The enemies who were gallantly forward in battle with their elephants, were subdued by him.

24. He who was devoted to (the gods?) bore the burthen of Nakusha (a Rájá of antiquity) by his faithfully repairing the fallen and the *Himála*-like lofty palace of *Hetuka Sulin* (the Siva of destruction) whose feet are worshipped by the multitude of gods, at *Kálántara*—and further, by adorning it with the images of domesticated elephants‡ and fair women.

25. His fame, which is whitest of all, exists in the regions of the serpents (Tragaloka) ever laughing to scorn (even) its eternal

* Solely dependent on one, i. e. the king Vanamála himself; the meaning being, that he stayed the fickleness of fortune (Lakshmi) by the continuance of his success.

† Departed their lives.

‡ Note.—Literally "village elephants."

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splendour, in extreme regions (surpassing in whiteness) the water cast off from the trunks of elephants with their long breathings, and in the firmament (deriding) the spotless and pleasant beams of the *moon* full in her digits.

26. He by his truth, gravity, greatness, power, liberality, and might, had far overcome the *Dharma, (Yúdhisthera)* the *sea*, the *mountain*, the *sun*, *Karna* the king, and the son of *Maruta (Bhima)*.

28. The moon finding this world whitened by the *moon* of his fame, takes her rise as if with shame* even to this day.

29. The wife† of *Abja* (Brahmá) who‡ is like an oblong pond on the firmament, as it were, sings his extended fame (praise) in Devene temples, to the sounds of musical instruments and songs, and in groves by the utterance of prayers and hymns of sacrificers.

30. Large quantities of gold, elephants, horses, lands, wives,§ silver, and jewels were his usual gifts: and he, though very moderate of speech, yet was himself Vahubák.‖

Because he gratified the appetites of the people of all classes, and was himself in company with the learned, numbers of most mighty Rájás had been constantly coming to him, mounted on their various elephants, horses, and litters, to pay the respects due to his highness. To Vanamala, who was skilful, the king of kings, very rich, and devoted to the feet of his parents, and whose mind was attached to the supreme Deity, was *Louhitya Sindhú* the sage¶ as a friend.

Its water was made fragrant with the scent arising from the flowers dropped from the creeping plants moved by the long drawn breathing of the serpents, startled at the cries of the wild peacocks and various other birds reposing on the lofty trees of the eastern mountain, while all sides were occupied by the numerous elephants, horses, and foot soldiers of *Vanamala*.

Further, its streams were intermixed with the odorous water of the clouds, composed of the gashes of the Kálaguru trees (black aloe wood) burning by the conflagration of its adjacent groves.

The inhabitants near its banks were all delighted with the smell arising from the musk of the deer, which were in different places collected, grazing on the fragrant pastures of the Eastern mountain, and further of those that were in many places killed by the wolves, as well as by *Nature*, and were left unconsumed thereon.

Further, its streams were more sacred than those of others, from their continually washing the sides of the mount *Kámakúta*, which is inhabited on its tops by *Kámeswara* (a Siva) and *Mahá Gouri* (his wife) whose footstools are brightened with the crown jewels of all the *Súras*

* The black spots that are generally visible in her, are usually described by poets as the marks of her disgrace and shame.

† Saraswatí.

‡ I cannot conceive what the poet means by this metaphor.

§ By his giving wives, is meant that it was his custom to assist those with expenses whom the want of money rendered unable to marry.

‖ This word is of two meanings, one who talks much, and of whom men speak much.

¶ Here the river is personified as a sage. In Sanscrit the river Brahmaputra is said to have been a *male river*.

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(gods) and the *Asuras*. And moreover it was turbid with the odorous substances which were besmeared over and washed from the high breasts of the bathing lovely females, and adorned on both the banks with boats or ships; which (boats or ships) were like the Velxá* females, adorned† with various ornaments; like female children ornamented with sonorous *kiukini*† (a girdle set with small bells);—like Várastrís (courtezans) holding‡ chámara (chowrees);—like the wives of Dashavadana (Rávana) bearing the marks of Dashana§ (teeth) round them;—like the Kámínis (wives) of Pavana (the god of wind) possessed of Vega‖ (swiftness);—like the women of Danuhánga (a nation) attractive of all minds;¶ and like Devapális (inferior gods) ever existent above,* and whose (boats) Vega is *samvardhita*, (augmented or inflamed) like that of the Carnatic females by *Kathínábhighátat*.

Further, their *U'tkampa*‡ is augmented like that of the girls dancing with their male companions.

There was a person named Bhíjjata, who was the illuminator of the Sándelya line,—liberal,—pious,—devoted to the gods, and studious in Yajúrveda, and its angas§ (subordinate parts.) His wife named *Sabhráyeká*, who was pious, endowed with all the Brahmanical qualities, and descended from a respectable family, was married to him according to the *Bráhma Vídhí*.

To their son, who was himself a priest studious in the Vedas, possessed of noble qualities, and superiority, and whose name was *Indoka*, the king Vanamala has granted the village named *Abhissúravátaka*, which is furnished with fertile lands, and the reservoirs of water, and the undermentioned eight boundaries on the west of *Trísrota* (the Ganga-river) for the virtue of his parents.

* Name of a tribe. This Veshísana (adjective) is to be applied to both the boats and the females.

† Oars at that time were generally bound with *Kinkínis* round them, as are now the paddles of snake boats.

‡ Boats and ships had always been at that time beautified with chamaras and flags, &c.

§ The persons of the wives of Rávana, who had ten mouths, bore the marks of as many lines of teeth. This when relating to the boats means that the earrings thereon were visible like the marks of teeth.

‖ This is applicable to both the boats and the wives of Ravana.

¶ The boats were so beautiful that they were pleasing to all.

* Here the word *above*, means above the surface of *water* when connected with the boats, and *sky* when with the gods.

† Here the words *Vega* and *Kathindbhighdta* are both of two meanings. The former means amorous *lustre* and SPEED—and the latter *strong embrace* and *haste*, when they are in turn connected with the females and the boats.

‡ *U'tkampa*, when relating to the girls, means a motion used in dancing; and tremulous motion when relating to the boats; i. e. when the boats are danced on by men, they appear as it were dancing themselves too by the pressure of those moving on them.

§ The Angas are as follow:—*Síkshá*, or the science of pronunciation, and articulation; *Kalpa* the detail of religious ceremonies; *Vyákarana* or grammar; *Chhandas* prosody; *Jyotish* or astronomy; and *Nirúkti* or the explanation of the difficult or obscure words, or phrases that occur in the Vedas.

A mode of marriage, the presentation of the bride, elegantly adorned, by the father to the bridegroom whom he has invited.

It is bounded on the west by *Dashalangasabha*; on the south-east by *Chandra*, on the west by Nakuvasava, and on the north-east by Dashalangala Sabhasa.—Samvat. 19.

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Abstract Lineage of Vanamala. By Pundit KAMALAKANTA.

The first Baraha had a son named Naraka from the earth (his wife;) Naraka had two sons named Bhaga-datta and Vajra-datta, and was himself slain by *Krishna*, who being affected by the mournings of his wife, made Bhaga-datta her son king of Pragjyotisha.

From his line descended Pralambha, who also succeeded to the Guddee of Pragjyotisha.

From his queen, whose name was Jivada, was born Hajara, who also had named *Vanamdla* from *Tdrd* his wife.

NOTE *By Pundit* KAMALAKANTA.

Three letters of the third quarter next to the words *Armbhakrirat* of the first Sloka, which is in the Sragdhárá Chhanda, have been obliterated, the three letters Súbhusha are placed in lieu of them.

Here the reason of inserting *ra* in the place of *rha* is, that the inhabitants of that place (of Assam) can not with ease pronounce the latter, and therefore they are liable to make use of the former (*ra*) both in their speaking and writing.

At the end the word *Tresrotdyd*, which is the mistake of the writer, should be *Tresrotasa*, as Vanamála was himself master of even the territories situated on the banks of Gangá [it is probable] he personally went there, and after performing sacrifices granted lands to *Ydgnekdchdrya* on its western bank.

Granting lands with Támrasasána is said to have been reward of yága [ceremonies.]

All this is described also in *Sisupdlavadha* [the work in which the death of Sisupala is described.]

Note on the above.

The early history of those tracts on the banks of the Brahmapootra which lie to the north-east of Bengal, and which are now for the most part either forest land, tenanted only by wild animals, or wastes partially reclaimed and inhabited by tribes nearly as wild as the beast of the forest, is unfortunately involved in singular obscurity. The soil of Assam Proper is of great fertility, its products are numerous, and the results of the industry of the inhabitants and of settlers, encouraged and fostered by the equitable rule, and efficient protection of the British Government, prove that the land is capable of supporting the densest population. The character of the extensive hilly country between Assam, and Cachar, and Munipore, would appear to be not dissimilar; and we in fact have the strongest proof that the whole of these tracts were at a former period thickly inhabited by a people far advanced in civilization. The immense earth works which traverse Assam forming at once dams for the retention of water, and commodious roads across the flooded country, the extensive ruins in Chardwar, (Jour. As. Soc. vol. iv. No. 40, April 1835,) the remains of the ancient city of Dhemapoor, in the Naga country, are not the only proofs extant of the power, wealth, and energy of the former inhabitants of these tracts. It is however very unfortunate that among the numerous remains already discovered, no inscriptions have been found, which could lead to conclusions as to their real history. Capt. Westmacott (formerly Assistant to the Governor General's Agent on the North East Frontier) has indeed in the able paper above alluded to, sketched from tradition, and such records as are extant, a history of the early monarchs who ruled at Pora in Chardwar; but as regards the general history of the country, we have little that can be looked upon as authentic. "The very numerous remains of stone temples," says Major Jenkins in a letter to me, "all completely overthrown (except some of quite modern date, erected out of the ancient structures) speak of long periods of prosperity, and great revolutions of which we are entirely ignorant. From one of the temples at Hajoo being frequented by pilgrims from all parts of Thibet, and Tartary, I imagine the Boodhist faith formerly prevailed in Assam, and this may account in part for the destruction of the temples. That faith was succeeded perhaps by the

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Brahminical under the Pals (i. e. the Pal dynasty); they were swept away by the Koches, who probably were not Hindoos till they ceased to be conquerers, as was the case with the Ahoms, who with the Mahometans then contended for Kamroop, and both perhaps destroying the temples which fell into their power." I am strongly inclined to concur with Major Jenkins in the opinion he expresses as to the probable prevalence of Boodhism in Assam at an early period; its supercession by Hindoo invaders; and the consequent destruction of the temples now extant. The following extracts from the Mahabharat, and Roghuvanso, are of authority, as proving the early power of the Rajas of Prajyotisha, and their early wars. I owe both these quotations to Pundit Sarodhaprosad.

The following slokas as quoted from the 4th chapter of Roghuvanso.

"81st. While Roghú crossed the river Louhitya Sindhu (Brahmaputra) the king *Pragjyotisha* (Kámroop) as well as the kálágúrú trees* to which were tied the elephants of Roghú ——trembled.

82nd. How could he (the king of Pragjyotisha) stand forth against the advancing army of Roghú, when he could not withstand the rising vast dust of his cars which entirely covered the sun, and were like a day dark with clouds, but without shower.

83rd. Him (to Roghú) who surpassed Akhandala (Indra) in power, the king of Kámárupa visited with all his elephants, which were exuding juice from their temples, (i. e. they were in a state of fury) and which he invaded others with. The king of Kámárupa worshipped the shadow of the feet of Roghú, the ruling deity, of his footstool with the flowers of valuable jewels.

Mahdbhdrat Bhishmavahda Parava, Section 75.

प्राग्ज्योतिषस्तु सहितो मद्रसौवीर केकयैः
उरस्यभून्नरश्रेष्ठ महत्यासेनया वृतः ॥

O superior to man, the king of Prágjyotisha is on the centre of the entrenchment attended with *Madra, Souvéra,* and *Kekaya,* and his numerous army.

Section 112.

ततः प्राग्ज्योति षो राजा माधवस्यमहद्धनुः
चिच्छेदशितधारेण भल्लेनज्ञतहस्तवत् ॥

Then the Rája of Pragjyotisha cut off the large bow of Madhava with his sharp bhalla (a species of spear).

Amid the uncertainty I have described above, it is gratifying to find something in the shape of documentary evidence, speaking to a direct historical fact, as in the case of the copper plate which Captain Jenkins has enabled me to present to the readers of the Journal. With this, and the other plate purporting to be a grant by Dhurmpal, we have two documents bearing respectively the dates 19 and 36 of an unknown æra. I will endeavour to prove that this æra must have been the one adopted by the Hindoo conquerors of Assam as their own; a fact which would strongly corroborate the more than plausible supposition that the former possessors of the land whom they subdued, were Boodhists, or at any rate of a different faith from their own.

For this purpose however I must in the first instance express my reason for differing with the opinion which would, I think, destroy the local application of the æra, the idea namely that the grant now before us related to lands *on the banks of the Ganges,* or real *Gunga,* an opinion which it will be seen is held by Kamalakanta, as also by other capable authorities whom I have consulted. My views could not be better expressed than in the following extract from a note addressed to me in answer to a reference on the subject by one of our members, Baboo Prosunno Comar Takoor :—

* The black aloe wood.

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"With reference to your note with its enclosures on the subject of the Assam
(1) তাম্রপত্র Tamba Putur, (1) containing grants of land on the banks of the
(2) গঙ্গা Ganges, (2) I have much pleasure in communicating my thoughts on the subject, and which I hope will clear up the mystery, namely how the Rajah of Assam could grant lands on the banks of the Ganges.

"It appears from Captain Jenkins' letter, that the grants were discovered near the station of Tezpore, in the Durrung division, and that those grants specified the lands as
(3) বুঙ্গভর 'Burmutter' (3) by 'Dharmopala'; (4) and each grant with the
(4) ধর্ম্মপাল prefix of the figure of Ganesa(5). You will find on referring to
(5) গণেশ Dr. M'Cosh's Topography of Assam, page 93, that 'the northern central Assam, or Durrung, or Tezpore, (the place of the discovery of the grants) is bounded from Nowdowar on the east by the *river Burili.*' Here is the mystery. The river *Burili* is called
(6) ভরলি in the language of the country *Bhurili*(6), and the sacred
(7) বাশিষ্ঠিগঙ্গা name for the same river is *Vasishty Gunga*,(7) or Ganges, which you will be able to ascertain from the learned people of that country through Captain Jenkins. Thus the land alluded to in the grant must be on the banks of *this* Ganges; and *not* of *ours*. Gunga, corruptly called Ganges, is not the exclusive name for our river. For instance, the latter should properly be
(8) ভাগীরথীগঙ্গা called Bhagirutty-Gunga.(8) And there are others, such as
(9) শেতগঙ্গা Shutu-Gunga(9) in Orissa, Boory-Gunga,(10) at Dacca, Tool-
(10) বুড়ীগঙ্গা see-Gunga(11) at Rungpore, and so on, in various places.
(11) তুলসীগঙ্গা And the Sanscrit writers of the grants and Sanscrit authors, particularly on the occasion of compiling poetical compositions, for the sake of metre, emphatically omit the proper epithets applied to the word Ganges. This may account for the word Ganges being used in the grants with the omission of the adjective *Vasishty*.

"The inference of the grants of the land being on the banks of the Vasishty Gunga, and not on ours, is further supported by the name of the granter, namely, Dharmapala. This sovereign of Assam was distinguished for having embraced the Bhraminical
(12) ব্রাহ্মণ religion, and invited Brahmins(12) from Gour(13) to his court
(13) গৌড় north of the Burramapooter, and also from Mithelâ(14) to co-
(14) মিথিল lonise in his country. Thus it is quite natural that from the veneration in which he held the ministers of his new religion, he granted to them, and generally to colonists of the same sect, lands free of rent, which accounts for the three grants discovered near Durrung, situated *likewise* on the *north* side of the Burramapooter; and many others may be found in time. It may be conjectured that the monarch had his capital situated in the vicinity of Tezpore, perhaps in some place near or at Chardwar, being one of the four divisions of Durrung, as we still find the ruins of ancient temples and other edifices on that spot (vide Journal of the Asiatic Society, April 1835, page 185.)"

I perfectly concur in thinking that this explanation relieves us of the necessity of supposing Vanamala to have possessed lands on the banks of the real Gunga, (carrying thus into Bengal Proper the name of a ruler, and an æra unknown there), and further of being compelled to admit a violation of the rule, which all experience of the discovery of ancient copper grants teaches us, namely, that the *Tamba patur* is invariably found upon the land to which its contents relate.

Taking Hujara, or Vanamala, as a Raja ruling only in Chardwar and its vicinity, we have next to trace his existence with reference to what of history is still extant as regards the ancient Assamese dynasties. The late Captain Pemberton, whom I consulted on this point, was of opinion that what Mr. James Prinsep, (Useful Tables, p. 118) calls the Induvansa dynasty, "though," to use Captain Pemberton's words, "it should have been the Ahom, or Ahong dynasty, and not Indu," was to be found in the list composing the Pal dynasty, commencing with Chukapha in 1230 A. D. "There can be no doubt that this race of kings by whom the conquest of Assam was effected in the thirteenth century crossed the mountains known as the *Pal kole*, or *Pal* mountains, which separate Assam from the mountainous region on the western frontier of China, near the sources of the Irawaddee river of Ava, and we may fairly conclude that the term *Pal* has

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been applied to them from the circumstance of their having first poured down upon the plains of Assam from the passes of the *Pal* mountains. Certain it is, that they were a branch of the great Shan tribe which under various modifications occupies the whole tract of country between Munipore and Yunon, extending down to Siam."

There is, I think, little doubt but that the so-called Induvansa dynasty were the Ahom conquerors, (though not A. D. 1230) of Assam; but they cannot be identical with the Pals, because we have before us evidence of Dhurmpal's being a Hindoo Raja, and we know that neither were the Ahoms in fact Hindoos, nor could they be so, coming whence they did; there is moreover no trace of Hindoo religionism among their descendants. Putting this supposition therefore aside, I will take up Captain Jenkins' list of the Pal Rajas, which Mr. James Prinsep seems to have considered in a great measure apocryphal, as he does not insert them in his tables, and indeed notes, with marked incredulity, the tradition of Dhurmapala having brought Brahmins into Assam from Gaur, a fact however proved by the plate granting the Maha Rudra Dewalee, and proved further to have been a practice with his predecessors by Vanamala's grant. In Captain Jenkins' list we have after Ramchundra (a Hindoo?), the word *jaintee*, which Captain J. suggests may allude to the country of Jainteah, but which I am inclined to think has reference to the *conqueror* (*Jynti*, or *Jytari jy—victory*) who is noted by Captain Westmacott, (Journal Asiatic Society, vol. IV. No. 40) as follows, "Shribahu, ninth sovereign of the second dynasty, was vanquished by Vikramaditya, and was succeeded by *Jytari, a pious Chhatri from the Dekhan, who overcame Kamroop*, and on ascending the throne assumed the title of Dharma-pala." Now there is nothing more natural than that a Hindoo leader of the military class, successful in his attack on a foreign land, should be emphatically called *jytari*, "the conqueror," or that having established the religion he professed(?) in the country, he should take a title *(Dharma pala)* expressive of his fosterage of the true faith, giving thence a title to his dynasty, were it not, as I shall show, already peculiar to one whence he sprang. A descendant of his, according to Capt. Westmacott's authority, by name Rama Chundra began his reign A. S. 1160, (A. D. 1238-9) "and is the first prince the date of whose accession is commemorated in the volume," whence the authority is taken, and which makes him twenty-fourth sovereign of part of ancient Kamroop, and the eleventh of the third dynasty of its kings. Chundra Pal, the seventh from Jytari in Capt. Jenkins' list, may be identical with this sovereign, and the notice of the date of his accession, according to the ordinary æra, may have been consequent on his having been the first to abandon the custom of dating by what we may call *the Pal æra*, two dates of which we find on the Assam copper plates, and which must certainly have fallen into disuse at no remote period after its establishment, the dates on the grant being the first notice we have of its existence. Now it is worthy of remark, how well these dates seem to apply to the list of Rajas in Capt. Jenkins' Pal dynasty, allowing the fair average of 12 years to a reign, and beginning with Jytari, its founder. We have after his immediate successor, Japandu Pal, (Prulumbha? v. 7. Sloka of the inscription), the name of Hari (Hujara?) Pal, in whom we may reasonably recognise the Raja surnamed Vanamala, who in the year 19 of the dynasty of which he is third, granted lands to Brahmins on the Vashishty-Gunga; he is immediately followed by Dhumba, or Dhurma Pala, one of whose grants has been found with the date 36 of the Pal æra. Thence to Rama Chundra, or Chundra Pal, we have only *two*, instead of, as should be the case by Capt. Westmacott's authority, *six* Raja's names, and from

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Rama Chundra (A. D. 1238) to Sukanangka, or Sukrank, son of Gujanka, or Gujank according to Capt. Westmacott, with whom the Jytari dynasty expired (A. D. 1478), we have 13 Rajas occupying a period of 240 years, at an average reign of 21 years and a fraction, which is rather above the ordinary admitted chronological average. It may however be, that names after, as well before, Ram Chundra, or Chundra Pal, may have been omitted. In any sort, the assignment of a date to the Pal æra in our own must be mainly conjectural; but taking Major Jenkins' list as correct, at the average of 12 years to each reign, from about the death of Jytari, when I suppose the Pal æra to begin, to the accession of Chundra Pal in A. D. 1238, we should have it commence at about A. D. 1178, or, if four additional reigns be admitted, according to Capt. Westmacott, A. D. 1130. It remains for my readers to consider whether they would suppose it likely that Hindooism had been established prior to that in Assam (as the apparently fabulous tradition would go to prove), or whether it is not more correct to conclude, that it made its way into the country about that period.

I need not remark on the confusion of the lists of Rajas. Shubahu, whom Jytari succeeded by conquest, according to one account, is possibly the *Subahu* of Major Jenkins' list, between whom and the conqueror 10 names intervene. It is much, in such absence of authenticity, to arrive, as I trust we have done, at even some approximation to the truth.

I should however omit one most remarkable point regarding the Pal Rajas of Assam, did I fail to note that the Rajas of Bengal (having their capital at Gaur) were themselves a Pal dynasty, and that the name *Dhurma Pala* has been found on two copper plates, the Monghir and Dinajpor plates, which record kings of that race, both evidently referring to the same individual. The date of this potentate is given by Abul Fuzl, A. D. 1027, which differs as regards Dhurma Pala from our calculation, and thus, independently of the discrepancies of other names in our present and the former plates, disproves the identity of our Dhurma Pala with him of Gaur. Still however it is very plain that a *Pal* Hindoo conqueror of Assam, who brought Brahmins from the capital of that country, must have belonged to that family, though he was, it would I think appear, but a junior branch, or off-shoot from it.

Boodhism therefore was expelled from Assam by Hindoos from Bengal, but I cannot help adding a few more words on the subject of the history of Assam, in order to show that the subsequent Koche and Ahom invasions must have so wholly destroyed the Hindoo dynasties above noted, as to lead to the belief generally entertained among the people of the country of the introduction of that religion into it at a period so recent as the last century. The following comparatively modern inscriptions, which the Society owes to the kindness of Lieut. P. H. Sale (Engineers) are printed without literal translations (although I took care to have them made), as Lieut. Sale's abstract of their contents is quite sufficient for all purposes required. I should mention, that I found Lieut. Sale's letter among the papers made over to me, when I took charge temporarily of the Secretary's duties. His communication, though long unnoticed, has not been made in vain, and its publication will, I trust, lead to his again addressing the Society. His letter is as follows :—

"I beg to send you the accompanying facsimiles of inscriptions, which I took in the neighbourhood of Gowahatty, when I passed through that city in January, 1838. They can lay no claim to antiquity, and I doubt not that I have been forestalled; however, they throw light on the period when Hindooism first extended into the province of Assam. The Kamakhshya temple is said to be the first Hindoo place of worship erected in these parts; the renown of its great sanctity extends far and wide, and many pilgrims seek the purification of their souls at this shrine. The temple is situated on a hill, about 400 feet high; on the ascent to it is a colossal figure of Betal carved upon

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a large piece of rock, and on the top, near to the great temple, is a figure of Hunooman. At the foot of the hill a small figure of Gunaish is cut on a boulder, by the side of which is the inscription marked No. 1. I perceived no inscriptions on the other stones. No. 2 is an inscription on the Dhol Mundip of the temple named Asakrunta, on the opposite or right bank of the Burrumpooter. No. 3 was taken from a stone by the side of a tank, about two miles from Gowahatti, on the Nowagaon road. The copies on the English paper are the inscriptions within the temple of Kamakhshya, to which I had no access, and were taken for me by the Suddur Ameen, Juggoo Ram Phookaw; all the inscriptions, I believe, are in the Assamese character.

"I might enter into a long description of the picturesque situationof these Mundurs, but it might be out of place, and I shall rest perfectly satisfied, if the copies may prove of the slightest use."

৪ লোকানুগ্রহকারকঃ করু
ণয়া পার্থো ধনুর্বিদ্যয়াদানে
নাপিদধীচিকর্ণসহশোমর্য্যাদ
য়াম্ভোনিধিঃ। নানাশাস্ত্রবিচারচা
রুচরিতঃ কন্দর্পরূপোজ্জ্বলঃকামা
খ্যাচরণার্চ্চকোবিজয়তে শ্রীমল্লদেবো
নৃপঃ॥ প্রাসাদমত্রিহুহিতুশ্চরণা
রবিন্দভক্ত্যাকরোত্তুদনুজোবরনীল
শৈলে। শ্রীশুক্লদেব ইমমুল্লসিতোপ
জেনশাকেতুরঙ্গগজবেদশশাঙ্কসংখ্যে॥
তস্যেবপ্রিয়সোদরঃ॥ পৃথুযশাবীরেন্দ্রমৌলিস্থ
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ণ্ডল। প্রাসাদ যুনিনাগবেদশশঙ্কসংখ্যেকেশিনারা
জিভির্দেবীভক্তিজিতাসুরোরচিতবান শ্রীশুক্লপূর্ব্বধ্বজঃ॥

"If we leave out the ornamental parts of the poetry (being praises of the princes and the goddess) the inscription informs us that the principal temple of Kámákhyá has been built by Shukla Diva and Shukla Dhwaja, the younger brothers of Malladiva (the king of Behar) in 1487. Equivalent to 1566 A. D."

শ্রীরামঃ

স্বস্তিশ্রীসুরাসুরবন্দিতম
হিষাসুরমর্দ্দিত পীতরুধি
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তবা'দত্রনর্ত্তিতশ্রীকামা
খ্যাদেবীমোজনাদিবিনোদ
বিলাসায় ধৈর্য্যগাম্ভীর্য্যবীর্য্য
বিবিধদানবিতরণকল্পক্রম

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সমস্থপালস্থড়ামণিকামাখ্যা
চরণপরায়ণস্বর্গেশবঙ্সাব
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বরায়হংফুক্কনেন নীলগি
রৌসিদ্ধকামেশমন্তেকেদা
রক্ষেত্রেকতগুংসবদোলোয়
মকারিনেত্রগোত্ররুসাবনি
শাকে ১৬ ৭২

"This inscription states, that by order of Shwurgu Diva Pramatta Singha, the king of Assam (his viceroy or Navab) Taruna Duvara Bara Phukkan, built the Doljatra mandap of Kamakhya in Shakabon 1672. Equivalent to 1751 A. D."

শ্রীরামঃ

১ স্বস্তিস্মরহরচরণস্মরণবলিতপ্রাজ্যরাজ্যলক্ষ্মী
রক্ষণবিচক্ষণদক্ষিণদোর্দ্দণ্ডাখণ্ডলাখণ্ডপ্রচ
ণ্ডপ্রতপানলকবলিতবলিতারাতিতিমিরনীতিরত্ন
রত্নাকরদ্বপমিকরকিরীটকূটকোটিকরঘ্বিত
পাদপীঠপ্রবরযশোজিতসুধাকরপুরন্দরকু
লামলকমলদিনকরস্বর্গদেব শ্রীশ্রীমৎপ্র
মত্তসিংহমহীমহেন্দ্রাদেশতস্তদীয়চরণস্বর্ণ শ্রীপ
র্ণদুজায়মানপ্রধানপ্রধনসীমমিস্সীমভীমবিক্রম
গাম্ভীর্য্যোদার্য্যমর্য্যাদাদিগুণগণগরিমমহামহিমা
ক্রমহিতনীতিক্রমস্বর্গাগমনাবধিস্বর্গদেবসেবী
ব°সবিভূষণশ্রীযুতরুণদুবরায়হংফুক্কনেন
দুর্গাসরোবরমিদমখানিবসুরসরসেন্দুশাকে

"This inscription (near Ganesha) informs us that by order of Pramatta Singha, the Raja of Assam, (his viceroy or Navab) Taruna Duvara Bara Phukkan, did dig up the Durga Sarobara (or tank of the goddess Durga) in Shakabon 1666. Equivalent to 1747, A. D.

The similarity of the name (No. 1.) *Shukla*, to that of *Chukra* Dwaja (noted in Useful Tables as Raja of Assam in 1621) would lead me to conclude that the persons are identical, especially as the descent of the late Assamese reigning family from that of Cooch Behar is well known, were it not that Mr. Prinsep's date, attested by dates on coins, and that of the inscription, differ by fifty-five years.

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—*By Lieut.*

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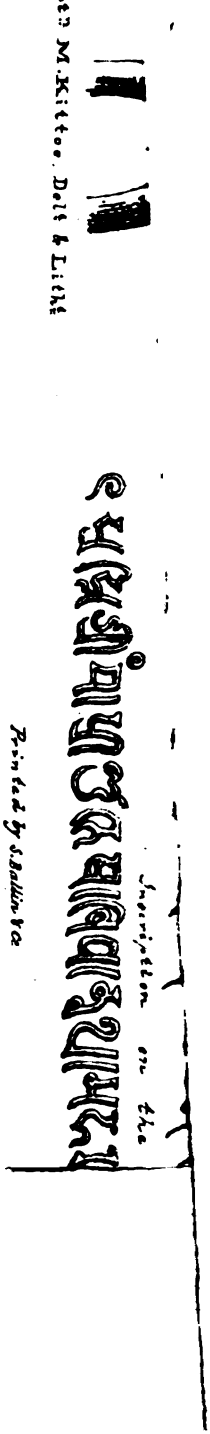

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Memoir on the Hodésum (improperly called *Kolehan.*)—*By Lieut.* TICKELL.

(Continued from page 709.)

The Hos villages are in general unpicturesque, owing to their building on high barren spots, where the trees attain no size; they are very irregular, each house being separated and hedged in by itself, with its own little plot for planting maize, til, or tobacco; a street for suggers, generally runs through the village, and in the centre, an open space of turf, shaded by two or three tamarind trees, contains the slabs of stone under which the "rude forefathers of the hamlet sleep." On these stones the people assemble daily to talk or lounge, when there is no work to do in the fields. They scarcely ever build by rivers, preferring the vicinity of some small spring. The beautiful Byturnee, every wind of whose stream would be a subject for the artist's pencil, or the poet's pen, runs its crystal waters through regions of deserted forests, where the vastness of canopying trees, and the luxuriance of wild vegetation, show the richness of the soil; while four or five miles inland, the country is populous and well cultivated. I have never satisfactorily ascertained the reason of this bad taste; but among other causes, I have been told it was for fear of their little children tumbling into the water! Whatever it may be, the open, barren spots they select are more healthy than those selected for beauty would be.

A Hos if he be worth three or four ploughs, lives in a very comfortable manner. The houses of the Moondas and Mankees are substantial and capacious, built so as to enclose a square. The walls are of stout and well joined stockading work, covered with mud, and neatly "leeped" or plastered with cow-dung, or chalk and water. The principal building is commonly ornamented with a verandah *(Pindegee,)* supported on carved wooden pillars, and covered with an excellent thatched roof. It is divided into three compartments—a sleeping room, an eating room, and one for general stowage. Opposite this house, and about thirty paces off, is another of ruder construction, for servants, travellers, or guests, and the flanks are joined by "Byres," or cow-houses, a granary, and often a pig-stye. In the centre of the square generally stands a pigeon-house, built of logs, on high timbers, neatly thatched over. None of their villages are extensive, owing to the dislike they have to congregate together, for fear

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of fire or contagious diseases; so that the crest of almost every rising ground throughout the country, is occupied by a few scattered houses. The nomad tribes of Hos, who inhabit the hilly tracts, are obliged to move every third year, to make fresh clearings in the forest. The soil in these places is very rich for the first sowings, but not being manured, gets exhausted in three or four years.

The Hos wear very little clothing; even the most opulent among them, who have quantities of cloth and ornaments, prefer keeping their finery shut up at home, for the purpose of adding to the pageantry of their funerals. Their raiment consists of a doputta, (which is gladly thrown off, unless on state occasions) and a neat narrow dhotee, called "Botoé." They wear the hair oiled and combed backward, and fastened in a "toupee" behind, but unlike the Oráous and Moondas of Chota Nagpoor, adorn their heads with no ornaments. The men however are fond of earrings and small beads, or plaited necklaces and bracelets; most of them also wear charms against snakes, tigers, or diseases, tied round their necks. These the Hindoos in the neighbourhood make a profitable trade of, in selling to them. The women of the lowest order go about in a disgusting state of nudity, wearing nothing but a miserably insufficient rag round the loins, at the same time their breasts and necks are loaded with immense bunches of bead necklaces, of which they are extravagantly fond. They perform the hardest duties in the fields, digging, shovelling, weeding, drawing water, and getting in wood from the jungles. Constant exposure and work renders them prematurely shrivelled and ugly; the young women and girls of the better classes are however a striking exception. They are well, and at times handsomely dressed, with a tasteful proportion of ornaments, without the stupid shyness and false modesty thought proper among Hindoo women; they are becoming and decorous in their manners, most pleasing in their looks, and doubly engaging from the frank and confiding simplicity which true innocence alone gives; some few of them are very pretty, although more roughly cast than Hindoo girls. Their open, happy countenances, snowy white teeth, and robust, upright figures, remind one of Swiss peasant girls. Prostitution is quite unknown among them, and no more restraint is placed on females than in our own country.

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The men are fine powerful fellows, and while young, very handsome. The early use of the bow expands the chest and sets the muscles while yet mere boys, and their passion for the chase, which they pursue over their steep and rugged hills, brings their lower limbs into a state of training which the best "Phulwan" of the plains of India might envy.

The Hos are keen sportsmen, a fact which the "Sahéb Lōg" at Chyebassa soon found to their cost; their Manton's and Purdey's, and Westley Richard's, might as well have been left unpurchased, for scarcely a living thing in the shape of game could show itself in the neighbourhood, without the country being up in pursuit. In the quail season, when the "d'han" is cut, every herdsman tending his cattle has his hawk on his fist, besides large parties of youngsters from the villages, who keep close ahead of the cattle, and the instant a quail or partridge rises, the nearest "Reechee" or "Chikra" cuts short his existence. I have frequently, returning home with an empty bag, met parties of them with provoking bunches of dead quail in their hands. On these occasions they would laugh heartily at the success of their system over mine, but generally end by offering me half of their spoils. My retaliation used to be in the snipe (khéts.) These birds, they confessed, their hawks could not overtake, and a successful right and left shot would restore the credit of the "Boondookoo."

From the burning of the grass till the new crop becomes too high, i. e., between January and June, they scour the jungles in large parties, and at uncertain periods, for wilder game, surrounding and driving to a centre the deer and other animals. But the grand meeting is in May, about the "Cheyt Purub," when people of all sects and classes repair to the hills north of Singbhoom. The preliminaries of the "Hankwa" are arranged by ambassadors and emissaries from Singbhoom, the Kolehan, and the Jungle Mehals, and vast multitudes draw in from every quarter, from Sikrbhoom, from near Bankoorah, and Medneepoor, on the east, and from the borders of Chota Nagpoor on the west. On the given day, these crowds, extended in lines, draw towards a common centre, sweeping the Jankeebooroo hills and other ranges which reach from Chota Nagpoor to the Soobern-rekha river, separating Tamar from Singbhoom; as the lines approach each other, the slaughter commences. The uproar is difficult to describe, and the scene the wildest imagination can picture. Those deep

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secluded vallies, those barely pervious dells, the huge solitary hills tops, buried in one vast sheet of pathless jungle, which except on this annual occasion are never visited by man, now swarm with countless hordes. In front of them the different animals pass and repass, bewildered by opposing hosts. The huge gowers rouse from their noon-day retreats, and stalk with stately steps along the hill side, till infuriated by the increasing din, they rush through the forest, heedless of rock or ravine, and rending the branches in their ponderous flight—the wild buffaloes thunder across, brandishing their immense horns, stamping and wheeling round their young ones;—the neel gyes gallop past like a charge of cavalry. The stately saumer, the beautiful axis, the barking deer or muntjac, dash along, clearing the copse wood with flying bounds, and suddenly stopping with erect ears and recurved neck, as the tainted gale warns of danger a head. The fairy-like "Orey," or small red deer, with noiseless feet comes skimming over the tangled underwood, skipping in wild starts to the right and left, and sorely bewildering a host of t'hakoors, rajas, and their body guard, who perched upon mechans, (scaffolds) in vain try to bring their lengthy matchlocks to bear;—with snort and puff a 'sounder' of pigs scurry through. The redoubled uproar from without, draws the attention to something which has excited the beaters. The reeds and grass are seen to wave, as if some bulky form were sliding through them, and at length, loath to leave the haunts which had concealed him so long, out comes the tiger, with a lumping, stealthy trot, crouching to the earth, with ears quivering and turning to catch every sound. He has soon passed on into the leafy depths, from which his hollow growl may be occasionally heard. And last of all, as the peacocks begin to mount into the air, and the jungle fowl with noisy cackle take wing, a loud sonorous grunt or shout ushers in the sturdy old "Bhaloo," who forced from the friendly shelter of rocks, comes bundling over the ground, and shaking his sides in a heavy gallop, oft stopping, wheeling round, and threatening his enemies. The reports of matchlocks; the "click" of the arrows striking against trees; the shouts of the multitude; the roars, screams, and groans of the animals; the piping of flutes; the beating of drums; the braying of trumpets, reach their climax, and the multitude, composed of all classes and sorts, meet near the raja's mechan to compare notes of the

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sport. Here are the ever-dancing and singing-Sontals, dressed out in flowers and feathers, with flutes ornamented with streamers made of pith; the wild Kurrias, or hill men, from the Luckisinnee hills in Borahbhoom; the Koormees, Taunties, Soondees, Gwallas, Bhoomijes, &c, with sonorus 'dammas' or kettle drums, and other uncouth music, armed with swords, bulwas, and bows and arrows of every description; the Hos, simple and unpretending, but with the heaviest game bags; the little ill-featured Tamarias, with spears, shields, and matchlocks; the Nagpoor Moondas, with huge ornaments stuck through their ears, indifferently armed with bows and arrows, clubs, or bulwas; the southern Koles, and the far comer from Sarnda with their chain earrings and monstrous pugrees; the Bhooians with their long bows ornamented with horse tails, or the feathers of the blue jay, and their immense barbed arrows; the Pykes of the rajas, koonwrs, thakoors and other zemindars with their shields, tulwars, powder-horns, and immense matchlocks with rests, dressed out in all colours; lastly, the rajas, thakoors, &c. themselves, with guns of Delhi manufacture, prodigious scimetars, or an occasional "Angrezee bundook," the gift of some sahib long passed from the scene, seldom fired, but kept for show in a venerable clothing of rust. Mid great shouting and gabbling the parties claim and carry off their several heads of game, or wrangle for the arrows sticking in the carcasses and elsewhere about; all then repair to the banks of the nearest stream, where they form their temporary camps; fires are lighted, the game is cut up, bundles of provisions unpacked, and for a mile or upwards along the wooded vista, the clear bright water reflects innumerable groups, which on either bank are cooking, eating, drinking, sleeping, laughing, or dancing.

Such is the faint description of a scene in which I have often mingled, and look back to with much regret;

"'Tis merry, 'tis merry in good green wood,"

and the sports of these simple people in their sylvan retreats must afford the highest excitement and pleasure to all in whom to a passion for field sports is joined a love for the beauties of nature, here seen in her wildest and most striking attire.

These people have no amusements, with the exception of their hunting and fishing excursions, and the dancing and singing during

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their festivals. The youngest boys stalk about birds nesting, armed with a small bow and arrow, or employ themselves fishing. Though cheerful, they are as manly as their fathers in appearance, and I have never seen them engaged in any game, nor am I aware that any are known by them. In Hindoo villages, groups of children may be seen constantly engaged in some puerile amusement, such as trap and ball, prisoner's bars, peg-top, mock processions, &c.; and the older ones in fighting cocks, quail, or rams. But these appear to afford no pleasure to the Hos; on calm summer evenings they are fond of assembling at their doors to listen to the flute, the girls sing in concert, the younger ones go through the quiet demure dance of the country, and papa and mamma sit aloof looking approvingly on, and solacing themselves with a little "Eely"; while twilight lingers, their happy laughing voices, or the wild humming melody of their songs is heard; but no squabbling, no abuse or high words, no "Gallee," none of the vile traits of common Hindoostanee life, ever offend the ear.

The language of their songs is poetical and pleasing; it would not however bear translation. Ideas which in the English idiom would be dull and stupid, and words which would be common place, in the smooth mellifluous accents of their dialect sound interesting, and often beautiful. A few of their songs I have copied and translated at the end of the vocabulary, &c.

Their dances are almost similar to those of the Dhangurs, Santals, and other jungle people. The men and musicians are generally in the centre of a large circle composed of women, locked with their arms round each other; the circle is headed by the eldest matrons, and brought up by the smallest girls, a space being left between, they *chassez* backwards and forwards, keeping exact time, and going slowly round the men in the centre. Sometimes another large circle of men forms outside them, but all step with the greatest exactness to the tune, and the effect is most singular and pleasing. The "Magh Purub" dance, when they go scampering through the villages four or six abreast, and in close column, is very like our "Gallope," and when the performers are well dressed, I have seldom seen any thing prettier.

Marriage Ceremonies.

When a young man has seen a girl who pleases him, he goes home and calls together four or six respectable men of his acquaintance,

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to whom he communicates his wishes respecting her. They institute inquiries regarding the means, wealth, and respectability of the family, and if accounts are good, they set off to the girl's parents' house, taking a brass kutorah or a p'hool one a present, and tell the parents the young man's wishes. On their way to the house they note carefully all the signs that occur, as the flight of vultures, the song of the "ooi oe" or Mindanao thrush, and the appearance of jackals, taking care they should remain on the same hand they were met with. Should the conference terminate favourably, the deputation is feasted and kept one day at the house, and the signs they have noticed on the road are recounted and carefully expounded by men versed in augury. The next day the deputation returns again, noting the signs on the road; and in this manner they pass and repass between the houses of the parties, bearing messages and settling the marriage terms. These go-betweens are called "Dootáms." People also from the girl's side go to the bridegroom's, taking note in their journeys likewise of the signs on the road.

Should the omens be interpreted to be very bad, to portend death, or disease, &c., they determine to break off the match for a time, and appoint a meeting the next day, with "Eely" and fowls, to have a sacrifice on the road, half-way between the bride and bridegroom's houses. The next day they accordingly, to the number of four or six on each side, meet half way, and go through the sacrifice to the "Singbonga," after which they tear a saul leaf in two between them and declare the marriage null and void. The whole ceremony is concluded by a prayer to "Singbonga," begging that if the parties still wish to be united, he will vouchsafe to give them better omens the next time they negociate.

After some time the Dootâms from the bridegroom go again to the bride's house, this time there is no notice taken of tokens; they give notice that the bridegroom with his father and mother are coming on a visit. A day or two afterwards, the young man with his parents set off, and are received at the bride's house, when mutual inquiries as to property, possessions, and the desire of the parties for wedlock, are again set on foot. All being satisfactorily answered, the parents settle the price to be paid by the bridegroom's father. This is generally twenty, thirty, forty, or fifty head of cattle, according to the old gentleman's means; sometimes, when the requisite number of cattle cannot

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be paid, rupees, goats, sheep, or dhan, are given to make up the number. For every thirty head of cattle, one plough of bullocks and a buffalo, also a few brass pots, &c. are given over and above the bargain.

After this visit, people from the bride also go to see the bridegroom, along with the girl's parents, and a feast is given them, after which the cattle, and such other things as were agreed on are produced, and the parents of the bride settle the day they are to bring her to her husband.

On the day fixed, the bride is led to the bridegroom's house, in procession, with a numerous retinue playing on flutes and drums, and dancing; on approaching the bridegroom's house, he meets her in like fashion, and leads her towards his house. The bridegroom is mounted on a man's shoulders, with a drawn sword in his hand.

When the whole party have come in front of the bridegroom's house they halt, the bridegroom's mother, or aunt, or the nearest female relations bring a low wooden stool "Gandoo," on which they wash the bride's feet, and her party then retire with her to where they have taken up their quarters for the night. Provisions are then sent to the whole party, and to the bride a cock, on account of her being about to enter the house; this is called "Dooartaïoom seem;" also "Chindee seem" or a fowl, for the bandage of her hair, which is to be untied and dishevelled the first night; also four pye of dhan, and a handia of Eely, called "Ajee hanar," which is for the bride's sister; also at midnight Eely, called "Talla needa eely" is sent to the party, and dancing and singing is kept up till morning.

The next morning the bride presents to the bridegroom for every head of cattle that has been given in price for her, a handia of eely, a pye of dhan, and a pye of rice; this is called "Doob gandoo eely, Baba, and Chowlee," being given because the bride is to be seated on a mora of dhan, (a seat is called Doob gandoo); of all this, one half is sent back by the bridegroom, also a goat called, "Jóm is sie merom;" also a rupee's worth of necklaces, "Jom issin hissïr"; also one rupee of cloth for her mother, called "Enga bagé lijjia". after feasting and drinking, the bride's party rise, and with singing and dancing bring her to the bridegroom's house and seat her on a mora of dhan, where oil is poured on her head, and a leaf dish

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of boiled rice and meat, dressed in the bridegroom's house, called "Jom issin," is brought her, which she touches with her hand, and thereby declares herself of her husband's caste. She is then left in charge of the bridegroom's female relations, and the ceremonies end by all the parties dispersing home, and leaving the happy pair to themselves.

Signs and Omens.

If a vulture, crow, Mindanaó thrush, Indian magpie, oriole, woodpecker, partridge, jackal, fox, deer of kinds, hare, bee, snake, especially the Covra, pass behind the Dootám, or messenger, he will die.

If a Cadis, "toorpoo cheedoo," cross in front of the Dootám or messenger (negociator), it portends the death of the bride in childbirth.

Should an ichneumon fly, "koonkal ho," drag a large spider "bindee ram," across the road, it portends the bride will be carried off by a tiger the very first time she goes to fetch wood or water.

The same omen, if a hawk or kite of any kind stoop and carry off a bird, fowl, or lizard, from any side.

A syrus "hoor, or vulture, deedee" crossing the road flying singly in front, portends the death of the father or mother, according to the sex of the bird—of the bride if near her village, of the bridegroom if near his.

If the great wood-hawk, "booroo queed," hover over head, it foretells the death of mother and son at childbirth.

If the deputation meet a toad, "roto poto chokey," it portends that the bridegroom's father will be bewitched.

If a flying squirrel, "oral," call out on the right or left hand, before or behind, the marriage is stopped directly. The same if a parakeet, "meerov," (large ringed kind) scream.

Should a branch fall from a tree without apparent cause, such as being cut, or rotten, or worm-eaten, it portends the certain death of the parents of both parties.

If the tumble dung-beetle, "eeooroo," be met with rolling dung along, it threatens poverty and unrequited hard labour.

If two large lizards, "kaka," are met chasing each other to copulate, it is a sign that the bride's sister, or sisters, will commit some faux

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pas. If a pair of little lizards, "reta kaka," do the same, it foretels intrigue among the bride's female servants.

If birds copulate, it portends that the intended bride is in love, or intriguing with some one else.

A jungul cat, "bow," crossing the road, signifies the bride will be a lazy good-for-nothing person.

In anointing the bride's head with oil, should a drop trickle down her nose, it is a good sign; should it go down her temple or cheek, it shows she will be inconstant.

If a Mindanao thrush, "ooï," Indian magpie, "hoorlee," or oriole, "bocho," perch on a kuhar tree, "doorlee daroo," in front or on either side, it portends the bride and bridegroom and their children will have ulcers. If they perch behind, the Dootám will have them.

If one of these birds are seen flying up and turn back, it threatens the bride's parents refusing to give her.

The voice or cry of the queen of the white ants, "boonoom enga," is a bad sign.*

If a number of "sarooses" or vultures, pass, it is a good sign.

If a magpie, woodpecker, vulture, Mindanao thrush, oriole, crow, or other bird settle on the summit of a large assun tree, "hatna daroo," it foretels riches.

If two dhamna snakes, "jamboo bing," cross, it also foretels wealth.

If the bee in wandering through the woods searching for honey settle upon a man, it foretels wealth, and that he will be very hospitable.

The same, and longevity, if a number of crow pheasants, "sengel topo," cross over.

A troop of hannooman monkeys, "sarra," crossing, promises great herds of cattle.

If any bird sit on a keond tree, "tirril daroo," it denotes the bride will be a vixen.

Meeting women, young or old, carrying water in ghurras, is a good sign.

If the spotted eagle, "doomoor kivid," settle on the right side, it bodes imprisonment to the traveller.

* This may allude to the low stridulous sound emitted from ant hills, during the sultry hours of noon, which ceases on near approach.

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Rites, &c. at Childbirth.

When the pangs of childbirth are coming on, the husband procures some widow as midwife, to whom a fee of eight annas is given. During the wife's illness the husband alone cooks for her, and also for the midwife, who is unclean, as well as the husband; for eight days all the children and servants are excluded from the house, and sent with provisions to live for the time at some relation's; very little children are allowed to remain with the father.

Should the pangs be very violent, and the women's life in danger, divination is had recourse to, to discover the afflicting divinity, to whom a cock, goat, or sheep is sacrificed.

For eight days the husband cooks his own dinner, remaining apart from all friends and relations; during this time these latter prepare Eely, which they brew on the fourth day, so that it may be upon the eighth and place it in the husband's house. On the eighth morning the father shaves the child's head, and gets his own shorne by a taunty, or by his own servants. He then bathes and washes his clothes, and the wife does the same. They then go and partake of the Eely which has been set apart for them, and the relations finish the remainder, taking it away to drink.

The unclean state of the husband and wife still continues till the new moon, or the moon's first quarter, according to the time of the child's birth, and the expiration of the eight days. Finally, there is a grand feast at the house of the husband and wife, and they are held clean from that date.

Naming the Child.

When the child can begin to stand or waddle about, the parents think of naming him. For this purpose they procure a pan of water in which they put four grains of Oorid, then take them out, and rub them in the palms of their hands until they are well softened. The father then cries out a name, saying he will adopt it if the grain of Oorid floats in the water, but not if it sinks. Four names with the four seeds are thus tried, and the name to which the seed floats is assumed and given to the child.

Should all four seeds by any chance sink, the ceremony of naming is abandoned for six months, or a year, when the same operations are resumed.

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It is common among the Koles for a friend of the family to wish to stand namesake to the child, but when this occurs, the grain of Oorid is still had recourse to, and if it sink at the godfather's name, he is rejected.

The namesake, or "sakee", binds himself to help the child in sickness, distress, or poverty; by sending goats, fowls, &c. to sacrifice in the former case, or by lending him rice, &c. to be repaid without interest in the latter, and this sponsorship ends in unbroken friendship between the two, throughout after life.

No kind of religion, or rites, or ceremonials are taught the children, but they pick them up as they can, by observing their elders. If a child die unnamed, it is not thought any particular misfortune on that score.*

Funeral Rites.

When a person is dead, the people of the house set up a howling, or "keening," which continues till the news has been given to all the relations, and the pile prepared, which it is in the yard of the house; first thick logs are placed, then smaller transverse faggots, on this a wide plank, along the edges of which sticks are laid; when this is prepared, the corpse is brought out foot foremost, bed and all, with all its ornaments on, male or female, by the women of the village and of the house.

It is then placed, amid crying and howling, on the pile, the head to the northward; rupees, to the amount that can be spared, are put into the mouth, a lota on each side the body, a brass, or "p'hool," kutora on the head, and one at the feet. Another board is then put on, and above it more wood, by the women, who amid redoubled lamentations, set fire to the pile.

When the whole is consumed it is suffered to remain all night, people going to and fro to watch it; next morning water is poured on the ashes through peepul branches, and women pick out all the half-consumed bones, which are dried, then sifted in a sieve, and then put into a ghurra and covered with leaves, after which it is hung up to the eaves at the back of the house. Eely is brewed on this day, and

* The youngest born male is heir to the father's property, on the plea of his being less able to help himself on the death of the parents than his elder brethren, who have had their father's assistance in settling themselves in the world, during his lifetime.

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when it rises on the fourth day all assembled to bathe, wash their clothes, and shave, and then anoint themselves with the blood of a pig, after which they feast and drink up the Eely.

That same evening the ceremony is gone through of calling the spirit of the departed. All the company, except four people, the father, mother, and two women, or brother and sister and two women or men, sit outside in the back yard; some boiled rice and a pot of water is then placed within the inner room of the house, and ashes sprinkled from thence to the threshold; the father and mother, or brother and sister, as it may be, then go out, taking two ploughshares in their hands—the other two people are left in the house to watch. Those who have gone out proceed to the spot where the body was burnt, and where (in some parts of the country) a clay horse and rider, and an earthen pot on a tripod, with the mouth closed, are placed; round this spot the two relations walk, beating together the ploughshares, and calling out in a plaintive wild strain,

K'alleeng erankedmia K'alleeng enkakedmia Hoojoorooamén
" We never scolded you, never wronged you; Come to us back;

Booqité 'leengposakeamia assooladmia Essoodinmidté leeng tykena
" We ever loved and cherished you, and have lived long together

miadoaré leen tykena na do alum bageea! gama needa ko
" under the same roof; desert it not now! The rainy nights,

Rabang rabang poio dinko dâra nendre do alum honorbȳa
" And the cold blowing days, are coming on; do not wander here.

Atarked jang japarré alum tingoona Hoojoo rooámen
" Do not stand by the burnt ashes; come to us again! You

Hesa soobaré umdo ka tȳ dȳa gama hoojooredo
" cannot find shelter under the peepul, when the rain comes

Rabang hoioré sarjum do Boogité ka doimiai
" Down. The saul will not shield you from the cold bitter wind.

Oáté hoojoomèn Umnangenté oa do boogikidallé! alleeng do
" Come to your home! It is swept for you, and clean; and we

Moonooité heating metanna, alleeng dóleeng minna, umnangente mandeeleeng
" are there who loved you ever; and there is rice put for you;

doikia, dahleeng-doikia Hoojoomén oátéhoojoomén Dooïrimén alleeng tar!
'And water; come home, come home, come to us again!

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They then return to the house door, and call for a light, and commence searching for traces of the return of him they have been invoking; they look in silence along the ashes for the supposed mark of the footstep of the spirit; they examine the rice to see whether the grains have been disturbed—the water, to detect any drops thrown on the ground; should any of these signs be discovered, it is announced that the spirit is come back to the house, and they sit down apart, shivering with horror, and crying bitterly, in which they are joined by all without, who come and weep long and loudly, and then depart.

The ceremony of going out and calling is persevered in till some signs, or fancied signs of the return of the departed to his home have been discovered.

The relations assemble once more to settle the terms and time of burying the bones. Rice is given to people to fetch a stone, as large as the means of the family admit of, which is to be put over the grave. Into the grave, which is two cubits broad and chest deep, and in the public burial place of the village, rice is put, on this the pot of bones, over this, rice, clothes, money, brass ornaments, and every thing they can afford.

The whole is then covered, and the stone or rock placed over it; on this a goat is sacrificed, and the blood and heaps of salt sprinkled all over the stone, also oil is spread over the gravestones of all the dead relatives who are lying around, to awaken them to receive the new comer.

They also tie a strip of cloth to a branch of the tree above the gravestone, to show all passers by the quality of the cloth which was buried with the bones.

Besides the gravestone, another, a *cenotaph* stone, is buried upright to commemorate the name of the deceased, at the edge of the village, or side of the road, and the departed spirit is supposed to love to come and sit beneath its shade, when going to and from his house.

The Koles suppose the spirit to walk about in the day, and to keep in the house all night, for which purpose they preserve a little space clean for it, on which they place a small mechan, called "Tantara", underneath which, in every Pooja or Purub, a small portion of the sacrifice is placed.

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Kole History of the Creation of the World.

Their following idea of the creation of the world, and of castes, &c. was communicated to me by some of the Mankees orally, and copied almost verbatim. In the commencement, Ote' Boram and Sirma Thakoor, alias Sing Bonga, or God, were self-created. Sing Bonga is the sun. After them the moon was self-created.

Ote' Boram and Sirma Thakoor then made the earth; after that they clothed it with grass, trees, rocks, water; they then made cattle, which were first born in "Bogo Bochee;*" after them all wild animals. They then made a little boy and a little girl, at the bottom of an immense ravine, and as they had no houses to live in, the gods told them to inhabit a huge crab's cave (Katkomoá.) They grew adult, and Sing Bonga came to see them every day, and called them his grandchildren; but at length seeing no hopes of any progeny, from their extreme simplicity, he taught them the art of making "Eely," (rice beer) the use of which caused those sensations, which were in due time the means of peopling the world.

After the creation of man, Sing Bonga, or the sun, married Chandoo Omol, or the moon, from whence sprung four sons and numerous daughters. Now the four sons kept with their father, and the daughters lived with their mother, and as the sun rose every day, with his four hot, fiery sons in addition, the whole world began to burn; and all the animals and man perishing with heat, entreated the moon to save them; so the moon resolved within herself to destroy the sun's sons, and went, and accosting the father, said, "Our children do much harm to the world, and will soon destroy your labour. I am determined to eat mine; do you also devour yours." The sun promised he would follow the moon's example; and so when she hid all her daughters, and came and told him she had devoured them, he destroyed and eat all four of his children; after which the moon released her daughters from confinement. This artifice so enraged the sun, that he drew his sword and cut the moon in half, but repenting afterwards of his anger, allowed her to get whole in certain days, though she still remained condemned to be in half at others, and so she remained, and all her daughters with her, which are the stars.

* I could never learn what place this alludes to.

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Now, some time after the first man and woman had lived together and known each other, Sing Bonga came down and asked them what progeny they had; they say unto him, "Grandfather, we have twelve sons and twelve daughters; these twenty-four lifted up their voices and said, "great grandfather, how can we brothers and sisters all live together?—Sing Bonga said, "Go you and make preparations and make a great feast, rice and buffaloe's flesh, and bullock's flesh, goats, sheep, pigs, and fowls of the air, and vegetables;" and they did so; and when the feast was prepared, Sing Bonga said, "Take ye two by two, man and woman, that which shall please you most, and that shall ye have for share, to eat all the days of your life, apart from the rest, so that none shall touch his brother's share."

And so when the feast was prepared, the first pair and the second pair took buffaloe's and bullock's flesh, even as much as they could carry, and these became the Kole (Ho) and Bhoomij (Mootkan) race; then a pair took the rice; and other pairs, male and female, rice and vegetables, and these became Bramins, Rajpoots, Chuttries and other Hindoos; and others took away the goat's flesh and fish, and became other kinds of Hindoos; the Bhooians took the shell fish, lastly, when nothing was left but the pig's flesh, came two pair and took it away, and these are Sontals and Koormees to this day; and when all the feast was cleared away, there remained one pair who had nothing, and to them the Koles gave of their share, and these are Ghassees to this hour.

And so all these went and lived separately, and peopled the world, and multiplied exceedingly, and Sing Bonga taught those who lived in far countries other languages, and he gave people of different trades their implements.

And after this from the Koles, from their senior house, sprung the English, who also eat of bullock's flesh. But they are the senior children, and the Koles the junior!

And after the world was peopled, Sirma Thakoor destroyed it once, with the exception of sixteen people, because people became incestuous, and unmindful of God, or their superiors. (Some say he destroyed it with water, some say with fire.)

Wicked men are born again as dogs, pigs, or lizards. Those who swing at churruck poojas, become, some kites, others flying

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foxes. Suttees never are born again, but remain burning for ever in their pits, and come out at night, wandering about, still burning (so say the Ghassees.) Good people after death are born again in some better condition in life than formerly. And this order of things will remain for ever and ever. There will be no last day.

When men die, their spirits go to the Sing Bonga, who asks them how they have lived, and judges them. The wicked he whips with thorny bushes, and sometimes buries them in great heaps of human ordure, and after a while sends them back to be born in this world as dogs, cats, bullocks, lizards, &c. The good man he sends back to be born a still greater and better man than he lived before, and all that he had given away in charity, Sing Bonga shows him heaped up in heaven, and restores it to him.

Gods and Spirits.

Besides Oté Boram and Sing Bonga, or Sirma Thakoor, there are Nagé Era or Garra Nagé, Desa Oolee, Marang Bonga—his wife is Pangoora; these are village gods.

Chanala Desum Bonga, also his wife Pangoora, belonging to married women.

Horatén Ko, or road gods, who come along with a new wife; also Mahlee Bonga, and Chandoo Omol.

Nagé Era, or Garra Nagé, or Chandore, is worshipped in springs, rivers, or wells; she is supposed to preside over cutaneous diseases, and deafness; she is propitiated with eggs and huldee; if that do not do, with a pig. She has no father or mother, but was self-created. She is invoked to help in catching fish. *Desa Oolee* presides over diseases of the head and stomach; he is the guardian of the village, and invoked to prevent infectious diseases coming into the country, also to insure rain, good crops, no diseases in the cattle. His wife is *Jaër Booree*. Desa Oolee is worshipped at the Mäg Purub; they sacrifice goats, buffaloes, fowls. *Jaër Booree* is worshipped at Bah Purub, in March and April, and in Batta Oolee, in Assar. The same things are offered to her, except buffaloes; and she presides over the same things. Désa Oolee lives in a grove made for him; Jaër Booree in

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another. They were from the first, as man and wife, but have no known progeny.

Marang Bonga presides over sickness, and is worshipped according to the extent of the sickness and means of the patient. He lives in a grove (small one) where they erect a post, after sacrificing a buffalo, and sticking its horns on the top.

To *Pangoora* they sacrifice, on account of sickness and fever, fowls, goats, or sheep; she lives under a tree, or two or three trees near an ant hill; no post is erected for her; she is the wife of Marang Bonga.

Chanala Desum Bongo is worshipped for diseases by married people alone, as he comes along with the bride from her village; Pangoora, his wife, is the same.

Horatén Ko are the spirits of the forefathers of a newly-married woman. They are worshipped on the road, and to them are sacrificed fowls, goats, or an old bullock; they are invoked for sickness.

Mahlee Bonga is invoked by cripples or blind people; he lives any where indiscriminately. They offer him pigs and fowls. Chandoo Omol is propitiated by a pig and a black fowl, for sickness: she lives wherever she was first worshipped.

None of these spirits have any reputed figure or description, and consequently are never represented by idols. The Hos frankly confess that as their gods, to their knowledge, have never been seen, they cannot be described; they also know nothing of the origin of them. They have, moreover, no notion of a devil or any evil spirit, their opinion being that he only who created, is able to destroy or torment either here or hereafter.

They have but four Purubs in the year, and these are not fixed to any particular date, some villages being two or three months performing their poojas, before or after others. Mâg Purub takes place about February and March, sometimes in January; Bah Purub follows a month after; Batta Oolee is in Assar; and there is also sacrificing and pooja gone through before eating the newly cut crops of the year, called the "Namagom."

These festivals consist in little more than singing, dancing, and immoderate drinking, besides offering up a goat or two, or a few fowls in each village. The people seldom adorn themselves, or make themselves cleaner than at other times, and the villages do not unite in

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these merry makings, but go through their ceremonies at separate times, and at their own sacred groves.* At Mâg the men and women occasionally put on grotesque finery, and their songs and dances are wild and pretty. The figures and airs are nearly all alike; the women form a circle, are staid and demure, and sing in a low humming strain, while the men and drummers in the centre, in all stages of intoxication, twist themselves into all manner of contortions, and indulge in violent and ludicrous gestures. During one ceremony, at the Mâg Purub, the Koles abandon their usual decent behaviour to women, and both sexes go tramping through and about their villages, chanting the most odiously filthy recitative, in which the youngest who can lisp are allowed to join.

But if their public Purubs are few, they make up amply by the number of private sacrifices which they carry on in their own houses. On account of sickness in any member of the family, or among their servants, the most trifling indisposition, as well as the gravest malady, has but this one remedy among them. They never attempt resorting to medicine, and no frequency of deaths, no extent of the ravages of any contagious disease, can shake their faith in the one resource of offering sacrifices to the god who is supposed to be chastising them with the visitation. In endeavouring to dissuade them from this dangerous folly, in which the father of a family, with unshaken bigotry, sees his household swept away into the grave, and the whole of his live stock destroyed in vain efforts to check the ravages of sickness, by sacrificing to the gods, we have as yet signally failed; although they were, by dint of constant entreaty and admonition, induced to come to the Hospital at Chyebassa, and although many cures were performed upon them, it has proved of no eventual benefit; the Koles now never make their appearance to seek for medical aid, and the slight temporary reform that was effected among them, has altogether ceased.

The most gross superstitions still prevail among this people with regard to witchcraft; but the dreadful effects of this belief, to which numbers of unfortunate persons have fallen a sacrifice, have now, through fear of our laws, almost wholly ceased. The Koles believe

* These sacred groves, or plantations of saul trees, are attached to every village; they call them "Saër".

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that by certain prayers and incantations, a person can obtain sufficient power to produce the illness, or cause the death, not only of any obnoxious person, but of whole families, or even villages; and that these evil arts can also extend to the crops, the cattle, and the weather!

Should any such misfortunes befall them, it is of course immediately referred to the machinations of some sorcerer, and every means is had recourse to, to discover him. This is effected either by certain signs, or by the divination of some augurer, or most frequently (in case of sickness) by the declaration of the patient himself, who declares he has seen the wizard in a dream, standing on him, and sacrificing to the gods, to procure his dissolution. Such is the inflexible integrity of the Koles in speaking truth, that I firmly believe the sick man, in all such cases, does dream of the person he denounces. Being taught from his infancy to attribute every misfortune to preternatural agency, it is not to be wondered at, that when in his turn afflicted, his apprehensions rest upon some one, with regard to whom a previous quarrel, or other cause of ill-will, suggests the fear of retaliation, and these thoughts, long nourished while waking, would naturally embody themselves in sleep in some dreadful dream, which at once substantiates all the suspicions of the sufferer!

Should these proofs however be wanting, the near relations of the patient have recourse, as I said, to a diviner. This class of wretches, sources of all evil, are not, happily, so prevalent among the Koles as the Hindoos who reside in the vicinity. To these the poor credulous creatures resort, journeying to great distances, and parting with almost all their possessions to obtain the aid of the sage, who, after collecting such information as he requires, pockets his fee, goes through some absurd ceremonies, and coolly denounces the person he may consider best suited for the distinction, as the originater of all the calamity.

The life of the unfortunate victim so pointed out was, of course formerly, not worth an hour's purchase; he was either slain openly by the party, whose kinsman was dead or dying, murdered in cold blood at night, or in some cases, demanded from his clans people, to undergo the ordeal. The latter have seldom been known to refuse such a requisition. The ordeal, however, was, as it has been in other countries,

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merely a means of glossing over the proceedings. The person denounced had either to dip his hand into boiling ghee, or water, or stand upon a red hot Koolharee (shovel) when, if scalded or burnt, he was declared guilty, or he was tied up in a sack and thrown into the water, with the option of floating on the top, if he could.

The particulars of the ceremonies of divination and ordeal I cannot describe, having no longer the means of gaining information from the natives. Hitherto I have been writing from their dictation. The account of the creation, and of their marriages, and other rites, and their mythology, have been translated almost verbatim from their lips. Having now left them and their country, I conclude the theme from memory.

The Hos, although totally distinct from Hindoos yet, being a simple race have suffered that crafty people to lure them in many ways into following their ceremonies, rites, festivals, and prejudices. Those near the boundaries have become as subservient to Brahmins as any Hindoos would be; but on this subject I shall speak hereafter. The "curse of caste" is strongly felt by them, and its follies strangely mixed up with the distinctions of relationship. They divide themselves into clans, called "Keelies," of which there are a great number. Who the founders were, or whence they take their names, I never could ascertain. A man cannot marry into his keely, as it is looked upon as a kind of brotherhood; neither can he eat with one of another keely. They have separated themselves entirely from the race from which they sprung, viz. the Mondas of Eastern Chootia Nagpoor, although Keelies of similar names are found in both. When the separation took place, it is impossible to say, but it has become marked not only in manners, dialect, and dress, but in appearance. The Mondas form part of the good tempered, but ugly figured *Dhangurs* seen in Calcutta. The Hos are, on the contrary, eminently handsome, with figures like the Apollo Belvidere. These last shave the hair off the forehead, and wear it tied behind. The Mondas wear their locks dishevelled, or clubbed at the top of the head, transfixed with a long pin or comb, and are at once distinguished.

The Hos are particular in their diet. They eat beef (all but the border and half Hindooised ones), mutton, goat's flesh, fowls, hares, deer, and fish. The poorest classes eat pig, but unlike the *Dhangurs*, San-

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tals, Bhoomijes, and other tribes inhabiting the jungles, they never touch the flesh of bears, monkeys, snakes, and other wild animals. The Hos, with some few exceptions, will drink spirits (of which they are extravagantly fond) from wine glasses used by us; but they will not drink water contained in any earthen vessel, which may have been touched by other classes. Many of them believe the essence or soul of a man to lie in his shadow, and consequently will relinquish boiling rice or other food, while preparing, if the shade of a different caste person fall upon it.

Their standard dish (as it is both meat and drink to them) is "Eely," or rice beer. It consists of rice and water boiled and mashed together, and then left to ferment for three days, with a piece of "Rannoo" (a bitter root) to aid the process; of this all classes, ages, and sexes, partake, many of them intemperately. In their hunting parties it often forms their sole sustenance for two or three days. The drink is not badly flavoured, and use would make it, I should think, just as palatable as our common small beer; it causes moderate inebriation, and all classes appear after their meals slightly "jollified" by it. They seldom drink to a disgusting excess, and quarrels from intoxication are not of common occurrence. The *Soondees*, a spirit manufacturing class of Hindoos, are numerous throughout Singbhoom, and make a strong distillation of the Mowhooa berry, called by the Hos "arkee;" of this the latter, left to themselves, do not much partake, preferring their own beer.

As yet, commerce has been scarcely at all introduced into the Kolehan; the people, among whom poverty is unknown, remain contented with the spoils of the chase, and the limited produce of their fields, which are only cultivated in sufficiency to meet present want. They are bad husbandmen, and no agricultural works on a large scale, such as tanks and bunds to meet the exigencies of a dry season, are met with in the country. The "levelling system" obtains so much among them, that there is no farmer or landholder in the country with capital sufficient to go through with such a work. The former lords of the soil, the "Surawuks" (Hindoos), excavated many fine tanks, the traces of which still remain; they have all however been destroyed by the Hos, who let out the water for the sake of sowing the rich mud at the bottom; or have allowed them, through superstitious motives,

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to fill up from neglect. Being an undulating country, their rice cultivation is restricted to nullahs and water-courses, over which they form fields, by choking up the stream with soil brought from the "Tarn," or upland, a process of infinite toil. An inferior kind of rice, "Gora dhan," is sown in the uplands, and the jungle tribes cultivate the hills up to their summits with cotton, moong, oorid, chunna, til, surgoojia, tobacco, &c.; such common esculents as the jingee, khukra, cucumber, pumpkin, maize, and baugun, are grown in their villages; also vast quantities of the castor oil tree, of the kut'hul, or 'jack', and mangoe trees, which the Surawuks planted in numbers, but few now remain. The Hos prize much more the tamarind, which is met with in every village, and grows in great luxuriance.

Vast quantities of the Tusser worm are reared in the "Assun" jungles throughout the country, the proprietors of which preserve them with great jealousy and care. The cocoons are sold to bead merchants, who come annually to barter them in return for necklaces. The silk is manufactured at Serykela, Bankoorah, and Medneepoor, that from the former being most prized. In tending the young worms, much the same ceremonies are gone through as by the people in the Sunderbunds; fasting, continence, and cleanliness, being considered indispensable. The Hos travel all the way to Poory for the sake of purchasing salt; they are allowed to bring it laden on bullocks through Kewnjur, by paying toll; but in passing through Baumenghattee, a nearer and better road, salt on bullocks is seized and confiscated by the Mohenbunj Raja. Bangy loads are however suffered to pass on payment of some *douceur*. There is no Government gola nearer than Medneepoor or Bankoorah.

Vast numbers of cattle are bred in the country; the Hos do not tend them themselves, but deliver them over to Gwallas, with whom they keep little account, until the cattle are required as payment on marriage occasions. The latter accordingly make a good thing of their charge, selling the milk and ghee, and often the cattle themselves. Great quantities of the latter, and also of buffaloes, are sold to Tamarias for the most trifling prices, besides numbers stolen or swindled away by their customers, who are notorious cheats and robbers. In former times, when the Hos used to make "Raids" over the borders, and harry the cattle of their neighbours, these little

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filchings were not so much minded, but now that their excursions have been put a stop to, the owners get more careful, and keep a better look out on the Gwallas. The sheep also, which are numerous in some parts, have been pronounced by judges to be equal to the Patna mutton for the table; but these and goats, as well as poultry, the Hos part with with difficulty, as they require them for their sacrifices, &c. A peculiarity in the country, is the immense flocks of pigeons, which breed in every village, and afford the poorest a delicacy at all seasons. With money the Hos are getting pretty well acquainted, but still hold copper coin in great disdain, seldom taking the trouble to count a large quantity, but reckoning it by handfuls, to the unfeigned astonishment of our Hindoo servants, who would squabble for the tenth part of a cowree.

In summing up this account of the Hos race by a description of their general character, their virtues and vices, I may perhaps fall into the error of a little partiality in their favour; three years constant intercourse with them, in which their love of truth, their honesty, their obliging willingness, and their happy ingenuous disposition, formed so striking a contrast to the mass of the people in Hindustan, may perhaps have induced me to pass lightly over faults to which they are but too liable; but this error (a pleasing one) is I imagine shared with me, by all the European residents who were at Chyebassa. Whether the duplicity and bad propensities of Hindoos in general, be owing to their intercourse with us, or whether it be inherent among them, is a point at present mooted, and not be decided by myself. But among this simple race, the reputed evils of civilization have not yet commenced to be felt; and fervently is it to be trusted, though, alas, the hope may be Utopian, that the introduction of our Courts of Justice, in checking the lawless tendency of the Koles, may not destroy those virtues which are inherent to a primitive state of society. The unhappy feuds which, handed down through generations, formerly existed among them, were owing rather to mistaken notions of honour, than to more malignant feelings; and the best proof of this, is the ease with which through a little timely advice, quarrels *a l'outrance* of the oldest standing have been made up, and whole clans readily reconciled to each other. After the first rough settlements of this country had been made, this became the

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especial care of that truly wise and benevolent man, Major Wilkinson, the late Political Agent of the South-West Frontier,* and fortunate was it, that his excellent arrangements were so well seconded by the inherent good feelings of the people, for whose welfare they were directed. The depredations committed by the Hos formerly on their neighbours, for the sake of driving off their cattle, were chiefly, if not entirely, at the instigation of the Hindoo Zemindars around, who employed them to wreak their own malice on their neighbours, and indeed the Hos served them, in a manner, as mercenary hordes. Their forays were never marked by cruelty or unnecessary violence, nor except when they were openly resisted, was ever life taken. A fearful number of people (among themselves) have fallen sacrifices to the horrid superstitions respecting witchcraft; but such crimes, common to the barbarous ages of all nations, and but too prevalent formerly in our own, must be, by the impartial observer, attributed more to the depravity of the judgment than the heart. The superstition still continues, but the horrors resulting from it have almost entirely ceased. But cold blooded murder for the sake of gain, robbery, even pilfering, lying, deceit, dishonesty, even of the most venial kind, are almost unknown, and looked upon with disgust. The truth and integrity of a Kole are well known, and the fidelity of their wives, and modesty of the females in general, proverbial.

They are on the whole a light-hearted and good-natured race, irascible, though quickly appeased. But so strong is their sense of injury, that a harsh word suddenly spoken, will produce the most serious results; for this reason they seldom quarrel, and terms (epithets) of abuse are unknown in the language; among females the mere hearing of a few words of reproach will induce them to commit suicide, and this crime among both sexes is so frightfully prevalent, as to afford no parallel in any known country. The mere bantering a lad on his predilection for any girl, has led to self-destruction; jokes of an injurious nature they do not understand, and indeed seldom or ever indulge in them, although in the most harmless way. Beggars are scarcely known in the country, but the Hos are charitable to those deserving aid, and hospitable to strangers to the same de-

* Now Resident at the Court of the Raja of Nagpore (Berar.)

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gree as Arabs of the desert, for it is thought a sign of enmity to stop even at the door-way without a 'stirrup cup' of Eely. Among their chief faults may be reckoned indolence, and dirt. The poorer people are often very filthy, and unless in the warm season, seldom touch water. The lowest classes will not object to devouring bullocks that have died, from disease, out in the fields, even though far advanced in decomposition, and will devour stale eggs, half-putrid fish, &c. &c. But these filthy customs are confined to the very lowest and poorest of the people.

Memoir of Sylhet, Kachar, and the adjacent Districts. By Captain FISHER, *formerly Superintendent of Kachar and Jynta.*

The provinces of Bengal east of the Brahmaputra, though among the earliest acquisitions of the British in India, attracted but little attention for a long time, in consequence of their general tranquillity and secluded position. The vast mountain regions by which they were encompassed on their external frontiers, seemed to secure them against the chance of serious foreign invasion, while the incursions of the wild hill tribes had but slight effects on their internal condition, and were easily curbed by a few local troops retained chiefly for that purpose. If Sylhet excited but little interest, still less was naturally thought of the petty independent states connected with it; and it was only after the Burmans had conquered Assam and Manipur, that a wish seems to have arisen for a more accurate knowledge of their condition; though this was still greatly restrained by fear of giving umbrage to their chiefs. The events arising out of the Burmese war have materially altered the relations of all these countries, on which, however, it is not my purpose here to enlarge, but simply to bring to notice such facts respecting their geography, internal condition, resources, and traditional history, as in the course of a long residence, and the prosecution of various inquiries, I have been able to collect; restricting myself however to the correction of current errors, and the notice of such particulars as have not hitherto obtained general publicity.

Geography.—The survey of Sylhet, though unfinished, has yet been prosecuted far enough to shew, that the area of the district is more

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considerable than had been supposed. As the external boundaries towards the Tippera hills, Kachar, and the Kasia mountains have been traced, and the outline is only incomplete on the western side, on which it is not likely any material difference from the old delineation would be discovered, it is likely that the contents (4500 square miles,) now assigned for it, is pretty near the truth. The quarter in which the most considerable error has been found in the old map is the southern, which Rennell does not seem to have visited; and here many of his positions have been found from ten to forty miles too much to the north. The topography too of this part has been amended, the chains of hills, or rather ridges, having been ascertained to consist of several parallel ranges, separated by wide and fertile vallies, and ranging north and south, instead of east and west, as before supposed. Some of these ridges also are found to be partly in Sylhet, and partly in Tippera, and in two or three instances they penetrate deeply into the former district.

On the side of Kachar, the boundary of Sylhet has been traced southward to Chatrchura, a conical peak on the Banka range of hills, the country about which is frequented by the Pytu Kukis, a wild wandering tribe, who migrate from this their north-west limit, eastward to Tunghum, and southward to an unknown extent, their cognate tribes being found in the neighbourhood of Chittagong.

In Lower Kachar a complete survey of the cultivated tracts has been effected, the principal rivers traced, and in particular the course of the Delaseri from the southward, followed through a part which heretofore presented only a blank in the map. This tracing, was, however, executed by one of my native surveyors, after circumstances had put it out of my power to conduct it myself.

Captain Pemberton's surveys in Manipur fix the eastern boundary of Kachar, but points of junction between our surveys occur at Aquee, in the Naga Hills, and on the Bohman range.

In Upper Kachar a line has been traced along the Jatingah river to its source, and thence to a point on the Di-yung, at which it becomes navigable for small boats, beyond which I had no opportunity of proceeding northward, but the remainder of the route into Assam was explored by Captain Jenkins, whose valuable Report illustrates the whole of this country. The survey, however, in this quarter was

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carried far enough to fix the courses of the great streams and ridges, and to establish a relation with the route pursued by Captain Pemberton from Manipur into Assam, the great ridge crossed by him being in this survey traced westward to its termination in a number of ramifications on the Modura river. The fact of most interest ascertained by this part of the survey, is the facility with which a road could be formed from the navigable limit of the Jotingah to that of the Di-yung, by which the intercourse with Upper Assam would be greatly extended, and its communication with Calcutta shortened. So gentle is the ascent, and so few are the obstacles, that there seems no reason to doubt, a road for carts might be made with very little trouble.

Returning westward, the survey fixes the boundaries of Jynta, and much of the mountain tract immediately north of Sylhet and Pondua, including the country between Chirra Ponji and Nunklao. It then traces the outline of Sylhet at the foot of the Kasia Hills, and is prolonged to Sowara, on the banks of the Brahmaputra, from which it follows the old channel of this river to Naraingunj and Dacca. The object of this last portion of the work was to connect the survey and a series of astronomical observations made for longitude at the town of Sylhet, with a position which had been well fixed by Mr. Walter Ewer of the Civil Service, and to which the Assam Survey had also been referred. For many of these observations, which were made on the transit of the moon and stars, I was so fortunate as to obtain corresponding passages at Greenwich. Dacca was included also as a well fixed point, but chiefly because the water communication between it and Sylhet, was found to be very erroneously delineated in the old maps, in consequence apparently of changes in the course of the rivers below Azmerigunj. Correct outlines were made of these, though they do not appear in the new printed map, for which it is to be supposed they were too late.

The minute operations carried on in the prosecution of the Revenue Survey have afforded an opportunity for acquiring a more intimate knowledge of the topography, resources, and husbandry of the interior, and these complete the list of the several inquiries pursued.

Aspect and Geology.—The physical aspect of this vast tract, presents great variety, and cannot of course be described under one term.

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Even in the plains there is less of uniformity than would be supposed on a casual inspection, and the experienced agriculturist well knows that the lands in the eastern part of Sylhet, and in Lower Kachar, are far more valuable than those to the westward, even up to the banks of the Megna. This is explained by the greater elevation of those parts, and by the number of hill streams passing through them, the banks of which are always higher than the adjacent country. The vegetation, as well as the husbandry of these tracts, is greatly influenced by this particular, of which I shall take more notice hereafter.

The hill regions may be conveniently separated into two divisions, distinguished by great difference of elevation, the point of separation being fixed on the Soormah at Luckipur in Lower Kachar, to the south-west of which, whatever elevations present themselves, are under two thousand feet, while those in the north-west still maintain a much greater altitude, and even tower occasionally above six thousand feet. But the division is more appropriate on account of a decisive difference in structure, the northern mountains forming clearly one system, while those of the south belong to another, having reference to high ground in the central parts of Tippera, the existence of which cannot be doubted, though it has never been unequivocally proved. In support of this opinion, I must first point out that the numerous streams flowing from the southward into the Soorma and Kusiara rivers, and of which the very existence was scarcely known before this Survey was made, are many of them of a force and volume indicating a long course, and shewing them to be the drains of high land, from which alone they would draw the water which they discharge, for the Delaseri, the Sungai, the Munu, the Khwa-hi, and the Cognati streams appear to furnish during the rains on an average a discharge of about 25,000 cubic feet per second; a quantity quite inconsistent with any supposition, but that of long courses and elevated origins, as none of these rivers are more than fifty yards in width.

If a reference be now made to some of the older maps on which the other rivers of Tippera are traced, it will be found that the Gumti, which emerges at Commilla, has an east and west course, and that the Chingri and Kurumphuli, which debouche at Chittagong, run nearly southward, while the Kola-dyng, as delineated on more recent maps, has a south-west course, and the river of the Kungfui Nagas falling

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into the Manipur river, flows to the south-east. I may add, that the Tipai river which falls into the Barak near Soor, has like the Sonai and Delaseri a northern course. Thus these considerable streams radiate from land in the unexplored regions of Tippera, somewhere between the 23rd and 24th parallels of north latitude, and 91° and 94° of E. longitude, which is unfortunately still a blank in our maps.

I have enlarged on this subject, because I conceive it is one which when attentively considered, will be found of great interest, involving the condition of a tract of country, our ignorance of which, in some conjunctures we might have occasion to deplore.

Both the hills and vallies of Tippera are thickly wooded, and the latter often contain extensive grass jungles, the resort of wild elephants. The most eastern portion of the northern range of mountains is occupied by Upper Kachar, a wild and thickly wooded tract, the mountains of which sometimes attain an elevation of five thousand feet, but offer considerable diversity in that respect, as they here break into branches of the great ridge running between Manipur and Assam. The river Kupili, flowing into the Brahmaputra, marks the limit of this tract, and the termination of that vast system of hills which stretches westward from the unexplored country to the north-east of Manipur.

The Kasia mountains rise immediately from the valley of the Kupili, and range westward to Laour, near which they are bounded by the Patli river, the hills west of that belonging to the Garrows, and being distinguished by an aspect and structure of their own.

Much has been written on the Kasia mountains during the last ten years that they have been visited by Europeans, but I am not aware that any attempt has been made to account for their peculiarities, nor would I now undertake the task, but that I fear it will be left undone by those who could perform it so much better. The physical aspect of these hills excites the strong attention of the observer, as being so greatly at variance with that of the whole country in their neighbourhood. The barrenness of the table land, more especially in its southern portion, where not only does nature yield but little, but where art is found unable to assist her, is perhaps unprecedented in such a climate. This sterility will, I think, be found to be closely connected with the character of the rocks, and the disturbance of the strata, but more especially with the latter, for where these are horizontal, there is an

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absence of vegetation, and wherever the strata are inclined to the horizon, symptoms of fertility begin to shew themselves.

The absence of any well marked appearance of the unstratified rocks is remarkable in the Kasia hills, for I am aware only of one instance in which they are said to shew serpentine; having, it is said, been seen near Nungklao, a locality which however I had no opportunity of examining. It is true, granite is found, but except at the Okillon hill, always in boulders on the surface, nor has it ever been seen in peaks or amorphous masses, to the protrusion of which, the dip of the secondary strata is usually referred. Except in the single instance of the limestone which occurs near Musmai, I think it may be said that there is no appearance of a disturbance in the sandstone bed by which the country between that place and the Bogapani is filled, and of which the thickness is unknown; now this part (and others similar to it) is remarkably sterile; but wherever the level of the strata has been disturbed, whether by internal igneous action, or by any force of a more limited range, a disintegration of the rocks, and consequent accumulation of soil at the foot of the slope formed, has taken place, and vegetation to a greater or less extent ensued. Thus the slopes formed at the outcrop of the sandstone with the limestone near Musmai are all well covered with wood, which disappears as the slope subsides into the ordinary level of the table land. And in general throughout the ascent from the plains to Chirra, after the limits of the lower bed of limestone have been passed, it may be observed that vegetation is dense only on the slopes, and that wherever ledges or steps occur, they are comparatively barren.

The total rise between the foot of the mountains and Chirra, seems to be about one in ten feet, but subject to great irregularity, while between Chirra and the south bank of the Bogapani, it amounts only to one in forty, with comparatively little variation.

All the vallies on this side terminate in precipitous heads, exhibiting the horizontal position of the sandstone.

To the northward of the Bogapani, the aspect of the country changes, and though the altitude is greater, the vegetation is also more considerable, and continually increases until between Myrung and Nungklao it becomes abundant, though it does not yet exhibit that excess which prevails further to the north and west. A feature will be here found to

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force itself on the attention, to which unquestionably the increase of vegetation in this part is to be traced; I allude to the numerous and large granite boulders which are scattered in such abundance over the country as to be occasionally mistaken for the crust or surface. The granite has however never, as I before observed, been seen in any form but that of boulders, nor is there any well established instance of these having been seen otherwise than on, or partially imbedded in the surface. I should remark, that the mass of granite, well known as the Okillon, near Nungun and west of the Nungklao road, may be considered of a dubious form, for though the dimensions are enormous, the shape of the exposed part is that of a boulder. The disintegration of these boulders has of course largely contributed to the formation of soil, especially when favoured by the configuration of the ground, but wherever the boulders are missing, and the strata preserve their horizontal position, vegetation remains likewise deficient.

As I am more anxious to record facts than to broach theories, I will not indulge in speculations on the variation of the structure of these hills from those around them, but content myself with observing, that there is nothing in what I have pointed out at all inconsistent with the more recent opinions as to the order, classification, and superposition of the different rocks; for though none of the unstratified rocks have been seen in the positions which they might be expected to occupy in the centre of the mountains, there is still no reason why they may not occupy a place under the sandstone, and have thus effected its up-lifting without themselves protruding to the surface. Further inquiries may throw light upon this subject, which is worthy of very great attention, for if there be sufficient ground for the opinion here thrown out, the geology of this country will furnish a strong proof of the igneous origin of the unstratified rocks, and their more recent appearance above the surface.

I have already remarked, that a bed of limestone extends along the foot of the hills near Pundua, having its out-crop about five hundred feet above the plains, where it abuts on the sandstone. The direction of this bed is nearly east and west, and though frequently broken through by rivers, it is continued westward (declining however in elevation as it proceeds) to Bunsikura, where it is found in contact with the plain, from which in other parts it is always separated by clay

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and sand hills of alluvial formation. The coal found at Laour rests on this limestone, which abounds in fossil shells, among which the principal are Terebratula and Producta. The cavern of Booban is situated in this limestone, but no measures have been employed to ascertain if it contains any fossil remains.

The few facts which I am able to add on the geology of the whole country under review, may not improperly find their place here, as they can be of value only when taken collectively to illustrate the general formation.

In Upper Kachar the dense woods have materially impeded observation, and I can only say, that the table land is there absent, as well as the granite boulders, and that the formation is of primary sandstone, upon which an alluvial formation is posited. No fossil remains have been procured from this quarter.

The Tippera hills, in the more elevated parts of which we have any knowledge, exhibit primary sandstones underlying an alluvial formation, in which fossil remains are found in sufficient quantity, but no great variety. Those within my own observation have been Madrepires and fossil wood. The alluvial formation over the eastern part of Sylhet and Lower Kachar is of the same nature with that of Tippera, being similar in structure and material. The common feature is a kind of breccia, which is found in masses varying from a mere pebble to enormous blocks of many thousand tons weight, and these are imbedded in the clay or sand hills near the surface (never stratified), often in connexion with a thin stratum of a substance exhibiting a highly metallic appearance, and which seems to be oxide of iron. It is impossible to examine these black blocks, which on fracture display numerous concavities, without entertaining the suspicion of their volcanic origin; but any doubts on this head must cease on looking at the masses of lava by which they are often accompanied, for that the shapeless lumps to which I allude have been in a state of fusion, admits of no question, being proved by their vitrious lustre, close and brittle texture, and by the presence of blisters formed by the air during the process of cooling. I abstain from noticing the localities of the coal beds, salt wells, and Petroleum spring, as they have been heretofore described.

It must be acknowledged that our geological knowledge of this quarter is still lamentably defective, and that the materials for drawing a

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section of the rocks in their exact order from Thibet, across Assam, Sylhet, and Tippera, are still to be collected.

The points of interest remaining for examination within this division are:—

1st. The course of the Kupeli river from its source to its confluence with the Di-yung, in the valley between Upper Kachar and Jynte. It is likely to pass through a country the geology of which must deserve attention, as the structure of the opposite sides of the valley must be essentially different, the one upholding a table land, the other running up into peaks and ridges, while the possibility that the river may offer a navigable communication with some point easy of access from the side of Sylhet, is an additional reason for examining it.

2nd. The course of the Patli river near Laour. This river divides the Kasia hills from the Garrows, and its valley must exhibit similar diversity in the structure of its opposite sides with that of the Kupeli.

3rd. I have already pointed out the interest that attaches to the country in the middle parts of Tippera, and I may here add, that the geology of this quarter must be valuable, as it is likely to be connected with the system of mountains which separates Arracan from Pegu, and to contain the extinct craters from which the volcanic remains above noticed have issued.

To conclude this account of the very diversified aspect of the country, the vast semi-basin enclosed on the northern, eastern, and much of the southern side by the mountains above described, may be conveniently divided into two tracts, distinguished from each other by difference of level, and by dissimilarity of vegetable and agricultural produce, as well as by their capacity for commodious habitations and occupations. A line drawn SE. from Chattak passing west of Tajpur, through Nubigunj, and thence under the hills southward to Turruf, will serve very nearly to separate these tracts.

That to the westward, extending nearly to the Brahmaputra, is in most parts always marshy, and the whole is subject to periodical inundations of long duration, being in general under water from April to the middle of November. The towns and villages, which in some parts, more especially to the southward, are numerous, are built on mounds raised with earth dug during the dry season; the houses are in clusters, huts for men, temples, mosques, and sheds for cattle, being

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huddled together in a manner that gives to them the appearance rather of the temporary abode of fugitives, than the settled residence of a people. This tract is called Bhatta, apparently from its lowness, and seems to have been conquered by the Mussulmans before the rest of Sylhet.

The eastern division is on a higher level, and rises gradually towards the mountains on either side; notwithstanding this, the marshes which occasionally occur, might lead to a different belief; but these are very limited in extent, and occupy distinct hollows, and the fact of general rise is proved by the course of the rivers, which without it could never exhibit those strong currents for which they are remarkable.

The irregularities of the surface are referable to three distinct causes:

1st. Several ranges of the alluvial formation crossing it run up into ridges, from one to three hundred feet in height.

2nd. The vallies formed by these ranges rise from the centre towards either side, where the land being above the level of ordinary inundations, is peculiarly adapted for agricultural purposes, and is called Do-fusilya, or that of two harvests.

3d. The banks of the Surma and all the hill streams are occupied by land cultivable for two yearly crops, which however here owes its origin to a different cause, having been thrown up by the rivers in working their channels through the plain.

I have here much satisfaction in bringing to notice one of those rare instances in which the interests of a portion, however small, of the Indian community have been manifestly benefited by the adoption of conclusions emanating solely from European foresight and observation. A causeway constructed by the Mogul Government along the left bank of the Surma, and intended to restrain its inundations, was kept up at a considerable expence by the British Government, until the mischievous consequences which have followed the maintenance of similar erections on the Po and Adige, in Italy, having been brought to notice, it was, about twenty years ago, abandoned, and the river allowed to take its natural course. Contrary to the expectations of many, no harm followed; the river occasionally rose for a short time above its banks, but the inundation ran off rapidly, and it seldom happened that any injury was done. It was soon, however, observed, that wherever the river overflowed its banks, a sediment was left, which both raised and

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improved the land, and in consequence people far from dreading the inundation, soon learnt to turn it to account; and having banked such lands as were fit for the purpose, led the river to them by narrow canals, which they closed after the flow of water was deemed sufficient, and re-opened when the river had fallen sufficiently to allow it to run off. This practice is now quite common, and by it much marshy land has been reclaimed. The low lands in the Eastern parts of the country may all in time be filled up by the sediment left by the inundations of the rivers, but these are in reality so rare, and of such short duration, that more will be effected by art than nature in this way. 'It must be remembered, that the ordinary inundation which fills the marshes does not proceed from the rivers but is furnished by the rains, and yields no sediment, this distinction is, of course, not to be overlooked in the execution of the operation above described.'

Husbandry.—The agricultural processes in the Bhatta are very simple, and may be briefly dismissed. As soon as the inundation begins to subside, or in the beginning of November, such lands as are sufficiently high for the purpose, are ploughed and sown for rice and millet, the crop being cut in April. Gardens and orchards are unknown, and the cultivation derives the smallest possible aid from the labour which in other parts is so productive. There are neither sugarcane patches, plantations of pán, vine, chillies, nor vegetables,—a little sursoo, and hemp, with some gourds and cucumbers about the huts, appear occasionally, but in limited quantity. The marshes are however filled with cattle, from which profits are derived sufficient to make the occupation of these desolate tracts desirable. Ghee and cheese are made from the milk of buffaloes and cows, and the upper lands are furnished with young bullocks for the plough in numbers, being driven to bazars and fairs in the spring of the year, before the return of the inundation in May and June, after which months they are confined to their sheds, and supported on green fodder brought in boats from the jhils. The people here are extensively concerned in the transport of grain, being the carriers between the high lands eastward and the country to the south-west. The husbandry of the eastern quarter is of a far more elaborate description, though it has not yet exhausted the resources of art on the one hand, nor those of nature on the other. A fertile soil, renewed continually by accumulations from

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the hills, copious supplies of rain, with immunity from excessive inundation, are among the advantages enjoyed by this favoured tract. The character too of the scenery here becomes peculiar, and is sufficiently marked to call for its separation from that of India generally. Vast sheets of cultivation, extending for miles along the banks of the Surma and other streams, intersected by splendid groves of trees and bamboos, forming shelter for extensive villages, and occasionally by low ranges of wooded hills, and backed always by mountains either near or distant, form an endless succession of gratifying scenes, on which the eye rests with pleasure, and which, whether beheld by the agricultural economist estimating the resources of the land, by the philanthrophist rejoicing in the welfare of his fellow men, or by the lover of the picturesque, must always excite the most pleasurable emotions. But I must not wander from the simple account which I proposed to furnish in this paper.

The ploughing season here begins in the middle of January, when the lower descriptions of land destined for the Aumun crop are first broken up; the higher soon follow, though it is usual to reserve such, on account of the hardness of the soil, until the first showers which fall in February. Before the end of March all the lands are sown, and in July or August the first crop is reaped from the higher lands alone, which are again ploughed and sown for an autumnal crop in November and December. It will readily be understood, that the aumun lands are subject to inundation, though not commonly to the extent which would endanger the crop, and I must here more particularly explain their position, which may else seem not very reconcilable with parts of the foregoing description. I have said that the western division is subject to excessive inundation,—may be marked by a line running southward from the neighbourhood of Chattak; and this is true generally, though a few considerable gulfs cut into the eastern quarter, running up for some miles, more especially between the courses of the great rivers, and form petty jhils of great depth, which are unculturable. The aumun lands are situated on the sides of these and similar jhils, but their cultivation is very different from that of the Bhatta country, the crop in them remaining on the ground throughout the rainy season, and being in consequence very abundant and rich, while that of the Bhatta, grown only in the winter, is both scanty and of

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inferior quality. These jhils branching from the Bhatta, I should observe, obstruct the cross communications in the higher country, and render it impassable for travellers from about April or May, until the middle or end of November, but do not affect the cultivation materially.

The ordinary products are dhán, dhal, and kulaie, of all which there are many varieties: the grain is usually divided into two classes, called from the situation in which it has been grown Sayl, and Aumun; among these the subdivisions seem to be infinite, and I should add, that they are not mere fanciful distinctions, but made with reference to well marked peculiarities, either of quality or fruition. Thus among the Sayl, which grows on the high lands, there are grains which come to maturity in the short space of six weeks, while there are others, as the Burwa, which can be raised on the Aumun lands in the winter. It may not readily attract attention, but the careful inquirer will, I think, find it no small advantage, that there are so many grains whose times of coming to perfection are unequal, as they afford, under proper management, a sure resource against the loss of crops of more ample, but more slow growth. All the Sayl grains are raised on seedling land and transplanted, and this practice extends, under favourable circumstances, to the Aumun, the increased productiveness consequent, being well known. As a point of some interest in Indian husbandry, and on which doubts have been entertained, I may state from personal knowledge, that manures are frequently and extensively used. My occupation, as a Revenue Surveyor, gave me frequent opportunities of making this observation in the most unexceptionable manner, and that the practice is not readily avowed, I attribute to the fear on the part of the cultivator that any practice which attracts the notice of a European functionary, will be made the ground for increased assessment.

Irrigation is never found necessary except for the winter crops, but if wheat was cultivated, which experiment has shewn to be perfectly feasible in the cold season, water could be had in abundance for the purpose, and in the same way, barley, oats, and potatoes, have all been raised by me in Kachar on terms which prove their culture would be highly profitable.

In attempting to estimate the profits of agriculture, and the condition of the people employed in it, I should premise, that the minute subdivision of the proprietory right to land which obtains in Sylhet, has

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been accompanied by those consequences which have been observed in other countries similarly circumstanced, and that while the industry exhibited in the cultivation of the petty taluks by their proprietors is very admirable, the want of capital, by which their capabilities might be increased, is but too apparent. I am not however sure, that the physical comfort of the people is as yet diminished by this circumstance, for it is certain that the means of subsistence are in abundance, and I have no hesitation in saying, that I have no where seen a population among whom the ordinary wants of nature were so easily and cheaply supplied. But though there is an efficient and permanent demand for produce, the want of capital, or rather its excessive dissemination, effectually prevents the adoption of means by which the cultivator might derive from his land those profits, which it is calculated to yield. I must here meet an old and often urged objection, that it is the Government exactions which check improvement, by observing, that this is one of the lowest taxed districts in India, the average rate of assessment being somewhere about four annas per head, or one rupee one anna on the adult males alone, while the wages of labour are from two and a half to three rupees a month. A rate therefore which exacts on an average the value of ten days labour from each man in the year, cannot be considered excessive, at least when compared with the average for all India, which is above seven times higher. It is therefore to the dissemination of capital that the absence of improvement is entirely attributable, and the state of the land tenures therefore in this district is well worth the attention of the Indian financier, shewing as it does the condition to which, under the existing laws of inheritance, every province in India is tending.

No cultivator, whether proprietor or ryot, ever follows agriculture here as a speculation, or ventures to till a larger quantity of land than can be conveniently managed by himself and the members of his family, and if he raises grain sufficient for his annual expenditure, and a surplus equal to the payment of the Government revenue, his operations are considered successful. He employs the spare time, of which he has abundance, in other pursuits which do not require a capital, or only a very small one in money. Thus the more considerable proprietors after letting the portion of their taluks which they do not find it convenient to cultivate themselves, often engage in the conduct of

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adventurers to the woods for timber, bamboos, grass, &c., or they clear land on the hills for cotton, build boats, and convey grain to the markets in the south, &c.; while the Ryots act as boatmen, coolies, and the like, in all which employments little or no cash outlay is required; but they subsist on grain raised in their own fields, while their wives and children maintain themselves by making cloths, &c., for home consumption, or sale, carrying the produce of their gardens and orchards to market, and tending cattle.

There is nothing very remarkable in all this perhaps, except that it exhibits a society among which the first steps in economical improvement have hardly been taken, the advantages of the division of labour not having yet been appreciated, or rather the introduction of that principle having been prevented, by the want of accumulated capital, to meet the expense and delay that must precede the more ample returns which it ensures. I will not enter into any estimate of the expenses attending the cultivation of land, and its return, as a farming speculation, although I have by me details on the point; but conclude this subject with observing, that at the existing rates of rent and labour agriculture would return the former (independent of any improvements he might effect) about thirty per cent., on his capital. The common opinion, confirmed by the current price of estates, is, that money invested in land yields the proprietor from 12 to 15 per cent.

Hill Agriculture.—Among the hill tribes, cultivation is very imperfectly practised, and many therefore depend wholly on their intercourse with the plains; nor can it be said that any of them are at all times wholly secured from want by their own resources. The nature of the country in the south part of the Kasia mountains precludes agriculture, but in the central and northern parts rice is raised in considerable quantity, particularly in the little glens, and on the sides of the vallies, irrigation being practised, and the water brought to the field through narrow canals, and conveyed over hollows, or up heights, for short distances by hollow trunks of trees or bamboos, experience having taught the cultivator that water can be made to rise in tubes to the level of its source. The labouring season is in the spring, and the crop is cut in August and September.

In the wooded parts of the mountains, by whomsoever occupied, whether Kacharies, Nagas, or Kukies, the cultivation is of a mixed

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description, consisting of cotton, rice, and sundry vetches, grown indiscriminately together in one large clearing. The ground for the crop is first prepared by the dao (or bill), the jungle when dried is burnt, and the ashes worked into the soil, which is then broken up by the hoe, and the seed planted or sown in March or April for a crop in September. The hills on the Sylhet and Tippera frontier are cultivated in a similar manner by the natives of the plains, who form themselves into associations periodically for the purpose of a trip into the hills, on a joint account, to cultivate cotton and cut wood and bamboos. The cotton thus obtained is not exported, indeed the quantity raised is barely sufficient for local consumption. It is short in the staple, but the cloths made from it being found to combine warmth with lightness, are in great esteem among the people.

I proceed briefly to notice whatever appears peculiar among plants, vegetables, and fruits.

Indigo is not cultivated in Sylhet, but though one or two trials have been unsuccessful, I think (with men of some experience) that with greater attention it would succeed. The climate cannot, as it has been supposed, be wholly unfavourable, seeing that the plant grows wild on the hills, and that a very excellent dye is obtained from it by the simple processes there in use. The certainty of having rain for the spring sowings, and the possibility of choosing the ground above the chance of inundation, are among the advantages which I anticipate for the cultivation of indigo in these tracts.

Poppy, sugarcane, safflower, sursoo, and other plants yielding oil, flax and hemp, call for no particular notice, they are all cultivated with success in Kachar, Jynta, and (except the poppy) in the Eastern division of Sylhet.

Oranges, together with the arica and pān vines, for which this country is famous, are all the produce of the lower parts of the Kasia hills, growing only on the limestone strata. Arica of an inferior quality is indeed found all over Sylhet, but deteriorates in quality to the eastward, until in Kachar it wholly disappears. Among other fruits, the plaintain is peculiarly fine, but the mangoe is inferior, and is not found to improve to the eastward; the lemon is found wild in the Kasia hills, and the apricot and lichi in those of Kachar; and in general the vegetation exhibits so much variety, and there are so many

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new plants offering themselves, as we advance eastward, that this, with the similarity of climate to that of the southern parts of China, led to the inquiries originally commenced by the late Mr. Scott for the tea plant, which if it has not yet been discovered in a wild state so far to the westward, would probably succeed on some of the soils in the alluvial formations of Kachar or Tippera. Several cognate plants have been found, and genuine tea plants were raised in my garden from seeds in 1835.

China root (Rhubarb?) and lignum aloes are mentioned as the produce of Sylhet in the "Ayin Akhbari," but I never heard that either engaged the attention of the trader.

Land Tenures and Revenue.—The tenures in Sylhet being derived mostly from the Mahomedan government, are similar to those of Bengal generally; but the condition of the land, which is subdivided to an extent elsewhere unknown, excites the attention of every intelligent inquirer. The permanent settlement included Sylhet, and about that time there were I think 27,000 proprietors enrolled in the Collector's books, since when, in consequence of subdivisions which have been facilitated rather than checked by the law, the number has more than trebled, and a revenue of three and a half lacs is now collected from a hundred thousand proprietors. The only species of holding which seems unknown in Sylhet, is that of the village community, or Bhya chara, and this is the more remarkable, as something very like it still exists in Kachar and Assam, and there seems so much reason to believe that it attained over the whole of Sylhet, as a part of the ancient Kamrup; indeed I think it will be found that it is to the breaking up of these communities, by admitting the individual holders to engagements with the State direct, that we must attribute the origin of the extraordinary number of petty holdings in this district. Notwithstanding the existence of some tenures of a different character in Assam, the most ancient form in that country, apparently, by which land was held, was under a grant from the prince addressed to a body of proprietors, who by it were erected into a corporation, called a Raj, and who possessed the land on terms by which they were bound each for the other, and for the revenue of the whole estate. In Kachar this is unquestionable, and indeed up to a recent period no other form of tenure was known or acknowledged. The pecuniary wants of the late

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Rajahs led to the introduction among the Raj of titles borrowed from the Musalmans, such as Chrowdries, &c., but the ancient grants were directed only to the Bur Bhuyiah and Bhuyiah's, names which clearly refer to the soil (भूमि) though they are not current beyond these countries. In every Raj were certain classifications of the proprietors, made however without reference to the local positions of their estates, but according as they were charged with the payment of revenue to the prince direct, or to some one in whose favour he had made an assignment. These were called Khels, and the principal among them was the Khilmah, which paid to the Rajah, while all the others, as the Sang-jurai, Dekha-jurai, &c. after paying a fixed proportion only to the prince, accounted for the balance to the Ranni, to the Jub Raj, or other holder of the assignment. The local administration and execution of the prince's orders were anciently intrusted to the Raj, subject only to an appeal to the Raja, and they had the power to settle land on terms similar to those by which they themselves held, transacting business in periodical meetings.

I cannot detail the steps by which the power, consequence, and very nature of these corporations were destroyed; but content myself with observing, that there is unquestionable evidence of the state of things I have described still extant in the country, while it is certain that the late Raja completed their subversion, and left to the Rajes nothing valuable but the name, by assessing each landholder according to the full extent of his cultivation, abolishing all local jurisdiction and authority, whether in judicial or fiscal matters, and reducing all the proprietors to a footing of equality; though he still most inconsistently held them responsible collectively for the revenue of their Khels, making over the estates of defaulters to their management after they had in effect ceased to be a corporate body.

Under every change the proprietors still retained their hereditary right in the soil, and the locality of each holding was ascertained from time to time by measurement, as the shares and boundaries of individuals varied continually under the influence of the laws of inheritance, though the boundaries of the Raj remained unchanged, unless by a special grant made by the authority of the prince to a new corporation out of the unoccupied waste. Much of the cultivation, at least since the decline of the kingdom from its former consequence, was performed on

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the smaller Taluks by the holders themselves, assisted by their families, but the larger proprietors leased their lands to Packhastyuts, retained some portion to be cultivated by their slaves, and assigned another to their hereditary Ryots, a class of people whose position was analogous to the Khudkhast Ryot on the one hand, and to that of agricultural slaves on the other; for while they had a right to cultivate at fixed rates, and could not be removed, they were at the same time not only answerable for the rent, but not at liberty to throw up their lands, or quit the property.

I have been thus prolix in describing the Kachar tenures, because I think that an interest attaches to them on account of their antiquity, and because to them I think the existing tenures in Assam and Sylhet may with truth be traced. I conclude that the land in the latter district while it formed a part of Kamrup, were held by Raj corporations precisely similar to those of Kachar; as the Mahomedan conquerors advanced, they altered the old state of things by admitting the members of the Raj to engage individually for the revenue; or still more frequently by making grants to Musalman chiefs and colonists, who soon found it their interest to compound with the ancient proprietors, and accept a portion only of the Raj land, in preference to having the whole thrown on their hands denuded of cultivators, who rather than remain on their hereditary estates in the reduced condition of Ryots, would emigrate to the eastward. The portions given up by the old occupants would consist of shares of each Taluk, not of a parcel under continuous boundaries; and hence probably arose the strange intermixture of the lands composing the estates of the leading proprietors in Sylhet, which are commonly found in numerous small parcels, at great distances from each other. Acquisitions made subsequently by purchase or inheritance, with the practice of allowing all lands belonging to one proprietor to be recorded in the Revenue Offices under one number, without reference to their locality, would of course in time swell the number of these isolations.

It had always been the custom to regulate all revenue demands on the land where the separate holdings were so very small, by a measurement made with more or less accuracy; and accordingly at the formation of the perpetual settlement in Sylhet a departure from the general rule by which such measurements were at the time prohibited, was sanctioned in

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that particular district. By the records of that survey, and consequent arrangements, it appears that only that portion of the district which was known to be occupied, and to which proprietory right distinctly attached, came under settlement, and though much of the land measured was recorded as *junglah;* recent surveys shew that there must have been vast tracts of waste, which were not included in the operations of that time. The cultivation of these wastes has given rise to a legal question, which has employed the talents, and engaged the attention of some of the ablest civilians of our day. It is well known that by the provisions of the permanent settlement, the right of government to derive an increase of revenue from an extention of cultivation on the estates then settled, was declared to be given up for ever, and it was even added, that the advantage of this declaration should be conceded to those whose lands had been withheld from assessment by fraud, collusion, or mistake. But wastes which at the time of the settlement were not included within the known boundaries of any estate, could not by any possibility be contemplated in this arrangement; and as it was known by general inquiries, which have since been confirmed by actual measurement, that the quantity of land under cultivation in Sylhet far exceeded the total on which the settlement had been concluded, it was quite clear that an acquisition had been made from the waste to which the government right for revenue would apply. Such lands have been called *Halabadee*, and have formed the subject of a most voluminous and intricate correspondence among the revenue officers for many years.

The right of government to revenue from lands which have been reclaimed from the waste, and not included under the settlement, is admitted by all who have made themselves acquainted with the subject, but the difficulty is, to distinguish such lands; and its possibility is by some authorities wholly denied. On the part of the government it is urged, that documents founded on the old survey are still in existence shewing the superficial contents of each estate at the time of settlement, and that if on a measurement a Taluk is now found to contain more land than the gross amount *(abadee* and *junglah)* for which it was assessed, there can be no doubt that the excess has been derived from the waste, and indeed it does not appear, primâ facie, that it could well be derived from any other source.

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On the other side it is answered, that the documents alluded to cannot be relied on, and that even if they were worthy of more credit than can be conceded to them, still it would seem a good argument against a demand for increase of "jumma," if the Talukdar were to urge that the total quantity of land in his estate was put down originally too small, either in consequence of "fraud, collusion, or mistake." To this it has been rejoined, that there is of course no intention to deny the validity of such an objection in every case when it shall be satisfactorily established by evidence; and the parties seem thus to be at issue on the point, whether the revenue officers having shown that there is an excess of land, it rests with the Talukdar to prove that this excess was within his original boundary, or with the government to go one step further, and shew by additional proof that it was acquired from the waste.

In the course of this inquiry some documentary evidence was brought to light, calculated to facilitate the latter course of proceeding very much. This was contained in certain records prepared soon after the settlement, and shewing the boundaries, locality, and estimated extent of the waste lands which had been reserved from the settlement. These papers were very incomplete, and did not include the whole of the wastes; but on a measurement of the lands indicated by them, a very considerable quantity of cultivation was elicited, upon which the claim for revenue was admitted, and a much larger quantity on which it was nearly certain it could be established. I have had no opportunity of learning the result of these inquiries, having been removed from the district before they were completed.

The revenue of Kachar was derived, at the time of its acquisition by us, from a land tax levied at a rate much higher than that of Sylhet, from customs levied on all the frontiers at most extravagant rates, from a sort of excise taken at all Bazars, from monopolies of every thing valuable in trade, as ivory, timber, &c. and from a house tax on the inhabitants of the mountains. The first steps taken for the reform of this department were, the abolition of all monopolies, the removal of all prohibition on exports and imports, the abolition of the excise, and the reduction of duties in the external trade. The immediate results were, an increase of trade, the customs on which, though levied at very reduced rates, yielded a far larger amount than

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under the old system was obtained from the whole of the Sayer Mahal, and I think this branch of revenue quadrupled itself in five years, thus affording another verification of the principle in finance,—that low duties by encouraging consumption, will be found more productive than high ones, which on the contrary check it.

The sources of revenue in Jynta were very dissimilar to those of Kachar, as the Raja of that country having acquired the plains by conquest, appears to have abrogated the hereditary rights of the land-holders, and to have allowed none to hold except on terms annually granted or renewed at his pleasure, and which were very various. The plains of Jynta were probably conquered from Sylhet since the days of Akbar, one of the Mahus in the "Ayin Akhbari" being called Chyntar, which may well be a mistranscription, the Persian letter چ having been mistaken for ج.

History and people.—My notices of the history and people of these countries will necessarily be brief, as I do not propose to record the story of their petty dissensions and change of governors, but rather to collect and point attention to such facts whether derived from tradition or otherwise, as may throw light on the origin and migrations of the races which inhabit them, and this the more especially, as I am not aware that in so doing, I shall suppress any thing of real interest.

Kacharis.—According to records preserved among the family of the last princes of Kachar (which however are but traditions reduced to writing) the Kacharis conquered the kingdom of Kamrūp, and gave to it a succession of Rajas from whom the late royal family of Kachar, of the line of Ha-tsung-tsa, derive their descent. The term Kachari is of modern date, the proper name by which that people call themselves being Rangtsa, and the country from which they trace their origin being situated in the north-east of Assam.

It is known that Kamrup extended anciently to the southward as far as the confluence of the Megna with the Brahmaputra; and the Kacharis appear to have established themselves in the countries east of that line, including Assam, Sylhet, Tippera, and modern Kachar, or Hirumbha, in all of which, except Sylhet, they are found as a distinct people differing in appearance, religion, and customs from the other inhabitants.

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The Ha-tsung-tsa family was expelled from Kamrup by the Rajas of Kooch Behar, and being driven* into Hirumbha maintained themselves in a reduced but independent form until the time of Raja Gobindchundra, who after many vicissitudes of fortune, became in 1824 a British tributary, and being murdered in 1830, and leaving no blood relations, terminated the line.

The people of Tippera are said to have the same origin with the Kacharis, and the similarity of religion, customs, and appearance, makes this probable. It may be added, that the Rajas of both countries have formerly acknowledged the connexion; the Tippera family being described as a younger branch of the ancient royal family, which in their expulsion from Kamrup established itself independently in the country which it formerly held as an appendage.

The dates of these transactions cannot be traced, but the Assam Baranjis state, that at the commencement of the Ahom dynasty in upper Assam, in the 12th century, the Kooch Behar princes had possession of Kamrup, from which, as well as from the date of the first Mahomedan expedition into Kamrup (in 1204) it may be concluded that the subversion of the Kachar dynasty considerably preceded that era, and that the assertion made by the Kachar chiefs, that their ancestors conquered Assam about one thousand years ago, is tolerably correct.

The existence in Kachar, even in these days, of many poor and proud families who disdain to labour for their subsistence, and look to official employment alone as a becoming source of livelihood, the number of offices, and their nature, so inconsistent with the poverty and insignificance of the late petty Court, are among the circumstances which attest the credibility of the story of former power, and taken with traditions current in these countries, entitle the pretensions of the Kacharis to a degree of credit, which they would not otherwise deserve.

The Kachari language is unwritten, having been superseded for all purposes of business by the Bengali for many centuries, and this circumstance greatly increases the difficulty of all attempts to trace the

* The tradition is, that the invaders from Kooch Behar were preceded by Brahmans mounted on cows, against whom the Kacharis either could not, or dare not, oppose themselves; but this is obviously a Hindu fiction.

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origin of the people through that medium. Greater probability of success offers through a careful examination of their religion and customs, on which points my inquiries will, I think, be found not to be without use. Although Brahmanism professes to receive no converts, yet great efforts have been made to bring within the pale of Hinduism both the Kacharis, the Munipories, and most of the tribes to the eastward. It is matter of history that Brahmanism had no root in Assam earlier than the middle of the 16th century, though it has since attained to such power as to shake the throne of that country. In Munipore its progress has been still more recent, but in Kachar Proper, or Hirumbha, the process of conversion has been going on before our eyes, and actually commenced within the last fifty years. The father and uncle of the two last Rajas professed the old religion, and did not conform to Brahmanism; but Krishna and Gobindchundra, about the year 1790 A. D., were both placed, with certain ceremonies, in the body of a large copper image of a cow, and thence produced by Bengali Brahmins as reclaimed Hindus to an admiring people. Place was assigned them as Chhettry of the Suraj Bungsi tribe, and numbers of their followers, after their example, were admitted to caste, and are called Hindus; but still greater numbers were infinitely disgusted at the whole procedure, and there can be little doubt that the divisions to which it gave rise, and the injudicious persecutions by which it was followed, were at the root of all the misfortunes by which the country was soon visited.

The ancient religion of Kachar is not clearly referable to any of the forms existing in Eastern Asia, and certainly not to any of the Hindu systems, as will appear by the following account. The Kacharis acknowledge a Supreme Being, or first principle, from which the world and all that it contains is derived. They worship the manifest powers of nature, or rather spirits having authority over them, and the influences of the seasons.

No superstitious regard is paid to animal life, and even the cow was not anciently held sacred.

There is no class set apart for the priesthood, neither do any take upon themselves exclusively sacerdotal functions; but these are performed by the elders in families, and by the ministers of state, and high public functionaries, on great public occasions. There was how-

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ever one officer who had charge of the series of ceremonies performed in the spring of the year, but his duty was abolished by the jealousy or bigotry of the late Rajas. Among their superstitions, it is the practice to perform sacrifice before a bamboo planted in the ground, and into which it is maintained the Power worshipped enters, on being duly propitiated, and causes the boughs to bend in token of his approbation. This custom is common also to the Tipperas.

The indifference shown for animal life, and the absence of an established and hereditary priesthood, mark sufficiently the disconnexion with Hinduism, and the disregard for caste may be taken as an additional proof of this; for though the people are divided into forty Sympongs, these are only so many social distinctions, or tribes, and they are not prohibited from intermarrying or eating together, which they accordingly frequently do. All these circumstances considered, it will be found that this superstition more resembles the system of Confucius than any thing Indian.

The law of inheritance appears to be, that all property descends in equal shares among the male children, and afterwards, in the natural order of succession, to the brothers and brothers issue; but as the leading men formerly made no acquisitions in land (for the Kachari cultivation is carried on by the inferior classes in a species of co-parcenary) the subject has not given rise to much investigation. Marriages seem to have been contracted spontaneously, without the direct intervention of friends, but polygamy was allowed, and by the richer classes indulged in to a great extent. The marriage of widows was sanctioned, though not encouraged, and in order to escape the scandal of such connexions, it seems to have been usual for widows, at least among the higher ranks, to reside in the families of their deceased husband's brother, by which it has after happened that more scandal was created than it was intended to avoid.

Among peculiar customs, for which no reason appears, it seems to have been a rule that the Rajah should never reside in a building of masonry, but in bungalows surrounded by a stockaded enclosure, perhaps to remind him of his origin among the woods of upper Assam.

The worship of irascible female spirits, and the practice of the Tantra magic ascribed by the Hindus to the people of Kamrup, are imputations which derive some countenance from the existing worship of

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Ramchundi, the Thakoorain of Kachar, who is adored under the symbol of a sword, religiously preserved in the Rajbarri, and to the possession of which the most inexpressible importance is attached. It is worthy of remark, that no image of any thing having life is worshipped in Kachar, nor are there either in that country or Sylhet any remains of antique buildings, and especially of Hindu buildings, to attest the existence at an early date of a Hindu population. There is a footstep cut in the rock on the ridge east of Aquee, said by the people of both Kachar and Munipur to have been made by the gods as a boundary mark between the two states: this may be one of the numerous footsteps of Gautama, but there is obviously no certainty about its antiquity.

Kasias.—Among the aboriginal tribes, the Kasias, or more correctly (as they style themselves) the Khyee, attract the most attention, standing as much distinguished from their neighbours in personal appearance, and social and religious customs, as their country is different from others in geological structure and physical aspect. The Khyee are an athletic race of mountaineers, fond still of a martial appearance, and their reputation as warriors is hardly extinct, as their extensive feudatory inroads are still remembered in Sylhet and Assam, the plains of which countries they formerly laid under contribution very frequently. The religion of the Kasias does not assimilate with any of the known Indian systems, but is limited to certain superstitious practices (among which the augury seems to be in greatest esteem) and to the reverence for, and sacrifice to, the presiding deities of villages, hills, and similar localities, but does not comprehend the knowledge of a universal, all-pervading Intelligence, such as is acknowledged by the Kacharis, or the immortality of the soul. Brahmanism has made some progress among the Kasias, especially of Jynta, and some of the higher classes there have adopted Hindu practices, and obtained admission among the Sudra castes, but this has not led to the entire abandonment of their national superstitions, connected with which was the cruel abomination of human sacrifice, for being accessory to which the last Raja lost his throne and country.

The great peculiarity among the Khyee, and that by which perhaps their remote connexion with other tribes will be established, is the

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custom which prevails in regard to the descent of both personal and real property, and which holds equally of regal authority. By this all property and right passes to the eldest son of the nearest female relative in the descending line, or generally, to the son of the eldest sister of the holder. Whatever laxity may be observed in regard to other practices, and however some of the upper ranks may conform to the rules of caste, and desire admission among the Hindus, this custom is by all most tenaciously adhered to. They are further charged with the practice of polyandry, but however it may in reality be tolerated, the upper classes in general disclaim it, and it can be said to prevail only among the poorer sort, with whom too it would often seem to mean rather facility of divorce than the simultaneous admission of a plurality of husbands. It is possible, however, that unqualified polyandry existed formerly, and that it has fallen into disrepute since a more intimate connexion with the plains has sprung up.

The Khyee language is unwritten, and moreover exhibits no affinity with any of the languages of the neighbourhood, some of which, (numerous and diversified as they are), often offer indications of a common origin, but the point is of less importance, as among the rude mountain tribes great dissimilarity of language has been observed to exist, even where a common origin was nearly certain. There are no antique remains, or works of art, on which to build conjectures as to the condition of the people by whom the country was anciently occupied, for though there are several considerable rude stone columnar erections, yet there is nothing peculiar or artificial in their construction, and they are exceeded in magnitude and vastness of design by Stonehenge, and by the Masses seen in Mexico. No mechanical contrivances were employed in raising either these columns, or the circular slabs which are often met, but they were constructed by manual labor, some of them being of recent times. There is however a stone bridge of considerable dimensions in the Jynta mountains, the style of which is Saracenic, but it is quite possible the work may have been constructed by a Mussulman in the employment of the Raja at no very distant period. No great respect is paid by the Khyee to hereditary chiefs, though their rank is readily admitted, but their influence depends more on their personal character, and their power to guide the public

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assemblies, without which nothing is decided either among the community collectively, or the villages separately.

Destruction of human life, whether by accident or design, in open war or in secret, is always the cause of feud among the relations of the parties, which are terminated only by reprisals, or a compensation in money.

The equipment of a Khyee chief is martial and striking in appearance; a tunic of strong cloth, bordered by party colors, without sleeves, well adapted to muscular exertions, sits close to his body above the waist; an ample shield of buffaloe hide or brass is slung at his back, and leaves him at liberty to employ both his hands either with the bow, the javelin, or a powerful two-handed sword which hangs by his side. This sword is unique in kind, and more like the German or Swiss weapon than any thing Indian. The bow is of bamboo, and is fitted with a slip of the same substance in place of twine, as it never softens in rain, and is equally useful in all weathers. It is to the credit of the Khyee that though acquainted with the use of poisoned arrows they never employ them against their fellow men in war, but only in the chase against wild beasts. A series of destructive defeats during a protracted contest with the Government troops has not entirely destroyed the martial disposition of this people, who probably still retain the remembrance of those days in which their fathers pillaged both Sylhet and Assam.

Conjecture is lost in assigning a probable origin to the Khyees. Segregated strictly in a tract of country as different from the neighbourhood as they themselves are from the other tribes, they seem to owe the retention of their independence entirely to their personal qualities, as their mountains are by no means difficult of access. I am quite sensible that verbal analogy affords but a slight foundation on which to build an hypothesis, but I may nevertheless mention, that a people resembling the Khyee in some particulars formerly occupied a position on the south bank of the Brahmaputra at Measpara, where they were called Mek; they were known to have come originally from the frontiers of Butan and Nipal; the Khyee are called Mike by the Kacharis, and their customs in regard to marriage assimilate to those of Butan. The theory which would assign a western origin to the Khyee is countenanced by their appearance, and especially by the absence in them of

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those peculiarities about the eye which stamp the tribes of Indo-Chinese origin.

Nagas.—The Nagas are found in all the tracts east of the Kupili River, as far as the country of the Khamtis, much of which is unexplored. This generic name seems to have been applied to them by the Hindus of the plain, with reference either to their scanty clothing, or more probably to their residence in the mountains, but is not acknowledged among themselves or the other hill tribes, among whom they call themselves "Kwaphee." They are associated commonly with the Kukis or Koonjye, from whom however they are essentially distinct in customs, and personal appearance. The Nagas though often powerful men, yet do not commonly display those marks from which great strength may be inferred. Their limbs have not the massive configuration of the Kukis and other hill men. It is a distinguishing particular of the Naga tribes that they are not a migratory or wandering people, and while the hill Kacharis and Kukis continually change their locations, seldom keeping their villages more than three years in one spot, the Nagas remain fixed, and their insignificant villages, which appear in one of Rennell's early Maps, are to be found still as they stood in 1764. Again, the Nagas are remarkable as using no weapons but the javelin and dao, a sort of bill common to the Birmas, Shans, and most of the hill tribes except the Kasias; and they have no prejudices on the score of food, eating every thing indiscriminately, as well that flesh which has been slain for food as that which has not. In common with the Kukis and Garrows however they abstain strictly from milk, butter, or ghee, looking on the use of them with great aversion. The religion of both tribes is limited to a few superstitious practices, differing among themselves, but presenting nothing from which their origin or connexion with other tribes is to be inferred.

Kukis.—The Kukis have long been notorious for their attacks on the peaceable inhabitants of the plains, to whom along the Sylhet and Kachar frontier they have at times been very troublesome. In addition to the javelin they employ bows and poisoned arrows, a practice perhaps suggested by their contests with the larger animals, as elephants and tigers, with which their forests abound. The object of their inroads on the plains is not plunder, for which they have never

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been known to shew any desire, but they kill and carry away the heads of as many human beings as they can seize, and have been known in one night to carry off fifty. These are used in certain ceremonies performed at the funerals of the chiefs, and it is always after the death of one of their Rajas that their incursions occur.

The proper limits of the Kukis are undefined, but they never seem to have stretched northward of Chattrchura peak, and Kukitunga on the frontier of Sylhet, nor above Soor and Tungtching in Kachar. The villages at Abong in Upper Kachar are exceptions, but they are well known to have been settled by Raja Krishnachundra with Kukis from the southward, who had sought his protection. The Kukis have been accused of cannibalism, and I am aware of an instance in which the charge seemed substantiated, but they disclaim the imputation with much vehemence, and I have seen no reason to think that the practice is frequent among them.

People of Sylhet.—The inhabitants of Sylhet are Bengalis, and not distinguishable from that race in the districts to the westward. On a closer examination, however, it will be observed that the lower classes, especially the inferior castes of Hindu cultivators, bear marks of their indigenous origin, and a striking difference may be remarked between their features and those of the Musulman descendants of the colonists by whom the country was gradually conquered. The few families of any consideration in the district are known to be of Hindustani or Persian origin, and these are the most respected, thongh they have been superseded of late years by one or two considerable Hindu houses, which have acquired fortune and consequence in our service. There are also some Musulman families, descendants of chiefs or Rajas under the Kamrup dynasty, who were forced to conform to Mahomedanism on the change of masters; of these the principal is that of the Baniachuny Raja, whose ancestor was probably the party conquered by Esau Afghan, in the reign of Akhbar, when "the kutbeh was read, and the coin struck in the Bhatta country," according to Abul Fuzil. It must have been a Raja of the same family also who was attacked in 1254 A. D. by Mulic Yuzbeg, the Governor of Bengal, who afterwards lost his life in Southern Assam, or rather in the mountains between Assam and Sylhet. The family though converted to Mahomedanism has always retained the title

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of Raja: it is fast going to ruin under the joint influence of the laws of inheritance and improvident habits.

It is impossible (and if possible would be tedious) to trace the steps by which the progressive conquest of this part of Kamrup was effected, but some of the principal may, I think, be satisfactorily established, and will be found worthy of attention. The earliest Mahomedan invasion is that of Mahomed Bukhtiyar, who is said to have penetrated through Kamrup into Thibet in A. D. 1205-6; and as I think his expedition, though unsuccessful, called forth a display of energy and talent calculated to excite our admiration of these early adventurers, I shall offer no apology for attempting to elucidate it.

Mahomed Bukhtiyar was the Governor of Behar, and in 1203 A. D. entered Bengal, and having rapidly overcome that country, he immediately turned his forces against Kamrup, which appears to have been then a powerful kingdom, and worthy of his arms. The accounts of his expedition, left us by Mahomedan writers, state that he proceeded from Dacca, opening for himself a road along the banks of the Luckia; that he marched under the guidance of a hill chief, of the tribe called Koonch, whom he had converted to Islamism; that they reached a mighty river "three times as wide as the Ganges" called the Bangmuttee, on which stood a city called Burdehund, which he captured; that after marching ten days along the banks of this river, they entered the defiles of the mountains, having passed which, they crossed the river (Brahmaputra ?) by a stone bridge of twenty-two arches, after which the Raja of Kamrup submitted. He then moved into the Butan mountains, and reached the plains of Thibet, where his army was so roughly handled in a battle with the people of the country, and alarmed by an expected attack from the chief of a city called Kerrimpatan, which was governed by a Christian, having under him a Butia population with Brahman officers, that they retreated, and finding the bridge broken down by the Kamrup Raja, who now harassed them in every way, they returned, utterly discomforted with the loss of the greater part of their number, to Bengal, where Mahomed Bukhtiyar died of grief and vexation. I must own the latter part of this narrative is quite inexplicable on any hypothesis, except that of the fancy of the writers, or their desire to account for a defeat which was most likely the consequence of disease and privation. But the

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first part admits of some explanations, calculated to remove apparent inconsistencies, and to render the story up to the passage of the bridge sufficiently credible. The points which demand elucidation are, the locality of the Bangmuttee and its extraordinary size; the stone bridge of twenty-two arches; and the name of the river over which it was thrown. In the narrative three hill tribes are mentioned, the Koonch, the Mikah, and the Nadera; the Koonch it has been supposed are the people of Kooch Bahar, but however this may be, there is no difficulty about the Mikah, that being the name by which the Kasias at this day are known among the Kacharis; and *Mikedeetah* being the title of an officer who had charge of the frontier with that people, and such of them as occasionally took up their residence within the Kachar jurisdiction; and as it is expressly stated that the Mahomedan army *crossed the mountains, before* they reached the bridge, and before the Raja submitted, I conclude, that they entered Lower Assam, not by Goalpara, but by the Kasia or Kachar mountains. The river, three times as wide as the Ganges, could not have been the Brahmaputra, both because Mahomedan writers shew themselves acquainted with that river, and because no one who had seen the rivers about Dacca, could ever fancy the Brahmaputra above the Luckia to be even wider than the Ganges; but to reach the Kasia Hills, they must have marched along the edge of the inundation in the Bhatta country, most likely before the waters had much abated, and they mistook that for a river.

No river called Bangmuttee (burster of earth) is now known in the north-east parts of Bengal, but there is a place called Bangha, which derives its name, without question, from its position at the fork of the Soorma and Kusiara rivers, where the latter *bursts* from the former and rushes towards the Bhatta country. It should here too be remarked, that Bhangh (ভাঙ্গ) means to walk through water or mud, as well as to burst or break, and the expression therefore is applicable to the inundation. As the guide was called Ali Mikah, I conclude that he was a Kasia, and led the army over his native mountains to some point on the Burrampootah, where a temporary bridge, composed of timber, supported on pieces of rough stone, might be erected, and where the breadth would not be so great, but that in the dry season twenty-two arches might suffice for the passage over the actual stream.

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If any doubt should still be entertained, that the first Mahomedan expeditions into Kamrup and Assam passed through the mountains north of Sylhet, I may mention, that in 1256 A. D. Malec Yusbeg, who had invaded Kamrup from Bengal, was killed while retreating "across the mountains;" and that between 1489 and 1499 Ala-Udin, having "*first overrun Assam,*" proceeded westward to the conquest of Kamrup, which course is impossible on any other supposition, than that he entered Assam by the way either of Hirumbah or Sylhet, most likely the former.

Mahomed Bukhtiyar's army consisted of ten thousand men, chiefly Tartar cavalry, and that he was able to subsist them, proves that the countries through which he passed must have been well cultivated; but when we reflect that this expedition was made before the invention of fire-arms, and that the invaders had therefore no advantage over the people of the country in regard to their weapons, while the country is in no part favourable for cavalry, we cannot but feel our respect for the skill, energy, and enterprize of the early Mahomedan conquerors of India considerably elevated.

The condition of Sylhet, as noticed in the Ayin Akhbari, with the fact formerly noticed, that the Bhatta country was only recently conquered, proves that in the time of Akhbar, the district had not acquired above one half of its present dimensions, and this supposition is confirmed by Sunnuds bearing date in the 15th and 16th centuries, shewing that adventurers were encouraged to make war upon "the infidels" on the frontier, and that lands were granted, of which they were to obtain possession by force. The town of Sylhet existed in the time of Akhbar, and as this is known to date from the Mosque built over the tomb of Sha Gelaal, its patron saint, who conquered it from a native Raja, we may assume, that the current tradition, which assigns its erection to the middle of the 13th century, is correct.

The first appearance of the English power occurs in 1762, when a detachment of five companies of Sipahis under the direction of Mr. H. Verelst marched from Chittagong under the Tippera Hills through the southern part of Sylhet into Kachar, where they remained nearly a year, encamping at Kaspur, then the capital and residence of Raja Hurrishchunder. After a lapse of seventy years the object of this

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march had been forgotten, except by a few old persons, who stated that it was for the conquest of Manipur, and this statement has proved to be correct, the researches of Captain Pemberton having elicited the original treaty concluded with the chief of Chittagong, under which it was agreed that the Raja Jy Sinh of Manipur, who had been expelled by the Burmans, should be restored by us on certain conditions, chiefly of a commercial nature. The expedition was prevented by the difficulty of the country from proceeding beyond Kaspur, and was recalled to assist in the war against Kasim Ali Khan.

In 1774 a detachment under Major Henniker was employed against the Raja of Jynta, whose country was conquered, but restored on payment of a fine. The cause of this collision is supposed to have been connected with the marauding habits to which the Kasias were then addicted, and which had not yet been suppressed.

There is but one point of general interest untouched, upon which I wish to offer a few words before concluding this very long paper. Slavery has always existed in these countries, and the number of persons in that unhappy condition is very large. In former days there is no doubt great atrocities were committed in regard to this matter, whole families of hill people being sometimes carried off openly, sometimes kidnapped, and sometimes brought under the pressure of famine, an evil of frequent occurrence among the hills. Even in our days a regular traffic was carried on in slaves, numbers being annually exported from Kachar to Aracan through the British territories. This was brought to the notice of the Civil authorities some years ago, and effectually checked for the future; but the law still permits domestic or local slavery, though it prohibits exportation, and while the hill people continue to make war on each other, and to sell their children in times of scarcity, perhaps it is only a wise discretion, which allows the existence of this great moral blot on society. But apart from legislative provisions, there is a course by which the evil might be gradually eradicated, while prodigious benefit in another shape, would at the same time be conferred on all the countries in which it exists. This is the formation of an establishment for the purchase and manumission of slaves, more especially of children, which are often sold at very low prices. These well brought up, and instructed in the useful arts as husbandmen and artizans, would in a few years become

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the means of operating a great improvement in the social condition of the people among whom they would spread, and to whom they would offer the sort of information which is required to elevate them in the scale of civilization, by the example of superior morality, intelligence, and well directed industry, which they might be expected to exhibit.

The number of people in all these districts is on the increase, in a country where every thing tends to encourage increase, and where the checks, both positive and moral, are as entirely absent as they appear to be in China. The census* taken in 1820, shewed the inhabitants of Sylhet had more than doubled since 1801, and if little dependance can be placed on the accuracy of these returns, enough is known from other sources to warrant the belief of an enormous increase. The quantity of land brought into cultivation, and the creation of new estates by the subdivision of the old ones, are among the most unquestionable proofs of this assertion.

Whatever doubts may be entertained, reasonably or otherwise, of the advantages resulting to India from the rule of Britain, I cannot omit to record my humble testimony to its value in this quarter, or to state my belief that as in no other parts which I have visited, has that rule been more manifestly exerted for the good of the people, so in no other has it called forth more unequivocal marks of loyalty, attachment, and confidence; and far off may the day be, when these shall abate. In proof of this, I may notice the behaviour of the people during the invasion of Kachar in 1824, by the Burmans, when they advanced to the very frontier of Sylhet without in any way affecting its tranquillity. But in a more trying emergency, when the British troops were withdrawn for the protection of Dacca, the people of Sylhet not only remained loyal, but an offer was actually made by some influential men to raise a levy *en masse* with which to oppose the enemy, and a small force was actually embodied, the men of which, by their local knowledge and endurance of climate, proved of considerable use. The readiness with which these took service at such a time, must be laid to the account of some deeper feeling than ordinary (for their homes were on the very frontier),

* In 1801 number of persons, 492,945. In 1820, number of persons 1,083,720.

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and that unquestionably was the dread of the devastation which accompanied the Burmese advance; but if the existing Government had been unpopular, all would have been at least indifferent at a change of masters, and some certainly would have intrigued with the enemy. But nothing of the kind occurred, and I even succeeded in inducing some who had been released, after falling into the enemy's hands, to return and act as spies on our behalf, at the risk of every thing which a Hindu (and these were Brahmuns) values more than life.

On the other hand, many of the inhabitants of Kachar disgusted and worn out by the oppressions of their native chiefs, did coalesce with the Burmans, thereby proving that their dread of that sanguinary people could be overcome by their sense of the intolerable character of the Government under which they were groaning, and that they had reached a point in endurance, at which any change appeared for the better.

Memorandum on the Silk Trade between Shikarpore and Khorassan, and on the produce of Indigo in Sinde. By Lieut. J. POSTANS, *Assistant Political Agent, Upper Sinde.*

The importation of raw silk from the north-west to Shikarpore is one of the most important branches of the import trade from that direction; the article appears to be of a superior description, and as I am not aware of its being known in the Bombay market, I have collected the following particulars to accompany samples.

The following are the descriptions of the raw silk, with the prices of each in the Shikarpore Bazar, import duty paid (at one rupee six annas per maund).

No. 1. "*Kokanee,*" from Bokhara (produced in Toorkistan) price 10* Shikarpore rupees per *assar.*

No. 2. "*Toonee,*" from Kerat (produced in Toorkistan) 13 Rs. 12 annas per *assar.*

* Silk raw and in thread, prepared, is weighed at the rate of 90¼ Shikarpore rupees, or 1 assar, or 88 Company's rupees last coinage. The Shikarpore rupee at present is worth 94¼ Company's per 100 Shikarpore, or 5¼ per cent in favour of the former.

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No. 3. "*Shal bafee,*" from Kerat (produced in Toorkistan) 15 Rs. 10 annas per *assar.*

„ 4. "*Nawabee,*" from Bokhara, do. 14 Rs. 12 annas per *assar.*

„ 5. "*Gheelanee,*" from Kermare and Fezed, do. 9 Rs. per *assar.*

„ 6. "*Kaloocheer,*" from Kerat do. 9 Rs. per *assar.*

The value of annual imports may be about 50,000 rupees, and the route is through the great pass of the Bolan; the traders are principally Affghauns, who visit Shikarpore with the annual Kaffillas from October to March, though much of the article is purchased by the Hindoo agents of the Shikarpore sowcars, who are to be found in all the important cities and marts of the north-west, (see Sir A. Burnes' report on the trade of Shikarpore.)

Nos. 1, 2, 5, 6 of the raw silks above enumerated, are prepared for weaving, and dyed at Shikarpore. The *Shal bafee* and *Nawabee,* Nos. 3 and 4, are manufactured at Roree, on the opposite bank of the Indus, into a silk fabric, known as "*Duryaee,*" value at Roree, 7 annas per guz. The silk thread prepared at Shikarpore, and hereafter enumerated, principally finds a market at Khyrpore, Sukkur, Roree, Larkhana, Gundava, Bagh in Cutchee, and towards Lower Scindh, as far as Sehwan and Ṭattah, where it is manufactured into "*Loonghis*" of various descriptions, "*Gul-budduns,*" and other fabrics used in the country. The raw material, or prepared thread, does not appear to enter into the export trade of Shikarpore, with the marts of the neighbouring countries.

List of prepared silk threads from the raw "*Kokanee.*"

No. 1. "*Pestakee,*" yellow, Gooljuleel, (Mettilat) dye, price 20 Rs. per *assar.*

„ 2. "*Chumunee,*" light green, mixture of Indigo with the above; 20 Rs. per do.

„ 3. "*Subz,*" dark green do do. do., 20 Rs. per do.

„ 4. "*Soormar,*" Indigo do. 20. Rs. per do.

„ 5. "*Koombar,*" orange, Koomba (safflower) dye do. 28 Rs. per do.

„ 6. "*Tillar,*" deep yellow (light gold) Koombeera? dye do. 16 do.

„ 7. "*Koormis,*" cochineal dye, crimson, do. 21 Rs. 12 annas per do.

„ 8. "*Ucho*" white, undyed do. 20 Rs. do.

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List of prepared thread from the raw "*Toonee*".

1.	*Pistakee*,	Same dyes
2.	*Chumunee*,	used as the
3.	*Subz*,	above, price
4.	*Ashmanee* (light blue Indigo)	24 Rs. per
5.	*Achoo*,	assar.

6. Three shades of cochineal, Rs. 26-12 per seer.

The raw silks "*Gheilanee*" and "*Kuloochur*," are not in any general use, "*Kokanee*" and "*Toonee*," being the principal importations, and the most in use.

The expense of transmitting goods from Shikarpore to the sea, by water carriage, may be easily ascertained, as certain rates have been established by the British Government for freight by packet boats; thus, from Sukkur to Kurrachee Buncher, one Company's rupee per maund dead weight, or one rupee per cubic foot for light goods. The expense of transport from Shikarpore to Sukkur by the Scindh Canal, is ¼ rupee per maund, or 2 Rs. per camel, carrying 5 maunds; the export town duties to be paid at Shikarpore. Export duties again at Kurrachee on raw silk would be thus—

1st. Duties on purchasing in the bazar, and clearing the town of Shikarpore, as far as the *Scindh* Canal—Shikarpore rupees 16: 4: 0 per maund.

2nd. Export duty at Kurrachee about 5 Rs. per cent.

A calculation from the above may be pretty accurately formed of the price at which the article would come into the Bombay market; and as it will hereafter be to the interests of the native governments to modify many of the imports which may at present be considered vexatious and offensive upon trade, silk and other commodities from the north-west may, with the advantage of water carriage from Shikarpore to the presidency, enter considerably into the market of Bombay by the route of the Indus.

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Memorandum on Indigo.

The important article of Indigo, for the production of which the Punjaub and countries bordering the Indus would appear to possess equal advantages with Bengal and the Delta of the Ganges, cannot fail to attract considerable attention, in connection with the trade of the former river, and will in all probability enter considerably into the return commodities to be looked for from those countries. The following is the amount of last year's crops for the Punjaub, Bhawulpore, and Khyrpore territories, with the present prices, on the spot, of the different descriptions.

In the *Punjaub* estimated quantity 17,700 maunds; thus produced—

Districts.

1	Dera Ghazee Khan.	Mds.	3,000
2	Sooltan and Gungera.	,,	3,000
3	Gullioon, Jetepore, Noorshera, and Soonwall,	,,	3,500
4	Canals of Sirdarwar and Bahwalwar.	,,	1,200
5	Mooltan and its districts.	,,	5,000
6	Soonadur Mahamad Kot Luwah Bukhur. ...	,,	2,000

In the Bhawulpore territories, 4,000

Districts.

1	Khanpore.	,,	3,000
2	Ahmedpore.	,,	1,000

In the Khyrpore territories, 2,000

Districts.

1	Meer Mobarick.	,,	600
2	Meer Rustam.	,,	300
3	Meer Alli Morad.	,,	900
4	Various places towards Hyderabad.	,,	200

The total may thus be estimated at about 24,000, of which three-fourths find a market in Khorassan, the remainder divided between the home consumption and exports to Muscat and Bombay.

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The following is a list of prices at the several places where the article is grown (duties unpaid) at Dera Ghazee Khan, a mixture of five descriptions of Indigo, known as

	Punjmal, ...	Rs.	45	per maund.
Punjaub.	No. 2	„	50	„
	„ 3	„	52	„
	„ 4	„	55	„
	„ 5 (best quality)	„	60	„
	„ 6	„	54	„
Bhawulpore.	„ 1	„	56	„
	„ 2	„	58	„
Khyrpore.	„ 1	„	57	„
	„ 2	„	58	„
	„ 3	„	60	„
	„ 4	„	55	„
	„ 5	„	60*	„

Not having had the opportunity of inspecting the methods of cultivating and preparing the dye in these countries, I cannot offer any remarks or suggestions on their improvement, but there can be no doubt that there is plenty of room for the introduction of a superior system, as employed by the European growers of Bengal. One is evident, in the necessity of packing it in squares, and not in the present small pieces, whereby much waste appears to be occasioned.

The duties and expenses on the purchase and transmission of Indigo by the river Indus to Bombay may be thus estimated—

1st. In the Punjaub, a duty on the purchase and clearing, of Rs. 4 per maund.

2nd. In the Bhawulpore territories the duty amounts to † Rs. 3: 8: 0

* The maund differs according to the country. Indigo in the Shikarpore market is weighed by the maund of 40 assars, each assar being equal to Shikarpore Rs. 83, or Company's Rupees 79 in weight.

† One-fourth of all Indigo purchased in the territories of Bhawulkhan, is from the Government share of produce, on which a dûty of 10 Rs. per maund is levied, whilst the other three-fourths pay at the rate of 1 Rupee 8 annas per maund, making an average of about 3½ Rupees for the *whole*. (ex-gra;—Thus, of 20 maunds purchased, 5 would pay Rs. 50, and the remainder 22: 8: 0, or about 3½ Rs. for the whole.)

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3rd. In the Khyrpore territories the duty amounts to R. 1 : 2, per md.

4th. Independent of the above, the transit duties are thus—

In the Punjaub, at Mittun Kote, Rs. 46 : 4, per boat load.

In the Bhawulpore territories, Rs. 30 ditto

In the Khyrpore territories none. All transit duties on the river through the Hyderabad and Khyrpore territories are cancelled under a "Rahdaree Purwannah" from the British authorities.

The expenses of water carriage to Bombay is calculated by the dealers at about two Rupees per maund from Mooltan, and as the duties levied at the former place are known, an estimate may be formed of the price at which Indigo from the countries bordering on the Indus may be brought into the Bombay market. In Shikarpore this article does not enter largely into the trade, the consumption being only about 100 maunds annually; it passes through Shikarpore, however, in transit to Khorassan by the route of the Bolan pass, but the greater quantity before alluded to, finds its way to Cabul, Bokhara, &c. by the route of the Khybur, or the Daman pass; the latter through the agency of the Lohana traders and their Kaffillas.

On the Historical Geography of Hindustan, and the origin of the Social State among the Hindus. By Jas. Bird, *Esq.*

The state of India previous to the Mohammedan invasion, is a subject of perplexity; as the interested and fabulous narratives of sectaries present but a few isolated facts to guide us in forming an opinion of the original system of Hinduism, civil and religious.

Many, in conducting this investigation, have been more zealous in supporting the antiquity of the present Hindu social state, than in searching after historical truth; and, while unable to explain why the Sanscrit language enters so extensively into the provincial dialects, without granting that it was the primitive tongue, they have contended for the prevalent and unchangeable existence of Brahminical institutions.

In doing so they have overlooked the reasonable conclusion which, sanctioned by the well known revolutions of the world, admits the gradual advancement of Hinduism to its present perfection, and that it was a religion of proselytism little more than nine centuries ago. The known geographical distribution of tribes and nations tends to establish the just-

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ness of such an opinion; and the internal evidence of the Sanscrit authorities gives it additional confirmation.*

To suppose that the timid natives of India, who have been subdued by different conquerors, were not, in the early ages of Christianity, a prey to those northern barbarians who successively deluged Europe, seems so at variance with the events of history, that, but for some men's partiality to the antiquity of the present Hindu social state, this opinion could have never gained belief.† The Brahmans and their language were prior to the æra of Alexander's historians, but without the extensive dominion in India that they now enjoy. The far spread remains of the Buddhaist religion, and its sectaries called Jaina,‡ to be yet seen in the caves, temples, and monuments that extend from the neighbourhood of Balkh Bamian, on the N. W., to Mahabatipure, on the S. E., indicate the sovereignty of a faith in these parts, which was prior to the now prevailing Brahminical hierarchy.§

The inferences also to be drawn from the fact, that many tribes called Melchchas‖ in the institutes of Menu and the Puranas, are now within the pale of the orthodox creed, would further establish a progressive

* See Mr. H. Wilson's late account of the religious sects of the Hindus, and of those Samas, who, as worshippers of the sun, which they esteemed as the creator and cause of the world, were among the opponents of the famous Saiva reformer, Sankara Acharya, who flourished some time between the beginning of the 9th and end of the 10th century (A. R. vol. xvi. p. 15)

† Cosmas Indicopleustes, who visited India between A. D. 535 and 547, mentions a nation whiter than the rest, called the Hunni, who held sway over the west of India, and exacted large tributes from the surrounding states. (Murray's Asia, ii. p. 78.)

‡ These form a class of dissenters from the established, or orthodox system of Brahminism, which is now common to Hindustan. They admit of caste; will not allow the Vedas to be of Divine origin; do not, like the Brahmans, acknowledge any spiritual and eternal being from whom the universe derived its origin, but look on the material world with the human soul as self-existant and eternal, and have for their chief objects of worship, men, who, as saints, have raised themselves to the rank of divinities. Most of their theological opinions are similar to those of the Buddhaists and Sogatas, who do not admit of caste like the Jainas, but both worship, as subordinate deities, the Pantheon of the orthodox Hindus.

§ The cave temples of Buddhaist origin are by far more numerous on the N. W. of India than have been yet enumerated. In addition to the well known ones of Kanari, Elephanta, Karli, Ellora, and Ajainta, there are many more in the Dekhan and Konkan, such as those at Nasik, Junir, Aurungabad, Karrar, Mahar, &c.; in Malwa, and Rajputana, we find those of Bagh, and Gawalior; and I have heard of others in the Madras territories.

‖ A general appellation for the unclean tribes that are not within the pale of the Hindu religion; and who are usually styled degraded *Kshetryas*. This would seem to imply that they did not conform to the Brahminical rites when others of the same original stock did. The different divisions of them are to be found enumerated in Wilson's Sanscrit Dictionary. Some of those identified are the Odros, Urias, or people of Orissa; the Draviras, or people of Madura and Tanjore, on the Coromandel Coast, who are now orthodox Hindus.

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change of opinion, and the gradual conversion of the aborigines of India to the *present* established system of religion.*

Inasmuch, moreover, as the obscure subject of a nation's origin can admit of proof, when facts have been mistified through religious imposture, or the most recent annals perverted by fable, it may be reasonably contended for, that in the age of Herodotus, the Brahmans of India, the people of Persia, and those at the sources of the river Hydaspes, Sind, and Oxus, followed nearly the same faith, and were not dissimilar in manners.

It would appear that the religion they followed was the Sabean, or that which enjoining a respect for the host of heaven, as the noblest symbol of a deity, constituted the primitive idolatry of mankind.† It derived its name from the Sabeans, an ancient people of Arabia,‡ and was pro-

* Some of the *Puranas* are of very little antiquity, as would appear from the text of the *Padma Purana*, which makes mention of *Ramanuja*, the celebrated Vishnava reformer, who flourished in the middle of the 12th century, and was cotemporary with *Vishnu Verddhana*, the fourth Belal Raja of Devarasamudra (see A. R. xvi. p. 28.) From what the *Bakhta Mala*, (A. R. xvi. p. 43,) asserts of the sectaries from Ramanuja, called Ramanandis, according to whose tenets the distinction of caste was inadmissible, we may safely infer that formerly a member of any tribe who assumed the garb of a mendicant, and devoted himself to penance, would have gained admission to the Hindu community. If we may credit the narration of Sadi, as given at the end of his Bustan, he was permitted, as a mendicant, to perform Hindu rites at the temple of Somnat. This happened in the 13th century; and though he calls the Brahmans Moghs, or fire-worshippers, it is scarcely possible that one, so generally well informed as is Sadi, could have done so in ignorance, or without having observed some connecting link of similarity.

† In reference to this subject I cannot forbear quoting an opinion of Mr. Prinsep, expressed in his Journal for September 1834, the justness of which appears supported by the evidence of inscriptions in Western India, and of the coins which the late Secretary of the Asiatic Society so ingeniously and successfully illustrated. "It is not surprising," says he, "that on the Indian side of the Persian monarch's dominions, in a part probably under his influence, if not directly under his sway, we should find the fire-altar, or the image of the sun, replaced by Krishna among the Hindus, or Buddha among the Buddhaists; both of them personating the sun in their respective mythologies."

Whatever forms of the Hindu religion were prevalent at the time, the adoption of the sun as the ostensible representation of Divine power, either in accordance with the commands of the ruling prince, or from a natural tendency towards an union of the Brahminical and Magian faith, could not present many difficulties. "We must not be surprised," says Sir William Jones, "at finding that the characters of all the Pagan deities, male and female, melt into each other, and at last into one or two; for it seems a well-founded opinion, that the whole crowd of gods and goddesses in ancient Rome and modern Varanes (Benares), mean only the powers of nature, and *principally those of the sun*, expressed in a variety of ways, and by a multitude of fanciful names."

‡ The origin of the name is not clearly ascertained, but has been traced by some etymologists to the Arabic word Saba, signifying a rising star. The word صابحات *sabihat* in that language is also made to signify stars, planets, and angels; but I can assert nothing positive regarding the word Sabean.

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fessed, in common with them, by the Persians, previous to the reformation of their religion by Zertusht, or Zoroaster, who introduced the worship of fire. The esoteric system of Sabeism was, apparently a pure theism, whilst its exoteric rites led to a stupid idolatry among the lower orders of the people.* In this respect it observed a distinction that prevails even in the *Vedas*, which have their *Karma Kanda*, and *Gwyana Kanda*, a ritual and theology;† and would go far to establish an opinion, which has been entertained by many, that there is an identity in the astronomy and mythology of the ancient Arabs, Egyptians, and Hindus. Ferishta indeed tells us, that when Mohammed Kasim, the general of the Khalif Walid, invaded Sind, A. D. 711, the Hindu pilgrims resorted to Mekka and Egypt, for the purpose of paying adoration to the idols there, which they looked to with the utmost veneration;‡ and there is much to make us believe that such an intercourse existed prior to the mission of the Prophet Mohammed.

The Persians had, at a very early period, adopted the worship of the sun, fire, and other elements;§ the Scythian Massagetæ appear to have professed a similar faith,‖ and Mr. Colebrooke has admitted, "that the earliest Indian sect, of which we have any distinct knowledge, is that of the followers of the practical Vedas, who worshipped the sun, fire, and other elements."¶

Such are the data for concluding that about five centuries before our æra the inhabitants of these countries were connected in religion, and could not have widely differed in their habits, when, as Herodotus tells us, the inhabitants of Casapatyrus,** or Kashmir, most resembled the Bactrians in their manners.

The Brahmans consider Kashmir as their original country, and traditionally relate they were led from thence into the plains of Hindustan by their leader Kasyapa,†† whose character is well known to the Brahminical and Buddhaist mythology.

* See Sir Wm. Jones's discourse on the Arabs, A. R. ii. p. 9.

† Wilson on the Hindu Sects. A. R. xvi. p. ii.

‡ Brigg's Translation of Ferishta; vol. iv. p. 402.

§ Herodotus in Cho. p. 131, and Erskine on the Sacred Books of the Parsees. Bombay Transactions. vol. ii. p. 3061.

‖ Herodotus, p. 215.

¶ A. R. vol. ix. p. 273.

** It was so called among the Greeks, having been colonized by the followers of the sage Kasyapa, whose name in ordinary pronunciation, becomes Kashap, See A. R. vol. xv. p. 117.

†† He is the sixth terrestial Buddha among the Nepalese, and the predecessor of Gautama. The same enumeration of Buddhas as known in Nepal, is made by Mr. Colebrooke, in his account of the Jains. A. R. vol. ix. p. 303. Quarto.

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His name continued to distinguish a numerous tribe of the former, previous to the comparatively modern divisions of five *Gaurs* and five *Dravers;* or the yet more recent distinctions that obtain among them in different provinces of India. This general idea of their northern origin, which prevails among the better informed of the Brahminical sect, would appear in all respects worthy of belief; since there is evidence of such an event to be found in the traces of people belonging to the Hindu stock, migrating to the south. These are manifest in the names of countries enumerated by Sanscrit geographical works, that were originally affixed to stations north and south of the Himala mountains, and became applicable, in the course of time, to places in the south of India. Such was evidently the course by which the northern countries of Madra and Pandiya* transferred their names to the provinces of Madura and Marwar, on the Coromandel Coast; and by which Virata,† a part of the kingdom of Trigerta, or Lahore, came to be considered one of the seven *Konkanas* situated in the south.

It is unnecessary to inquire whether they, who carried these names southward, were of the purely Brahminical or Buddhaist faith; for it may be truly asserted, that both religions in their origin were connected, and that the greater antiquity is in favour of the Brahmans, or the orthodox followers of the *Vedas*. Such would appear to be the import of the passage, quoted from the institutes of Menu by Sir William Jones, that, "Many families of the military class having gradually abandoned the "ordinances of the *Vedas*, and the company of the Brahmans, lived in a "state of degradation; as the people of Paudraca and Odra, those of "Dravira and Camboja, the Yavanas and Sacas, the Paradas and Pahlavas, "the Chinas, and some other nations." From this we learn, that a great revolution, both in religion and in government, was effected about this time; and that these nations conforming no longer to the Sabean idolatry, which had been common to the east, adopted an altered system of religious

* The southern provinces of Madra or Madru and Pandiya are particularly mentioned in a grant of land (A. R. vol. ix. p. 428,) made during the time of *Rokshamalla Raja*, by the minister *Babakaja*, a descendant from Kasyapa. In the Hindu geographical work, called the *Shapte Sambheda*, and quoted by Mr. Ward (vol. iv. p. 456,) they are placed more to the north, and were originally the same as the *Pundda Regia* of the ancients, now identified with Sogdiana, or the valley of *Samarkand*. The date of the grant is Salivahana era 1095, A. D. 1173.

† Some account of Virata, as one of the Konkans, will be found in Mr. Wilson's account of the Mackenzie Collection (p. xcix,) and in Grant Duff's enumeration of the same, (Hist. of the Marahtas, vol. i. p. 4); it appears under the corrupted name of Marwar, extending from Bancote to Bassein, inclusive of Bombay. The Marahta traditions relate that *Virat Rai*, who was the Rajah of Wai, near Satara, accompanied the Pandus to the battle of Kuruket; which though doubtful as a fact, evinces that he received his title from the country of Virata, a political division of India, that was originally more to the north than Wai.

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belief. This consisted, as would appear, in the worship of *Mahat*, or intellect made manifest, as Gautama Buddha, with the introduction of an atheistical philosophy, which reasoning from material objects to the existence of spirit, confounded the shadow with the reality, and denied the existence of whatever was not cognizable by the senses. Some such difference in opinion brought about the Mahabarat, or great war in which the Pandus, with Krishna,* espoused the cause of the innovators, while *Dritarashtra* Raja and the Kurus held to the original faith. About this time, also, Viyasa collected and arranged the Vedas, which consisted originally of the prayers and hymns, or their *Sanhita*, that preceded, in Mr. Colebrooke's opinion, the *Bramhana*, or theological part.

The division of the people into four castes followed, if it was not contemporary with these innovations, and was effected about the period of the Macedonian conquest, if as we may infer from the respectful mention of the Yavana, or Greek power, in the Mahabharat, the composition of this poem dates posterior to the Macedonian conquest of India.† Some hold an opinion that the institution of caste, with its extravagant pretensions to antiquity, had been matured in Hindustan Proper long prior to the time of Alexander's historians. Those entertaining this belief have pretended to discover that the enumeration of classes made by Arrian is the exact counterpart of divisions now acknowledged by the Hindus. The probability of this cannot be granted without great latitude, and the seven classes of employment into which the Hindus were then distributed, as detailed by that writer, cannot be admitted to be identical with the now existing divisions of this people, into *Brahmans*, *Kshetriyas*, *Vaisiyas*, and *Shudras*. The former would have been found among the Egyptians, and were as characteristic of them as of the Hindus; whilst the other arrangement was effected, in all probability, about the time when the Sanscrit writers composed the earliest poetical works of the latter. If the Mahabharat, or poem of the great war, was composed soon after the Greek conquest, the reformation of orthodox Brahmanism would be placed not long before the Christian æra.‡ The Mahabharat may be then admitted

* Krishna's existence, as a real historical personage among the Hindus, is more than doubtful. He every where appears as the hero of fable, and whatever is believed regarding him, belongs to one whom the Hindus had heard of rather than known as a leader among themselves.

† See note v. on the history of Kashmir, A. R. vol. xv. p. 102.

‡ The Arab historian and geographer, Al-Masudi, who wrote A. D. 949, tells us that schism in the Hindu religion happened during the reign of Korish; and if his chronology for this event can be trusted, the origin of the Indian sectaries will be fixed at the commencement of our æra. Three hundred and twenty years elapsed, it is said, from the death of Phur (the Porus of Alexander's historians) to that of Korish; and if this be correct, the quarrel between the Buddhas and Brahmans happened B. C. 7.

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to contain historical materials of some value; and accounts of recent events, greatly exaggerated by allegorical references to ages long past, and to mysteries in religion, that were little remembered, or imperfectly understood. Such is, I think, the correct supposition, and from thence we may trace, as among other nations, the origin of fable, and the genealogy of their gods.

The Brahmans did not long follow the astronomical religion of the *Vedas* without speculating on the divine nature, and that of celestial spirits. They personified the elements and the planets as the types of that unapproachable God whom they worshipped; and as Mr. Colebrooke says, "peopled heaven and the world below with various orders of beings." Their wonder at contemplating the infinite glory of the heavens, made them vent their sentiments in allegory. Their allegories, leading them astray from the great First Cause, gave rise to varied existences of the divinity, and these yet farther distracting their attention from the unity of God's nature, led to a system of meditation and mysticism, in regard to spirit, of which the promised benefit was to obtain liberation from this life, and union with the great Eternal Cause. This, which was common to the East, existed alike among the ancient Arabs and the Hindus; and though some are inclined to believe that the Sufyism of the Mohammedans derived its origin from the Yoga, or abstraction of the latter, yet we may trace it to a more remote system of *Deism*, the Kaballa of the Jews.*

A few extracts from the Sanscrit authorities, will shew us that this view of a very obscure subject is strictly deducible from the order of opinions as there made apparent. The prayer of the Veda, called *Gayatri*, concludes with these words—"Let us meditate on the Divine Ruler, (Savitri;) may it guide our intellects. Desirous of food, we solicit the gift of the splendid sun, (Savitri) who should be studiously worshipped. Venerable men, guided by the understanding, salute the divine sun, (Savitri) with oblations and praise."† This bears evident traces of Sabeism; which are

* According to Selden, the Kaballa of the Jews was a belief in the doctrines of the traditional law, held in almost equal reverence with the written one. It treated of divine things, of the more abstruse parts of their faith, of angels, and various symbols. The appellation Kabala, קבלה in Hebrew, bears nearly the same interpretation as Kiblah قبلا in Arabic, signifying any thing that is before one, or the altar; and the Jews, by meditating on this, promised themselves a superior knowledge of celestial existences. The doctrines of this worship, combined with natural magic, became the foundation of what is believed by the Sufis, or followers of the truth. The authors of the middle ages, and the modern Greeks, who enumerate the different tribes situated west of the Indus, speak of those called *Hakak*, or those adoring the truth. These were free, and worshipped the sun and stars, as did the ancient Arabs. See dissertation on the travels of two Mohammedans. p. 176.

† Ward on the Hindus, vol. iv. p. 93.

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yet more distinctly marked in the hymn from the Sama Veda; where Brahma is characterized as the light of the moon, of the sun, of the fire, of the lightning, and all that shines.*

It may be well doubted if such a thing as Sabeism ever existed, without being mingled with that species of idolatry called *Pantheism;* and which teaches that the divine nature, penetrating every thing, makes itself known by its operations. Such, indeed, is the Sabeism of the Vedas; where the Supreme Being, in his works of creation, preservation, and destruction, is celebrated under the names of *Brahma*, *Vishnu*, and *Shiva*.

The founders of this system, reasoning on the nature of the deity, and the world's physical energies, disseminated their hypothesis on the origin of the universe; and thus founded the six philosophical schools, or Darshanas of the Hindus, that were, certainly in existence prior to the composition of the *Mahabharat*. Their names are the *Voishesika*, the *Niyaya*, the *Mimansa*, the *Sānkhya*, the *Patanjala*, and the *Vedanta*. This last, which is the school of Viyasa, who compiled the Vedas, is generally considered to be the most recent in its origin; but was, I think, the first in natural order and in practice; being a commentary on the theology of these books, written to support their somewhat ambiguous theism against the attacks of the Sankhya School, which had advocated Materialism. Its doctrines, which incline to pure Idealism, maintain that spirit is all in all, made manifest through its union with allusion, or gross matter; and by supposing that the Supreme Being is disguised in many forms, divine, human and animal, they introduce what has been called Theomorphism. This blended with Sabeism and Pantheism forms the systematic Polytheism of the Brahmans.

The Sankhya, which appears connected with the religion of the younger Buddha, or Gautama, is atheistical, and inculcates Materialism. It declares that *Mahat* is the principle which is named the reasoning faculty, and springs from matter; and that its synonyms are Vishnu, the all-pervading; and Buddhi, the understanding. It is hostile to the *Veda* and the *Smritis*, or law books; asserting, "that he, who in the body has obtained emancipation, is of no caste, of no sect, of no order, attends to no duties, adheres to no Shasters, to no formulas, and to no works of merit."†

Opinions such as these were adopted by the followers of Buddha; who soon became so numerous and powerful as to be more than a match for those who adhered to the ancient religion. The two hostile sects of Buddha and Brahma were evidently cognate, and of contemporary origin:

* Ward on the Hindus, vol. iv. p. 82.

† See Ward's Translation of the Sankhya Sara, vol. iv.

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though the latter, as adherents of the Vedas, and the Sabean idolatry, truly lay claim to superior antiquity.

Sabeism was, as we have endeavoured to shew, the original religion of the people east and west of the river Indus; and was followed by a modification of its original tenets, now known as the faiths of Buddha and Brahma. The people who believed the last, occupied the banks of the Ganges and Hindustan Proper; those who professed the other, were on either bank of the Indus, and in the south of India. The two rival sects appear to have existed in amity with each other, until the Brahmans, having introduced caste, and endeavoured to exalt themselves above their opponents, brought on the Mahabarat, or great war, that happened posterior to the time of Alexander the Great's expedition to India. In modifying the Sabeism of the Vedas, they introduced the monstrous fables of the *Puranas*, with the deification of abstract properties, under the name of gods. In doing this they addressed the ignorant spirit of the people, whose seers and astrologers they were; and, having artfully incorporated the opinions of existing sects with their own, claimed for their religion unchanging uniformity, though this faith, made up of all systems, is so heterogeneous, as to be incapable of an analysis that would resolve it into its separate sources.

The origin of the Buddhaist system can be traced back five centuries before the Christian æra, but its followers were for long after limited in number and power. Though there be nothing but conjecture, on which we may found an opinion, whether Balkh and Benian, or the districts eastward of the Indus were the countries of its nativity, we possess internal evidence, in the religions of Zertusht and Buddha, that they were for some time connected, and the affinity existing between the Zend and Sanscrit languages, would further warrant us to conclude, with Sir William Jones,* "that a powerful monarchy was established in Persia, and that it was, in truth, a Hindu monarchy," when Sabeism was the religion of both countries. This monarchy, or the Mahabadian empire of Persia, is celebrated among the Buddhaists of Ceylon, as we learn from the report of the Colombo Bible Society, for 1816; and the fact of the same being known in the tradition of the Buddhas, evinces that these seceders from Sabeism, who spread themselves over the south of India, existed in intimate connection with the followers of Zertusht. The coins and relics lately discovered in the sepulchral monuments, that exist in the Punjab and the vicinity of Cabul, bear evidence to the correctness of this opinion; and the narratives of the Arab historians lead us to infer, that the fire-temple, in

* See his Discourse on the Persians, A. R. vol. ii.

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India, dedicated to *Helios*, or the sun, and which was permitted to escape destruction, on three times the value of its precious things having been given to the Mohamedan conqueror Hijaj-bin Yusuf, was no other than the Buddhaist temple of Multan, called "the happy house of gold."

Hij: 23. A. D. 644. The communication, between India and Persia, which had existed from the earliest times, was not interrupted till the twenty-third year of the Hijira when the followers of Mohammed, having subdued the province of Khorasan, and countries west of the Indus, became masters of the pastoral tribes in that quarter.* The intercourse of the Hindus with the aborigines on the north of India, was not finally A. D. 675. closed until thirty years after, when the Tartars of the north-west were forced to submit their necks to the yoke of Islam. The subsequent wars and aggressions of the Mohammedans, to the north-east, drove these nomades to the south, some of whom having conformed to the institution of caste, and other gods of the Brahminical Panthæon, gave rise to a modification of their then Buddhaist tenets, which is now known under the name of the Jaina religion. This had its origin, as would appear, when the rival sects of Buddha and Siva were striving for superiority in Hindustan; and arose from a union of the two systems endeavouring to reconcile the more objectionable parts of the Buddhaist faith to the received opinions of the orthodox Hindus. Brahmans, however, formed part of both religions, and the inhabitants of the island of Bali distinguished them, in the twelfth century, as the sects of Buddha and Siva.† The great influx A. D. 1166. towards the *Dekhan* and country south of the *Narbada* of those professing the latter faith, about this time, will account for the migration of the Buddhaists, or the Jaina sectaries of this faith, into the islands of the Indian ocean.

A Brahmanical invasion, from the north, is traditionally ascribed to a prince named Mayura Verma;‡ who was the founder of the Kadumba, or Karamma race of Rajputs. By the most consistent account he is placed in the ninth century; but flourished, probably somewhat later. The greatest influx of Rajputs to the Dekhan happened, however, from the beginning of the tenth to the end of the twelfth century, caused by the conquest of Mahmud of Guzna, and his successors.

The Jainas assert, that "in the time of Bijjala Raya, who ruled with renown in the city of Kalayana,§ the Dakshen of Hindustan was conquered

* Price's Mahomedan Annals, vol. i. p. 138.

† Crawford on the people of Bali; A. R. vol. xiv.

‡ See Mayura Verma Cheritra in the Catalogue of the McKenzie collection vol. ii. p. 95.

§ It is generally called Kalyan, or Kayani; and lies about fifty miles north of Kulberga, in the Dekhan.

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by the Sadapramans,"* or followers of the Vedas: and this tradition is attested by the sculpture in the caves of Ellora, where the union of the Buddhaist and Brahminical faiths declares them to be the works of the Jainas, or some similar sect, labouring to accommodate a belief and reliance on mortals of transcendent virtue to the worship of the gods that are chiefly esteemed in the Hindu Pantheon. The Brahmans who have visited the caves of Ellora and Ajunta, deny the possibility that any part of the sculptures could have been executed by the orthodox sect.†

These Buddhaist sectaries on having changed their original faith, were designated by the name of Rajputs; and executed the magnificent temples of Abu, and other such stupendous works, on the banks of the Indus. They have preserved no record of their origin excepting traditions; which their bard Chandra embodied in his work, the *Prithvi Raya Riyasa.* Prithvi Raya, or Pithora, who is the hero of the tale, became, from his connexion with the first Mohammedan conquerors, the subject of real history; and the poem, which celebrates his exploit, can claim no higher antiquity than A. D. 1192; when this Lord Protector of the feudal barons of India, as mentioned in my introduction to the *Mirat Ahmedi*, fell at the battle of Tanessar.

* See account of the Jainas, A. R. ix. p. 247.

† Mr. Erskine's lucid observations on the Caves of the Dekhan, have shed much light on a very obscure subject; but I cannot agree with the learned gentleman in thinking that any of them were ever executed by Brahmans, except in connexion with the followers of Buddha, whose guides they were in introducing Jaina innovations.

NOTE.—The paper now communicated, was read at a meeting of the Bombay Branch of the Royal Asiatic Society, so early as December 1835, but withdrawn, before the brilliant discoveries of the late Mr. Prinsep had given currency to facts, that bear out generally the truth of opinions here maintained. The explanation of the several series of coins found in the north-west of India, the interpretation of the Lath and Cave Inscriptions, and the translation of the Mahawanso by Mr. Turnour, with other collateral coincidence, have strengthened the writer's conviction of the justness of opinions then formed. They have been kept unpublished, as some orientalists, whose acquirements the writer respects were opposed to them; though these had only been accustomed to view the Hindu social state through the glass of Brahmanical representation, and distorted Sanscrit evidence. The president, however, in thanking Dr. Bird for his paper, which had been listened to with much interest, observed, " that while he was prepared to dispute some of its important positions, it was but fair that it should be laid before the learned world, for candid criticism, in the state in which it had been communicated to the Society."

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Proceedings of the Asiatic Society.

(Wednesday Evening, 4th November, 1840.)

Col. J. A. HODGSON in the Chair.

Library and Museum.

The following books, &c. were presented :—

Lardner's Cabinet Cyclopædia—Treatise on Malacology, ... 1
Philosophical Magazine and Journal of Science, 3rd Series, Vol. 16th, No. 101, and 105, February and June, 1840. 2
Proceedings of the Geological Society of London, Vol. 3rd, No. 67, 1840. .. 1
Oriental Christian Spectator, 2nd Series, Vol. 1st, No. 9, September 1840, .. 1
List of Works relating to India, published by W. H. ALLEN and Co. 1
History of British Birds, by W. YARRELL, London, Parts 14 and 15; September and November, 1840. 2
Chinese Repository, Vol. 8th, No. 9, January, 1840, ... 1
Asiatic Journal and Monthly Register for British and Foreign India, China, and Australasia, February, 1840, Vol. 31st, No. 122. New Series, 8vo. .. 1
Transactions of the Society for the Encouragement of Arts, &c. 1839, Vol. 52nd, Pt. 2nd, 8vo. 1
Journal of the Royal Asiatic Society of Great Britain and Ireland, London, 1840, No. 11, 8vo. 1
Annals of Natural History, or Magazine of Zoology, Botany, and Geology, by JARDINE and SELBY, London, July, 1840, No. 32, 8vo. 1
Annales des Sciences Naturelles, Zoologie, et pour Botanique, par AUDOWINE et EDWARDS; Tome 12th, Paris, Août 1839, 2nd Series, ... 2
Column at Corygaum, to the memory of Captain STAUNTON, 1821, ... 1
Sketch to ditto, Madras 1818, ... 1

The Officiating Secretary submitted to the inspection of the meeting, an old Chinese Coin presented by W. E. Stirling, Esq. with the following memorandum—

"This is an old Chinese Coin. It was stated to have been coined before the Tartar Dynasty occupied China. It is presented through me by Captain ALCOCK, who obtained it at Macao. The twelve animals which surround the inner circle and inscription, probably represent the signs of the Zodiac, but not in such distinct characters as to be free from doubt. The Chinese characters of the inner inscription can probably be read by those versed in that language. The obverse side represents two Dragons. I am sorry I cannot offer any particular observations, but trust that this coin will be esteemed a rarity of no small interest."

Read a letter from Lieut. A. CUNNINGHAM, from which the following is an extract—

"I have had a long letter from Lady Sale, and she promises me impressions of all curious coins that she may meet with. Sir ROBERT had been opening a Tope, but

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was disturbed by DOST MAHOMED. Poor EDWARD CONOLLY too, had commenced work upon the great Khybar Tope, which is said to be the most magnificent in India, by those who never went two miles out of their road to see the great Benares Tope, which is 110 feet high.

"If I was at Patna, I would have the topes across the Ganges opened in two months. I can hear of nothing near this place. I hope however to be able to pay a visit to Faizabad, near which I hear, that there is a pillar.

"I have a short inscription of the time of GOVINDA CHUNDRA DEVA, of Kanouj, the predecessor of VIJAYA CHUNDRA DEVA, the prince mentioned in the long inscription of which Colonel CAULFIELD has sent you a copy. My short inscription mentions, GASALA DEBEE as the wife of GOVINDA CHUNDRA."

Read a further letter from the same officer, with reference to which the Officiating Secretary earnestly begged, that notice might be taken by any member of the Society, or indeed any individual whose position and inclinations might enable him to serve the cause of Antiquarian research in Behar, alluded to in the latter portion of the letter, which was then read as follows—

"I am now lithographing a large drawing of a beautiful silver patera of a Sassanian king on horseback, killing a lion—2nd Shahpore? It has an inscription which I am to get shortly.

"I have heard of no new genuine coins, but the forged coins are becoming plentiful, and I think I have discovered the forger. The fellow has not much character to lose, but, I think an exposure will put others on their guard against purchasing coins from him.

"The country north of Patna is full of topes, none of which have been opened:—

"1. The Kesariah mound, 20 miles N. of Bokhra, in sight of the Gunduk.

"2. A mound of solid brickwork, about 40 feet high, near Bassar.

"3. At Bokhra (*not* the Azimgurh Bokhra) 13 kos north of Patna, and 6 kos north of Singhea—*a pillar and tope* of solid brickwork; a *horizontal* excavation was made by a doctor of Mozufferpore 35 years ago, (therefore the first excavator of a tope), but nothing was found.

"Could you not manage to have an excavation made from the top to the foundation, in a perpendicular direction? Some one at Patna, or Mozufferpore, might superintend the work. The pillar also should have an inscription, which is probably under ground."

The Officiating Secretary submitted to the Meeting the reply from Major RAWLINSON of Candahar, to a communication which he had addressed to that able Antiquarian, in which he had begged him to undertake the duties of Corresponding Secretary in Affghanistan. The Society, the Officiating Secretary observed, would not fail to regret exceedingly the difficulties which interfere with Major RAWLINSON's accepting this office, and which he had requested him to undertake in common with the late Capt. CONOLLY, who working in a different part of the country, might have devoted his energetic endeavours to the furtherance of some of the main objects of the Society.

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"It was with extreme gratification that I received your letter of September 9th, a few days ago, enclosing the official notice of my admission into the Asiatic Society, and conveying to me the very flattering offer of acting as Corresponding Secretary to your institution across the Indus; fond as I am of the study of antiquities, there could hardly be a greater *pleasure* to me, than filling the situation you propose, which would place me in communication with all the most skilful antiquaries and numismatologists of India, but really and truly, I have not the time to bestow on the duties of so fascinating an employment; being now in a laborious and responsible Political situation, I feel it incumbent on me to sacrifice, to a due fulfilment of my public duties, those pursuits which for many years past have formed my chief study and delight, and which when I am once fairly engaged on them, possess for me all the attraction that attaches the opium-eater to his drug. I have now brought myself to eschew antiquities upon principle, leaving unfinished several papers for which I am pledged to Societies in London, Paris, and Vienna, and it would be perfect ruin to me to be subjected afresh to the temptations which the office of your Corresponding Secretary would necessarily throw in my way. EDWARD CONNOLY would have been a most zealous and efficient coadjutor, and would probably have had it in his power to command the requisite leisure, but, alas! you will have heard long since of his untimely fate, and I doubt if there is any one in the country qualified to supply his place.

"I should like, if I found during the winter that public business was not very pressing, to give you a series of letters to be published monthly in your Journal, tracing the outlines of such Historical and Geographical information as we possess regarding Affghanistan from the earliest ages to the present day, and inviting inquiry on all matters of interest referring to the different epochs, but I could promise nothing more than outlines, for I certainly have not the information (and I almost doubt its being procurable) to fill up details, or attempt any thing like analysis; something of the sort however certainly requires to be done; hitherto the numismatical discoveries have hardly been turned to any account; we have a long list of names, but there has been no attempt to appropriate them to the different tribes and dynasties of which, chiefly through the Chinese authorities, we can darkly trace the succession in the regions between the Oxus and the Indus, still less has there been any endeavour to affiliate these tribes, or to work out their descent into the page of modern history.

"I beg to return you my best thanks for the impression of Pottinger's cylinder, it is a relic at least as ancient as the times of Cyrus and Darius, and must have travelled from the banks of the Euphrates to the spot where it was found in the Paropamisan mountains. The inscription is in the Hieartic Babylonian character, and is in fact the usual formula (probably a prayer) found upon all these sacred cylinders. This character, which is the third or complicated class of cuneiform writing, is crept in a few signs conjecturally rendered by Burnouf, altogether undecypherable. It is probably syllabic, and certainly embodies a semitic language. The means of rendering it intelligible are, however, I believe, in existence, and if I ever return to Persia, and can devote a year or two to the task, I do not despair of mastering it by the assistance of the Zend literal cuneiform characters, which I perfectly understand, and which

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is employed in the inscriptions, to render the translations from the Babylonian into the ancient Persian. The character being once decyphered, the language to which it is appropriated will no doubt be found cognate with the Phœnician, and I assert with confidence, that the knowledge thus obtained will open to us (always following the Mosaical early history of the world) an insight into the common original language of mankind, as thousands of bricks stamped with this writing are found in the foundations of the tower of Babel, and must have been placed there before the confusion of tongues, when the language spoken in the plain of Shinar, was, I suppose it will be admitted, the same that Adam and Eve used in Paradise, and this I believe is about the ultimate limit that antiquarianism reaches; joking apart, however, there is no doubt but the reading of this character will give us a decent knowledge of the history of Assyria and Babylonia from Nimus to Sadanapalus and Nebuchadnezar; the records are most ample.

"The inscription on Hutton's antique, gives the title of the king as Palash (the Volagases of the Greeks) and from the style of the Pehleivee writing, probably refers to the Sassanian monarch of that name; but I have not yet satisfied myself as to the exact meaning of the entire legend. I have a vast number of impressions of Sassanian gems with legends, and will endeavour some day to give you a paper on them; but the subject is very obscure, and requires a still greater field of collation, than I have hitherto succeeded in accumulating.

"Coins are scarce in this part of the country, and the nomenclature of Bactrian and Melo-Scythian numismatology is, I fancy, pretty well exhausted, but all the useful part of the science requires, as I have already observed, still to be elaborated."

The Officiating Secretary submitted a note of charges for the printing of Part 2d, Vol. II of the Researches of the Society, and again suggested that a volume of Transactions might be prepared in octavo, should the Committee of Papers determine that the materials, which the Officiating Secretary was prepared to submit to them, were of a nature to admit of publication; the octavo form was, the Officiating Secretary observed, of advantage, not only as regarded the saving of expence, but also for facility of carriage, which was a matter of some importance for a Society which communicated with corresponding members at so great a distance as did the Asiatic Society of Bengal.

(Suggestion referred to the Committee of Papers.)

Read a letter from Capt. T. S. Burt, of which the following is a copy—

"Since my letter to you of the 19th October, I have been over to Chitore, and taken facsimiles of the inscriptions I met with there; their age is *about* 750 years, as well as I can make out; Tod speaks of those on the lofty pillar, but not of two others, which I found in an old temple there; I shall defer sending them to Calcutta for the present.

"I have found some *images* of marble at Ajmere, 650 years of age, with inscriptions on their pedestals.

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"I am now about to proceed to mount *Aboo*, celebrated by Tod, and I hope to find some Pali writing, as well as other characters there.

"My principal object in writing to you now, is this—my brother of the 64th states, that when looking for my *lost* drawings either in the Society's apartments or in the Mint, he found a number of facsimiles of old inscriptions bearing my signature, which were thrown aside in consequence of JAMES PRINSEP's illness; now as many of them, a few in *particular*, were very valuable, and of considerable age, as the pillars upon which I found them testify, I think it right to bring the circumstance to your notice, with a hope that you will not allow them to lie any longer as they now do, 'unnoticed and unknown.'"

The query put by Capt. BURT, regarding the fate of his inscriptions, was directed to be referred to the executors of the late Secretary, Mr. JAMES PRINSEP.

Read a report from the Officiating Curator to the Society's Museum, together with the following observations recorded by the Officiating Secretary, in submitting that Report to the Committee of Papers.

"I have the honor to submit to the Committee of Papers, the accompanying report by our present Officiating Curator. The zeal with which Mr. PIDDINGTON is entering on his task of arresting the progress of decay, will I trust be as grateful to the Committee, who were the cause of his temporary appointment, as his labours are certain of being useful to the Society."

"To H. TORRENS, Esq.

"DEAR SIR, "*Officiating Secretary of the Asiatic Society.*

"Having in pursuance of your letter of 27th December last assumed charge of the Museum of the Asiatic Society, as Officiating Curator, on 1st instant, I have now, in obedience to the resolutions of the Committee of Papers referred to in it, to submit my Monthly Report.

"*Palæontological, Geological, and Mineralogical Department.*—The first impression which a cursory inspection of these departments of the Museum has given me, is a strong one of the sad dilapidation going on amongst them; partly in consequence of trusting to the very perishable recording, which ink, paper and paste admit of in a climate like this, and partly from the almost entire absence of any general or serial catalogues to the various collections; many of which, again, have evidently been broken into, for the purpose I presume of completing other arrangements? but of no such arrangements, whether completed or left incomplete, has it seems any note or register unfortunately been left in the Museum. I have written to my predecessors on this subject, to ascertain if any records of any kind exist, and I yet trust we shall be able to rescue something to guide us in the sad confusion which now prevails.

"I may briefly state a few facts in confirmation of what is here said. In our rich Palæontological collection, no registers or catalogues, beyond the few lists printed

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in the Journal exist, that I can yet discover; and valuable specimens are fast losing their labels of names, and above all, of localities. In our Geological series I find, amongst others, even those of Gerard, Voysey, and Franklin—the first particularly of unique specimens, collected often at the risk of his life at 16 and 18,000 feet of elevation, midst the snows of the Himalaya, on the frontiers of Chinese Tartary—all going to utter confusion, through the growing indistinctness of the ink, and the ravages of damp and insects. Of the valuable collection of the Lavas of Vesuvius, presented by Sir Edward Ryan, though of this the Catalogue exists, yet only thirty-six out of nearly a hundred specimens can yet be found; I omit for brevity's sake, further details of this nature.

"I have then thought it of urgency to confine myself almost wholly to arrest this dilapidation, and if possible, so to place every thing upon record as it now exists, or can be ascertained, that at all events farther mischief in this way may be stopped, and the records rendered as enduring as paint and printing can make them. The Museum book of "Geological collections," sent herewith, will shew what I propose doing for every series; and I have arranged in Case No. 8, Frame No. 1 (to the right hand below the stair-case) Dr. Gerard's series, in such order, with its separate little book of reference in the case, that it is available for the study of visitors and members, and when the serial catalogue is printed, it will be beyond the reach of any thing but wilful confusion for a long period of years.* I shall be happy to have the opinion of the Committee on this plan of arrangement, and these views. My own feeling and judgment on this point is, that nothing could be more lamentable, and more discouraging to the progress of Indian Science, than the fact that collections, which men have almost literally laid down their lives to obtain, should thus be lost to their memory, and to the ends of Science.

"*Osteological Department.*—In this division the want of cases for preserving the smaller skeletons from the effects of dust and dirt is much felt; and I beg to submit this matter particularly to the attention of the Committee; for several of our skeletons are rare and valuable, and even a common one costs time and expence to replace, or repair it. The small skeletons are particularly liable to dilapidation when dusting, and from the incautious handling of visitors.

"*Mammalogical Department.*—In this again we are entirely without glass-cases, and in spite of daily care, much dilapidation must be going on, which is but too evident in many of the specimens.

"*Ornithological Department.*—This and the following department are by far the best preserved of our collections, being fully provided with cases.

"*Reptiles, Fishes, &c.*—Provided with cases, and generally in excellent preservation. Mostly named, but no catalogues. The spirits of wine having partly evaporated from many of the jars and bottles, it has been necessary to fill them up, which occasions some extra expence. I am in hopes of at least diminishing this evil in future,

* Five series in all, are arranged, comprising 293 specimens, but only one is placed in a case for inspection.

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by the precaution of cementing over the stoppers, which, with their current duties, and the preparation of the additions to the Museum, mentioned hereafter, has been the standing employment of the Curator's Assistants.

"Additions to the Museum this month have been—

"1. A valuable series of Geological specimens from Brimhan Ghaut, on the Nerbudda, to Omarkuntuck, the source of that river, by Dr. SPILSBURY—*Arranged and Catalogued.*

"2. The splendid skeleton and skin of the Gaur, from Chota Nagpore, by Major OUSELEY—*Skeleton mounted, skin suspended, being imperfect.*

"3. Skeleton of the Eagle formerly in the Society's compound—*Mounted.*

"4. A fine specimen of the Hematronus undulatus—*From C. P. White, Esq. Midnapore; stuffed. Duplicate of one in the Museum.*

"5. A pair of the young of the *Cheel*, Falco *ater*—*Stuffed.*

"6. A fine specimen of the *Machal*, Falco ——— ? (Purchased, not previously in our collection)—*Stuffed.*

ASIATIC SOCIETY'S MUSEUM,
30th November, 1840.

I am, Sir,
Your's obediently,
H. PIDDINGTON.

The Officiating Curator submitted his report on the Mineral specimens sent from Rajpootana by Capt. BURT, under the supposition that they were of the nature of Coal. Mr. PIDDINGTON observed, that it has no relationship to the Coal whatsoever, for it is infusible at a heat which blisters platina. It is one of the Titaniferous Oxigen of iron. He likewise submitted the following list of specimens as desiderata for the Osteological branch of the Museum :—

"*Skeletons.*

Neel Ghye.
Samur, 4 horned Deer of Sumbhalpoor (Kotarn ?)
Buffalo.
Gayal.
Garial.
Alligator (large.)
Lion.
Leopard.
Lynx.
Hyæna.
Jyo, or wild Dog of Bundlecund.
Do. or do. do. of Nepal.
Do. or do. do. of Affghanistan.
Pangolins.
Tapirs of Tenasserim Province.
Dugong of Singapore.

For the presentations and contributions the thanks of the Society were accorded.

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JOURNAL

OF THE

ASIATIC SOCIETY.

Description of, and deductions from a consideration of, some new Bactrian coins. By Lieut. ALEXANDER CUNNINGHAM, *Engineers.*

There are but few notices of Bactrian history to be found in ancient authors; and some even, of those few, do not agree: so that we are compelled, in the absence of historical aid, to examine the numismatology of Bactria, as Butter's philosophers examined the moon, by its own light. And thus a good cabinet of the coins of the Bactrian princes, is to an experienced numismatist

"——— A famous history ..... enroll'd,
In everlasting monuments of brass—"

from which he may draw the data for a chronological arrangement of those princes, many of whom are "of dynasties unknown to history." In this paper, however, I shall confine myself to a notice of the pieces figured in the accompanying plate, merely adding such inferences as a careful examination of the coins has suggested to me.

No. 1. A round copper coin of large size, and of brittle metal, of middling execution, and in fair preservation.

Obverse. Figure of Apollo standing half turned to the right, with the chlamys falling behind, and a quiver at his shoulder; holding in his left hand an arrow pointed downwards, his right hand resting on the arrow. Legend in three lines ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ; "(coin) of the saviour king Apollodotus."

Reverse. A tripod;—legend in Bactrian Pali 𐨨𐨪𐨿𐨪𐨿 𐨪𐨿𐨫𐨪𐨿𐨪𐨿𐨨𐨿 𐨨𐨪𐨿𐨪𐨿𐨪𐨿𐨨𐨿, *Maharajasa trádatasa Apálàdatasa;* "(coin) of the great

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king Apollodotus, the saviour." I have ventured to render the Bactrian Pali equivalent of Soteros, in a new way, which appears to me to give the exact meaning of the Greek word. It will be seen that at the foot of the initial letter, there is a stroke backwards, which, from its occurrence in the name of Eucratidas, and in the word *putrasa*, for the Sanskrit पुत्रस्य, must be the letter R in composition, thus making the word *trâ-datasa*, or "of the giver of *trân* (S. त्राण) safety," i. e. "the saviour." In the field are two Bactrian Pali characters, which I read as *i* and *t*; the former of these is found only on this coin, and on No. 2 of Colonel Stacy's new coins (see J. A. S. of Bengal for April, 1839, p. 344,) which I will hereafter show to belong to the family of Undopherras.

This piece is of the same type as the well known round coins of Apollodotus; but it differs from them in being of inferior execution, in having its legend disposed in three straight lines, instead of around the piece, and in its monogramatic characters, the principal of which, by its after occurrence on an undoubted Parthian coin of the family of Undopherras, leads me to assign the mintage of this piece to some place in Ariana, south of Bactria Proper and of the Indian Caucasus, and to extend the rule of Apollodotus from the Paropamisus to Patalene, and perhaps even to Barugaza, where we know that his drachmas were current more than two hundred years afterwards.

Various places have been assigned to Apollodotus in the list of Bactrian princes, none of which have received any general assent; and as the only passages in which he is mentioned by ancient authors, give no clue for fixing his proper rank amongst the kings of Bactria, we must be content to see our way by the light glimmering

"On narrow coins through dim cerulean rust,"

which has led me to the conclusion, that Apollodotus was the son of Eucratidas the great king; this opinion, which I offer with much diffidence, is founded upon the following facts:—

First.—The common round drachmas of Apollodotus bear the title of Philopater, which title M. Jacquet conjectured would declare his father to have been of royal origin, for had he been in a private station, his son would not have paid him so striking an honor. M. Raoul-Rochette says, that this conjecture appears very plausible, and he adds, "but there is something more to be remarked here, which is, that on the coins of the

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kings of this part of the East, especially on those of the Arsacidæ, *the epithet of Philopater indicates the association of a son in the royal title of the father.*" From this M. Raoul-Rochette supposes that Apollodotus was the son of Menander, and that he was associated in the government with his father, and consequently took the title of Philopater in addition to the epithet of saviour, which was common to both princes. The opinion of so eminent an antiquary as M. R. Rochette, must always command respect, even when it fails to produce conviction; and did not the facts which have led me to a different conclusion seem particularly strong and clear, I should certainly hesitate in dissenting from one, in every way so well qualified to judge. Now it appears from the quotation given above, that the epithet of Philopater indicates the association of a son in the royal title of his father; and we know from Justin (lib. 41. c. 6,) that Eucratidas had made his son "a partner in his kingdom;" from which it results almost conclusively, that Apollodotus, who was the only prince that bore the title of Philopater, must have been the son of Eucratidas, the only king who is recorded to have associated his son in the Bactrian kingdom with himself.

Second.—The rarity of the coins bearing the title of Philopater in comparison with the other coins of Apollodotus, would seem to prove that these pieces were all struck during his association in the government with his father, on their return from the Indian conquests; and that after having murdered Eucratidas, he dropped the title of "lover of his father," which to have continued would have been ridiculous, as well as an outrage upon humanity. Now we know that this unnatural son gloried in the murder, and, "as if he had slain an enemy, and not his father, he both drove his chariot through his blood, and ordered his body to be thrown out unburied;" which circumstance most satisfactorily accounts for the comparative scarcity of the coins of Apollodotus, which bear the title of Philopater; for had the murderer wished to have concealed his crime, he would certainly not have dropped the title of lover of his father, but would rather have published it on all his coins, as a presumptive proof of his innocence; we also know that the coins bearing this title are found mostly in the Punjab, and some even in India, while none were found by Mr. Masson in the classic site of Beghram; which facts serve still more strongly to establish my

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opinion, that these coins of Apollodotus Philopater were struck during his association in the government with his father Eucratidas, on their return from the Indian expedition. Now the square drachmas of this prince, which has the elephant and the Indian humped bull, are common at Beghram and in the valley of the Kabul river, as well as in the Punjab; and thus they would seem to have been struck by this parricidal prince after the murder of his father, in commemoration of the Indian victory.

Third.—The partiality of Eucratidas for "the god of Love and Poesie and Light" is proved by the frequent occurrence of the figure of Apollo as the reverse of his tetradrachms, and by the laurelled head of Apollo found on the round copper coin of this prince, belonging to the Austrian cabinet; and nothing could be more natural in one, whose favourite and patron deity was the glorious sun, than to call his child *Apollo-dotus*, "the gift of Apollo;" and we may even suppose that the birth of this child was the fulfilment of some prayer, made to the patron god.

Fourth.—The figure of Apollo is portrayed on the square copper coins of Apollodotus, standing exactly in the same attitude as that in which he is figured on many of the tetradrachms of Eucratidas, which is worthy of notice, as it establishes a close numismatic connexion between the coins of these two princes.

Such are the facts which prove, in my opinion, the relationship between Eucratidas and Apollodotus; and my conclusion is still further borne out by the evident inferiority of the round Philopater drachmas to the square drachmas bearing the elephant and the Indian humped bull, which remarkable difference may be easily accounted for, by the fact, that the Philopater coins must have been struck by less skilful workmen, during the return from the Indian expedition; while the square drachmas, which are of superior execution, of bold relief, and of most beautiful make, would have been coined by the best artists in the metropolis of Bactria.

No. 2. A round copper coin, of large size, of middling make, and in fair preservation.

Obverse. Figure of Apollo standing half turned to the right; the chlamys falling behind, and a quiver at his shoulder, holding in his left hand an arrow pointed downwards; his right hand raised

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and resting on the tail of the arrow. In the field behind the figure, there is a small elephant to the right. Legend disposed circularly ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΖωΙΛΟΥ; "(coin) of the saviour king Zöilus."

Reverse. A tripod. In the field to the left the Bactrian letter *t*, and to the right the letter *a*. Legend disposed circularly 𐨨𐨪𐨿𐨨 𐨪𐨪𐨿𐨨𐨪𐨿𐨪, *Maharajasa trádatasa Johilasa;* "(coin) of the great king Zöilus, the saviour."

The identity of this piece, in type, size, and make, with the round copper coins of Apollodotus, would seem to point out some close connexion between these two princes, which is further strengthened by the appearance of the elephant in the field of this coin, a type of most common occurrence on the silver coins of Apollodotus, and on the square copper coins of Heliocles, the grandfather of Apollodotus; on whose coins the elephant occupies the whole field of the piece, but on the coin of Zöilus is reduced to a mere symbol. The appearance of an elephant on this unique coin of a new prince, taken in conjunction with the identity of its type with another of the coins of Apollodotus, induces me to hazard a conjecture that Zöilus may have been a son of Apollodotus, and have succeeded his father for a short time on the throne of Bactria. For it appears to me scarcely possible that Apollodotus, whose coins are not very common, should have reigned from 148 B. C., the period assigned for the murder of Eucratidas, till 126. B. C., when the Bactrian empire was overthrown by the Scythians. I suppose that Apollodotus after having assisted Demetrius Nicator of Syria in his successful expedition against the Parthians, in B. C. 142, was finally defeated, and perhaps slain, by the Parthians under Arsaces, 6th Mithridates, about B. C. 140—at which time Mithridates having made Demetrius prisoner, is said to have extended his arms from the Euphrates to the Hydaspes. Upon the death of Mithridates, in B. C. 136, I suppose Menander to have established himself in the provinces south of the Caucasus, and to have added India beyond the Hypanis to his dominions, while Bactria Proper and Sogdiana were overwhelmed by an irruption of the Scythians in 126 B. C.

No. 3. A round copper piece plated with silver, of the size of a drachma. It is Horace who observes that "a good and wise man is not ignorant *(quid distent æra lupinis)* of the difference between

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true coins and counterfeits;" hence we may easily discern that this coin is a forgery, although an ancient one, for it was found amongst a heap of rusty pieces of copper, completely covered with indurated clay, and as no price was given for it, it is certain that it is not a forgery of modern manufacture; for where no money return was expected, there could be no inducement to go to the expence and trouble of making a false coin. The plating of the edges and of the letters is now worn off, and the letters appear sunk in the copper, amid the silver plating. The piece is of good Grecian workmanship, and is similar in all respects to the tetradrachms of Antimachus, already known.

Obverse. Head of the king in the Macedonian helmet to the right, the ends of the diadem floating behind the head.

Reverse. The figure of Neptune standing to the front, holding in his right hand a trident, and in his left a palm branch. Legend in two lines βασιλεΩΣ θεου ANTIMAχου; "(coin of the king) Antimachus (theus)." Monogram in the field composed probably of the same letters ΧΟ, which appear on the tetradrachm belonging to Colonel Taylor, the British Resident at Bagdad. The same monogram with a square ☐ occurs frequently on the coins of Azes. M. Raoul-Rochette remarks upon the coins of this prince, that the titles of Theus and of Nicephorus, were *both* borne by Antiochus, 4th Epiphanes, and also that the figure of Victory found on the common drachmas of Antimachus was a type known on the coins of the same Syrian prince, from which remarkable coincidences, he justly concludes that the Bactrian prince Antimachus must have flourished at the same time as the Syrian king Antiochus, 4th Epiphanes, or about 170 B. C., and from the total absence of his coins in the classic ruins of Beghram, he deduces that Antimachus must have reigned north of the Caucasus. In all these observations, which are as just as they are acute, I most willingly concur; but I cannot say that I perceive even the faintest resemblance between the tetradrachms of Antimachus and those of Heliocles, although the same able numismatist has observed a strong likeness. M. Raoul-Rochette likewise supposes that the type of Neptune on the reverse, probably alludes to some naval victory, where Antimachus may have assisted Antiochus of Syria; which event he thinks is still further declared by the type of Victory found on the common drachmas of this prince.

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The date of 170 B. C., would make Antimachus contemporary with Eucratidas; and the absence of his coins at Beghram, would point out the ancient Sogdiana as the territory probably ruled by him—which probability is rendered still stronger by the knowledge which we derive from Justin, that this country did not belong to the dominions of Eucratidas. It is not too much then to suppose, that it was during the reign of this king Antimachus, that the Bactrians "were worn out by wars with the *Sogdians*, Drangians, and Indians," as related by the same author; and that as a monument of their success, Antimachus impressed the figure of Victory upon his coins, and assumed the title of Nicephorus. As a further proof that these two princes were contemporaries, I will cite the analogies that we find in their coins, which are the earliest specimens, save a few square copper coins of Heliocles, that bear legends in Bactrian Pali; and it is a peculiarity remarkable in the coins of these princes, that we find no Bactrian Pali legends on their silver coins, excepting on those drachmas of Antimachus which are of a much lighter weight, indicating most probably a later period of his reign; for Antimachus assumed the Macedonian helmet, and most likely affected to disdain the Bactrian customs and language, in the earlier part of his reign. Here then we have two contemporary princes, Antimachus of Sogdiana, and Eucratidas of Bactriana, whose coins exhibit the two distinct characteristics found in the numismatology of Bactria—namely, coins bearing Greek inscriptions only, and those bearing both Greek and Bactrian Pali legends. These facts establish the certainty that these two princes must occupy places in their respective dynasties between the kings who used Greek inscriptions only, and those who used both Greek and Bactrian Pali legends, and this rank agrees exactly with that already assigned to these princes upon other grounds. Hence we may safely infer that Philoxenes in Sogdiana, and Apollodotus and Menander in Bactriana, must be subsequent to Antimachus and to Eucratidas; and that the numerous other princes whose names have been made known to us by bilingual coins only, must likewise be subsequent to these two kings, Antimachus and Eucratidas, whose coins form a transition series between those using the Greek language only, and those which bear legends in both languages.

No. 4. A silver piece of the size of a drachma, of beautiful workmanship, and in excellent preservation.

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Obverse. Head of the king helmeted to the right; the ends of the diadem floating behind the head, and the chlamys fastened on the shoulder. The helmet on this coin is similar to that found on many of the coins of Menander and of Eucratidas, and more especially to that found on the beautiful didrachm of Philoxenes—and differs from the Macedonian helmet, which is found on all the known coins of Antialcidas. Legend, disposed circularly, ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΑΛΚΙΔΟΥ; "(coin) of the King Antialcidas, the victorious."

Reverse. The Olympian Jupiter seated, and slightly turned to the left. In his left hand is a sceptre; and in his outstretched right hand is a figure of Victory, which extends a chaplet to the left in one hand, and holds a palm in the other; to the left, and under the figure of Victory, is the forepart of an elephant, similar to that found on the common drachmas of this prince, but in a contrary direction, for on this coin it is portrayed facing the figure of Jupiter; a Grecian monogram in the field composing KAM, and differing from all the monograms yet found on the coins of this prince. The monogram as represented in the plate is faulty, and should have under the cross stroke of the A, thus making the monogram as I have read it; legend in Bactrian characters 𐨨𐨪𐨿𐨫𐨪𐨬 𐨨𐨪𐨚𐨬𐨯𐨪𐨬 𐨨𐨪𐨡𐨁𐨯𐨁 *Maharajasa jayadharasa Antialikidasa;* "(coin) of the great King Antialcidas, the victorious." It is worthy of remark, that this coin weighs only 35 grains, or a little more than a hemidrachma: but the best preserved drachmas of the common type of Antimachus weigh only 41 grains, and these light weights betoken a period subsequent to Eucratidas, whose drachmas are of the Grecian standard weight.

No. 5. A round copper coin of middle size, of good execution, and in fair preservation.

Obverse. A head bearded and wreathed, looking to the right, the shoulders and bust bare, the right hand grasping a thunderbolt, as if about to hurl it forwards. Circular legend ΒΑΣΙΕΩΣ ΝΙΚΗ-ΦΟΡΟΥ ΑΝΤΙΑΛΚΙΔΟΥ; "(coin) of the victorious king Antialcidas." This bearded and wreathed head is no doubt that of Jupiter Nicephorus, whose figure forms the only reverse of all the known silver coins of Antialcidas. Here we have more of the bust than on the square copper coins of this prince; and the hand grasping the thunderbolt, which projects across the neck, shows that the undecided object, indifferently called "a palm, a thyrsus, or a club," which is

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found in the same position on the square copper coins of Antialcidas, is most probably only a thunderbolt; and as the head on these coins of Antialcidas, as well as on the similar square copper coins of Lysias, is undoubtedly bearded, I think we may safely infer that it represents Jupiter Nicephorus, and not the prince himself.

Reverse. The caps of the Dioscuri, surmounted by the stars Castor and Pollux, with two palms placed between them; in the field below is a monogram which seems to be composed of the letter MOI. Legend in Bactrian Pali, disposed circularly, [illegible], *Maharajasa jayadha(rasa) Antialikidasa;* "(coin) of the victorious great king Antialcidas."

This same type of the caps of the Dioscuri is found on many of the coins of Eucratidas, both in silver and in copper, and also on one copper coin of Lysias. The make of the square copper coins of Antialcidas, which is precisely similar to that of the square coins of Lysias, is totally different from that of all the square coins of Eucratidas, which I have seen; and this being the case, I do not suppose that the identity of type indicates any connexion between these princes—but merely proves that Antialcidas must be nearly contemporary with Eucratidas, or perhaps a little later, for all his coins yet found, both in silver and in copper, have bilingual inscriptions. With Lysias, however, I suppose the connexion to be closely and clearly indicated, for the coins of these two princes are identical in type, shape, and appearance, and also in thickness. The numismatic relations between this prince and Antimachus are striking and obvious; both princes wear the Macedonian helmet, which is likewise worn by Amyntas on a beautiful drachma in the possession of Dr. Chapman, and both take the same title of Nicephorus: both have the figure of Victory upon their coins, and both occasionally employ the same monograms; all which coincidences lead me to assign to Antialcidas a rank in the same dynasty with Antimachus and Philoxenes, and immediately following the latter prince, or about B. C. 150 to 140.

The princes whose coins I am next to notice are of uncertain origin, not one of them having a purely Greek name. On the early coins of this class, however, the names are expressed clearly enough in Grecian characters, but on the coins of the later princes the names expressed in corrupted Greek characters are doubtful, and vary on different

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specimens of the same king, while the name in Bactrian Pali on the reverse remains constant and unchanged; hence, as a man who carries a string through the mazes of a labyrinth, is, on his returning ignorant of the way, guided by that which he had before conducted, or as a father who directs his child in youth, is in his declining old age guided by that child; so do we find that the Greek names which had been our guide during the infancy of our study of the Bactrian Pali, are now in their turn, consequent on the decline and corruption of the Grecian language, elucidated by our more matured knowledge of the language of Bactria. It will be of advantage to bear this in mind, for the amount of corruption and barbarism to be found in each name expressed in Greek characters, will be of singular value in determining the relative route of these later princes, whose names truly and correctly expressed in the native character, will enable us not only to correct the bad Greek version of the coins, but perhaps also to assist in identifying them with princes of the same names, mentioned by native authors.

No. 6. A round copper coin of small size, of good workmanship, and in defective preservation.

Obverse. The Sinha, or maneless Indian lion, walking to the right, differing from the usual representation of this animal on the coins of Azas, in having one of the fore legs raised. In the field a Bactrian monogram. Legend disposed circularly, ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΑΖΟΥ; "(coin) of the great king of kings, Azas."

Reverse. A female figure standing half turned to the left, holding in her left hand an object, which may be the horn of Plenty, and extending in the right hand an undecided object, which from a comparison with other coins is, I suspect, a small figure of Victory, holding out a chaplet. In the field to the right is a Bactrian monogram forming *ti*, and on the other side an indistinct object. Legend disposed circularly, 𐨨𐨪𐨿 𐨪𐨚𐨪𐨿𐨚𐨪𐨿 𐨪𐨚𐨪𐨿𐨚𐨪𐨿, *Maharajasa rajatirajasa mahatasa Ayasa*; "(coin) of the great king, the king of kings, the mighty Aja." Two very imperfect specimens of this type were published by Mr. Prinsep in the 2nd vol. of his Journal, (figs. 11 and 12, plate vii.) but he was unable to recognize them at that early period of our knowledge.

No. 7. A square copper coin of middle size of good execution, and in excellent preservation.

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Obverse. The king mounted upon a two humped Bactrian camel, walking to the right, with a bow at his back, and extending in his right hand a cross over the head of the camel. Inscription in four lines as in the preceding.

Reverse. The humped Indian bull, walking to the right, the upper part of the legs very thick, as if covered with long shaggy hair. Inscription on three sides 𐨨𐨪𐨿 𐨟𐨪𐨿 𐨪𐨟𐨪𐨿 𐨟𐨪𐨿, *Maharajasa rajarajasa mahatasa Ayasa;* "(coin) of the great king, the king of kings, the mighty Aja."

A specimen of this type has already appeared in the London Numismatic Journal; on that coin, however, there is a monogram composed of the letters ⊏ and ×, while this coin has no monogram of any kind.

The Bactrian camel is figured on this piece in a much better style than on the round copper coins of this prince. These pieces would seem to form part of a series of coins struck by Azas, or Aja, to show the extent of his kingdom by the exhibition of animals characteristic of the different countries under his rule; the elephant and humped bull of India, the double-humped camel of Bactria, and perhaps the shaggy long haired bull of Tibet. The total absence of his coins at Beghram, proves that his rule did not embrace the country around Kabul, while the abundance of his coins found at Bajâwur, in the Punjab, and in the lower hills south of Kashmeer, taken in conjunction with the various animals displayed upon these coins, clearly show that his authority extended over the ancient Pencelaotis, and over the kingdoms of Taxiles and of Porus, embracing the whole country from the Jellalabad river to the country beyond the Hypanis, bounded to the north by the Indus, and to the south by the Ocean.

That his reign was a long one, is evinced by the variety and abundance of his coins, which form the most numerous and most complete, as well as the most interesting series of Bactrian coins yet discovered. His name, as it is written in the Bactrian Pali, is a genuine Hindoo appellation, being either *Ayu*, or more probably *Aja*, the *y* and *j* being permutable letters; and I incline strongly to connect him with the prince whose coins bear the legends of ΒΑΣΙΛΕΩΣ ΜΑΥΟΥ and of ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΜΑΥΟΥ; for this name is certainly not a Greek one, while, on the other hand, it is a classical Hindoo name, as *Maya* (the son of Karryapa by Dana) which would be

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rendered in Greek by MAYAΣ, adding the Σ to form the Grecian termination. Here then we have coins of two princes, with genuine Hindoo names, written in the Greek character, and with types almost all relating to India, some of which are of the highest interest, and of the greatest value. The Indian origin of these two princes is further declared in the plainest and most obvious manner by their being represented on their coins seated in the Indian fashion—(see fig. 11, pl. xxi. vol. iv. and figs. 12, 13, pl. xxii. vol. iv. Journal Asiatic Society of Bengal), and their Indian Government is shown by the absence of their coins at Beghram, and by their abundance in the Punjab.

I suppose these two princes to have reigned in the Punjab at the same time with Hermæus in Kabul; a supposition which is rendered extremely probable by the localities in which their coins are found, as well as by their style of execution, which betrays a declining period of Grecian art. The coins of Hermæus, which abound at Beghram, are rarely met with in the Punjab, which fact serves to point out the position of his kingdom in as clear a manner as could be wished. Now Hermæus must have been posterior to Apollodotus and to Menander, both of whom bear the same title of Soter, which Hermæus affects; and as both Apollodotus and Menander possessed the Punjab, it is equally certain that Maya and Aja, who ruled in the Punjab, must likewise have been subsequent to Apollodotus and Menander, and therefore contemporary, or nearly so, with Hermæus, or about 100 B. C. I have much more to offer regarding Aja (or Azes), but I will reserve it for a longer account of these princes, which I am now engaged upon. I may, however, notice here a passage from Caius Julius Solinus, regarding the Bactrian camel. In chap. lii. he says "Bactri camelos fortissimos mittunt, licet et Arabia plurimos gignat. Verum hoc differunt, quod *Arabici bina tubera* in dorso habent, *singula Bactriani*." This gross error has probably arisen from a transposition of the words; but it is nevertheless sufficient to put us on our guard against the assertions of ancient authors, no matter how clear and positive they may be; and to make us exclaim with Hudibras—

——— Alas! what is't t'us
Whether t'was said by Trismegistus,
If it be nonsense, false, or mystic,
Or not intell'gible or sophistic,
T'is not antiquity nor author
That makes Truth Truth, although Time's daughter.

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No. 8. A round copper coin of middle size, of fair make, and in defective preservation.

Obverse. Figure of the king on horseback to the right; his right hand raised, and extended to the front. In the field in front of the horse a symbol which may be either a stiff representation of the caduceus, which is found on the coins of Maya, or it may be a monogram composed of the Indian Pali letters *m* and *n.*; the former is, I think, the more probable. Inscription in corrupted Greek, very imperfect, BACIΛEC (sic) BACIΛEΩN MEΓA.....ΥNΔO..... "(coin) of the great kings of kings Undapherras."

Reverse. A figure, probably of Victory, walking to the right, her right hand extended to the front, and holding out an indistinct object, which is possibly intended for a chaplet; her left hand holding a spear. In the field to the right a square monogram, apparently composing XΠY, to the left a Bactrian monogram formed of the Bactrian characters *mi* and *sr* probably. Legend in Bactrian Pali, 𐨨𐨪𐨿𐨫 𐨨𐨫𐨪𐨿𐨫𐨪 𐨨𐨪𐨪𐨿𐨫𐨪, *Maharajasa rajadirajasa mahatasa Andopharasa;* "(coin) of the great king, the king of kings, the mighty Andophara."

This coin only slightly differs from that published by Mr. Prinsep in his Journal for July 1838, No. 14; and is almost the same as that figured in the Numismatic Journal of London, No. — of plate 3, which Professor Wilson has given to Azes, but which is undoubtedly a coin of Undopherras or Andophara.

The coins of this prince, which I have seen, are of three different types, all exhibiting very different styles of execution; some being of fair workmanship with good Grecian letters, whilst others are utterly barbarous. These facts, which show, by the variety of mintage, the numerous mints established by this prince, likewise show the wide extent of his rule.

The name of Undopherras, which has a striking affinity to the well know Persian names of Phrataphernes, Dataphernes, Radhaphernes, and Tissaphernes, and more particularly to Intaphernes, would lead us to suppose him to be a Parthian, or a Persian; a supposition which is almost established by the evident Parthian type of the coins of this prince (or of one of his direct descendants) published by Colonel Stacy (Jour. As. Soc. Bengal, April, 1839). His name is spelt on some speci-

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mens Undopharas, which agrees much better with the Bactrian Pali reading of Andophara, than the usual spelling of Undopherras.

His coins, which are common at Beghram, and of frequent occurrence over all Ariana, are but rarely met with in the Punjab. These localities point out the extent of the kingdom of Undopherras, which must have embraced the Paropamisus, with Aria, Drangiana, and Arachosia, and most probably also Gedrosia, a territory bordering on Parthia, and which belonged occasionally to the Parthian empire itself, but separated from it by the natural boundaries of the great salt desert "and the vast Carmanian waste." This was the most eastern province of the Parthian empire during its most flourishing period, and after the defeat and death of Phraates 2nd, and of his successor Artabanus by the Scythians, and the consequent destruction of the empire, and after the commencement of the distant western wars with the Romans, and with Tigranes 1st of Armenia, which drained the eastern provinces of Parthia of all the forces necessary to keep them in subjection; no position could be more favorable, no circumstances more tempting for successful revolt, and for the establishment of an independent monarchy. Now from the evidence furnished by the coins of Abalgasa, we may deduce two positions of much value to our argument; *first*, Abalgasa, or Abalgasus, who calls himself the son of Undopherras, would seem, from the similarity of his name to the well-known names of Æb-azus, Bacab-azus, Pharnab-azus, and Artab-azus, to have been of a Persian or Parthian family; thus strengthening the supposition which I have already advanced, regarding his father Undopherras, that he was of Persian or Parthian family; and, *second*, that Undopherras, or Andophara, was most probably the first of his family, who had enjoyed *sovereign* power, as his coins make no mention of his father. Hence we may not unreasonably suppose that this Undopherras, the founder of monarchy in his own family, was a Persian Satrap placed over the eastern provinces of the Parthian empire, about 80 B. C., and that he profited by the disturbed state of the country to make himself independent. This supposition is much strengthened by the fact, that the walled town of Furrah, which is surrounded by ancient ruins, is in the midst of the countries in which this prince's coins most abound; and it may very possibly have been the capital of Andophara and of his dynasty; for this town was called *Parra* by the Greeks,

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and I believe also *Phra*; although its native name was more likely *Phara* (or Furrah), and in support of this being the true reading, I may adduce the following quotation from Lycophron (Cass. v. 1428).

———κιμμερος θ'ὁτως
Σκια καλυψει Περραν, αμβλυνων σελας,

in which the word Perras, used to signify "the sun," is only a Hellenized form of the Egyptian Phra or Phara; and hence we may conclude that Undopherras is only a Grecian rendering of Andophara (or Andophra) the very name which is found in the Bactrian Pali legends of the reverses of his coins.

To omit nothing that may possibly be of use to us in elucidating the history of this prince, known only by our coins, I will add my conjecture that Undopherras, or Indopherras, may very probably have been a descendant of Intaphernes, one of the seven conspirators against the Magian Smerdis. The names do not differ nearly so much in their spelling, as the names of Orientals generally do, when written by Europeans of different ages and nations; and we have already seen that the same word *Phra* or *Phara* has been rendered both by *Parra* and by Perras. We know besides, that the name of Darius descended in his family to the time of Alexander; and also that the name of Megabyzus, another of the seven conspirators descended to his grandson; while the name of his son Zopyrus was transmitted to his great-grandson as related by Herodotus. Here then we have evidence that the Persians, as well as the Greeks, called their children not by the father's, but by the grandfather's names, a custom which is still prevalent all over India, thus transmitting a name by alternate generations; hence if our Undopherras was descended from Intaphernes, the conspirator, it must have been about the 17th generation. Now Intaphernes was put to death by Darius soon after the death of Smerdis, or about 520 B. C.; at which time the *eldest* son of Intaphernes, the only one of his children spared, may have been ten years of age, making his birth in 530 B. C. from which 15 generations of 30 years, or 450 years being deducted, leave 80 B. C. for the birth of Undopherras, making him about 25 years of age when he assumed independence. This is indeed only a conjecture, but it is one so interesting, and also so plausible, that we may wish it, though we cannot prove it, to be true.

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Nos. 9 *and* 10. Round copper coins of middle size, of fair make, and in fair preservation.

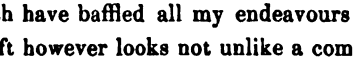
Obverse. Figure of the king on horseback to the left; the king's face half inclined to the front; the ends of the diadem floating behind; the right hand raised, and extended to the front; in the field before the horse the same monogram as on the coin of Undopherras just described. Legend in barbarous Greek—

On No. 9. — ΙΛΕΥ□ΗΓ□Υ ΒΑΣΙΛΕΩΝ ΑΒΑΛΓΑΣΙ□ΥΙ

On No. 10. — .. ditto. ditto. ΒΑΒΑΛΓΑΣ□ΛΙ

which I read as ΕΛΕΥ⊡ΗΡ□Υ ΒΑΣΙΛΕΩΝ ΑΒΑΛΓΑΣ□Υ "(coin) of the deliverer of kings, Abalgasus," where ΙΛΕΥ⊡ΗΡ□Υ is used for ΕΛΕΥΘΕΡΙΟΥ. It is indeed quite possible that the doubtful letters may be ΛΔΕΛΦ□ΥΙ□Υ but the plural ΒΑΣΙΛΕΩΝ is against this reading, as well as the Bactrian Pali legend of the reverse. The epithet of *Elentherius,* which I believe is altogether novel in numismatics, is well known as a title of Jupiter; and its substitution for the simpler Soter is quite in accordance with Oriental presumption; and taken in conjunction with the inferiority of the coin, it denotes a lower era of Grecian civilization, and a more flourishing period of the progress of barbarism.

Reverse. A male figure moving to the right, dressed evidently in the Indian *dhoti;* and from the ends of a diadem appearing behind his head, I should suppose him to be a royal personage; the right hand is raised and extended before him, holding out an indistinct object, not unlike the *hankboos,* or elephant goad. In the field are two Bactrian monograms which have baffled all my endeavours to read; the upper portion to the left however looks not unlike a compound of the Grecian letters P and M. In the field of No. 10 there is likewise the Grecian letter B to the left of the figure. Legend in Bactrian Pali,



Maharajasa trádatasa Abagasasa Andophara khudra putrasa;

"(coin) of the great saviour king Abagasa, the younger son of Andophara." In this long and highly interesting legend there are but two doubtful letters immediately before *putrasa:* these two letters I read with some hesitation as *khudra,* the Pali equivalent of the Sanskrit क्षुद्र *kshudra,* which means "younger," and completes the legend more satisfactorily than any other word which I can propose.

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A third specimen of the coins of this prince exists in Captain Hay's collection, of which he has kindly sent me impressions. The horseman on his coin is moving to the right, and the Grecian legend I am unable to read even plausibly, some of the letters being rubbed, and two or three lost by a chip in the sealing-wax impression; the legend however differs entirely from that of the coins just described, while the Bactrian Pali legend agrees in every single letter with the legend deciphered above.

Two other coins of this prince, in the collection of Dr. Chapman, of the 16th Lancers, are, through his kindness, now lying before me. One of them is like Captain Hay's coin, and has the horseman to the right, but neither of them is so perfect as the worse coin of the two engraved; and they lend but little assistance towards reading the Grecian legend: one of them has ΙΛΕΥ ... ΟΥ ΒΑΣΙΛΕΩΝ, which agrees with the inscriptions of the engraved coins; and tends to confirm the correctness of my reading of ΙΛΕΥΘ ΗΡΟΥ for ΕΛΕΥΘΕΡΙΟΥ. The Bactrian Pali legends give no more than the name of the prince and of his father. The only doubtful letter in the name is the third. On No. 10 this letter is ৳; being almost the same as our own numeral for five; and this same figure is on Captain Hay's coin. On one of Dr. Chapman's coins however the third letter is ৫; being the same as the last, reversed, but on the other coin it is ৱ; which last is probably the same as the first, much straightened, and precisely what I should suppose would be the written form of the first; the reversed form may easily have occurred from the neglect of the engraver; this reduces all these forms to the first ৳; and this character must therefore have the value of the Greek Γ, for there is no appearance of any compounded ৭ *l* in it. If I am right in the value which I have assigned to this letter ৳ or ৱ as *g*, then must the initial letter of the legend on the coins of Kadaphes Zathus, ষ be *gh*, for it is formed upon the same principle as the *kh*. On one of Dr. Chapman's coins the second letter ৭ is inflected with the vowel *á*, which therefore makes the second syllable of the name a long one, *Abágasa*.

On the two coins which have the horseman turned to the right, the monograms of the reverse differ from those shown in the plate. To the left of the figure is a square monogram similar to that which is seen on the coin of Undopherras, No. 8; and to the right is a character

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like a badly formed M, surmounted by a large dot, under which, on Captain Hay's coin, is the letter ϱ, *a*; and on Dr. Chapman's coin a different Bactrian character inflected, but which is too indistinct to be readily deciphered.

The name of Abalgases has an evident affinity to the Parthian ΒΟΛΟΓΑΙΣΗΣ or ΒΟΛΑΓΑΣΗΣ, the Vologases, and Balases of Roman history, of which the original Parthian name was most probably Bálagasa or Bálgasa; for the Pehlevi inscription on a Sassanian gem was read by Ouseley as "*Balgezi Yezdani*," Vologases, the divine; the Balash or Balatsha of Persian historians. I have therefore little hesitation in recording my belief that Abalgases, Bologaises, and Balgezi are but different spellings of one original name—Bálgasa or Abálgasa.

This naturally leads me to the consideration of whether this prince was one of the Parthian kings of that name, or another independent prince of the same age and nation; which latter appears to be much the more probable. In my remarks upon the coins of Azas, I have already shown that there was an independent dynasty of princes reigning near Kabul, cotemporary with Mayas, and his successors in the Punjab; and this position, which I deduced from an examination of the coins, seems to be pretty clearly established by the following extract from Professor Lassen's article on the Bactrian language; who, quoting Ptolemy, says, "the western half (of Kabulistan) belonged to that nation, whose separate tribes are comprehended under the general name of the Paropamisades; the eastern is numbered with the Indians; but the plain at the lower part of the river is *now* under the power of the Indo-Scythians." By *now*, Ptolemy must of course refer to his own times; but this passage sufficiently proves that the part of the country spoken of had originally belonged to the Indians; most probably under Mayas, Azas, and Azilisas. Now the fair execution of the coins of these princes proves them to have flourished soon after Menander, or about the same time as Hermæus at Beghram near Kabul, that is B. C. 100. Vonones would appear also to have been cotemporary with Azas, from the style and type of his coins, which are similar to those of Azas, who flourished probably in B. C. 80. Again on two of Dr. Chapman's coins, which will soon be published, we have on the Grecian side a name which I read as Spalyrisas, while the reverse has

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the name of Azas in Bactrian Pali; thus establishing beyond a doubt that these two princes were cotemporaries, and rendering it highly probable that Azas was the son or brother of Spalyrisas, and an associate in the kingdom, or that he was tributary to that prince. Now the coins of Spalirisas have an intimate connexion by their type with the coins of Vonones, which have on the reverse the name of Spalhára, bearing an evident family resemblance to the name of Spalyrisas; and thus affording an additional evidence that Vonones must have been nearly cotemporary with Azas, about 80 B. C., and consequently much anterior to the Parthian Vonones 1st, who reigned in A. D. 4—14.

The coins of these Indo-Parthian kings are highly interesting, as they seem to hold out a hope that we may bring the Arsacidan chronology to our aid; but as in the case of Vonones, so also in that of Abalgasus, there appear good reasons for believing that our Indo-Parthian prince was much earlier than the Parthian king Balgasa or Vologases. The general appearance in type, make, and style of characters observable in the coins of Abalgasas and of his father Undopherras, connect these princes too closely with the Indo-Parthian Vonones and his successors Spalyrisas and Spalurmas, to permit the identification, however much we might wish for it. For the Parthian king Vologases 1st did not begin to reign until A. D. 50, which is nearly 100 years later than the period of our Abalgasas, supposing his father Undopherras to have succeeded to the family of Vonones and his successors. Again, the Chinese historians affirm, that in 26 B. C. the Indo-Scythians conquered the whole of Northern India, of which they retained possession until 222 A. D.; and Ptolemy, in describing the extent of the Indo-Scythian empire, says, to use the words of Professor Lassen, that "its main part is situated along both banks of the Indus." Now this is the very country in which the coins of our Vonones and Abalgasus are found; and hence we may almost confidently say, that they must both have flourished before the final conquest of the Indo-Scythians in B. C. 26, and consequently cannot be identified with the Parthian princes of the same names, whose reigns fall within the most brilliant period of the Indo-Scythian rule. Indeed if I have read the Bactrian Pali legend of the coins of Abalgasus rightly, we have the plainest proof that *he* cannot be identified with

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any Parthian prince, unless we suppose his father Undopherras to have been also a king of Parthia; a supposition which would only involve us in still greater difficulties.

There is a curious passage in Tacitus (Ann. lib. XI. c. 10.) which, if true, would almost show that the Parthian arms had not penetrated into the country of the Paropamisades before A. D. 44. In speaking of the successes of Bardanes, who had pushed his conquests beyond the river Sinde, which divided the territories of the Dahæ and the Arians, he adds, "igitur extructis monumentis, quibus opes suas testabatur, nec cuiquam ante Arsacidarum tributa illis de gentibus parta, regreditur." Professor Heeron, however, says, that Mithridates 1st extended the frontiers of the Parthian empire as far eastward as the Hydaspes. Tacitus indeed does not say that no former Parthian king had pushed his arms so far; but when he says that none of the Arsacides before Bardanes had taken tribute from those nations, we may suppose that none had before penetrated so far to the eastward; for in all wars, and more especially in those of the east, conquest is followed by exactions, which are usually called by the victors by the milder name of tribute. The authority of Tacitus is also much strengthened by the silence of Justin, who in mentioning the conquests of Mithridates 1st, over the Medians, Hyrcanians, and Elymæans, merely adds "imperiumque Parthorum a monte Caucaso, multis populis in ditionem redactis, usque ad flumen Euphratem protulit."

From these passages therefore it would seem to be almost impossible to identify our Indo-Parthian king with the 1st Vonones, who was one of the predecessors of Bardanes. Professor Lassen, however, supposes him to be the same as the 2nd Vonones, who reigned for a few months only in A. D. 50: but I have already shown that our Vonones must have been nearly cotemporary with Azas, about 80 B. C; as their coins are similar in type, make, and genarel appearance. In addition to which we have the united testimony of the Chinese historians, and of Ptolemy the geographer, in favour of our Vonones having been an independent prince: for they both declare that the country in which his coins are found, was under the dominion of the Indo-Scythians during the reign of the 2nd Vonones of Parthia; but on this subject I shall speak more fully when I come to describe the coins of the Indo-Scythians themselves.

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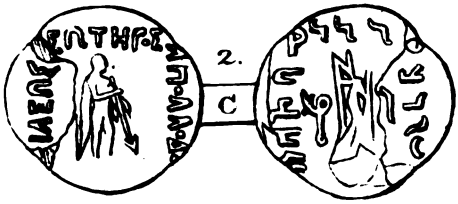

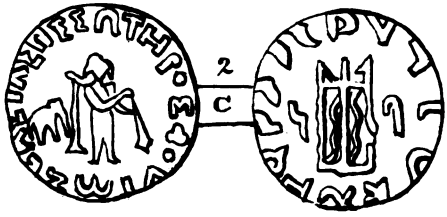

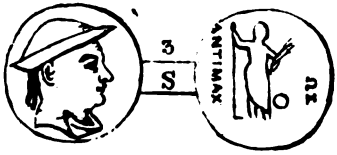

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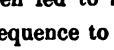
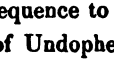
When I wrote my notes upon Captain Hay's Bactrian coins, I had not given any attention to the study of the Bactrian Pali characters; my readings of the native legends of those coins were therefore made according to the values assigned to the different letters by my late lamented friend James Prinsep, all the observable differences in my readings having been errors of the press. Had James Prinsep lived, he would long before this have perfected what he had so successfully begun. Since then, however, I have examined not only all the coins within my reach, but also all the engravings published in the Journal des Savants, in the Numismatic Journal, and in the Journal of the Asiatic Society of Bengal: and after a careful examination of them all, I have been led to some discoveries which appear to me to be of sufficient consequence to warrant their publication.

The name of Undopherras on his own coins is invariably represented in Bactrian Pali by ; which Mr. Prinsep rendered by Farahatisa; he however doubted the correctness of his own reading, which was based upon an assumed and false value of the initial letter. On the coins of Abalgasus the name of Undopherras is written with a slight variation thus, ; the turn at the foot of the initial letter being to the left instead of to the right, and the fourth letter being the common *r* instead of the cerebral *r*. Now there are four syllables in the Greek name, and in its Bactrian Pali equivalent there are an equal number of letters, forming with inherent or written vowels the same number of syllables, and consequently agreeing exactly with the Greek name, thus giving us the best possible clue to the value of each of these Bactrian Pali characters, which I will now examine separately.

1st. The first letter is found also as the initial of the name of Agathoclea, in which name it represents the Greek *æ* short. Prof. Lassen has strangely supposed the initial letter to be *m* inflected with the vowel *e*, making the first syllable *me*! In the name of Undopherras this letter stands for a short *u*. It is found also in the middle of the names of Spalurmas, and of Abalgasas, in the former representing *u* short, and in the latter *a* short: for I believe that Abalgasus might with equal correctness have been written Abalgysus, as Megabyzus is always written.

From these four examples of the use of this letter, there results the certainty that it represented the short vowels *a* and *u* of the Greek,

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both of which have the sound of the short *a* 𑀅 of Sanskrit, which has the exact pronunciation of the first syllable of the name of Undopherras. Here I may notice that Undopherras, Spalurmas, and Abalgasas are not Greek names, and therefore we ought not to look for the Bactrian Pali equivalents of the Greek letters used in expressing their names; but we should reverse the process, and seek for the Grecian equivalents of the native characters: for the Greek names vary on many of the coins of these later princes, while the native names are always the same; and this is more especially the case with the coins of Spalurmas, which exhibit the different Greek versions of Spalurion, Spalumon, and Palurman; the last being found on an unpublished coin belonging to Captain Hutton, which wants only the initial *S* to make the name perfect. The same letter which is found initial in Agathoclea and in Undopherras, is here found medial; and by my discovery of its true value, I am able to correct the various corrupted Greek versions by the native name, which remains always the same. The characters are five, 𐨪 𐨮 𐨯 𐨰 𐨱; of which the first is an evident compound of 𐨪 and 𐨯 or *sp*; the second letter is *l*; the fourth *r*; and the last *m*; wherefore the third letter can only be *u*, used as the initial of the latter half of the name, and thus the whole name becomes clearly *Spal-urma*, or with the Grecian termination Spalurmas, of which the genitive would be Spalurmon; and this last we may easily discover with but slight alterations in the different Greek versions.

The turn at the foot of the initial letter in the name of Undopherras, I suppose to represent *n*, making the initial syllable YN, for one foot turn to the left is exactly the same as that which is found at the foot of the initial letter in the names of Antimachus and Antialcidas, where it unquestionably represents *n*.

2nd. The second and fourth letters of the name of Undopherras are the same, one of them being merely inflected. To this letter Mr. Prinsep assigned the value of *r*, which is correct: but I am prepared to show that it has also another value, and that it represents the cerebral 𑀥 *d* of the Sanskrit, which is commonly pronounced 𑀥𑁆𑀭. As an equivalent of *d* it is found on *all* the large round copper coins of Apollodotus; and also in the name of Diomedes, where it is initial and inflected with the vowel *i*, thus 𐨤 *Di*, rendering the name of Diomedes very satisfactorily as Dïyamédasa 𐨤𐨪𐨫𐨣; hence we learn that

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the second syllable of the name of Undopherras is *do*, the sloping stroke to the left downwards being the vowel *o*, with which the *d* is inflected; and precisely the same mark which is found to represent *o* in the name of Zöilus.

To the second letter therefore in the name of Undopherras, I have assigned the value of *d*, but as this letter occurs again as the representative of the Greek double PP, it must have another value, and be equivalent to an aspirated or double *r*; and this indeed is the precise sound which the Sanskrit cerebral ड *d* frequently has, as ड़ *r*. Here then we find that by giving to this letter *s*, the value of the cerebral ड *d* of the Sanskrit, it completely fulfils all the conditions in which it is found upon the coins; thus most satisfactorily establishing the correctness of the value which I have assigned to it, and at the same time leading to the discovery that the third letter of the Bactrian Pali name of Undopherras can be no other than *ph*, thus rendering the whole four characters literally Andophara.

ALEXANDER CUNNINGHAM.

(To be continued.)

Notes of a March from Brimhan Ghat on the Nerbudda, to Umurkuntuk, the Source of that River. By G. SPILSBURY, ESQ.

In the Asiatic Journal, for August 1834, appear some notes of mine from Tendookherie, across the valley of the Nerbudda south to the table land of the Puchmuree, or Mahadeo hills. In the following paper I propose to give the result of my observations from Brimhan Ghat to Umurkuntuk, the holy source of the Nerbudda river. The notes will comprise three different routes, and I have some hope that by the aid of the accompanying map, and the specimens forwarded for presentation to the Museum, that I shall have added a mite to the Geographical and Geological knowledge of this as yet little travelled portion of Central India.

In the construction of the map, for which I am indebted to the able pencil of Captain Reynolds, Madras Army, I have to remark that its correctness depends on the places written in Capitals, which are laid down from the map of these territories, furnished from the Surveyor General's office, on a scale of eight miles to an inch. The notes commence at Brimhan Ghat near Chawurputhur; on leaving which we struck off in a S.S.W. direction, crossing the valley of the Nerbudda, which yields but little variety to the geologist, being a fine rich black soil of decomposed trap, intermixed at the banks of most of the Nullas with calcareous tuffa.

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At Beerkherie, the Shair river is crossed, its bed compact basalt, and the road lies through rich black soil up to Burheyta, where it changes to sandstone. This now insignificant village has been the site of a large city, and extensive vestiges of a fort, palace, temples, buolies, tanks, and gardens, are yet to be traced. The temples are generally Boudhist, or belonging to that æra, and five large images of compact basalt, three of which are standing, and two in a sitting posture, have been ignorantly assigned by the natives of this place to the five Pandoo brothers—Dhurum, Bheem, Urjoon, Sahdes, and Nukool.

Low sandstone hills, varying from a few feet to a couple of hundred, covered with thin jungle, is the characteristic of the country, with vallies of more or less extent of decomposed trap; about three miles east, near Nandeea, is a hill of quartzose pebbles; about 100 feet up is a deposit of steatite No. 1, called by the natives Gora Pan, and largely exported; in contact with it lie the specimens Nos. 2 and 3.

At Sreenuggur, the Omar nuddee, the bed of which is composed of the schist No. 4 and 5, and from a hill adjacent the limestone No. 6 is procured. The next five miles is a similar siliceous formation as that from Burheyta to Sreenuggur, when you come to trap boulders, making the road more or less stony and unpleasant. About three miles short of Dhooma, the road winds up a steep ghatee of compact basalt, at the top of which is an undulated table land of considerable extent. From this to Jhiria, where this table land is again descended, the country is of the uniform character found in trap formation; at Kuhanee, jasper and quartz No. 7, amygdaloid No. 8, and travertin No. 9. The beds of the Nullas are compact basalt; the only exception seen was at Pindraee, where the Thanwur Nulla (a feeder of the Wyn Gunga and Godavery,) is crossed, at which the limestone No. 10, crops out on its left bank.

At the bottom of the Jhiria Ghattee, the descent of which is neither so long or so steep as that ascending to Dhooma, boulders of indurated red clay, No. 11, are met with. The remainder up to Mundlah is a well cultivated plain. The ford of the Nerbudda is compact basalt, No. 14, and this specimen is a type of the formation wherever found in these territories.

Mundlah has been a place of note, but since General Marshall dismantled the Fort in 1818, the town has gone to decay, and is now but an insignificant village. The river being full here from bank to bank, 326 yards, and totally unfordable from hence to Ramnuggur, (a distance of twelve miles) has a very picturesque appearance, aided much by the ghats and temples along its right bank, and the mouldering battlements and bastions of the fort. From this we proceeded along

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the right bank, all trap formation, road stony from boulders; about six miles crossed the Putwara nulla, where veins of wacke with feldspar No. 12 and feldspar No. 13 occur; after this the road is undulated, a series of ascents and descents through rather a dense tree jungle until you again approach and recross the river, the bed of which is trap, intersected in some places with veins of calcareous spar wacke No. 15, 16.

Ramnuggur in the days of the Gound Rajas, was a place of note. There is still an old palace of four stories, built by Hirdee Sah some 200 years ago, and half a mile off one by his Dewan, little of which remains beyond the walls, but of the palace, situated on the bank of the river, and looking up a long reach of it, little decay has taken place beyond what is to be expected from neglect and desertion.

The general feature is a square with an inner court, in the centre of which was a Tanka* (from whence I presume we got our tank) and garden. The whole of the rooms, especially of the lower floor, are occupied by the villagers, and a considerable number of families have found habitations therein. The village is now insignificant, and there are but very few remains of its former state, when kings held their court. In the village, and at the eastern side of the court of an old temple of Mahadeo is the stone on which, in Sanscrit characters, is graven the list of the sovereigns from Jadoo Rae, Sumbut 415, as detailed by Major Sleeman in the Asiatic Journal for August 1837. On leaving Ramnuggur we had to make a detour to the south, in order to get again into the direct road from Mundlah. The road is bad and stony; we passed up a defile, and crossed over a hill called Doondooh of trap formation. The ascent was easy, but the descent steep and stony, on which you emerge into an open and extensive plain; at the bottom of the Ghatee cross a small nulla, in which is found granite No. 17; a mile or two further is the Datta nulla, near the village of Lutooa. From this the specimens of limestone No. 18, 19, were procured, and from this locality lime for the buildings at Ramnuggur was made; about 6, cross the Mutyaree river, rather a large stream, which some way down joins the Banjur, which flows into the Nerbudda immediately opposite the Fort at Mundlah.

The ford of this nulla is composed of granite No. 20 and 21, but about two or three hundred yards further up the river a ridge of compact basalt crosses it, after this the soil changes to a sandy one, the general rock being No. 21, also intermixed with gneiss? No. 22, 23, and 24, syenite. At this place, Unjoneea (and where we regained the direct road from Mundlah)

* I first heard this word used by a native in Betool district; on asking him if at the top of Bowergurh there was any spring, he said no, but there was a Tanka or place made of pukka, stones and cement, for holding water.

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was shot by Captain Tebbs, 33rd Regiment of Native Infantry, a pair of the horn-bills (first seen in the dense jungle on the banks of the river near Ramnuggur,) and designated in Cuvier's Animal Kingdom, as Buceros Malabaricus; the bird was also seen at Umerkuntuk, but I am not aware of its being met with in any other part of these territories.

Our next march was near Bichia to the Khoolar nulla, fourteen miles, the first two miles being the same primitive formation, granite and massive quartz, when we ascended a small ghatee of trap boulders, passing over a plain, little jungle, and scarcely any cultivation; about 9 a gradual descent to the Mutyaree nulla, the bed compact basalt; leaving a village, Oomurwaree, to the right; more cultivation about. From here to the Khoolar nulla small trap hills are crossed of the same formation.

The next was Motee nulla, 16 miles; up to the Dutla nulla the formation was the same basaltic one, but in the bed of this nulla granite same as No. 21, at Unjoonea. The soil now changes to a siliceous one, with large masses of white quartz jutting out on a bleak open plain, singularly devoid of the traces of man in the shape of cultivation or habitation. About eight miles a fine pebbly stream with well wooded banks is passed. The Hullown, (which joins the Boornerh near the village of Ghooghree, on the direct road from Mundlah to Ramgurh,) about five miles more, over grass plains approach the gorge of hills, and the jungle becomes more dense; ascend a small ghatee, the Jogeegoopha, the hills on each side rising above, the formation is limestone No. 25 capped with trap. On descending towards the Motee nulla, it again becomes massive quartz. In this nulla we first observed the laterite No. 26, 27, 28, 29 (so extensive a component of the Mikul hills) iron ore No. 29, chert No. 30, indurated iron clay No. 31, sandstone No. 32, indurated clay and calcedony No. 33.

In this and the preceding march, the sal tree, in large clumps, gives the country a very peculiar appearance, and trees of any other kind are not general.

Rajadhar 14 miles, road good, undulated country, grass plains with clumps of the sal, formation laterite, with conical hills of trap up to Munglee, about which are some small Goandee villages, and cultivation. Soon after this the road lies between hills thickly wooded, and high grass; pass through a defile, the Sukra ghatee, in which is limestone No. 34, intersected by veins nearly vertical, No. 35, 36, 37, 38, 39. On emerging from this, there is a considerable open space up to Rajadhar on the Phene nulla, which is situated at the edge of a very dense jungle and hills. The bed of this nulla is chiefly large boulders of laterite, and a greenstone No. 40.

Boorla, about 15 miles by the footpath, and about 19 by the road which the cattle and baggage went.

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On leaving Rajadhar the road lies between hills of laterite, close dense jungle, over a trap hill to Bunder Motee, spring and ghat, where limestone No. 41, and at the bottom of the descent steatite No. 42, and that with argillaceous veins No. 43; from this the descent is rough and stony, and just before reaching the stream Brinjuree, or Murrum Joree, the syenite No. 44, and in the bed of it granite No. 45, 46; intermixed are boulders of No. 40. On arriving at the nulla, bamboos are again observed, and the sal disappears. From this the road winds up a hill not very steep or long, pass along a flat, when a long steep stony descent commences, the chief rock being No. 45, 46; at the bottom emerge into a small level plain, the hills approaching on both sides; about two miles on the Puraha nulla is crossed, and again a mile or so on, when the road is more open, and the jungle by no means dense; in front are a range of small conical shaped hills of no great height, the ridge of one of which is passed, the first ascent of which is sandstone No. 47, next in strata running nearly north and south of clay-slate No. 48, and further on No. 49 of the same formation; after this the hills are entirely cleared, and the country is a very extensive open plain bounded to the north by the low conical hills which we have passed over, nearly bare or only stunted jungle, and behind, towering above, the line of the Mekul range. On leaving Rajadhur all the springs and nullas are feeders of the Mahanuddee. At Boorla is a small circular hill, evidently a similar formation to the hills last passed over, specimen No. 50.

Pando Tulao, eight miles, a march in the plain; the villages are more numerous and cultivation is extensive, much of it rice; a spur of the hills comes down close on this place, the formation of which is limestone No. 51, and in a small rivulet close to our camp, rocks were projecting at an angle of 45°, running east and west, and the strata so disposed, as to have much the appearance, at a short distance, of the scales on the back of the Manis; they were limestone No. 52.

Pururea nearly seven miles; the same plain. In this march a fine stream, the Hamph nulla, the bed of which is a reddish limestone No. 53. Pururea itself is a large village for this part of the country, the houses with one single exception (that of the Zemindar's, who was building a brick edifice) are all built of split bamboos, plastered for the walls, and grass chuppers.*

Umuldeha, nine miles; the same open cultivated country. About three miles on, cross a small nulla from the hills, skirting our left, the bed of which is limestone No. 54, 55, as also a small circular eminence No. 56;

* The cheapness of food here was as unexpected as agreeable to our people.

Seers *per* Rupee. { In camp 15 Ata 38 in the village.
Ditto, 12 Gram 52 ditto.
Ditto, 14 Rice 50 ditto.

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at the next stream, close to the village of Kurpee, the same limestone forms the bed as at the Kamp nulla No. 53.

Khoorea, nine and three quarter miles. On leaving camp the Agur nulla, the bed of which is rolled pebbles and sand, is crossed, and the first two miles is over the plain we have had since Boorla, after which we entered jungle gradually increasing until it becomes a dense tree (among them the sal again) and grass forest, all the way to the Munyuree nulla, the bed of which is granite (with rolled pebbles and sand) as per specimens No 57, 58, 59, 60, 61; a little to the left of the ford is the steatite No. 62, strata running nearly east and west, diagonally crossing the bed of the stream, also parallel the quartz No 63, 64, in thin laminæ. At this place was shot by Lt. Clement Browne a beautiful squirrel, which Colonel. Sykes named Sciurus Elphinstonii (As. Jour. vol. i. p. 165); they are also found in the Mahadeo hills.

Kutamee, nine and three quarter miles. This march skirts the Munyarie nulla, and is thick tree and grass jungle, but good road, and slightly ascending the whole way; the formation is granite and massive quartz, with exception of the bed of a small nulla which was basalt. At the village the bed of the Munyarie had ledges of compact basalt running across, and close to that gneiss No. 65, and higher up hornblende with feldspar No. 66; beyond and below, granite No. 67 and 68.

Lumnee, nine and a quarter miles. This is a bad and difficult march for cattle and baggage, the road being very stony. We crossed the Munyarie immediately on leaving camp, and two miles on a bad stony descent to a small stream, and the ascent not much better; pass through a dense forest, the diameter of many of the sal trees was very great. On reaching a stream about three miles from our camp the road begins to wind up a very long, and in places steep ghatee. The jungle exceedingly thick, from the summit of which is an extensive view over the plains we have left. The formation is primitive rock, at the top mica schist No. 69, and gneiss No. 70, 71. On attaining the summit, bamboos were very luxuriant and dense for a mile or so, a feature in the scenery not observed in the forest below. The road now winds along the crests of hills which brings you to a descent of about half a mile (neither so steep or stony as the ascent) into the plain of Lumnee; a few huts constitute the village.

Umurkuntuk, the source of the Nerbudda, eleven miles. The bed of the nulla is trap No 72, and about a mile further a nulla cuts through a hill of micaceous schist No. 73, and bed of the nulla No. 74. The road now is a series of ascents and descents covered with jungle; formation granite No. 75, mixed with sienite No. 76, 77, 78, 79. At the Bhereeghur nulla, compact feldspar No. 80, and granite No. 81, compose its bed.

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The remainder to Putpura nulla, seven miles, primary rocks, the jungle very thick and dense; the bed of this nulla is composed of rolled laterite and trap boulders, lying on granite and quartz, where the rock shows itself; half a mile on the Sampghur nulla is crossed twice, a fine stream, and water most excellent. From it the specimen No. 82 quartz, mica, and feldspar.

On crossing this stream the second time, the ascent of the Jogee ghatee commences; formation trap boulders. The ascent is about a mile, in places steep, but very good for all laden cattle, baring its steepness, there being no rocky steps or ledges in it; the whole very dense tree, bamboo, and grass jungle. To the left, and on the banks of the nulla, tokens of a former site of a village, evinced by the plantain and mango trees; with exception of No. 83 marl, and No. 84 lateritish clay, the whole of the upper part of the hill is laterite, as specimens No. 85, 86, and the very summit No. 87. On arriving at the top a fine open plain, with a few trees scattered about, give a very park-like appearance to the scenery.

I shall now return, and trace the direct road to this holy spot from Ramnuggur.

Ramnuggur to Ghooghree thirteen miles; for the first two miles the open cultivated plain of the Nerbudda, when you approach hills and enter a defile with a gradual ascent: about two miles further, you come to a pukka boulee of the same style as the buildings at Ramnuggur. The road gradually closes into a few feet, and becomes steeper, the hills on each side rising up 100 feet above the road. The whole ghatee called Bidee is stony and bad, with dense bamboo grass and tree jungle infested by tigers. The formation is trap. On attaining the crest at six miles, the road opens out again, and the hills recede right and left; the soil is siliceous with quartz (massive and crystallized) and calcedony strewed about. From hence to Ghooghree the country is rather open, jungle thin, small hills about, with valleys and streams, and here and there a Gound village, with patches of cultivation; road very good from the crest. The village is rather large for this part of the country, and on the banks of a very fine brawling stream 200 yards wide, the Boorhner.

Sulwah, nine miles. A mile and half on, cross the Boorhner a short distance below its junction with the Hullown, these united streams are very considerable feeders of the Nerbudda. The bed is rocky (basalt); on leaving it there is a steep stony ascent of about half a mile, and a mile and a half further another of about 100 yards, which is a spur of the Patungurh hill, the peak of which towers some seven or eight hundred feet above; on its summit there is said to be a spring of water, and many fine trees could be seen. The crest has some appearance of a fort, and the natives declare it to have been made by the Deotas; on passing this hill there is rather an extensive

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plain to the south, with a few villages and some cultivation; the last two miles the hills gradually close in, and a defile with a gentle ascent is passed through, to the Tola of Sulwah, the village itself being off to the south-east about a mile.

Ramgurh, thirteen miles. The first five and a half miles is chiefly over a bare open undulated plain, crossed by a great number of little rivulets with a slight ghatee to descend; the road is then through a defile, along which flows the Kookrar and Bhurkindee nullas with lofty hills on each side, covered with dense jungle grass, bamboos, and trees, a distance of about three miles, when the Tendoo Ghatee, some 400 yards, is ascended; pass along table land, a mile or so when the hills recede, and an extensive valley running about north and south, not very broad, presents itself, through which rather a large stream, the Khurmer, flows; and at the east side and left bank on a small hill, is Ramgurh, the capital of a rajah, now lord of some 1400 villages; with exception of a pukka house, his residence, the village is entirely bamboo wattling and thatch.

Sumnapoor, nine miles. A good road up the valley of the Khurmer; several villages, and much more cultivation of rubbee than we have seen since leaving the valley of the Nerbudda.

Burbuspoor, six and a half miles. The road is the same as the preceding for the first two and a half miles, when we enter the hills on our left, and ascend a trifling ghatee called the Ghooghurwahee ghatee of about 400 yards, by no means steep, on attaining the crest of which, the aspect and appearance of the country is totally changed, partly from the predominance of the sal tree, and partly from the greenness of the grass; pass through a defile 200 yards wide, when the hills recede, and there is an open extensive plain with the Muchrar flowing through the village on its right bank.

Chukrar nulla, ten miles. Road lies across the valley of the Muchrar, through cultivation, about two miles, when the hills close in, and the Ludwanee ghatee is ascended, not long or steep, but stony; the descent is considerably steeper, but by no means bad for any cattle. On reaching the foot, skirt the hills on the right, plain level road, there being a large grass plain to the north; the last two miles bad and stony trap boulders.

Seeoonee nulla, ten and a half miles. On leaving the nulla small trap hills are skirted for the first three miles, when you enter a thick jungle and ascend the Mohtura ghatee, of easy ascent, the descent being steeper, but by no means difficult; the road then opens out into an extensive grass plain; it is to these grass plains that the thousands of cattle resort from the country below the ghats during the hot months; remainder open, constantly intersected with little streams, and no where did the water appear to be above a couple of feet below the surface.

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Kurunjeea, eleven miles. The first part skirts and passes over some low trap hills up to the village Bukree, when the country opens out into a very large grass plain; the Nerbudda north, distant three or four miles; cross a stream, the Toorar, and up to the shoulder of a lofty hill with a conspicuous peak overlooking the village of Ramnuggur; remainder open; Umurkuntuk nine and half miles. The road lies through a small valley, in which flows the Kurmundal with lofty hills on each side, gradually closing in to the entrance of the pass, which becomes a dense jungle; the ascent is about a mile, and pretty steep, but not very bad for cattle; pass along a ridge where there is a small grass valley in which is a pool of water, called Hathee Dabur, and on descending a ridge, a spring issues from the head of a ravine, said to be the source of the Kurmundal nulla. There is a Chabootra, and many plantain trees at the spot, known by the name of Kurbeer Chabootra; after this two ridges are crossed, when you attain the table land, and about half a mile before reaching the Koond join in with the road from the Jogee ghatee, by which we ascended in the former march.

I have said but little on the geological formation of this route, for the reason that it is so simple, and affords so little variety; the first ghatee, which is the same range as the Doondoo ghatee, is unvaried basalt, and so continues the whole way the same formation, the hills and peaks from Patungurh being capped with laterite, and all the beds of nullas basalt; little laterite is seen in the plains until the Tendoo ghatee is ascended, when the soil is more or less of a reddish colour, and after ascending Ghooghurwahee ghatee the soil is entirely so; about Sulwah and Patun fossil shells, same as those from eighteen miles east of Jabulpoor, imbedded in indurated clay, are met with, and on the east side of the Mohtura ghatee is a small conical hill, containing similar shell breccia. In the latter are found the shell delineated in the Asiatic Journal for September 1839, plate. — fig. A. 11. originally found on the Pureyl ghat, which is on the first plateau on the Mekul hills overlooking the plains of Soohagpoor; a few bivalves also have been met with in this locality. Travertin was found near the summit of the Mohtura ghatee, and a reddish sandstone formed the bed of the Seeoonee nulla, a mile or so before its junction with the Nerbudda. With these exceptions laterite resting on basalt is the characteristic of the country.

The table land of Umurkuntuk constitutes the second plateau of the Mekul hills, and is but of small extent, six miles either way would bring you to a precipitous descent.

East from the Koond, less than a mile, is a bluff rock of basalt, over which a very small stream trickles with a fall of 252 perpendicular feet, and

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which the Bramins assure you is the Son Bhuder, whereas the latter rises from a swamp near Pindraee, and the former joins the Arup, one of the feeders of the Mahanuddee. West from the Koond, four and a half miles, is the first fal of the Nerbudda, 90 feet, over compact basalt No. 90, and called Kupildhar, after the celebrated Moonee of that name; from the summit of the hill at Jogee ghat south to the crest of the descent at the Punkhee ghat north will be under six miles, and from the Kookre Moorghee ghat (or Ramgurh) to the Amanara ghat, is less, and these points give the extent of the table land at Umurkuntuk.

The spring at and about which the temples are built, is by no means the highest spot of the plateau, but I conjecture that where the Koond (which is a pukka irregular square basin, with steps leading down on every side) is, it was found that a spring ran all the year round, whereas from the upper points they generally dried up, as they nearly were when we visited the spot. The Brahmins have also added legends to these sources; that from the east is termed the Sonbhudr, and that from the north the Johilla, and you are gravely assured by these priests that the streams are running up the hill, to protect themselves from the fury of Nermada Mae. At the place are some 60 temples of sizes; that in which the image of Johilla the Nain (said to be iron, of which I have strong doubts) is a picturesque one, and so is another adjoining, of a totally different style to the generality, but in miniature like those built at Oodeypore and Putharee in Scindea's country; the whole of them are built of laterite with which the table land is capped. Of its height above the level of the sea, Mr. Jenkins the Resident of Nagpore in his report of that country states it at 3464 feet; but Lieut. Waugh and Rennie, who visited it in 1833 en route from Chunar to Jubulpore, I understand make it near 5000. There is a peculiarity of this elevation, which I may notice here; viz. that we were assured by the residents of the place that it rains throughout the year every third or fourth day. I have only to say that in two visits made to it, that such was undoubtedly the case as far as our observation went; now allowing its height to be that stated by the engineer officers, on what principle is this humidity to be accounted for? The peaks of the Mahadeo hills, Chowradeo, Jutta Shunkur, Dobghur rising out of the plain of Puchmurree, have an equal altitude, and nothing of the kind occurs there. Has the geological formation any thing to say to this meteorological difference? The Mahadeo hills are sandstone with rolled quartz pebbles, Umurkuntuk entirely laterite resting on basalt. A register of a thermometer kept by a native in an open verandah of a temple, from the 12th of April to the 24th June gave the following results; unfortunately no attempt was made to note the prevailing winds, clouds, or rain.

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The Min of 18 days of April gave 58 and the Max 90—med. 74.
Ditto all May „ 62 ditto ditto 94—med. 78.
Ditto 24 days June „ 71 ditto ditto 95—med. 83.

Near the temple in which is the goddess of this river, is a Beejuck, but so defaced and broken that little of it could be decyphered by the most zealous antiquary; on the floor of an open temple is a small image, which the pundits assured me was that of Rewa Naick, a Bunjara, to whom the goddess appeared in a dream, and directed him to clear the site of the present Koond, then a dense mass of bamboo jungle; the date Sumbut 922* is very plain, and is within ten years of the period of the copper plate dug up at Koombhee, and forwarded by me (Asiatic Journal, for 1839). The animals met with on the Mekul hills are wild buffaloes, Gour, Sciurus Elphinstonii, Buceros Malabaricus, and on the table land of Umurkuntuk the solitary snipe, none of which are generally found in the valley of the Nerbudda east of Mundlah. I shall now proceed with the notes of the march into the Sohagpoor plains.

Hurree Tola, nine and a quarter miles. The road from the Koond at Umurkuntuk lies in a northerly direction, crossing a ridge of jungle and grass into a small valley, in which flows the Burat nulla, and at six miles is the crest of the ghat called the Punkhee ghat; it is long, but no where steep or difficult, the whole formation laterite, resting on basalt. On reaching the bottom you are in an extensive grass plain, with peaks of the Mekul Hills rising in the distance; the village a few huts, with the Johilla river flowing through the plain at the distance of a mile. The jungle on this side of the hills is not near so dense, or the trees so large, as on the Jogee ghat side; the sal trees fewer and smaller.

To Lukhora, thirteen miles. This distance is of one uniform feature, an extensive undulated grass plain, intersected by streams and springs in every direction, with the Johilla flowing through it, into which all the others run. The soil laterite, and all the beds of the nullas compact basalt.

Pureye, fourteen miles. The first 7 miles the country of the same nature as that on descending from the table land, if any thing rather more undulated; about seven and a half miles cross the Johilla, a fine stream, the bed is basalt mixed with some limestone No. 91. At Bouraha village about 9, the grassy plain may be said to terminate, as the road now becomes a constant series of bad stony ascents and descents of trap boulders, dense tree and grass jungle; at thirteen and a half the Backan nulla is passed, its bed of compact basalt, and lying about boulders of indurated green clay No. 92, and shell breccia No. 93, 94; about 50 or 60 yards to the right the nulla passed over a ledge of

* I enclose a transcript made by Captain Wheatly and myself, the explanation given by a pundit afterwards by no means agreeing with the oral communication on the spot.

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some 40 or 50 feet, the sides of which had hexagonal basaltic columns; from this nulla to camp the whole distance was strewed with the shell breccia in indurated clay No. 95, 96. The village small, and a dirty looking tank; it is situated immediately on the verge of the range.

Kyrrha, seven miles. The ghat commences on passing the tank, and is a very bad, steep, stony descent for about a mile, all large trap boulders, mixed with some travertin No. 97, after which the real difficulty of the ghatee is passed; then follows an inclined plane all limestone No. 98, and a descent of the same formation, when the level plain is attained; from the tank to this is about 3 miles, the road good, strewed with boulders of shell breccia No. 99; cross the Bysaha nulla, sandstone No. 100, and the bed of the next, the Bygun, was limestone No. 101; the village of Kyrrha is on a sandstone eminence No. 102, 103, 104, 105; with No. 104, chukies (stone hand-mills) are made here.

Singpoor, six and a half miles. On leaving camp the Surpa nulla is crossed, the bed of which is a white very friable sandstone, the road good, some trifling nullas passed, all sandstone similar to that of the Surpa. In one or two places trap was seen overlying the sandstone; shortly before getting to our ground, the sandstone deepens much in colour, specimens No. 105, 106 being reddish. At this village are seen some fine sculpture brought, we were told, from Urjollee, a kos or two distant; the temple from which they were procured must have been a magnificent one. There are the remains of an old palace here, the pillars of which came from that place.

Sohagpoor, nine and a half miles. A good road the whole way, sandstone, no village seen, chiefly sal forest, but never very thick or the trees large, as you approach, more open; the fort a small ghurree, town small, but there are remains of former size and grandeur by the numerous tanks, remains of temples, buildings, &c. One old temple is finely sculptured in the style of the Oodeypoor one north of Bhilsa; adjoining is a square Koond sacred to Mahadeo, and at the distance of a quarter of a mile an eminence on which lie very extensive ruins of a temple; a large image of Boudh was almost the only distinguishable piece of sculpture left. The natives assigned the name of some Rakhshus to this giant, which I have forgotten.

Putpura nulla, eleven miles; good road, but a very uninteresting country, few villages or signs of cultivation; the soil is sandstone, beds of the Nullas as at Kyrrha No. 105; passed the shoulder of a hill trap, when the hills close in, the great Mekul range to the south, and a low range in front, and to the right water very near the surface.

Palee, ten miles. On leaving camp enter rather thick jungle, road hilly and stony, cross a ridge called Moorcha Pahar, sandstone No. 108, so named from having the appearance of an entrenchment, then hilly ground

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for four or five miles, when the road lies between two conical hills, Kimrae, No. 109, basalt, and so at the nulla of the same name No. 110, when the country is more open, trees chiefly sal, and some of good size. Ghoo-raree nulla sandstone No. 111, more compact than that at Khyrra Palee, all sandstone, and near a small tank adjoining the village there are ruins of a very large temple; the only image taken care of is that of Doorga slaying the giant Mahekhasoor, which is housed under a small hut, and from oil and attention is in fine preservation; in a westerly direction, about one and a half miles, we came to the Johilla river again, which was crossed, before above the ghat, and in its bed were traces of coal as per specimens No. 112; 113 is the sandstone forming the banks of the river. The bed, chiefly trap boulders, among which are those of syenite No. 115, large masses of a soft sandstone, with pyrites imbedded No. 116, sandstone and shale No. 117, and anthracite No. 118. On the top of the bank were boulders of shell breccia No. 119. Goohparoo 10½ miles, road good all the way; about three and a half cross the Johilla river, a considerable stream, rather stony and bad; cross the Goorchut nulla, a sandstone conglomerate No. 120, after which a dreary plain up to Goohparoo, a very conspicuous peak; the circuit (W. N. W. two or three miles) to round which, and another two marches on, causes us to make so much northing of west.

Oomureea, eight miles. The first part of this march is jungly and stony, leading over a small ridge, about the middle of which is the Putpuree nulla (limestone No. 121,) and the boundary of our and the Rewah state; some distance on large blocks of limestone rise up in very irregular shapes, which are called Baynsa Dadur, No. 122, from thence a slight descent into a plain with small conical hills of basalt as at Kerantal, No. 123; the beds of the nullas are sandstone, as at Khyrra. Rather a large stream, the Oomrar, divides the villages of Gomureea and Khulesur, all sandstone. In a small nulla about two miles off, called the Manhunha, which runs into the Oomrar, traces of coal are found, as per specimen No. 124, sandstone 125. The bed of the nulla here is called Debee Koond, slate 126, from the circumstance of some forty years ago a fire having sprung out and consumed a Semul tree, and which spot has continued at intervals of every four or five years to emit a flame; I have no doubt that some similar trick as that described by Captain Kittoe is played off by the Bramins on discovering that the stone would burn.

Koureea, thirteen and a half miles. The road for the first four miles is hilly and stony, thin jungle, all sandstone, then an open cultivated plain up to some low hills of primitive formation, syenite No. 127, 128; cross the Nursaha nulla, the bed of which is granite No. 129, 130, winding through low hills round the shoulder of a small hill at the Sunreha nulla which and the bed

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are sandstone No. 131; soon after cross the Muchrar nulla (?) No. 132, and pass between two conspicuous conical hills of trap to the Kirchola nulla, to the right or north of which is a Koond, where an annual fair is held; it derives its sanctity from the austerities practised by Purutkal, a son of Brahma. In days of yore the village is said to have been a very considerable one. Our ground was distant about a mile, on a sandstone eminence, with a large tank, the village a good sized one; this and the last march both in the Rewah territory.

About two miles in a northerly direction crossing a ridge of— ? No. 133; there is an extremely picturesque cascade of the Muchrar nulla over a sandstone rock, with veins on the upper part of indurated clay, as per specimens No. 134, 135, 136, 137.

Khuntera, near the Mahanuddee river, eight miles. The course of this march lay considerably to the south of west; as at Koureea a very conspicuous peak called Bhangraj is rounded, road good, and chiefly through cultivation; about six miles crossed the Mahanuddee a considerable river, its banks are sandstone No. 138, and its bed rolled boulders of trap. The soil was decomposed trap, and the small hills about the same.

Dheemurkherie, thirteen miles. The road on passing Khuntera lies through jungle not very thick, and chiefly between two low ranges, the formation of which is limestone No. 139. The Kirha nulla is crossed three or four times, after which a ridge of the hills called Chiraebhar is passed over, of the same formation, and so continues up to the Kukraha nulla. From thence the road is fine cultivated plain of black soil, with trap hills about; Khoombhee about nine miles. Road through fine cultivated land, with large villages up to the ravines, and small hills on the banks of the Heron which are laterite; at this point terminates my notes on the marches.

Before concluding, I may make some general remarks on the geological features of the Mekul hills, three sides of which we had an opportunity of examining.

On passing along the south face, after descending the Rajadhar ghat, we find that limestone is the predominant rock, all the beds of the nullas and the lower part of the range up to Kuttame being so, and from thence to the foot of the Jogee ghat, granite, syenite, and gneiss, characterized also by an extreme dense forest jungle, the trees of which, especially sal, are many of them magnificent. On the other, or northern face, with exception of some limestone at the last descent of the Purey ghat, the prevailing rock of the Sohagpoor plains is sandstone, some trap occasionally shewing itself in beds of nullas, and small conical hills rising out of the plain. The jungle on this side is never dense, and the trees comparatively stunted. The upper part of the range is uniformly basalt, capped

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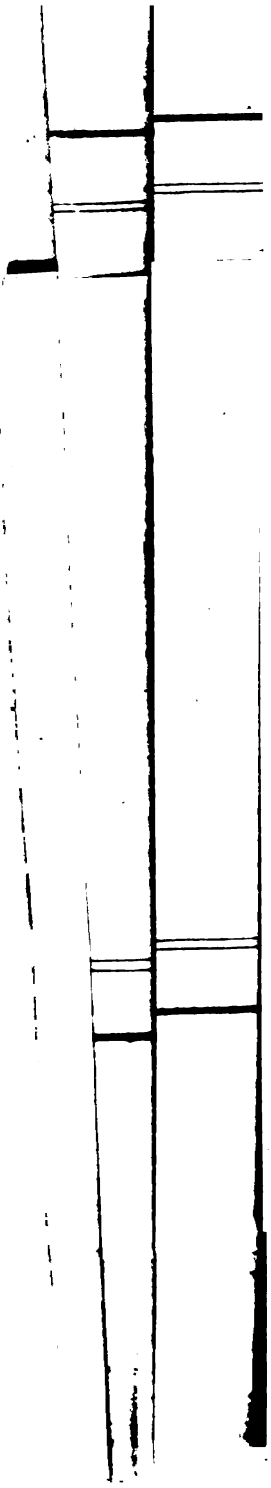

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with laterite; a good view is afforded at the eastern point of the bluff rock at Umurkuntuk overlooking the country towards Ruttunpoor, and again at the fall of Kupildhar, where the Nerbudda cuts through the laterite, exposing the compact basalt.

Fossil shells were found under Patungurh, east of the Mohtura ghat, and just above the Purey ghat.

In addition to the traces of coal noted in the route as found in the bed of the Johilla river near Palee, and in a small nulla near Khulesar Omareea of Rewah, Mr. Fraser had intelligence from natives of coal being found across the Soan in two small nullas called the Hewye and Buroona nullas, near the village of Sonhegaon in Sohagpoor district, specimens of which accompany the present series.

In conclusion, I beg to forward the route from Umurkuntuk to Jubulpore, as received from Lieutenants Waugh and Rennie, who in 1833 came across the country from Chunar to this.

	M.	F.		
Kurrunjeeah, ...	9	0	Nulla,	Bad ghat, road good, village small.
Kudjurwar, ...	8	4	Tank,	Road good, village fair.
Kunjunpoor, ...	12	6	Nulla,	Road bad.
Jhilmilla, ...	7	0	Ditto,	Road fair, stony.
Beedaipoor, ...	12	3	Ditto,	Ditto.
Saipoor, ...	8	0	Tank,	A ghat, village pretty fair or large.
Oodhar nulla, ..	9	0	Nulla,	Road fair, village small.
Burgaon, ...	10	0	Ditto,	Road bad, village fair.
Shaipoora, ...	3	6	Tank,	Road good, large village (a tacoor.)
Serwae on the Mahanuddee,	11	3	Stream,	Road not good, village small.
Koondum, ...	12	0	Tank,	Road good (from this tank rises the Heron)
Unyher, ...	16	4	Well,	Road very good, village small.
Jubulpoor, ...	12	0		Road good.
Total,	132	2		

JUBULPORE, *5th October*, 1840.

NOTE.—The inscription copied by Dr. Spilsbury is not of consequence, being, it would appear, a mere record of the name of the decorator of the place, a private person. I have not published a translation of it, as my Pundit was by no means confident of his rendering, the original not being correct.

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Notice of Amulets in use by the Trans-Himalayan Boodhists.—*By* W. E. Carte, Esq.

Note.—The kindness of W. E. Carte, Esq. (Surgeon 69th Regiment N. I.) enables me to lay before my readers the accompanying lithographs, with a note of explanation by our Librarian. Mr. Carte's ingenious interpretation of the effigies on the scrolls, was necessarily limited by his not having the means of interpreting the writing which accompanied them: I have therefore omitted it. I owe to his contribution a singular discovery connected with the rings, to which Mr. Carte alludes. The reference made by him, induced me to examine them more closely with reference to their relation to emblems in use with Tartar nations, and the result goes I think to establish fair grounds for believing that they are no other than specimens of an ancient Chinese currency, brought doubtless by the Boodhist pilgrims from China into Afghanistan. I hope to submit a further paper shortly on the gems and antiques from the late Capt. Conelly's collection, when I shall be able to state my impressions more at length.

"*Almora*, 31*st August*, 1840.

"The accompanying scrolls were obtained by me at Rampoor (near Kotghur) in 1838, from some of the nomadic Tartars who visit that place for the purpose of traffic. The scrolls were enclosed in small copper cylindrical cases, with rings attached, and by means of a string worn round the neck, perhaps as amulets. I have in vain endeavoured to have the printed, or written parts, decyphered. The Brahmins at this place avre, that they are in the Sanscrit language, though Tibetan character; and as Boodic mysteries, were regarded by them with so much superstitious aversion, not to say horror, that they would not assist in expounding such heterodox symbols.

"I am now induced to forward them to you, from the similarity which some of the figures delineated in them bear to those on the copper ring, described in No. 14, Plate 2, Fig. 17, of the Journal Asiatic Society, as you will I think immediately perceive on comparison. The hand in Fig. 10, Plate 1, is also conspicuous, and perhaps further coincidences may occur to a more experienced eye than mine."

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Remarks on the above. *By* Csoma de Koros, *Esq. Librarian to the Asiatic Society.*

With reference to the two scrolls which were sent to you from Almora, and which you had left with me, together with a letter from Mr. W. E. Carte, on the 17th ultimo, I beg leave to inform you that both contain abstracts of some larger Tántrika works, or religious treatises, in Tibetan, interspersed with mantras in Sanscrit. The first paper, eight feet five inches long, of which the figures take two feet five inches, and the text six feet, contains 244 lines (two and a half inches long each) in printed Tibetan character. I cannot exactly tell you what the figures may represent, but I think the first is the regent, or ruler of the year, figured by a victorious king. The second is a tortoise, with nine spots on the belly, representing the lucky and unlucky periods, accordingly as the moon is affected by the planets and constellations, during her daily progress in her path. Then come the twelve animals, after which the years of the cycle of twelve years are called, opposite one to another, thus: the rat or mouse and ox; tiger and hare; dragon and serpent; horse and sheep, or ram; ape and bird; the dog and hog. Then the amphora and pices, for the twelve zodiacal signs;—signs of four planets, as the sun and moon, for all the rest. Then representations of the four, eight, and ten corners of the world. A king, his minister, horse, elephant, soldier, sun, moon, eye, ass, &c. Afterwards, from the head of a bird downwards, in two lines, there are Chinese symbolical figures, or characters, having perhaps the same meaning as the figures above designed. These symbolical characters were used 200 years before Jesus Christ, under the Han dynasty; the Tibetans now also use them on large square seals.

There are on this paper five different abridged Tántrika works, or sútras, under distinct titles, the Sanscrit being generally erroneously written.

1. Contents of the first sútra. The salutation, only in Sanscrit, thus: *Namo Shri Kalachakrayé* (which should be thus: *Namas Shrí Kālachakraya.* English: "Salutation to the circle of Time." The year, month, day, and hour, are figured by a prince, minister, soldier, and weapon. All the regents of the year, month, day, and hour; those of the planets, constellations, stars, Nagas, and imps are requested to look on these symbolical figures, and be favourable to the person who

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wears or carries with him these symbols and mystical prayers, that he may succeed in every undertaking. Many particular businesses or works (religious, sacrificial, civil, and economical) are here enumerated, and all classes of divinity are requested not to hinder him in any of his occupations, but to assist him, that he may increase in prosperity, and see all his works accomplished. Here also occur some mantras; that, at the end being thus: *Om! Supratis'ht'ha Vajrayé-Swáhá, Mangalam.*

2. The second work contains in Sanscrit, short addresses to Shákya Muni, to Vágíshwárí, to Manipadmé, to Vajra Páni, and to Vajra Guru, Padma Siddhi.

3. The third contains one sloka and a half, in Tibetan, with a mystical formula in Sanscrit, on the melodious recital of the several attributes of Manju Shri, (in Tibetan, Jám-pál) the god of wisdom.—It is pretended that this short sútra, taught by Shákya himself, and buried under ground in the country of Lho-brag, in Tibet, by Padma Sambhava in the 9th century after Jesus Christ, was taken out and divulged by Guru Chos-kyi d,Vang phyug.

4. This is called the venerable sútra, dispelling the darkness of the ten corners of the world. The salutation is especially addressed to Jám-pál (Manju Shri, in Sans.) and to the ten Buddhas in the ten corners of the world. In each of the ten corners of the world (four cardinal, four intermediate, the Zenith and Nadir) fancifully is named a Buddha province, with a fancied Buddha in it. To each of them successively is addressed a set form of salutation, with a short request, thus: "If I go towards that corner, after having obtained my aim, grant that I may quickly return home." Again a request to those Buddhas, that he who carries with him this sútra, may obtain, together with his family, similar blessings to those granted to a handsome faced youth by Shákya, when he first taught him this sútra. Then follow some mantras. Lastly, is stated by whom, and in what part of Tibet this sútra, was found, and taken out from under-ground.

5. This is styled the "Sútra of eight lights." The salutation is addressed to Buddha, religion, and holy priests, &c. There are several mantras, or physical formulæ in Sanscrit, to avert any unlucky year, month, day, and hour, the influence of any malignant planet or star. Other mantras for preventing any unlucky accident before and

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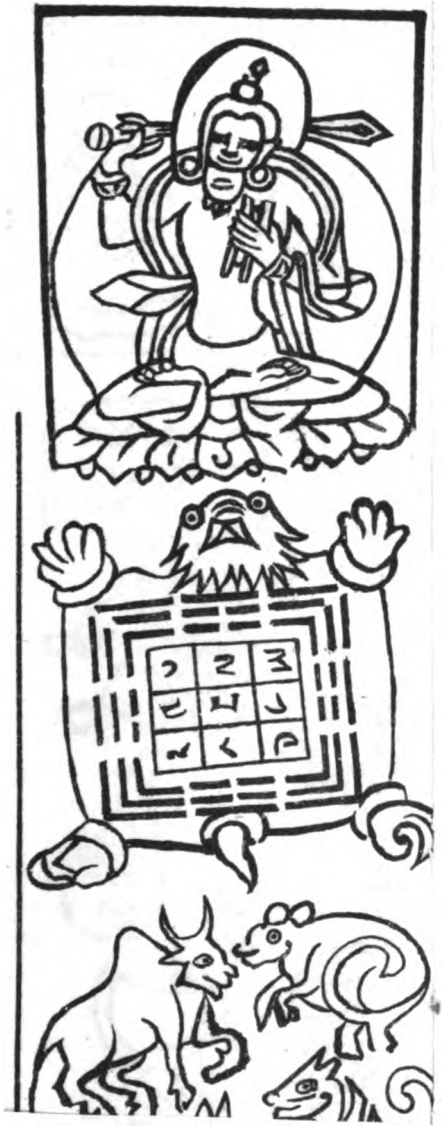
Plate I^st A



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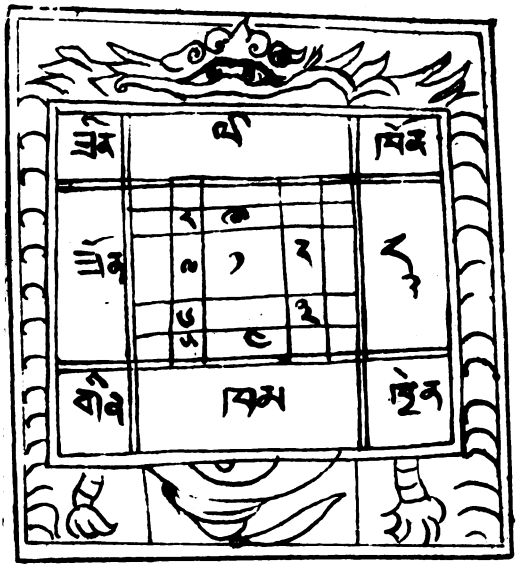

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after noon. Then follow several other mystical prayers for averting any evil or calamity, intended by Tshangs-pa (Sans. Brahmá) by the great god (Sans. Mahá Déva). Then follows a prayer, that by the repetition of the mantras all evil spirits may be driven away, all hostile troops defeated, and that every wish may be accomplished. Statement of the place where this Sútra was found under the ground. The conclusion is with this mantra: "*Om! Vajra Chan'da Mahá Roshana Húm, Phat. Namas Chan'da Vajra Krodháya, Hulu Hulu, Tishtha Tishtha, Bandha Bandha, Hana Hana, Armati Húm, Phat, Mangalm.*"

The second paper (four feet eight inches long, together with the figures of the twelve animals, after which the years in the cycle of twelve years are denominated) contains, in 121 lines three inches long each, a manuscript copy of the two last numbers of the former paper, also a rough sketch of the nine spots on the belly of a tortoise, in a square; and afterwards, successively downwards, the figures of the twelve animals of the cycle of twelve years. The writing may easily be read, but the orthography is bad, and the Sanscrit titles and mantras have been erroneously transcribed.

This is the sum of the general contents of the two scrolls worn by the Tibetans as amulets for obtaining the favour of particular divinities, and for averting all kinds of evil spirits.

Report on the Country between Kurrachee, Tatta, and Sehwan, Scinde. By Capt. E. P. De la Hoste, *Assistant Quarter-Master General.*

This portion of Scinde contains a space of 6,934 square miles; the position of the above places being as follows—

	Latitude.	*Longitude.*
Kurrachee,	24° 47′ 17″	67° 0′ 51″
Tatta,	24° 45′ 0″	67° 59′ 0″
Sehwan,	26° 22′ 0″	68° 7′ 52″

Soil and Inhabitants.

The soil may be considered as generally light clay, although in some places there is a good deal of sand, and in others sandstones and pebbles, mixed with the soil. The former is in general the formation of the lower parts, whilst of the latter, the hilly tracts are composed. Where irrigated and manured, this soil is very productive, but except in the vicinity of the river Indus there is little or no cul-

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tivation in the whole of the country under description. Indeed, with exception of the large towns above mentioned, and those permanent villages along the right bank of the Indus from Tatta to Sehwan, with Gharra and Gooja, there are no fixed villages within the limits; the inhabitants are consequently few, and are chiefly employed in tending large flocks of sheep and goats, camels, and buffaloes, in which their wealth consists. Their habitations are as rude as their appearance, being composed of a kind of matting or tattie, made from a reed called *puk* or punkah; these resemble the huts seen in many parts of India, in the outskirts of villages, in which Wanggries and Kolatnees reside; the reed there is called *soilkee;* when properly made their tatties keep out the rain and dust in a wonderful manner. The puk or punkah used in Scinde is of a much larger size, and of a dark brown colour; it is easily rolled up when the shepherds require to move, which they do according as the grass and water become expended. These people, (it will be remembered I speak of the wandering tribes,) are Belooches, Jokias, and Soomries.

The Belooches occupy a portion of the country which would be described by a line being drawn from the end of the Jutteel Hills to Tatta. The Jokias, the country between Tatta and Kurrachee. And the Soomries the remaining part of the district.

The former are insolent and thievishly inclined, being *Scindian* Belooches, and patronised by the rulers of the country.

The Jokias are well disposed; and the Soomries a quiet, inoffensive race, in this part of the country, whatever they may be elsewhere.

From the inquiries I have instituted, I do not believe that the amount of population in this part of Scinde (the large permanent villages and towns not included) exceeds 5 or 6000. Their food is chiefly meat; grain is little used, a substitute is found for it by drying and pounding a berry called *beir*, which is mixed with water, and packed away in pots; this with sour milk as a beverage, is what they exist on. They derive some profit from the coarse nummuds made from the wool of their goats and sheep; as also, since our arrival, from the quantity of the puk tattas* and mats that have been disposed of by them.

* These Tattas are not made by the Soomries, but by the Seks and Lubannas.—E.P.D.

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Revenue. The Revenue derived from this part of Scinde by the Ameers is realised chiefly at Kurrachee, which alone pays yearly one lac of Rupees, out of which the following sums are paid—

Saduk Shah Newaub, ...	180	0	0
14 Beloochee (Jukia) Sepoys, ...	100	0	0
4 Golundauze, ...	20	0	0
1 Jemedar and 20 Sepoys, ...	120	0	0
Naqua Jemadar of Kelafsees, ...	17	0	0
Alla Rukka Jemadar, ...	35	0	0
Tukchund, ...	35	0	0
Abbasali Shaw, ...	25	0	0
Kurrumchund, ...	37	0	0
2 Moonshees, ...	24	0	0
Inferior Ditto, ...	5	0	0
2 Peons for collecting taxes on the Mahamios (fishermen)	16	0	0
Writers and Sepoys for the Port	19	0	0
2 Durwans (door-keepers at Mitta and Kara Gates,)	11	0	0
2 Attendants at principal Police station, ...	7	0	0
Peon over Moochees, ...	4	0	0
Paymaster (Receiver)	7	8	0
Stationary, ...	7	8	0
Oil, ...	2	8	0
3 Syyuds, Pensioners, ...	24	8	0
12 ×	724	8	0
Annual Expenditure, ...	8,694	0	0
Expenses allowed annually in Fort Munoora, formerly,	1,344	0	0
Sepoys (20) at 5 Rupees, 100			
Water for above, 12			
112 + 12			
	10,038	0	0
Annual Gift to Muggar Peer, ...	107	0	0
	10,145	0	0

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The amount thus realised from Kurrachee is the produce of the land and sea customs, there being little or no revenue derived from the soil.

I can form no idea here of what the revenue of Tatta and Sehwan may be; the tax on the "Mahamios," or fishermen on the Indus, is a considerable source of wealth to the rulers of the country.*

Rivers. The only Rivers of any note in this tract are the Hubb, (which rises near Zehrey, and enters the sea, west of Cape Monge) and the Barran; the others, consisting of the Mulleere Hurchee, Leaeer, Kowranee, Rooah, Peepree, Goorban, Murraie, Pokun, Warkees, Kayjooree, and Doombeh, are all mountain streams, dry the greater part of the year, but water always found by digging a few feet in their beds. I am led to believe that a sufficient quantity might be readily obtained (by excavating large pools in the rivers) for irrigation, were the excessive taxation abolished, and greater protection afforded the cultivators. This is a matter of serious consideration on the route from hence to Sehwan direct, as the great difficulty now to be overcome, is the want of supplies on the line of route. In the Pokun Kayjooree, or Doobee (the same rivers, only at different points, so called from halting places) water would not be found probably without great labour, but were holes or pits made, the water would remain in them. Their beds are rocky, the others sandy.

Hubb. The Hubb has been traced from the Pubb hill to the sea, a distance of fourteen and a half miles, throughout which a depth of water of eight inches in the month of September was found, and in some places deep pools, abounding with fish and alligators. The river is said never to fall even in the driest seasons, and is the chief resort of the Soomries and Belooches. This does not appear to be the description of a *fine river*, but in this part of Scinde a running stream (except after rain) is seldom met with.

The Hubb enters the sea west of Cape Monge (Mooaree) and between it and the island of Churna or Churn. It rises near Zehrie, and has been traced from near Hoja Jamote, in the route to which place a description of it is given.

Barran. The Barran rises in a mountain called Kirter, north-west of Humlanee thirty coss, and joins the Indus two and a

* In preparation—E.P.D.

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half furlongs south of Kotree; for one mile from its junction with the great river it contains a good deal of water. It is laid down on the route from Kurrachee to Hyderabad direct.

The streams are frequently called after the tribes that are in the habit of residing on their banks, and indeed the villages or camps also derive their names from the same source; "Hoja Jamote," "Hoja," the chief of that party, and "Jamote," the name of the tribe, "Shah tra Gote," "Muhumud Khan ke Tando," are of this derivation.

Hills. Hills are numerous in the northern and north-east portion of this tract, and it will be easy to trace them by reference to the map.

The ranges are—

1. The nearest to Kurrachee, ending in Cape Monge.
2. The Pubb range, of which that mountain is the highest point.
3. The Sahkan Hill; the Morethe; and Har More Pubb.
4. Jutteel Lukki, Karra, and a number of other detached hills, which bear the names given them in the map. It will be seen that the Lukki mountains do not hold the place assigned them in most of the maps. They run from the Jutteel range nearly south-west towards Hyderabad, and from the Lukki pass (the town of Lukki near the pass probably, gives it the name of Lukki) by projecting into the Indus. This pass is now nearly destroyed by the force of the current of the river, and probably next year will not exist. In these hills hot springs are found, also alum and sulphur. The fort of Runnei, which I shall have occasion to describe hereafter, is situated hereabouts.

Jutteel. The Jutteel run nearly south-west from Sehwan, are very lofty and steep; they extend to Dooba, or Domba, sixty-six miles, and the road direct from Kurrachee to Sehwan runs between them and another range, equally high.

It may be said that the tract of country from Soameanee to Sehwan, and from thence to Kurrachee, contains scarcely any thing but hills and mountain streams. Lead, antimony, alum, sulphur, and copper, are found in these hills.

Forts. The forts are Munoora, Runnie, near the Indus; Bamboor, near Gharra, Killa Kote, near Tatta; the old castle called Kaffer Killa, near Sehwan.

Munoora. Munoora will be found described in the report by Captain Harris and myself on Kurrachee.

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Runnie. Runnie ka Kote is situated two and a half coss from Sunn, a town of about 100 houses, on the right bank of the Indus. It was built by Meer Kurrum Ali, and his brother Meer Morad Ali twenty-seven years ago, cost twelve lacs of rupees, and *has never been inhabited* in consequence of there being a scarcity of water in and near it. That so large a fort should have been constructed without its having been ascertained beforehand that an article so indispensably requisite, not only for the use of man, but even for the construction of the walls, was wanting, seems most extraordinary; but I am told that this is the sole reason for its having been abandoned. A rapid stream in the rains runs past it and joins the Indus, and by a deviation from its course, part of the walls of this fort have been destroyed. The hill on the north face is the steepest, and from the intelligence I received, must be at least 800 or 1000 feet high; the opposite hill is of considerable height, and the east and west walls are built on level ground, and join those constructed on the hills; the whole is of stone and chunam, forming an irregular pentagon, and enclosing a space capable of containing 2000 men.

The course of the river (which I believe to be that described by me in the account of Scinde, written in 1832 as Sunn river) ran formerly round the base of the north face, but about twelve years ago it changed its course, and destroyed part of the north-west wall, the distance from that wall to the river being about 400 yards; the bed of the river (original course) is described as *rocky;* if so, nothing could be more easy than to deepen it at the point where it has taken a turn, and construct a tunnel from thence to the fort, and below the wall (which must be rebuilt on arches) an excavation made inside, to receive the water, and a supply would be secured. It is not surprising however that this idea has not occurred to those who originally built the place, without considering from whence water was to be obtained. The fort is thirty-eight coss from Kurrachee. I have a survey of the route to within twenty-seven coss of it, and shall endeavour to get a rough survey of the fort, as it might be of use as a station for our troops. The Ameers, I am told, would gladly give it up, considering it *of no value* from the cause stated.

Bambour. Bambour is in the Gharra creek; it is scarcely distinguishable now, and is reported to have been the site of a *Kaffir* city and fort.

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Killa ka Kote is three miles south of Tatta (built by the Newabs from Delhi, it is said.)

Killa ka Kote.

There are several traditions respecting it; I take the following account and sketch of it from my Journal, kept during the Scinde Mission, April 14, 1832.

Kaffir Killa.

"This evening we landed near the town of Sehwan, and after visiting a ruined Eadgah, which at a distance we mistook for the fort built by Alexander, or rather said to have been built by him, we discovered by the aid of two Scindians that the mound was north-west of the town, through a part of which we walked and ascended the fort. It is an artificial mound, eighty or ninety paces high; on the top, a space of 1500 feet by 800 surrounded by a broken wall; we examined the remains of several old towers of brick, and I took a hasty sketch of the gateway, which is remarkably lofty. The mound is evidently artificial, and the remains of several towers visible. The brickwork seems to extend to the bottom of the mound, or at any rate to a considerable depth, as we could see down the parts washed away by the rains. A well filled up, was observed. We were told that coins and medals were frequently found on and near the place, but we were not so fortunate as to obtain any."

I regret now having had so little time to devote to the examination of this fort, but think the period of its construction is not of so ancient a date as is ascribed to it.

Resources.

The resources of the country, as far as grain, cloth, &c. are concerned, are drawn from the large towns near the river, and its vicinity. Cattle, sheep, goats, and camels, are abundant in the desert tract.

Grain is brought from Tatta and Sehwan; bajary, wheat, and rice, principally brought from Larkhanna. Grass is abundant along the river, and in the hills N. E. of Kurrachee. A supply should be cut and stacked in September and October, for the Scindians merely bring in the daily supply.

Manufactures.

At Tatta—cloth, loongies, and carpets; at Sehwan, carpets, and the caps worn by the Scindians at Kurrachee. I am informed many articles of the same sort are made.

Skins and hides, raw and tanned, are exported to Arabia and Bombay. The report on Kurrachee includes this subject.

Curiosities.

The only one near Kurrachee is the Peer Munjah Musjeia, and hot springs, 9 miles N.E. of Kurrachee. The hot

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springs abound with alligators, and a most disgusting sight they are; there are, it is said, upwards of 200 of them, in a small space scarcely 120 yards in circumference, some very large; their appearance basking in the sun is not unlike a dried date tree. This place has been well described by Lieutenant Carloss, Indian Navy.

Climate.

The climate of Lower Scinde, out of the influence of the sea breeze, is bad during the months of August, September, October, and November; fevers are then very prevalent, and of a very dangerous and obstinate nature. The fact of the whole of the 26th regiment having suffered from fever, (2 Officers and one Havildar only excepted), 3 European Officers, and nearly 100 men having died this season, is sufficient proof of the unhealthiness of the climate in these months, within the influence of the malaria arising from the inundated lands. Sehwan is not better I fear, for, from its situation it is equally open to miasma from the marshes S. W. of it, and the inundated country N. and N. E.; most of our people who have been there have been attacked with fever.

Kurrachee has been healthy, and the climate mild and temperate; the cold bracing, but not severe hitherto, (16th December), a point which may be of importance in fixing the site of the cantonment for the troops remaining in Scinde.

Routes.

The roads in this part of Scinde are, as in most others, mere foot paths, wheeled carriages being unknown; better are scarcely necessary. Surveys have been made of the following:—

Kurrachee to Tatta;
„ to Sehwan;
„ to Kotree;
„ to Hubb River, and along its bank to the sea;
„ to Fort Munoora by land;
„ to Hoja Jamote;
„ to Mujjah Veer;
„ to Gisiey Creek;

these have been performed by two guides, Oree Sing and Essoo Rama, and my private guide, Kenkaya Mahadavia; and a survey of our camp, and the country near it, by Capt. Boyd, who acted for me during my absence on sick certificate.

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The following remarks were drawn up by me in transmitting copies of the routes to Bombay :—

The routes forwarded by this day's post, December 15th, are of considerable importance, since they shew the present state of the country on the right bank of the Indus, from Sehwan to the sea; from which it will be observed, that in a line of road extending in one instance 140 miles, and in another 96, not one single permanent village has been met with, although no scarcity of water exists; various causes are assigned for this desolation. The revenue of the country is reduced to that realized at Kurrachee, which averages one lac of Rupees.

The route from hence to Hyderabad viâ Kotree has been lately travelled by Lieutenant and Mrs. Travers, and by Lieutenant Franklin, 2nd Grenadiers, and his detachment of 60 rank and file. No difficulty has been experienced; supplies of grain and food were taken from hence; sheep, and goats are procurable on the line of route. The country is quiet, and the few people met with civil and inoffensive; water is found in the beds of the rivers by digging a few feet.

The above remarks are equally applicable to the route from hence to Sehwan, which is however of greater importance than the former, since it opens a direct communication with the interior of Scinde.

To the merchants the discovery of this route is of the greatest value, since, by pursuing it, they avoid the delay and danger of entering and tracking up the Indus to Sehwan, a journey of at least one month; which can be performed in ten days from Kurrachee. The water communication from Sehwan to Larkana, and to the Indus by the Arul and Narra, is highly advantageous, since the rapid current is avoided, which is an obstacle in the Indus.

The route from Kurrachee to Hoja Jamote, in the vicinity of Kanaraj river, has proved the existence there of lead and antimony. The information I have obtained in consequence, of the existence of copper near Beyla, is also of importance; and may hereafter be turned to account.

Boats and Boatmen.

It remains only for me to speak of the boats and boatmen, the harbour of Kurrachee having been described in a former report. The boatmen are all Mahomedans, and called Moanas. They are respectable and hardy fellows, and not of the same description as the Mohannas of Upper Scinde, and on the river. The wives of the

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latter are called *Koblee*, and are not remarkable for their fidelity, a point which causes their husbands to be looked down on.

The tonnage for boats on the river is calculated by a measure called Kharar,* which in the measurement of boats is equal to three Bombay candies, making the Kharar — lbs. English.

But at Kurrachee the tonnage is calculated in candies. The following measures are in use at Kurrachee. Four Chotallo, one Pattee; sixteen Pattee, one Kassa; sixty Kassa one Kharar; one Kharar, ninety Bombay maunds.

In measuring grain the Kharar varies in size, thus; bajery and wheat three and a half candies one kharar; rice, three and a three-quarter candies one kharar.

Description of Boats belonging to the harbour of Kurrachee.

Kotia.—The Kotia resembles botells used in India, it has a flat stern and round bottom, and does not fall over much, when ground.

Dinjee.—The Dinjee is sharp bowed, bottom, and stern, and must be supported by props when aground, like the pallymar used in India, excepting having a high stem or poop.

The former are heavy sailers, the latter speedy.

CAMP KURRACHEE,
December 26th, 1839.

Narrative of facts attending the Wreck of the Transport "Indian Oak" on the Loochoo Islands; communicated from the Political Secretariat Office, Government of India.

To C. B. GREENLAW, ESQ.,
Secretary to the Marine Board, Calcutta.

SIR,

The last letter I had the honor to forward to your address, was from Singapore, dated 23rd June; on the following day I sailed for Macao in the transport "Hooghly," taking with me the transport "Clifton," as directed by His Excellency the Admiral and Commander-in-Chief; and arrived with the above ships at Macao on the 12th July, where I received further instructions to proceed with the ships under my orders to Chu-

* "Khur waw" literally.

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san, and arrived at the latter port on the 28th July, where I joined the Admiral and fleet. His Excellency the Admiral directed me to return to Singapore, and assume the duties of Resident Agent for transports at that port; in pursuance of which, I was directed by Commodore Sir J. J. G. Bremer to join the transport "Indian Oak" for a passage to the latter place. We sailed from Chusan on the 10th of August, and on the 14th instant following, I regret to say, were wrecked on the Great Loochoo Island, in lat. 26° 21′ 46″ N., about 10 miles to the northward of the principal place, Napakiang; and longitude by the "Indian Oak's" chronometer 127° 12′ 45″ E., which now proved to have been full thirty miles too far west. For particulars, I cannot do better than refer you to the enclosed copy of a letter addressed to Commodore Sir J. J. G. Bremer, forwarded through the chief officer, Mr. Field, who succeeded in making Chusan in the launch, and returned to our relief with H. M's. ships "Nimrod" and "Cruizer" on the 16th September. As the junk mentioned in my letter to the Commodore had been built, and nearly completed, in which it was our intention to have proceeded to Singapore, Captain Barlow, senior officer, was of opinion, that she might be useful to the force at Chusan, and determined on sending the "Cruizer" back with the mails and despatches on the following day, and remain to accompany the junk. When all being completed, and the stores and crew of the "Indian Oak" embarked on the junk, I, with Mr. Payne my writer, embarked on the "Nimrod," and sailed on the 29th of September for Chusan, where H. M's. ship "Nimrod," with the junk "Loochoo," arrived on the 5th instant.

I should not do justice to my own feelings, or to those kind Islanders, the Loochooers, were I to omit stating, and bringing to the notice of government, the very great kindness and hospitality received from the moment of our landing to the date of our departure, which was uniform from the first to the last, with the exception that we were not allowed to pass into the interior, or exceed the limits of our compound beyond the wreck; our own contrymen could not have been kinder. They not only built a vessel of 150 to 180 tons burthen, but gave us a plentiful supply of provisions during our stay of forty-six days on the island, and one month's provision for every person in the junk; they also furnished H. M's. ships with water and fresh supplies during their stay, declining to receive any thing in the shape of payment

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in return; stating they neither wanted gold or silver, but in the event of any of their own vessels falling on the coasts of any of our settlements in distress, that we would treat their people with the same kindness, and send them back to their country. The only return they accepted was a telescope from myself, and one presented by Captain Barlow, with twelve copies of the Saturday and Penny Magazines, a small print, and a looking glass in the name of Her Britannic Majesty.

In conclusion, I can only regret my inability to do full justice to those kind, hospitable, and good people. In my letter to Sir J. J. Gordon Bremer, I stated the latitude of the wreck to have been 26° 11′, which is wrong, and which mistake was occasioned by an error in the sextant, that I did not discover until after the departure of the long boat; the true latitude however is 26° 21′ 46″ N. both by double altitudes and altitudes of the Pole Star, all taken on a false horizon, at the village of Peekoo.

As I have kept a journal of occurrences during our stay in Loochoo, should it be requisite, I shall be able to furnish full particulars of every occurrence, winds, weather, &c., that took place until my departure in H. M's. "ship Nimrod." His Excellency the Commander-in-Chief has directed, that I should hold myself in readiness to proceed to Manilla, with two or three transports, in which sick troops are to be embarked for a change of air and fresh supplies. On receiving further instructions, I shall not fail to apprise you of my movements by the first opportunity.

H. Co's. Transport, Futty Salam,
CHUSAN HARBOUR.
19th, October, 1840.

(Signed) J. J. R. BOWMAN,
Agt. for Transports, Eastern Expedition.

To SIR J. J. G. BREMER, K.C.B. & K.C.H.
Commodore of the 1st Class.

SIR,

It is with sincere and deep regret, that I have to report the loss of H. M's. transport, "Indian Oak," R. Grainger, Master, on one of the Loochoo Islands, on the 14th instant, about 11 A.M. The following heads of occurrences will I hope afford you all the information I am at present able to give, on this most unfortunate event.

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Monday, 10th August. Parted company with H. M's. ship "Alligator," off Keeto Point, Chusan, and passed out, between the Buffalo's Nose and the Quesan Islands.

At 9 P.M. the S. Easternmost Island, Pata-hecock, bore EbN. 4 to 5 miles, blowing a fresh breeze from the northward, steered SEbE.

Noon, Tuesday 11th.—In Lat. by Obs. 28° 26′ 17″; Long. Ch. 123° 24′ 15″ E. departure taken from Chusan said to be in 122° 6′ E. of Greenwich; at this time blowing a hard gale from NNE. with a high sea; the ship was reduced to close-reefed topsails, and topgallant yards sent down on deck. Bar. 29° 63′.

Midnight. Severe gale and high sea, Bar. 29° 50′.

Noon, Wednesday 12th.—Lat. Obs. 27° 13′ 22″ N.; Long. Ch. 124° 55′ 45″ E.; Bar. 29° 40′; ship's main rigging very slack, and in great danger of losing the main-mast; sent down the gallant mast, and swifted the rigging in. Furled the fore and mizen-topsails, and hove to under close-reefed main-topsails.

Midnight. Gale very severe from the northward, blowing in gusts, with rain and a very high sea. Bar. 29° 35′.

Noon, Thursday 13th.—Lat. Obs. 26° 29′, N.; Long. Ch. 124° 51′ E.; Bar. 29° 35′, P.M. 3, somewhat more moderate, set the fore-topsail and steered EbS.

6 P.M. Set fore-sail, and at 10 P.M. set the main-sail. Midnight strong gales and hard squalls.

Friday, 14th.—10 A.M. course per log, from noon of yesterday, allowing one point lee-way for the heave of the sea, placed the ship in as follows:—Course per log 166° 30′ E. 121 miles. Lat. D. R. 26° 51′ N.; Long. R. R. 127° 2′, from which Capt. Grainger considered himself well to the SW. of the Loochoo Group, when in the act of working up the above reckoning, discoloured water was reported by the officer of the watch, and the ship immediately hauled up SSW. the wind previously having hauled to the NW. in a very severe squall, shifted to the westward of the ship, broke off the SSE.; land and breakers were now seen on our lee quarter, extending to SSW. on our weather bow; wore ship and stood to the northward, at this time the fore-topmast staysail, fore-topsail, and foresail, were blown out of the bolt ropes; found ourselves unable to weather the north point of the Island, off which was a long extent of heavy breakers, and a very high sea

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running; the weather being so very thick, the land was scarcely discernible, although not more than three miles off. Finding ourselves embayed, and no possibility of saving the ship, wore with the hope of saving the lives of the crew, and stood to the southward for what appeared an opening, but which proved only a small inlet or bay, full of breakers. The heavy sea and the want of sail, setting us fast on the shore, between 10-30, and 11 A. M. struck on an extensive rocky ledge, extending about two miles from the shore, with numerous rocky patches, just a-wash. The sea now made a clean breach over the ship; she shortly after fell over on her beam-ends, and broke her back about the chess tree, the fore part falling in deep water. Cut away the main mast, and some time after the mizen mast. All hands now collected aft, under the poop, and on the weather quarter and mizen chains. On the ship's falling over, lost the larboard quarter boat which was washed on shore, by which we observed the tide to be falling.

The gale now increasing to a severe hurricane, with heavy rain, our only remaining hope was in getting a rope on shore. The first attempt to carry a line on shore was made by William Bagburn (seaman sent from the Blenham) but owing to the strong drawback, failed, and was with some risk hauled in; a second attempt with the lead line was made by a lascar, who succeeded in reaching the shore (greatly exhausted and cut by the rocks) but lost the line. About this time a number of natives came down and motioned us to land. An attempt was now made to get the jolly boat out, which was stowed on the launch, but in doing so, she was stove to pieces. Several attempts were now made with hatches, gratings, and oars, all of which failed, owing to the line fouling the rocks; two more attempts were made, by two lascars, to carry the log line on shore, one of whom succeeded, and the end of the deep sea lead line got on shore, but which also fouled the rocks, and was thereby rendered useless. The tide coming in, all the Islanders with our two men left the reef; our only remaining hope being in the strength of the ship, and the after part holding together. As the tide came in, the wind and sea increased; the latter making a complete breach over all, fore and aft, and throwing pieces of sheathing and copper over the vessel in all directions. Finding it impossible to hold on longer on

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the outside, all hands got under the poop, with the ship on her beam ends and deck nearly perpendicular.

As the tide came in, the sea gradually hove the vessel higher on the reef until she lodged on a small ledge of rocks. Our rudder was torn off with part of the counter shortly after striking, through which the sea rushed into the poop and lower cabins. Each sea that struck the vessel. Shook her very frame. Closely huddled together under the poop, were the commander, officers, passengers, and crew, drenched by every sea, and shivering with cold, most of us having thrown off all clothes, as it was likely to impede swimming. We remained in this state until about ½ past 11 P.M., when the tide having receded, and the weather considerably moderated, we found ourselves much nearer the shore, and comparatively smooth under the lee. Sounded on the lee side, and found only from five to six feet water; immediately piped all hands on shore, the mizen mast, yards, and gaff forming a raft. All hands got on shore, including the sick, in safety, with exception of a few cuts and bruises from the rocks. All the crew and passengers having got on shore, myself, the commander and officers followed, and after walking about a mile over a rocky ledge, towards some lights at high water mark, were met by a party of the Islanders, and greeted with kind hospitality, hot tea and rice being served out to every man. Nothing can show their hospitality in a stronger light than the following:—I had nothing on but a shirt and drawers, drenched to the skin; one of the principal men noticing my situation, took off his outer jacket or coat, and insisted on my putting it on. After resting on the beach a short time, we were conducted to a comfortable dwelling, or court house, where dry clothing was given to all who stood in need, and we were again regaled with warm tea, rice, eggs, and fowls. Words are not adequate to express the kindness, attention, and hospitality we have received from the first moment of landing to the present time, from these kind and good people; their honesty is beyond praise,—articles of silver, gold, and wearing apparel strewed in every direction to dry, but not an article touched.

Most of our wearing apparel has been saved, but all more or less damaged from being drenched for several days in the sea. Several dozens of the Commander's wine and beer have also been saved, but I regret to say little of the ship's provisions. We are entirely

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dependant on these good people, who have up to the present time supplied us abundantly.

For all further particulars, I refer you to the bearer, Mr. Field, first officer of the late ship "Indian Oak," whose conduct throughout this trying occasion has been most meritorious; and in nothing more so, than at present, in volunteering to proceed in the launch to Chusan, as the bearer of intelligence most unfortunate, and I fear of serious disappointment and loss to the expedition generally, which no one can feel more than myself. I can give you no description of the place, as we are not allowed to go beyond the limits of our dwelling, except to the wreck.

From altitudes taken in a false horizon for the Chronometer, and several altitudes of the Pole Star, I make the geographical position of our dwelling, about two miles east of the wreck, as follows:—

By a meridian altitude of the sun from the wreck, about 1¼ miles horizon, ... } 26° 11′ 34″ N.

By several altitudes of the Pole Star taken in an artificial horizon, ... } 26° 11′ 22″ „

Long. by Chronometer, ... 127° 12′ 45″ E.

from which I conclude we are on one of the small Islands to the westward of the Great Loochoo; but the natives whenever questioned, say we are on the larger Island, but jealous of our gaining any knowledge of their Island, invariably evade the question; they however have promised to build a vessel to take us to Singapore, of the following dimensions, which they say shall be ready in two months, viz. 65 feet long, 23 ditto broad, 7½ ditto hold.

I trust however Mr. Field will succeed in reaching Chusan in safety, from whence I feel assured speedy relief will be sent, with this hope, and full confidence in a good God,

I am, &c.

Loochoo Islands, 28th *August*, 1840. } *(Signed)* J. J. R. Bowman, *Agent for Transports, Eastern Expedition.*

P.S.—Since writing the above, I have been assured by one of the principal men, that we are on the Great Loochoo; this from what I can see of the land from the wreck, is my opinion, also; judging from Captain Hall's description of Napaking Harbour, the wreck lays a little to the southward of Abbey Point, in the above place. If I am right,

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and what the islanders state is correct, the longitude shown by the "Indian Oak's" chronometer, must be twenty-five miles too far west. I have had no opportunity of getting a lunar as yet, but shall endeavour to do so by the first opportunity. I have also to add, that every circumstance relating to Chusan and the fleet, has been kept a secret from the Islanders, fearing it might operate against us, as they are tributary to China, and now fitting out two junks for Amoy. I trust however we shall be relieved from our present painful situation before these or other vessels return. Mr. Field, the bearer, I hope leaves to-morrow. I have the pleasure to state the dispatches and letters are saved, but more or less wet with sea-water.

(Signed) J. J. R. B.

Note.—I lose no time in publishing the above interesting narrative. The natives of the Loochoo Islands seem to preserve unimpared the kindness of disposition, which distinguished them when Basil Hall visited that distant archipelago, although some greater degree of caution and strictness as respects intercourse with the interior, on the part of foreigners, seems now to obtain among them, than was the case when Englishmen first became intimately acquainted with them. Of Captain Beechey's subsequent visit, there exists I believe no published account; and although Mr. Tradescant Lay, the naturalist, who accompanied that officer, has published a notice of the Bonin Islands, he has not included (I speak from memory) in his work any detailed mention of the Loochoooans. A narrative of the Russian Captain Creüsensturn's voyage to Loochoo has I believe appeared on the continent, but I have never seen the book. The accidental sojourn of Captain Bowman and his party among these kindly islanders, is an occurrence of much interest; and it is to be hoped that no Englishman will ever abuse their hospitality, nor fail to requite it, when the occasion may offer of returning it in kind.

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Notes on the Eusofzye tribes of Afghanistan. By the late Capt. EDWARD CONOLLY.

The country of the Eusofzyes[1] is naturally, and by themselves, divided into the Sum, (a Pushtoo word signifying a plain) and the Kohistan or hilly districts, comprising the valleys of Chumla, Booneer, Swat, &c. and the physical characteristics of the two divisions are hardly more opposed to each other, than are the manners and condition of their respective inhabitants. The present memoir will treat chiefly of the Sum, with a few exceptions (to be hereafter mentioned); the whole of this tract is peopled by that great branch of the Eusofzyes, called the Munder.[2] Scattered over a perfectly level plain, every where practicable for guns, in villages which mutual jealousy prevents them from fortifying even with walls, the Munders have always been exposed to the inroad of foreign invaders, and seem in consequence to have early sought the protection of, and willingly to have submitted to, some one chief of their own clan; though their peculiar democratic institutions prevented their acknowledging obedience to any minor authority, if we except that capricious and limited deference which custom has accorded to the petty Mulliks. The Mullikzyes, a powerful and numerous tribe, whose principal seat is Yar Hossein, the largest village in the Sum, are said formerly to have given a Khan to the Munders;[3] but the chieftainship has been in the family of Punjtar since the days of Aurungzebe, whose letters patent it still possesses. Though in the confusion consequent on the dismemberment of the monarchy, several chiefs have risen to limited authority in the Sum, all of them acknowledge as their rightful head—if they have ceased to pay obedience to the descendants of—Bagho Khan, the founder of that family, and these alone possess the power of life and death, the Beri Kheil (that of Bagho) being regarded with a respect hardly inferior to that paid by the Dauranees to their Sudozyes.[4]

Futteh Khan, sixth in descent from Bagho, died a few days before I left Peshawer. The high character he supported during a period of peculiar difficulty, and the light which his history throws on the present condition of the Eusofzyes, require that a slight sketch of his career should be given. It was during the short, but brilliant reign of Syud Ahmed,[5] whose principal supporter he was, and to whom he may be said to have given the crown, that Futteh Khan obtained his greatest power; not only the Munders, but the Eusofs of Swat and Booneer seem to have acknowledged him as their head and leader at this period, but on the defeat and death of the Syud Badshah, the consequence of Futteh Khan became daily less and less. The Sikhs flushed with victory, poured large armies and large treasures into the plain, and by bribing some, and intimidating others, contrived, if they could not get possession of the country, to weaken it by exciting jealousies and divisions among the petty tribes, and by substituting numerous small lordships in the place of one common interest. The

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people of the hills, particularly those of Booneer, who had been the principal supporters of the Sum against its foreign enemies, disheartened by their losses at Noushera,[e] contented themselves with brooding over their disgrace, and rarely ventured to leave their fastnesses; and it seemed likely that, in spite of the difficulties opposed by the differences of their religions, the disunited Munders would shortly fall an easy prey to the victorious and one-minded Sikhs. One man alone prevented this. As his physical resources and apparent means of resistance grew less, the courage, the moral influence, and it may almost be said, the actual strength of Futteh Khan increased. Punjtar is a cluster of five small villages, not containing altogether 500 houses, situated at the upper extremity of a valley, which opens into the Sum. It is a place of no strength whatever, not even being surrounded by a wall, and the road to it is open and practicable for guns; but such was the terror inspired by the name of its chief, that for many years it remained the bugbear of the Sikhs, and their largest armies never ventured to approach it. At last a force of, it is said, 15,000 men with guns, and under an European officer, ascended the valley. The inhabitants were amused with proposals for an accommodation, and during the night, guns having secretly been conveyed to the top of a hill which commands the place, an attack was made on the unfortified little villages. Of the few Punjtaris thus taken by surprize, the greater number hastened to place their families out of reach of the fury of the Sikhs; but all those not encumbered with wives and children, some 2 or 300 only, with Futteh Khan and the Moullas at their head, unappalled by the overpowering masses of the enemy, made a stand, and maintained an unequal fight for many hours. Futteh Khan himself swore not to retreat, and was at last carried off the field by force in the arms of his soldiers. The Sikhs destroyed the principal village and mosque, but retreated the next day, lest the Booneeris should be down upon them; nor have they since revisited Punjtar. Futteh Khan made a vow to pray in the open air till he had burned some house of images, and shortly afterwards with a few followers, in pursuance of his vow, he crossed the river, attacked a Sikh town, and levelled its Dhurmsalla with the ground.

Runjeit Singh was fully aware of the importance of conciliating an enemy so spirited and implacable. He offered Futteh Khan a jageer of three lacs, and to support him as Khan of all the Eusofzyes, if he would only nominally acknowledge himself his subject, by sending him a hawk or two, or a horse as a tribute. Most of the Khan's friends, and even the Moullas recommended not that he should degrade himself into a pensioner of the infidel, but that he should send a horse to the Maharaja as an exemption from the annoyances and anxieties to which the vicinity of the Sikh troops exposed them; but the Khan was inflexible: with his character,

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