No. XIV.

JOURNAL

OF THE

BOMBAY BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

JANUARY, 1851.

ART. I.—*Account of the great Hindu Monarch, Aso'ka, chiefly from the Indische Alterthumskunde of Professor Christian Lassen.* BY THE HON'BLE SIR ERSKINE PERRY.

The Mussulmans of India may justly boast in Akbar of one of the greatest sovereigns whom the world has seen. Nearly a contemporary of three very celebrated Monarchs in Europe, the crafty and superstitious Charles V., the sensual and unprincipled Henry VIII., the libertine Francis I., sink into common place individuals when placed in comparison with the great Mussulman Emperor. Pre-eminent for genius in war, some of his movements recall to mind the most celebrated exploits of Alexander or Napoleon. His rapid march, for example, from Agra to Ahmedabad after the rains had commenced, when to quell an insurrection in his recent conquest of Gujerath, he placed himself at the head of his body guard, and, almost without drawing bit, reached the capital, 450 miles distant, in nine days, where by his unexpected presence he at once restored good order, is one of he most memorable feats in Indian History.

But in Civil Government he was still more distinguished, and his policy to consolidate a grand Indian Empire by a fusion of races and equal treatment of religions, bears all the marks of a great original idea. The *Ayin Akbari* is a splendid memorial of the prosperous state of Akbar's government, and the world probably never beheld a more brilliant court than that of Agra, where the 'barbaric pearl and gold' of the gorgeous East were subordinated to the exquisite taste and high intelligence, which the architecture of that period still betokens, and traces of which are still clearly perceptible in the dignified bearing and high polish to be met with even in the pettiest Mahomedan Durbar of the present day.

But a still higher phase of Akbar's character remains to be mentioned. Conquerors but too often employ their energy of soul for mere personal ambition, and self-aggrandizement; statesmen in their intercourse with the world are frequently seen to contract a contempt for their fellow-men, and to become hard and cynical. If, however, we follow Akbar into private life we find that our admiration of the Monarch is exceeded by our love for the man. His philosophic speculations with the choice spirits whom he attracted to his court, remind the reader of the learned leisure of the Antonines, but his delicate treatment of the high born Rajput, who, for the first time subdued in arms, was forced to bend the knee as a subject at his throne, displays a soul of chivalry of which even Bayard might have been proud. If Akbar in short had been a European, we might have summed up his character by stating that he possessed all the great qualities of a Conqueror, a Christian, a Philosopher, and a Gentleman.

It is impossible that the race who claims so great a man can, fail to feel ennobled when dwelling on his story. But there is reason to believe that the Hindus can also bring forward a Monarch of equally extended empire, and on whom none of the eulogiums which have been bestowed upon Akbar, would be exaggerated. It is remarkable that an English reader of History is unable to obtain any authentic account of *Asóka*, or *Dharmasóka* as he is frequently called. He was apparently unknown to Sir William Jones; even so late as 1836, James Prinsep when on the eve of his brilliant discoveries, consider-

ed him an "ideal personage;"*(a)* Professor Horace Wilson in the year of Grace 1849, would seem to cling to the idea, that his is only "the shadow of a name;" Mr. Elphinstone despatches him in a few sentences; and other historians make no mention of him.

And yet the materials exist for a more full and accurate history of *Asóka* than of any Hindu king who ever reigned *(b)*. I trust therefore that whilst spending a few days vacation in a purely Hindu district *(c.)* where the name of the great Hindu Sovereign is still preserved, and where a beautiful grove on an adjoining hill of Asok Trees *(Jonesia Asóka)* attracts a pious crowd once a year, when according to Sir William Jones, "the vegetable world scarcely exhibits a richer sight than an *Asóca* tree in full bloom," *(d)*. I say, I trust that I may employ my time profitably by presenting in an English dress what the great oriental scholars of Europe, Lassen, Burnouf and Ritter (but principally the former) have worked out for us from the literature of the East, and from the raw materials collected by our countrymen in India.

An authentic chapter of ancient Indian history upwards of 2,000 years old, can scarcely fail to be interesting to the English reader in this country, whether he be the hard worked official, whose important duties in the administration of government leave him but little time

(a.) Jour. of Beng. A. S. Vol. v. p. 523.

(b.) It is gratifying to national pride to think that in the three great achievements of modern scholarship in this century, the decypherment of hieroglyphics, of wedge-formed characters, and of the Lath inscriptions, the names of our countrymen Young, Prinsep and Rawlinson should stand forth so pre-eminent, and although Dr. Young was subsequently eclipsed by the more extended discoveries of Champollion, the glory belonging to the former two, and especially to Prinsep, is shared by none.

(c) Angria's Colaba, though forming the southern headlands of the harbour of Bombay, was almost a *terra incognita* to Europeans, till its escheat to the British Government in 1840, and even now is but little visited.

(d) It would be gratifying to think that the lovely shrub, which is known by this name as well in swampy Bengal as in the wild jungles of the Bombay Concan, is indebted for it to pious Buddhists, who thus strove to embalm the memory of their great Monarch; and the finding it in the neighbourhood of Buddhist Caves, such as Kenari and Carli, cherishes this notion; but I learn from Dr. Wilson, that the Asóka tree is mentioned in the Ramayána, the bulk of which is set down by the best Sanscrit scholars as anterior to Buddha.

for the comparatively trifling pursuits of philology and antiquities, or whether the inquiring Native student, who may be surprised to find that the most accurate accounts of the good old times of his own country are to be obtained through the literature of Europe.

Haply also, the European statesman, amid all the civilization of the nineteenth century, but with the same, perhaps even exaggerated, social evils pressing upon his attention, which engaged the benevolent *Asóka*, may pick up one or two hints for good government from the enlightened despotism of India twenty-one centuries ago. The genial climate of tropical Asia, its fertile soil, the simple wants of its inhabitants, and the absence of any densely peopled manufacturing districts, may render it more easy for an Indian Sovereign to contribute by slight acts of beneficence to the happiness of his people than it would be for a Government in Europe; yet some of the Hindu institutions, the wayside well and avenue, the groves of mango, and other fruit trees, sometimes extending for miles *(a.)* the Dharmsála or carravanserai for poor travellers, seem capable of a worldwide application, and their universal appearance in all Hindu States is a most gratifying recognition of the claims of the poorer classes of society by the rich and powerful.

The grandfather of *Asóka* was *Chandragupta* who, by a happy divination of Sir W. Jones, once much doubted but fully established by modern scholarship, is clearly identified with the Sandracottus of the Greeks. From native records but still more from the testimony of the Greek historians and ambassadors, we are enabled to obtain a tolerably clear view of this founder of the Maurya Dynasty. *Chandragupta's* birth and origin are uncertain; Buddhist accounts make him out to be of royal descent, and of the family of the *Sakyás* to which Buddha himself belonged, but the fact of his having founded an empire and of his grandson *Asóka* having made a still more powerful impression on the Asiatic mind by his conversion to Buddhism, and by his successful exertions to propagate his new faith, would readily account for the royal genealogy afterwards attributed to the founder of

(a.) One such tope of mango trees I saw near Goruckpur, extending for at least three miles.

the race. In a Sanscrit play *(a.)* which has for its hero the Bramin minister of *Chandragupta*, the latter is mentioned as a *Vrishala* or *Súdra*, though he is also called a scion of the previous Nanda dynasty which he had deposed; but Lassen, on a comparison of all the authorities, feels no doubt that he was a man of low cast, though, with our knowledge of royal dynasties in India, this fact does not appear conclusively to decide that his family had not previously been seated on a throne.

On the invasion of India by Alexander, he appears to have served as a young man in the opposing forces, and there seems little reason for doubting that Justin *(b.)* contains a portion of true history, when he describes *Chandragupta* as the leader of the successful insurrection which drove the successors of Alexander out of the Punjab. But he observes that he made use of the victory to convert the liberty so acquired for his fellow countrymen into a despotism for himself..... "titulum libertatis, post victoriam, in servitutem verterat, siquidem occupato regno populum, quem ab externâ dominatione vindicaverat ipse servitio premebat."

It is probable that at this period he obtained for himself the kingdoms of Porus and Taxiles in the Punjab, and the intrigues of a Bramin named *Chanakia* are mentioned as having been very serviceable to him in placing him on the *gádi*. He extended his possessions rapidly to the eastward, and soon afterwards succeeded in ejecting from his capital of Pataliputra, (the Palibrothra of the Greeks) *(c.)* the powerful monarch of the Prasü whom the Buddhist writers call *Dhána Nanda*, or the Nanda of wealth; but the historians of Alexander, Xandrames, the similarity of which name to the Sanscrit Xandramas (moon) is pointed out by Lassen.

It would appear that this latter victory was not obtained without

(a.) Mudrâ Raxava. 2. Wilson's Hindu Theatre.

(b.) L. xv. 4.

(c.) The site of this town seems now to have been clearly made out by Schlegel to be on the Ganges at the confluence of the Soane, and near the more modern Patna; see Ritter's Asien, V. 508; the Chinese traveller Hiun Thsan'g whom Klaproth has translated, describes the city as still flourishing, A. D. 650.

difficulty or the new kingdom enjoyed without opposition, for the Bramin minister of the ejected Nanda dynasty seems to have succeeded in forming a powerful confederacy composed of five independent Indian Rajahs, and the great king of the *Mlechas* or *Parasikas* (Parsis) who can be no other than Seleucus, the then reigning Prince of Persia. The wily Bramin *Chánakia*, however, was at hand to defeat this powerful coalition which sought to reinstate the heir of the Nandas on the throne of *Pataliputra*, for by sowing jealousies amongst them he contrived to break up their force, and *Chandragupta* from that time enjoyed the throne undisturbedly and was able to extend his rule far and wide. Lassen thinks that he even met Seleucus himself successfully in the field, and that the fact mentioned by the Greeks of the latter having exchanged the provinces of Gedrosia, Arachosia, and Paropamisus with *Chandragupta* for five hundred elephants, is only to be explained on the assumption of a successful campaign on the part of the latter against the Greeks.

From this period, however, it is clear than the relations between Seleucus and *Chandragupta* became most intimate. They interchanged presents and the celebrated Megasthenes was sent to Palibrotha as the Greek ambassador, the exact date of which important occurrence does not appear, but it was previous to the year 280 B. C. as in that year Seleucus died. If the work of Megasthenes on India had come down to us, it would have been the most important gift to the oriental Scholar, Antiquary, and Statesman, that antiquity could have bequeathed; for it would have displayed an authentic picture of the greatest Hindu Monarchy which had existed up to that time by a European Scholar of the age of Aristotle, and one apparently gifted with every endowment for truthful and philosophic narration. As it is, the industry of learned Germans of our day has collected a mass of accurate information respecting the India of that period, which is nearly all traceable to Megasthenes. (*a.*)

The extent of the kingdom which *Chandragupta* carved out for himself, can be ascertained much more accurately from Greek than

(*a*) See Scwanbeck; and E. Müller's, Fragmenta Historicorum Græcorum.

from Hindu authorities. The latter only inform us that he reigned at *Pátaliputra*, and that he subjected the peninsula of Kattyawar to his rule. From the former we gather that his empire extended to the Indus on the one hand, to the mouths of the Ganges on the other, and to the south was only bounded by the Vindhyan range. Ougein in Malwa was therefore within the limits of his empire, and he placed his grandson *Asóka* in that province as his Lieutenant. He appears to have acquired Gujerath by conquest in the latter period of his reign, but the wild country bordering the Aravulli range, now held by the Rajputs, and never fully conquered till the time of the great Akbar, does not seem to have acknowledged his sway. If then the expression of Plutarch that he conquered the whole of India, be an exaggeration, there can be no doubt that he founded a mighty empire, and all the accounts are unanimous as to the overwhelming force he was able to maintain in arms. (*a.*) *Chandragupta* reigned for four and twenty years, and died 291 B. C. He was succeeded by his son *Vindusára*, of whom we know but little. *Daimachos* was sent to him as ambassador by *Antiochus Soter*, and the Greeks who do not mention him by his proper name, but under another title *Amitochates* or *Amitraghâta* (Slayer of the enemy), state that he requested *Antiochus* to buy for him some sweet wine, some figs, and a Sophist versed in the Greek philosophy. The Greek Monarch sent him the wine and the figs, but remarked that it was not usual among the Greeks to sell philosophers. Upon which Lassen remarks that as such also was not the custom amongst Hindus, the latter part of the story was probably a flourish for Greek glorification.

During the reign of this Monarch, relations were also entered into with the Greek rulers of Egypt, and Ptolemy Philadelphus sent to him *Dionysius* as his Envoy.

Vindusára is said to have had sixteen wives, and a hundred and one sons, of whom *Asóka* and *Tishya* were born of the same mother.

Asóka was sent during his father's lifetime to quell a serious insurrection which had broken out at *Taxasila* in the Punjab. On ap-

(*a.*) Strabo xv. 1, 53. Pli. H. N. vi. 22, 5.

proaching the city the inhabitants came out to meet him, and assured him that they were not enleagued against the Maha-Rajah but against his minister who had been oppressing them, whereupon *Asóka* made a grand peaceable entry into the town. He subsequently conquered the adjoining territory of the *Khásas*, who cannot be the people of that name in the North (Kashgar), but were probably a colony planted by the latter in the neighbourhood of the Indus.

At a later period *Asóka* was sent by *Vindusára* to *Ougein* to take charge of the province now called Malwa; the reason assigned for which move is that he had been discovered plotting against his father's life, who thereupon took steps to remove the dangerous intriguer from his capital. According to another account, *Vindusára* destined the throne for his son *Susima*, whom a short time before his death he had sent to *Taxasila*, which had again revolted. When *Asóka* heard shortly afterwards of his father being on his deathbed, he posted without delay from *Ougein* to *Pátaliputra*, where he made himself master of the government, and put all his brothers to death with the exception of *Tishya*. It is to be hoped that this general massacre is a calumniating invention of the Bramins, although we find it narrated in the *Mahawanso*, p. 21.

If *Chandragupta* holds a distinguished place in ancient Indian history from his having established the greatest Indian empire which the world had then seen, his grandson *Asóka* shines forth much more prominently from his having been the monarch to propagate Buddhism with such wonderful ardor, and still more from his being the first Prince of whom we possess undoubted historical records in his own language. As his history is derived in great part from the inscriptions left by him, it may be useful to give a short sketch of the character and discovery of these monuments.

These inscriptions are to be found on columns, and on rocks. The latter are to be met with at *Girnar* in Kattyawar, at *Dhauli* in *Orissa*, and at *Kapur-di-giri* near Peshâwar. But as the former were the earliest made known to us, it will be well to describe them first.

The Delhi column, was the first of which notice was given to the world. It is situated near the banks of the Jumna within the old wall

of the city to the N. W., and is called the Lâth, or pillar, of Firuz-Shah, because it stands in a palace erected by that Emperor; but whence he obtained it is unknown. The second is at Allahabad, and equally betokens the dominion of the Mussulmans, as it presents an inscription of the Emperor *Jihángír*, who on mounting the throne in 1605, caused it to be again erected. It had been pulled down by the previous fanatical Mahomedan rulers of India, as a monument of superstition, about the middle of the fourteenth century; and at an earlier period it must also have been prostrated for some reason or other not now ascertainable, as we find on it an inscription of the Rajah *Samudragúpta* who reigned in the fourth century after Christ, and who must have again erected the column, as inscriptions are to be found upon it which could not have been carved whilst the column was standing, and which are of a later date than the inscription of *Asóka*. This remarkable pillar maintained its old position in the fort built by Akbar, and *Jihángír* until the year 1799, when the English officer in charge who was making alterations in the fortress allowed it to be pulled down. (*a.*)

A third column is still standing on the spot where it was originally erected at Bakhra, on the road from Patna to Kajipur; it has no inscription, but is otherwise uninjured. The same part of India contains two other pillars with inscriptions, one at Matthiah in the Rajah of Bettiah's district; and one at Rádhia, near the Nepal frontier to the east of the Gandak. From so many columns being found in one neighbourhood it is easy to believe the accounts which have been handed down that *Asóka* erected very many of them throughout his territories.

They appear to have been all alike both in size and ornament, and are all of the same material, a red sandstone. Their height was a little more than 40 (French ?) feet, their circumference at the base 10, and below the capital 6 feet. The latter was ornamented with a chaplet of lotus flowers, and was surmounted by an abacus on which was a couching lion; including the lion, the capital was

(*a.*) J. of As. S. of Bengal. iii. p. 106; iv. p. 127. vi. p. 786.

6 feet in height. The lion has a clear reference to the name of Buddha, *Sákyasinha*, (The lion of the Sakyas); such pillars therefore were called *Sinhastambha*, Lion-pillars. *Asóka* himself terms them *Silastambha*, virtue-pillars, because he had engraved upon them his laws, and exhortations to good conduct. On this account they are also called *Dharmastambha*.

The inscription which is to be found of identical import on all four columns is divided into four parts, directed to each quarter of the heavens. On the Delhi column another inscription is found running round the pillar beneath the others, and an addition is also found to the inscription on the east face, which is wanting in the others. The Allahabad column has also got a special inscription of four lines.

The oldest of these inscriptions is dated in the twelfth year after the Maha-Rajah's coronation, the remainder in the six and twentieth year.

The second class of inscriptions which are engraved on the rock are to be found on the west, the northwest, and the east side of India. Those on the west are below the hill of Girnar, in the Kattyawar Peninsula, near Junaghur, whose old name *Javánagada* marks it out as a seat of ancient Greek dominion. They are found on a projecting block of granite, three sides of which are covered with inscriptions; the easterly one belongs to *Asóka*, the westerly to the king and great Satrap *Rudradáman*, the northerly to *Skandagúpta*.

The first, which alone concerns us now, is divided by lines into fourteen edicts which are so placed that the first six follow each other to the left, the second to the right, and the thirteenth and fourteenth are beneath the latter. *(a.)* The fourth edict dates from the 12th year after the Rajah's coronation. The third mentions a Regulation of the same year, which was, probably, then also promulgated. The eighth edict refers to an occurrence in the tenth year, but which doubtless had not been published till a later period. In the fifth edict

(a.) See 12. As. Jour. p. 153. where a lithograph of the inscription and a most valuable critical revision of the text in Roman characters by Professor H. H. Wilson, are to be found.

a general order of the 13th year is to be found. The conclusion contains no date, but from the above premises we may collect that the whole inscription was not engraved until after the 13th year.

The inscriptions of *Asóka* next to be mentioned were discovered near *Bhuvaneswara* the old capital of Orissa, on one of three low rocks called *Asvastama* near the village of *Dhauli*. The first ten edicts, and the fourteenth, correspond in meaning entirely with the preceding, but the language is somewhat different, though it is not a translation, but a repetition of the same ideas with slightly varying phraseology. There occur here also two special inscriptions not found elsewhere. These inscriptions contain no date, but the third and fourth belong to the 12th year after the coronation like the corresponding ones in Girnar.

The third edition of this inscription is in the Arian character, and is to be found on a block of stone standing on a rock near the village *Kàpur-di-Giri*, which is situated on the small rivulet *Kálapáni*, a day's journey to the N. of the Cabul river. The inscription on the northern side corresponds with the first eleven edicts of Girnar, that on the southern side with the three remaining ones. This inscription also is no translation of either of the two others, but about half of it corresponds in words with the Girnar inscription; the second edict is shorter, the sixth on the contrary much longer; the ninth differs greatly from the two others, the three last edicts are also much more full than those at Girnar.

It appears from *Asóka's* own words that he caused these inscriptions to be engraved in many other places. He not only published inscriptions of different import, but he caused the same inscription to be set up in different forms, at full length, abridged, and in a form between the two others; *(a.)* they were repeated thus often on account of the beauty of their contents, which it was desirable that the people should become acquainted with.

These inscriptions possess the inestimable value of giving us the

(a.) The Girnar inscription XIV, states. "The god-beloved benevolent minded Maha-Rajah, has caused this Law to be engraved; it is (appears) with abbreviation, in a middle form, and expanded, but the whole never in any one place, confuses."

Rajah's own account in his own words of his actions and motives. They are also of the highest worth for a history of Indian languages, as they present us the oldest forms of the vernacular dialects in an authentic character, and afford a firm basis for the comparative grammar of the great, multifarious, and complicated, Sanscrit family of tongues. As an inquiry into this subject is foreign to the immediate object under discussion, and as one class of these inscriptions is still almost unknown, *(a.)* it may suffice to make one remark only, viz., that they afford us specimens of three popular languages; one on the north-west frontier, a second on the west, and a third on the east side of India; for although the Pillar-inscriptions differ in a few forms from those at *Dhauli*, they nevertheless belong on the whole to the same formation, and may be considered as the *Mâgadhî* of philologists. As this dialect is also used on the Delhi pillar, which is beyond the borders of *Mâgadhâ*, *Asóka* appears to have shown special favor to the vernacular tongue of his own capital, and from the prevailing usage of this affiliated form of Sanscrit, we may possibly explain why it is that the Singalese who derived their Buddhism from the same country, also term the sacred language of their books *Mágadhî*, *(b.)* otherwise called *Pali*. The honor of having revealed to posterity the meaning of these inscriptions belongs to JAMES PRINSEP, who was the first to decipher the two alphabets in which they are written, and the first to publish and explain them. And, although on subsequent examination of the originals, a few corrections have been found necessary for several of his explanations, it must never be forgotten that he undertook this task without any special preparation in the studies connected with it, so that whoever looks upon his achievements from this point of view

(a.) Professor Lassen had not then seen the revised text of the *Kapur-di-Giri* inscription, 12 As. Jour. p. 152.

(b.) A bystander in the Supreme Court will also observe that the language of the Holy Books of the Jains, or Shrawuks, is *Mâgadhi* but we learn from the Rev. Dr. Stephenson's translation of the *Kalpa-Sutra* that the later writings of the Jains are in Sanscrit.

must acknowledge that they rank among those discoveries which mark a grand step forward in our inquiries into antiquity. *(a.)*

In these inscriptions *Asóka* does not mention himself by his own name, but by another, *Príyadarsin*, i. e., the benevolent-minded (according to Lassen, but the good-looking, or agreeable looking according to Horace Wilson), and to this name is prefixed the adjective, *Devánám priya* god-beloved.

Besides these inscriptions the writings of the Singalese Budhists form the principal source for our knowledge of *Asóka's* history. *(b.)*

In his youth he was appointed, as has been already stated, viceroy of *Avanti*, and resided at Ougein. On his journey there, he met at the town of *Kitiagiri* (which was probably in the Harowti range) with the beautiful daughter of a Seth or *Srêshtin (c.)* whom he married, and who bore him a son named *Mahindra*, and two years afterwards a daughter named *Sanghamitrá*. *(d.)*

He was crowned at *Pataliputra* in the fourth year of his reign; and from this year which was 259 B. C. he dates not only his inscriptions, but other acts of his reign.

Asóka like his two predecessors belonged to the Braminical faith; his father used to feed sixty thousand bramins daily, and he himself during the first three years of his reign followed the same course. In the latter of these years he renounced his earlier faith, and became a convert to the doctrine of *Buddha. (e.)* The southern and northern

(a.) It is much to be regretted that the interesting papers of Mr. Prinsep on this subject tracing the steps of his discovery in the Bengal Asiatic Journal, should not have been collected and republished. The valuable work by Mr. Thoby Prinsep contains only the results of his brother's discoveries bearing on Bactrian and Indo-Scythian History.

(b.) In another part of his work Lassen gives a detailed account of the rich Buddhist literature of Ceylon.

(c.) Lassen explains this term to mean the head of a trade or guild Horace Wilson translates the term by the word Provost, 1 Hindu Theatre 16; and it seems probable that the city officer so well known in this part of India under the name of Nagar-séth is the modern representation of the ancient Sresti, or Srêshtin.

(d.) Mahawanso. c. XIII p. 76. *(e.)* Mahawanso. c. V.

Buddhists give entirely different account of his conversion. According to the former he was converted by his nephew *Nigrodha* the son of his eldest brother, whom he had murdered when he ascended the throne. But, if there is any truth in this tale, one portion of it is evidently incorrect, as *Nigrodha* at this period was only seven years old. After the latter had persuaded the Maha-Rajah to adopt the new doctrine, he converted the people also and confirmed them in the observation of the law. According to another version of the narrative *Asóka* appears to have become disgusted at the mode in which the bramins abused his generosity, and to have determined thereupon to examine the doctrines of other sects. *(a.)*

The northern Buddhists describe his conversion to have been effected by a miracle, and by another person named *Samûdra*, the son of a *behpari*, or merchant; the account therefore wants the characteristics of true history. *(b.)*

Even however if any real influence in *Asóka's* conversion can be ascribed to *Nigrodha* according to the former account, it must not be overlooked that the determination to give up the faith of his ancestors was chiefly caused by his own reflections on the superiority of Buddhist to Braminical doctrines. This clearly appears from his own words in which he contrasts the previous condition of things with those established by himself. Formerly, an immense number of animals were slaughtered at his palace for food. *(c.)* One of the fundamental laws of Buddhism, the *Ahinsa*, or non-destruction of living beings, was especially overlooked; and the disregard of Parents, of Bramins, and of Sramans had every where got the upper hand. *(d.)*

Since he had adopted the *Law*, this state of things had completely changed. *(e.)*

It was therefore the mildness of the new doctrine, the universal

(a.) Mahawanso. p. 23.

(b.) According to the Asóka-Avadâna (See Burnouf's Introduction a l'Historie du Buddhisme I. p. 365) Asóka at the commencement of his reign was a cruel tyrant, and was called in consequence Kandâsóka, Asóka the furious.

(c.) Girnar Inscr. I. 7. *(d.)* Girnar Inscr. IV. 1.

(e.) Ib. IV 5. 6. where it is added 'obedience is now also shown to Parents and Elders.'

respect for life enjoined by it, its prevailing tendency to promote human happiness and virtue, that determined him to adopt the *Law* of Buddha and to attempt it's propagation. He not only adopted it for himself, but required his sons, grandsons, and their successors to observe it. He points out compliance with the law as the best of all works, and endowments to it as the best of all gifts. (*a.*)

In reference also to the period of his conversion his own words are much more trustworthy than the accounts of a later period. He states that he only obtained complete insight into the truth in the 10th year after his coronation; from that period he renounced the usual amusements of royalty, and dedicated himself entirely to the performance of the duties enjoined upon monarchs by the Law.

Asóka announced his conversion to the people by flourish of trumpets, and celebrated it by a grand festival, at which fire-works and other festivities found a place. (*b.*)

The intimate connection of *Asóka* with Buddhism may make it desirable for the English reader to have the principal facts of Buddha's life and history here briefly noticed, and the results placed before him of the remarkable scholarship of the present day which have made the Literature of the most distant nations, the Chinese, Singalese, Mongols, Thibetans, Nepalese, and Burmans, render up its treasures in order to complete the picture which the Buddhist and Braminical writings of India afford us.

Sakya Gautama, as he calls himself, a Kshetrya by cast, and of the royal race of the *Sakyas* who ruled at *Kapilavastu* (a town near the modern Lucknow.) (*c.*) was born in the year 593, B. C. He was educated right royally both in the arts and sciences of the day; and he spent the first 28 years of his life in the usual enjoyments of a court, and in company of his three wives, at one of his father's palaces. In his twenty-ninth year reflections on the great problems of life drove him into solitude bent on discovering a remedy for the evils which he observed to prevail in the world. Flying from the royal palace by

(*a.*) Girnar Inscr. IV, 10. (*b.*) Girnar Inscription IV, 3.
(*c.*) See 5. Ritter's Asien 510.

stealth, he cut off his hair, and donned the yellow robe, which subsequently became the canonical attire of the Buddhist priesthood, and he betook himself to the fastnesses of the Rajmahal Hills. He next sought out a celebrated abode of Bramins, on a hill near *Gaya*, but soon ascertained that their practises were naught, and their doctrines bootless. He then withdrew to a solitary spot on the *Nílgâa* river an affluent of the *Phalgu* where with a few disciples he spent six years in fastings and mortifications of the flesh. But finding that his mental powers became impaired by such lengthened vigils, he renounced these ascetic practices, upon which his disciples deserted him and fled to Benares to expiate the sin of their master. Thus left alone *Sakya Gautama* sat down absorbed in thought, under a *Bodhi* tree (*ficus religiosa*) and invigorated by his more generous diet he succeeded in attaining the highest state of perfect knowledge, and became a BUDDHA or Enlightened.

For the next nineteen years he wandered about northern Hindustan living entirely on alms, and making innumerable converts. His chief resting places during this period are fondly enumerated in later days by his disciples and have formed objects of pilgrimage to Buddhists from the most distant countries even down to the present times. (*a.*)

His royal birth secured for his doctrines a ready acceptance amongst the upper classes of society, and the Rajahs of *Kosála*, *Sravastí*, and *Ayodhia*, or Oudh as well as his own father, vied with each other in erecting spacious *Viháras*, or monasteries, to receive the devotees of the new faith. After promulgating during this period the doctrines which up to the present day have combined the greatest number of mankind, next to the Christian religion, in the same belief, this royal reformer and truly great man, feeling his end approaching, withdrew in company of a few of his disciples to a solitary tope of Saul trees near *Kusinazara* on the *Gandak*, and there breathed his

(*a.*) The pilgrimage of the Burmese Ambassador to Gaya will be remembered by many now in India.

last in the month of Vaisak (April-May) 543, B. C., being the twentieth year of his mission, and the fifty-fifth of his life. *(a.)*

It was therefore 283 years after the death of Buddha, or 260 B. C., that *Asóka* adopted the important step of embracing Buddhism. Having done so, he set no bounds to his zeal in endeavouring to propagate his new religion, and the laws and virtues enjoined by it, not only throughout his own territories, but in all adjoining countries. Many of his proclamations have this object in view. In one inscription he enjoins that a meeting should be held every fifth year, both in the countries conquered by him, and in those in alliance with him *(b.)* There, confession was to be made by each individual, and the leading men were carefully to expound the laws, such as obedience to father and mother, liberality to friends, relations, Bramins and Sramans, abstinence from killing any living being, from prodigality, and from evil speaking.

One of the most important events of *Asóka's* reign was the third Synod of Buddhists which he assembled in the 17th year of his reign B. C. 246. *(c.)* It was then determined to propagate the faith by Missions to foreign parts; and the heresies which intriguing Bramins, insinuating themselves into the *Viháras*, under the guise of Buddhists, had been studious to introduce amongst the faithful, were then extirpated. Amongst the *Sthaviras* or Leaders (the Thero of the Mahawanso) then sent abroad *Mahadharmarazita* is mentioned as having been dispatched to *Mahárâshtra*, and Lassen observes that this is the first occasion on which the latter name appears in

(a.) Lassen in another part of his work mentions the following authorities for his life, Collections from Thibetan works, by Csoma de Kornes, A. S. Res. xx. p. 285; Schmidt's History of the East Mongols; a life of Buddha translated from the Mongol by Klaproth, Asia Polygl; Turnour's translation from the *Pali* commentary on the *Buddhavansa*, Jour. of the As. S. of Bengal, vii. p. 798; Burnouf's extracts from the sacred writings in his Introduction a l'histoire du Buddhisme, and Csoma's Analysis of the Thibetan *Dulva*, As. Res. XX. p. 41. p. 393. ff.

(b.) Girnar Inscription, III. 1.

(c.) The first Synod was held by Kâsyapa, whom Buddha had nominated as his successor, immediately after the latter's death B. C. 543, and at this Synod the sacred books of the Buddhists were collected. The second Synod was held B. C. 433, and 12,00,000 *Bhixu* or devotees are said to have been present.

Indian History, and that it probably at this period only comprehended the narrow ancient seat of the Mahrattas in Baglana to the north of the Godavery. The Missionary however in this small district made 1,70,000 converts and 10,000 priests devoted themselves to a spiritual calling.

Asóka was also most successful in his Missionary efforts in the adjoining kingdoms on both sides of the Himalayah, and seems especially to have suceeded in extirpating the previous snake worship which had existed in Cashmire and Gandhára. This latter fact appears in the native history of Cashmire as well as in his own inscriptions. But it was not to India alone that he confined himself. For *Aparántaka*, (some place on the western frontier,) *Suwarnabhúmi*, (either Burmah as Turnour supposes, or the Arabian or Persian coast according to Lassen,) and above all Lanka or Ceylon received the *Wheel of the Law (a)* with alacrity.

To this latter island *Asóka* despatched his own son *Mahindra*, a youth of twenty, who had devoted himself to the priestly calling and a missionary life with an enthusiasm equal to his father's. These efforts were crowned with success, and the Ceylon authorities are full of most minute details of the mode in which the king *Devánámpriya* and the inhabitants of Ceylon were converted to the new faith; the royal family having previously been Braminical in their worship as belonging to the great Arian race of conquerors, and the majority of Singalese being probably snake worshippers. (*b.*)

(*a.*) Bombay Travellers who have visited Ellora and Ajanta will recollect the frequency of this Buddhist symbol.

(*b.*) These accounts are interesting in another point of view as showing the intercourse between Ceylon and the kingdoms in the interior of India at that early period. But Lassen does not appear to have been struck with the speed at which the journies were made. Thus, the ambassador from Ceylon embarks at Jambukola near Jaffna, and in seven days makes the north coast of India in the Bay of Bengal which, although it would be respectable work for a modern clipper, is perhaps not too much for a native craft, such as we now see them in the fishing boats of Bombay harbour, during the S. W. monsoon, but then he reaches Pataliputra from the Bengal Coast in seven days more, which not even the Governor General with all the appliances of the empire could now accomplish. So also, when *Asóka* sent down to Ceylon a branch of Buddha's sacred Pipal tree, which

It is clear also that *Asóka* exerted himself to introduce Buddhism amongst the different Greek monarchies into which Alexander's conquests had been broken up. Thus in the Girnar Inscription we find him asserting that "The king of the *Javana* and further the through him (becoming) four kings, *Turámaya*, *Antigona* and *Magá* universally follow the prescripts of the Law of the god-beloved Rajah." (*a.*)

The name of Antiochus has disappeared from the Girnar inscription but is found in the corresponding one at *Kapur-ki-giri*, as well as those of Antigonus and Magas.

This mention of contemporary Greek monarchs is most important for Indian history. Magas king of Cyrene died 258 B. C.; Antiochus II of Syria 247; Ptolemy II of Egypt 246; Antigonus Gonatas of Macedonia, 239; and it is not improbable that *Asóka* sent ambassadors to all these monarchs on ascending the throne in 263 B. C. We learn from the Greek authorities the desire which the Seleucidæ and the Ptolemies displayed, to open up diplomatic relations with the powerful Hindu kingdom on the Ganges, and although we may ascribe to oriental vanity *Asóka's* statement as to the adoption of *the Law* in the kingdoms of the West, we may well imagine that the enlightened and tolerant Greek Monarchs in their desire to attract eastern commerce to their new empires would readily encourage *Asóka's* efforts at proselytism.

A remarkable institution was created by *Asóka* in the 17th year of his reign, and which deserves the more notice, as the want of a similar office has often attracted the attention of Statesmen in England. Officers called *Dharma-Mahámâtra* or Ministers of Justice, were appointed to superintend the promulgation and observance of the law in all parts, both, of the kingdom, and of allied states. They were directed to be in attendance at all public places, at Markets, and

miraculously found itself in a golden basket of the Maha-Rajah, the vessel which bore it reached the mouth of the Ganges in seven days from Pataliputra, and in another seven days the vessel containing the holy cutting reached Jaffna on the coast of Ceylon.

(*a.*) Girnar, XIII. The fourth missing name appears in the *Kapur-di-Giri* Inscription to be Alexander, but Mr. Norris (8 As. Journ. p. 303) remarks that the name is not plain.

even in the *Zenanas* of his own family. (*a.*) *Mahámátra* also appear to have accompanied his sons, and other great officers as advisers, when placed in charge of a province. (*b.*)

Lassen remarks with justice on the extraordinary value which *Asóka's* inscriptions possess from the numerous minute circumstances which they detail, and which enable us to obtain a tolerably accurate view of the condition of Indian Society at that period, and which at the same time display, in the most favorable light, the beneficial operation of Buddhism on the actions of the Monarch. It is desirable therefore, to notice in some detail the remaining inscriptions which have not been hitherto mentioned, and I will do so nearly in the words of the distinguished German Scholar.

The influence of Buddhism displays itself in the most pleasing form in the anxiety of the Rajah to devote his whole time to the furtherance of his people's welfare both in this world and the next. He reproaches himself for having previously neglected public business, and for not obtaining information of what was going on. With a view to this latter object, he appointed special officers called *Prativedâka* or Informers, who were at all times to bring him intelligence, whether he was in his private cabinet, or amusing himself with his wife and children, or promenading in his garden, so that he might at once dispatch the affairs of State. Orders emitted either by himself, or by his *Mahâmâtra* he first of all laid before a Council of State, and obtained their opinion upon them. He states, that he was not at all satisfied with his own exertions for dispatching business, that he was always at work to promote the good of mankind, and he exhorts his sons and grandsons to observe the same course. But this noble minded man ought to be allowed to speak in his own simple words.

(*a.*) Girnar Inscription VI. 6. Dhauli. V. 4

(*b.*) Hereditary Bramin Officers called *Dharm-adhikari* are still to be found throughout the Deccan, in Kandesh, and even in some parts of the Concan, but I learn from Dadoba Pandurang. Superintendent of Government Schools, that their jurisdiction merely comprizes breaches of rules of cast, for which they levy fines or ordain penance, and even proceed to excommunication. It is possible that as all this country was formerly a stronghold of Buddhism we may here see one of Asoka's institutions transformed and adapted to subserve the great system of Bramin supremacy.

"For there is no content to me in the discharge or completion of business, and the noblest thing to accomplish is the good of the whole world. But the ground work of this is the discharge and completion of business; there is no higher duty than the good of the whole world. All my efforts are to remove sin from created beings, to make them happy here below, and to enable them to gain heaven hereafter. For this purpose I have inscribed the present law; may it be long preserved, and may my sons, my grandsons, and my great grandsons in the same manner strive after the good of the whole world. This is difficult to accomplish without the greatest exertions." Girnar Inscr. VI. 8, after Westergaard's transcript.

The *Rajaka* were another species of Officers, and their duties are made known to us by the Pillar-inscriptions. They are characteristic of one of the most remarkable institutions of Buddhism. These officers were especially appointed to promote the good of the people, to obtain information of their condition whether prosperous or unprosperous, to enjoin observance of the law, and to prevent its infraction quietly and firmly by gentle persuasion; it would seem that they were not allowed to employ severe punishments. They were directed to station themselves near topes of *Pípal* trees, so highly reverenced by Buddhists, and as these trees are found usually in the neighbourhood of villages, and by their grateful shade afford an excellent baiting place for travellers, the *Rajaka* could not select a better locality for mixing with the people, and ascertaining their condition. Their duties were not confined to this object however, for in another passage they are directed to expound the ordinances of the law to the faithful people. *(a)*.

The inscriptions themselves must also be looked upon as a instrument for promulgating the Law, and for enforcing the virtues enjoined by it, as well as for preventing forbidden actions, and the sins arising out of them, for the Rajah not only recounts his actions, but expressly assigns this end for his engraved monuments. It is not only future happiness, but present, that *Asóka* exerts himself to procure for

5 ★ (*a*) Dhauli Inscription. V. 1.

his people, and he displays himself to us in these inscriptions as one of the justest and most benevolent rulers of mankind that the world has ever seen. He regards all good men as his children. (*a*.) He does not limit his cares to men alone, but, in accordance with the fundamental law of Buddhism, the *Ahinsa*, extends them also to animals. To numerous birds and beasts, terrestrial and aquatic, he showed special favor, and absolutely forbade the killing of certain specified classes. For the comfort of the outer man, he planted mango topes and *pípal* trees on the highway, and at the distance of every half *Krosa (Kos)* he dug wells, and erected rest-houses for the night. In many places inns (or Durramsalas) were established for the use of man and beast.

The chief end of all his exertions however was the increase of *Dharma* in the comprehensive sense of the word which Buddhists ascribe to it, for with them it signifies not only the religious law, but also the law of nature and duties of every kind. This increase was to be effected by the observance of the two great branches of duty, submission to the law and freedom from sins. To the first branch belong charity, liberality, obedience to elders and teachers, respect to Bramins and Sramans, kind treatment of servants, and other similar virtues. Under the second branch the chief duties are the non-destruction of any fabricated thing, and non-killing of any living being : under this must be included, anger, cruelty, cowardice, envy and similar bad passions.

Three of *Asóka's* virtues deserve to be specially noticed. His justice in combination with the allied virtue of mildness ; his generosity ; and his tolerance to the faith of other men.

The first is shown in his conquest of Kalinga, when the prisoners were neither massacred nor carried off as slaves. And he describes the glory most coveted by him to be, the discharge of judicial duties with justice, and the tempering of punishment with mercy.

At an early period of his reign, he abrogated several capital punishments, and appears in the latter period of his life, if he did

(*a*) "Every good man is my offspring." Dhauli Inscription. XVI. 5.

not quite abolish the punishment, at all events to have very seldom permitted it. Prisoners condemned to death who had been reprieved, were obliged to make pious gifts and to fast frequently during the remainder of their lives, in order to obtain happiness in the next world. *(a.)*

Asóka's generosity to the Buddhist priesthood has been signalized in a legend which displays the true Indian characteristic of exaggeration; it makes him give away to the assembly of the Arya (the Elect) all his treasure, his empire, his wives and children, and himself, so that at the end he possessed nothing but half of a fruit called *Amálaka*. That he did in fact give his whole kingdom to the priesthood is stated by an inscription which was seen by the Chinese traveller Föe at a comparatively recent period on a column in *Pátaliputra*, and which mentioned that he had given the whole of *Jambûdwipa* three times over to the Priesthood of the four quarters of the world, and had bought it back again with gold. This however may be looked upon as merely a symbolical act, to denote his subordination to the priests, and his obligation to maintain them. The other account of his generosity towards them may be relied upon as nearer the truth, when the great extent of his empire and of his wealth is considered. His own words afford testimony of his gifts to the *Sthavira*, and of his injunctions to the *Mahámâtra* to distribute presents among them. This liberality however had chiefly in view the furtherance and establishment of the Law; a certain class of *Mahámâtra* with the title Benevolent, were charged to supply the Ranies and their sons with presents in order that they might dispose of them in charity and obedience to the law.

In respect of *Asóka's* tolerance, although indeed he considered that, for every relation of life, the precepts of *Dharma* were those alone which conduced to happiness and led to eternal salvation, still he recognizes the right of all mankind to live according to their own usages and manners; he is far removed from the desire of enforcing the adoption of the law by persecution, and on the contrary he seeks

(*a.*) Dhauli Inscription. II. 18.

to propitiate his subjects for its reception, by his counsels, his munificence, and his care for the public welfare. It is observable that except in one passage he always ranks Bramins before *Sramans, (a.)* and he holds forth the making of presents to them as a meritorious act. This tolerant spirit shines out most clearly in his treatment of the *Páshanda. (b.)* He says that, formerly he had honored all these according to their respective manners of displaying reverence. In another passage in his 12th year, he expresses the desire that all *Páshanda* should henceforth live in quiet, if they strove to govern their passions, and to purify their being; but he mentions no measures which he had adopted for converting them to the law. In a third passage he describes his treatment both of Bramins and *Páshanda* more clearly; he concilates the latter and Braminical penitents and fathers of families by gifts and honorary distinctions, not however with the view of increasing the number of the *Páshanda.* He recognizes that they all possess books holy in their own eyes, and all sufficing Revelations. *(c.)* He says, there are different modes of treating them, some are well disposed, others hostile. The former he invites to listen to and obey the law, and so to use the gifts and titles of honor he bestows on them as to make their increase in power conduce to his own. To obtain this end he had appointed *Dharma Mahâmâtra*, both in the capital, and in the land of the *Vrâtya*, as well as in other provinces, and he points out as the results of this measure the great increase of the well disposed *Pâshanda* and their growing enlightment by means of the law.

It might be tedious to relate the various marks of respect which *Asóka* exhibited to honor the memory of the founder of his faith, and it may be sufficient to state that the Buddhist accounts ascribe to him the mystical number of 84,000 *viháras, stúpas,* and *Chaityas. (d.)*

(*a.*) This term originally means Ascetics, the Σαρμᾶναι of Megasthenes, but was used subsequently to distinguish Buddhist from Braminical priests.

(*b.*) This word is used by Bramins to denote the followers of another faith, and principally Buddhists and Jains; *Asóka* uses it to denote unbelievers.

(*c.*) Girnar XII.

(*d*) The *Vihára* is the collections of cells usually excavated, in which Buddhist priests lived, and of which the neighbouring island of Salsett contains such an excellent example.

But *Asóka's* architectural magnificence was not displayed in religious edifices only. In the neighbourhood of Girnar he built a grand bridge, and caused his Lieutenant *Tushaspa* to erect other splendid works in the province. Lassen concludes from the Iranic name of this officer that *Asóka* placed foreigners of merit in high posts. He enlarged also, and beautified, the city of *Srinagur* in Cashmire, and built there two large palaces.

I have been studious to select from my authorities all the passages relating to civil government which redound to the credit of *Asóka*, for on his successful efforts in this department must his chief claims to greatness in the nineteenth century depend. But it should not be omitted to state that he appears to have obtained no inconsiderable share of what may be called the more vulgar glory of kings. He added to the immense empire created by Chandragupta, the Kingdoms of *Petenika* or the west coast, Kalinga on the east, and Cashmire in the north, all of which he acquired by conquest, although the native chronicles of the latter province ascribe its acquisition to inheritance, *(a.)* but, as is clear, erroneously. His neighbours on the western frontier were the *Gándhára*, *Gamboga*, and *Javana*, the two former being probably the names of nations in East Kabulistan, and the latter, not precisely Greeks, but the mixed population including a great number of the latter race who then inhabited West Kabulistan. To the eastward his kingdom probably included the whole of Bengal, but did not reach further in the Deccan than the southern limit of the province of *Kóla*. *(b.)*

Asóka died 226, B. C., in the 37th year of his reign, having married three years before his death an attendant on his first wife *Asandhimitrâ*, who, having embraced Buddhism with enthusiasm, died in the 30th year of the reign. *(c.)* The waiting maid does not appear to have been much better than she should be, and the passion she is said to

The *stúpa* according to Burnouf is the *tope* of northern India, implying an erection of masonry, in one word a *tumulus*; the *Chaitya* on the other hand is a tope consecrated to religious purposes; and it usually marks either the deposit of relics, or some action in the life of Buddha.

(*a*) Raja-Tarangiri, I. p. 101. (*b*) The modern Carnatic.
(*c*) Mahawanso, p. 122.

have displayed for the son of her husband, the beautiful eyed *Kunála*, will remind the classical reader of Phœdra.

The subsequent history of *Asóka's* dynasty reads a sad moral to mankind as to the instability of human institutions, and displays the inherent evil existing in despotism from its inability to secure even for one generation the maintenance of ordinances almost divine in character.

The empire of *Asóka* appears to have been broken up into small principalities immediately after his death. *Kunála*, the beautiful eyed carved out for himself a Raj in the Punjab; another son, *Jaloka*, acquired Cashmire, where he introduced the worship of Siva, and persecuted Buddhism. A third son appears to have retained a portion of his father's inheritance on the Ganges, and in a few years, or 178 B. C. the last traces of the dominion of the Mauryas disappear. (*a.*)

It would scarcely be proper to conclude this notice of *Asóka's* history, according to the facts deduced by Lassen from the monuments and from Pali literature, without some mention of the doubts which, the readers of this Journal are aware from Dr. Wilson's late article on the Caves, (*b.*) have been thrown upon the inscriptions by our great English orientalist Professor Horace Wilson. It is curious enough however, that at the very moment when the latter writer was pronouncing that scepticism should be maintained respecting them, until they had been interpreted by some person who was at once a thorough Sanscrit and Pali scholar, (*c.*) the scholar who has devoted more time to the critical study of these two languages than any body, probably, in the

(*a.*) To enable the reader to examine some of the originals of *Asóka's* history more closely, I subjoin the following references.

Girnar Inscription; Prinsep, VII. Bengal Journ. p. 219, but a far better transcript by Capt. LeGrand Jacob and Mr. Westergaard, I. Bombay J. p. 257, and revised text by H. H. Wilson, XII. As. Journ. 153.

Dhauli Inscription Prinsep, VI. Bengal Journ. p. 566; VII. Bengal Journ. 434.

Kapur-di-giri Do., Masson's Narrative, As. Journ. VIII. p. 293, and article by Norris, ib. p. 303. revised text, XII. As. Journ. 158, by Prof. H. Wilson.

Firuz Shah's Láth, or the Delhi Pillar, Prinsep, VI. Bengal Journ. p. 566.

Allahabad Pillar; Lt. Burt, III. Beng. Jour. p. 105; Hodgson, ib. p. 481; Prinsep, IV. Beng. Journ. p. 124.

(*b.*) III. Bombay Journ. p. 36. (*c.*) J. of R. A. S. XII p. 251.

world, should be then occupied with the very investigation in question. It is therefore, probably, not necessary to notice in detail the provisional doubts which Professor H. H. Wilson, (*a.*) has thrown out as to the identity of *Asóka* with the Rajah *Piyadasi* of the inscriptions, and as to the connection of the Edicts with Buddhism. It would indeed be highly presumptuous for any but a profound oriental scholar to venture to offer an opinion, if two such distinguished orientalists as Lassen and Horace Wilson were in controversy; but the fact is not so, and the case is that each has been expressing independent opinions at the same time, the latter on a portion only of the subject, whilst making a most valuable collation of the *Kapur-di-Giri* text with the inscriptions of Girnar and Dhauli, the former on a critical, laborious, and evidently most conscientious, survey of all the records applicable to the subject. As each of these scholars has addressed the literary world at large, by printing the Pali text in Roman characters, every one interested in these inquiries will naturally form some conclusion or other on the premises, and I am bound to confess that when comparing the dry, lifeless, and sometimes unmeaning, version of the inscriptions by our distinguished countryman, with the results deduced by Lassen, the conviction that, in the main, true history is before me in the latter's version, becomes irresistible, and the assumptions of Professor Wilson to account for undoubted facts, with the suggestion of a myth, after the manner of Strauss, do not appear to me even plausible.

The main arguments against the identity of *Asóka* with the author of the inscriptions are founded on the absence of his own name, and on a suggested anachronism in the mention of a Greek Monarch, who flourished later than the known epoch of this Hindu king. The Rajah in these inscriptions call himself *Devánám-piya* (God-beloved, or Theophilus), and *Piyadasi* or *Piyasi* (benevolent, or kindlooking), and it is admitted that these are not proper names but mere epithets. Whatever Monarch it was therefore, who styled himself by these epithets, he dropped the use of his own name, and therefore, the argu-

(*a.*) Professor H. H. Wilson, read his paper on the Rock Inscriptions before the Asiatic Society, 3d. Feb. 1849; the second volume of Lassen's *Indische Alterthumskunde* was not published till 1849, and was probably at that moment in the press.

ment 'it seems very inexplicable why, in none of the inscriptions his own appellation, *Asóka* or *Dharmasóka*, should ever be mentioned' is not more applicable to *Asóka* than to any other Rajah, and the argument is only valid to show that no Rajah with a proper name would drop it for an epithet; on which reasoning one might be driven to doubt the existence of Cœur du Lion, or le Cid. But it is not at all difficult to understand why, on such an important occasion as the adoption of Buddhism, *Asóka* should also adopt two celebrated Buddhist appellations, as we find, by the authorities cited by Professor Wilson himself, *Piyadasi* and *Devánám-piya* to be. That it was not an anomalous practice for a Hindu Monarch of that period to change his name on a great occasion, we learn from the Mahawanso, c. XXI, which expressly states that a contemporary of *Asóka's* did so, on mounting the throne in Ceylon. Indeed as the Singalese Monarch *Tisso*, whom *Asóka's* son converted to Buddhism, is also distinguished by the same Buddhist epithet *Devánám-piya*, it is probable that the whole of his name *Devánám-piya Tisso*, was also adopted on that occasion, the epithet from its popular Buddhist character, *Tisso*, or *Tishya*, from its being the name of *Asóka's* chief Sthavira or Thero, the son of *Moggali*, who influenced *Asóka* to send out missions to Foreign Parts. (*a.*) *Asóka* might also have other reasons for assuming a new name, as we learn that the Bramins had stigmatized a namesake of his on the throne of Mágadha by a nickname *Kálasóka*, or *Asóka* the Black, an epithet which has never been considered complimentary amongst Hindus.

(*a.*) Is it possible that this similarity of name between the two Buddhist Monarchs, can have led our learned member Dr. Wilson to suggest that the passage he cites from the Mahawanso, in vol. III, p. 81, of our Journal, points at the Ceylon Monarch *Devánám-piya-tisso*, as the author of *Asóka's* inscriptions. The passage says, as clearly as words can express, that the son of Moggali sent out missions to foreign parts, and Lanka or Ceylon is enumerated amongst these foreign parts. The language therefore is clearly inapplicable to a king of Ceylon. But further it also clearly appears in another part of the Mahawanso who *Moggaliputto* was, viz., Tisso the head of Asóka's great *Vihara* at *Pataliputra*, and who, the southern Buddhists pretend, was the earliest follower of Buddha. See authorities collected in the 2 Lassen's Alterthumskunde, p. 73. I may also observe that Professor Horace Wilson has omitted to notice that the third convocation, mentioned in the passage cited from the Mahawanso, has received complete verification as true history

But why is it necessary to resort to speculations on the probability or reasons for *Asóka* assuming a new name, when we find him undoubtedly identified with the epithet in the Dipawanso (*a.*) which is not disputed to be the oldest Pali historical work remaining, and which was of such repute in Ceylon in the fifth century after Christ, that it was ordered to be read publicly. (*b.*) Lassen also states that *Asóka's* successor *Dasaratha* was called by the same epithet *Piyadasi* (*c.*)

Professor Horace Wilson, however, departing from the course of careful philosophical scepticism which he had previously adopted, gets warmed, by investigation of the subject, into positive assertion, and on discovery of a supposed anachronism he lays it down "that Piyadasi was the contemporary of Antiochus (the Great) or even posterior to him, is evident from the inscription, (Girnar XIII.) and *therefore Piyadasi and Asóka are not one and the same person.*"

But this bold conclusion depends entirely on the assumption of the Professor that the Antiochus mentioned in the inscriptions is Antiochus the Great, and not his predecessor Antiochus Theos, who was *Asóka's* contemporary. It certainly seems difficult to understand on *a priori* reasoning how any relations should exist between the latter Monarch and *Asóka*, but any difficulty on this score is exceedingly enhanced, when the case of a petty ruler on the Mediterranean seabord is considered, for undoubtedly no two Monarchs of antiquity can be pitched upon more remote in interest as well as in geography than the sovereigns of Cyrene in Africa and Palibrothra on the Ganges. Yet all scholars agree that the *Magá* or *Máko* of the inscriptions means Magas king of Cyrene. This conclusion seems to teach us that we ought not to attempt too curiously to reason on the existence or non-existence of facts from inherent probabilities, if the facts themselves are clearly made out to us. So difficult is it to account for the causes and motives that lead to human action, that, even in the com-

by Capt. Burt's discovery of the engraved tablet of *Asóka* near Bhabra, in which a record is preserved of the Synod in question. See J. of As. S. of Bl. IX. p. 616.

(*a.*) See J. of As. S. of Bl. VII. p. 791.

(*b.*) 2 Lassen, Indische Alth. 16.

(*c.*) Ib. 223 n.

monest occurrences of life, and where the most stringent interests exist for eliciting 'the truth, the whole truth and nothing but the truth', indisputable facts occur which baffle all the powers of human reasoning to account for. The disposition to deny facts which clash with a preconceived theory, lies deep in the human breast, and has been happily ridiculed by Moliere in L'Amour Medicin, where the waiting maid's empiricism is too much for all the arguments from Hippocrates, 'Je ne sais pas si cela se peut, mais je sais bien que cela est.'

If, of the four Greek sovereigns named in the inscriptions, three of the same name are proved clearly to be contemporaries of *Asóka*, the obvious conclusion is that those are the parties intended, although there is little or no trace of the causes which brought them into connection. The fourth name *Alikasunari* or Alexander is enveloped in obscurity; it appears only in the *Kapur-di-giri* inscription, and an exact transcript and critical study of the text are admitted, both by Horace Wilson and Lassen, to be still wanting.

The general scholar therefore may probably rest satisfied, that *Asóka's* story is placed on a sound historical basis, though as to certain details there is room no doubt for much scholarly discussion, and much additional information may still be brought to light. (*a.*)

(*a.*) Dr. Stevenson of our Society, and there is no one in India more competent to form a sound opinion upon the subject, informs me that to give to the world satisfactory transcripts of the *volumes* of inscriptions which the Buddhist caves of *Nasik, Junir, Keneri, and Carli* present, and which would undoubtedly throw light upon many points now enveloped in darkness, would occupy ten years of the time of a competent scholar. As the Government of Madras with great liberality, has devoted for years past the services of a very able officer to the caves of Ajanta, where there are no inscriptions (or very few), but merely frescoes, what a noble opportunity it would be for the Government of Bombay to promote the knowledge of Indian Antiquities, by devoting a yearly expenditure of half the amount to their Western caves. An allowance of £300 a year for a few years, would probably secure the services of one of those enthusiastic scholars of the school of Lassen, whom only a German University Town, or Paris with its noble public libraries, seems capable of producing, and who would make known to us these valuable documents now daily perishing before our eyes.

ART. II.—*Ancient remains at the Village of Jiwarji near Farozabad on the Bhima.*—BY CAPTAIN MEADOWS TAYLOR, Nizam's Service. (Communicated by GEORGE BUIST, Esq. L. L. D.)

The ancient remains at the village of Jiwarji though somewhat different in character from those at Rajan Koloor and Hajinitji, are yet identical in many respects with them, and whether more or less ancient, appear evidently to belong to the same family as the Celtic and Druidical or Scythic remains of England and Brittany, where they abound, as well as in Denmark, Russia and Circassia, and in parts of India, where those of the Nilgherries and the hill country to the southward of them are perhaps the most remarkable and abundant.

My own speculations on the identity of the "Cromlechs," and "Kistvaens," of Rajan Koloor and Hajinitji, with the Druidical remains of Anglesea and the other parts of Great Britain, led me to assume that they belonged to the same religion and people, however widely apart as to situation; and my speculations dim and undefined as they were, have been lately confirmed in a great measure by the perusal of a very interesting paper on the subject, of the monumental remains of the Nilgherries by Captain H. Congreve, Madras Army, which was published in No. XXXII January to June 1847, of the Madras Journal of Literature and Science, and which as far as my opinion goes, entirely justifies the assumption that the remains on the Nilgherries were those of Indo-Scythian tribes whose faith was Druidical, and who, nomadic in their habits, entered India at an early period, eventually settled there, and have their representatives in the modern Todawars or Thautawars of the Nilgherries, a race which still preserves the dress and food, mode of sacrifice and sepulture, and many of the customs of their progenitors and have avoided idolatry.

To attempt any analysis of Captain Congreve's valuable and interesting paper, would be impossible here, nor is it needed further than as authority in reference to what has come under my own observation; but all things considered, whether in relation to the size

and perfect condition of the remains at Jiwarji, their great number, and absolute identity of form and contents with others referred to, I am induced to suppose that there are no more remarkable collections in India, if perhaps in the world; except those at Yemmi Good near Kanagerry which were described to me by a native as greater in extent, larger, and more ornamented than the Cromlechs of Rajan Koloor. I now regret that I had not the whole of the Cromlechs and Kistvaens at Rajan Koloor and Hajinitji counted, but I may be able to make another visit to the place this year, when this essential particular will not be omitted. It is evident that the remains at Yemmi Good would be well worth a visit.

The Scythic Druidical remains whether of England or Brittany &c. have three general characteristics, viz. Cromlechs, Kistvaens, and Cairns, Barrows &c. the latter of various forms.

1st. Cromlechs, or stone Moles, are constructed with three flat stones or slates placed edgeways in the ground enclosing three sides of a square or paralellogram, as supports or walls, with one at the top as a cover usually larger than the others; and having one side open, usually the north or north-west. There is usually also a flooring of slabs. These Cromlechs are not as numerous at Rajan Koloor and Hajinitji as the Kistvaens or closed Cromlechs, but there are still many, and all exactly correspond with the Cromlech called Kitts Coty House near Aylesford in Kent, (a small one), with those at Plas Newydd in Anglesea, and those in Brittany and the Nilgherries. The most remarkable of the remains as to size, in England, is one of those at Plas Newydd, the dimensions of which are given as follows: viz. upper slab 12 feet 7 inches long by 12 ft. broad and 4 feet thick, supported by five stones forming the sides of the enclosure.

On reference to the drawing and measurements of one at Rajan Koloor I observe that they are as follows: viz. upper slab or cover 12 feet 3 inches long by 10 ft. 6 in. broad; side slabs 12 ft. long by 7 ft. high, including two feet in the ground; there were others differing very little indeed in measurement, and all forming noble groups. The style of erection is precisely the same in every respect with the European and Nilgherry ones, and the dimensions of the interiors also closely cor-

Plate. VI.

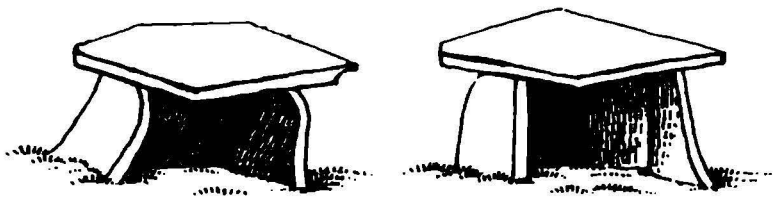


Fig. 1. Fig. 2.

Cromlech at Achanny Nilgh.r Kitt's Coty House Kent.

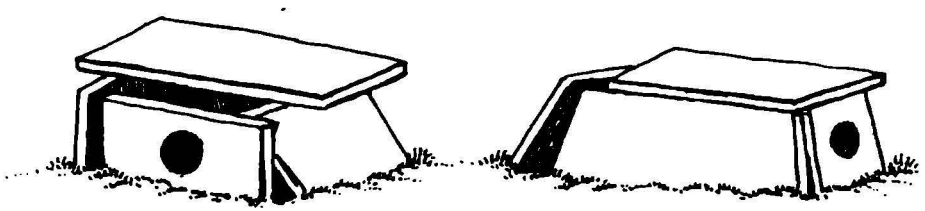
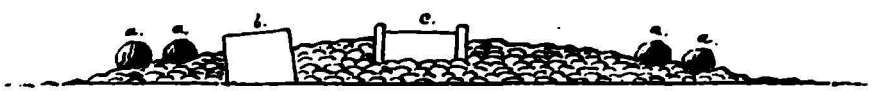


Fig. 3. Front View.

Fig. 4. Side View.



a.a. Circle stones. b. Side entrance slabs. c. Kistvaen Fig. 6.

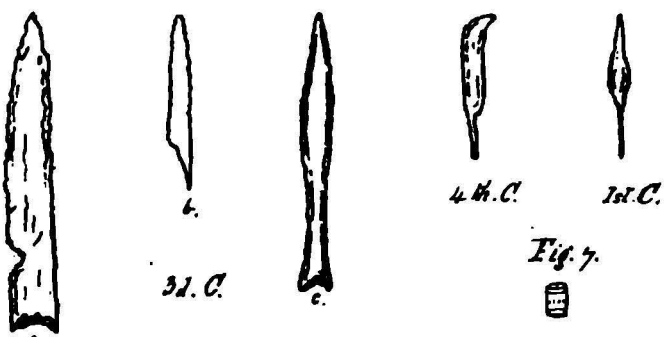


Fig. 7.

respond with them. Annexed are tracings (Plate, II. figs. 1, 2), from the drawings of Cromlechs given by Captain Congreve. I did not find funeral remains such as urns or other earthen vessels in any Cromlech opened, and this tallies with results elsewhere observed. The Cromlechs therefore have been Altars, as supposed in England, or covered Temples in which funeral ceremonies were performed. Several of the Cromlechs at Rajan Koloor, are surrounded by a circle of stones. This corresponds with the Cromlechs at Trer Dryn in Anglesea, and other places referred to by Captain Congreve, as also on the Nilgherries.

2d. Kistvaens or closed Cromlechs.—These are described as existing in England and Wales, "frequently occurring in those places most favored by the Druids." They form the majority of the monuments at Rajan Koloor and Hajinitji, and appear of precisely the same construction as those in England, and on the Nilgherry hills. Captain Congreve mentions them as occurring on the Mailgherry hills, 30 miles south of Ooxoor, at Naikenary on the top of the pass of that name, also in Malabar, Ungadapoor and Mungary, in south Coimbatoor, in Travancore, and one at Pulliconda near Vellore.

Captain Kittoe, quoted by Captain Congreve, finds them in the forests of Orissa,—"at this place Goorsunk, I remarked a number of stones placed in the same manner as the Druidical monuments, such as Kitts Coty House near Boxley in Kent; viz. three [stones] set upright with one on the top of them. These houses are very small &c."

Those at the Nilgherries and those I have found, are the same in one very remarkable particular, viz. the circular aperture in one stone or monolithe, as if left, as Captain Congreve suggests, for the introduction of urns from time to time. Their size differs greatly from the smallest square of 18 inches to 2 feet, to the largest of 6 to 7 feet long and 5 feet broad. Only the largest have circular apertures. In the smaller ones, the top slab or cone might be removed and replaced without much inconvenience. Captain Congreve thus describes some near the fort of Adi Raer Cottay on the Nilgherries:—

"In the sequel I ascertained that about a mile beyond Adi Raer

Cottay there were some stone edifices ascribed by the Burghas *to the former Dwarf inhabitants of the Hills.*"

"The Kistvaens were nearly buried in the vegetable soil, a fact considering their height, (five feet), that sufficiently attests the high antiquity that may be assigned to them. When these structures occur in the low country they are found on the summits or sides of rocky hills devoid of jungle, and hence appear in the state they were originally constructed, unencumbered with soil or rubbish. After removing a large slab five feet long, three broad and one thick, which served as the roof of one of the closed Cromlechs, I proceeded to excavate the earth that had fallen inside, and reached the floor, another large flag eight feet long by six broad; here I found fragments of clay vessels, probably remains of funeral urns. The chamber being cleared, presented four walls, each consisting of an entire stone, and was seven feet long by five broad. The monolithe constituting the eastern wall was pierced by a circular aperture about nine inches in diameter, adequate to admit the body of a child who I conjecture was employed to place the urns inside."

The belief is prevalent at Jiwarji, that the "Mora" People, supposed dwarfs of three spans high, constructed the remains at Rajan Koloor, Yemmee Good, Hajinitji, &c. These remains are also attributed to fairies and dwarfs by the superstitious of Wales, Dorsetshire, Cornwal, Brittany, &c.

The monuments at Rajan Koloor and Hajinitji are on bare open spots, and gentle rises from rivulets. The ground is hard rock or strong morum a foot to eight inches from the surface, and the Cairns and Barrows at Jiwarji, are also on a hard gravelly elevation which has only a thin surface soil.

The whole of Captain Congreve's description exactly tallies with what I saw at Rajan Koloor and Hajinitji, and the circular aperture in the monolithe or slab of the side, marks the identity very strikingly. Captain Congreve states the aperture to have been in the east side or wall, but in those I examined, it was uniformly, I think, in the south side or southwest. No other remains appear to have been found in the Kistvaens either of England or the Nilgherries, but urns

?

with ashes and bones, mixed with charcoal, which tallies precisely with my own experience.

Images were found in some of the Cairns &c. in the Nilgherries. I have found none at Jiwarji yet, nor have any that I am aware been found in Brittany or England. This would appear to class those in England, these at Jiwarji, and those in the Nilgherries in which no images were found, (the Kistvaens for instance) as the earliest, and those in the Nilgherries in which images were found, as belonging to a later class; probably corrupted by Buddhism or Jainism, which was powerfully established in the hills and in the plains below them, throughout Mysore. Druidism was not idolatry, but degenerated into it, perhaps through the Scandinavians or other Celto-Scythic tribes, and so passed into England. There is a strong affinity between Woden and Buddh or Bodh, and by many they are supposed to be the same. Could then idolatry have begun in India from Buddhism, and have spread west-wards through the Druidical religion so corrupted by the Buddhists?

It may be presumed, I think, that the absence of images in Kistvaens and Cromlechs justifies an assumption for them of a higher antiquity and purer Druidical faith than the Cairns, Barrows, &c. in which images are found.

We see therefore that the circular aperture in one monolithe is common to the Kistvaens of Europe, of the Nilgherries (Congreve), of Circassia (Bell), and of Rajan Koloor &c. The size, construction, situation in groups, contents as to ashes mixed with charcoal, &c. &c. all agree in the minutest particulars. Subjoined are tracings (figs., 3, 4,) from the drawings of a Kistvaen given by Captain Congreve. There were scores of the size given by Captain Congreve, both at Rajan Koloor and Hajinitji, as well as smaller ones, down to the sizes like three legged stools, noted by Captain Kittoe.

3d. Cairns and Barrows.—These are found sparingly with the Kistvaens and Cromlechs in comparison with themselves. They consist of circles of large stones, sometimes single, sometimes double, enclosing a space under which is a grave, or graves, a stone-chest, or chests, in which bodies and sometimes funeral urns have been

deposited. I need hardly say that, with the Cromlechs, they are common to England, France, Germany, Central Asia and parts of India; and though minor details of form and of the articles found in them differ in unimportant respects, the general results are everywhere the same, and the form and mode of sepulture identical.

They appear to be divided into two classes, one which contains urns &c., having been filled with human ashes, bones and *charcoal*, and the other in which bodies have been interred *without* urns, filled with ashes or *charcoal*, but accompanied by rude images, arms, earthen, iron and brass utensils and the like. These may be of an era subsequent to the first, and when, though the old custom of sepulture had not been abandoned, the rude but simple faith of older times had been corrupted by idolatry.

Be this as it may, Captain Congreve's patient investigations on the Nilgherries, shew a variety of results in regard to the forms of the Cairns or Barrows, minor points differing even there; also in the nature of the relics found; but none in regard to the general features, mode of sepulture &c. between his results and those of parties in England by whom similar remains have been explored. The same kind of vases or urns containing ashes mixed with charcoal, the urns being of good strong pottery with a peculiar glaze of a rich *red* color, knives, spearheads, &c., are found in Dorsetshire as on the Nilgherries. Brass cups, beads, and often a bell, are common to both the latter, forming the strongest presumptive link that the Thautawars, to whom a bell in the sacred Dairy is an object of worship still, are the remains of these Scythic Druidical tribes in India.

At Rajan Koloor there are many Cairns and Barrows interspersed with the Cromlechs and Kistvaens, some of these have small Kistvaens in the centre, some open at top, others closed, others have no Kistvaens but a stone only to mark the centre; but all, or most, have two slabs of stones set on edge about two feet asunder, forming as it were, an entrance to the grave on the south or southwest side, a peculiarity which I do not find mentioned by Captain Congreve, or alluded to by him as existing in England.

The foregoing will give a general idea of the connection, al-

most identical, between the three general classes of European ScythoDruidical remains, and those of the Nilgherries, Rajan Koloor and Hajinitji, and I have no doubt whatever, that the Cromlechs and Kistvaens &c., of Yemmee Good near Kanagerry would, if examined, contribute their full share to the elucidation of this most interesting subject of investigation.

I proceed now to describe the remans at Jiwarji.—This village, one of the Kusbas of the Andola Talook, is situated, about three miles south of the Bhima river on the high road between Calburgah, Farozabad and Shorapoor. About a mile from it, immediately to the right of the high road to Farozabad, upon a rising ground sloping to the south, there are a great number of Cairns and Barrows, filling the area of a paralellogram of 336 by 216 yards. Having had the whole carefully counted, I found there were, small and large, 375. These Cairns and Barrows are of all sizes, varying from diameters of 40 feet inside the circle of stones to 68 and 10 feet respectively; some of them have single circles, others double. The double ones being usually the largest Cairns, though not always. The number of stones in these circles varies from 24 to 36 in the single circles, and from 48 to 58 in the double ones. Where the circles are double, they are from three to four feet apart, the stones forming them, being placed touching each other or at short intervals. I observed that in some Cairns with double circles, the space between the circles had been neatly paved with small flat slabs of slaty limestone, portions of which remain. Some of the Cairns have small square enclosures in the centre, probably Kistvaens, from which the top may have been removed, these are always composed of four slabs of limestone set upright, which project about a foot, more or less above the surface. The spaces enclosed being from two to three feet square. The circles of the large Barrows or Cairns are composed of large trap boulders which have evidently been brought from the rising ground to the westward about a mile distant, where the trap meets the limestone formation. These black circles of stones therefore make the Cairns very remarkable objects, as the soil they are upon is a very light coloured limestone, and as there is little or no vegetation the stones have not been covered by grass or earth, or very slightly.

I should mention also that some of the Cairns have long stone-chests formed of thin slabs of limestone laid edgeways, upright, and projecting a little above the surface. None of these have tops or lids, and the graves, (as these were,) no doubt have been filled in, (as well as the spaces enclosed by the circles of stones,) with loose stones and earth, the hard ground below not having been dug into. Possibly these were graves of the poorer members of the tribe who could not afford deep excavations.

In all, however large, the space within the circle-stones, has been filled up with loose stones and earth, rising towards the centre. The entrance-stones as I may perhaps call them are from 5 to 6 feet long, and 4 to 5 ft. high, and have been let in to the earth or stones from 3 to 4 feet. Fig. 5, is a profile of one of these Cairns and corresponds exactly with one of the drawings of some Cairns in Captain Congreve's paper. I am thus particular in description as it may be interesting and important to observe the similarity or difference which exists between these and Cairns at other places.

Having selected one of the largest and most perfect for excavation (fig. 6.) I found it of the following dimensions. Diameter of the inside circle 40 feet; outside circle 48 feet; space between the stone-circles, including the stones, 4 to 6 feet. Two upright slabs of limestone about five feet long, and two feet asunder, appeared about 18 inches above the surface of the Cairns, and near them on the southwest side I began the excavation. These slabs lay northeast and southwest, or nearly so, and the same may be remarked of all similar stones and Kist-vaens in this Cemetery. A space of ten feet wide was marked off in the direction of the stones across the Cairn, and the surface-excavation was confined to this breadth, as I considered that such a trench would completely expose the contents of the Cairns whatever they might be. The loose stones and earth continued to a depth of four feet eight inches in the centre, in a circle of eight feet diameter, the sides gradually sloping upwards to the surface circle-stones. Below the loose stones, the ground was very hard and firm, scarcely yielding to the pickaxe, being morum which had formed into a concrete mass. But as nothing had appeared among the loose stones, either urns or

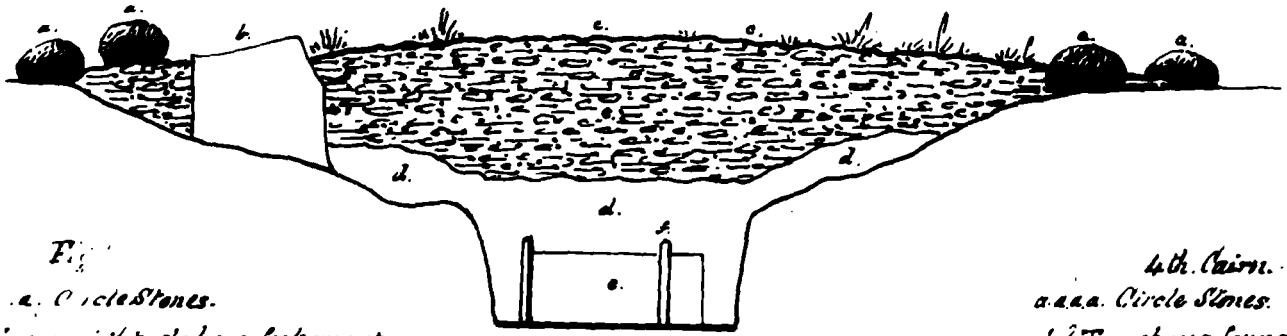
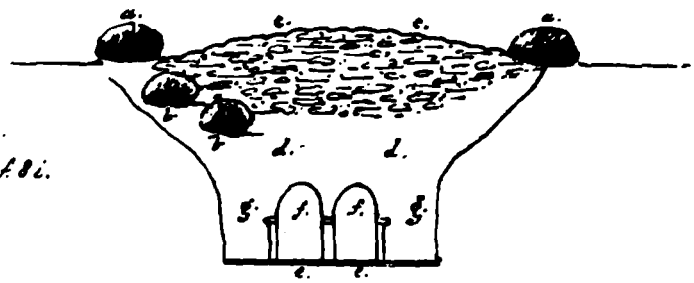


Fig. 6.

Fig.

.a. Circle Stones.
wo upright slabs 2 feet apart.
Loose stones.
Earth & Morum.
Stone-Chest.
Transverse slab.
r lo loose stones, 6 f 4 i.
nes to top of Cairn, 4 f 8 i.

4th. Cairn.
a.a.a.a. Circle Stones.
b.b. Two stones found misplaced.
c.c. Loose Stones.
d. Earth.
e.e. Stone Coffin.
f.f. Head stones.
g.g. Spaces filled with Earthen Vessels.



4th. Cairn.

N.B. The pottery, spearheads &c. in the other parts of this Plate are one fourth of the size of the
cles they represent.

delt.

H.F.C.

stone-chest, I determined to dig as deeply as possible, supposing that so considerable a Cairn could not be without remains, and I directed the centre to be explored to the depth of at least six feet more.

The strong earth and morum continued for four feet, when a corner slab of limestone appeared, laid transversely, which having been removed, the workmen found a few bits of broken pottery and an earthen saucer that broke on the touch. The earth having been further cleared away, other transverse pieces of stone were found and afterwards the sides of two upright slabs of limestone appeared, across which the transverse pieces had been laid as it were to form a lid; there was no longer doubt therefore that this was the coffin or stone-chest, and the examination was carefully continued. The earth was however so hard and dry, that there appeared little hope of extricating any of the remains of pottery which now appeared, and the cross lid pieces of the stone-chest having broken from the superincumbent weight and fallen in, the earth above and beneath had become one mass.

The sides of the chest clearly appeared after a short time and then some portions of human leg-bones. On advancing further towards the head, the bones of the skeleton were more perfect, but so brittle that they could not be separated from the earth, at last a skull appeared, which, after some contrivance came away whole. The body it belonged to, had been laid face downwards, and the impression of the face of the skull was perfectly distinct in the earth below. Fig. 7. is an outline of the upper part of the skull as far as the eye, taken from actual measurement. I had no drawing instruments with me and when I returned the next morning I found to my regret that though the skull had been carefully put aside in a basket, the whole of the lower-jaw teeth, facial bones and nose had crumbled away. The profile of the face was peculiar; the chin having considerable projection, and the nasal bones being of unusual thickness and breadth. The two front teeth of the upper jaw were remarkably large and projected over the lower. The skull however appeared very small, but from the character of the teeth which were all perfect but one dou-

ble one (which had been carious) and the firmness of the skull and its sutures, it was evidently that of a full grown person. Below this body were two others, or their remains, but npt so perfect as the upper one. The skull of one was remarkably thick and the head appeared to have been large. The length of two of the skeletons from the head to where the small bones of the toes were, were severally, the first 5 feet 7 inches, the second 5 feet $5\frac{1}{2}$ inches, the third being undistinguishable. The bodies lay north-east and south-west, the heads being north-east. The only thing found in the chest was a single cornelian bead of an oblong cylindrical shape, (fig. 7). Below the bodies, slabs of limestone had been placed to form a floor.

Immediately at the head of the bodies was a cross slab of limestone, and about two feet of the side slabs appearing to remain, the excavation was continued. Behind this cross piece there seemed to have been placed one large earthen vessel and many small ones, with some earthen incense burners. The large vessel was got out whole, the rest were entirely broken or fell to pieces on being exposed to the air. Continuing the excavation about three feet northward, the natural side of the tomb appeared, shewing that the bounds of the grave had been reached. In this portion of the grave some pieces of iron, evidently spearheads, were found, but much decayed, and a weapon (fig. 8) by them, but no ashes or charcoal, nor did the vessels contain anything but earth; probably it may have been the custom to fill the earthen pots with grain, milk, ghee, &c., and deposit them with the bodies at interment.

The earth appearing loose on each side of the stone-chest it was excavated down to the floor of the tomb. On the west side remains of two thin skeletons appeared of smaller size, possibly those of women, with some earthen incense burners &c., but the earth being soft and damp here they could not be removed. The eastern side was filled up with small earthen cups and vessels, incense burners &c., of these figs. 8, & 9, were got out entire. They are very neatly made, and are either of red glazed pottery of a bright red colour or half red and half black. The glaze is inside as well as outside.

By the side of these vessels, a small iron-tripod and two spear-heads much decayed were found. Some other pieces of iron were so decayed as to be undistinguishable in form.

The second Cairn examined had a double ring of stones measuring 16 feet in diameter, with 4 feet on each side, total 24 feet. The excavation was begun at the upright stones above the ground in the south-west side, and a little below them were two large pieces of trap-rock. The loose stones continued to a depth of three feet, after which morum and earth to a depth of five feet two inches, making in all eight feet. In the centre of the excavation the remains of a human body were found, but no portion of it was entire, portions of leg and thigh-bones of great thickness and strength, and part of a very thick scull were all that was distinguishable. On the west and east sides of the body were the usual small earthen pots &c., and in cosiderable quantity, but the concrete formed by the limestones, earth and morum was so hard that no entire vessel could be got out. With these were the remains of three spear-heads of iron much decayed, but still distinguishable in form (fig. 10.)

There was no stone-chest or coffin in this Cairn and the body had been laid on the bare floor of the grave, which was 7 feet long by 4 broad, including the space taken up by the vessels on the east and west sides. The remnants of pottery were of the same colour and form as those of the first Cairn examined.

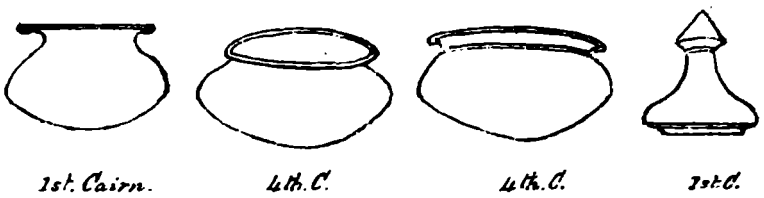
The third Cairn was 16 feet in surface diameter and had also a single ring of stones of large size, measuring usually 3 feet long, 2½ broad and 14 to 16 inches thick of irregular forms, (trap boulders). It may be mentioned that the circle-stones of all the cairns are the same size or thereabouts. The excavation was begun and carried down as in the others and continued to a depth of 8 feet 9 inches, of which the loose stones were three feet from the surface, and earth for the remainder. The earth in this Cairn was looser and more easily got out than in the others, and at the floor of the grave fourteen small vessels of various sizes were obtained, some quite entire, others slightly cracked or chipped. No trace of former remains was found by them, but this may be attributable to the com-

parative soft quality of the earth, in which the body had doubtless entirely decayed. Some remnants of iron, and among them part of two heads of spears, and a flat pointed piece which may have been portion of a sword (figs. 11, 12, 13). The earthen vessels were of the same colour, red and black, as those in the other cairns, and all glazed.

The area at the bottom which contained these remains was eight feet long by seven wide. There was no stone-chest, nor upright slabs forming a lining for the sides or to contain the body.

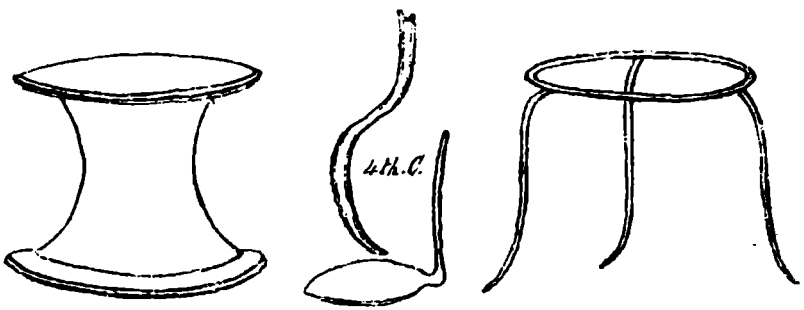
The fourth Cairn had 24 feet of surface-diameter and a double ring of stones, making in all 32 feet. The stones were of limestone breccia which is found near an adjacent rivulet. The same loose stones continued to a depth of four feet, after which there was gravelly earth. At a depth of 6 feet 6 inches from the the top there were some transverse lime-stone slabs, of which a few were whole and others broken and fallen in; clearing away these carefully, the sides of two stone-chests or coffins appeared, that is, the two long slabs north and south, as nearly as possible, forming the outside boundaries of the chests; and one entire piece in the middle 1½ inches thick dividing the space into two; the whole length, was from 6 feet 6 inches to 7 feet; the breadth of each division 1 foot 8 inches. At the feet were upright slabs fitting closely into the breadth of each chest, and similar pieces 2 feet 8 inches high at a distance of 5 or 6 inches from the feet. The whole space enclosed therefore was 5 feet 6 inches long, 1 foot 10 inches high, and 1 foot 8 inches broad, the slabs being neatly put together.

The earth being carefully removed, the remains of one person in each grave were observed. The one to the east was more perfect than any yet seen, and the bones of the thighs and legs, pelvis, arms &c. could be easily traced though they broke on being touched. On removing the earth carefully from the head, it was found nearly whole resting upon its left side with the face to the earth. The teeth were entire in the upper jaw and their enamel still bright; and also enough of the skull to allow of my sketching the profile from actual measurement as it lay (fig. 14). The teeth of the upper-jaw were



1st. Cairn. 4th. C. 4th. C. 1st. C.

1st. C. 1st. C. 4th. C. 1st. C.



1st. C. 4th. C. 1st. C.

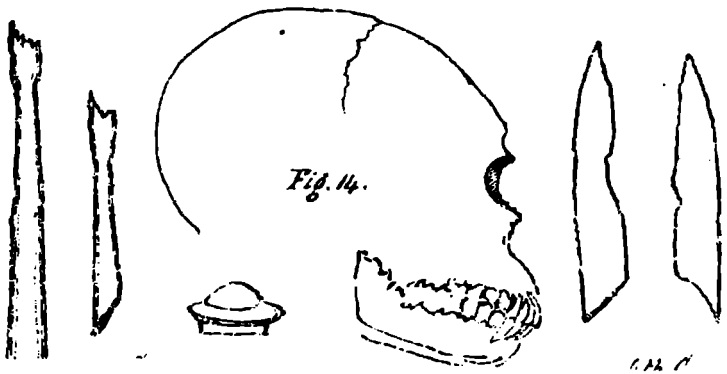


Fig. 14.

large and remarkably thick, and projected somewhat over the lower ones. It was impossible to remove the skull entire as it had become decayed and adhered firmly to the stone-floor of the grave.

The entire length of this skeleton was five feet two inches from the crown of the skull to the feet, which had rested against the foot-slab, and there was a space of four inches between the skull and the upright head-stone of the chest. The skeleton to the west was not so long by two inches, but the bones of the legs and arms as also such portions of the skull as came away whole were much thicker and stronger.

The two head-slabs were next removed. Behind the eastern body were some remains of pottery and the legs of an iron tripod one, of which came away whole. The earth being further removed northward, a portion of a skull appeared which could not be got out entire. There were no other bones with it, and the head appeared to have been placed on the top of the earthen vessels with which the space was filled. Could this single skull have been the head of a person sacrificed at the funeral rites of the skeleton? I can give no other supposition than that it was; no such head appeared in any of the other tombs, and it may have been, from the evident care bestowed on the formation of this grave above the other small ones, that its occupants were persons of some consequence.

I did not attempt further excavations, as I considered that enough had been done to establish the identity of these remains with those of similar classes elsewhere. Whether this has been the case or not I leave those to decide who may be better judges in such matters than myself. But the following is a brief recapitulation of the principal points, not only as regards Cromlechs and Kistvaens, but as regard the Cairns at Jiwarji.

1st. The Cromlechs are exactly of the same construction with those of Europe and the Nilgherries, the sizes of the largest tallying with the principal ones which have been examined and measured elsewhere. They do not, as far as I have opened them, contain funeral remains, and therefore may have been Temples or Altars only for the performance of sacrifices or other ceremonies. The fact of their being associated with Kistvaens and Cairns in the same cemeteries,

7

may give strength to this supposition. The traditions regarding those erected by dwarfs or fairies are identical with those of Europe, the Nilgherries &c.

2d. Kistvaens or closed Cromlechs. These also are identical with those of Great Britain and the Nilgherries, &c. They have all contained earthen urns, which have been filled with human ashes and bones mixed with charcoal, agreeing with the results obtained in England and in the Nilgherries. No idols or images have been found in any opened, nor have the urns had figures for handles or tops, but the colour of the earthen vessels is the same. The circular aperture in one of the monolithes of the Kistvaens, agrees entirely with that elsewhere noted, and is a remarkable feature in their identification.

3rd. Cairns and Barrows. These supply the same points of identification and resemblance with others. They are invariably round, and have either single or double circles of large stones or rocks round them. The centre is invariably elevated and consists of loose stones filled in over the earth of the grave below, to a depth of 3 to 4 feet. The graves contain stone-chests or coffins, or neat slabs of stone placed so as to form chests or coffins, covered by transverse slabs. These chests contain one or more bodies with earthen urns &c. on three sides, east, north and west; none have been found to the south, or towards the feet of the bodies. Portions of spear-heads and other iron weapons have been discovered with the urns laid by the side of the bodies, but no images or idols as in some of the Nilgherry Cairns, nor any rings or brass vessels. The bodies are interred at a great depth from the surface varying from eight to ten feet.

Other particulars might perhaps be mentioned, but enough has been stated to prove I think the position I have assumed. The grand question now remains as to whose these monuments were. I have little doubt myself that they were those of nomadic tribes of Druidic Scythians who penetrated into India at a very early period and who must have formed local settlements in various parts, the last of which were probably in the Nilgheries. Some speculations have been made that these were the remains of Jains or Buddhists, but we know the modes of sepulture in both castes to be entirely different

from these, (and that arms were never buried with their dead), and had they been Hindu or Buddhist it would have been impossible that they should not be much more numerous than they are. They are not sepultures of Hindus, who usually bury (where they bury,) in a sitting posture, while those distinctive marks separate them from all other tribes except those who are acknowledged to be Druidical.

There has been I am aware much speculation on the subject of invasions of India by Scythic tribes from central Asia, and the theories of Colonel Tod and others on the subject in regard to their amalgamation with Hindoo tribes or identity with them must be familiar to all. We have however no trace of them subsequent to the invasions of Alexander. But Mr. Elphinstone quotes various authorities in regard to their invasions into India and partial occupation of the country in remote periods of antiquity. There can be little to affect the supposition or presumption that these people so far removed from their native land, may have become, as they settled, gradually mixed with the aborigines of the country and absorbed with them into the Hindu and Buddhist masses; and their funeral monuments are therefore interesting as shewing how far they penetrated into India, where they settled and how far they observed the rites and ceremonies of their ancient faith, in correspondence with the Druidical remains of Western Europe, and links which are found to obtain between, —westwards and eastwards.

I have no knowledge of these remains in the central portion of India beyond those I have now described. I have heard that Cairns have been met with near Hydrabad, but am for the present entirely ignorant of their situation and number, and also whether they are accompanied by Cromlechs and Kistvaens or not. I myself have never observed any elsewhere; but that they may exist in greater numbers than these to the south and southwest may be inferred perhaps from the account of the remains at Yemmee Good, which may have been the great cemetery of the whole of this portion of India. Hindus collect the ashes of relations and carry them to the Ganges from all parts of India, and why not the Druidic Scythians to such places as were esteemed sacred by their tribes, which, from their nomadic character were, probably, widely scattered.

Note by the Secretary.—On the southeast coast of Arabia in lat. 16° 55′ N. and long. 54° 5′ E., is the small cape called Ras Resùt which protects a bay of the same name from the southwest monsoon. It forms the western extremity of the famous district of Dofar. This cape is about two hundred feet high and about half a mile broad, and is narrowed at its extremity, which is prolonged into the sea by a small island or rock. It is composed of the white and gray limestone of the coast, and is much scarped, and irregular on the summit from denudation.

On its extremity are the remains of a small round tower of rude construction, and heaps of stones, the ruins of former buildings, equally rude. The latter extend over an area of two acres, and are limited by a wall across the cape which formed the defence of the place.

About half a mile from the latter, still on the ridge of the cape, comes an ancient Burial-Ground, extending over an area of three acres. The graves are marked by nothing but a circle of large boulders surrounding a heap of loose stones, or what formerly was a heap of stones, sunken in the centre. The larger of these graves measure from six to twelve yards in diameter, and are raised two feet above the level of the plain. They are formed of blocks of white and gray limestone gathered from the immediate neighbourhood. Around the larger graves are smaller ones looped on to their circumference indicative of successive additions to them, of less distinguished members of the family or tribes perhaps, unless they all perished in battle and were buried at the same time.

We endeavoured to raise the stones from the centre of one of these graves, but after discending about four feet and a half below the surface of it, they became so large and so locked in, that although we had three or four stout Sidis and a good crow-bar we could not move them, and had we succeeded, the chances are, from the hurried way in which we were obliged to make our examination, that we should have found little to have rewarded us for our pains.

Besides this Burial-Ground and the ruins mentioned, there were the remains of buldings in all directions about this cape, although there is not a human habitation now within ten miles of it. Hardly any of these

remains amount to more than the few stones which mark the area occupied by the original building.

The graves as well as the heaps of ruins at this cape were overgrown with the Moql tree, and its congener, the *Balsamodendron pubescens* described by Dr. Stocks, also the Miswak threads its way abundantly through the crevices of the boulders. In many places the trunks of the two former measured four or five inches in diameter, and their branches gowing horizontally from their exposed position had extended completely over some of the larger graves. This shews that both trees and graves are very old.

At Damkōt, (lat. 16° 39′ N., and long. 52° 52′ E.) in the Bay of el Kammar, there is a very extensive Burial-Ground in which there are many ancient graves exactly like those at Ras Resùt, and what is curious, is, that they are mixed up with the more modern ridges of the Mahomedan graves. The latter most probably commenced with the introduction of Mahomedanism, while the former were the graves of the old Pagans.

Damkōt is a very ancient looking place, it is a kind of sea-hollow so to speak, with mountainous scarps on all sides, except towards the sea. A narrow gorge leads up into the interior from behind it though which the Bedoins come to it. It must have been the port of barter or trade of the tribes of all this district from the beginning, for there is no other.

The above is extracted from notes taken during the late survey of the southeast coast of Arabia. I am almost certain that I saw the same kind of graves also at a place on this coast called Marbāt, and on the top of Jibel Qarrah over the town of Makalla, where there is also an old Burial-Ground.

Lieutenant Cruttenden thus describes the same kind of graves in the Somali country. (Transactions of the Geographical Society of Bombay, Vol. VIII. Part 2, p. 207.)

"The graves found in the Somali country generally, and especially amongst the tribes of the Ahl Oor Sangeli, are remarkable for their neatness, being built of white slabs of limestone, almost marble, and surrounded by a circle of stones, the space within being neatly gravel-

led; but at Bunder Khor, in the Mijirtheyn territory, and in the neighbourhood of Berbera, very ancient graves are found consisting of heaps of stones, frequently seven to eight feet in height, and fifteen to eighteen feet in diameter at the base, hollowed in the centre, and with no head-stone; similiar in all respects to those described by Mr. Richardson in his "Travels in the Great Desert of the Sahara." They are, I fancy, relics of the Galla tribes, who once resided on the coast, but we could obtain no information respecting them."

Hence it would appear that this description of grave is to be found in every quarter of the old continent. C.

ART. III.—*Observations on the Grammatical Structure of the Vernacular languages of India.* By THE REV. DR. STEVENSON.

No. 3.

THE ADJECTIVE.

The Adjective is generally considered to be an essential part of language, as we require to have expressions for the qualities of things as well as names for the things themselves. Such qualities then as are obvious to the senses, as *black, white, straight, crooked, high, low*, and those which naturally suggest themselves to the mind from the consideration of the inherent properties of the persons and objects with which we come in contact, as *good, bad, useful, useless*, must have names in all languages. Accordingly, by all who have written on subjects of the Grammar of the Vernacular Indian tongues, Adjectives are allowed a place, except in the Carnatica Grammar referred to at the commencement of this series of papers. But no good reason can be given why ಕರಿ (kari) *black*, should not be a word by itself, though it can be used in the form of ಕರಿದು (karidu), for a *black thing*. The word ಕೃಷ್ಣ (Krishna), may be used before a noun in Sanscrit without any termination, if the writer pleases, but no one would say that then it was not an Adjective, meaning *black*, but the noun ಕೃಷ್ಣ (Krishna),

which means *a black man*, deprived of its termination and used adjectively. In English we manage to get over the difficulty by prefixing an article, and the adjective black in the form of *a black* becomes a substantive; though even we admit that the latter is derived from the former. Be this as it may, in the Tamil, Malayalim and other southern languages, adjectives, as a general rule, have no declension except when they are used as nouns. And even when they have particles added to them, they do not vary these according to the gender and case of the nouns to which they are attached. The rule, in a word, is the same as in the Turkish, that adjectives have no declension. In the Sanscrit on the contrary, as is well known, adjectives as in Greek and Latin, agree with their substantives in gender, number and case.

Between the practice of the southern family and the Sanscrit in all of the northern family, except the Uriya which in this adopts the rule of the southern, a middle path is pursued. Adjectives ending in certain vowels only, agree in gender and number with their substantive in the nominative case. For all the rest of the cases they have one termination which does not vary. In Hindi, adjectives which are declinable have आ (*á*) in the nom. masculine, ई (*í*) in the nom. fem. and ए (*e*) in the oblique cases of the masculine, while the fem. keeps ई (*í*) throughout. No change takes place for number, so that these terminations serve for all oblique cases both in the singular and the plural. A similar rule holds good in the Bengálí, Gujaráti, Maráthí and Panjábí. In the Maráthí there is no change even for gender, ए (*e*) in the Provinces below the Ghauts, and या (*ya*) in those above them serving for all the oblique cases of three genders and two numbers. The same observations apply in a good measure to the Sindhí, though there the penultimate vowel varies occasionally for Number and gender. It is pretty evident then that the southern family of Indian languages follows a rule entirely different from the Sanscrit family of languages and agreeing with the Turkish, while the northern family through Bráhmanical influence has been partially and only partially conformed to the sacred dialect.

The comparison of adjectives is another important article in Comparative Grammar, where all the vernacular languages without one

single exception, desert the Sanscrit, and adhere to the Turkish model, which in this agrees with the Hebrew, and all that family of languages. The rule in all, is that no change should be made on the adjective for comparison, but that the simple adjective with the ablative case of the thing compared, should stand for the comparative degree, and the same with the words *above all* for the superlative; or else that particles corresponding to our words *very, excessive,* &c. should be joined to the adjective. In Yates' Bengali Grammar indeed the Sanscrit terminations तर (tara) and तम (tama) are mentioned as being occasionally appended to adjectives; but this usage is confined to learned Bráhmans, and a few of their imitators, and cannot be said to form any part of the language of the people. With all the simplicity and want of grammatical involutions that characterize the English tongue, we have not laid aside the marks for the degrees of comparison. The vernacular dialects of India then, have in this respect less title to be classed in the Indo Germanic family than the language of a people inhabiting an island beyond the extreme point of the European continent.

NUMERALS.

The subject of Numerals has been generally considered a very important one, nevertheless the words and signs representative of Numbers do not fix themselves so deeply on the mind as those that relate to the common objects that meet the eye, and the most intimate relations of life. We find accordingly, that there is no analogy between the names of numerals in northern and southern India. Sanscrit words, and their corruptions alone are used in the languages of the north. Those of the south belong to their own peculiar family. Nevertheless *onnu* one, may be connected with the Latin *unus,* also *yeradu* two, with the Armenian *yergu* and *aru* six, with the Turkish *alti*. *Yettu* eight, also may be an exception to the general remark, and be allied not only to the Latin *octo* but to the Sanscrit *ashta*. Connected with the subject, however, a most important enquiry opens upon us. It is, where were the common numeral figures now so generally diffused through the world first invented and used? Europeans lay no claim

to the invention for themselves, but attribute it to the Saracens by whom this numeral system was first introduced into the European continent. The Arabians, however, call these cyphers Indian, and write them from left to right the same way as the Indians write though contrary to their own practice in other cases.

Almost all ancient nations used the letters of the Alphabet as signs for Numerals. This was the practice of the Greeks, of the Hebrews, of the ancient Arabs, &c. At first it was considered sufficient to use the first letter for 1, the second for 2, and so on to the end of the twenty-two or twenty-four letters of the alphabet. The inconvenience and imperfection of such a notation were soon felt, and the first ten letters were then used to mark the numbers to 10, the letter following was used for 20, the next for 30, and so on to 100. The letter that followed next, denoted 200, and so the system proceeded onwards to 1000. The ancient Greeks, Arabians and other ancient nations, west of India, never proceeded beyond this step, and even the Tamulians to this day use a system essentially the same. This too seems to be the system of the Gujarát copper-plates, a system which prevailed in India about the beginning of our era. In this system the grand defect is that the characters denoting 1 and 10 and 100, &c., are all different and hence arithmetic remains clogged with great unnecessary difficulties. The grand invention was the adoption of the present decimal notation in which one unit, one ten, and one hundred are represented by the same character, and the difference of value made to depend on the place which the figure occupies nearer to or further from the beginning of the series. It is a curious matter of enquiry to ascertain whence this system was first introduced, and in the oblivious absence of all testimony, the only clue to the discovery seems to be to ascertain where an alphabet containing these numerals at present exists. It is thus taken for granted that the Indian numerals like the ancient Greek, Hebrew, Arabian, &c. are letters and not mere arbitrary marks. This in itself is certainly probable, and the probability will amount to a moral certainty if we show that in the great mercantile marts on the Indus, these very characters serve both as letters and numerals to this very day, and that they are easily explainable

from a reference to the alphabet of the Scindians of Hyderabad and Shikarpore.

The Indian system was not like the Ancient Greek and Arab however, a mere arbitrary imposition of a numeral value to letters from the position they chanced to have in the alphabet, but the first consonant of the word expressing the name of the numeral was chosen and made the figure to denote it. In reference to one, three, four five, six, eight, and nine no practical difficulty occurred to occasion any variation from the plan. The cyphers accordingly marking all of these numbers in the North of India, except the first and the last, are most of them altogether indentical with the Scindian letters and the others so nearly so as to show at a glance the connection. The resemblance between the first and last is not so striking, and had they stood alone might have been doubted altogether. In reference to the figure denoting seven, practical difficulty occurred. Its first letter corresponding to our *s* is so like the two figures that mark 1 and 5, that had it been adopted it would have been almost impossible to distinguish 7 from 15; the last consonant in this case has therefore been taken in its stead, and the cypher marking 7 is identical with the soft *t*, the त of Devenagari. This *t* was not needed for three, as in the Scindian language the word for three is written in that Alphabet ٹے prohounced *tre* which in Scindian is written ٣ as will appear from the table. Another practical difficulty remained to be got over. The word for two is *ba* and for zero *budi*, both beginning with the letter *b*. In the Sanscrit from which indeed all are ultimately derived, this ambiguity does not exist, and the word for two, *dvi*, begins with *d* and the word corresponding to *budi* or zero, is *vindu* beginning with *v*. These then were adopted, and the likeness in these two cases of *d* and *v* to 2 and 0 is most striking; besides *duo*, the very same as the Latin word for two, is itself a Scindian word and used in particular relations for two, nor could a man of any learning hesitate for a moment in the substitution of so easy a word as विन्दु *vindu* when it served a useful purpose for the more common vernacular term. I think then, from the consideration of all the circumstances of the case,

that it is plain our cyphers had their origin on the Banks of the Indus, and that this notation which has had such an influence, not only on commercial arithmetic but also on the science of Astronomy itself, was invented in India, and carried by the Arabians westward and thus passed into Europe. It is true the cyphers of different nations vary considerably in form, but I believe the learned have long been agreed that they all derive their origin from one source and that source I think from the circumstance of the correspondence of the cyphers with the first consonant of their name in the Scindian alphabet, may without any great stretch be assumed to have had their origin at no very distant period on the Banks of the Indus; what that period was it may be difficult to discover, yet I think it could not be earlier than the fifth or sixth century of our era. The Scindian letters from which they are taken are all easily derivable from ancient forms of the Nágari, but they approach so near in many instances to the modern Gujarátí, that they cannot be very ancient. Had there been moreover any thing of the kind in ancient India, it could not have escaped the research of the Greek traders who had so much intercourse before the rise of Mahommedanism with Western India and thus have been by them communicated to us, but I am not in a position to trace back the use of cyphers so as to show either when they were first used in Arabia or India. For Europeans not much accustomed to the writing of eastern languages, it may be proper to remark, that the common Scindian writing like the Persian and Arabian is almost entirely destitute of marks for the vowels. When the vowel is initial, one character is used which stands for the whole class, and when it follows a consonant, there is usually no mark for it all. Those who write short-hand, will understand how any one can read such writing, others will hardly be able to comprehend how it can be legible. Still such is the fact, and it is evident, that it never would have answered in such a thing as the formation of a numeral notation, with no context for our guidance, to have taken the vowels into consideration. In the following table, there is first the Scindian name of the numeral, next the consonant from which the cypher is derived, next the Scindian numeral cypher, and in the

following columns the numeral cyphers of Northern India, Arabia and Europe respectively. In conclusion it is right to add that my own knowledge of the Scindian being purely elementary, I have followed closely Captain Stacks' Grammar and Dictionary of the language lately published by the Bombay Government.

The Scindian Numerals in words.	The Scindian letters from which the cyphers are derived.	The Scindian Numeral figures.	The North Indian Numeral figures.	The South Indian Numeral figures.	The Arabic Numeral figures.	The European Numeral figures.
एको Eko,	૧	૧	૧,૧	૧	١	1
दुओ Duo,	૨, ૨	૨	૨, ૨	૨	٢	2
त्रिको Triko,	૩	૩	૩	૩	٣	3
चौको Chauko,	૪	૪	૪	૪	٤	4
पंजो Punjo,	૫	૫	૫, ૫	૫	٥	5
छको Chhako,	૬	૬	૬	૬	٦	6
सतो Suto,	૭	૭	૭, ૭	૭	٧	7
अठो Atho,	૮	૮	૮૮	૮	٨	8
नोंओं Noo,	૯	૯	૯, ૯	૯	٩	9
विन्दु Bindu,	૦	૦	૦	૦	٠	0

ART. IV.—*Observations on Inscriptions on Copper-Plates dug up at Neru'r in the Ku'dal Division of the Sa'want Wa'ri State in April* 1848. by MAJOR LE-GRAND JACOB (Communicated by the Government.)

These inscriptions are in what has been termed the cave character or the old Sanscrit, and are of the sixth and seventh centuries A. D. but they do not differ much from the Gírnar inscriptions of the 3d century B. C.—a table explanatory of, and showing the varieties in, these letters is annexed to the translations.

2. The plates all refer to the Chálukya or Chálikya race, the name is therein spelled both ways; the earliest recorded date, is S'álivâhana S'áka 627 A. D. 705—6, the Donor, Vijayáditya son of Vinayáditya; this plate has been numbered II, the earliest inscription appears to be that numbered I, describing a grant by Vijayábhaṭṭárika the beloved wife of Sríndrátiya elder brother of Vikramáditya, father of the above named Vinayáditya, and was therefore written three generations previously; whether Sríndrátiya, or as would appear the more correct name Srí Chandráditya, * reigned previous to his younger brother, jointly with him, or not at all, is left in doubt, but from the title applied to him, and from the royal boon bestowed by his wife, one of the two first alternatives appears probable, hence as the era of Vikramáditya's ascension to the gádí has been shown by the Kánerese inscriptions translated by Walter Elliot † to have been S'áka 514 A. D. 592—93, this plate must have been written about the close of the sixth century.

3. Vijayáditya's grant (No. II Plate) was made in the tenth year of his reign, thereby corroborating the era assigned for its commencement by Mr. Elliot, but the genealogy of this dynasty slightly differs

* Since completing these translations another set of plates has been found recording a grant by another wife of this same Prince whose name is written Srí Chandráditya, the letter *Cha* seems therefore omitted by oversight in this plate. See Inscription No. VIII.

† Article, 1 July, 1836. Vol. IV. R. A. S. Journal.

from his in both these plates, which correspond one with the other as far as the eras reach. They both commence with Pulakes'i, and as they were evidently written when the grants were made, they would scarcely have omitted two whole generations between him and their own period; perhaps therefore the "Amara" and "Aditya Varma" of the comparatively modern Ye-ur Inscription, succeeding Satya,* were if existing at all, this soveriegn's brother as Chandráditya was of Vikramáditya, or otherwise alias names, in after years taken for separate Rulers.

4. The genealogy and titles of the family as gathered from these two plates, are as follows:—

Ancestor of the race.
Háriti descended from Manu.
Srí Pulakesí Vallabha, Mahárájá.
Srí Kírrtivarma Prithiví Vallabha, Mahárájá.
Satyás'raya Srí Prithiví Vallabha Mahárájá Adhirájá Parames'vara.

Srindráditiya (or the name would more correctly appear to be Srí Chandráditya) Prithiví Vallabha Mahárájá.

Vikramáditya Satyásraya Srí Prithiví Vallabha Mahárájá Adhirájá Parames'vara Bhaṭṭáraka.

Vinayáditya Satyás'raya Srí Prithiví Vallabha, Mahárájá Adhirájá Parames'vara Bhaṭṭáraka.
Vijayáditya Satyás'raya Srí Prithiví Vallabha. Mahárájá Adhirájá Parames'vara Bhaṭṭáraka
Vikramáditya. 2nd

5. The 3d set of plates names only two Rájás, Mangalá the Donor and his father Vallabha, of the Chálikya race, but whether of the same branch, or conquerors thereof, is left in doubt; the character appears of the same age as the others; perhaps this

* Throughout these plates written Satyás'raya, "Truth Asylum."

Mangalá, is Mangalisa, the son of Pulakes'i, also styled Vallabha, the first named of the dynasty, and if so, this inscription is older than No. I. set, by two generations—the only place in these grants that I can recognize, is that named in this plate Kundivádaka, probably the modern village of Kundé, not far from Nerúr, where the plates were exhumed.

6. The most interesting passage, is in No. II, where Vingáditya is described as having conquered the Ruler of Kánchi (Conjeveram) forced the Lords of the Islands Kumara, Párasíka, and Sinhaha, to pay him tribute, and subdued all the Northern Countries as his Father Vikramáditya previously had the South. Can this dynasty have reached at the same time both Persia and Ceylon? Or what are these places? These words may also in the construction of the language imply the names of the Island Rulers, as well as of the so called Islands.

7. Being very imperfectly acquainted with Sanscrit, I should not have been able to master these inscriptions, nor have found time to devote to them, but for the aid rendered me by Vásudev Rámchandrí Shástrí, and an intelligent young Bráhman trained in the Elphinstone Institution by name Ananta Ballál.

8. I do not understand how Mounstuart Elphinstone whilst quoting Walter Elliot's researches, should have assigned the tenth century for the rise of the Chálikya dynasty, nor why Bál Gangadhar Shástrí, in his translation, or I should rather say Maráthí edition * of this history, omitted to rectify the mistake, since he had himself translated some inscriptions (published in the Vth. and VIIIth. Nos. of the B. R. A. S. Journal) whereby he had "verified the names of some of the early Kings of this race."

9. The system of Orthography used in representing Sanscrit in English letters has been that adopted by the Asiatic Society.

Plates.

No. I. Be it peace. The prosperous race of the Chálukyas; the sons of Hárití, of the lineage of Manu, praised by the world; brought up

* Published 1846

by the mothers (1) of the seven nations; who obtained choice blessings through the protection of Kártika; who brought all kings under their allegiance, from the time of their obtaining the boar's signet through the grace of the Divine Naráyana—The great king Pulakesí Vallabha, the ornament of the race, purified himself by the sacrifice of a horse and consequent abluent rites. His great-grandson, the grandson of Kírttivarma (lord of the earth, the great king, who, having subjugated and forced his enemies to take refuge in forests, &c., firmly implanted his pure fame amongst them), the beloved son of Saytás'raya (lord of the earth, king of kings, ambitious of supremacy, devoted to war, to whom all kings paid homage, and who gained by the defeat of S'rí Harshavarddhan, famous in the Northern countries, the name of Parames'hvara) is the unconquerable (2) Vikramáditya. His elder brother S'ríndráditya, lord of the earth, the great king, whose beloved wife, Vijayabhaṭṭárika, the anointed Queen in the year Pardhomas (3) of her family's reign, on the autunmal equinox, the 2d day of the waning moon of A's'vin, (September and October) for the attainment of the virtue of a deed done on this day, bestowed along with water, the privilege of supervision (i. e. benefice) of the eight markets Poliyamapatha, Adigirika, &c., in (Narakágár), on A'ryaswámí—Dikshit (a sacrificer) grandson of *Grihapati*, a descendant of Vàtsa, and son of (4). The Donor says "he, who will continue this privilege to be enjoyed by the future generations of this person, will be like the donor, an enjoyer of virtue; while on the other hand, whosoever may deprive him of it will be guilty of the five capital crimes—The same is even prescribed by the omniscient Vyása, who says "whosoever resumes what is given by himself or others shall be doomed to pass sixty thousand years in hell."

No. II. May it be well. Glory be to the boar-like body (5) in whom *Vishnu* was made manifest, who agitated the ocean, and on the tip of

(1) The seven divine powers typified by female Deities. (2) A few words before this are illegible. (3) The letters are plain but the signification unknown. (4) Name is illegible. (5) The third incarnation of Vishnu, for the recovery of the earth from the waters.

whose right, erect tusk rested the world. The prosperous race of the Chálikyas (1), sprung from the universally praised lineage of *Manu*; the sons of Hárití, brought up even by the seven nations' mothers (i. e. by the seven female deities, Bráhmí, Mahes'varí, &c., or by seven mothers like Lakshmi); who obtained a succession of blessings through the protection of Kárttikaswámi (2); who brought all the kings under their allegiance from the time of their obtaining the boar signet through the grace of the Divine Naráyana. This race was ornamented by the great king Pulakes'i Vallabha who purified himself by the sacrifice of a horse, and consequent abluent rites. His son, the great king Kírttivarma, lord of the earth, having subdued and forced all his enemies to take refuge in forests, &c., firmly implanted his pure fame amongst them. His son *Satyás'raya* (3) lord of the earth, and king of kings, much devoted to war, and to whom all kings paid homage, gained by the defeat of S'rí *Harshavarddhan*, hero of the northern countries, the name of Parames'vara (4). His beloved son Vikramáditya, father of intelligent sons, lord of the earth, and king of kings, desirous of supremacy, supported by a harmonious brotherhood, whose lotus-like feet were kissed by the crown of the despotic king of Kánchí (5) subdued all his rivals on one horse alone, the excellent Chitra-Kandha, (6). His beloved son Vinayáditya, lord of the earth, and king of kings, desirous of supremacy, disabled as Tárakáráti (i. e. Skanda) did the Daityas the insolent forces or *Dhuerajya* king of Kánchí; he made the rulers of the Islands, Kumera, Párasíka, Sinhaha, &c., pay him tribute and gradually acquired the full symbol of supremacy, (Pádídhvaja, &c.,) by the overthrow of the kings of the northern countries. His beloved son Vijayáditya, lord of the earth, and king of kings, desirous of supremacy, attained even in his childhood, the whole science of rendering weapons efficacious by charms. His grand-father (Vikramáditya) had conquered the kings of the South,

(1) In this and all the plates save Nos. 1, & 4, the word is written Chálikya. (2) The son of Mahádeva and Commander in Chief of the Celestial forces. (3) Literally, Truth-Asylum. (4) The kings succeeding Satyás'raya henceforth bear in the plate, both his name and the new title acquired by him in addition to their own. (5) A few words before this are unintelligible. (6) Literally means many colored neck.

but he exterminated all of them who were inimical to him, and after the death in battle, of his father (Vinayáditya) who made conquest of the northern countries, he, moving about at will, got his scymitars' edge blunted by the slaughter of his enemies' numerous elephants. He, foremost in battle (1) ardent in noble enterprises, made all his enemies subject to him (2). No sooner did he hear of anarchy than he left his house, like Vatsarájá (i. e. Udayana of the solar race) relying on his own power, removed this source of misery in the country, and the excess of every vice, which had arisen from the oppression of Bráhmans, a royal calamity; giving protection to all his subjects by the strength of his arms. He is arbitrary, at all times possessed of the three royal attributes (i. e. Bravery, Policy, and Energy). He humbled the pride of his enemies, but he himself cannot be mastered. He is spotless, and for all this is become all the world's support. His dominions, adorned by all the symbols of supremacy (Pádídhvaja &c.,) are extensive. He commands thus. "Be it known to you that we, in S'ák'a 627, the tenth current year, *Pravarddhamán* of Vinayáditya's, reign, at the request of *Dupendra* (3), granted Kumára (4), in the country *Mahásaptami* (5), to the best and amiable Bráhmans, inhabitants of the village of Hikudhamba (6), who have penetrated through, the Vedas and their branches. We mention their names and lineage-viz. Deva Swámí, a descendant of Bháradwája, Karka Swámí, a descendant of Kaus'ika, Yadam Swámí, a descendant of Bháradája Swámí (7), a descendant of Kaundinya; Deva Swámí, a descendant of Maudgalya; Gargga Swámí, a descendant of A'treya; Rudra Swámí a descendant of Kás'yapa; and Rasuvarman, a descendant of Vatsa. Knowing that life and wealth are transient, as glittering sunbeams, our successors or other kings, who may thirst for fame, enduring as long as the world, the moon, and the sun exist, should protect this grant as their own child. It is prescribed by the omnis-

(1) The words also imply first in beauty. (2) Some words being entirely effaced, the connexion is here broken. (3) One letter proceding Dupendra is illegible. (4) Four letters following Kumára are illegible. (5) Two letters here are doubtful. (6) Three letters preceding Hikudhamba are illegible. (7) Three letters preceding Swámí are unintelligible.

cient Vyása too, that many kings, Sagara and others have enjoyed the earth; to whomsoever the earth belongs; to him belongs the fruit thereof. It is easy for the great to grant wealth once, but it is difficult to preserve what others have given, therefore the latter is a more meritorious act than the former. He who resumes what is given either by himself or others, stays sixty thousand years as a worm in hell." The unblemished Punga Vallabha, most prudent in suggesting the time of peace and war wrote this edict.

No. III. May it be well. The king Vallabha, belonging to the wealthy Chalikyu race, the offspring of Hárití, descended from the children of Manu and constantly meditating on the feet of Swámí Mahásena (i. e. Kártikeya), well versed in the institutes of Manu, the Puránas, Rámáyana Mahábhárata, and ancient history; Vrihaspati in Ethics, purified himself by the ablutions made after the Agnishtoma, Wájapeya, Paundarika, and costly As'vamedha (a sacrifice of a horse) sacrifices, and rendered himself popular by his qualities. His son Mañgala Rájá is most attached to the Bráhmans, a subduer of other's territories, equitable in his own dominions and devoted to the worship of God (the gods) Bráhmans and his preceptor. His pure fame pervades the world. He, by his personal prowess, made other kings submissive and obtained tribute from them. His gait, sight, and voice are like those of a bull. He is uncontrolable as a lustful and high mettled elephant, brave as a lion, full of justice, humility, charity mercy, modesty, and truth; possessed of three atributes (i. e. Bravery Policy, and Energy); most pious, inimitable in good qualities, by the lustre of whose virtues the darkness of opprobrium is repelled. This illustrious king expelled Shañkaragan's son Budha Rájá, strong in elephants, horses, infantry, and treasure. He slew Swámí Rájá, a descendant of the Chálikya race, who had been victorious in eighteen battles. After this, the king, fasting on the most hallowed day in the year, the 12th day of (the waxing moon) Kártika, and worshiping Vishnu, spiritual mindedly granted with water, (1) Kundivádaka

(1) A ceremony observed previous to any donation, intimating the entire relinquishment of right over the thing given.

a village in the Koñkan, to Priyaswámí, descended from a respectable family, versed in the Vedas and their parts, good-tempered, well-beloved, the son of Sumati Swámí who understood the Vedas and their parts and was descended from Kás'yapa. Mañgala Rája said "any one either of my or other's family that may angrily, or maliciously or avariciously or foolishly withdraw the grant, will be guilty of the five capital (2) and also minor crimes." It is not he only that says so but even the Dharma S'ástra prescribes the same. Many kings, Sagara and others possessed the land. All rulers reap the fruits of their acts. Any one who takes back the land given by himself or others, stays as a worm sixty thousand years in hell. The land donor remains sixty thousand years in heaven; on the contrary, the depriver and his abettor dwell the same number of years in hell. It is easy for the great to grant wealth but it is difficult to preserve what others have given. Granting and preserving are both virtuous deeds, but the latter is more so than the former.

No. IV, is entire, having three Plates, like the others, in the set. There is no S'áka found in it. This Plate is very badly written and abounds in numerous graphical errors. Vijayáditya is the donor, but he gives it in his son's name.

No. V, has lost its third leaf. Its first leaf is greatly corroded. The few words that are legible from Swasti to Varttamáne, are a repetition of a part of Plate No. II followed by Rásavanagare, the last word. The donor is Vájayáditya—the grant is conferred in S'áka 622 in the 5th year of his reign.

No. VI, has two leaves, almost eaten away, the middle one wanting. The few words decipherable convey no meaning.

No. VII, is the upper part of one leaf. It contains the final S'lokas of the other Plates.

(1) 1st Slaughter of a Bráhman, 2d Drinking of wine, 3d Stealth of gold, 4th Incest with father's or Guru's wife; and 5th Drinking and eating with the perpetrator of any of these crimes.

No. VIII. The "Kochré Inscription" * translated as literally as consistent with the sense in English.

May it be well. The prosperous race of the Chálukyas; the sons of Hárití, of the lineage of Manu, praised by the world; brought up by the mothers of the seven nations; who obtained a succession of blessings through the protection of Kárttika; who brought all kings under their allegiance from the time of their obtaining the boar's signet through the grace of the Divine Naráyana. The great king Pulakes'ivallabha the ornament of the race, purified himself by the sacrifice of a horse and consequent abluent rites. His great-grandson, the grandson of Kírttivarma (lord of the earth, the great king, who, having subjugated and forced his enemies to take refuge in forests &c., firmly implanted his pure fame amongst them) the beloved son of Satyás'raya (lord of the earth, king of kings, devoted to war, to whom all kings paid homage and who gained by the defeat of Srí Harshavardhan lord of the northern Countries, the name of Parames'vara) is Vikramáditya. He having subdued all the hostile kings of every quarter and inherited his family's property (throne &c.) rendered himself invincible by his paramount power. His elder brother was Chandráditya, lord of the earth and king of kings, whose beloved wife, Vijirayamahádeví (1) the anointed Queen, an enemy to the Kaliyug, thus publicly ordains "Be it known to you that on the 12th day of the waxing moon of..... (April and May) I, having fasted, bestowed along with water the Thikan Vakulakachcha, together with a salt marsh in Kochuraku village (modern Kochré) on Golaswámí (2) a descendent of Wutsu. Any one, either (3) of our or other's family, who will preserve the grant, will be an enjoyer of virtue; while on the other hand, he, who will resume it, will be guilty of the five capital crimes. The land Donor enjoys heaven for sixty thousand years; while on the contrary, the resumer, and the one who approves of the resumption are doomed to pass the same number of

* See the note to 2nd para. of Preparatory Observations. (1) Four following letters are unintelligible. (2) Four letters preceding the name are unintelligible. (3) A few letters before this are plain but their signification is unknown.

years in hell. Whosoever resumes land, given by himself or others, stays sixty thousand years as a worm in hell.(1) *

G. L. JACOB.

15th Nov. 1848.

(1) The final 10 letters are unintelligible.

* NOTE.—May we suppose that this K'irtti Varma is the same as the king at whose court the allegorical drama called. the Prabodha Chandrodáya was represented ? A Kirtti Varma is celebrated both in the drama, and on the copper plates as a conqueror; in the former he is said to be "a sovereign of the race of the moon," and it is well known that the Chálukiyas were a lunar dynasty. In both instances the monarch's extensive Empire is celebrated. "The earth encompassed by the ocean is subjected to his authority, and he receives the homage of its kings." "Gopála whose glory fills the universe, who aided by his sword as his friend, conquered the lords of men, and has invested with the sovereignty of the earth Kirtti Varma, the chief of Princes. . . . now he has entered the road of peace, (Prabodha Chandrodáya, Prologue)." With this compare Journal of Royal Asiatic Society, No. VI. p. 268. "From him (Pulakes'i) arose Kirtti Varma Rájá superior to Rájá Nala, destroyer of the Rájás of the Maurya, and Kadambo dynasties who first caused the land to become well inhabited." This is from an inscription of the Chálukiya, called by mistake the Chámushya dynasty. See also No. VII, and X. p. 346. Vishnu in his boar incarnation is the chief object of worship both according to the plates, and the drama, and the language in which he is eulogized is in both instances the same inflated, artificial style which is common on plate inscriptions.

The frequent references to the *boar* standard and the use of a *boar* signet on the plates of the Valabhi and Chálukya dynasties remind us of our Anglo-Saxon ancestors. Tacitus says of the Æstyi that, in imitation of the Suevish custom "Matrem deùm venerantur, insigne superstitionis, formas aprorum gestant. Id pro armis omnium que tutela; securum deæ cultorem etiam inter hostes præstat." The Anglo-Saxon poems consider a boar's form or figure so essential a portion of the helmet, that they use the word "sofore" *aper*, for that part of the armour. "He commanded them to bring in the *boar* (i. e. helmet) the ornament of the head, the helmet lofty in battle." Beowulf l. 1299. And still more closely with reference to the virtues of this sign;"

"The forms of *boars* they seemed
above their cheeks to bear
adorned with gold,
various and hardened in the fire
it held the guard of life."

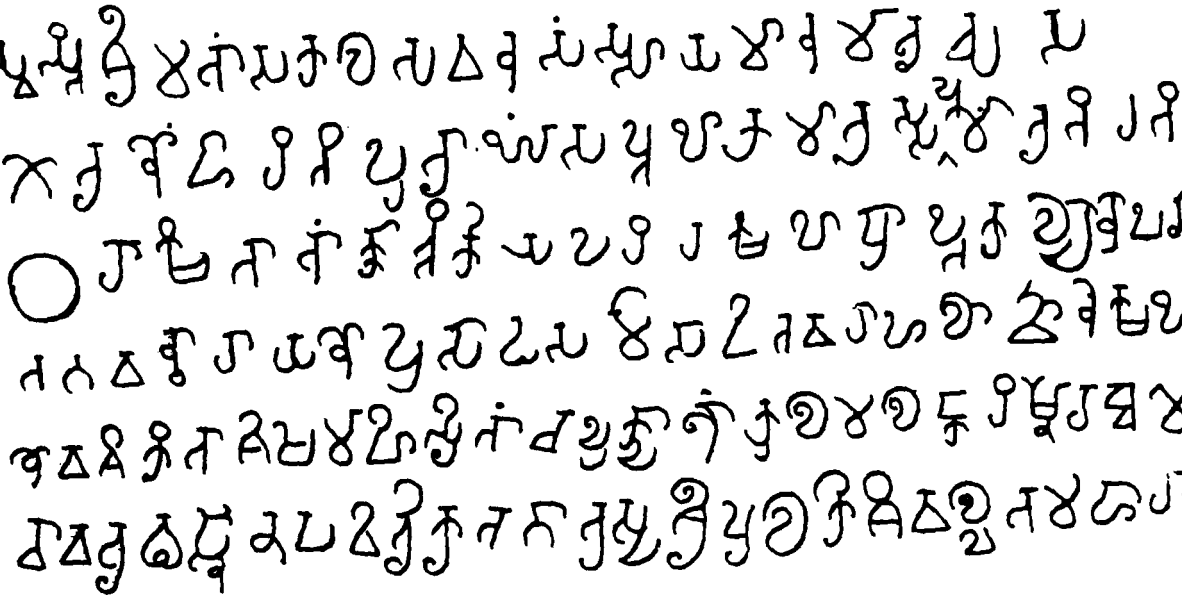
And again

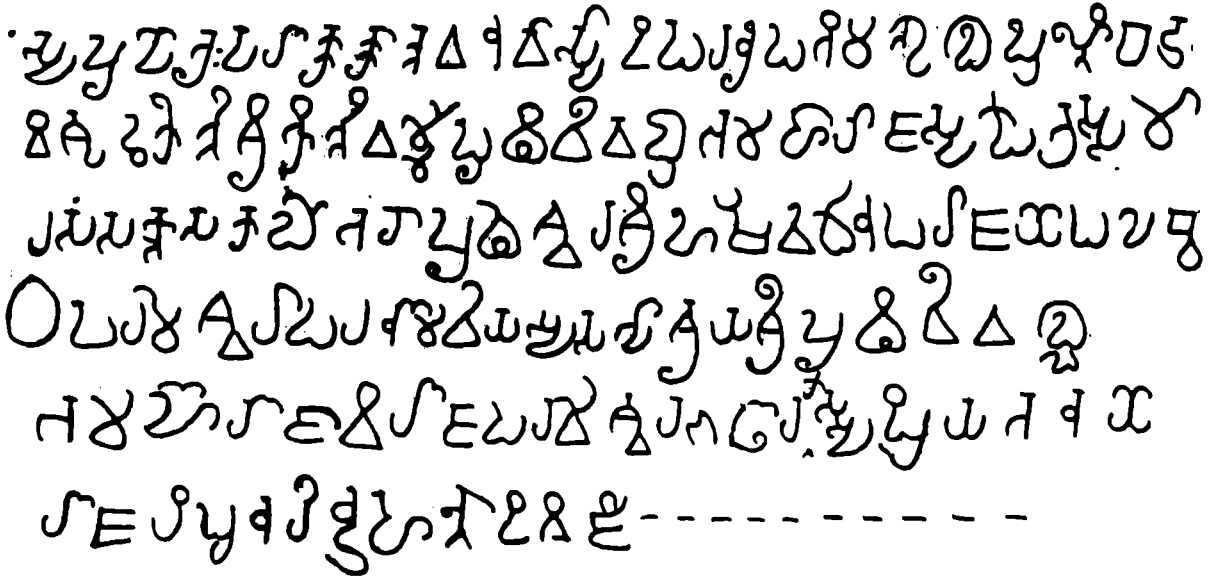
"But the white helmet
guarded the head,
* * * *
adorned with treasure
set about with lordly signs,
as it in days of yore
the armourer made,
wondrously produced,
set it about with shapes of *boars*,
that afterwards neither
brand nor war-knife
might penetrate it."

This sign, Grimm connects with Freá who was similar to Vishnu in his amorous propensities and was worshipped with the lingum or phallus. See "the Saxons in England" by Kemble.

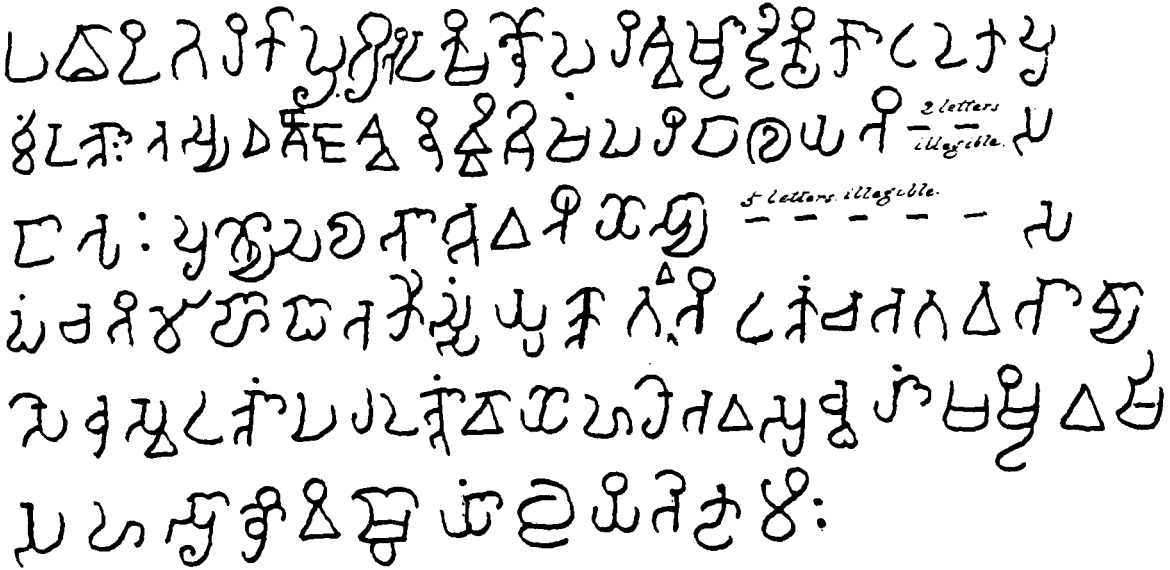
P. A.

Set of Plates N° I.





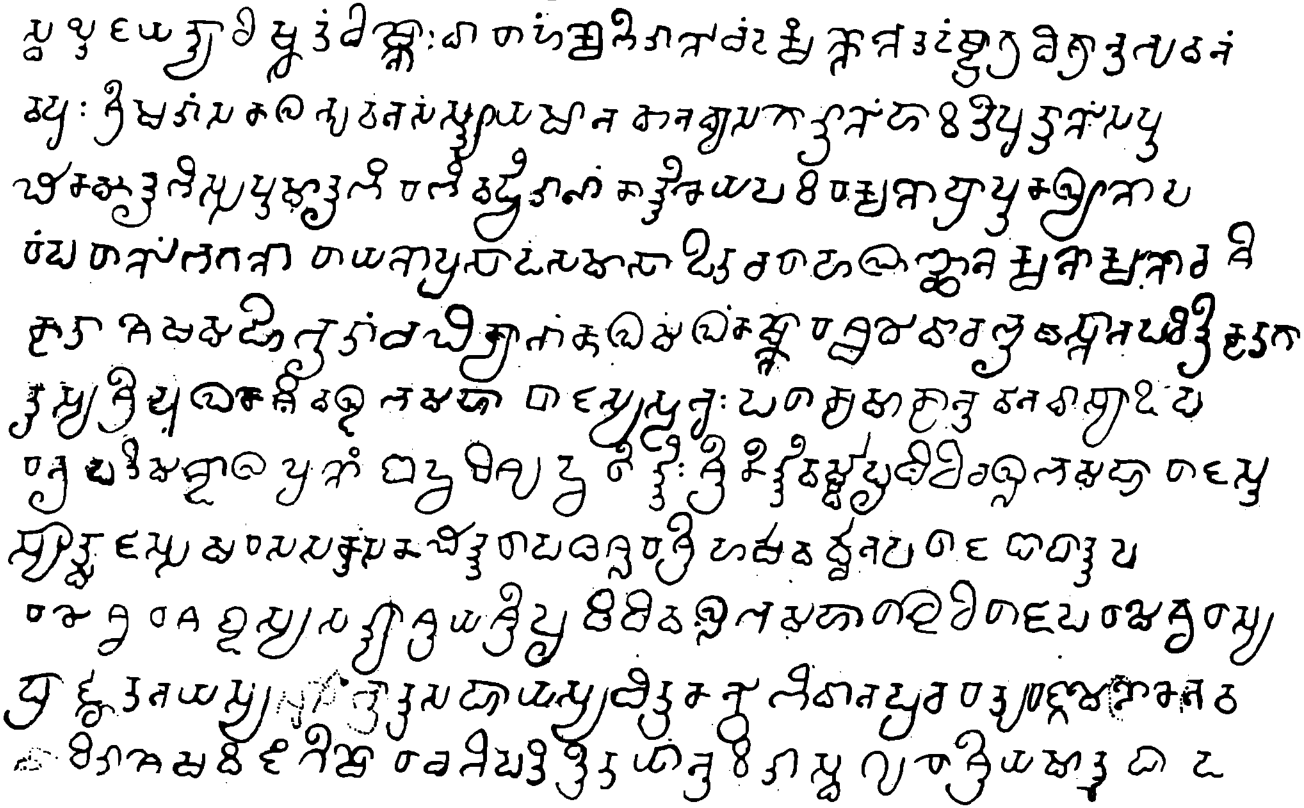
4 letters


2 letters illegible
5 letters illegible

Transcript of No. I in Modern Nágrí.

स्वस्ति · श्रीमतां · सकल भुवन संस्तूयमान मानव्य स
गोत्राणां · हारिति पुत्राणां · सप्त लोक मातृ स्सप्त मातृभिरभि
रक्षितानां · कार्त्तिकेय परिरक्षण प्राप्त कल्याण पराणां
भगवन्नारायण प्रसाद समासादित वराह लाञ्छने क्षणक्ष
ण वशीकृताशेष मही भृतां · च लुक्यानां कुल मलङ्कु · रिष्णोरश्वमे
धाव भृथ स्नान पवित्री कृत गात्रस्य · श्री पुलकेशि वल्लभ महाराज
स्य प्रपौत्रः पराक्र क्रान्तवन वास्यादि पर नृपति मण्डल प्रणिबद्
विशुद्ध कीर्त्ति श्री कीर्त्ति वर्म्म पृथिवी वल्लभ महाराजस्य पौत्र स्सम
र संसक्त सकलोत्तरापृथे श्वर श्री हर्ष वर्धन पराजयो पलब्ध
परमेश्वरापर नाम धेयस्य · सत्याश्रय श्री पृथिवी वल्ल
भ महाराजाधिराज परमेश्वर भट्टारकस्स्य प्रियतनयो
राज रिपु नरेन्द्र हन्ता दिशिजि - - - - - - - - - - -
प्राप्य - - - - न म नि वारित विक्रमादित्य तस्य ज्येष्ठ
भ्रातुः श्री न्द्रादित्य प्रथिवी वल्लभ महाराजस्य प्रिय महि
षी विजय भट्टारिका स्व राज्य पर्धोम स्संवत्सर आश्व
युज पौर्न्नमासस्य द्वितीया याम् विषुवे वहु पुण्यात्थम्
नरकागाहरे वत्स सगोत्राय गृहपते पौत्राय स्वामिच
- रैवि - स्य पुत्राय आर्य्य स्वामि दिक्षिताय पोलियम
पथा दि गिरिका प्रभृति दक्षिणो परि श्वष्टा ट्टे क्षिका उदक पू
र्व्वं दत्ता : तस्य वङ्क्षजे ष्व नि र्व्विशेषं परिपालयति - - स
दातुः पुण्य फल भाग्भवति यो स्य - - - - - स
पंच भिर्म्महा पातकै स्संयुक्तो भवति उक्तंच भगवता व्या
सेन स्वदत्तां परदत्तां वा यो हरे तवसुन्धरां षष्टि वर्ष
सहस्राणि विष्ठायां जायते कृमिः

Set of Plates No. II.



ਮੈਨੂੰ ਆਸ ਕਰਦੀ ਹਾਂ ਕਿ ਤੁਸੀਂ ਠੀਕ ਹੋਵੋਗੇ ---------- ਤੁਹਾਡੀ ਦੋਸਤ

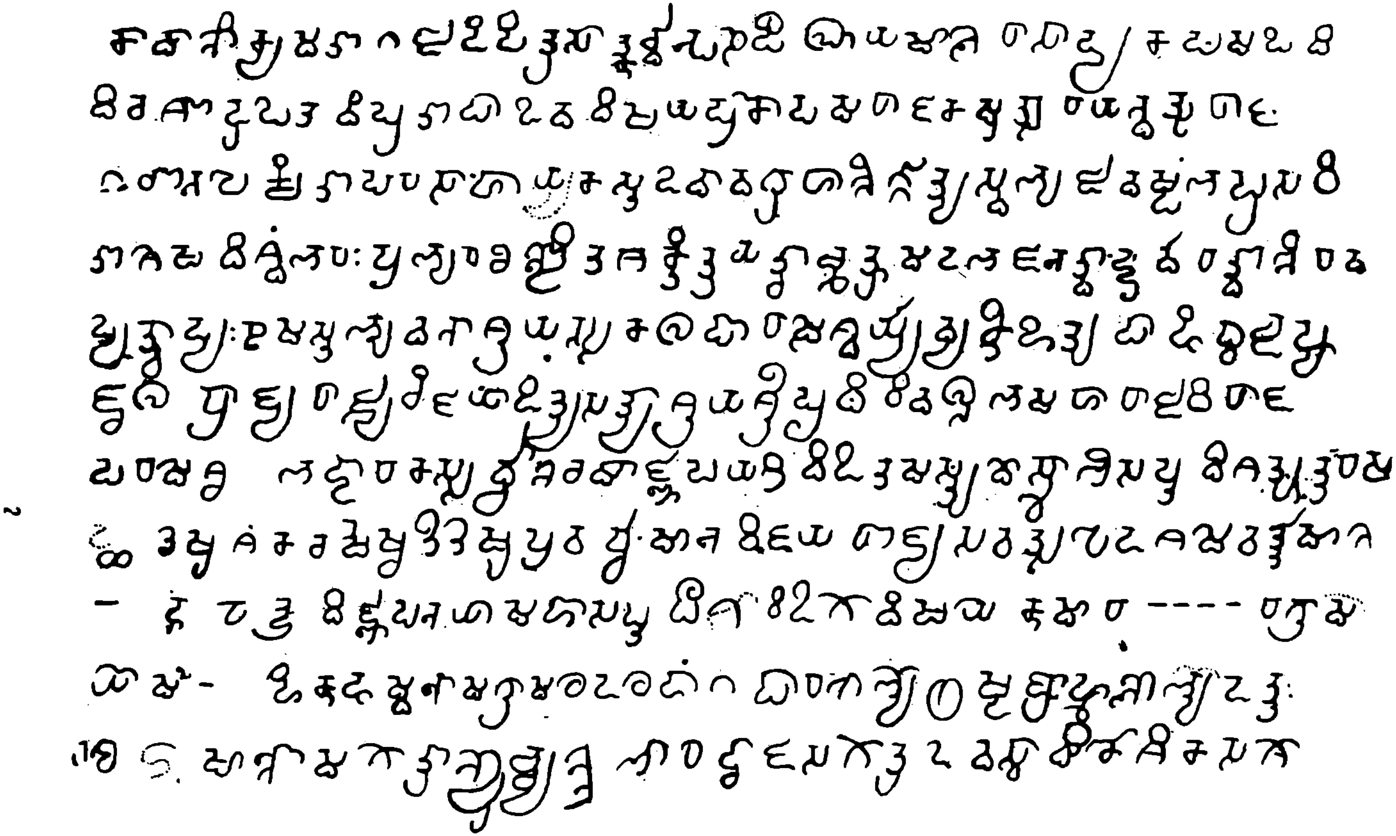
ਹਰ ਰੋਜ਼ ਮੈਂ ਤੁਹਾਨੂੰ ਯਾਦ ਕਰਦੀ ਹਾਂ ਅਤੇ ਤੁਹਾਡੇ ਨਾਲ ਗੱਲ ਕਰਨ ਲਈ ਬੇਚੈਨ ਹੋ ਜਾਂਦੀ ਹਾਂ

ਮੈਂ ਤੁਹਾਡੇ ਨਾਲ ਬਹੁਤ ਸਾਰੀਆਂ ਗੱਲਾਂ ਕਰਨੀਆਂ ਚਾਹੁੰਦੀ ਹਾਂ ਪਰ ਸਮਾਂ ਨਹੀਂ ਮਿਲਦਾ ---- ਤੁਹਾਨੂੰ

ਮੈਂ ਤੁਹਾਡੇ ਨਾਲ ਬਹੁਤ ਸਾਰੀਆਂ ਗੱਲਾਂ ਕਰਨੀਆਂ ਚਾਹੁੰਦੀ ਹਾਂ ਪਰ ਸਮਾਂ ਨਹੀਂ ਮਿਲਦਾ

ਹਰ ਰੋਜ਼ ਮੈਂ ਤੁਹਾਨੂੰ ਯਾਦ ਕਰਦੀ ਹਾਂ ਅਤੇ ਤੁਹਾਡੇ ਨਾਲ ਗੱਲ ਕਰਨ ਲਈ ਬੇਚੈਨ ਹੋ ਜਾਂਦੀ ਹਾਂ

ਮੈਨੂੰ ਆਸ ਕਰਦੀ ਹਾਂ ਕਿ ਤੁਸੀਂ ਠੀਕ ਹੋਵੋਗੇ ---------- ਤੁਹਾਡੀ ਦੋਸਤ



ਦੇ ਕਾਰਜ ਕੀਤੇ

ਉਸ ਨੇ ਕਿਹਾ ਕਿ ਮੈਂ ਤੁਹਾਡੇ ਨਾਲ ਸੱਚ ਬੋਲਾਂਗਾ ਅਤੇ ਕੁਝ ਵੀ ਨਹੀਂ ਲੁਕਾਵਾਂਗਾ। ਮੈਂ ਤੁਹਾਨੂੰ ਦੱਸਦਾ ਹਾਂ ਕਿ ਮੈਂ ਇਹ ਸਾਰੇ ਕੰਮ ਆਪਣੇ ਲਈ ਨਹੀਂ ਕੀਤੇ ਸਗੋਂ ਤੁਹਾਡੇ ਲਈ ਕੀਤੇ ਹਨ। ਮੈਂ ਤੁਹਾਡੇ ਲਈ ਇਹ ਸਾਰੇ ਕੰਮ ਇਸ ਲਈ ਕੀਤੇ ਹਨ ਕਿ ਤੁਸੀਂ ਮੇਰੇ ਉੱਤੇ ਵਿਸ਼ਵਾਸ ਕਰੋ ਅਤੇ ਮੇਰੇ ਨਾਲ ਪਿਆਰ ਕਰੋ। ਮੈਂ ਤੁਹਾਨੂੰ ਇਹ ਵੀ ਦੱਸਦਾ ਹਾਂ ਕਿ ਮੈਂ ਤੁਹਾਡੇ ਲਈ ਇਹ ਸਾਰੇ ਕੰਮ ਇਸ ਲਈ ਕੀਤੇ ਹਨ ਕਿ ਤੁਸੀਂ ਮੇਰੇ ਉੱਤੇ ਵਿਸ਼ਵਾਸ ਕਰੋ ਅਤੇ ਮੇਰੇ ਨਾਲ ਪਿਆਰ ਕਰੋ। ਮੈਂ ਤੁਹਾਨੂੰ ਇਹ ਵੀ ਦੱਸਦਾ ਹਾਂ ਕਿ ਮੈਂ ਤੁਹਾਡੇ ਲਈ ਇਹ ਸਾਰੇ ਕੰਮ ਇਸ ਲਈ ਕੀਤੇ ਹਨ ਕਿ ਤੁਸੀਂ ਮੇਰੇ ਉੱਤੇ ਵਿਸ਼ਵਾਸ ਕਰੋ ਅਤੇ ਮੇਰੇ ਨਾਲ ਪਿਆਰ ਕਰੋ।

Transcript of No. 2. in Modern Nāgrí.

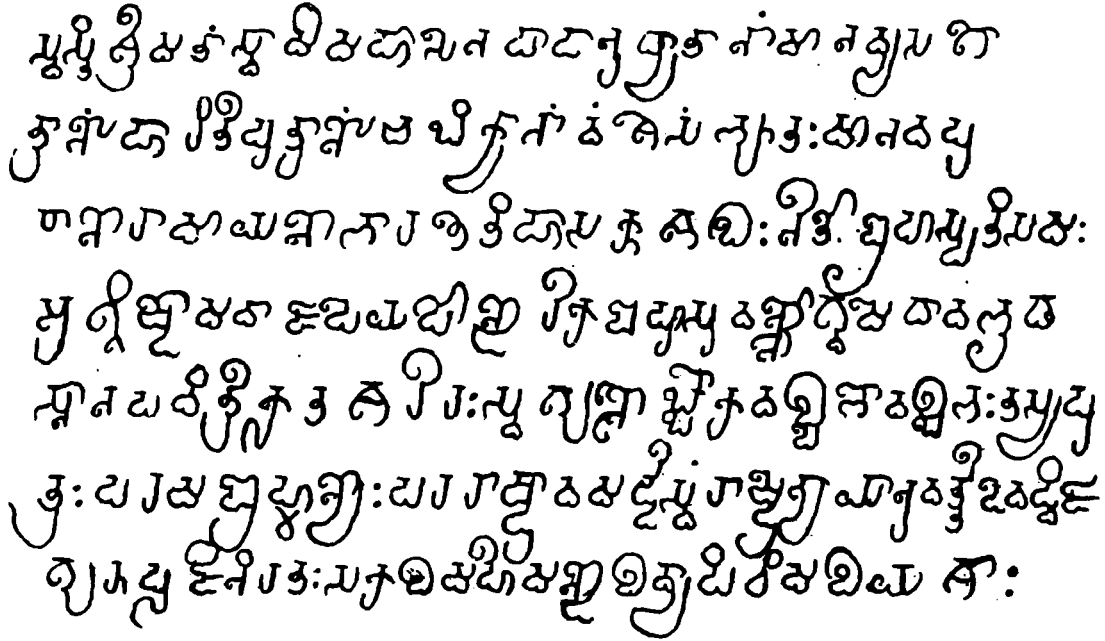
स्वस्ति · जयत्याविष्कृतं विष्णोर्वाराहं क्षोभितार्णवं · दक्षिणान्नतदंष्ट्राग्रविश्रान्तभुवनं
वपुः श्रीमतां सकलभुवनसंस्तूयमान मानव्यसगोत्राणां हारि—नीपुत्राणां · सप्त
लोकमातृभिस्सप्तमातृभिरभिवर्द्धितानां · कार्त्तिकेयपरिरक्षणप्राप्तकल्याणप
रंपराणां · भगवन्नारायणप्रसादसमासादितवराहलाञ्छनेक्षणक्षणवशी
कृताशेषमहीभृतां · चलिक्यानां कुलमलंकरिष्णोरश्वमेधावभृथस्नानपवित्रीकृतगा
त्रस्य · श्रीपुलकेशिवल्लभ महाराजस्य सूनुः पराक्रमाक्रान्तवनवास्यादिप
रनृपतिमण्डल प्रणिबन्धविशुद्धकीर्त्तिः श्रीकीर्त्तिवर्म्मपृथिवीवल्लभ महाराजस्त
स्यात्मज स्समरसंसक्तसकलोत्तरापथेश्वरश्रीहर्षवर्ध्दनपराजयोपात्तप
रमेश्वर शब्दस्य · सत्याश्रयश्रीपृथिवीवल्लभ महाराजाधिराज परमेश्वरस्य
प्राज्ञतनयस्य सुसौभ्रात्रसहायस्य · चित्रकन्धाभिधान प्रवरतुरङ्गमेणैकेनैव
वारिताशेषविजिगीषोरवनिपतित्रिनयानुविता स्वगुरोश्रीयमात्म पाद

स्य प्रभाव कुलिशदालित पाण्ड्यन्चो - - - - - - - - - - - विभ्रमस्यानन्यव
ननकाञ्ची पति मुकुट चुंबित पादांबुजस्य · विक्रमादित्य सत्याश्रय श्री पृथिवी व
ल्लभ महाराजाधिराज परमेश्वर भट्टारकस्य · प्रियसूनोः पितुराज्ञा - - - विन्दु
शेखरस्य · तारकासतिरिव दैत्य बलमति समुद्ध न्धे राज्य काञ्ची पति वल्लभ व
ष्टभ्य · करदी कृत कमेर पारसीक सिंहलादि द्वीपाधिपस्य · सकलोत्तरा पथना
थ मथनोपार्जिनार्जित पादि ध्वजादि समस्त पारमेश्वर्य्य चिन्हस्य · विनयादि
त्य सत्याश्रय श्री पृथिवी वल्लभ महाराजाधिराज परमेश्वर भट्टारकस्य · प्रियात्मज श्रो
२ श्व एवाधिगताशेषाम्न शास्त्रो · दक्षिणाशाविजयिनि पिता महेस मुन्मूलित निखि
ल कण्टक संहेतिरुत्तरापथ विजिगीषो गुरोरग्रत आवधाहं व्याहार भाच र भ्न
राति गज घटापाटन विशीर्य्य माण कृपाण धारस्स मग्र विग्रहाग्रेसरस्स
साहस रसिकः परात्मनी कृत शत्रु मण्डलो · गंगा यमुना पादि ध्वज पद्म
- - - - - - - - - - - -

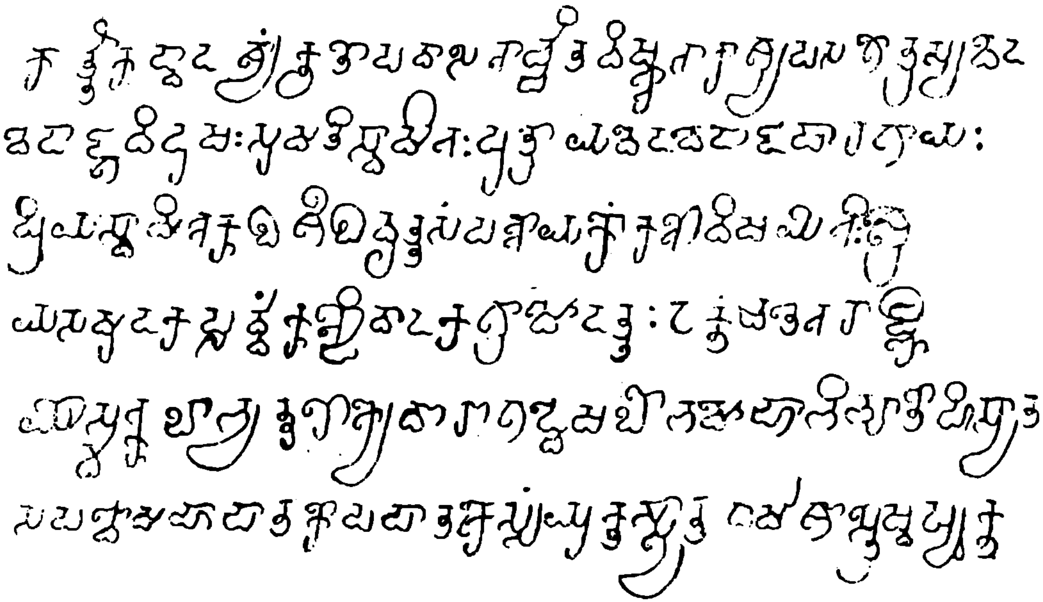
कामाणि क्ष्यमतागजादिपितृसात्कुर्वन्यैरे ॐ पलायमानैरासाद्य कथमपि वि-
धिवशादुपेतविपत्तापादेव विषयप्रकोपमराजकमुत्सारयन्वत्सराज
इवानपेक्षितापरसाहाय्यकस्तदेवावग्रहान्निर्गत्यस्वभुजावष्टंभप्रसवि
ताशेषविश्वंभरः प्रभुरखण्डितशक्तित्रयत्वाच्छत्रुमदभंजनत्वाद्धरित्वान्निरव
द्यत्वाद्यः समस्तभुवनाश्रयस्सकलपारमैश्वर्य्यव्यक्तिहेतुपाढिध्वजाद्यु
ज्वल साम्राज्यराज्यो विजयादित्य सत्याश्रय श्री पृथिवी वल्लभ महाराजाधिराज
परमेश्वरभट्टारकस्सर्व्वानेव माज्ञापयति विदितमस्तु वोस्माभिस्सप्तविंशत्युत्तरष
ट्छतेषु शक. वर्षेष्वतीतेषु प्रवर्धमान विजय राज्य संवत्सरे दशमे वर्त्तमाने
——— दुपेन्द्र विज्ञापनया महासप्तमि ... विदिशो विषये कुमार — — — रग्रामो
— — — हिकुदम्बनाम ग्राम वेद वेदांग पारगेभ्यो ग्रेष्ठ ब्राह्मणेभ्यो दत्तः
एतेषान्नाम गोत्राण्युच्यन्ते . भारद्वाज सगोत्रदेव स्वामि कौशिक सगो

त्रकर्कस्वामि भारद्वाजसगोत्र यज्ञस्वामि कौण्डिन्यसगोत्र - - म्मस्वामि मौद्गल्य
सगोत्र देवस्वामि आत्रेयसगोत्र गर्ग्गस्वामि काश्यपसगोत्र रुद्रस्वामि वत्ससस
गोत्रराससवर्म्मणांदत्तः - - आगामिभिरस्मद्वंश्यैरन्यैश्च राजभिरायुरैश्वर्य्यादीनां
विलसितमचिरांशुचञ्चलमवगच्छद्भिरा चन्द्रार्कवरार्णवस्थितिसमकालं
यशश्चिचिषुभिस्वपुत्रानिर्व्विशेषमुक्तंचभगवता वेदव्यासेन व्यासेन. बहुभि
र्व्वसुधाभुक्ताराजभिस्सगरादिभिः यस्ययस्ययदाभूमिस्तस्यतस्य
तदाफलं. स्वन्दातुंसुमहच्छक्यंदुरमन्यस्यपालनं. दानंवा पालनंवेतिदाना
च्छ्रेयोनुपालनं. स्वदत्तांपरदत्तांवायोहरेतवसुन्धरां. षष्टिवर्षसहस्राणि
विष्ठायांजायतेकृमिः महासान्धिविग्रहिकनिरयपुण्यबलभेनलिखितमि
दंशासनमिति

Set of Plates No. 3.



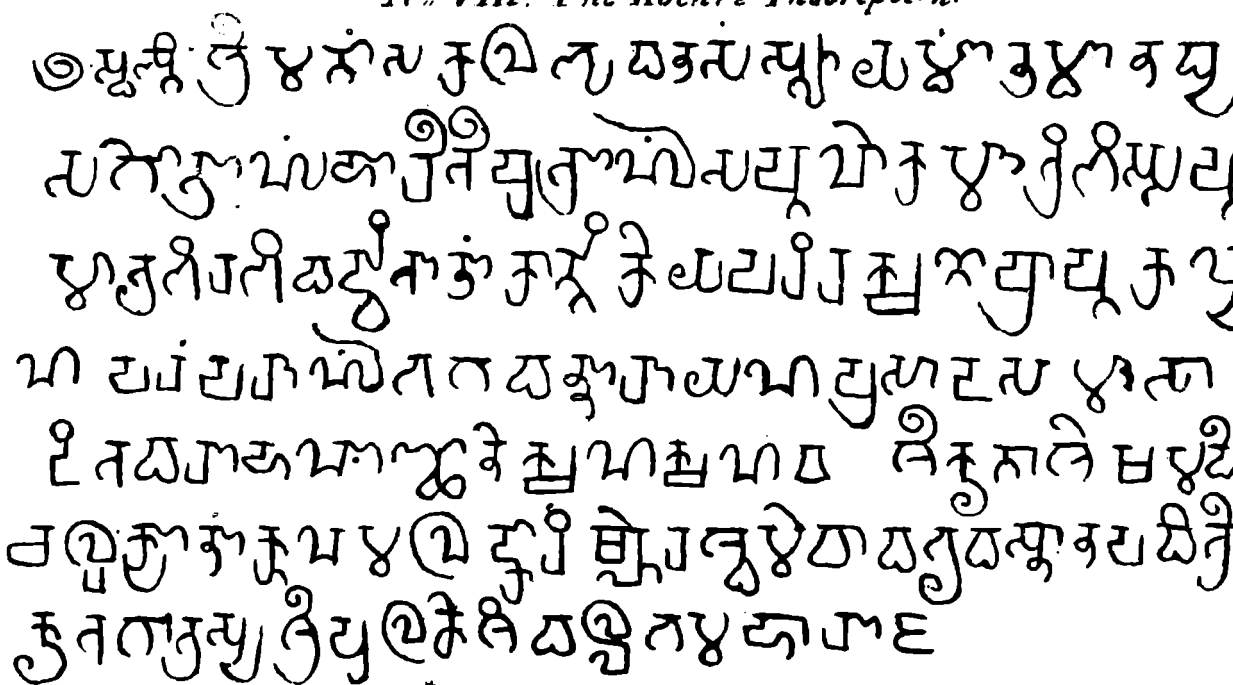
ಸ್ವಸ್ತಿ ಶ್ರೀ ವಿಜಯಾಭ್ಯುದಯ ಶಾಲಿವಾಹನ ಶಕವರ್ಷ ೧೭೮೬ನೇ
ವಿಳಂಬಿ ಸಂವತ್ಸರದ ಶ್ರಾವಣ ಶುದ್ಧ ೫ ಸೋಮವಾರದಲ್ಲಿ
ದಿವಸ ಶ್ರೀಮತ್ ಸಕಲ ವಿದ್ಯಾ ಪಾರಂಗತ ಸಕಲ ಶಾಸ್ತ್ರ
ಪ್ರವೀಣ ಸಕಲ ಸಂಪನ್ನ ಸಕಲ ಗುಣಾಲಂಕೃತ ಸಕಲ
ಜನ ಪ್ರಶಂಸಿತ ಶ್ರೀಮತ್ ಕೃಷ್ಣರಾಜೇಂದ್ರ ಒಡೆಯರವರು
ಸಿಂಹಾಸನಾರೂಢರಾಗಿ ಸಕಲ ಸಾಮ್ರಾಜ್ಯವನ್ನು ಪರಿಪಾಲಿಸುತ್ತಿರಲು
ಈ ಸಮಯದಲ್ಲಿ ಶ್ರೀಮತ್ ಸಕಲ ಸಂಪನ್ನ ಸಕಲ ಶಾಸ್ತ್ರ
ಪ್ರವೀಣ ಸಕಲ ಜನ ಪ್ರಶಂಸಿತ ಸಕಲ ಗುಣಾಲಂಕೃತ
ಶ್ರೀ ಕೃಷ್ಣರಾಜೇಂದ್ರ ಒಡೆಯರವರ ಪಾದಾರವಿಂದ ಭೃಂಗ
ಸಕಲ ಜನ ಪ್ರಶಂಸಿತ ಸಕಲ ಗುಣಾಲಂಕೃತ ಸಕಲ



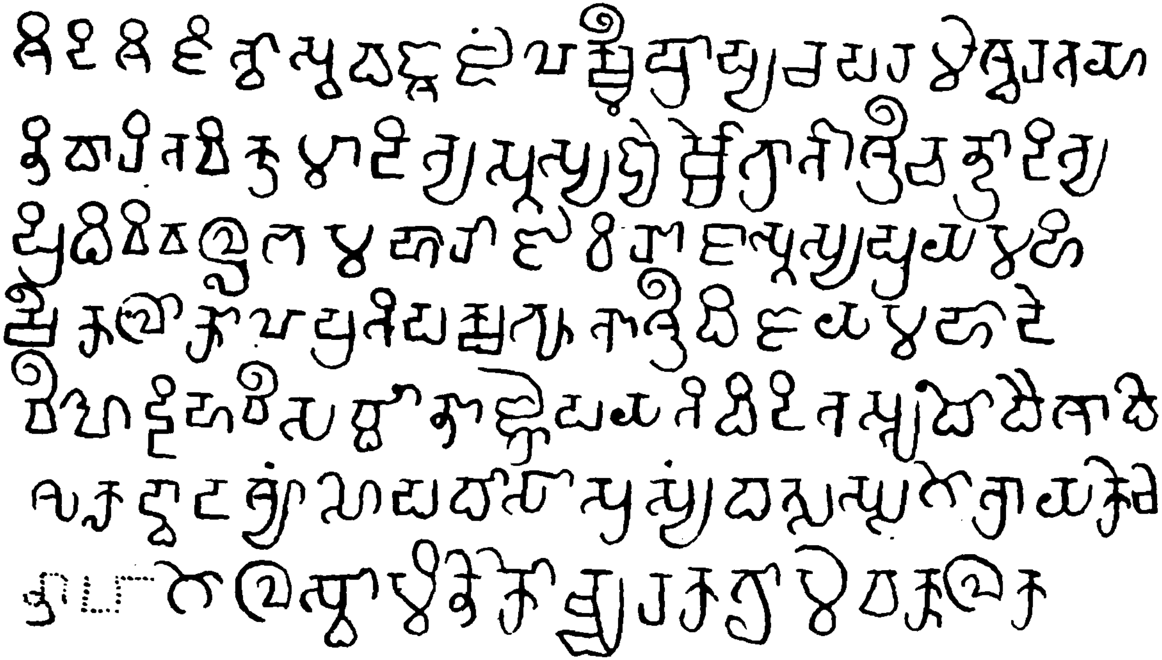
Transcript of № III in Modern Nágri

स्वस्ति . श्रीमतां स्वामिमहासेन पादानुध्यातानां . मानव्यसगो
त्राणां . हारिति पुत्राणां च लिक्यानां . वंशे संभूतः मानवपु
राण रामायण भारतेतिहासकुशलः नीतौ बृहस्पति समः
अग्निष्टोम वाजपेय पौण्डरीक बहु सुवर्ण्णाश्वमेधा ल भृथ
स्नान पवित्री कृत शरीरः स्वगुणैर्ल्लोक वल्लभो वल्लभः तस्यपु
त्रः परम ब्रह्मण्यः परराष्ट्रावमर्द्दी स्वराष्ट्रे न्यायानुवर्त्ती देवद्विज
गुरुपूजानिरतः सकलमहीमण्डलव्यापि विमलयशाः
स्वभुजबलपराक्रमोपार्ज्जितान्यराजवित्तः वृषभगमननयननिना
दः समदवरवारणविलासः सिंहविक्रमः नयविनयदानदया
दाक्षिण्यसत्यसंपदोपेतः शक्तित्रयसंपन्नः परमभागवतः
मङ्गलराजः बभौ सत्वेन्य प्रतिमान किर्त्तिस्तम ॐ प्रमृन्दन्स्व
गुणांशुजालैः तेन राज्ञा शंकरगणपुत्रं गज तुरग पदाति
कोशबलसंपन्नं बुद्धराजं विद्राव्य चालिक्य वंश संभवं अष्टा
दश समर विजयिनं स्वामिराजं च हत्वा संवत्सर पूज्यनमायां
कार्त्तिक द्वादश्यां कृतोपवासेनार्च्चित विष्णुना काश्यप. गोत्रस्य वेद
वेदाङ्ग विदुषः सुमतिस्वामिनः पुत्राय वेदवेदाङ्ग पारगायः
प्रियस्वामिने कुलशील वृत्त संपन्नाय कोंकण विषये निःश्रे
यस मुद्रक पूर्व्व कुण्डिवादक ग्रामो दत्तः उक्तं च तेन राज्ञा
वोस्मत्कुलाभ्यन्तरोन्यो वा राग द्वेष लोभ मोहाभिभूतो हिंस्यात्
स पञ्च महापातकोपपातकैस्संयुक्तः स्यात् धर्मशास्त्रेष्वप्युक्तं
बहुभिर्व्वसुधा भुक्ता राजभिस्सगरादिभिः यस्य यस्य यदा
भूमिः तस्य तस्य तदा फलम् स्वदत्तां परदत्तां वा यो हरेत वसु
न्धराम् षष्टि वर्ष सहस्त्राणि विष्ठायां जायते क्रिमिः षष्टि
वर्ष सहस्राणि स्वर्गे तिष्ठति भूमिदः आच्छेत्ता चानुमन्ता
च तान्येव नरके वसेत् ॥ स्वन्दातुंसुमहच्छक्यम् दुःख
मन्यस्य पालनं दानं वा पालनं वेति दानाच्छ्रेयोनुपालनमिति -

*No. VIII. The Kochré Inscription.**



*See Note to 2nd para: of Prefatory Observations.



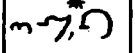
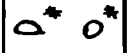
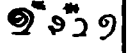
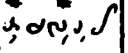
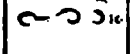
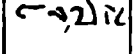
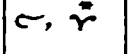
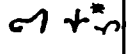
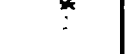
Transcript in Modern Sanscrit of the Kochré Inscription No VIII

७ स्वस्तिश्री मतां सकल भुवन संस्तूय मान मानव्य
स गोत्राणां हारी ती पुत्राणां सप्त लोक मात्रिभि स्सप्त
मातृभिरभि वर्द्धिनानां कार्त्तिकेय परिरक्षण प्राप्त कल्या
ण परंपराणां भगवन्नारायण प्रसाद समासा
दित वराह लाञ्छने क्षण क्षण वशी कृताशेष मही भृतां
चलुक्यानां कुलमलङ्करिष्णोरश्व मेधाव भृथ स्नान पवित्री
कृत गात्रस्य श्री पुलकेशिवल्लभ महाराज
स्य प्रपौत्रः पराक्रमा क्रांत वनवास्यादि पर नृपति मण्ड
ल प्रणि बद्ध विशुद्ध कीर्त्ति श्री कीर्त्ति वर्म्म प्रिथिवि वल्लभ महा
राजस्य पौत्र स्समर संसक्त सकलोत्तरापथेश्वर श्री हर्ष
वर्द्धन पराजयो पलब्ध परमेश्वरा परनामधे
यस्य सत्याश्रय श्री प्रिथिवी वल्लभ महाराजाधिराज
परमेश्वरस्य प्रिय तनय रणशिरसि रिपुनरेन्द्रान्दि

शि दि शि जित्वा स्व वङ्शजां लक्ष्मीं प्राप्य च परमेश्वरतया
निवारित विक्रमादित्यस्तस्य ज्येष्ठो भ्राता श्रीचन्द्रादित्य
प्रिथिवि वल्लभ महाराजाधिराजस्तस्य प्रय महि
षी कलिकाल प्रतिपक्ष भूता श्री विजय महा दे
वी [illegible] सर्व्वानाज्ञापयति विदितस्तु वो वैशाख
शुक्ल द्वादश्यां सोपवासा [illegible] वत्सस्सगोत्राय केख
ना [illegible] गोल स्वामिने कोच्चुरक ग्रामे व कुलक
च्छ क्षेत्र नाम खज्जन सहितं उदक पूर्व्वन्दत्तं [illegible]
[illegible] सेतु नानि वार्य्यते योस्मद्वंश जोन्यो वानुपाल
यति स पुण्य भाग्भवति यश्चापहर्त्ता स पञ्च महापा
त कसंयुक्तो भवति षष्टि वर्ष सहस्राणि स्वर्गे
मोदति भूमिद आच्छेत्ता चानुमन्ता च तान्येव नरके व
से । स्वदत्तां परदत्तां वा यो हरेत वसुन्धरां षष्टि वर्ष
सहस्राणि विष्ठायां जायते क्रिमि [illegible]

Table explanatory of the several Plate Characters.

Plate No 3	Plate No 2	Plate No 7	Modern Sanskrit	Correspondent English characters	Plate No 5	Plate No 2	Plate No 1	Modern Sanskrit	Correspondent English characters
			अ	a				ट	ṭa
			आ	a'				ठ	ṭha
			इ	i				ड	ḍa
			ई	i'				ढ	ḍha
			उ	u				ण	ṇa
			ऊ	u'				त	ta
			ऋ	ri				थ	tha
			ॠ	rri				द	da
			ऌ	li				ध	dha
			ॡ	lli				न	na
			ए	e				प	pa
			ऐ	ae				फ	pha
			ओ	o				ब	ba
			औ	ao				भ	bha
			अं	am				म	ma
			अः	ah				य	ya
			क	ka				र	ra
			ख	kha				ल	la
			ग	ga				व	va
			घ	gha				श	sha
			ङ	ṅa				ष	ṣha
			च	cha				स	sa
			छ	chha				ह	ha
			ज	ja				क्ष	kṣha
			झ	jha				ज्ञ	jña
			ञ	ña					

Vowel-marks					
					
a	*a'*	*i*	*i'*	*u*	*u'*
					
e	*ae*	*o*	*ao*	*an*	*ah*

Dotted letters are doubtful.
Letters and vowel-marks agreeing with those given in Prinsep's Tables, are marked with an asterisk.

ART. V.—*Some account together with a Fac-simile Devanágarí transcript and translation of a Copper-plate Inscription in the Society's Museum.* By the REV. P. ANDERSON, M. A.

The reare in the Society's Museum two plates engraved in what has been called the Gupta character and which is found on coins, stone slabs and copper-plates of the fifth and preceding centuries. Of one of these plates, which is called in these remarks No. 1, a fac-simile is given in a communication to the Bengal Asiatic Society's Journal for September 1835 made by W. H. Wathen, Esq. Secretary to the Bombay Government. The fac-simile is complete with the somewhat remarkable exception of the date, which is now supplied (२२) and to which I shall have occasion to refer again.

The second plate Mr. Wathen stated to be so impaired by time and damp that only a part was legible. It occurred to me however that as a part was in good preservation, the whole might be decyphered by comparing it with corresponding plates. Accordingly I discovered in the Bengal Asiatic Society's Journal for November 1838 a Devanágarí transcript of a grant, which has enabled me to obtain a sufficiently correct acquaintance with the contents of this plate. This —which is here called No. 2,—is important as containing a regular list of kings in succession to those of No. I.

Both these plates record grants made by monarchs of the Valabhi dynasty and it is highly satisfactory that these and other records have thrown so much light upon this interesting family that by a collation of such documents we can arrive at some idea of their history.

The race traced its origin to the great hero Ráma who had two sons named Lava and Kusa, from the former of whom was descended Kanak Sena who emigrated to Dvárika and whom the Ránás of Udipur claimed as their ancestor. This family adopted for many generations the martial termination "Sena" or else "Aditya" denoting their solar origin, the one or other of which titles is ordinarily

found on these copper-plates attached to the names of princes; Bhaṭṭaraka was also a family name and is engraved on the seals attached to the grants. Kanak Sena wrested dominion from a prince of the Pramara race and founded Bhaunagar in the second century of our era. Four generations afterwards Vijaya Sena founded Vijayapura, Vidarbha and more particularly the famous Valabhi situated ten miles to the north-west of Bhaunagar. The Jaina religion is said to have been established in this place, but the Solar Orb and its type, fire, were the chief objects of their adoration. It arrived at great prosperity and was the chief town of Suráshtra. In the midst of the city was a fountain sacred to the sun from which arose at the summons of its king Síláditya the seven headed horse Saptás'wa which draws the car of Súrya, to bear him to battle.

At last "the beautiful kingdom of Valabhadra" (1) was invaded by a barbarian force from the north A. D. 524, and the city "of a hundred temples" was sacked. In vain did Síláditya call for his seven headed steed, against which it was supposed no foe could prevail. A treacherous minister revealed to the enemy the secret of annulling this aid by polluting the sacred fountain of the sun with blood. The charm was broken. No celestial war-horse came and the helpless Valabhis awaited their doom. Gazni near the modern Cambay became the last refuge of the family, but that too was captured by the barbarians. All fell except the daughter of Pramara. "The house of Síláditya was left desolate. In its defence his heroes fell; of his seed but the name remained."

Colonel Tod thought that these barbarian invaders were Scythic, and Mr. Wathen that they were Bactro-Indians of which race many coins have been found in Suráshtra. Mr. Elphinstone suggests that they were Persians under Naushírwán.

As was mentioned, the daughter of Pramara the queen Pushpavatí alone escaped from the destruction of Valabhipura. Returning from a pilgrimage which she had made with a view of procuring from the gods the blessing of offspring she heard of her lord's death. Excessive

(1) Thus it is styled in Plate No. 2.

grief brought on her confinement and she was delivered of the son which the goddess had granted to her prayers. Committing her child to a trusty guardian, she mounted the funeral pyre and joined her husband. The boy was named Goha and becoming celebrated for his daring feats was elected king by the Bhils amongst whom he resided. From him was descended Bappa the next hero of the line of Valabhi. By his followers the dynasty and Jaina religion were transferred to Mewár. (1)

The city of Valabhi appears to have been never restored. The Valabhi line of kings was succeeded by a branch of the great Chálukya family of whose grants so many copper-plates have been discovered. Their seat of sovereignty was Anahwara Patan.

These plates seem to establish the fact that the Valabhis did not at first exercise an independent sovereignty, but acknowledged a Suzerain who is styled in No. I. "the great sovereign, the sole monarch of the entire world," and to whom Drona Sinha was indebted for his elevation to the throne. Succeeding sovereigns are styled Mahárájá in plate, No. 1, but not in plate No. 2 until the reign of Dhara Sena the third who is styled "king of kings."

I now give a list of kings as found in these plates premising that it differs in some respects from lists which have been previously published.

1. Generalissimo Bhaṭṭárka succeeded by his son.
2. Dhara Sena I, succeeded by his younger brother.
3. Mahárájá Drona Sinha succeeded by his younger brother.
4. Mahárájá Dhruva Sena succeeded by his younger brother.
5. Mahárájá Dhara Pattah succeeded by his son.
6. Mahárájá Guha Sena succeeded by his son.
7. Mahárájá Dhara Sena II, suuceeeded by his son.
8. Mahárájá Śíláditya Dharmáditya succeeded by his younger brother.

(1) This account is drawn from Tod's annals of Rájisthán Vol. I. chap. 2. from the Royal As. Soc. Journal Vol. XII. part 1, from the Bengal As. Soc. Journal Vols. IV and VII, and from Elphinstone's History of India Book IV. Chap. I

9. Mahárájá Is'vara Graha suceeeded by his son.
10. Mahárájá Dhara Sena III, succeeded by his younger brother.
11. Mahárájá Dhruva Sena Váláditya succeeded by his son.
12. Mahárájá Dhara Sena IV, succeeded by his great uncle.
13. Mahárájá Dhruva Sena Dharmáditya son of S'íláditya, and younger brother of Is'vara Graha.

In the Bengal Society's list the seventh, tenth, and twelfth of these kings are called S'rídhara Sena, but in both the plates now before me the names are precisely the same as the second, i. e. Dhara Sena with the addition of S'rí which is common to all the kings. Moreover S'íláditya is said in the Bengal Journal to be surnamed Kramáditya, but however glad we should be to recognize that well known name—the same as Vikramáditya—we must admit that the surname is clearly written on Plate II, Dharmáditya. Three of the other kings are not named Dharuva, but Dhruva Sena.

And now with regard to the dates—we have three of them to serve for our guidance. The first grant was made by Dhara Sena II son of Guha Sena, and was signed by his minister Skanda Bhaṭṭa. The two others were made by Dhruva Sena Dharmáditya, and signed by his minister Madana Hala, son of the above-mentioned Skanda Bhaṭṭa. From a reference to the list it will be seen that Dhruvá Sena the last donor was grandson of Dhara Sena II, the first donor, and, as the minister of the former was father of the minister of the latter, we should not expect to find that any long interval had elapsed between the periods of the two grants.

The date of the first is thus  , and not as stated in the Bengal Journal, for April and November 1838. Supposing that the first symbol expresses 300, and the second 30, (1) we have the date 330. The second grant is said to bear the date 365, but no fac-simile of the symbol is given (2). The third grant (Plate II) bears the date  or 370, and some odd units, for the last symbol does not correspond with any produced by Mr. Prinsep. A comparison of their snpposed

(1) See a paper by E. Thomas, Esq., in the R. A. S. J. vol. XII. part I, p. 35.
(2) Bengal A. S. J. vol. VII. p. 978.

dates with the history of the grants makes the conjectures regarding the value of the symbols extremely plausible. The second grant mentioned in the Bengal Journal, is dated in the month Vaiśákha, and at least fifteen years earlier than the plate in this Society's museum which is dated in the month Pausha—both grants being made by the same king with the same minister.

At the same time there is some doubt whether  represents either 3 or 300. It is a suspicious circumstance that not only in all these plates, but in a series of coins of the Suráshtran princes, this symbol occupies the first place in the date, and we can scarcely suppose that all these kings, both of the plates and of the coins, lived in the same century (1).

There is however, a passage in a Chinese account of India, which, when compared with the supposed dates of these plates, affords a very remarkable coincidence. We are there told that, "Under the Tang-dynasty, in the years Wooteh (A. D. 618 to 627) there were great troubles in India; the king (Síláditya?) fought great battles. The Chinese Buddhist priest, Huen Chwang who writes his travels, arrived in India at this period, and had audience of Síláditya." (2) Now if the received supposition regarding the symbols of these plates be correct, Síláditya reigned more than 300 years after the Valabhi era, that is, sometime after A. D. 619, which agrees remarkably well with the Chinese account.

We cannot fail to be struck with the points of similitude between these grants, and the Suráshtran coins. The figure of the bull Nandi is found in both, so is the title Kramáditya, and the common terminative Aditya; so is that of S'rí and Rájádhirájá, and Paramabhagavata, all tending to confirm the supposition before hazarded that the Valabhi kings in their local government succeeded the Gupta monarchs.

A fac-símile, a Devanágarí Transcript, and a translation of the first leaf of plate No. 2, are here given. The second leaf is so worn as to be illegible. Towards the end of this first leaf there are traces of at-

(1) R. A. S. J. vol. XII. Part I. p. 35. note.

(2) Quotation by Colonel Sykes in R. A. S. J. for May 1841.

tempts at restoration, and in many cases, altogether wrong letters appear to have been substituted. It became necessary therefore in making a translation to supply some sentences from the Bengal plate.

The two halves are joined together with a copper ring which has the usual seal of the Valabhis—a bull, and underneath it the name Bhaṭṭarka.

Some of the letters in plate No. 2, are different from those given by Prinsep, but as this might possibly have arisen from carelessness or ignorant attempts at restoration, they need not be specified, with the exception of the symbol (which more frequently expresses the letter *l* than the ordinary symbol . For the Devanágari ण the symbol is used, and also the more ancient form which is scarcely to be distinguished from the symbol which denotes च. In plate No. I. is also used for the same letter.

Devanúgári Transcript.

स्वस्तिविजयस्कन्धावारे वासक प्रसभप्रणतामित्रानामै-
त्रकानामतुलबलसपत्नमंडलाभोगसंसक्तप्रहार शतलब्धप्रतापःप्रतापःप्रता
पोपन ॥१॥ तदानमानार्ज्जवोपार्जितानुरागानुरक्तमौलभृत: श्रेणिबलावा
वाप्तराज्यश्रिय: परममाहेश्वर श्रीभटर्क्कादव्यच्छिन्नराजवंशमातापितृच-
रणारविंदप्र ॥२॥ णतिप्रविधौताशेषकल्मष: शैशवात्प्रभृतिखड्गद्वितीय
बाहुरे वसमदपरगजघटास्फोटनप्रकाशितसत्वनिकष :तत्प्रभावप्रणतारा-
तिचूडारत्नप्रभासं ॥३॥ सक्तपादनखरश्मिसंहति: सकलस्मृतिप्रणीतमा-
र्गसम्यक्परिपालनप्रजाहृदयरंजनान्वर्थराजशब्दोरूपकान्तिस्थैर्य्यगांभी
र्य्यबुद्धिसंपद्भिःस्मरशशांकाद्रिराजो दधित्रिदशगुरूपनेशा ॥४॥ नतिश
यानःशरणागताभयप्रदानपरतयातृणवदपास्ताशेषस्वकार्यफलप्रार्थनाधि-

कार्थप्रदानानंदितविद्वत्सुहृत्प्रणयिहृदय : पादचारीवसकलभुवनमण्डला-
भोगप्र ॥५॥ मोदःपरममाहेश्वर:श्रीगुहसेनस्तस्यसुतस्तत्पादनखमयूखसं
ततविसृतजान्हवीजलौघप्रक्षालिताशेषकल्मष: प्रणयिशतसहस्रोपजीव्य-
मानसंपद्रूपलोभादिवाश्रित ॥६॥ सरभसमाभिगामिकैर्गुणैःसहजशक्ति
शिक्षाविशेषविस्मापिताखिलधनुर्धर : प्रथमनरपतिसंमतिसृष्टानामनुपाल
यिताधर्म्मदायानामपाकर्तृप्रजोपघातकारिणामुपसृत्वा ॥७॥ नांदर्शयि-
ताश्रीसरस्त्यो रेकाधिवासस्यसंहतारतिपक्षलक्ष्मीपरिभोगदक्षविक्रमोविक्र
मोपसंप्राप्तविमलपार्थिवश्री:परममाहेश्वरःश्रीधरसेनस्तस्यसुतस्तत्पा॥ ८ ॥
दानुध्यात : सकलजगदानंदनाद्भुतगुणसमुदयप्रथितसमग्रदिङ्मंडल :
समरशतविजयशोभसंनद्धमंडलाग्रद्युतिभासुरतरयोधिजनगु ॥९॥ रूमनो
रथमहाभार: सर्वविद्यापरापरविभागाधिगमविमलमतिरपिसर्वत : सुभाषित
लक्षणोपिसुखोपपादनीयपरितोष:समग्रलोकभोगगाम्भीर्य्यहृदयोपि॥१०
सुचरितातिशयसुव्यक्तपरमकल्याणस्वभावशालीभूतकृतयुगनृपतिपथवि-
शोधनाधिगतोदयकीर्ति : धर्मानुपरोधोज्वलतरीकृतार्थसुखसंपदुपसेवानि
रूढ:धर्मा ॥११॥ दित्यद्वितीयनामापरममाहेश्वर : श्रीशीलादित्यस्तस्यानु-
जस्तत्पादानुध्यात :स्वयमुपेंद्रगुरुणेवगुरूणात्यादरवतासमभिलषणीयामधि
राजलक्ष्मींस्कंधासक्तपरम ॥१२॥ भद्रइवधुर्य्यस्तदाज्ञासंपादनेनपरतयैवो
द्वहतखेदसुखरतिसुमनायितसत्वसंपत्तिःप्रभावसंपद्वशीकृतनृपतिशताशिरो
रत्नच्छायोपगूढ ॥१३॥ पादपीठेपिपरावज्ञाभिमानरसानालिंगितमनोवृ-
त्तिःप्रणतिमेकांपरित्यज्यप्रख्यातपौरुषाभिमानैरप्यरातिभिरनासादितप्रति
क्रियोपाय:कृतनिखिल ॥१४॥ भुवनमोदविमलगुणसंहतिप्रसभविघटित
सकलकलिविलसितगतिःनीचजनाधिरोहिभिरशेषैर्दोषैरनामृष्टात्युन्नतहृ-
दय:प्रख्यातपौरु ॥१५॥ षास्त्रकौशलातिशयगणातिथिविपक्षक्षितिपति-
लक्ष्मीस्वयंग्राहप्रकाशितप्रवीरपुरुष: प्रथमसंख्याविगम : परममाहेश्वर:

श्रीश्वरयहस्तस्यतनय ॥१६॥ स्वःपादानुध्यातःसकलविद्याधिगमविजित-
निखिलविद्वज्जनमन :परितोषातिशयसत्वसंपदात्यागौदार्य्येणचविधृतानु-
सन्धानसमाहृतारातिपक्ष ॥१७॥ मनोरथक्षोभज्ञ : सम्यगुपलक्षितानेकशा
स्त्रकलालोकचरितगम्भीरभावोपिपरमनम्रप्रकृतिरकृत्रिमप्रश्रयविनयशो-
भाविभूषणःसमरश्च ॥१८॥ तजयपंडितकोदंडप्रबलोदग्रशरदंडविध्वंसि
तनिखिलप्रतिपक्षदर्पोदयःस्वधनु : प्रभावपरिभूतास्त्रकौशलाभिमानसकल
नृपतिमण्डलाभिनन्दि ॥१९॥ तशासनःपरममाहेश्वरःश्रीधरसेनस्तस्यानु
जस्तत्पादानुध्यात : सच्चरितातिशयितसकलपूर्वनरपतिरतिदुःसाधनाम
पिप्रसाधयितावित्रि ॥२०॥ याणांमूर्त्तिमानिवपूरूषकारःपरिवृद्धाङ्गगुणा
नुरागनिर्भरचित्तवृत्तिभिर्भनुरिवस्वयमभ्युपपन्न : प्रकृतिभिरधिगतरंगाक-
लापक्षांतिमान्निवृत्तिहेतुरकलङ्ककुमुदना ॥२१॥ थप्रभ : प्रतापस्थगित
दिगन्तरालप्रध्वंसितध्वांतराशिःसततोदितःसविताप्रकृतिभ्य : परप्रत्ययमर्थ
मतिबहुविधप्रयोजनानुबन्धमागमपरिपूर्णं ॥२२॥ दधान : सन्धिविग्रहस
मासनिश्चयनिपुणःस्थानानुरूपमादेशकृत्गुणभृद्भि : विधानजनितसंस्का-
रःसगुणराज्यशालागरीयस्तन्त्रयोरुभयोरपि ॥२३॥ निष्णात : प्रकृष्टवि-
क्रमोपिकरूणामृदुहृदय : श्रुतवानप्यधर्म्मविश्रान्तोपिप्रणतिस्थिरसौहृदयो
पिनिरसितरिपुवर्गाणामुदयसमयसमु ॥२४॥ पजनितजनतानुरागपरि
पिहितभुवनसमर्थितःप्रथितबालादित्यद्वितीयनामापरममाहेश्वरःश्रीध्रुवसेनः
तस्यसुतस्तत्पादकमल ॥२५॥ प्रणामधरणिकषणजनिताकिणलाञ्छन
ललाटचन्द्रशकल : शशिभावल्गुश्रवणनिहितमौक्तिकमालांशुरश्मामल-
श्रुतविशेषप्रदानस ॥२६॥ लिलक्षालितविग्रहः

परम ॥२२॥ माहेश्वर : परमभट्टारकमहाराजाधिराजपरमेश्वरचक्र
वर्त्ती श्रीधरसेनः

Translation.

It is well. He who dwells in the glorious metropolis, whose dignity was gained by a hundred conflicts which resulted in misery to a crowd of enemies, and by the unrivalled strength of friends who had been foes prostrated before his might; who was born of a pedigree which conciliated the affections it had gained by royal uprightness, respect and munificence, whose sin was thoroughly washed away by bowing to the lotus feet of his parents who were of a royal race in an unbroken succession from the glorious *Bhaṭṭarka* a worshipper of Mahá Iśvara, and prosperous in the kingdom which he had obtained by the force of numbers; who tore the furious elephant-like hosts of his foes with his second arm which from childhood was like a sword; a touchstone of manifested truth; the brilliancy of whose toe nails was from the rays of the jewels of enemies crests bowed to his power; who observed altogether the course of duty prescribed in the whole law; for whom the word "king" had its meaning for he gained the hearts of his people; who surpassed Kuvera, Ganapati, the ocean, the lord of hills, the moon and love, in wealth, wisdom, depth, firmness, lustre and beauty; the fruit of whose actions was cast away like grass in bestowing the gifts of security upon those who came to him for protection; whose heart was drawn towards learned friends who were made happy by the bestowal of more wealth than they desired; who received enjoyment from the whole world as one travelling through it; the worshipper of Mahá Iśvara, the glorious Guha Sena.

His son, all whose sin was washed away by the rays of his father's toe nails as by a stream of Ganga water diffused abroad; who was the residence of desire, beauty and wealth which supported a hundred thousand friends; who as an archer astonished all by the special skill of his innate power, and qualities which were quickly gained; the preserver of gifts made by the wisdom of former kings; the remover of portents which caused difficulties to his subjects; a manifestation of Sarasvatí, and Lakshmí who dwelt together in him; whose power was capable of gaining possession of the wealth of hosts of enemies;

who had pure, and regal power obtained by his power; the great worshipper of Mahá Is'vara, the glorious DHARA SENA.

His son, who meditating on his father's feet was celebrated in all the four regions for the number of qualities which astonished, and delighted the whole world; who had great influence over the desires of the best of warriors who were made more illustrious by the splendour of his sword arrayed, as it were, with the ornaments of the victories of a hundred fights; possessing an intellect which had studied the good and bad parts of all science; who was distinguished for his excellent speech; who found a delight in communicating pleasure; whose heart was a depth of enjoyment for all people; who was endowed with a most happy disposition; whose vast reputation was obtained by purifying the ways of the kings born in the golden age, unrestrained by slavery to his prosperity, pleasure, and wealth, which were the more illustrations as they were no impediments to duty; the great worshipper of Mahá Is'vara, the glorious S'ÍLA'DITYA surnamed DHARMA'DITYA.

His younger brother meditated on his feet; he was fit to bear, as if fortune were seated on his shoulder, the prosperity of a supreme sovereign which was equal to Indra's. His footstool was concealed by the lustre of the jewels from a hundred heads of kings who had been subjected to the prowess of his power; his mind was not embraced by the sentiments of pride and contempt; revenge was unattempted even by those of his enemies who despised celebrated men, and ceased to shew him courtesy; the forgotten course of the iron age was inverted by the force of his pure qualities which rejoiced the whole world; his large heart was unscathed by those vices which exist in vile persons; his heroism was manifested, and it took to itself the prosperity of hostile kings who became his guests in consequence of his large armies, the success of his arms, and his great reputation; he ever occupied the first place, the worshipper of Mahá Is'vara, the glorious IS'VARA GRAHA.

His son meditated upon his father's feet; all learned men were surpassed by his study of all the sciences; he knew the emotions by which the hosts of his collected foes were agitated after their investi-

gations into his magnaminity, abstraction from the world, wealth, excessive goodness, and happiness; he had a very humble disposition, and at the same time profound experience in men, arts, and various works which he thoroughly understood; he was delightfully adorned with the modesty of unartificial courtesy; the rising of the pride of all his opponents was destroyed by the chastisement of his arrows propelled by the force of a bow which had learned victory in a hundred fights; his edicts were delighted in by a multitude of kings the pride of whose success in arms was dispersed by the power of his bow, the worshipper of Mahá Is'vara, the glorious DHARA SENA.

His younger brother meditated upon his feet; all former kings were eclipsed by his good conduct; an accomplisher of the most difficult affairs he was, as it were, manly energy become incarnate; like Manu he was self-endowed with strong feelings, love of virtue, and a full-grown stature; bright as the lord of the lilies when he is without spot; a sun which is ever risen, by which the mass of darkness is destroyed when the sky is covered with its brilliancy; completely and accurately skilled in peace and war; accomplishing that which is produced by religious rites; of pre-eminent heroism and yet with a merciful and gentle heart; attending to the scriptures, and ceasing from sin; firm in his attachment to such as submitted, but prompt to repress his enemies before their prosperity gained head; the celebrated worshipper of Mahá Is'vara, the glorious DHRUVA SENA surnamed VA'LA'DITYA.

His son had on a part of the moon of his forehead a callous spot caused by rubbing the ground in bowing to his lotus feet; the effulgence of a string of pearls was attached to his ears which were beautiful as moon-light; his body was washed with the water of liberality according to the clear and pure scriptures..... .....The worshipper of Mahá Is'vara, the sage, the king of kings the mighty lord, the emperor, the glorious DHARA SENA.

ART. VI.—*A Geographical Description of certain parts of the Southeast Coast of Arabia to which is appended a short Essay on the Comparative Geography of the whole of this Coast.* By H. J. CARTER, Esq., M. S., formerly Surgeon of the H. C. Surveying Brig. "Palinurus."

Two excellent "Memoirs" of the Southeast Coast of Arabia, by Captain Haines I. N. now Political Agent at Aden, have already been published in the IXth and XVth Volumes of the Journal of the Royal Geographical Society, but these relate more particularly to the parts which Captain Haines surveyed. Since that the remaining parts of this coast have been surveyed by Captain Sanders and Lieutenant Grieve I. N., respectively, and a similar memoir of them is required to complete the Geographical Description of the rest of this Coast.

It is to supply this desideratum that I have arranged in a descriptive form the few notes I made during the latter surveys, and as Captain Haines' "Memoirs" relate more particularly to the parts he surveyed, so my description will relate more particularly to the parts surveyed by Captain Sanders and Lieutenant Grieve. I could have wished that it had been accompanied by more nautical information, but I left others who were better fitted from their profession to collect this than myself, and I must still leave this for them to supply. The latitudes, longitudes, soundings and outline of the coast will of course be found in the beautiful charts which have been constructed from these several surveys.

Being now tolerably well acquainted with this coast throughout both personally and through what has been written of it in modern days, I have attempted also to compare it with the little that remains to us of its description by the Ancient Geographers, and this short essay I have appended.

Previous, however, to understanding the latter, or taking much interest in the former, it will be necessary to possess the charts of this

coast which have been published by the East India Company and to read at least Captain Haines' two "Memoirs." The charts of the latter surveys are not yet published, but are I believe in the hands of the engraver and will appear soon.

With this short introduction I proceed to my subject, and as we left Maskat each year to enter upon the surveys of Captain Sanders and Lieutenant Grieve, will commence my description from that place, briefly noticing the features of the coast on to Ras el Had.

On sailing southward from Maskat we observe the land at first, broken up and thrown into all positions resembling the waves of a troubled sea; rising tier behind tier until it reaches its maximum height at a mountainous ridge called Jibel Fallah [1], forty or more miles inland. This ridge which is about 6,000 feet above the level of the sea [2], as we continue our course southward, gradually approaches the coast, and terminates on the sea-plain in the northern boundary of a remarkable opening called the "Devil's Gap"; it is here called Jibal Kariyat,[3] and is 6,228 feet high, [4]. Another ridge then commences forming the southern boundary, called Jibal Jābar which is continued on close to the sea to the town of Sur, where pursuing its original direction it leaves the coast-line again, while the latter trending eastward terminates in the low sandy plain of Ras el Had.

The "Devil's Gap" is the opening upon the coast of a great valley called Makalla Obār [5]. It is remarkable for its narrowness and the great height of the ridges on each side, which being frequently joined together by a streak of dark clouds forms a fenestral opening through which an extended view of the picturesque valley within is seen to much advantage. The neighbourhood of this opening is well known for sudden gusts of wind, which frequently threaten destruction to the most sturdy crafts.

After this the land which I have stated to gradually rise from the shore, becomes precipitous and within eight miles of the sea attains a height of 4,400 feet [6]. At first it is called Jibel Jābar perhaps

1 Wellsted's map, Trav. in Arab. Vol. I. 2 Idem.
3 قريات 4 Chart by Lieut. Grieve. 5 مكلة ابر 6 Lieut. Grieve.

after the Beni Jābar [1] who inhabit it; and then Kalhat [2] until it arrives at its termination close to the town of Sur; after this the coast turns to the eastward, and not rising more than 200 feet above the sea, terminates decreasing in height in the low sandy plain of Ras el Had.

Between the "Devil's Gap" and Sur, there are "no soundings more than half a mile off shore" [3], and here I may mention once for all that on this as well as on the southeastern coast, wherever the land is high close to the sea the soundings are deepest, and the rapidity with which the land shelves off and the depth of the sea are in proportion to the height of the adjoining cliffs, while the contrary is the case where the land is low and continues so for some distance inland. It may be taken as a rule that wherever the coast is low, there the sea is shallow, and wherever it is high it is deep. In lat. 22° 35′ N., and long. 59° 33′ E., is the town of Sur situated on the banks of a creek, and about ten miles further on towards Ras el Had are the entrances of two salt-water lagoons, the first of which is called Khor Jarāmah, and the second Khor Hajar.

Between the town of Sur and the entrance of the former, the sea cliff averages from fifty to seventy feet high.

Lieutenant Grieve, who surveyed this coast and to whom I am indebted for much valuable information repecting it, states:—"The entrance to Khor Jarāmah is from 200 to 250 yards wide, and bounded on each side by precipitous cliffs. The depth of the water from eight to ten feet, and the bottom muddy. After extending inland for about a mile and a half the channel becomes divided into two branches by a small rocky island, about the same height as the adjacent land, and then comes a spacious basin whose south and eastern shores are low, swampy, and overgrown with mangrove. On the S. E., the land is tabular to its termination, not only to Khor Hajar, but with the exception of a few hillocks to Jibal Saffan. A town once existed on the S. W. side of this lagoon, but is said to have been abandoned for want of water. A ruined town alone now marks its site. There are no in-

1 جابر 2 قلهت 3 Lieut. Grieve.

scriptions there. The anchorage is frequented by native vessels merely as a place of refuge during bad weather. It is in the territories of the shaykh of El Had" [1].

About a mile further on towards Ras el Had is the entrance to the other lagoon called Khor Hajar. This is very inferior to the former, it is much smaller and nearly all dry at low water. The entrance to it is through the extremity of the sea-cliff just before the latter sinks into the sandy plain of Ras el Had. The channel is ragged, about 100 feet wide, and its sides about twelve feet high. After a distance of little more than half a mile, it opens into a shallow basin about a mile and half wide, bounded on the western side by the tabular land mentioned by Lieutenant Grieve, and on the S. and E. by the sandy plain of Ras el Had. Like Khor Jarāmah its longest diamāter is east and west, and it runs eastward from its entrance.

At the eastern extremity of this khor are a number of ruins, and among them a large square building of modern construction, forsaken and also in ruins. There is also a little jetty or wharf at the eastern end of the khor which served as a landing place when, according to tradition, the khor was much deeper than it is at present. The ruins just mentioned do not appear to be the remains of buildings of any consequence, although they are said to be those of a very old town.

About 100 yards S.E. of them is the modern town of El Had [2], consisting of one square mud building in ruins, and two round towers, with a number of huts enclosed within slight fences of bullrushes.

The inhabitants of the place when we visited it, appeared to be all industriously employed in making and mending fishing nets, and the shaykh, by name Abdullah, was a young man of high cast of countenance, and of gentle and prepossessing manners. He treated us with much civility, and offered us every assistance in his power during the time we were at El Had. The Captain made him presents, and he supplied us with water. Two or three days were spent on shore here in measuring a base and obtaining the latitude of the cape.

1 Priv. M.S. 2 Gharkah, with Capt. Hames.

The people of El Had and its neighbourhood are called the Mualak.[1] I was struck with the absence of arms among them, hardly any but the shaykh wore even a jambea. They color their faces with turmerick and oil; this forms part of their morning ceremony or toilet after prayers, and they are desirous, of paying the same compliment to strangers.

Returning to the entrance Khor Hajar, and following the coast eastwards we almost immediately pass from the table-land between it and Khor Jarāmah on to the sandy plain of Ras el Had, and two or three miles farther brings us to the angle forming the cape itself called also Ras el Gat[2] or the lowland cape. The latter is marked by the tomb of a shaykh said to have been called "Farrah," it merely consists of a simple ridge of masonry surrounded by a heap of stones. About a mile inland from the cape lies the town of El Had.

From this cape may be seen two remarkable mountains called Jibal Saffan which I shall presently describe, bearing about six miles south; the mountainous group called Jibal Kims[3] about S.S.W.; and Jibal Jallan[4] about S. W. by W.; the latter are the continuations southward of Jibal Kalhat and are the southern termination of the great mountainous range on this side of Arabia.

The soundings opposite Ras el Had deepen rather suddenly as well as I can remember, and when we were there a strong current sat to the eastward. It is famous for large fish, we caught the largest cod there of any on the coast and all the other rock-fish taken were proportionably large, almost gigantic.

Proceeding southward from Ras el Had, for the coast now runs due south, the sea-cliff after a distance of three miles commences in the sandy plain with a few scattered rocks much as it ended on the western side, and soon reaching a height of 100 feet maintains this with the interruption of a short break or two here and there all the way to Ras el Khabba, a distance of twenty miles, where the coast, turns again, to the southwest.

1 الموالك 2 غايط؟ 3 كمس 4 جعلان

In passing along this short extent of coast, which has an eastern aspect, we obtain a full view of the two mountains called Jibal Saffan, for they lie within a mile and a half of the shore. They are very remarkable, for they are the only mountains on this extremity of Arabia, and are eight or nine times higher than the rest of the land. Lieutenant Grieve makes them 855 feet above the level of the sea. They are extremely similar in their appearance and from their proximity to each other being but a mile and half a part, they merit the name of "Twins" more than any double mountain I ever saw. The northernmost is the most westward and therefore a notch is seen between them in sailing round this extremity of Arabia both north and south. They are coin-shaped and their scarped white surfaces present towards the west, while their more gradual inclinations tend eastwards or towards the sea; around them are a few low hills but beyond these there is nothing much above 100 feet. As a mark for Ras el Had or this extremity of Arabia they are unmistakeable.

From Ras el Khabba the coast as before said turns S. W., and soon becoming low and sandy continues so with the exception of a few hillocks at Ras el Rues, and a few rocks at Ras Jibsh, on to Ras Abo Ashrin, a distance of 100 miles. The chief character of this coast is its uniformly desolate sandy aspect. After the mountainous groups of Kims and Jallan nothing more is to be seen inland to the westward much above 100 feet and seldom even a mound so high as this on the coast.

The next cape to Ras el Kahbba proceeding southwestward is Ras Rues, consisting only of a few sandy hillocks, and between these two points, a distance of about three miles, is a little bay called the bay of Rues, while behind the cape, concealed from the sea, is a village of the same name inhabited by a few fishermen of the Beni Bu Ali[1] tribe. It was from thence that we obtained the pilots who conducted us through the channel between the island of Masira, (to which we shall soon come), and the mainland.

3 1

1 بوعلي

11

2

From Ras Rues the coast continues low to Ras Gomailah the next projecting point, and so on to Ras Jibsh. The town of Lashkarah, the principal one on this coast, lies about eight miles S.W. of Ras Gomailah.

After turning Ras el Khabba[1] the mountains of Jallan or Jibal Jallan become very conspicuous; they are about 3,900 feet high, and towering behind them is seen the mountainous ridge of Kalhat, while in front is a number of low sandhills and cones extending more or less on to Ras Jibsh. The latter are about five or ten miles inland. Jibal Jallan is about twenty miles from the shore.

In the map which accompanies the late Captain Wellsted's travels in Arabia, a "low ridge of lime-stone hills 200 feet high" is placed westward of Jibal Jallan; and beyond Ras Jibsh "sandy mounds topped with acacias." Messrs. Cole and Rankin who travelled from Jallan to Ras Jibsh, informed me when they arrived on board that they had passed over nothing but sand-hills and barren ground. Still farther westward of Ras Jibsh towards the Desert of Akaf, Captain Wellsted has placed "plains covered with a saline effervescence," so that all trace of mountains appears to be lost here on an increasing barrenness.

We now come to Ras Jibsh. This cape is about fifty-four miles from Ras el Khabba, and consists of a little ridge covered with white sand nearly to the top, where the dark rocks of which it is composed shew themselves in irregularly formed peaks and mounds. They are about 100 feet high. From their extremity a low reef extends outwards into the sea, and inside it is a small bay with water enough for fishing boats to land safely. This is called the bay of Jibsh. Formerly it is said to have extended a long distance inland behind the ridge mentioned where there still exists a lagoonal depression about two miles square, but now raised twelve feet above the level of the sea. The village of Jibsh is between this and the ridge, and consists of a few fishermen's huts built of the midribs of date-leaves. Jibsh is inhabited by the Janabah,[2] a cognate tribe of the Beni Bo Ali; they affirm that formerly Bagalos came into their harbour when the lagoonal depression mentioned, was covered with water.

1 Lieut. Grieve. 2 جنبه

From our station twelve miles S.W. of Ras Jibsh, we could see the highest points of Jibal Jallan and Jibal Kalhat but no other high land, even from the mast-head, in any other direction. Jibal Jallan must have been fifty milles off, and Jibal Kalhat at least seventy or eighty. The country over which we looked is called the Baten, or flat land; it must I think pass into the Desert of Akaf.

From Ras Jibsh to Ras Abu Ashrin, the aspect of the coast is more desolate than ever. Not a cone or elevation either inland or on the sea disturbs the uniformity of a continued wavy land about 100 feet high which appears to exist throughout; saving a little group of black huts on the shore called Nayah, there is not a particle which seems to differ from the general light brown color of the coast all the way to the neighbourhood of Ras Abu Ashrin.

About six miles however before arriving at this cape, there is a remarkable change. At intervals there is a sea-cliff varying in height to 100 feet, while in shore there are nothing but domes of white sand about 200 feet high like snow, smooth and frequently so hard on the surface that a man can walk over them without sinking. There is a place here also called Shebalah inhabited by the tribe of El Whebah, of whom I shall speak directly.

The tribes who possess the coast from Ras Rues to Ras Abu Ashrin, are the Beni Bu Ali, the Janabah and El Whebah.[1] I have already stated that the Mualak occupy El Had and its neighbourhood. The territory of the Beni Bu Ali extend sfrom Ras Rues to Ras Jibsh, but they are much mixed up with their cognate tribe the Janabah. Towards Ras Jibsh the inhabitants are nearly all Janabah, and continue so on to the neighbourhood of Ras Abu Ashrin where they join the Whebah.

Inland to the west of Jibal Jallan, are the Beni Bu Hasan,[2] the Beni Rashib,[3] the Hashem,[4] Mashakarah[5] and Ammar[6] and towards el Had, the Hajariten,[7] Hareth,[8] Habosh[9] &c. About Sur are the

1 وهيبه 2 بوحسن 3 راشب 4 الهشم 5 مشاكره 6 عمر 7 حجرتين
8 حرث 9 حبوش

Janabah,[1] Hoājar and Sinan,[2] and on Jibal Kalhat as already stated the Beni Jabar.

We received more attention from the Beni Bu Ali than from any other tribe, during the survey of this part of Arabia. They are religious, warlike and hospitable. The old Amir, who is the only remaining chief of those who were taken prisoners to Bombay in 1821, after the tribe had been nearly annihilated by the force under Sir Lionel Smith, was the only person in this part of Arabia who dared give us a pilot, to conduct us through the Straits between the island of Masira and the mainland. Although at the time I am speaking of very much afflicted with the infirmities of age, he would come on board to see the Captain, when the "Palinurus" was anchored off Ras Rues, and left with us two men, Hamed and Nassar, whose conduct afterwards in keeping good faith, and in the performance of their duties as pilots, was the admiration of all, and surpassed all praise that could be bestowed on them. Doubtless it was their religious regard for the old Amir that induced them to submit for so long a time and without murmur or dissatisfaction, to the many discomforts which their new mode of life on board an English ship with none but Europeans, must have entailed on them.

The providing of us with these pilots, however, had very nearly led to a breach between the Beni Bu Ali and Janabah, as the latter consider the Straits between Masira and the mainland peculiarly their own. They openly declared that they would go to war with the Beni Bu Ali the moment we left the shore, and although it is probable that they did not carry their threat into execution, still they cannot be otherwise than displeased with them for having allowed us to obtain through their assistance, a knowledge of a channel which offered to the Janabah a safe retreat in cases of piracy or other offences when pursued by an English vessel.

The admiration of the Beni Bu Ali for the English is unaccountable after the extent to which they were slaughtered by the force men-

[1] هوا جر [2] سنان

tioned; their chief topic of praise is that their date-groves were not destroyed, or the tribe would have inevitably been annihilated.

The Beni Bu Ali are much more under the influence of their chief than any other tribe on this coast. Generally speaking on the south-east coast of Arabia, the Beduins acknowledge no authority in matter of dispute, though they admit priority of descent. The consequences of the "blood-feud" alone seem to restrain them from lifting their hands against each other, and this not often.

The Beni Bu Ali are Wahabis, and are strict in their religious observances. They do not smoke tobacco or wear the rosary, and are opposed to raising monuments over the dead. They hold the praying of their neighbouring tribes in great contempt, saying that they only throw their arms backward and forwards and touch the ground with their heads, but say no prayers. The Amir of the Beni Bu Ali enforces under threat of corporeal punishment, or even death, implicit obedience of his tribe to the catechism and laws of Abd el Whahab and his followers.

The countenances of those whom I saw, were peculiar. They were all middle sized men with shortish features, quick deep set, piercing eyes, and determined expression. They wear their hair long and flowing over the shoulders, but confined round the head by a leather cord. Their dress consists of the common Arab-shirt, and around their waist a broad leathern girdle buckled in front. Attached to this girdle are horns of the female gazelle, indeed the whole girdle is nearly made up of them, arranged perpendicularly side by side, and each contains a charge for a match-lock. In addition to this, the girdle has a pouch for spare bullets, and one for flints and tinder; a steel also in the form of a compressed ring is suspended to it by a long string; while round their neck is a leathern loop to which is attached a powder flask which hangs down between their shoulders, and is made out of a goat's horn ornamented with silver.

Having mentioned the principal tribes which inhabit this angle of Arabia, I will now briefly state the information obtained respecting the towns and villages of those who live on the coast.

The village of Rues I have mentioned. Next to this comes Laskhara, the largest by far on this coast. I have before stated that it is about eight miles S.W. of Gomailah; it contains about 200 houses and about 1,000 inhabitants, most of whom are members of the Beni Bu Ali tribe. They have several boats.

The next place worth mentioning is the village of Jibsh, which as before stated, is inhabited by Janabah, and consists of a few huts scattered over the sand behind the ridge of the cape. These are about a mile inland and situated on an exposed cheerless waste. They are built of the midribs of date-leaves both walls and roof, and are about six feet square; sparingly furnished, for they contain nothing more than an earthen jar or two for cooking and for holding water; the soft sand which forms the floor serving for both bed and bedsted. The fuel of the Janabah here which consists of the dried herbaceous shrubs of the desert, is kept from blowing away, by a large meshed net fastened over it to the little hut, so bleak and exposed is the situation.

The inhabitants subsist almost entirely on fish with the addition of dates, and a little rice when they can obtain it. The dates are brought from the interior on camels in exchange for dried fish. They procure the rice by the sale of shark-fins and other dried fish at Maskat, or from the Nakodahs of vessels trading along the coast.

Miserable, however, as their condition appears to be they contrive to get wealth enough to ornament their wives with silver armlets, necklaces, &c., and within a few hours can manage to assemble a very fair display of sheep, as to number; all ewes which they keep for milk; only one or two rams are kept, the rest are devoured almost at their birth. The pasturage here consists of a sweet kind of grass which grows in tufts just above the sand; these tufts consist of the matted fibres of old roots, which extend deep into the ground and are sparingly scattered here and there.

The people of Jibsh were so much frightened on our approaching the shore that they had laden their camels with their ropes, sails, fishing nets, &c., and were on the eve of starting when one of our Beni Bu Ali pilots leaping into the water, swam to the shore and assured them that we were not going to harm them. Their women

and children, sheep, camels, and all that they had of any value, were prepared ready for flight.

I endeavoured to find out from them during the two days I passed on shore, if the country round was much inhabited, but could obtain no satisfactory answer. They did not know or evidently exaggerated the number of inhabitants from fear. A Beduin who had just arrived from the interior, answered my questions by taking up a handful of sand and carelessly dropping it, meaning me to infer, that they were as plenty as grains of sand; another said there were no people at all to the westward, and a third whose answer was probably the most truthful of all, stated that he knew nothing at all about it.

The Janabah whom I saw here, were rather undersized, not bad looking though thin and ill fed. They were all very dark and wore their hair and were dressed, like the Beni Bu Ali. The fishermen of the coast, however, were of a lighter color than the rest; their heads were long and compressed; their foreheads high, but with the hairy scalp extending much over them. The nose particularly Jewish, and the septum nasi considerably beneath the nostrils or the latter elevated. They are all "wreckers," and consider every thing that stands on this coast the property of the tribe to whom the part of the coast belongs. It would be well for many perhaps if they kept to this, but the probability is that they are no more content with it alone than the Beduins on shore with what they can honestly obtain. If the truth were known, I expect the Janabah are the worst characters on this coast.

Next to Jibsh, with the exception of the few huts close to the sea called Nayah, also inhabited by Janabah, comes Shebala.[1] This place or group of huts, is situated among the white sand hills mentioned, close to Ras Abu Ashrin. It is inhabited by the Whebah. Their huts are constructed just like those at Jibsh, and of the same material. The Whebah tribe is said to extend from this cape up to Maskat, which means I suppose a long way inland in that direction.

1 شبله

When we approached their shore, in one of the ship's boats, the inhabitants who had been watching us like the people at Jibsh, were seen wading with their camels over the sand hills as fast as the nature of the ground would allow them, so that when we landed there was not a soul to be seen. At length two men made their appearance on the top of one of the hills, and slowly descending approached us with great caution, and seated themselves at a distance. Our Beni Bu Ali pilot then addressed them, and after a short conversation in which they were made to understand that our visit was a friendly one, they came and sat by us, and this being a signal for the rest who in all probability were peeping over the tops of the hills at a distance that there was no fear, the whole party soon returned and tranquillity was re-established. They then told us that they had fled under the idea that we were in league with the Beni Bu Ali and Janabah, and had landed to plunder them. Having come to a proper understanding, oaths were taken on both sides that person and property should be respected while we remained there, and the usual business of buying sheep and taking observations commenced, the former assisting greatly towards reconciliation.

The Whebah like the Beni Bu Hassan are said to be subdivisions of the great tribe of Hanāwi, while the Beni Bu Ali and the Janabah are descended from the Beni Ghrafir.[1] The territories of the former extend from Ras Abu Ashrin where they have a few miles of sea-coast, northwards towards Maskat, and their Shaykh, whose name in 1845 was Nassar Bin Ali, is said to reside at a place inland called Sidirah.

They informed us that the land towards the N. and N. W. was all sand-hills, and that half the way to Maskat it was the same; also that towards the W. and S.W. there were neither inhabitants nor water, all was sand.

It would appear that the Whebah inhabit the eastern borders of the desert of Akaf, and next to them eastward come the Beni Bu Hassan, and then the Beni Bu Ali and Janabah. The two former are allies of the Imaam of Maskat, the two latter his adversaries; the former are of the orthodox religion, the latter Wahabis. Hence there is great enmity

1 غافر

of feeling between the two parties and the poor Whebah on the little coast, they possess get much persecuted by both the Beni Bu Ali and Janabah. By the former perhaps more on account of their religious differences, by the latter from jealousy, arising from the advantage they haves in being able to fish on the coast, and perhaps keep up a kind of espionage there. As to religion, I hardly think the Janabah have any, at least if they might be judged in this respect by their outward observances; if they incline to any particular sect it is probably to the Wahabis from their intercourse and relationship with the Beni Bu Ali.

The huts of the Whebah and their means of subsistence are similar to those of the Janabah at Jibsh, but the people are much better looking and more gay and playful. The same was stated to me of the Beni bu Hussan by Mr. Cole who visited this tribe, while the Beni Bu Ali were gloomy and determined in their expression. Some of the Whebah girls were exceedingly pretty, and unlike the Beni Bu Ali, the women of this tribe do not conceal their faces, so far as we saw. Many of the young women were engaged in making rush basins commonly used by the Beduins for holding milk or water. In doing this they wear pendent from their left wrist a little basket in which are coiled the slender rushes ready for use, and thus with both hands free they continue to work either walking or sitting or while conversing, much after the way in which knitting is done among more civilized people.

The Whebah have but few boats, and being very poor are obliged to have recourse to the inflated skin called *kirbah*, (vulg. *girib*). The inhabitants of Sindh on the Indus use a large earthen pot; on the Malabar coast and at Madras the poorer classes use a piece of wood or two roughly bound together called a "catamaran", for a float; but here, where they have no clay to make earthen pots and no wood to make catamarans, they substitute the skins of sheep.

The *kirbah* is commonly used by the inhabitants of this coast, from Ras Rues where I first saw it to the village of Hasek, in Curiyah Muriyah bay. But with the poor Whebah at Shebalah

its use is seen in perfection. So soon as a shoal of fish, to wit "sardins," is viewed from the heights by those who are watching for them, the whole assemble and seizing their skins and castingnets rush to the water's edge. Here the skin is quickly soaked and inflated, after which the hind and fore legs are tied together with a string. Thus prepared they step into the ring and slipping the skin up towards the lower part of the stomach, throw their castingnets across the left shoulder and wading into the water up to their necks, sit upon the string which rests against the back part of their thighs, and thus paddle away with their hands to the place where the fish are. In this way I have seen as many as twenty at a time enter the water and swim out to a distance of two miles. When they have arrived among the fish they throw their castingnets, and gathering them up return to the shore with what they contain, having no means of securing the fish on the spot.

To give some idea of the poverty of these people I may mention that their castingnets were made of cotton twisted into the coarsest cord, and the sinkers attached to their circumference, instead of being composed of small pieces of lead, consisted of stones half as large as a man's fist with holes in them. Lieutenant Wellsted speaks of the Janahab fishing for sharks on the *kirbah* on this coast [1].

From Ras Abu Ashrin, in lat. 20° 58′ N. and long. 58° 44′ E. we stretched over to the island of Masira, about sixteen miles nearly due south, and there anchored off Ras Alf the N.E. end of this Island. Not, however, without the Whebah having earnestly persuaded us not to go on shore there, as the Janabah, the inhabitants of the island, whom they considered the most treacherous and wicked people in the world, had sworn to murder the first boat's crew who landed on it.

Of this, however, we took no heed, although we were not without suspicion; but the Whebah were right, the Shaykh of Masira, Salim bin Hamed, had resolved to meet us with the reception mentioned, and would have done so but for the interference of his nephew the Shaykh of Sur, who came down on purpose from that place to com-

1 Trav. in Arab. Vol. I p. 79.

pel his uncle to withdraw his opposition; and the latter did so, but most unwillingly for he continued to evince his displeasure towards us, by never coming near us during the whole of the time the island was being surveyed. The Shaykh of Sur's interference was a matter of policy no doubt, on account of the number of bagalos trading between Sur and Bombay, and Arab-like, he concluded that any offence offered to the crew of the "Palinurus" by his uncle, would be visited on the head of the first of the family that the Company or the "Sirkar" as they term it, could lay their hands upon. This probably induced him to become our mediator, and to keep us privately informed, which he did, of every thing that was going on at Masira.

Without following the line of survey all round this island which would be tedious here, I will immediately proceed to its description.

Masira is of an irregular oblong form, constricted in the middle, and narrowed at each extremity. Its longest diameter is N.N.E. and S.S. W., and amounts to thirty-five miles; and its greatest breadth is nine miles, while its shortest breadth in the centre is only four miles and half. A chain of mountains traverses it longitudinally, from which long ridges extend to all the principal capes, and shorter ones branch out almost all over the island. The highest mountain is only 600 feet above the level of the sea, it is in the N.E. half of the island, and is called Jibal Madrub [1]. At a distance these mountains have a conical appearance but on closer examination are found to be rocky, and irregularly pointed. I saw no lava in the island the whole time I was there. The rocks geologically speaking are chiefly of primitive greenstone, serpentine, trap and basalt, with here and there limestone. In the N.E. half of the island there is a tabular tract of limestone about two miles long, and half a mile broad raised upon the greenstone, about 400 feet above the level of the sea. It contrasts remarkably in its horizontality and color, with the dark rugged igneous rocks around and beneath it. There are other small patches of limestone similarly

[1] مضرب

situated; and at the S.W. extremity of the island is a mountain of it. The plains of the island are sandy, and mostly confined to its inner side, where they extend from the base of the mountains to the sea, above which they are only raised a few feet.

So far as vegetation goes, the island may be said to be almost barren. There is hardly any trace beyond a small herb or two on the mountains, and on the plains nothing beyond a few dwarf babal and tamarisk trees, some herbaceous shrubs, and the matted tufts of grass before mentioned, scattered here and there. A small garden exists in the centre of the island from which we got a pilgrim's gourd, and here and there about half a dozen groups of date-trees in not more than three of which are there fifty, and in the rest hardly more than half a dozen in each, all looked ill-watered and ill-nourished.

The wild animals consist of gazelles, and small gray rabbits exactly like the English wild rabbit but not more than half its size. The domestic animals are sheep, goats, dogs, cats and fowls. Sheep and goats are few from the want of pasture, and an old wrinkled bull which was presented to us for our Christmas dinner, was the only head of cattle on the island. Good water is to be obtained throughout the year, a few feet below the surface on the inner side of the island towards its centre.

The inhabitants live chiefly on this side, it is most sheltered and offers most plains. They are with the exception of a few families of the tribe of Hakiman[1] (Okman?) all Janabah, and may number about 1000 souls.

Their food consists chiefly of fish, turtle and dates, and occasionally a little rice and flesh, but the latter are considered great luxuries and fall to the lot of very few. It is customary for many of the women and children to frequent the rocks daily at low-water to eat shell-fish. This they are said to do more particularly when their husbands are away, and they have no one to catch other fish for them. Our Masira pilot Dalkhan, on landing, always went to the rocks and ate a species of shell-fish called chiton, as people would eat bread, and yet

1 عكمان

his rations on board were both in quantity and quality far superior to any thing he could have ever before met with. The island of Masira abounds in the bones of turtles which are strewed over its surface; this shews how much the inhabitants live on them; but the dish of which they are most fond, consists of boiled gray mullet. These fish frequent the shores in large numbers, and as the breakers curl over, are seen through them, ready to swim up with the wave, and feed on the worms washed out of the sand; at this time the fisherman rushes into the froth and foam, when the mullet cannot see him, and casts his net, in which he is almost always sure to enclose several.

On the inner side of the island are several small groups of huts. Coming from the N.E. are Argit [1] and Dua, [2] and then Om Rasas, [3] Safaij [4] and Sur Masira. [5] Om Rasas is the only place worth mentioning. It contains a round mud tower, and several houses, and probably about 500 inhabitants. It is situated about the centre of the island opposite an offset of the main channel. The shaykhdom of Masira belongs to the family of the shyakh of Sur, hence there is much intercourse between these two places. Among the perquisites of the shyakh of Masira, are said to be the heads of all turtles and porpoises caught around the island, as one of the perquisites of the shaykh of Raidah a town on this coast near Ras Bagashwa, is said to be the unborn young of sharks caught near that place.

At Om Rasas there is a Lutean, a member of the Kojah cast (500 of whom live at Mutarah near Maskat), who acts as Banian or Merchant, and Banker. He supplied us with rice and was very civil to us.

The staple articles of the island are shark-fins, dried shark and seer-fish, and *dibbal* or the horn of the inedible turtle. A good set of shark-fins will sell for four or five dollars at Maskat, and the horn of a large turtle if of good quality from ten to eighteen dollars.

The inhabitants of Masira have four bagalos, twenty large badans, and thirty fishing boats.

There are many veins of copper ore in the island of Masira, and

1 عرجيت 2 دوة 3 ام رسيس 4 سفايج 5 سور مصيرة

they have been slightly worked; for an account of these I must refer the reader to Art. VII. No. XI. of this Journal.

The S.W. half of the island is nearly uninhabited. It is here that the few families of the tribe of Hakiman or Okman, who people the bay of Hashish on the oposite coast, reside, at a place called Gairen or Karun about eight miles from Om Rasas. The extremity of this part of the island which is called Ras Abu Rasas is the resort of fishermen during the fair season to catch and dry and salt seer-fish and make porpoise oil. The seer-fish abound at this cape and are caught with a hook and line or in a sein as mackarel are on the coast of England when they pursue the "bait" or small-fry close to the shore. Indeed the seer-fish is in appearance but a mackarel, of a much larger growth, being sometimes four or five feet long. It is extremely rich and of a delicate flavor, hence its Persian name *shir mahi*, or milk-fish.

The turtles abound between Masira and the mainland, but more particularly in the neighbourhood of Ghobat Hashish, where they are said to almost swarm. There are two kinds, the edible, probably *Chelone mydas*, and the inedible *C. imbricata* or hawks-bill turtle, both common to the Indian Ocean. They grow to much about the same size, one of the former for which we gave two rupees weighed 266 lbs. The latter, or inedible turtle as it is termed from being much less fleshy and much less fat, yeilds the turtle-shell of commerce. They are caught by being turned on the back when they come on shore at night to lay their eggs, or harpooned in shallow water, with a barbed loose spear-head fixed to the end of a long bamboo. The spear-head catches in their back, and having a small rope attached to it the turtle is thus pulled on board. The inedible turtle is much scarcer than the edible one. I did not see a specimen of the former all the time I was at Masira, though many pieces of its shell were brought on board for sale. It is taken off the carapace by lighting a fire under the latter; the carapaces of both species are used by the Arab-fishermen for fire-places in their boats.

Ambergris is also sometimes found on the shores of Masira as well as on the opposite coast. While we were anchored off Ras Abu Rasas a Beni Bu Ali fisherman ran his boat alongside and through

my scuttle handed me a piece worth upwards of a hundred dollars, judging from its weight. He stated that while shark-fishing on the coast southwest of Masira he had gone on shore with two or three others, and had found some Beduins hacking a large mass of it with their swords, who not knowing the value of it, allowed them to take it for a few dried fish. The portion handed me by the Beni Bu Ali was his share of it. It was evidently the segment of a large sphere formed of thin layers, consisting of the ink and undigested beaks of cuttle-fish held together by a substance like cholesterine. I was struck with the analogy that it bore to the hair-ball found in the ox's stomach, particularly when I considered the close relation that exists between the whale (*physeter maccocephalus*, from whose intestines it is said to come), and the ox. This coast abounds in the sperm whale and several other species of cetacea, and of course with myriads of cuttle-fish and cephalopds of all kinds on which the former feeds.

It is stated by the Arab fishermen that sharks are so fond of Ambergris that wherever there is a piece floating, for it is very light being resinous, it is almost sure to be surrounded by several sharks gnawing at it. Once while fishing in the straits of Masira we saw something floating a few yards off, and great fish biting at it; when one of our Beni Bu Ali pilots who was with us, suddenly leaped into the water and swam to it. He told us after his return that he thought it had been a piece of ambergris but it turned out to be a dead cuttle-fish, much to his disappointment.

The channel between Masira and the mainland is about ten miles wide, and so shallow that the greater part of it is nearly dry at low water. It gradually deepens from the mainland, (which is here on a level with the sea,) outwards, so that the only navigable part is found close to the island of Masira. Channels of course exist in the other parts, but these are more or less shallow and irregular in their course. There are several islands in it; some of which only appear on the receding of the tide, and others only prove their positions by the ripple over them. Opposite Om Rasas there is a long sandy island covered with mangrove, on the borders of which are myriads of wading birds,

such as Flamingos, Curlews, Plovers, etc. who assemble there to feed at low-water.

Further towards the S.W. are two other islands formed of black basaltic rocks.. One, the largest, is about 100 yards long and formerly was covered with guano, but with the exception of a few cart-loads, then scraped together there, the whole had been carried away. The inhabitants told us that it had been carried to Makalla and to places on the coast and in the Red Sea, to manure tobacco ground etc. Here and there rocky reefs come very near the surface in this channel, between Ghobat Hashish and the S.W. extremity of the island of Masira.

On the outer or sea side of Masira there is nothing remarkable but the headland called Ras Jah, which is the extremity of a great spur from the main range of mountains, extending outwards from the N.E. half of the island, and again a little to the N.E. of this is a small island close to a cape, called after it Ras Jazirah.

The climate of Masira and that of the opposite coast when we were there, during the months of December, January and February 1845-46, was very delightful. The temperature seldom exceeding 72° and 74°. Fahr. in the gun-room. Captain Wellsted states (Travels in Arabia Vol. I. p. 81) that invalids from Maskat frequently come to reside in this direction for the benefit of their health, probably during the winter months, for during the summer it must be intensely hot, since there are no rocks, no trees, nor anything else on shore to afford shelter from the sun's rays direct or reflected.

As to the religion of the Janabah at Masira, it is almost impossible, as I before stated, to say what it is from their religious observances. I never saw any of them say their prayers. Our Masira pilot Dalkhan never said any prayers, nor did I ever see any of the Whebah say their prayers, nor any of the tribe of Hakiman whom I encountered. Moreover, an elderly man of the latter, whom we met at Gairen and who shot a Gazelle for us there, ate heartily off a piece of a salt beef we had brought on shore, he and his children, and took the rest home. The absence of religion and religious observances among these tribes is not to be wondered at, for the inhospitable nature of the country

they inhabit would effectually oppose any continued attempt at their instruction or enlightenment. Nothing but such fanaticism as existed in the early part of the Mohomedan era could induce people to come and dwell in such a place and among such tribes for the purpose of teaching them their religious duties, and we see how long this has lasted.

Let us now return to the mainland, to Ras Abu Ashrin which we left, and continue our examination of the coast south-westward. Up to Ras Abu Ashrin, although we had long lost sight of all mountains inland, yet the coast continued upwards of 100 feet above the sea. We now come to a part where it is nearly on a level with it; the only instance of the kind unbacked by mountains on this coast.

This flat land which is opposite the island of Masira is continued on from Ras Abu Ashrin to Ghobat Hashish, a distance of thirty nine miles, where the same kind of sand-hills are mêt with as those at Shebala, most probably a continuation of them, limiting inside the flat land, which presents nothing remarkable beyond a few scattered bushes of tamarisk and salsola, and a few tufts of grass and rushes.

To ascertain that there was no highland in the neighbourhood, I took particular care while on some of the most elevated parts of Masira to examine the in-shore horizon both with my naked eye and with a telescope, and I saw nothing whatever but a vast extent of white sand-hills bounded by a misty horizon. I have already stated that the high mountains of Jallan and Kalhat were seen from the deck at our station twelve miles S.S.W. of Ras Jibsh, that is a, distance of 70 or 80 miles, while from the highland of Masira which is at least 400 feet above the level of the sea I could discover nothing above the common level of the country inland. It is as I have before said to this part of southern Arabia that the Arabs give the name of Baten or low flat-country, it forms the south-eastern part of the great desert of Akaf.

From Ras Mashub, which corresponds to Ras Abu Ashrin in being the south-western extremity on the coast of the flat just mentioned, and the last point of the mainland opposite Masira, the coast trends westward, and continues in this direction for about twelve miles, when

it again turns to the northward, and after six miles more, ends at Ras Shijar, the eastern point of the entrance to the bay called Ghobat Hashish. The shore thus described forms the southwest boundary of the flat land between Ras Abu Ashrin and the bay last mentioned. It was here that the American ship "Peacock" grounded and was set upon by the Beni Hakiman, some members of whom came on board the "Palinurus" and told us that they were of the party, and were surprised that as the vessel had stranded on their coast they were not allowed to claim her. They seemed to be very cheerful people and expressed themselves very glad that we had come over to their coast, for they had been impatiently waiting for us ever since they had heard the nature of our duty. It was therefore a great disappointment to them when they were told that we were going away immediately. Captain Sander's object having been merely to carry his triangulation from Masira to the mainland and then bear up for Aden, to get fresh provisions, for scurvy had broken out among the crew. I therefore did not see Ghobat Hashish [1] which is the only part of this coast that I have not seen.

Lieutenant Grieve, however, who returned to survey it the following year kindly favoured me with a sketch of it, and some observations on the nature of the surrounding land which will enable me to describe it almost as well as if I had been on the spot.

Returning then to Ras Shijar the eastern point of the entrance to Ghobat Hashish, the coast curves inwards and northwards from it for about ten miles, in a circular form, and then outwards again to Ras Ghidau, the opposite or western limit of this bay, which is eight miles distant from Ras Shijar. In the space thus described which is nearly dry at low water in its inner half, there are three islands, called respectively, Ab, Mahut, and Rak.

Lieutenant Grieve states that Jazirat Ab, which is situated towards the opening of the bay, "is a small rocky islet frequented only by natives for curing fish."

[1] حشيش

"Jazirat Mahut is a low island" about two miles long by one broad, "covered with Mangrove Bushes [1] and surrounded by mudflats which are dry at low water. It contains about 130 huts and 500 inhabitants of the Beni Hakiman (Okiman?)[2]. This tribe is scattered over the country from Ghobat Hashish to Suadi, a town about thirty miles west of Maskat. They are numerous but not powerful. Their chief's name is Nassar bin Saed." The Beni Hakiman inhabit the coast as far as Ras Sarab, twenty miles from Ras Ghidau, and from Ras Sarab to Ras Hammar, a distance of twenty five miles, are the Wahebah, after whom come the Janabah again. The Wahebah must not be confounded with the Whebah, they are two different tribes, separated from each other on the coast by the Beni Hakiman.

Leaving Ghobat Hashish, we find the coast running nearly due south for 100 miles, to Ras Jazirah, and curving at the same time a little westward between these points, in scollops, between which again are the headlands about to be mentioned.

The first, after Ras Ghidau at the entrance of Ghobat Hashish, is Ras Mintot, then comes Ras Sarab where Lieutenant Grieve states there are "a few huts with about 100 souls of the tribe of Wahebah whose chief's name is Khalfin bin Ali." After this, Ras Kabret, where there are a few miles of sea-cliff about 300 feet high, the first *bona fide* sea-cliff we have had since leaving Ras el Khabba near Ras el Had. (We have now returned to the white or fawn colored compact lime-stone of this coast, latterly we have had nothing but white loose calcareous sand). There is a break now, after which the cliff is again continued on almost uninterruptedly to Ras Jazirah. Opposite this break is the small rocky island of Hammar el Nafur, about three miles off shore. This island Lieutenant Grieve states, "is about 400 yards long by 300 broad, and 300 feet high, and of a white aspect. The summit is flat and split in all directions. Myriads of shags frequent it, and there is an accumulation of guano on it which is occa-

[1] It is probably from this circumstance that the bay gets its name of "Hashish," *herba*. We took in a cargo of wood from this island, while at Masira, which contained the largest trunks of Mangrove trees I have ever seen.

[2] عكمن

sionally taken away by the Arabs for the purposes of agriculture." The rock-specimens of this island sent me by Lieutenant Grieve show that it is composed of white lime-stone similar to that of the coast. Next to Ras Kabret comes Ras Kariat which is 280 feet high, and then a table-land on to Ras Markas (480 feet high) and Ras Jazirah.

Hence we see there is a gradual elevation of the land towards the south, and from Lieutenant Grieve's sketch it appears that this commences as far northward as the bottom of Ghobat Hashish, although we do not come to any cliff until arriving at Ras Kabret. We also see by the eastern aspect of this part of the coast, which amounts to a distance of 100 miles between Ghobat Hashish and Ras Jazirah, that this elevation is not confined to the sea-cliff but that it extends inland for at least the distance mentioned. It remains to be seen if this general elevation of the land commencing here, continues. Up to Ras Kabret, with the exception of a few insignificant points, we have had no cliff whatever since leaving Ras el Khabba near Ras el Had; we now come to a table-land at Ras Jazirah which is 480 feet above the level of the sea.

After leaving Ras Jazirah, the land falls back a little and for upwards of eighty miles to Ras Sāgar [1] is confronted by a low sandy shore out of which is scooped the Bay of Sāgar. From Ras Sāgar which is 622 feet [2] above the level of the sea, a cliff is continued on for upwards of thirty miles to Ras Shaherbataht, and Ras Gharau which last is 800 feet [3] above the sea. Next to it, is a little salt water lagoon with fresh water at its inner extremity, and a break of four or five miles. The sea-cliff then recommences at Ras Minji, 706 feet high [4] and is continued on uninterruptedly to Ras Shuamiyah, when again the land recedes and is again also confronted for upwards of fifteen miles by a low sandy shore. After which a cliff is continued on almost without interruption to Ras Therrar where it ends, about twelve miles from the south western extremity of Curiyah Muriyah Bay.

From Ras Jazirah to Ras Therrar therefore, a distance of 170 miles, the land has been gradually rising from 480 to 800 feet above the

1 Chart by Captain Haines. 2 Capt. Haines. 3 Id. 4 Id.

level of the sea, which it is more or less in Curiyah Muriyah bay; and it may be easily conceived that such an imperceptible elevation, gives it the appearance of a tabular plain the whole way, which is the case. But for the sandy beaches mentioned, and the outbreak of black igneous rocks at Ras Jazirah and at Ras Shuamiyah, the seacliff would have been continuous throughout, and have presented a light white color, a parallelism of strata and an uniformity of surface, almost uninterrupted to the neighbourhood of Ras Therrar. When sailing along it I could not help being struck with its resemblance to that part of the coast of England between the North Foreland and Beachy Head,

"——that pale, that white-faced shore,"

but without a tree and almost a mound to vary the outline; nothing but one continued light brown, barren, arid limestone rock from Ras Jazirah to Ras Therrar.

At Ras Jazirah there has been an outbreak of igneous matter which has upset the limestone strata much, and the little island at its extremity which forms a part of the former, and from which the cape takes its name is composed of serpertine. At Ras Shuamiyah also there has been an outburst of igneous matter but to a much greater extent. Many dykes and dislocations appear here, through which the dark igneous rock has forced its way, and overflowed the surface. Indeed the horizontality of the land generally, begins here to be disturbed.

As I merely passed along this part of the coast, and was not present when it was surveyed, I must refer the reader to Captain Haines' account of it published in the XVth vol. of the Royal Geographical Society's Transactions.

There are no trees to be seen upon it, and no traces of vegetation, saving a few bushes in the sandy plains close to the sea, neither in all probability are there more than the desert-herbs to be found inland. It appears to be totally uninhabited, save by a few Janabah here and there where there may happen to be a little water, as at Ras Gharau, or where these people may be temporarily located during the fair or fishing season; for this is the great fishing coast of the Beni Bu Ali and

Janabah. Some of them make three trips a year from it to Maskat, gaining by each trip fifty dollars.

The southwestern extremity of this barren tract, brings us to the borders of a far different country. One mountainous and woody, fertile and populous, rich in flocks and herds, the region of frankincense and wild honey, in short "Araby the blest." It begins in the southwestern horn of Curiyah Muriyah Bay [1].

On approaching it, while leaving the islands of Jibliyah, Gharzaut, Hallaniyah, Soda, and Haski on the left, we are struck by the sudden elevation of the land, which here rises from 800 to 4,000 feet. I have already mentioned the derangement in the horizontality of the strata which appears to commence at Ras Shuamiyah, and this increases on to Ras Therrar, when all at once the white cliffs are seen 4,000 feet above the level of the sea. The summit of Jibal Hasek, which is within four miles of Ras Therrar, is 4,000 feet above the sea. From this point the line of elevation appears to extend due north, much in the same way as we have seen it between Ras Jazirah and Ghobat Hashish. This is as it were the second step of elevation westward.

From Jibal Hasek, a table-land of the same height, extends northwards and westwards, called Jibal Sabhan, accompanied, as all such elevations are, by deep ravines and huge isolated masses at its circumference. These between Jibal Hasek and Ras Nus, the extreme point of Curiyah Muriyah Bay, are extremely fantastic in their outline.

1 Could Curiyah Muriyah, written خرتان مرتان (el Edrisi) when applied to the islands of this bay, but with the diacritic points altered خريان مريان, be derived from Karah Mhara, كرة مهرا? The shores of Curiyah Muriyah Bay are inhabited by these two tribes, and the inhabitants of the Curiyah Muriyah islands speak their peculiar dialect. Moreover Captain Haines (2d memoir p. 136) states that the Khalfan tribe of the Mhara claim this group of islands and visit them once a year; while the late Dr. Hulton (Proceed. Bombay Geographical Society, December and February 1839-40, p. 109) states, that the inhabitants "assert that their ancestors came originally from the neighbourhood of Hasek and Marbat." The islands themselves are named after the nearest places on shore, and from their appearance. Haski from Hasek, Hallaniyah from Ras Hallan near Hasek, Soda from its black color, Jibliyah from its mountainous appearance, Gharzaut perhaps from being nearest Ras Gharau.

Jibal Nus, at the base of which is the cape of the same name, is only 1,200 feet above the level of the sea, and is stated to be composed of granite [1].

Next to Ras Therrar comes Ras Hasek, and the village of Hasek, both situated at the base of the mountain just mentioned, and between these two capes is the valley called Wadi Rakot, which must be one of the largest on the coast, as it is said to extend seven days' journey inland, to a country and town called Jezzar. [2] Hasek is inhabited by members of several tribes, the principal of which are the Karah, [3] Mhara, [4] Afar, [5] Hassarit, [6] and Baramah. [7]

Five miles south of Hasek, towards Ras Nus, is the tomb of the prophet Houd, Kabar Houd, as it is called. It is situated at the foot of the most remarkable of all the mountainous masses on this coast. This mass consists of a serated mountainous ridge of at least four peaks, each of which is about 3,000 feet high, the direction of the ridge is S.W and N.E. The peaks are called Jibal Habareed, more probably Kabar Houd, from the tomb of Houd lying at their base. The people of Hasek, however, call this the tomb of Sāleh bin Houd.[8] Sāleh is said to have lived between the time of Houd and Abraham. Houd was the prophet sent to reclaim the Adites, Sāleh, the tribe of Thamud, from idolatry. [9]

On rounding Ras Nus, about four miles further on, we immediately lose sight of the even and comparatively low land behind, and open upon a plain of dark igneous rocks in front. This plain which extends to Ras Marbat, and about ten miles inland, is backed by the seaward scarp of the table-land of Subhan just mentioned, which here in the form of an enormous cliff descends almost in one step to the plain below, while at the top are the white lime-stone strata raised three or four thousand feet above the level of the sea.

From Ras Nus to Ras Marbat, which is the next cape, there is nothing remarkable on the shore but the isolated mountain called

1 Captain Haines, 2d Memoir p. 129. 2 Idem p. 131.

3 كرة 4 مهرا 5 عفار 6 حسريت 7 برمعة.

8 Capt. Haines, 2d Mem. 9 Sale's Koran, prelim. disc. p. 9.

Jibal Jinjari, which is about 1,300 feet high. It is small and conical, and affords a distinct geological type of the neighbouring formation, from being situated in the midst of the plain of igneous rocks mentioned, and separated for at least ten miles on all sides from any highland.

The mountainous tract of Sabhan is continued on, under different names and without interruption beyond that of a deep ravine here and there to the N.W. point of the Bay of El Kamar, distant 180 miles from Ras Nus. Some parts of it towards the sea, are perpendicular, but most descend to the sea or maritime plain, called *sahil*, in subranges of mountains or slopes more or less sudden and precipitous.

The summit of this land is said to be almost barren and soilless, presenting hardly any trees beyond that of the frankincense and milk bush, a species of euphorbia, it is called the Nejdi. At a lesser elevation called the Gathan, the tops of the mountains present more vegetation, and still lower are covered with a rich red loam, abundance of long grass, and a variety of shrubs and small trees. While the slopes of the mountains are also thickly wooded with balsamic and other small trees to the Sahil, and sometimes to the water's edge, even portions of the lime-stone rock in the midst of the sea, have old balsamic trees on them. Large herds of cattle are seen grazing on the grass, flocks of innumerable white goats and sheep are seen scattered over the sides of the mountains or following each other in long dotted lines among the crags, and camels are said to be proportionably plentiful.

The habitations of man here, are for the most part, in the rock. They dwell in natural caverns, some of which are of enormous dimensions, and as these are for the most part situated on the precipitous portions towards the sea, their position and number may be distinguished when night comes on by their lights.

From Hasek to the town of Damkot in the Bay of El Kamar, the mountains are inhabited by the Beni Karah, whose chief or representative of their head family, in 1846, was Salim bin Thori bin Kahtan, of the family of Bin Kahtan. Behind the Karah inland are said to come the Thor, then the Mahra, the Afar also a large tribe, and the El Kathiri.

Of the Beni Karah I have given a short description in the Xth and XIth Nos. of this Journal, to which I must refer the reader, merely stating here that they subsist chiefly on milk and flesh, and exchange ghee (clarified butter), hides, frankincense and moql (bdellium), for the few necessaries they require.

I passed a day in one of their caverns situated among the mountains a few miles from Takah, a small village on the coast about eight miles west of Marbat. This excursion I will briefly detail, as it will give some idea of the dwellings and life of those who inhabit caves on this coast. The way to it is through the dry bed of a torrent which ends two miles east of Takah in a saltwater lagoon called Khor Reri. After having traversed this for upwards of a mile, in company with the Beduin chief to whose cavern we were going, his brother who lived at Takah and our Arabic Interpreter, we arrived at a point where the torrent bed divides into two branches, the right branch of which is after a short distance suddenly stopped by a precipice about 250 feet high, and the left continued in among the mountains. Having followed the former to the precipice, we scaled this, and on arriving at the top found a grassy plateau about a mile square, circumscribed on all sides by mountainous slopes except towards the sea, where it was bordered by the edge of the precipice mentioned. It was this precipice and this plateau that attracted our attention from the vessel and that induced me to obtain if possible a nearer view of them.

There were many wide-spreading trees on the plateau and part of it was under cultivation. A stream of water meandered through it from which some little negro boys, slaves of the Beduin chief, were conducting off minor streams to irrigate some beds of indigo, onions and corn, while the remaining portion trickled over the precipice. There were also pomegranate, fig, and lime trees there.

As I have before stated, this plateau was surrounded by mountainous slopes on three sides, and about 100 feet up the face of the eastern one was the Beduin's cavern, the arch of which was about 150 yards span; its height about fifty yards and its depth about thirty. In front of it was a fence of brushwood which made the area within large enough to hold 100 head of cattle, which were penned there during

rain or the predatory visits of marauding members of the tribe. The roof of the cavern was hung with stalactites and its margin festooned with creepers.

Here we passed the greater part of the day with our friend the Beduin and his brother, wife and family. There were many recesses in the cavern, partly perhaps the work of man, partly that of nature. In some of these, hersdmen and other dependents of the Beduin chief resided; they occupied the opening, while the deepest and central recess of all was occupied by the Beduin's family. This had a raised floor of brushwood, supported on stakes, three or four feet above that of the cavern. The wife of the shaykh of Takah was there for her health; she also had an apartment. So soon as we ascended the platform of brushwood, a persian rug was spread for me and a bowl of milk brought. I passed the day partly in conversation, partly in presenting presents, but principally in prescribing for and in looking at the diseases of people of the cavern, and of others of the neighbourhood who came to see us. The Beduin's wife made one of the party. She was a light colored, fine, handsome woman, but the shaykh of Takah's wife kept herself concealed in her recess although she talked to us out of it.

When the heat of the day had subsided, we descended to the plateau, and walking towards its inner part came to a long irregular canal or lake which they called Khor Darbot. Its widest part was about thirty yards, its depth about twelve feet, and its length about a mile and a half. Trees spread their branches over some parts of it, and here and there tall bull-rushes bordered it. A number of waterfowl were reposing on its surface, and many head of cattle belonging to the Beduin, grazed on its banks. Every thing appeared peaceful and quiet. But the watchful eyes of the armed Beduins who were with us shewed how every thing might in a moment be reversed.

Having reclined for a short time under the shade of one of the trees, while the Interpreter who was a Persian, bathed and said his prayers, we then walked to the western extremity of the canal, where we found the little stream which I have mentioned, issuing from it, and the sun having set, to us at least in this mountain dell,

we turned our steps towards the corner of the plateau by which we had entered. On our way, we passed a great cavern, which had recently fallen in, and whose occupants, like their opposite neighbours might have tenanted it for generations, but had been compelled at last to seek another abode. When we arrived at the corner of the plateau I took a final glance at this pretty place, and with the rest of the party descended to the torrent-bed beneath. From thence we made for the shaykh's house at Takah, where we arrived somewhat after dark, and having related to him the adventures of the day, got him to put us on board the "Palinurus" in one of his boats, where we arrived about midnight.

Both the shaykh of Takah and the Beduin chief, did all they could to prevail upon us to stay at their respective dwellings, but circumstances prevented us from accepting their hospitality.

Having now described the habitation of a Karah in the mountains, let us descend to the plains on the coast, (here called *sahil*), of which there is only one between Ras Nus and Wadi Shagot at the bottom of the bay of El Kamar. This is eighty miles long, and extends from Ras Nus to Ras Resut, after which the mountains slope to the sea in precipices or shelving steps all the way to the valley mentioned.

Commencing then with the village of Marbat, which was the starting point of Captain Haines' survey towards the N.E., and that of Captain Sanders' towards the west, we find it situated at the bottom of a little bay of the same name which is protected by the low cape of Ras Marbat already mentioned. This cape is the western extremity of the tract of low igneous rocks which first opened upon us on rounding Ras Nus.

The village of Marbat contains about twenty houses, and 200 inhabitants, of the Beni Karah tribe. Around the houses are ruins of others of a more ancient date from which the newer ones appear to have been constructed. This is commonly the case with the villages on this coast. The original material appears to have served for ages, and in the walls of a miserable habitation may frequently be found stones which have had a better place.

Many of the Karah who dwell in the plain around Marbat have nothing beyond the shelter afforded by the overhanging sides of watercourses, under which whole families reside. Clothes they have little or none, neither have they any arms, and their food consists almost entirely of shell and other fish which they grope out from among the rocks on the coast.

Little as this may appear to accord with the great advantages of this district, it is nevertheless true, for ample as its resources may be to supply the wants of man, the Karah of the plains are so divided among themselves, and so subject to the predatory descents of those who live in the mountains, that the solitary inhabitant of the dreary waste we have just passed, leads a life of more security and comparative happiness than the richest man in the plain we have now come upon.

Many of the Karah of Marbat serve on board Arab Bagalos which trade to India, Africa, and other parts of their own country. Marbat is a common place for vessels sailing along this coast to water at, although the water is so brackish that it is hardly drinkable, at least to those who have been accustomed to better; but about four miles west of it, there is a mountain rivulet of excellent water, which descending to within a few hundred yards of the shore, enabled us to replenish our tanks there.

On the inland side of Marbat are some granite rocks about 100 feet high and behind them is the Burial Ground of the village. There are several old tombs in it, in ruins, and one bearing the date A. H. 557. Many of the Karah are buried here, and they still keep up their old custom of killing a bullock over the grave of the deceased and distributing the meat to the poor who may have assembled to receive it. There is also a stone close by the Burial Ground which marks the place where the greater part of the Karah of this district bring their children to be circumcised.

Beyond the granite rocks, inside this again, is the debouchement of a great mountain torrent which during rainy weather, that is in the S.W. monsoon gathers the water from the neighbouring parts of the Subhan mountains, and pours it into the bay of Marbat. It was stopped up by

a sand bank several feet high which had been formed by the torrent on one side, and the sea on the other. The bay of Marbat is open to the S.W. monsoon.

Proceeding from the debouchement of this torrent-bed on towards the village of Takah, already mentioned, a distance of about eighteen miles, we find a narrow *sahil* between the base of the mountains and the sea, the whole way. For the first four miles it is nearly on a level with the sea, but afterwards it rises to the height of 100 feet, which it maintains with the interruption only of a mountain torrent-bed here and there, all the way to Khor Reri, the lagoon which I have stated to exist two miles east of Takah. After this it is continued on with a sea-cliff of the same height for about a mile, when it sinks into the famous plain of Dofar [1], which is but a few feet above the level of the sea, and at which we now arrive.

The village of Takah before mentioned, is situated about a mile beyond the termination of the sea cliff, and consists of a few mud and stone houses, surrounded by heaps of stones as the houses at Marbat, the remains of former buildings. On the bluff which terminates the cliff are also the remains of some old houses, and the shaykh of Takah told us there were others in the neighbourhood, but that there was no traditional history connected with them further then that they had been erected by a family called Min Gui, the same people who built the city of El Balad now in ruins in Dofar, of which hereafter.

Between Takah and the cape called Ras Resut, before mentioned, a distance of about thirty miles, is the fertile plain of Dofar, raised but a few feet above the level of the sea. This plain, which is by far the most favored by nature on this coast, is bounded on one side by the sea, and on the other by a deep incurvature of the mountains. Its eastern extremity, which is about three miles wide opposite Takah, passes into the narrow strip of *sahil* mentioned, and it terminates westerly in a *cul de sac* between Ras Resut and the great mountainous tract of the coast, while it extends backwards in its deepest part from ten to fifteen miles.

[1] ظفار.

There are several fresh and saltwater lagoons in this plain. The former seem to be formed from fissures in the ground opened by some terrestrial convulsion, and are all filled with water to the brim; the latter are at the debouchements of water-courses which pass across the plain to the sea.

The soil of Dofar is rich, and the remains of agricultural marks shew that at different periods it has been generally under cultivation. When the coast line of this plain was being surveyed in 1844, large tracts of it were covered with maize and millet. There are also several groves of cocoanut trees on it which yield large nuts.

For the protection of the cultivated parts, towers have been erected, from which watchmen discharge their matchlocks on the approach of suspicious characters. But this I am told is of very little use, for the inhabitants of the mountains who are the principal depredators in this case, linger about during the day at a distance with their flocks or herds, and when the night comes, turn them into the young corn and eat the whole down in spite of every thing. This but too frequently ends the labours of the industrious inhabitant of Dofar, who has no appeal, nor dares interfere with the impudent intruder, a hair of whose head if injured, would bring his whole clan down upon the unfortunate agriculturist, under pretext for further dispossessing him.

Hence it follows that the greater part of this fertile and well watered plain remains uncultivated, and most of the inhabitants reduced to the greatest want, from their almost inevitable issue of their labours. I have seen men going to till the ground here with their sword in one hand and their hoe in the other.

The towns of Dofar are congregated about its centre, near the sea, probably for mutual protection. They are five in number, viz. Dairiz, Silalah, El Hafah, El Robat, and Aukadh. The three former are situated around the ruins of an ancient city now called El Balad on the sea shore. Of these ruins I have given a full description in the VIth Vol. of the Journal of the Royal Geographical Society, also in the Transactions of the Bombay Geographical Society Vol. VII. and must refer the reader to it for more information on the subject. El Robat is a little distance inland towards the mountains and has been

deserted on account of the continued predatory visits of the Karah, while Aukadh is on the coast a few miles west of Sillalah.

The inhabitants of the plain of Dofar are partly Karah and partly El Kathiri, and so deeply involved in blood-feuds that there are hardly two people among them who are not afraid to pass each other. Scarcely an inhabitant of one town dares go to another without a protector, called a *rubiya*, who is bound to take upon himself the insults offered to the man whom he protects. But these seldom amount to any thing serious, for the *rubiya* being friends with all, few will open a blood-feud with him for the sake of being revenged on the man whom he protects, hence the latter is able to transact his business and return to his home with perfect security.

The inhabitants of this district, therefore, live in a most frightful state of anarchy. They are in constant fear of each other and in terror of a descent of the Karah from the mountains. Indeed their condition is as unhappy as can well be conceived, and this they bear in their countenances. Not only the people of the plains but the principal people of the mountains are extremely anxious for the protection of a good government. The former hailed with delight our arrival there hoping that it was the object of the "Sirkar" to take possession of the country, and so persuaded were they of this, from the wish being father to the thought, that one of the principal shaykhs, a Karah chief, (with whose brother I had resided a few days during our first visit to Dofar), told me in confidence the number of men he could assemble at a short notice and his willingness to place them at the "Sirkar's" disposal. This was the shaykh of Aukadh, a good old man, but depressed in spirit, and worn down by the intestine quarrels of his tribe. He took me into the farthest recess of his house to make this confidential statement to me.

I passed a few days at Sillalah in 1845 and in 1846. The first time with the brother of the old man just mentioned, and the second in company with Lieutenant Grieve at the house of a Sharif named Saiyad Tahr who was a merchant, trading to Bombay and other ports. During the last time I saw the head chief of the Karah, Salim bin Thori bin Kahtan, to whom I have already had occasion to allude.

It was he who killed in a blood-feud, fourteen years before that time, the last Governor of Dofar, Saiyad Mohammed bin Akil. He with other members of his family, all tall, fine looking people, the finest Beduins indeeed I ever saw, had come down from the mountains partly to see us, and partly on business with Saiyad Tahr. They wanted us much to return to the hills, and pass the monsoon with them. One day I saw Saiyad Tahr make an exchange of three or four yards of blue dangaree (cotton cloth) with Salim bin Thori for a couple of bullocks, and on observing that it was a good bargain, the Saiyad replied "but who will buy the bullocks?" this remark was quite sufficient to disabuse me of the idea, had formed respecting the advantage gained by the Saiyad.

During the S.W. monsoon, the wind and waves and sand are said to render Dofar so disagreeable, that the principal inhabitants retreat to the mountains, where they would appear to have estates and cattle.

They all as well as the Kahtan family pressed us to pass the monsoon with them, intimating that we were tempting Providence to leave the bay of Resut at that time, viz. the month of June. This would have afforded us excellent opportunities of becoming better acquainted with the life and habits of the Karah in their mountain recesses, and no doubt with the family of Bin Kahtan, we should have been perfectly safe, for it is stated that fifty of the Kahtan family are enough to put to flight the whole of the Beni Karah.

The plain of Dofar after the rains is said to be covered with an incredible number of sheep and cattle. Horses they have none, or not more than half a dozen, miserable creatures.

In several parts of the plain of Dofar there are ruined towns like those of El Balad. They amount to six in number, and are said to have been built by the Min Gui, of whom, see the description of El Balad to which I have alluded.

Passing on to the westward, we come to the bay of Resut where the plain proper of Dofar ends; for the *sahil*, though continued on in the form of a *cul de sac* for some distance, becomes broken up and

elevated upwards of 100 feet above the level of the sea. The coast line at the end of the plain proper, curves southward, and running for, a little towards the S.E., then turns again to the west, to form the cape of Resut, inside which is the bay and bunder of the same name. This bay affords safe anchorage to small vessels during the S.W. monsoon. The "Palinurus" remained there from the 25th May to the 3rd June 1840, and the bay was perfectly calm, though the southwesterly swell was rolling past the cape with nearly the whole force of the monsoon. There was also a large Bagalo laid up there for the monsoon, belonging to our friend Saiyad Tahr, and half a dozen boats belonging to Mharah fishermen, who had come from Saihut and Damkot, to fish for shark, which abound in the bay of Resut during the S.W. monsoon.

The premonitory swell of the S.W. monsoon called *tadbir* had commenced long before we had arrived and was gradually increasing. Its duration was said to be about twenty days when the *karif* or S.W. monsoon, fairly sets in. This varies a little but was expected when we were at Resut, on the 10th or 12th of June. The only fear in the bay of Resut is about ten days before the *karif*, when they say there is sometimes a gale from the S. or S.E.

In the comparative geography of this coast the bay of Resut will be found of much interest, for being the only one of the kind hereabouts which answers to the description of the Author of the Periplus, who states that sailing along this coast from Malabar or Broach, vessels when too late in the season put into a bay here for the monsoon, (*"quæque (naves) à Limyrica aut Barygazis veniunt eo deferuntur, sero anni tempore hyemen ibi traducentes,"*) we are enabled to obtain the identity of a point which is most desirable.

At the bottom of this bay is a sandy beach about a mile long separated from the plain of Dofar by a few hundred yards of low sea-cliff. It is backed by a ridge of sand of the same extent, within which comes the khor or lagoon of Resut. This, which consists of several pools of stagnant salt water, intergrown with mangrove bushes, tamarisk and salsola, is the debouchement of a large torrent bed, which coming through the *cul de sac* mentioned, gathers the water during the rains from the neighbouring mountains and pours it into the bay of Resut.

It is probable that this lagoon becomes much extended during the rains, when it must overflow or pass through the sandy bank which during the fair season separates it from the sea. I do not know if they have much rain during the monsoon in these parts but they have some. About a mile up this torrent bed is a bubling spring of brackish water, but drinkable, and half a mile still further on another perfectly fresh. This torrent-bed corresponds with the one which we have seen at Marbat, in collecting the water from the neighbouring mountains at this end of the plain and pouring it into the bay of Resut.

The small cape which shelters the bay of Resut from the S.W. monsoon, is the commencement of a low scarped ridge, which extending westward about ten miles meets the main tract of mountains as the latter advances southward to form the great promontory called Ras Sajar. It is between this ridge and the mountainous tract inside it, that the *cul de sac* is, which forms the western extremity of the district of Dofar.

The cape of Resut is about 200 feet high and about a mile broad at its base, and prolonged into the sea by a little island or rock from which it is separated by an interval of a few yards. It is composed of the white and gray limestone of the coast and is much scarped, and irregular on the summit from denudation.

On its extremity are the remains of a small round tower of rude construction and also those of buildings equally rude.

About half a mile from the latter, still on the ridge of the cape, comes an ancient Burial Ground extending over an area of three acres. The graves are marked by nothing but a circle of large boulders, surrounding a heap of loose stones or what formerly was a heap of stones sunken in the centre. The larger of these graves measure from six to twelve yards in diameter and are raised two feet above the level of the plain. They are formed of boulders of white and gray limestone gathered from the immediate neighbourhood. Around the large graves are smaller ones looped on to their circumference, indicative of successive additions to them of less distinguished members of the family or tribes, perhaps, unless all perished in battle and were buried at the same time. No one could give us even

a traditional account of these graves. We endeavoured to raise the stones from the centre of one, but after descending about four feet and a half below the surface they became so large and so locked in that although we had three or four stout Sidis with us and a good crowbar we could not move them, and had we succeeded, the chances are, from the hurried manner in which we were obliged to make our examination for fear of being surprised by the Beduins, that we should have found little to have rewarded us for our pains. Besides the Burial Ground and the ruins mentioned, there were the remains of buildings in all directions about this cape, although there is not a human habitation now within ten miles of it. Hardly any of these remains amounted to more than a few stones which mark the area occupied by the original building.

The graves as well as the heap of ruins at this cape were overgrown with the moql tree and its companion the *balsamodendron pubescens* of Dr. Stocks, also the miswak which threads its way abundantly through the crevices between the boulders. In many places the trunks of the former measured four or five inches in diameter, and their branches growing horizontally from their exposed position, had extended completely over some of the graves. This shews that both graves and trees must be very old.

For the sake of those who may hereafter visit this neighbourhood I may mention that, though presenting many objects of interest, it is most unsafe; each time that we were there, parties of officers who had gone on shore were shot at. In the first instance the party was about seven miles from the shore, up the bed of the torrent mentioned and but for the presence of a Karah guide who kept the assailants at bay while the party made the best of its way back to the shore, one or more would have been wounded if not killed on the spot. In the second instance, a party who had gone to some rocks to gather oysters were surprised and shot at, and but for the impatience of the assailants in commencing their attack, one or more here would have been wounded or killed; as it happened, they had not lowered their sail and got off with merely a part of the gunwale of the boat shot off. This party of Beduins had come down from the mountains to intercept the return of Lieut. Grieve, myself and others, who had been on a visit to the Saiyad mentioned, at Sillalah.

Having however got intelligence of their design and having been persuaded to stay another day, we did so, and eluded them. The Beduins were probably not prepared with water or provisions to stay longer than the day on which they expected us and so discharged their matchlocks upon the party who went to gather oysters, after which they might have returned to the mountains, at least we saw nothing of them the next day.

The Mahrah fishermen at Bunder Resut were always obliged to have a protector or *rubiya* with them. An old Karah always accompanied them to the spring up the torrent bed when they went to fetch water.

It is quite possible to go about this place unprotected for many days together without seeing a single human being, as I have learnt from experience, but the risk is very great and the people so bad that they would shoot a man from a distance merely for the chance of his possessing anything worth having.

From Ras Resut the sea-cliff again commences and extends westwards for twenty-three miles to the mountainous tract extending outwards to form Ras Sajar.

There is nothing remarkable in this cliff the base of which is washed by the sea the whole way, except the peak of Ras Hammar, which is the highest point of it, this is 700 feet above the level of the sea. From the summit of these cliffs the land slopes inwards to the *cul de sac* mentioned, and its highest parts are covered with a coppice of small gum trees, such as I have mentioned to exist at Ras Resut.

The junction of this cliff with the promontory of Ras Sajar brings us again to the great mountainous tract which we left on the sea at Ras Nus, and which there, was known by the name of Subhan, but here is called Sajar.

Ras Sajar is the largest cape on the S.E. coast of Arabia though not the most striking; it is not a long projecting cape but of stupendous magnitude and height. Although Ras Fartak appears to be as grand in its dimensions as a cape can well be, yet the ridge of Ras Sajar exceeds it in height by nearly 900 feet. The summit of Ras Sajar is by trigonometrical measurement 3,380 feet above the level of the sea and its bluff extremity 2,770 feet, while the ridge of

Fartak is only 2,500 feet and the scarped portion towards the bay of El Kamar 1,900 feet.

The eastern side of Ras Sajar, which is not so high as the southwestern, on account of the strata dipping towards the east, is perpendiculary scarped and its base is concealed by the debris of superincumbent masses of limestone which have rolled over or fallen from its summit. The southwestern side however is not perpendicularly scarped, but descends in three or four grand steps to the sea, the ledges of which are so narrow that from our station within half a mile of the base we could see the summit The bluff extremity of the cape is perpendicular to the water's edge.

All round Ras Sajar the soundings are very deep, but particularly at its extremity and southwestern side, at these parts no bottom was found at 100 fathoms a mile off shore, while the next throw of the lead landward might strike at 60 fathoms. This shews the gigantic steps with which the land here decends even after it has passed into the sea.

We anchored in 60 fathoms, within half a mile of the shore, on the southwest side; it was our last station working eastwards. The wave off the shore here was half as high as the wave on and the wind in like manner. This was of great assistance to us in getting off, for both the southwesterly swell and the southwesterly wind had commenced, and we were on a lee shore.

Where the sides of this cape are not perpendicular they are covered with trees, and the plains above with long grass. We observed more caverns on the eastern than on the western side of this cape, in the way I have before mentioned, viz. by their lights at night.

From Ras Sajar to Ras Fartak, a direct distance of 105 miles, the coast was surveyed by Lieut. Grieve. The distance between Ras Resut and Ras Sajar is about twenty-six miles.

On the southwestern side of Ras Sajar, about six miles from its extremity, is a deep ravine running northwards, called the Kais ibn Othmah. At its opening is the village of Safgot consisting of one large house and a few small huts with the usual heaps of stones, the remains of former buildings, around them. The shaykh of this valley (May 1846.) was a fine old man by name Saiyad bin Othman

el Sadoni. He was said to be very rich in flocks and herds, being possessed of 200 camels, upwards of 500 head of cattle, and 1,000 sheep. We had not an opportunity of landing at his place but he sent his boat off to enquire if we wanted anything, and afterwards came to Sillalah to see us, and finallay on board the "Palinurus.' He was excessively desirous of not being passed over, having heard that we had visited other chiefs before him on the coast, and therefore travelled over the great promontory of Ras Sajar to meet us in Dofar. It was this old man who told us confidentially at Sillalah, that the Karah intended to intercept our return to the vessel.

Close to his romantic valley is another similar one, called the Kais ibn Ammar. Its direction also is northward and it is separated from the former by a mountainous ridge scarped upon the sea. At its entrance also is a village, called Rakot, consisting of about half a dozen houses and about 50 inhabitants The shaykh of this village and valley (May 1846) was an elderly man by name Said bin Ammar, I passed a day and a half with him.

In the evening of the day I landed, he took me for some distance up his valley the sides of which were thickly wooded with small trees, among which he pointed out two leafless ones apparently acacias, from which gum arabic was gathered. The gum which was shewn me was clear and colorless, not the so called gum-arabic which comes from the Somali coast, and which has a tinge of yellow. There was also the moql tree there, the gum of which they call *tabka;* its companion also the *balsamodendron pubescens,* and another balsamodendron which is common to this coast, even to Aden, and yields a gum which is chewed, called *liban dokat,* when the bark of this tree is cut the juice flows forth like milk. The *Sibroot* tree was there (a species of Euphorbiaceæ ?) yielding a red astringent gum like kinò, and which the Arabs mix with *subr* (aloes) to use as an external application for sore eyes, wounds &c.— the *nerium obesum* so common on the limestone rocks of this coast, and a thousand other small trees for the most part leafless. Drawings of some of these with specimens of their gums were forwarded to the Hon'ble the Court of Directors in April 1848.

After the shaykh had pointed out everything which he thought

interesting in his valley, particularly a crevice in the ground between some limestones whence he said during and after the rains issued a great stream of water, and of which he wished to know the explanation, we arrived at a large tamarind tree, into which he climbed and threw me down some of the dried fruit, stating that it was the largest tree and bore the best fruit of any in the neighbourhood, also that the Beduins in their ascent and descent of the mountains halted under it and refreshed themselves with its fruit. The polished state of the blocks of limestone under the old tree and the remains of fire places bore ample testimony of this.

Night coming on we returned to his house and after partaking freely of boiled kid, rice, and dates, retired to the house-top to pass the night.

It was to this place that a Mahrah had come all the way from Damkot, sixty miles off, to get me a branch of the frankincense tree in flower, in hope of being rewarded for it by a small present. It took him twenty-four hours to get it and he went back rejoicing with a dollar.

A little further, westward of the Kais ibn Ammar comes a third ravine or valley, which has a west northwesterly direction. It is called Kharifot and has a stream of water running through it. It appeared rich in vegetation and at its entrance was a large grove of date-trees.

These three ravines are all close together and within fifteen miles of the extremity of Ras Sajar. There is only one more of the kind throughout this range which is Wadi Shagot.

Next to the ravine of Kharifot, which is separated from the Kais ibn Ammar by a low mountainous ridge covered with long grass and stunted trees, and scarped upon the sea like that separating the latter from the Kais ibn Othman, comes a place called Shalgot, where the summit of the highland falls considerably back and afterwards descends in long shelves to the sea. These shelves are covered with grass and trees. We saw a date-grove there and a great many cattle.

After a few miles the upper line of the coast again comes forward and the slope becomes more sudden, to form the cape called Ras Tharbat Ali, which is considered the eastern limit of the bay of El Kamar.

From Ras Tharbat Ali to Ras Fartak is considered the extent of the bay of El Kamar, and within these limits there is no cape of any consequence. The highland continues on from Ras Sagar under the name of Jibal Kamar, and borders on the sea from Tharbat Ali southwestwards for about thirty-five or forty miles without *sahil*, when the coast-line curves round, a *sahil* commences, and the mountainous range continues on in its original course. From the point where the coast-line leaves the mountains the land continues low, on to within twelve miles of Ras Fartak, where it meets the range of mountains which extends southwards to form this promontory.

Returning to Ras Tharbat Ali, we find this cape does not project so much into the sea, it is the acute angle which is formed by the falling back of the upper line of the coast that follows it, eastward, which gives it a prominence, rather than any anything else. This cape is said to terminate westward the coast-line of the Beni Karah.

From Ras Tharbat Ali which is about 200 feet above the level of the sea, the land gradually increases in height to Damkot [1] the next place on this coast, where it is 3,000 feet high. Throughout the greater part of the way it slopes from an almost unbroken outline above, in shelves, clothed with grass and small trees almost to the water's edge. This part is called Jibal Kamar or Shaher.

On approaching Damkot, the slope from the summit of the high land becomes more rapid; it also becomes more broken, and ends before arriving at this place in being both mountainous and precipitous. Opposite this part too, the soundings are very deep. We were anchored in twenty-eight fathoms about a mile off shore and about half a mile further out there was no bottom at 220 fathoms.

We now come to Damkot, the principal sea-port, indeed the only one, in the bay of El Kamar. This is the eastern limit of the coast-line of the Mahrah. Between Damkot and Ras Tharbat Ali the ground is said to be neutral and inhabited both by Karah and Mahrah.

Damkot (in lat. 16° 31′, N. and long. 52° 52′ E.) is situated on an irregular sandy plain about a mile square, and bounded on all sides except towards the sea by almost inaccessible mountains. Behind

[1] دمكوت, Would not these names of places terminating in *kot* or *ot*, be better spelt *ghot*, غوط, *terra cava depressioque?*

it there is a tortuous ravine which leads up to the highland above, but it is so insignificant in point of size that it would pass unnoticed if not purposely sought for. In front a tongue of land extends outwards from the beach which ends in a reef of rocks on which the waves break 250 yards off shore. This divides the little beach into two parts, the eastern half of which admits of safe landing for boats when the south-westerly swell is not very heavy, while the western is almost unapproachable at such times. A small stagnant salt-water khor or lagoon exists on the west side of the plain and around it are a few miserable looking date-trees.

The plain of Damkot is sandy and uncultivated and the sides of the mountains are barren for upwards of 1,000 feet, above which they are covered with grass and small trees and bushes, such as have been before mentioned.

There are about ninety flat-topped mud-houses at Damkot; about thirty on the west and about sixty on the east side of the khor or lagoon. The remains of an old round tower built of mud and stones are situated on a bluff about two hundred feet high above the western part of the town.

There is a very extensive Burial Ground there, in which are many ancient graves similar to those at Ras Resut; that is, consisting of beds of stones encircled by large boulders, while the more modern ones have ridges over them marking the longitudinal axis of the body laid beneath. The latter most probably commenced with the introduction of Mohomedanism, the former being the graves of the old Pagans.

Allowing six souls to each house the fixed population of Damkot would amount to about 540. But there are many more than this there during the fair season, when the Beduins from the interior bring their gums, hides and ghee to exchange for grain, cloth and other necessaries.

During the S. W. monsoon almost all retire to the mountains. The population consists principally of Mahrah, but there are a great many Karah, and they seem to mix very freely together. The latter call themselves Koreysh so did the Beni Ammar at Rakot. Karah and Koreysh therefore would seem to be synonimous.

The inhabitants of Damkot have about forty boats all of which are light and rudely built, sewn together, but well fitted for their rough shore. In the fair weather they are chiefly employed in shark fishing. The seer-fish is seldom met with here.

We obtained a good supply of sheep at Damkot, also a bullock or two, but the beef on this coast is execrable in flavor, and the cattle so wild and so savage that when brought on board they dash from side to side, and try to bite and kick every thing that comes near them.

The route to Hadramaut from Damkot is not up the ravine mentioned at the back of the town, but by sea to Ghraidah[1] first, a place situated inshore, a little further on.

There is a wildness about the neighbourhood of Damkot and an oldness in the appearance of the place, together with a peculiar expression about the people whom I saw there, that gave me the impression, whether from association or reality I know not, but I think from the latter, that it was the most ancient looking place and people I had seen on this coast. Doubtless the place is old and the people have never had much intercourse with strangers, for it is the only sea-port of this district, and the produce of the surrounding country has probably ever been very trifling.

The mountainous land extending for eight miles westward from Damkot to the ravine-like Wadi Shagot before mentioned, is called Hadthob. Like that about Damkot it is more or less precipitous towards the sea, and divided by depressions above into domed shaped summits, which are covered with grass and small trees such as have before been mentioned. There are many caverns also in the precipitous parts towards the sea and many of them inhabited, as we could see at night by their fires.

Wadi Shagot, which is the last remaining ravine in the bay of El Kamar, ends upon the coast by a narrow opening, but seems to expand out interiorly.

Opposite this valley, the *sahil* or sea-plain again commences, by a narrow slip of sandy beach, the margin of which tends slightly southwards; while the mountainous range continues on in its original

[1] غيظه

course south-westward, under the name of Fattak,[1] that is after the opening of Wadi Shagot.

Behind the mountainous land of Hadthob is said by the Mahrah to come that of Heiden [2] and north of this the land of Akaf, *aradh el hagaf*, as they call it.

From the commencement of the sandy slip of beach the coast-line curves round from W. S. W. to S. and continues low to a place called Khalfot, about fourteen miles north by west of Ras Fattak, and about fifty miles from Wadi Shagot. The land both on the coast and inshore as far as the eye can reach, westward, seems hardly anywhere to exceed 100 feet above the level of the sea. At Khalfot it meets the lower hills of the Fartak range. This range after a course of six miles north by west from the extremity of the cape suddenly turns westward, and afterwards seems to run parallel to the Fattak range. The lowland which intervenes between the two, the "ghob el Kamar" of Edrisi, is continued on westward as far as the eye can reach, without any alteration in the general level of the country or any appearance of the "moon-shaped mountain" at the bottom of it which that author has described.

In some parts of the coast-line the land is scarped on the sea, while in others the scarped part is more or less inland and gives place in front to sandy plains intersected by shallow lagoons.

There is hardly a trace of vegetation to be seen throughout the whole of this uneven lowland. It appears, with the exception of a few desert herbs, to be entirely barren.

At the point where the coast-line turns southward from its former direction is the little village of Arnub, where there are a few date-trees, and a few miles further inland under the Fattak range is the town of El Ghraitha already mentioned, around which also are some date-trees and apparently a little cultivation.

It is by El Ghraitha that the people of Damkot go to Hadramaut as before stated. Every third or fourth day when there are a sufficient number, a kafilah is said to leave this place for the province of Hadramaut. The journey is stated to occupy fifteen days and the

[1] فتک [2] حیدان

road to be nearly level all the way. The course is S.W. over the lowland between the Fattak and Fartak ranges, and the only annoyance said to be anticipated is a plundering attack from the Mahrah Beduins. There is no other territory between El Ghraitha and Hadramaut but that belonging to the Beni Mahrah.

Between Arnub and Khalfot there are only two little villages called respectively Hirot and Dthabot.

At Khalfot there is a saltwater lagoon about 300 yards long with two fathoms of water, where three or four Bagalos are laid up during the S.W. monsoon.

Immediately after this the land begins to rise rapidly to the ridge of the Fartak range which is about 2,500 feet high; this runs southwards to the cape and westward inland. Khalfot is just at the outside of the bend.

The sea-cliff, which at Khalfot is about fifty feet above the level of the sea, also increases rapidly in height with the land, and soon arrives at a perpendicular escarpment of 1,900 feet which it maintains on to the summit of Ras Fartak. The upper line of this cliff corresponds in its irregularity to the depressions and elevations at the summit of the range while its base is concealed by the sea. It is by far the grandest escarpment on the S.E. coast of Arabia, indeed I expect there are few which can compete with it anywhere in this respect, being uninterruptedly perpendicular from top to bottom for an extent of six miles from the cape. Although its surface appears perfectly smooth yet it is so deeply weather worn into shelves, that men live on them and descend by them to within a few feet of the sea below. We saw these people, never without their swords even in such places as these, fishing from the lower shelves, and in the evening, their fires in different parts of the cliff. It was terrific to behold their position, but in all probability the enormity of the masses prevented us from forming a just estimate of the width of the shelves and the risk they ran; they might have had plenty of room where we thought they could hardly stretch themselves out at full length. Our Pilot however who was a Mahrah from the village of Haswel (el Suahil?) close by, told us that it was a very common thing for them to fall over and be drowned.

No part but the summit of this range presents any vegetation and this is chiefly seen on the western side, where the range gradually slopes to the plain below. Indeed the barrenness of the Fartak range generally, as well as that of the land on each side of it, seems to shew that we have left the part of this coast which catches the rain of the S.W. monsoon, for I can hardly think there is much difference in the soil. It was here, though, on a portion of the face of the cliff which had fallen down, on the eastern side towards the bay of El Kamar, and had made a heap of rocks projecting above the surface of the sea at the base of the escarpment, that I first saw the frankincense tree in leaf. The seed or tree had been brought down with the white limestone mass, which seemed to have slid from the face of the cliff. It was growing out of a crevice of the bare rock according to the habit of this tree.

We now arrive at the extremity of the Fartak range, called Ras Fartak, which next to Ras Sajar is the highest and largest promontory on the S.E. coast of Arabia. Like Ras Sajar, it is scarped to the sea on its eastern, and slopes rapidly to the plain on its western aspect. It is not perpendicular at its extremity as Ras Sajar, but descends so gradually that its base is extended southward a mile beyond its summit. The real extremity of the cape is not in the direction of the ridge, but to one side, where the coast changes its direction from south to west or to south-west. It is this sudden turn connected with the presence of such a high and narrow range isolated from all other mountains, that makes this cape, although it is not the largest, the most striking on the S.E. coast of Arabia. As I have before stated, the Fartak range extends backwards from the cape north by west for about six miles after which it suddenly turns westward. At the extremity of the cape the range is about two miles wide at its base and a short distance inland it spreads out to about double that extent, but it continues narrow to its bend.

It was on the extremity of this cape that I saw for the first and only time a balsamodendron, if not the same, closely allied to the specimen of the myrrh tree figured by Nees ab Esenbeck (*Plantæ Medicales*). A sketch of it was sent to the Hon'ble the Court of Directors with the others before mentioned. I made repeated enquiries after the

myrrh tree on this coast but never could obtain any information of it. All said that it did not grow there.

From Ras Fartak to Ras Sharwen, [1] the next prominent headland, a distance of about 58 miles, the coast runs W.S.W and for the most part is only raised a few feet above the level of the sea. This distance may be again divided by an intervening cape called Ras Darjah [2] situated a little to the west of midway between Fartak and Sharwen. Between Ras Fartak and this cape, a distance of twenty-five miles, there is a sandy plain raised a few feet above the level of the sea, and a few villages on it near the latter, which, with their cultivation are protected from the wind and spray by a sand-bank about fifteen feet above the brow of the beach. Close under Ras Fartak are some mud-huts called Khaiset, after which on the coast come the villages to which I have alluded, viz. Kadifot, Haswel, and Sakar; and inland in the internal angle of the Fartak range, to which the sandy-plain extends, is the town called Wadi. This low coast is continued on about W.S.W. for fourteen miles to a small saltwater lagoon called Khor Makshi, when it curves round to the S.E. and then S.W. again to form the step-like cape called Ras Darjah.

This cape which is about 200 feet high and scarped on all sides, is the S.E. point of a group of low rocky mountains which extends inland to join the lower hills of the Fartak range, and also along the coast to the plain of Kashn [3], around which they wind inland to the high isolated mountains behind this place, called Jibal Jahun.

Inside Ras Darjah is a shallow bay with a rocky reef or island in it just peeping above the surface of the water.

From Ras Darjah the sea-cliff is continued on diminishing in height for four or five miles, when it, with the elevated land adjoining becomes concealed under a large tract of sand which is continued on to the plain of Kashn.

The high mountains inland north of Ras Darjah which seem to be the continuation of the Fartak range or tract, after it has turned to

[1] شروين [2] درجه [3] قشن

the westward, are called Jibal Adim, and those behind the plain of Kashn, Jibal Jahun.

For a description of Kashn I must refer the reader to Captain Haines' 2nd memoir; and for further observations on the Mahrah of the coast with a vocabulary of their dialect, see No. XI of this Journal p. 340.

From the plain of Kashn, which is bounded on the S.W. side by the mountainous tract extending out to Ras Sharwen, the coastline curves round to the S.E. until it arrives at this cape, where it again turns to the S.W. The plain of Kashn accompanies it in a narrow slip to within two miles of the cape, where the land becomes precitous to the water's edge, and gradually descends from 1,800 to 200 feet which is the height of the extremity of the cape. The curvature thus formed by the coastline gives rise to a small bay called the bay of Kashn.

A short way inside the cape is that part of the bay which is protected from the south westerly swell, and where Bagalos belonging to the inhabitants of Saihut and Kashn are laid up during the S.W. monsoon, *close to the shore*, it is called Bander Lask. This brings us to Ras Sharwen which, if Ras Sajar and Ras Fartak be remarkable for their magnitude, is not less remarkable for its peculiarity, which consists in the presence of two natural pillars on its summit, that may be seen sixty or seventy miles distant.

The bluff of the cape is as before stated not more than 200 feet above the level of the sea, which is ten fathoms deep close to it. It is scarped on all sides, but more particularly towards the sea, and is formed of the extremity of a long wedge shaped mountain which, after rising gradually westwards for about three miles, terminates in an angular summit 1,800 feet above the level of the sea By the side of and to the west of this summit are the two pillars mentioned, which appear to be formed of the same kind of white lime-stone as that of the the mountain on which they are based, they are about 100 feet high and situated about 150 feet from each other. Each is four sided and rounded at its extremity, and the easternmost is shouldered. I do not think there is any thing of the kind more remarkable on this coast

than these tow pillars, they look in form like two huge crystals. I regret much that I had not an opportunity of visiting them, to be certain whether they were the work of nature or man, or whether they had any writing on them; but I hope this will be accomplished some day, as the ascent to them from the inner side of the cape offers no difficulty whatever. I endeavoured by the aid of a telescope to discover if there were any characters on them and could see none, but we were never I think within five miles of them.

The mountainous tract in the neighbourhood of Ras Sharwen which joins with the mountains behind Kashn and is continued westwardly, is much disturbed and broken, and a mass of basalt is seen in the cliff four miles west of the cape which has been pushed up, so far, towards the surface.

Proceeding from Ras Sharwen to Ras Bu Gashwa, a distance of eighty-six miles, we find the coast runs about W.S.W. and presents neither head-land nor inlet of any consequence the whole way; while the whole mountainous tract between these two points is continuous, with the exception of the openings of Wadi Masilah and Wadi Shikawi, of which I shall speak in their turn.

After a distance of about eight miles from Ras Sharwen the sea-cliff, which is here very irregular, ends, and the highland receding from the sea gives place to the commencement of a low shore, which after a short distance widens out to a breadth of ten miles, this it maintains more or less to Ras Bu Gashwa.

Immediately west of Ras Sharwen is an extensive tract of sand which covers the rocky masses beneath, like that on the other side of Kashn. These tracts appear to have arisen from the disintegration of the upper part of a yellow sandy deposit a few feet in thickness, which here, in some places, overlies the hard white lime-stone formation of the coast. At the western termination of this sandy tract near the sea is the village of Atab, and between this and the commencement of the low shore, nothing but a few rocky and insignificant headlands intervene, the last or westernmost of which is called Ras Agab.

A few miles further on, after the lowland has commenced, is the town of Saihut distant from Ras Sharwen twenty miles. For a des-

cription of this place as well as the village of Atab I must again refer the reader to Captain Haines' second memoir. The former is the port to the valley I am about to mention.

Opposite the town of Saihut the mountains begin to fall back to form the eastern boundary of the great opening of Wadi Masilah, and fifteen miles further on, about three miles inland is the attenuated spur or angle of the opposite range, which forms its western limit; from these two points the opening narrows inwards to a gorge which leads into the valley, and from this again on either side, the ridges, which are here low, gradually rise to the height of the opposite mountainous tracts, so as to give the valley a crescentic form.

Wadi Masilah is certainly the grandest of all the valleys of this coast which open upon the sea, and running inland seem to divide the mountainous land of Southern Arabia into separate tracts. Its width and the height of its sides appear enormous, and like the "Devil's Gap" its summits are almost always bound together by overhanging clouds.

The inhabitants of Saihut state that it leads into the province of Hadramaut and that it continues in the country of the Mahrah the whole way, also that it is densely populated by this tribe. A stream of water issues through the gorge during the rainy season, and at its opening there are several date-trees, a few houses and some old castles in ruins, one of which situated on a little hill near the sea, appears to have been a square building with a turret at each angle. Its exports consist of goats, millet, and frankincense, which are exchanged at Saihut for wearing apparel and other necessaries. I regret that I had not an opportunity of obtaining more information about this valley.

From the western side of Wadi Masilah the mountainous tract is continued on under the name of Jibal Assad,[1] sometimes descending in precipitous slopes, at others by subranges of mountains and hills, to the plain beneath. It presents nothing remarkable and nothing to interrupt its continuity but the opening of a tortuous valley called Wadi Shikawi, the whole way to Ras Bu Gashwa. But this is not the case

[1] Captain Haines' 2nd Memoir.

with the *sahil* or sea-plain below, where there are a series of horizontal effusions of black basalt that rank among the most remarkable features on this coast.

These are three in number and are called by the Arabs the "Harieq" or burnt place. They commence immediately west of Wadi Masilah and are continued on to the neighbourhood of Ras Bu Gashwa. Each is accompanied by one or more cones about 100 feet above the level of the surrounding ground, and around each cone for a variable extent, is a low field or tract of basalt, so strikingly defined by its blackness and the light color of the *sahil* over which it has spread, that but for its being unattended by any active signs of volcanic eruption it might be taken for a semifluid mass of lava.

The first cone is about four miles west of Saihut. Its effusion has extended nearly to Wadi Masilah on the east, and joins with that of the following cone on the west.

The next cone is opposite Wadi Shikawi about nine miles from the last and about three miles inland. Its tract extends westward to the neighbourhood of Raidah, a village about eighteen miles distant.

In the centre of the third tract, which extends westward to Raidah, are four cones, and this effusion having taken place over ground for the most part 100 feet above the level of the sea, has found its way into the water-courses and appears at their openings on the shore in black rocks, contrasting strongly with the white color of the limestone on each side. The plains of the lower mountains here, also appear to be darkened, perhaps by ashes which were ejected from the cones or craters.

I explored a little of the second or middle tract, which extends over at least 150 square miles, at a place on the shore called Masainah, opposite Wadi Shikawi. It consists of large boulders of black basalt of different shapes and sizes, and just at this spot the molten mass appears to have passed over the beach into the sea. There is of course hardly any trace of vegetation on it, and the heat from it in the month of May was almost insupportable.

These black tracts as I have before said, are called by the Arabs the "Harieq" or burnt place, from a superstitious belief that they re-

present the ashes of seven Pagan cities which were burnt down by the Imām Ali, when he was sent into Yemmen in the tenth year of the Hijra to propagate the Mohammedan faith.

Connected with these volcanic effusions appears to be the shoal of Abdu'l Kuri, called by Captain Haines "Palinurus Shoal." It is about ten miles off shore opposite Wadi Shikawi, and its highest point has only four fathoms of water over it. The extent of the shoal is 1650 yards in a N.N.E. and S.S.W. direction, and it is from 300 to 600 yards broad. Captain Haines states "the soundings measured from the shoal spot gave 80 fathoms at one mile distance to the S.W., and 64 feet at two miles distance to the S.E. In every other direction they exceeded 100 fathoms at this distance. At two miles distance from the shoal spot towards the shore, the soundings were 120 fathoms."

Again opposite the town of Raidah, there is a pit from 120 to 135 fathoms deep close to the shore with 20, 30, and 40 fathoms all round it. Such irregularities in the bottom of the sea do not exist again throughout the whole of this coast, and I cannot help thinking that they are connected with the volcanic vents on the shore immediately opposite, both the shoal and the deep pit may have been of this nature, one a cone, the other a crater.

Opposite Wadi Shikawi also, is Masaimah the place before mentioned in lat. 15° 3′ N., and long. 50° 43′ E. It is situated immediately inside the sandy beach at this spot. There is a depression here, about two miles long and half a mile broad, which is the termination of a torrent-bed, probably coming from Wadi Shikawi. It is about thirty feet below the plain behind, and about five feet below the ridge of the beach in front. At its eastern end is a pool of salt-water, and a black-looking quadrangular mound, and at its western extremity a salt-water lagoon, about one mile long and two hundred yards broad, surrounded by a dense thicket of mangrove trees; while between the two are several mounds formed of black basalt, on which are the huts of a few fishermen.

On the quadrangular mound at the eastern extremity of the depressed portion are the ruins of an old building. Hardly anything of this

remains but the foundation, which extends over an area of thirty yards square. The walls were two feet broad and parallel to the cardinal points, two square turrets were at each angle of the building, and on the eastern side of the N.E. angle descending towards the sea, was a flight of steps about nine yards wide. The mound appears to have been built and rebuilt over and over again with insignificant structures, and looks at a distance nothing but a heap of black stones; but the foundation of the original building shews that there was once an edifice on it of some consequence. It was, if we may judge from the foundation, chiefly built of white limestone, probably brought from the neighbouring mountains, in blocks two feet long, each block having what is called a building-face; there were also blocks of black basalt among them, and the mortar, between one and all presented no appreciable difference, so that in all probability these formed part of the original construction.

I carefully examined the whole of this mound and afterwards the immediate neighbourhood, but saw nothing more worth mentioning.

Opposite Masainah about ten miles inland (the breadth of the *sahil* here), is the ravine-like opening of Wadi Shikawi, which is bounded on each side by a rapid descent of the mountainous tracts, to a narrow gorge.

The valley seems to expand out a little interiorly and its direction appears to be N.W. It is said to be a day and a half's journey long, and then to divide into three branches; also to be much cultivated and thickly inhabited by people of different tribes.

The opening of this valley is more beautiful than grand, inasmuch as it is not carried through to the sky as that of Wadi Masilah, but shut up, so to speak, by mountain-peaks in the back ground. Wadi Masilah seems to go direct through to the sky, Wadi Shikawi to pursue a tortuous course. The latter is said to limit the territory of the Mahrah westward.

It was in a cavern of the mountains a little to the east of this opening that Captain Sanders, Mr. Smith, and the late Dr. Hulton, discovered some Hamyaritic characters in red paint. As yet none have been found further eastward.

The Beduins at the town of Raidah, whom we met by appointment on shore at Masainah, offered to conduct us to some places of the kind in the valley of Shikawi, and drew on the sand the very characters we were in search of, but in consequence of the arrival of two other parties of different tribes, and the dispute which ensued respecting the right of shore, and that of presents, and then an indiscretion of one of our party, which nearly brought us to a direct fight, we declined the offer of our Raidah friends, and thought ourselves not a little lucky when we got back to the "Palinurus" in the evening, with our skins sound. As it was we were obliged to leave a hostage (voluntary), and return the next day with presents to ransom him. But for this indiscretion which led to a want of faith on the part of the Beduins, we might have gone anywhere.

Excepting a few trees visible by the aid of a telescope, on the summit and sides of the mountainous tract between Ras Sharwen and the neighbourhood of Raidah and Ras Bu Gashwa, the whole coast is barren and uncultivated.

It was at Masainah that Captain Haines' survey, when proceeding eastward along this coast from Bab el Mandab, terminated, and it was also from that place that Captain Sanders' to Ras Sharwen commenced; Captain Sanders having previously surveyed the coast between the last named cape and Ras Fartak. I must therefore refer the reader for a description of the remaining part of this coast to Captain Haines' first memoir, and conclude my observations on it with a few general remarks.

Proceeding from Masainah westward, we find the *sahil* still flat, and but a few feet above the level of the sea, until passing the village of Raidah, when it begins to rise gradually, and with it a sea-cliff commences, which at Ras Bu Gashwa attains an elevation of 300 feet. These cliffs are white, and here and there broken by a torrent-bed, at the opening of which upon the sea is seen the black basalt before mentioned.

The village of Raidah which is about twelve miles from Masainah is about three quarters of a mile inland. It is the first place since leaving Haswel near Ras Fartak, that has presented any cultivation.

The goats of this place are remarkably small, white and spotted, short haired and gazelle-like. One she-goat with kid which was brought on board from Raidah, only weighed four and a half pounds, after having been prepared for cooking. The shaykh of Raidah treated us, as all other shaykhs whom we visited, with much hospitality. He was a Sharif and like the Sharifs generally, possessed that light colored skin, and well fed appearance which contrast so strongly with the dark and wiry figure of the hungry Beduin. He was however affected to a great extent in his hands with the disease called tuberculous lepra, so common in India, in which the phalanges of the fingers and toes drop off at the joints, leaving those which remain, contracted and frightfully distorted. It is said by the people of Raidah, that the heir to the shaykhdom of Raidah is always known by this distinction. Therefore it is probably hereditary, and does not shew itself until late in life, when the shaykhdom is naturally about to descend by death from father to son. It is the shaykh of Raidah too who claims the young of the shark found within the parent, to which I have before alluded when speaking of the perquisites of the shaykh of Masira.

From the people of Raidah I ascertained that which I had been led to expect from personal observation at a distance, viz. that the ruins of an ancient town exist on Ras Bu Gashwa. They are close to the cliff, and cannot fail to strike the eye of a person sailing along this coast. Near them is said to be a hill on which there is some ancient writing; probably that visited by the late Dr. Hulton, and Mr. Smith. There is also said to be more writing among the ruins of an old castle between Raidah and a place called Goseirah, a few miles further west on the coast, probably "Maaba" in which the gentlemen just mentioned, could find no inscriptions. Another place mentioned by the people of Raidah where there is ancient writing, is called Banat Hajam in the mountains opposite Masainah, where I appointed the Beduin party mentioned to meet me to visit it, but as I have before stated we were prevented from doing this by accidental circumstances. The distance between Raidah and Hadramaut, is said to be ten days' journey.

Opposite Raidah the mountainous tract is called Jibal Shamakh, and

the upper line of it falling considerably back, contrasts strongly with that just passed, in attaining its summit much less abrubtly. The latter appears to be lower but this may be caused by its greater distance from the sea.

The *sahil* also here becomes widened, to upwards of fifteen miles, and in lieu of continuing low, or only a few feet above the level of the sea as before, and even on its surface, it is broken up in all directions and thrown into peaks, particularly close to the sea, to wit, Nassar and Manassar, which are some hundreds of feet above the level of the surrounding country, shewing that subterraneous agency probably connected with the extinct volcanos just passed, has been at work here below the surface, and for want of vents has given rise to all this disturbance. There are many hot-springs here, which are said to possess great medicinal virtues, indeed the *sahil* is called Hammam ; and from the number of places and ruins, and the cultivation which accompanies the presence of water here, this, next to Dofar, may be inferred to be the most favored part of the coast. It must always have been thickly populated, and therefore it is, that here, close to Hadramaut, where a few Hamyaritic inscriptions have already been found, others and still more valuable antiquities may be sought for, with probable success, and I should think without much opposition or difficulty.

From Ras Bu Gashwa, which is 300 feet high, the cliff continues on with breaks here and there, to the village of Hami, and a short distance afterward ends in a low sandy shore which is continued on to Ras Makalla. Here the highland again advances towards the sea and terminates westward, this, the longest maritime plain or *sahil* on the coast.

Passing round Ras Makalla, we enter the bay of the same name and arrive at the town which has been fully described by Captain Haines, and to whose description I must refer the reader only adding here a few observations on the neighbourhood.

Although the immediate vicinity of Makalla is particularly barren, yet this is not the case a short distance inland. Leaving the town and proceeding along the beach, we soon arrive at the debouchement

of a torrent-bed, where there is a long narrow slip of saltwater, such as is commonly seen at the ends of these places. And following this water-course for about a mile, we come upon some extensive groves of date-trees and a large garden. These belong to the shaykh of Makalla, who has built watch-towers there occupied by his soldiery to protect them from the incursions of the Beduins. The garden is irrigated by a stream of water which is found to be derived from a rivulet that has its source in a rocky ravine of the mountains close by. On pursuing this rivulet to its origin, we find it issuing from a place about 300 feet above the level of the sea, and at a temperature some degrees above that of the surrounding atmosphere. It soon increases in size, and falling over a little precipice into a natural bason, affords a most convenient place for bathing. There are many springs of the kind in the neighbourhood and many holes and subterraneous hollows filled with water in the adjoining mountains. These all pour their contents into the rivulet mentioned, which after a sinuous course would, if its waters were not diverted to the garden, find its way to the lagoon at the debouchement of the torrent-bed. The water is fresh and tasteless, without smell or deposit of sulphur at its source, though attended in some parts by the presence of much magnesian lime-stone in botryodal masses. The place where this spring is situated, is called Bokaren, and the stream which flows from it, is surrounded by date-trees. The inhabitants of Makalla wash their clothes there and obtain their daily supply of water from it.

With this brief description of Bokaren, let us proceed from Makalla along the coast, which now runs S.S.W. At first the shore is low and sandy, backed as usual a few miles inland by low hills and then the great mountainous tract, which is here nearly 6,000 feet above the level of the sea. This sandy shore is continued on to the next cape, called Ras Brum which is composed of dark, brown, peaked igneous rocks that are extended to Ras el' Asidah, and form, with the exception of Ras Răttle which is of white limestone, the principal headlands all the way. They extend a considerable distance inland towards the lofty mountainous tract behind, and attain their greatest height perhaps about Ras Brum and Ras Rehmat, which must be

nearly 1,000 feet above the level of the sea. They are thrown up in ridges which in some parts alternate with limestone and at Ras el'Asidah end in a few peaks and rocks scattered over the maritime plain westward of this cape. This is the largest tract of igneous rocks on the coast, it is fifty miles in extent, which is the distance between Ras Brum and Ras el' Asidah.

The islands of Baraghah, Jibus, and Hallani which are opposite the southwesternmost part of this tract, are all of the white limestone formation of the coast. The rock of Hisn Ghorab from its form and color would lead one to infer that it was igneous, but it is stated by Captain Wellsted (Travels in Arabia vol. II p. 423,) to be composed of "a dark grayish colored compact limestone."

Nearly opposite Ras el'Asidah the continuity of the great mountainous tract is for the last time interrupted by one of these great valleys which lead into the interior. This is called Wadi Meifah and is a most important feature in the comparative geography of this coast. It was here that Captain Wellsted and Lieutenant Cruttenden discovered the ruins of Nakab el Hajar. The entrance to the valley is much further from the coast than that of Wadi Masilah, and is obscured by many high hills between it and the sea, although the great break in the outline of the highland distinctly marks its position. From the western side of Wadi Meifah, the mountainous tract which still continues nearly 6,000 feet high, advances again towards the sea, and about 90 miles N.E. of Aden approaches within half a dozen miles of it, after which it continues to run parallel to the shore for about 60 miles and then approaching still nearer, comes within a mile of it. At this part certainly, it appears very grand to one sailing along the coast near it. The soundings just opposite it agree with what I have stated at the commencement of this description, respecting their being deepest where the land is highest, they are here 150 fathoms two miles off shore. This part of the mountainous tract is called Jibal Fudtheli, the same name as that of the tribe who inhabit it. It extends westwards to within thirty miles of Aden, when behind it is seen a still more magnificent range called Jibal Yaffai, (also inhabited by a tribe of the same name,) which in broken ridges extends to Ras Bab el

Mandab, and here ends the southwestern extremity of the great mountainous tract of this coast.

Between the Yaffai mountains and the sea lies the extensive plain of which Aden forms the southeastern angle. *

COMPARATIVE GEOGRAPHY OF THE SOUTHEAST COAST OF ARABIA.

The foregoing description of the Southeast Coast of Arabia is given from east to west, but the descriptions of the ancient Geographers with which I am about to compare it, have been given from west to east. They are by Ptolemy [1] and Arrian, [2] (or the Author of the Periplus of the Erythræan Sea, who is supposed to have been a navigator or merchant of these parts), and are the only connected descriptions of this coast extant. Both accounts appear to have been written during the first fifty years of the second century of the Christian era and within twenty years of each other, [3] long after Egypt had become a Roman Province, and when the Homerites or Hamyarites occupied the southwestern angle of Arabia, and the Sabeans lived next to them.

Ptolemy's account contains little more than the names of the places on this coast, in his time, in succession, from west to east, with

* In this description I have purposely omitted all geological detail, that I might not distract the readers' attention from the main point, and that I might not introduce here what will be better understood in a separate paper. I have also endeavoured, as much as possible, to avoid repetition of what has already been written of this coast by Captain Haines, the late Captain Wellsted, Lieutenant Cruttenden, the late Dr. Hulton, and myself, preferring rather to refer the reader to these writings, when requisite, than swell out this description by quotations from them.

For the spelling of the *Arabic* words I have taken as my guide that of the inhabitants of the several localities, where I could get any one to write them for me. I am aware that it is incorrect, but it has the advantage of local authority, and can be adjusted by an Arabic scholar. In the English spelling the vowels *a*, *e*, *i*, and *u*, must be pronounced as in Italian.

The information I have given of the interior of of the country, and much of the life and habits of the people on this coast was obtained with as much care and regard to truth, as practicable; that of the coast itself has been described from observation and personal experience.

[1] Hudson's 'Geographiæ Veteris Scriptores Græci Minores,' with notes and dissertations by Dodwell, 4 vols. 8vo., 1698—1712. Idem.

[2] Dean Vincent, Commerce and Navigation of the Ancients in the Indian Ocean, vol. II. p. 49.

their latitudes and longitudes; whereas the author of the Periplus gives few names but an ample description of both coast and commerce. It will be best therefore to take the description of the Periplus first and endeavour to locate Ptolemy's towns etc. afterwards.

At the second meeting of the Bombay Branch of the Royal Asiatic Society, after it was first established, then called the "Literary Society of Bombay," it was resolved, that prizes should be given annually for the best dissertations on subjects to be proposed by the Society, and the first subject was:—"To illustrate as far as possible from *personal* observation, that part of the Periplus of the Erythræan sea which contains the description of the coast from the Indus to Cape Cormorin."—Whether this was ever done or not I have been unable to discover, at all events it does not appear in the Literary Society's Transactions.

It is therefore not a little gratifying to me to find, when thus far advanced, that I should have been unconsciously labouring in a field of research so near that of the Primitive Members of this Society, as to be endeavouring to illustrate from personal observation, the very next preceding part of the Periplus to that which it was their first object to obtain.

I have already stated that both Ptolemy and the Author of the Periplus have described this coast from west to east, and it will be necessary now, to follow them in that direction, although the description just concluded has been from east to west.

In my comparisons I shall be guided not so much by names and measurements as by the principal physical features of the coast, such as bays, anchorages, promontories, shores, mountains, valleys etc.; for names change and measurements are not always correctly given, but physical features are comparatively indelible. The latter I shall premise before proceeding further.

The two principal bays on this coast are those of El Kamar and Curiyah Muriyah bay, and the small ones and anchorages are those of Aden, Makaten, Ras el' Asidah, Hisn Ghorab, Bander Brum, Makalla, Sharma, Bunder Lask inside Ras Sharwen, the Khor of Khalfot in the bay of El Kamar, Bunders Resut, Marbat, Jinjari, Hasek, and the straits of Masira.

The principal promontories are Ras Sharwen, Ras Fartak, Ras Sajar, and Ras Nus.

The maritime plains are, that lying north of Aden, that between the prominent portion of Jibal Fadtheli and Ras el'Asidah, that between Ras Makalla and Ras Agab a few miles east of Saihut the longest of all, and that of Dofar the most fertile and best irrigated of all.

The mountainous tract, is that which extends from the straits of Bab el Mandab to Ras Nus; it is divided into two portions by the interval of lowland between the Fartak and Fattak ranges in the bay of El Kamar. Then follows the tabular land without mountains from Ras Nus to Ras Jazirah, and from the last named place to the eastern extremity of Arabia the coast is seldom more than 100 feet above the level of the sea

While the chief and only valleys are, Wadi Meifah, Wadi Shikawi, Wadi Masilah, Wadi Shagot and Wadi Rakot.

Rivers there are none, but there are the debouchements of great water-courses in different parts.

The most striking objects on the coast are the Black Basaltic effusions, the natural pillars on Ras Sharwen, the triple or quadruple headed mountain called Jibal Habarid, and Jibal Safan, the twin like mountains which mark the eastern extremity of Arabia.

The principal towns are Howaiyah, Makalla, Shaher, Saihut Kashn, Damkot, Sillalah and Lashkhara.

The Islands consist of three groups, first those opposite Hisn Ghorab, second the Curiyah Muriyah islands in Curiyah Muriyah bay, and third the island of Masira with that of Jazirat Hammar el Nafur.

These are the principal features of the coast, we will now proceed to the comparative geography of it.

Before doing this, however, it is as well to premise that in estimating the distances given by the Author of the Periplus, I shall value the degree at 500 stadia, the number found by Gosellin to answer best for following him through the Red Sea.[1]

Begining then from the straits of Bab el Mandab, we find the first place mentioned by the Author of the Periplus to be *Arabia felix*, which was 1,200 stadia from a port just within the straits called *Okelis*.

1 Recherches sur la Geograph ie des Anciens. t. viii. p. 9.

This *Arabia felix* possessed a commodious harbour and sweeter water than that at *Okelis;* it was the centre of commerce between India and Egypt; whatever business passed between the eastern and western nations took place there, [1] and the inhabitants probably placed what duty they liked on both the Indian and Egyptian goods.

That *Arabia felix* must have been Aden seems determined by its distance from *Okelis* and the description given in the Periplus, simply because there is no other place in the neighbourhood to answer to one or the other. Aden has a commodious harbour and sweet water, and would now be on the chief line of commerce between Asia and Europe, were it not for the discovery of the passages round the Cape of Good Hope and Cape Horn.

If Ptolemy's latitude is to be allowed to have any weight his *Arabiæ emporium* which, as it is the first port mentioned after the straits of Bab el Mandab, so it may be reasonably inferred to be Aden, is the most southern but one of all his latitudes of the south-east coast of Arabia, [2] which is the case with Aden, than which only that part of the coast between Aden and Bab el Mandab is more south. [3]

Hence from the description of *Arabia felix* in the Periplus and the appropriate name by which Ptolemy has designated his most southern port of Arabia, there seems to be very little doubt that both one and the other are the same, and that the port to which they both alluded was Aden.

We have here then a point to start from, and from which the site of *Okelis* should be fixed, rather than Aden from *Okelis*, for there may be doubt about the position of the latter but there cannot be any I think about that of the former.

Proceeding eastward, it is stated in the Periplus, [4] that *Arabia felix* is followed by an oblong shore and gulf, (had this been shore *or* gulf it would have been more intelligible, for certainly, in describing this coast, the author of the Periplus uses the two names *sinus* and *littus* for the most part synonymously.) This shore was more

[1] Ar. Perip. Mar. Eryth. p. 14. loc. cit.
[2] Ptolemæi Arabia p. 13. loc cit.
[3] Chart. Capt. Haines.
[4] Loc. cit. p. 15.

than 2,000 stadia long; after which came a promontory, and then another port called *Kanè*, situated in the thuriferous region. About 120 stadia from it (*Kanè*) were two desert islands, one called *Orneon* the other *Trallas*, and above it inland was a metropolis called *Sabbatha*. Frankincense was brought to *Kanè* which was grown in the neighbourhood, partly on camels, partly on rafts made of inflated skins and partly in ships. It (*Kanè*) carried on a commerce with Broach (or Gujerath) Oman, Sindh and the neighbouring coast of Persia, also with Egypt. Its exports were the natural produce of the country, frankincense, aloes etc. and such commodities as were found in the other emporia of the coast.

Now, at first, we should say, this *Kanè* must have been Makalla, for Makalla has the very trade at the present day which is here mentioned, with the exception of the more costly articles noted in the Periplus. Vessels from India, Persia, Sindh, Oman, Africa, the Red Sea and from many other parts of the world now frequent Makalla, not so much for the produce of Arabia as for that of the African coast opposite, and Socotra. Makalla is within six days journey of Hadramaut the central province of Arabia, and probably from its reputed fertility the most populous province, and a constant intercourse and small traffic is kept up between the two. Moreover, Makalla has a harbour secure against the N.E. monsoon, a prominent cape extending two miles into the sea on its eastern side, and an abundant supply of fresh water within one mile and a half of the town. There is not another place between it and Aden at all approaching to it in these respects, but then, where are the islands mentioned by the author of the Periplus, there are none; and the distance *Kanè* was from *Arabia felix* prevents our going further eastward to find them. We must look therefore for another locality between Makalla and Aden, and taking the islands for our guide, we find opposite the first group I have mentioned, "a small secure and well sheltered bay and harbour one and a half mile broad by one deep."[1] This is called Bander Hisn Ghorab and is 3° 32′ or 1750 stadia east of Aden. It is the only instance between Aden and Makalla where there is such a bay and where there are any islands. We have then the bay and the islands.

[1] Captain Haines' 1st Memoir.

It is now left for us to ascertain if the locality was favorable for a commercial depot, if there are any remains of this depot, and what was the name of it. That Bunder Hisn Ghorab is a favorable locality for a depot is evident from the harbour being nearly opposite the opening of the great valley called Wadi Meifah, the westernmost of the five great valleys on this coast, which running northward divide the mountainous land into separate tracts and thus afford passages in to the interior. That Bunder Hisn Ghorab and its neighbourhood do present remains of a powerful people is seen by the ruins of the fort called Hisn Ghorab on the west side of the harbour, which contains the longest Hamyaritic incription yet found [1]; and the remains of another fort of the same kind, also containing a Hamyaritic incription,[2] in the valley of Meifah, sixty miles inland from Hisn Ghorab while at Makalla there is no valley nor even break in the mountains opposite it, neither are there any remains of ancient buildings. Indeed so little was thought of Makalla even 700 years ago when Edrisi wrote his Geography, that he does not even mention it by name, stating only that between a place called "Lassa (لسع)" which was west of Makalla and "Choma (شرمة)" which was east of it, "on trouve sur la route un grand bourg auprès de duquel est une source et un *bassin* d'eau chaude ou les habitans font leurs ablutions et transportent leurs malades. Ceux-ci trouvent un remède salutaire contra diverses infirmities." [3] Then as regards the name although we have not literally "*Kanè*" here, we have a name under several forms which comes so near it that we have only to exchange one consonant for another, (one of the commonest interchanges to which the human voice is liable viz. *d* for *n*), to make it radically the same word; this is Khada. We have Ras Khada forming the eastern side of the bay of, or Bunder, Hisn Ghorab, then the Kadhrein islands (two) one mile off it, next the bay of Makadahah, the village of Makadahah, and last of all Ras Makadahah four miles east of Ras Khada. [4] So that we have this name in at least five different forms occurring within as many miles of Bunder Hisn Ghorab.

Now most Geographers have identified *Kanè* with a bay in the old charts hereabouts called Cava Canim, but Dean Vincent states in a

1 Wellsted Travels in Arabia Vol. I. p. 405. 2 Idem, Vol. II. 421.
3 French Trans. by Jaubert 1836, 4 to. 4 Captain Haines' 1st Memoir.

foot-note, [1] "In Sanson I find the name of Cava Canin first mentioned, where he has a bay and islands; but as Sanson was well acquainted with the Periplus, whether he placed them there out of respect to that authority, or had any other, I cannot discover." Again he says above, but "if they exist "that is the islands, they" identify Cava Canim for *Kanè* in preference to Makalla." That Sanson had authority for placing a bay and islands here there can be no doubt, and if the bay were called Cava Canim it still more approached the sound of *Kanè*, than Khada; nor is it impossible that some of the inhabitants may call Khada, Kana, at the present day. Be this as it may, sufficient evidence has been adduced I think, without identification of names, to prove to the most scrupulous investigator that the port called *Kanè* by the author of the Periplus was at Bunder Hisn Ghorab.

As regards the measurements given in the Periplus, taking 500 stadia to the degree, Bunder Hisn Ghorab would be less by 250 from Aden than that mentioned by the author of the Periplus, and Makalla 233 stadia more; while the distance of the islands from *Kanè* is stated to be 120 stadia, about 14 miles; the latter is more than it really is, for if Bunder Hisn Ghorab be *Kanè*, the islands furthest from it are Jibus and Baraghah; the former of which is 41 stadia or 5 miles off shore, and the latter 66 stadia or 8 miles, along shore, east of it.

Again if we take the distance Jibus is from the shore at the distance given in the Periplus, viz. 120 stadia, and apply this rate of measurement to the distance between Aden and Bunder Hisn Ghorab, which are now presumed to have been *Arabia felix* and *Kanè*, we shall find that it amounts to 5,040 stadia which is so out of all probability that we must at once come to the conclusion that for our identification of the places described in the Periplus we must not depend on the measurements, but, as I have before stated, on the indelible features of the coast.

Ptolemy's *Kanè emporium et promontorium* seem merely to want the latter to identify the former with the *Kanè* of the Periplus, and that, we may find in Ras el' Asidah, a black cape, the first conspicuous one after leaving Aden; or in Ras Rättle a conspicuous white cape;

[1] Op. cit. Vol. II. p. 334.

or indeed in Ras Makdahah already mentioned; all of which are within ten miles of Bunder Hisn Ghorab. *Emporium et promontorium* would certainly better suit Makalla and Ras Makalla, as for matter of sequence, but if Ptolemy's latitude may be brought into our assistance his *Kanè* was in a parallel of one degree north of Aden, while Makalla, the only other place with which it could be confounded is in one 105 miles north of it. Bunder Hisn Ghorab is in one 73 miles north of Aden.

Although it seems almost hopeless to attempt to identify any other of the places mentioned by Ptolemy between Aden and Hisn Ghorab, or indeed between the straits of Bab el Mandab and Aden; yet there is such a striking resemblance between names and places which immediately follow *Cana emporium et promontorium*, and names mentioned by Ptolemy himself, in separate parts of his lists, also between these names and names connected with *Kanè* in the Periplus, and between both and names existing at the present day, that it is perhaps worth mentioning.

Thus after *Cana emporium et promontorium* in Ptolemy, come in succession, *Trulla portus*, *Mæphath vicus*, *Prionis flu. ostia*, *Fontes fluvii*, *Embolum vicus*, and *Tretos portus*.[1]

To commence with the resemblance between names mentioned by Ptolemy in different places, we have his *Tretos portus*, and under the head of "Islands," his *Tretæ*, which, if the name of an island or islands, were the next west of his *Insulæ Zenobii*; and as we shall find the latter to have been the Curiyah Muriyah islands, so the former must have been opposite *Kanè* or Bunder Hisn Ghorab. Ptolemy's latitude of *Kanè* and *Trete* are the same in Mercator's and Gosellin's charts, (and the latter placed in Socotra), but not the same in the tables *ap.* Hudson. *Tretos portus* was 1° 35′ north of *Trete*. Then his *Trulla portus*, being close to his *Kanè*, of the same longitude, and within ten minutes of the same latitude, has a great resemblance to the island called *Trullas* by the author of the Periplus, which was one of the two opposite *Kanè* or Bunder Hisn Ghorab. While Ptolemy's *Mæphath vicus* is very nearly allied in name to Meifah, the valley of

[1] Loc. cit. p, 13.

Meifah and village of the same name in it [1] at the present day, opposite Bunder Hisn Ghorab. And the mention of a river here, which if any exist in this part of Arabia for a period, might be fairly expected to issue from some great valley, would therefore be in Wadi Meifah, for there is no other great valley here. This is supported by Captain Wellsted's account, who states of a part of this valley, "it is about one mile and a half in width, and the bank on either side with the ground over which we [Wellsted and Cruttenden] were passing, afforded abundant evidence of its having been the bed of a powerful stream but a short time previous." [2]

Of the oblong shore and bay, *littus oblongum et sinus*, mentioned in the Periplus, between *Arabia felix* and *Kanè*, (Aden and Bunder Hisn Ghorab), I can say nothing more, than that there is no bay there of this extent, and there is nothing in the shore that I could see to merit the designation applied to it by the author of the Periplus; but probably if I rightly understood the meaning of his terms I should have seen both. Neither can I make out Ptolemy's *Magnum* and *Parvum littus* here a bit more satisfactorily. There is a great maritime plain behind Aden, which is divided from a lesser one to the eastward extending to Ras l'Assidah, by the projecting part of the Fudtheli mountains, but beyond this there seems to be nothing to identify with Ptolemy's great and little shore.

The metropolis called *Sabbatha*, stated in the Periplus to be above *Kanè*, I shall have to notice hereafter.

Following *Kanè*, the author of the Periplus continues:— *Post Canam magno spatio terra retrocedente, alius profundissimus sinus sequitur longo tractu extensus, qui Sachalites nuncupatur: et regio thurifera, montana, adituque difficiles, * * * Atque hujus quidem sinus maximum est mundi promontorium ad orientem spectans, Syagros appellatum: in quo regionis illius castrum est, et portus, thurisque collecti receptaculum.*[3] We have therefore to follow the coast eastward to the first remarkable promontory, for we have no measurement here, and see if this answers to the description given in the Periplus.

[1] Wellsted's Trav. in Arab. Vol. I. p. 126. "Sketch of Route to Ruins of Nakab el Hajar."

[2] Idem. [3] Loc. cit. pp. 16, 17.

Leaving Bunder Hisn Ghorab then, we pass successively Ras Makallah, Ras Bu Gashwa, Ras Sherwen, and then come to Ras Fartak, which though not exactly answering to the description of the author of the Periplus in being the largest in the world, for Ras Sajar the next cape to it is larger, yet from its prominence, its size, and its position, it is by far the most remarkable on this coast. To give some idea of its prominence, I may again state that, it is the isolated extremity of a narrow mountainous ridge 2,500 feet high and four or five miles broad at its base, having the bay of El Kamar on one side and an extensive plain on the other; scarped 1,900 feet perpendicularly to the water's edge on the eastern side, and sloping rapidly on the western side, while the turn of the coast gives its extremity an E.S.E. aspect, and not the ridge, which runs north by west. Thus far it answers to the description of the Periplus. As for the rest, the coast-line begins to recede suddenly from Ras Kelb, twenty miles east of Bunder Hisn Ghorab, and continues to do so for thirty miles further on, to Ras Makalla; but from thence it is almost straight to the neighbourhood of Ras Fartak. It is indeed the straightest part of this coast, and is accompanied by the mountainous tract of Southern Arabia, almost uninterruptedly, the whole way. The latter is confronted by a comparatively low mountaninous shore from Bunder Hisn Ghorab to Ras Makalla, (the tract of igneous rocks already mentioned,) and afterwards, by an almost uninterrupted strip of plain or *sahil* to Ras Agab, a distance of 140 miles, when the mountainous tract advances upon the sea again, and the coast becomes more or less scarped and mountainous to Ras Sharwen, and then mountainous at intervals, to Ras Fartak.

The mountains are steep and difficult of access, and they yield frankincense, for this tree grows on them from above Makalla eastwards, and probably more or less throughout the whole mountainous tract to Jibal Yaffai behind Aden; for it abounds on the limestone mountains of the Somali coast opposite, which is probably part of the same formation.

We have then an immense cape, with its extremity directed more towards east than south, (though not due east,) which is quite sufficient for our purpose; mountains steep and difficult of access, and yielding frankincense; and the shore receding, but not continuously to

form a great gulf or bay, as the author of the Periplus would seem to have it, any more than we have found a similar continuous *sinus*, or bay, between Aden and Bunder Hisn Ghorab. Thus we have nearly all the features mentioned in the Periplus between *Kanè* and *Syagros*. Let us now see what further confirmation the bay of *Sachalites* so far identified, derives from the testimony of Ptolemy.

In locating the different nations of southern Arabia, this Geographer states, *Sub his autem omnibus Chatrammitæ, à Climace usque Sachalitas*.[1] Now we know that his *Climax mons* was in the S.W. angle of Arabia, and moreover, we know the position of his *Chatrammitæ*, insomuch as they were the people of Hadramaut, which province is six days inland from Makalla, ten days from Kashn, and about fifteen days from El Ghraitha, a town in the bay of El Kamar. Thus it must have been north of Makalla, extending some distance eastward towards El Ghraitha. It would then be behind the mountainous land and coast which we have supposed to border on the bay of *Sachalites* of the Periplus; and so far further, the position we have given this bay, would appear to derive additional confirmation from Ptolemy's testimony. It may be said that Ptolemy places his *Sinus sachalites* after Fartak, or *Syagros*, which is the case, but we shall see by and by that the author of the Periplus has one there too; and it is much more probable if we be right in the position of Ptolemy's *Chatrammitæ*, that Ptolemy or his informants omitted to mention a *sinus sachalites* here, than that the author of the Periplus put in one too many. Again we shall presently see from the probable etymology of the word *Sachalites*, that its application was more general than specific on this coast, which may still further account for Ptolemy's apparent omission.

The term *Sachalites* appears to be derived from the Arabic word *sahil*, ساحل, for in divesting the former of its Greek termination we have remaining *sachal*, which is *sahal*; since *ch*, not only with the Greeks and Romans, but with many nations at the present day, has been, and is now, substituted for the Arabic ح, *hha*, which from its guttaral sound is pronounced like *ch*, e. g. Achmed for Ahmed, احمد; Χατραμωτῖται (Ptolemy) and Chatramotitæ (Pliny) from حضرموت, (Abulfeda). Hence we have in *sachal* the equivalent radicles

[1] Loc. cit. p. 21.

of ساحل, which as I have frequently stated means maritime plain, and the people who inhabit the *sahil* are called by the Arabs the *ahl el sahil*, or sahilites. Gosselin (Vol. iii. p. 16. Op. cit.) has given this derivation to the word *Sachalites*, but the probability of it struck me before I saw it mentioned by this author; while if there be any part of this coast which deserves the name of *sahil* from its extent, more than another, it is the tract between Ras Makalla and Ras Agab. It is remarkable too, that we should have the port on this *sahil* to the great Wadi Masilah, called Saihut, which in some parts is called Sahul, and by the slightest permutation would make Sahil; while we have in Ptolemy's list of cities and towns in Southern Arabia, *Maccala* and *Sachle*, following next each other, from east to west, and the former twenty-five minutes north of the latter, which is as it should be, if they were meant for Masilah and Saihut.

On the shores of the Red Sea, Tahāma is the name applied to the maritime plain; on the south eastern coast of Arabia, it is called Sāhil, while on the coast of Oman, the flat country north of Maskat is called Bātanah; but whether the latter be the common term for maritime plain here I know not; hardly any but that called Bātanah, exists, on the latter coast.

As for the derivation of *Syagros*, we have the same name for the first promontory after *Kanè*, both in Ptolemy and the author of the Periplus; but there is no resemblance in name between *Syagros* and Fartak. We have, however, a village on the shore within a few miles of Ras Fartak, called Sagar, صقر, which has the same radical letters in it as *Syagros*, when the latter is divested of its Greek termination, and in the name of this village therefore, would seem to linger a trace of the name formerly applied to the cape close to it.

To identify Ptolemy's *Syagros extrema*, with the *Syagros* of the Periplus, and the Ras Fartak of the present day, hardly anything more can be said than that as the next cape to *Kanè* in the Periplus is *Syagros*, so it is the next in Ptolemy.

After the places mentioned by Ptolemy, which would seem to have been about Bunder Hisn Ghorab, come *Thiallelah vicus*, then *Moscha portus*, and lastly *Syagros extrema*, which last was the eastern extremity of Ptolemy's *Regio Adramitarum*, or Hadramaut. As in

the Periplus, so in Ptolemy, we shall find a *Sinus Sachalites* coming after *Syagros extrema*, and from this being the estern limit of his region of Hadramaut, so the *Sachalites* which he places south of Hadramaut, (*Chatrammitæ, à Climace usque Sachalitas,*) seems to have been in front of it, and to have been the *Sachalites* mentioned by the author of the Periplus, and omitted here as before stated by Ptolemy. All this, without measurement, would seem to identify Ptolemy's *Syagros* with the *Syagros* of the Periplus, and the Fartak of the present day. If we may be allowed to quote Ptolemy's latitude without longitude in this case, his *Syagros extrema*, was in a parallel of 2° 30′ north of Aden, which is only twenty two minutes less than in should be; and if we were to carry on his *Syagros* even to the next cape east of it, viz. Ras Sajar, we should find it 1° 6′ still further south than it should be, for Ras Sajar is this distance north of Fartak.

The castle and port which served as a *receptaculum* of frankincense, mentioned by the author of the Periplus, at, or in the neighbourhood of, *Syagros*, might have been the port of Kashn, which is the chief town of the great Mahrah Tribe, on the coast; there is a bay there, the bay of Kashn, and a little Bunder opposite, called Lask, which is protected by Ras Sharwen from the southeast monsoon. The Shaykh of the Mahrah lives at Kashn. This might have been the situation too of Ptolemy's *Moscha portus*, which just precedes his *Syagros*. The bay, though not so capacious as, is something similar to, the bay of Resut, in which we shall find by and by, another incense port, called *Moscha*, by the author of the Periplus.[1]

Next to *Syagros*, the island of Socotra and its produce is mentioned by the author of the Periplus, under the name of *Insula Dioscoridis*; but as I know nothing of this island personally, and it is rather on the coast of Africa than Arabia, though subject to the latter, (as noticed in the Periplus,) having been under the Shaykh of the Mahrah from time immemorial, I shall say nothing more of it here, than that the author of the Periplus is as accurate in his information

[1] Could *Moscha*, have come from سَاقَ, *Mercatui operam dedit, emit venditque.* Gol. There is a place called *Suk* سُوق, *close* to Kashn, also Suk el Hasek, and Suk el Basir, on this coast.

respecting this island as in any part of his description of the coast of Arabia. It is worth noticing however that it was under that Eleazus who was king of the Frankincense Region *in Arabia*, and not under Charibael, who ruled over *that* of Azania or the Somali coast. This, with the fact, that even to this day it belongs to the Mahrah Tribe, whose Shaykh as before stated lives at Kashn, the only port of the Mahrah, for they have no other with a bay, seems to point out Kashn as the incense port of the Periplus and the *Moscha portus* of Ptolemy.

Proceeding eastwards, the author of the Periplus states:—"*Syagrum proxime attingit sinus, versus continentem, Omana, valde profundus; cujus transitus stadia sexcento* (600) *patet. Post eum stadiorum quingentorum* (500) *spatio montes sunt alti, petrosi, præruptæ, hominum in speluncis habitantium. Deinceps sequitur portus nobilis aptus ad thus Sachaliticum convehendum, qui Moscha portus dicitur. In hunc à Cana naves quædam mitti solent; quæque Limyrica aut Barygazis veniunt eo deferuntur, sero anni tempore hyemen ibi traducentes, à regiis ministris thus recipiunt et exportant, cum quibus othonium, frumentum, atque oleum commutant.*" (p. 18, Loc. cit.)

The first thing that strikes us here is the identity of the bay of El Kamar with the deep gulf adjoining *Syagros*, and the least intelligible that it should be connected with Oman. But we know that Ptolemy's *Regio Adramitarum* ended at *Syagros*, and we know also, from the interval of low land, forty miles in breadth which exists in the bay of El Kamar, between the Fartak and Fattak ranges, that there is a natural separation here of the mountainous tracts of the southeast coast of Arabia; the one extending from Bab el Mandab eastwards to terminate at Ras Fartak, and the other continuing on from Fattak to terminate at Ras Nus. Therefore it is not extraordinary that the latter should meet with a new appellation from the author of the Periplus, but why it should be named *Omana*, or Oman, is difficult to understand, when that country at the present day is disjoined from the mountainous tract last mentioned, by the intervention of the *regio barbara* of the Periplus, or great desert of Akaf, upwards of 250 miles wide, which is even a greater separation than if the sea itself had existed between these two parts of Arabia. But of this hereafter; let us deal with the physical features of this part first.

That there is in reality a *sinus*, or gulf, next to Fartak, and that too running very deep into the mainland, *(valde profundus,)* viz. the bay of El Kamar, the deepest on this coast, of which Ras Fartak is the south western extremity, is undeniable; but that its *transitus*, is only 600 stadia, unless we take it from Ras Fartak to Wadi Shagot where the low shore first meets the mountainous tract of Faitak, is not correct. For the real *transitus* of this bay, that which a coasting vessel would make it, is about 850 stadia, that is the distance, allowing 500 stadia to the degree, between Ras Fartak and Ras Sajar, the next prominent cape. But that the former, and not the latter, was the *transitus* of the author of the Periplus seems plain, for after giving us his measurement of it, he immediately commences with a second measurement of 500 stadia, without saying anything of the coast along the first measurement, which agrees with what I have stated, viz. that there is a low barren tract here without any remarkable feature on it, and apparently uninhabited; but, where at the end of his 600 stadia the lowland terminates, and, with the commencement of his next measurement the highland begins, there he observes are mountains, high, rocky, precipitous, with men living in caves.

I have already stated that the lowland in the bay of El Kamar meets the mountainous tract on the northern side at Wadi Shagot, and that here the mountains are high, and rocky, being composed of hard limestone, also that they are precipitous, and that the lights in them at night as well as what we saw by day, shewed that there are many caverns in them which are inhabited. Moreover, as stated in the preceding geographical description, this is the commencement, coming from the west, of the wooded region of this coast. Here it is that the frankincense tree is first met with in abundance, and from henceforward to the end of this mountainous tract, at Hasek, every village on the coast exports large quantities of frankincense, which is just the contrary as we proceed in the opposite direction; not so much perhaps from the greater scarcity of the tree, as on account of the large importations of frankincense at Makalla from the opposite shore of Africa. After these high mountains, etc. and the end of the 500 stadia, comes the Author's *portus nobilis*, which he calls *Moscha*.

And it would be difficult to determine where this port had been situated, were it not for the following context viz. " that vessels coasting along from Malabar or Broach (Canara or Cambay) at advanced seasons, put in here for the winter, where they took in frankincense in exchange for muslins, corn, and oil."

Now had there been any bay on this part of the coast where vessels could stay during the winter, or S.W. monsoon, besides that of Resut, which I have before stated to be sufficiently large and deep to shelter vessels of three or four hundred tons burden during that tempestuous season, there would have been a difficulty in saying where the *Moscha* of the Periplus was, but now there is none. There is no other bay of the kind in this neighbourhood, and none on the whole of this coast, so capacious, for sheltering vessels during the S.W. monsoon. There is another bay at the eastern extremity of Dofar, viz. at Marbat, but this only affords shelter during the N.E. monsoon and is open to the S.W. monsoon. There therefore can be no hesitation in identifying the bay mentioned by the author of the Periplus with Bunder Resut and placing his *Moscha portus* here. I have already said that there are the remains of a place or fort on the extremity of Ras Resut, and that a short distance from it, there is an ancient Burial-Ground of two or three acres in extent, which remains shew that this locality was once inhabited, although there is not a human habitation now within several miles of it. But places of this kind in Arabia and Africa do not want human dwellings to give them a name. If *Moscha* be derived from *sak* as before mentioned (p. 298 foot-note,) there might have been a *suk* or *forum* here, where the mountain tribes assembled to barter the produce of the country with ships which anchored in the bay for that purpose. At Berbera on the African coast, opposite Aden, there are twenty thousand people at the bartering season and at other times not a soul. [1] Fresh water there is, in plenty, close by Resut, and the frankincense and moql trees, the one yielding frankincense the other bdellium, grow in countless numbers within a

1 Lieutenant Cruttenden, Transactions Bombay Geographical Society, April to September 1849 p. 137.

few hours walk of the bay. The former is so abundant and so cheap here that when I asked the shaykh of Aukadh, the next village to Bunder Resut, for a specimen of the frankincense which grew in the neighbourhood, he sent me nearly a hundred weight of it, and when I took a few portions and gave the people who brought it the rest, they considered it of so little value that they would not be at the trouble of taking it away with them. Thus we see that the bay of Resut is in the heart of the Frankincense Region. [1]

It is most probable that the vessels which put into the bay of Resut under such circumstances as those mentioned in the Periplus, took the frankincense which they got in exchange for their muslins, corn and oil, on to *Kanè* or *Arabia emporium*, to transfer to the Sabeans at *Kanè* (Bunder Hisn Ghorab,) or to exchange with the Egyptians in the bay of Aden. For in India a species of the frankincense tree abounds, which yields a plentiful supply of the same kind of resinous gum as that of Arabia, and therefore would not be required here.

We have then I think identified the gulf adjoining *Syagros* with that alluded to by the author of the Periplus; his *transitus* of 600 stadia; the rocky mountains on the coast with inhabited caves. His distance of 500 stadia more, would not bring us to within 20 miles of Resut, computing 500 stadia to the degree, but then the defective measurement here, is compensated for, by the presence of only one bay in this neighbourhood which answers to the description in the Periplus, and the port called *Moscha* must therefore be fixed here.

Here also we have the name of *Sachalites* again, (*thus Sachalitiicum*,) as if there were a *Sachalites* also here; for we cannot suppose that the small quantity of frankincense produced from the mountains between Bunder Hisn Ghorab and Fartak was imported at a bay in the *heart* of the Frankincense country; so that, this sachalitic frankincense must have been brought from the shores of Dofar, if *sahil* be synonymous with *sachalites*; for no name is given by the author of the Periplus to the *sinus* adjoining Fartak on the east (which is the bay of El Kamar,) neither is there any *sahil* there to call

[1] For a description of the Frankincense Region of Arabia, see No. xi of this Journal.

for the term "*Sachalites.*" Again Ptolemy's *Sinus Sachalites* which he mentions immediately after *Syagros extrema*, extended to Ras el Had, or further still perhaps; for from *Syagros* eastwards, he includes every thing under the head of *Sinus Sachalites*, even to the straits of the Persian Gulf.

Let us now return to Ptolemy's *Syagros*, or Fartak, and its neighbourhood, and although it seems hopeless to attempt to identify any of the places mentioned by him with those now existing between Ras Fartak and Resut, see, if it be possible to establish the line of demarcation between his *Regio Myrrhifera exterior* and *Libanotophoros sive Thurifera.*

Ptolemy states:—*Quibus versus orientem juxta Chatramititas quidem, est exterior Myrrhifera*, and then immediately after, *Juxta autem Syagrum montem usque mare Asciteæ sunt.* Now the fact of our having ascertained that Hadramaut lies inland, west of the bay of El Kamar and that of Ptolemy's having placed on its eastern side the *Regio Myrrhifera exterior*, together with the mention of *Syagrum montem*, seems to require no further evidence to convince us that we have come to the termination of the latter at Ras Fartak, and the commencement of his *Libanotophoros* in the mountains of Fattak.

Ptolemy also states in enumerating the principal tribes and mountains :— *et Omanitæ, quibus orientaliores sunt Cattabeni usque montes Assaborum. Sub quibus Libanotophoros sive Thurifera.* Here there is a striking identity of names between Ptolemy's *Omanitæ*, and the name of *Omana* given in Periplus to the coast immediately after *Syagros*, particularly as the position of the former is so well marked by the *Cattabeni* being placed immediately after the *Omanitæ*, to the eastward; and under the *Cattabeni*, the Libanotophorous Region. I have already stated that there are two localities in which the frankincense tree abounds at Dofar, one on the mountains, the other on the maritime plain. [1]

If then through the conjoint aid of Ptolemy and the author of the Periplus we are able to fix the commencement of the Libanotophorous

1 Descrip. of Frankincense Tree. loc. cit.

or Frankincense Region, by establishing the limit of the *Regio Myrrhifera exterior*, then we shall also be able to judge where the town of *Sabbatha* before mentioned, was situated; since this place was according to Pliny,[1] eight days distance from the Frankincense Region; and if through this measurement we can find out the neighbourhood of *Sabbatha* we may still further be able to establish the position of *Kanè*. Supposing we measure these eight day's journey westward, or S.W. from Wadi Shagot, or the Fattak range, at between thirty and forty miles a day, *Sabbatha* would be found about Wadi Meifah, which if we have rightly fixed *Kanè*, should be its situation; but unfortunately these journeys are too great, at the same time, Wadi Shagot is at the eastern termination of the Fattak range, which, running inland southwestward, may prolong this mountainous tract, (on which the frankincense tree abounds in the bay of El Kamar,) for some distance westward, and thus bring it nearer *Sabbatha*, which would of course shorten the day's journey.

After *Syagros extrema*, Ptolemy places his *Sinus Sachalitee. Sachalitarum in sinu Sachalite, in quo Colymbesis Pinici; super utribus transnavigant*; under which heading comes a number of places to which I shall have occasion to refer by and by.

Continuing on with the author of the Periplus from Ras Resut, we find that he states:—*Hinc rursus stadiorum circiter mille et quingentorum* (1,500) *spatio regio illa usque ad Asichonem, ad terram usque extenditur, cujus in extrema ora septem* (7) *insulæ ex ordine jacent, Zenobii dictæ; post quas alia regio barbara, quæ non ad idem regnum sed ad Persidem pertinet.*

Here the measurement is very incorrect, inasmuch as are there only 750 stadia (1° 30′) at most between Resut and Hasek, which from the presence of "the islands" and its name, is unquestionably the *Asichon* of the Periplus; not less so than the bay of Resut is the site of his *Moscha portus*, because there is no other bay of the kind on this part of the coast.

The islands called *Zenobii insulæ* are the Curiyah Muriyah islands, the second group on this coast coming from the west; and the *regio*

[1] Lib. xii c. xiv. "*Octo mansionibus.*"

barbara, is the comparatively low, desert-land, which follows the abrupt termination of the Negdi or mountainous tract called Jibal Sabhan. It would be difficult to make out seven islands here, unless we counted some groups of rocks which are uncovered at low water, but there are five real ones, which is near enough, viz. Haski, Soda, Hallani, Jibliyah, and Gharzaut.

This brings us to the eastern extremity of the Frankincense Region, and before proceeding further with the author of the Periplus, let us see if there be any thing in Ptolemy which can be identified between Ras Fartak and Hasek. I have already stated that it seems hopeless to attempt this in the bay of El Kamar.

After *Syagros extrema*, Ptolemy continues as before stated. *Sachalitarum in sinu Sachalites, in quo Colymbesis Pinici; super utribus transnavigant*, under which heading are, *Cumacatum (Pal. Cumetacum) vicus, Ausara civitas, Astoa vicus, Ange vicus, Neogiala (Pal. Neogilla) navale, Hormani flu. ostia, Didymi montes, Bosara (Pal. Conseude) civitas, Vaticinum sive oraculum Dianæ, Abisa (Pal. Abissagi) civitas. Corodanum promont. Et in Angustiis sinus Persici: Crytus portus, Melanes montes Assaborum dicti*, and *Assaborum promontorium.*

This *Sinus Sachalites* of Ptolemy would seem to extend to the straits of the Persian Gulf, which is unintelligible, unless a different meaning is given to "*sinus;*" how far this can be done I leave others to decide. In another place Ptolemy states, *Juxta autem Syagrum montem usque ad mare Ascitæ sunt.* These *Ascitæ* were most likely his *Colymbesis Pinici*, pearl-divers, who sailed about his *Sinus Sachalites* on inflated skins (ασκος) and if we are to extend his *sinus* to Ras el Had, we shall find that east of Hasek, the use of inflated skins, as before stated, is not only common but from the great poverty of the country and people, almost wholly supplies the place of boats at the present day. The next place to *Syagros* is *Cumacatum vicus* a "place", this might have been Damkot; than follows a city called *Ausara.** Now

* NOTE.—Pliny mentions *Ausaritis* as one of the kinds of Myrrh, (lb. xii. c. xvi.) but this came from the *Gebanites* whom he places at the straits of Bab el Mandab. Salmasius states that Pliny followed Strabo, who writes, first came the *Minæi*, then the *Sabæi*,

as there is nothing in the bay of El Kamar to induce one to think

then the *Catabanes* to the straits of the Red Sea, and east of all the *Chatramotitæ* (lib. xvi. p. 768;) while Ptolemy states, that the *Catabeni* lived next the Frankincense Region, which was east of the *Myrrhifera exterior*, and therefore east of the *Chatramotitæ*, whose region extended to his *Sinus Sachalites*, which was again east of *Syagros*; and Strabo afterwards adds, *Catabanum thus gignit, myrrham vero Chatramotitæ*, Catabania produces frankincense, Chatramotites myrrh. Yet the Frankincense Region and the straits of Bal el Mandab are hundreds of miles apart; how then could the *Gebanites* be neighbours of the *Catabeni*. Let us see how far the probable origin of the name *Gebanites* will help us out of these difficulties. *Breve*, the *Gebanites* as before stated, according to Pliny, inhabited that part of Arabia next the straits of Bab el Mandab, their port was *Okelis* (Plin lib: xii. c. xix.) just inside the straits, the *Okelis* of the Periplus, and Pliny states "*De Thure*" "*evehi (thus) non potest, nisi per Gebanitas; itaque et horum regi penditur vectigal.*" Hence the *Gebanites* were the inhabitants of the mountainous part of the S.W. angle of Arabia, and they would not allow any frankincense to be passed through their country without toll. Salmasius writes, (p. 351.) "*Gebalitæ ab oppido Gebala. Stephanus* Γεβαλα *vocat. Alii* Γεβανα. *Nam Græci* λ *et* ν *in multis confundunt.*" Now the latter was probably the proper spelling, inasmuch as the "Gebala" appear to have been no other than the Kabayle or mountaineers of Southern Arabia at the present day. The Arabs at Aden, call the inhabitants of Jibal Yaffai, or the mountains inland of them, the Kabayle; and if you ask at Makalla, who inhabit the mountainous region between that town, and the province of Hadramaut, the answer again is "the Kabayle." It would seem therefore to follow, that the *Gebanites* inhabited under the same name, as they do now, the mountainous tract between the straits of Bab el Mandab and Ras Fartak, where it is evident the *Catabeni*, whom Ptolemy places next the Frankincense Region, might have been their neighbours without living near the straits. Ausara might have been one of there chief cities, and the kind of myrrh mentioned by Pliny, called "Ausaritis" after it. Pliny, who in his geographical description comes round from the eastward, places the *Catabeni* first, "*Gentes Larendani, Catabeni, Gebanitæ, etc.*" (lib. vi. c. viii.) Hence it would also appear that Strabo's *Catabanes*, who extended to the straits of Bab el Mandab, ought to have been called *Gebanites*, unless, as some have thought, the terms were synonymous, (Salmasius, T. I. p. 351. D.) Could the kind of myrrh called *Ausaritis* by Pliny have grown near to, and have been called after, Ptolemy's city of *Ausara*, and like the frankincense which grew in *Catabania* have been passed through the hands of the *Gebanites*; and could the *Catabeni* have been a tribe of the Kabayle, or *Gebanites*, and that tribe the Bin Kahtan or Beni Kahtan, the head family of the Karah, who inhabit that part of the mountainous tract called Sabhan and Shaher, at the present day? The Frankincense Region of Arabia. Bochart supposes the *Catabeni* and *Gebanites* to be the same people (Dean Vincent p. 339, foot-note). It is perhaps worthy of remark also, that among Ptolemy's cities and towns of Southern Arabia, there is another place called *Ausara*, which was in 25° 30′ N., that is within 40 miles of the latitude of Ras Massandan, which was the eastern extremity of Ptolemy's *Libanotophoros* or Frankincense Region.

there could ever have been a city there, and there is every appearance of it in the district of Dofar, *Ausara* might, therefore, have been the name of the principal place in the latter. I have already alluded to the extensive ruins of an old city in Dofar now called El Balad. Next come two places, *Ange* and *Astoa*, which might have been Marbat and Hasek; but it is useless to write one's conjectures in this respect, let us go on to Ptolemy's *Melanes montes et promontorium Assaborum*, which were the eastern termination of his Libanotophorous or Thuriferous Region, and which we find forming the western promonotory of the straits of the Persian Gulf, nine degrees north of, or 540 miles distant from where if really is, with an immense desert between the two points more than equal to so much sea, as a barrier of separation. That this is a mistake there can be no doubt; but there is still the question whether the Libanotophorous Region alone has been misplaced, or whether the *montes et promontorium Assaborum* have not been transported to the straits of the Persian Gulf with it. Be the latter as it may, the termination eastward of the frankincense country of Arabia is called Jibal Sabhan; and the terminating cape though called Ras Nus, has within six miles of it, two capes, called respectively, Ras Samhor and Ras Samhal; and between them again, a valley called Wadi Samhal; in which names we have but to exchange the *r* and *l* respectively for *n*, and the *b* in both for *m*, to have Sabhan; the commonest permutations to which the human voice is liable, and which the wild inhabitants of this part of the coast, from whom Captain Haines must have obtained these names, would be likely to fall into, and persist in according to the custom of the day, or the natural development of their organs of voice, which might favor one kind of sound more than another. We have a remarkable instance of this permutation in point. This very Ras Nus here, is called by Edrisi, Ras Lus, لوس. In these names then of Jibal Sabhan, and Ras Sabhan we seem to have *montes et promontorium Assaborum*, and that too at the end of the Libanotophorous Region; for as D'Anville states, the *Assaborum* is nothing more than *Sabo*, which with the Arabic article is pronounced *As-Sabo*. As to the *m* in Samhor, and Samhal, the inhabitants of Marbat *close by*, called the mountainous tract above them at one

time, Samhan and at another Saban or Sabhan. Lieutenant Cruttenden writes it "Subahn;" [1] the aspiration is as immaterial as the rest. Almost every thing therefore inclines one to the belief that the root of the word is "Saba", from which both the Greek and Arabic appellations have been derived. There is another coincidence here, which seems to assist in accounting for the misplacement of this region viz. the Frankincense Region appears to have gone by the name of *Omana*, for the author of the Periplus, as I have before stated, makes his gulf after Fartak, or *Syagros*, extend into the land of *Omana*, and then at the end of the Frankincense Region observes, after the Zenobian Islands comes the *regio barbara*, which belonged to Persia; while Ptolemy writes, *et Omanitæ*, (who from their position and name must have been the inhabitants of the *Omana* of the Periplus next to Syagros,) *quibus orientaliores sunt Cattabeni usque montes Assaborum. Sub quibus Libanotophoros sive Thurifera.* Can it be that this *regio barbara* did belong to Persia, and that the country west of it was called Oman, and that this has led to the mistake of placing the eastern extremity of the Frankincense Region at the northernmost extremity of the Oman of the present day, which is the western promontory of the straits of the Persian Gulf, called in the *Paraplus Nearchi*,[1], the promontory of Maceta; adjoining which too Ptolemy's *Macæ* lived; and which was probably for centuries back called Mazun, by the Arabs, (المزون *terra Oman*, Gieuharis ap. Golius); and is the cape Massandan of the present day. Yet the author of the Periplus calls this *Sabo*, but then it is questionable if he does this on his own authority.

We come now to the description of the coast from Hasek to Ras el Had, and returning to the Periplus we find it stated:—*Hanc ubi ex supernis locis prætervectus fueris circiter duo millia* (2,000) *stadiorum à Zenobii insulis, alia occurrit insula Sarapidis nuncupata, quæ à terra circiter stadia centum et viginti* (120) *abest, latitudine fere stadiorum ducentorum* (200.)

This, is both exceedingly graphic and correct in measurement. "When we shall have sailed from these high places" (meaning the

[1] Trans. Geograp. Soc. Bombay, January 1837. p. 71.
Geog. Min. Græc. ap. Hudson p. 22.

Subhan heights (of 4,000 feet over Hasek,) and passed along the comparatively low *regio barbara* (of 800 feet), of which the author states nothing, because there literally is nothing to notice,) 2,000 stadia from the Zenobian Islands, there is another island, called *Sarapis*; the length, breadth and distance of which from the shore, so corresponds with that of Masira, that had this not been his next island to the *Zenobii insulæ*, and had nothing more of it been stated in the Periplus, the measurements rated at 500 stadia the degree would have been sufficient for its identification.

In this island the author states there were three places, inhabited by Priests of the Icthyophagi; by which we infer that the inhabitants of Masira and its neighbourhood were Icthyophagi. He also states that boats and vessels came to *Sarapis* from *Kanè* for turtle-shell, and that this was abundant there, and of excellent quality. With the exception of the Priests, this would do for the description of Masira at the present day. I have already stated that its inhabitants as well as the people on the coast opposite, subsist almost entirely on fish, also that it is famous for turtle-shell, and that the channel between Masira and the mainland may be said to swarm with turtle. For two or three shillings, the people of this island will bring a turtle weighing upwards of 260 lbs. and that too at a few hours notice. They go forth, after the order is given, to the place where the turtle most abound, and while the latter consider themselves secure below the shallow water, a loose barbed spike at the end of a long bamboo, to which is attached a rope, is struck into their back, and they are thus pulled on board, with almost as little ceremony as a rock.

Another thing is worth mentioning here. The author of the Periplus states, that in Masira, the inhabitants speak Arabic, which would seem as if hitherto they had not done so. And when we remember that the inhabitants of the Curiyah Muriyah islands, the Karah on the coast opposite, and the Mahrah, all speak the same dialect and one differing very much from common Arabic, we seem to come at the meaning of the remark.

Proceeding eastwards from *Sarapis*, or Masira, the author of the Periplus continues :—*In sinu autem vicinæ continentis, ad Septentriones,*

prope ostium maris Persici, insulæ jacent ad quas navigatur, Calæi insulæ dictæ, quæ fere bis mille stadiorum intervallo à continente sunt disjunctæ; which, as there is no bay between Masira and the turning point, viz. Ras el Khabba, but a nearly straight coast, is better rendered by Dean Vincent thus:—"[Proceeding on your course from Sarapis,] you wind round with the adjoining coast to the north; and as you approach towards the entrace of the gulf of Persia at the distance of about 200 stadia [from *Sarapis*] you pass a group of islands which lie in a *range* along the coast and are called the islands of of Kalaius." Περικολπίζω, is *to sail round a bay,* and as I have before said we must not always give the real meaning to κολπος, in verifying the descriptions of the author of this Periplus on the coast or we might as well give up the attempt at once. The literal meaning of περικολπίζοντι here, as Dean Vincent observes, is "to follow the windings of the shore," hence we have "winding round the coast to the north," which is as it should be, for in following the coast northeastward from Masira we must wind round it at Ras El Khabba, and that too towards the north.

We have no mention in the Periplus of Ras El Had, because as I have before said, it is a sandy plain forming the northern angle of the east extremity of Arabia, which extremity is not attenuated as those may think who view it in small maps, but truncated, and has an eastern aspect of twenty miles in extent, the southern cape or angle of which is Ras el Khabha and the northern, Ras el Had. Here therefore, as there is nothing remarkable but the presence of the two mountains called Jibal Saffan, we do not wonder at the author's silence. Yet his Commentators would have had it believed that he has overlooked the magnitude of Ras el Had; and in such observations, we see how necessary it is to be really, and not imaginarily acquainted with a subject, before we attempt to establish the truth of parts of it, upon the criticism of others. Dean Vincent remarks, on the description of *Syagros*, or Fartak, in the Periplus "it is not true" as the author of the Periplus states "that it (Fartak) is the largest promontory in the world; for Ras el Had, on the same coast is larger."

Again Gosellin, describing the bay of El Kamar, states from El Edrisi: "Les Arabes appellent aussi ce rivage *Ghobb Al Camar*, la cote de la lune puisqu'il est entourie, a quelque distance par un chaîn de montagnes semicirculaire qu'ils sont comparée au croissant et qu'ils ont nommè la montagne de la lune" [1]. We have seen the absurdity of the former, and nothing can be more absurd than the latter. Had el Edrisi or Gosellin ever been on the spot, they would have seen that the western shore of the bay of El Kamar is hardly 100 feet above the level of the sea, that it is forty miles broad, and that this tract of lowland extends westward between the Fartak and Fattak ranges, as far as the horizon without being bounded by any mountains; and that the mountainous tract continued on from Fattak to Ras Sajar does not fall back, or present any maritime plain in front of it until arriving at the district of Dofar. I particularly looked for a moon-shaped mountain, and a crecent of mountains, in the bay of el Kamar but without being able to discover the semblance of either.

There is a curious coincidence here in names though, taken in connection with the produce of the mountains viz:—That the Arabic name for the frankincense tree is *Kandaru* and the Sanscrit name for the moon *Chandra*, while the mountainous tract from Damkot eastward abounds with the frankincense tree, and is called on to Ras Sajar, Jibal Kamar, or the Mountains of the Moon.

Returning to the islands of Kalaius in the Persian sea, or sea of Oman, we shall find their distance remarkably well measured if we take it from the island of Masira, and not from the mainland, as the author of the Periplus has it. If we follow the coast northward from Masira to the straits of the Persian Gulf, we shall find that in our course we shall meet with only one group of islands, which are about forty miles north of Maskat, and about twenty miles from the shore. These then must be the islands alluded to by the author of the Periplus, for there are no others in this sea; and if we measure the distance from the northeastern extremity of Masira to Ras el Khabba, and from thence to the first of these islands, we shall find it just upon four de-

1 French Translation.

grees, which, allowing 500 stadia to the degree, is the distance which the author of the Periplus states they were off shore; but as Dean Vincent observes, "How islands that lie 200 miles from the coast can be said to be in a bay of the continent cannot be comprehended." Hence there must be some mistake, which I see no other way of reconciling than that mentioned.

I have however gone further with the author of the Periplus than I had intended, and must now leave him with the following remarks by Dean Vincent. "On the southern coast of the peninsula we can trace him, at almost every step, to Fartaque and Ras el Had; but from thence he seems, without entering the Gulf of Persia, to have stretched over with the monsoon, either to Karmania, or direct to Scindi, or to the Gulph of Cambay. At those points we find him again entering into those minute particulars, which bespeak the descriptions of an eye-witness; while, of the parts previous to these, he speaks in so transient a manner, as to create a belief that he writes from the report of others; but on this question it is not necessary to decide, the reader must determine for himself."

Returning to Ptolemy, we require little to identify most of the islands he mentions on this coast, with those mentioned by the author of the Periplus, and with those which exist at the present day. After the straits of Bab el Mandab, come, under the heading *In Rubro mari*: *Agathoclis duæ*, *Coconagi septem* (*Pal. tres*), *Dioscoridis civitas*, *Occidentalis insulæ finis*, and *Tretæ*; and then under *Et juxta Sachalitem Sinum*: *Zenobii septem insulæ*, *Organa*, and *Sarapidis*, (*Pal. Sarapiadis*) *in qua fanum*. Ptolemy's *Insulæ Zenobii* are from sequence and name identified with those of the author of the Periplus, and therefore with the Curiyah Muriyah islands of the present day; if seven, they agree also in number with that of the Periplus; if three, there are only three in the group which deserve the name of islands viz. Hallaniyah, Soda, and Haski; the rest are merely rocks. *Trete* although under the head of "islands" is fixed by Ptolemy's latitudes and longitudes as a place, in the island of Socotra; but when we find other groups of islands in the Gulf of Aden, preceding those opposite Bunder Hisn Ghorab, to identify with his *Agathoclis* and *Coconagi*, and then the island of Socotra to identi-

fy with his *Dioscoridis;* and have still the islands opposite *Kanè*, or Bunder Hisn Ghorab, (the *Orneon* and *Trullas* of the Periplus,) unidentified; with the name of *Trete* in the list of islands, immediately preceding that of *Zenobii; Trete* and *Kanè* in the same latitude; the second port east of *Kanè* called *Tretos; Tretos portus* and *Trete* within thirty minutes of the same longitude, and *Trete* the most southern of the two; with the coincidence of *Trullas portus* being within ten minutes of *Kanè*, and one of the islands opposite *Kanè* called by the author of the Periplus " *Trullas*," etc; it is to say the least of it, strongly to be presumed, that *Trete* was the name of an island or islands, as before suggested; and that these islands were the group opposite Bunder Hisn Ghorab. Besides we know that if *Trete* were in the same parallel of latitude as *Kanè*, it must have been much more than a degree north of Socotra. Next to Ptolemy's *Trete*, if that was his name for the islands close to *Kanè* or Hisn Ghorab, come his *Insulæ Zenobii*, and then his *Organa*, which must have been the little island of Hammar el Nafur, simply because it is the next, and only one between the Curiyah Muriyah Islands and Masira; but it is very small, very insignificent, and close to the shore. Then follows his *Sarapidis in qua fanum*, which both from name and sequence is identified with the *Sarapis* of the Periplus, and with the Masira, of the present day because there is no other island eastward on this coast.

Last of all Ptolemy's places under the head of *Sachalitarum in sinu &c.* which I shall attempt to identify, are his *Didymi montes*. I cannot pretend to itendify his *Neogiala navale* nor his *Hormani flu. ostia.* Gosellin places his *Didymi montes* at Ras el Had, by which he meant the eastern extremity of Arabia, and if Ptolemy's appellation is to be taken literally, that is signifying "twins," his *Didymi montes* are identified in Jibal Saffan, which as before stated, are two mountains close together, almost exactly alike, each about 800 feet high, situated on a table-land about 100 feet above the level of the sea, and isolated for several miles from any other mountains; not as Gosellin states, the termination of the chain of mountains which passes through Oman, which do not turn from their course to the eastward, to end at Ras el Had, but continue on southwards to terminate in the mountains of Jallan, about twenty miles inland from the S.E. coast of

Arabia. The next place mentioned by Ptolemy, viz. *Bosara*, may have been Sur, because it is said to have been a city, and there is no other locality hereabouts which possesses the advantages of Sur in point of position, both for such external and internal commerce as this part of Arabia could command. There has most probably always been a town where Sur now is, because there is no other place just here, where there could be one so advantageously situated. The subsequent mention of *Vaticinium sive oraculum Dianæ*, *Abisa civitas*, and *Corodomum promont.*, brings us to the straits of the Persian Gulf, where I must also leave Ptolemey.

Before concluding however, it would be as well to see what tribes lived on the Southeast Coast of Arabia in the time of the author of the Periplus. All that we learn from him in this respect, is, that Charibael was king of the Homerites, (Hamyarites), and Sabeans, and that *Arabia felix* was under him; Aden was therefore in the country of the Homerites. The shore between *Arabia felix* and *Kanè*, that is between Aden and Bunder Hisn Ghorab, he tells us, was inhabited by *Nomades* and *Icthyophagi*, and above *Kanè* was a place called *Sabbatha* where lived *Eleazus*, which was the name of the King who at that time had dominion over the Frankincense Region. Adjoining were the *Atramitæ*, inhabitants of Hadramaut, who were a division of the Sabeans, according to Pliny (lib. xii. c. xxiv.) and whose region extended to the south-eastern coast of Arabia, *a climace usque Sachalites*, according to Ptolemy. Hence we find as before stated, the country of Hadramaut extending to the *Sachalites* of the author of the Periplus, west of Ras Fartak; and to the *Sachalites* of Ptolemy, east of that cape; and the territories of the Sabeans, through some other People, probably on to the shores of Dofar, and Jibal Sabhan, for the Frankincense Region was under them.

Charibael would appear to have had under him the southwestern angle of Arabia, and *Azania* or part of the Somali country opposite,—that Frankincense Region. While Eleazus had the Frankincense Region of Arabia, for the latter lived in Arabia, at *Sabbatha*, and camels brought the frankincense to *Sabbatha*, which city according to Pliny was eight days journey from the Frankincense Region. Hence Southern Arabia was in all probability then, as it is now, peopled by predatory tribes, while the Homerites and the Sabeans held the trade.

What passed through their country, was for protection, transferred from depot to depot, as we see by the remains of the ancient fortress at Hisn Ghorab *(Kanè)*, and another sixty miles inland, up the great valley of Meifah. Moreover, we find that the Gebanites (Kabayle?), took toll of all the frankincense that passed through their territory, after the custom of the Beduins of the present day, (see note p. 303). They were all well paid no doubt, and could be, while the Sabeans and Homerites ruled all the commerce of the eastern and western nations that took this course, and which must have always been, as it is now, preferable to that through the Persian Gulf.

The author of the Periplus, therefore, mentions the names of no people on this coast but the Homerites, the Sabeans, and the Nomades and Icthyophagi; and it would appear, as Gosellin states, from the little allusion he makes to the Sabeans that the Kings of Hamyar had already, in his time, begun to assume supremacy. Nor does Ptolemy note any more, except the *Ascitæ* and *Sachalitæ*, although he mentions the names of many people who lived in the interior. These *Ascitæ* lived next to *Syagros* mountain on the sea. *Juxta autem Syagrum montem usque mare Ascitæ sunt;* they were evidently called after their vocation, (navigators on inflated sacs,) which happens to be stated by Ptolemy immediately after his mention of *Syagros extrema*, (see p. 305.) His *Sachalitæ* would appear to be no other than the inhabitants of the *sahil* or maritime plain, (see p. 296.) Hence there is little in Ptolemy or the Periplus to identify in this respect.

It would be interesting, however, to trace the relationship that exists between the names of places and tribes on this coast and some of those mentioned in the Xth. Chapter of Genesis as the descendants of Shem. To wit the Mahrah, (about whom there is very little known) who claim their descent from the tribe of Ad, (Ad the son of Aws, the son of Aram, the son of Shem?), and who now inhabit the *Aradh el Akaf*, in which the tribe of Ad are said to have settled. The Kathiri, (Gether?) who with the Karah inhabit Dofar and the mountainous tract above; close behind which comes the *Aradh el Akaf* before mentioned. The tomb of Houd, (Heber?) at Hasek, on the borders of the desert of Akaf. The Karah, Korah, or Koreysh, whose head family is called Kahtan, (Joktan?), mixed with the Kathiri and inhabiting Dofar, as well as the mountains

above that district. The Afar, (Ophir ?), a large tribe behind the Karah, again towards the desert of Akaf. The province of Hadramaut, (Hazarmaveth ?) Saba, (Seba ?), etc., are all names which connected with their locality, create an intense desire to know their source. The learned Bochart has done much in this respect, but every step into southern Arabia gives much more to do, and shews us how much more is still behind.

Thus, in clonclusion, have we been comparing the south-eastern shores of a country of mountains and deserts; whose inhabitants were once opulent but who are now poor and needy; a country almost without export, yet from this very circumstance, its geographical position, and the undaunted spirit of its inhabitants, destined for a time to become the centre of commerce and one of the richest nations in the world. Without wood for naval architecture, yet with the exception of the European nations, (now, but probably not formerly,) producing the most perfected specimens of this art. [1] The latter probably a consequence of their natural impulse to become the transport agents of produce between the eastern and western nations, the Gerreans from the western shores of the Persian Gulf northwest to Petra; and the Sabeans from the south-eastern angle of Arabia northwards to the same place; [2] thence to Egypt and to Syria. Joseph was sold to a company of Ishmaelites going down to Egypt with their camels laden with spices. The Queen of Sheba, supposed to have been the Queen of the Sabeans, brought from the "south" to King Solomon, "spices and gold in abundance and precious stones," nor was there "any such spice" or brought in "such abundance" as that "which Queen Sheba gave to king Solomon;" (B. C. cir. 992). The Sabeans possessing the produce of the north-eastern part of Africa besides that of their own country, and the produce which was brought to them from India and the eastern islands, were probably by far the richest people in Arabia. About six centuries after the reign of King Solomon the

1 The lines of the model of the "Batilla," or Pirate Vessel of the Persian Gulf, which was sent home to the Grand Exhibition from this, were considered by competent judges to be almost perfect; and the Arabs themselves have a saying, that the use of the "Batilla" ceased only, when the Steam-Vessel was invented.

2 Heeren Historical Researches, etc. Vol. 2 p. 107.

Homerites [1] or Hamyarites sprung up, (from Hamyar son of Saba [2]), in the south-western angle of Arabia, and they after a time eclipsed the name of the Sabeans. Meanwhile the Thebaic Dynasty fell, and Egypt successively passed into the hands of the Persians, the Mecedonians, and the Romans, (30, B. C.) when the latter, influenced by their avarice, and their favourable position, sent an expedition into Arabia to discover the sources from which the Sabeans and Homerites drew their wealth; [3] and a little before the time of the Author of the Periplus, he states, Cæsar destroyed *Arabia felix*, or Aden.[4] Then followed the overthrow of the Hamyaritic dynasty,[5] and in the seventh century, arose Mohammedanism; and we see the Arabians one of the richest nations in the world then becoming the most powerful. Egypt was subjected to the Mohammedans, and while their conquests were extending over nearly half the then known world, Arabia was forsaken, the Khalifat was removed to another country, religious fanaticism seems to have usurped the place of her commercial enterprise at home, and subsequently the latter to have slept under the security of the all providing Korân; when the discovery of the passage round the Cape of Good Hope, at the end of the fifteenth century, threw open the commerce of India to the Europeans through a different route, and thus the ancient office of the Arabians ceased. The East India Company was formed, their first hostile collision with the Indians took place at Surat in 1644, and since that the whole conntry has been subjected to the English. Aden has been seized, the old route of commerce between the eastern and western nations, has again been established, but the Arabs are no longer the carriers of the produce. They have become poor and divided among themselves, the religion of Mohammed is disappearing from among them fast, and they are returning to the heathenism and barbarity of their aboriginal state.

1 B. C. 370 See Gosellin Op. cit. Vol. ii. p. 112, 113. 2 Pocock Spec. Hist. Arab. p. 38.
3 Strabo (Exp. of Ælius Gallus) L, xvi.
4 Loc. cit. p. 15.
5 The Abyssinians conquered Yaman A. D. 524 and on this occasion the Romans are stated to have lent them 600 vessels to transport their army across the Red Sea to Arabia. (Essai sur l'Histoire des Arabs par A. P. Caussin de Perceval. t. i. p. 134.)

ART. VII.—*An Account of the Agate and Carnelian Trade of Cambay.* By MR. AUGUSTUS SUMMERS, Senior Apothecary at Cambay. Communicated by the Government.

The Agate and Carnelian Trade forms a subject of much interest, although hitherto it has excited little attention, and little desire has been manifested to acquire a knowledge of the varied and complex processes which attend the first procuring of the stones in the rough state, to the ultimate perfection of their finish arrived at by the art of the Lapidary at Cambay. This I shall attempt to detail, and from the following statements of the different Agates and Carnelians, it will be evident, that although they still bear the name of Cambay Stones, and this place has held the reputation for a considerable time of being famed for its agate mines, etc., yet they are really brought here in the rough state from different parts of Guzerat, and are wrought by the Lapidaries here in workshops which have been established for upwards of a century. Although the value of their traffic has been considerably reduced of late years, they still form, next to cloth, the principal articles of commerce, yielding a good profit to the traders, forming a valuable source of revenue to the State, and giving employment to nearly two thousand people, who are engaged in the manufacture of ornaments from them in the busy workshops of this place, amounting in all to about seventy-five large, and twenty-five small.

The traders are Baniyan and Borah merchants, fourteen in number, who purchase the wrought articles from the head lapidaries and send them to Bombay, Djiddah, and other ports.

The workmen or artificers form a distinct corporate body called the *Akkikia Jumat* or *Panchaiyat*, and are designated as follows:—100 *Akkikias*, master artificers or heads of establishments; 300 *Gasias* or workers on lapidary wheels; 200 *Dholias* or polishers on rough and hard polishing stones; 50 *Pattimars*, or polishers on wooden frames; 100 *Badars* or borers who are employed in the drilling processes; total 750. These form the *Panchaiyat* or regularly consti-

tuted tradesmen; besides which, upwards of a thousand people are employed in the different shops as day-labourers, in chipping, cutting slabs, &c. these consist of men and boys, both Hindoos and Mahommedans.

The *Panchaiyat* holds the power of adding to their number; each person on admission pays a few hundred rupees which is spent in dinners. Each department of labour remains distinct, the artisan in one branch will not interfere with, or undertake the work of another branch; and all enjoy distinct privileges pertaining to their respective departments, needless to notice here.

The following are the stones wrought at Cambay:—

Jasper, Heliotrope, or Bloodstone.—A beautifully variegated stone with a greenish base. The green with flame-like streaks, or red spotted delineations, is named by the lapidary *Lila Chantudar*; that more variegated with green, red and yellow tints, is named *Pattolia.* It occurs in massive layers, is hard, breaks with a dull fracture, and takes a high polish.

It is procured near the village of Tankarra in the territory of the Murvi Rajah, about twelve miles north of Rajkote, and is brought from the top of the hill named Bang, also from below the hill under the soil, where it occurs in massive layers, from eight ounces to forty pounds in weight.

Remark.—For permission to collect the stone eight annas per maund, (40 pounds), is paid to the Rajah, and two annas per bullock load, for passing through his territory; four and half rupees per load is paid for bullock-hire to Cambay. A bullock-load contains three maunds, on which a town-duty of eight annas is levied at Cambay.

Moss-Agate.—Named by the lapidary *Sawa Baji.* This is a beautiful species of agate, of a very clear, or clouded, crystalline base; with impressions of dark green moss, or delineations of reddish brown moss. It is found in massive layers, often cracked in various ways, and is hard and receives a fine polish.

It is procured near the village of Tankarra, in the territory of the Murvi Rajah, and at Bud Kotra about three miles from Tankarra.

It is found in the plain, about two feet under the surface of the soil, in massive layers, cracked, and weighing from eight ounces to thirty or forty pounds.

Remark.—The same as that concerning Jasper. See above.

Agate, Common.— A mineral whose base is chalcedony blended with quartz and carnelian. The white or semitransparent is named *Dhola*, and the cloudy and streaked *Jomma*. Its color is generally a grayish white of different shades. It is pretty hard, brittle, and massive, and receives a high polish. It is procured near the village of Mahidpore three miles from Tankarra, in the territory of the Rajah of Murvi; and occurs in the plain near the surface of the soil in massive blocks, the most perfect not exceeding five pounds; the inferior quality and cracked, as high as sixty pounds in weight.

Remark.—The same as that for the foregoing.

Agate, Kupperwange.—This is a beautiful spieces of agate; that having the impressions of mineralized plants delicately preserved, with a clear semi-transparent base, is named *Karriah*; that of variegated shades of color, with landscape or other delineations, is named *Aggiah Ruttia* &c. It occurs in pebbles or rolled masses, is hard and receives a high degree of polish. It is procured at Kupperwange in the Kaira Zilla, and in the bed of the river Majaim, between the village of Amliala and Mandwah, about fifteen miles from Kupperwange, and is found on the banks and in the beds of rivers in rolled balls of spheroidal, reniform, and amygdaloidal figures, from eight ounces to ten pounds in weight.

Remark.—The Bheels search for the stones, and sell them to a Borah at Mandwah, from whom the lapidaries purchase them at from three to twelve rupees per maund, according to their quality. They are carted or brought on donkies to Cambay. Ten maunds of the stone is valued at one hundred rupees, on which a duty of four rupees and eight annas is charged here.

Agate, Veined.—Named by the lapidary, *Doradar*, of different shades of white with dark streaks, or a dark ground with white thready streaks, assuming different forms.

It occurs imbedded in clayey soil, is hard, and takes a very high polish. It is procured at Rhanpore and its adjacent villages, named Darpipla and Ninama, in the Ahmedabad Zilla near Danduka; and is found under the upper strata of soil, in pebbles of various shapes, not exceeding half a pound in weight.

Remark.—A fee of two rupees per cart-load is paid to the Government authorities, and the stones are carted to Cambay. The cart-load is 40 maunds, which pays a town duty of two rupees here.

Chocolate Stone.—So named from its colour, is also called *Katiah*; It is of a brownish earthy base, not very hard, of a dull fracture, and does not take a high polish. It is procured at Rhanpore, near Danduka, and at Tankarra, in the territory of the Murvi Rajah, and is found on the surface, and a few feet under the soil, in masses from one to eight pounds in weight.

Remark.—It is brought from Tankarra on bullocks, at the rate of rupees 4½ per load, and in carts from Rhanpore, at Rs. 15 per cart-load, besides the Government fee of two rupees per cart-load.

Chrystal.—Named *Phattak*, is a clear transparent stone, resembling glass in appearance, it receives a high polish. It is procured at Tankarra in the territory of the Rajah of Murvi, and is found in masses under the surface of the soil, from one to twenty pounds in weight.

Remark.—This pays the same duty as the other stones in the Rajah of Murvi's territory.

Variegated Stone.—Named by the lapidary *Mi-mariam*, is of a liver brown earthy base, with yellowish impressions of shells and animalcules; having a pretty marbled appearance, but does not receive a good polish. It is procured at Dhokawarra in the Runn, about sixty miles north of Deesa, and is found in large masses on the hill, and dug up in large blocks at its base. From whence it is carted to Cambay.

Lapis Luzuli.—Or the azure stone, named at Cambay, *Rajahwarrad*, is of a deep blue colour, and soft earthy base, with a sprinkling of silvery or golden spots. May be known by its beautiful indigo blue colour. It is soft and does not receive a high polish. It is imported

at Cambay from Bombay, and is brought from Persia and Bokhara. It is said to be found in rounded balls in the beds of rivers.

Jet-Stone or Obsidian.—Named here *Kala phattar*, resembles glass in fracture, is not very heavy and takes a high polish. It is imported at Cambay from Bombay, and is said to occur on the hills at Bokhara, and at Aden in large blocks.

Blue-Stone, named *Ferosa.*—It is of various shades of blue, and is a composition resembling glass, it is soft, and takes a good polish. It resembles the true *Ferosa* when highly polished. It is imported at Cambay from Bombay, and is said to be prepared in China. It is brought from China in flat pieces not exceeding half a pound in weight.

Carnelians,—Named *Gharr*, in their original state. They are cloudy, of various shades of brown, some, and others of different tints of yellow. After exposure to the sun and baking, they assume other tints as follows :

Light-brown becomes white, *Dhola;* pale yellow, rose colour, *Gulabi;* deep yellow, red, *Lal;* a mixture of cloudy brown and yellow, becomes white and red, named *Ablaki;* another shade of yellow turns pinkish purple, named *Nafarmani;* and brown becomes a darker shade, named *Emni.*

They are dug up in large quantities, and after undergoing the process of baking, they receive a high degree of polish, and are wrought into flat and round necklaces, bracelets, armlets, stones for seals, chessmen, marbles, studs, rings, &c. They are procured from the base of the hills of Bowa, B. Abbas and Rajpipla in the territory of the Nadode Rajah, who is tributary to H. Highness the Gaikwar. The Nadode Rajah farms the quarries to native contractors, who pay annually, from Rs. 2000, to 2500 to the Rajah, for the sole privilege of collecting the stones. They are found in the shape of pebbles, imbedded in a soft yellow soil or in bluish-gray clay. These vary to a pound weight, and are chiefly of uneven form and surface.

The other stones found in the neighbourhood or on the hills, and not subjected to the heating process are as follows :—

Mora or Bowa Gori.—A species of Onyx or dark coloured Carnelian with white veins; or a grayish white ground with dark veins, assuming various figures, they receive a high degree of polish and are much prized at Djiddah in Arabia. They are procured on the Bowa Gori and Abbas hills or at their base, or in the bed of the river formed by the monsoon streams between the hills. *Mora* is found on, or at, the base of the hills in pebbles not exceeding a pound in weight. Between the Bowa Gori and Bowa Abbas hills, on the plain, are small mounds, from whence the stones are obtained by the Bheels of the districts. The excavations are of some depth, forming galleries in a horizontal direction, about five feet in height and four broad; the miners are obliged to use a lamp and work in pairs, one is employed with the pickaxe in the quarry, the other at the entrance to examine the stones, which is done by chipping off a piece, the good are retained and the bad rejected on the spot. When a larger number of men are employed, the galleries are extended in different directions, with supports and air-passages. The labour of the two men for the day, or for eight or ten hours, produces from ten to forty pounds in weight of Carnelians, which are brought in the evening to the village of Rattanpore, and transferred to the Contractor or his people. When a large quantity is thus procured, they are exposed in the fields to the sun for two months or more, after which in the month of May generally, a trench is formed in the field two feet in depth and three in breadth. In this, fires of goat and cow-dung are lit up, and the stones in earthen pots, in single rows, are placed in the trench; the fire is kept up from sunset to sunrise, when the pots are removed and the stones piled away. The Contractor attends the heating process; the stones are once a year carted to Nemodra, and conveyed in canoes down the river to Broach, from whence they are brought in boats to Cambay.

Each bag of twenty-five maunds, pays a duty of one and a half rupee to the Bombay Government, at Broach, in addition to the import and export duty at Cambay. The stones are sold to the heads of the lapidary-manufactories. The town import duty is one and a half rupee.

Cat's Eye, named Chasumdar.—The principal colour is gray presenting many varieties usually translucent. It is hard, and has the appearance more or less, of a cat's or bird's eye. It is much esteemed and receives a high degree of polish.*

Rori or Lassunia.—A yellow pebble, semi-transparent, found scantily with Cat's Eyes; takes a fine polish and is much esteemed. It is usually cut for ring-stones. These are found on the Bowa Gari and B. Abbas hills, or at their base; or in the bed of the river formed by the rains between the hills, which is dry in the month of October; and they occur with blunt edges or in rolled pieces, as pebbles, and are of various shapes and small sizes, not exceeding two ounces in weight. They are sought for by the Bheels of the district, and disposed of to the Contractor at Ruttanpore who sells them to the heads of the different lapidary manufactories at Cambay.

Articles wrought by the Cambay Lapidaries.—Those for sale to the gentry passing through Cambay, and sent to Bombay for the English, Calcutta, and other markets, are made of Agates, Blood-Stone, and Carnelians; and wrought into models of cannon, with carriages and appurtenances complete; slabs for boxes; sets of a variety of slabs, twenty in number, to form a square table; cups and saucers, chessmen, flower-vases, penracks, card and letter-racks, watch-stands ink-stands, knife-handles, rulers, paper-cutters, paper-weights, penholders; sets of necklaces, bracelets and broaches of a variety of patterns, crochet-needles, silk-winders, marbles, brace and shirt-studs, and seals; also rough specimens of stone with one side polished.

Articles wrought for China, are comprized of only two kinds, and are made entirely of Carnelians. First the oval and square flat-stones resembling watch-seals, large and small named *Mogli gool*, worn as armlets and dress ornaments; second, the beads named at Cambay *Dhol*; each necklace containing fifty beads, these are all plain polished.

* What is called Cat's Eye generally is *Fibrous quartz;* these are not *fibrous quartz* but small globular agates formed of concentric layers. They are very commonly used in Bombay as charms for sore eyes. They are set in copper or silver rings, and are let out or purchased as required. Ed.

and round. Vast quantities of them are annually exported from Cambay, to Bombay for China; the extent of valuation is from 50,000 to 60,000 rupees annually.

Articles for the Mocha, Djiddah, and Mecca markets are made out of the veined Agate from Rhanpore, Carnelians from Rattanpore, the Cat's eye, and Jet or Obsidian; these are worked into large quantities of rings both plain and ornamented, ring stones, wristlets, armlets and necklaces, embracing the following varieties:—

Necklaces:—*Pailudar Dhol*, cut beads; *Gukradar Dhol*, Diamond cut beads; *Badami Arr*, almond shaped neklace; *Khantli*, oblong flat necklace; *Chamakli*, spear shaped; *Madaliyah*, *Tawitch* or *Tahviz*, composed of three stones; *Sadah Khanta*, plain round beads, used as a necklace and rosary.

Armlets and Wristlets:—*Mutia Madaliyah* composed of two stones, worn as an armlet or wristlet; *Paitah*, a wristlet composed of seven round flat stones; *Ponchi*, a wristlet composed of several flat stones; *Baijutah*, an armlet of one stone cut into a fanciful device.

Single stones in the shape of large flat seals called *Nimghul*.

Rings:—These are made of Carnelian of various devices named *Ungotee*; ring-stones for setting, called *Naggina*, are made of Carnelian and Cat's eye.

The articles for the Djiddah and Mocha markets are packed up in Chests, also in bales with cloths, and exported to Bombay, and Veraiwul Bunder near Diu, where they are reshipped to their destination.

Manufacture of the different articles.

Beads.—The following is the process of making Beads:—The stones are first broken into pieces of the size desired. An iron spike named *khondia* is driven into the ground in an inclined direction with one point upwards, the stone is placed on this point, and chipped with a hammer made of horn, till rounded; it is then passed on to the polisher, who fixes a number, of equal size, in a pair of wooden or bamboo clamps, and rubs them on a coarse and hard polishing stone called *Dholia*; these are then transferred to another man, who securing them

in a wooden clamp, rubs them against a grooved polishing board named *pattimar*, on which is smeared a composition of emery and lac, turning the beads round so that every part of the surface might assume a globular form and become polished. The final polish is given, by the beads so prepared, being put from one to several thousands, into a stout leather bag, about two feet in length and from ten to twelve inches in diameter, with some emery dust and very fine powder, named *wurry*, (the sediment from the carnelian deposited in an earthen dish partially filled with water, during the process of drilling holes in the beads, which is always collected and dried,) the mouth of the bag is then tied up, and a flat leather thong or tape is passed round its centre, after which it is rolled by two men seated at opposite ends of a room, towards each other, from ten to fifteen days; during which time it is kept moistened with water. When the beads have taken a bright polish, they are passed on to the people who bore the holes, which is effected by means of a steel drill tipped with a small diamond; during which process the spot is fed with water drop by drop, passed through a thin narrow reed or metallic tube.

The Cut-Beads, are passed from the rough polishing stone to the lapidary-polishing and cutting plate, and lastly the holes are drilled.

Knife Handles. These undergo exactly the same process as the cut-beads and are shaped to any pattern.

Cups and Saucers, and other hollow articles are wrought according to the required external shape on the steel spike, and a rough polish given on the rough polishing stone; the cavity is formed by the diamond tipped drill, to the depth of one fourth of an inch, all over the space until it exhibits a honeycombed surface, when the prominent parts round the holes are then chipped away, and this process repeated, until the depth and form desired is obtained. They are then polished upon prepared moulds of convex formation, and of the same composition as the polishing plates, which are attached to the turning wheel.

Cannon. The bore of the cannon is effected by a drill with two diamonds, to the depth required; afterwards five other drills successively increasing in thickness are substituted, each having, an

increase in the number of diamonds placed circlewise, the last containing as many as twelve diamonds.

Slabs, Paper-cutters P. weights &c.—are cut by means of a toothless saw made of iron; and fixed to a light wooden frame; the cut is fed with emery dust and water; when the stone is small the saw is worked by one man, when large by two men. The stone to be wrought upon is attached to a large wooden frame, which is fixed in the ground. The cement consists of a coarse description of bees wax with the fine fibres of new cloth, by means of which the stones are firmly attached to the wooden frame work. Several men, in a row, are at the same time employed cutting through different pieces of stone.

Table prepared from returns of the Cambay Custom-House, exhibiting the values of the Traffic in wrought Cambay Stones and Export-Duty thereon, for the two official years 1848-49 and 1849-50, commencing in May and ending in April:

	Small Packages.	Large Packages.	Bamboo Baskets.	Large Boxes.	Bags of Carnelians sent in large bales of cloth.		Total value of Carnelians sent each year.			Customs duty on the part of the British Government.		
	Beendry.	Keesa.	Kemdin.	Patie	Bales	Bags.	Rupees.	a.	p.	Rupees.	a.	p.
1848-49.....	10	3	13	23	49	312	1,08,422	..	..	1,350	4	..
1849-50.....	18	1	11	6	98	536	94,902	..	..	1,186	4	6

In the above table the export duty levied by the Nawab is not given; the amount exactly trebles that of the British Government, which is calculated at one rupee and four annas per cent. on valuation; this is independent of private fees levied by the Nawab's native officials.

ART. VIII.—*Extracts from the Proceedings of the Society for the year* 1849-50.

MEMBERS ELECTED.

FROM 21ST DEC. 1849 TO 25TH NOV. 1850 INCLUSIVE

B. White, Esq.	Capt. Heatly.
A. Burn, M. D.	D. Framjee, Esq.
H. Scott, Esq.	F. W. Watkins, Esq.
J. Ritchie, Esq.	J. Graham, Esq.
Lieut. H. Gilmore.	R. Jamsetjee, Esq.
Capt. C. W. Tremenheere	Capt. C. M. Barrow.
Lieut. Coll. W. Wyllie, C. B.	S. Jamsetjee, Esq.

Commodore S. Lushington, R.N.

PRESENTS FOR THE LIBRARY.

	DONORS.
MISSISSIPPI VALLEY, Ancient Monuments of the. Volume 1, 4to. "The first of the Smithsonian contributions to knowledge".....	The Board of Regents.
CHALMER'S (Patrick) Ancient sculptured monuments of the County of Angus, including those at Meigle in Perthshire and one at Fordoun in the Mearns.....	P. Chalmers Esq.
INSCRIPTIONS, Arabic and Persian from Beejapoor, collected and copied by Hoossein Sahib Bhangay and Mahomed Ali Bhangay, Rojendars of Beejapoor 1848-49.....	H. B. E. Frere Esq.
SUKOONTULA NATUCK, a Dramatic Story in the Persian character, from the Hindee Roman Orthoepigraphical Ultimatum of Dr. J. B. Gilchrist, by Bomanjee Dossabhai.....	The Author.

	Donors.
Botfield's (Beriah) Notes on the Cathedral Libraries of England.....	The Author.
Brockham's (Von Dr. Herman) Vendidad Sade; Die herligen Schriften Zorasters, Yagna, Vispered and Vendidad.	———
Brigg's (H. G.) Cities of Gujarashtra, their Topography and History illustrated in the Journal of a Recent Tour	The Govt. of B'bay.
Bruce's Annals of the East India Company. Volumes 3.....	The Hon'ble J. P. Willoughby.
Buist's (George L. L. D.) Rain-Gauge.....	The Author.
Bibles and Biblical Literature, catalogue of, published by J. C. Stewart..	Rev. Dr. Wilson.
Church Missionary Record, 14 Nos. of, with a report of the Bombay Auxiliary Church Missionary Society, and No. 10 of 1850...	Rev. C. Isenberg.
Chrestomathie Hindie et Hindouie a l'usage des Eleves de L'Ecole speciale des Langues Orientales Vivantes pres la Bibliotheque Nationale. Published under the direction of M. Garcin de Tassy.	M. Garcin de Tassy.
Code of Regulations for the Government of the Presidency of Bombay, with notes, a Key, Index, Interpretations and Epitome of the acts of the Legislative Council of India. Volumes 2. Edited by W. H. Harrison Registrar S. D. A.....	The Editor.
Ditto.———Ditto.———Ditto....	The Govt. of B'bay.
Cooverjee Rustomjee Mody, Gujarathi Version of his Prize-Essay on Female Infanticide.....	The Govt. of B'bay.
Dalzell's (A. N.) 1st and 2nd contributions to Indian Botany, from Hooker's Journal of Botany, Nos. 14 and 17.....	The Author.

	DONORS.
DALZELL's (P. M.) Monthly Statements of the External Commerce of the Presidency of Bombay from Nov. 1849 to Sep. 1850.	The Author.
ELLIOT's (Sir H. M.) Bibliographical Index to the Historians of Mohammedan India. Vol. I.....	———
GRANT (Col. C. W.) on Bombay Cotton and Indian Railways.	———
GRIFFITH's (W. Esq.) Itinerary Notes on Plants collected in India and the neighbouring countries, 1837 to 1842.....	The Govt. of B'bay.
——— Icones Plantarum Asiaticarum, Part II, On the higher Cryptogamous Plants.....	———
——— Notulæ ad Plantas Asiaticas, Part II, On the higher Cryptogamous Plants.....	———
HALAT RAE's Futtuhgurh Naman in Hindoostani.	Sir H. M. Elliot K. C. B.
HODGSON's (B. H.) Essay the first, on the Kooch Bado, and Dhimal Tribes, in three parts. Part 1st Vocabulary, 2nd Grammar, 3rd Location, numbers, creed, customs, condition, and physical and moral characteristics of the people.	The Author.
HUNTER's (A.) Report on the Pottery of India.	The Govt. of B'bay.
JOURNAL of the Indian Archipelago and Eastern Asia, Nos. 10 to 12, of Vol. III, 1849, and Nos. 1 to 8, of Vol. IV, 1850.	The Editors.
———Nos. 10 to 12, of Vol. III, for 1849, and Nos. 1 to 8 of vol. IV. for 1850.....	The Govt. of B'bay.
LASSEN's (C. Von) Indische Alterthumskunde. Zweiter Band	The Author.
MUHLEISON's (John) Genuine and Spurious Religion, a compendious, scriptural and consecutive view of the origin, development, and character of different systems of belief. Vols. 2.....	———

	Donors.
Montgomery's (Robert) Statistical Report of the District of Cawnpore.....	The Govt. of B'bay
Newbold's (T. J.) Political and Statistical account of the British Settlements in the Straits of Malacca. Vols. 2.	The Author.
Observations made at the Magnetical and Meteorological Observatory of Bombay for the year 1847, under the Superintendence of C. W. Montriou, Commander I. N....	The Govt. of B'bay.
Report of the Smithsonian Institution, exhibiting its Plans, Operations, and Financial Condition, up to January 1st 1849.	The Board of Regents.
——— of the proceedings of the Vernacular Society of Guzerat for the year 1849.....	A. K. Forbes, Esq.
——— of Criminal Cases determined in the Court of the Sudder Foujdaree Adawlut of Bombay, compiled by A. F. Bellasis Esq. B. C. S.	The Govt. of B'bay.
——— of the Calcutta Public Library, from February to December 1849.....	The Society.
——— Thirty-fifth, of the Bombay Education Society for the year 1849.....	———
——— on a General Scheme for Extramural Sepulture.....	T. S. Cowie, Esq.
——— of the Board of Education of Bombay for the years 1847-48.....	The Board.
——— Ditto. ——— ditto. ———ditto..	The Govt. of B'bay.
——— Annual, of the Grant Medical College Bombay for 1849-50.....	The Superintendent.
——— Ditto. ——— ditto. ———ditto..	The Govt. of B'bay.
Reports Medical, selected by the Medical Board from the records of their Office and published under the sanction of the Madras Government.....	The Medical Board,

	DONORS.
SOCIETE DE GEOGRAPHIE, Bulletin de la. Troisieme Serie. Tome XII.....	The Society.
SOCIETY, Royal Asiatic, of Great Britain and Ireland, Journal of. Vol. XII, Part II.....	———
——— Ceylon Branch of the Royal Asiatic, Journal of. Nos. 1, 2, 3, and 4, for 1846-47 and 48.	———
———Royal Astronomical, Monthly Notices of, containing papers, abstracts of papers, and reports of the proceedings of, Vol. VIII. from November 1847 to June 1848, with one Supplement. Vol. IX. Nos. 8 and 9, and Vol. X. to May. No. 7.	———
——— Royal Astronomical, Memoirs of, Vols. XVII. and XVIII.	———
——— Bombay Geographical, Transactions of, Vol. IX. from May 1849, to August 1850.	———
UTTARA RAMA CHERITRA. A Drama	Rev. P. Anderson.
STARKEY's (Captain) Dictionary, English and Panjabi, also Dialogues English and Panjabi, with Grammar and Explanatory Notes.	Sir H. M. Elliot K. C. B.
SYKES' (Lieut. Col. W. H.) Contributions to the Statistics of Sugar, produced within the British Dominions in India.—Statistics of the Civil Justice in Bengal.—On the fall of rain on the Table-land of Uttree Mullay, Travancore, during the year 1846.—Discussion of Meteorological Observations taken in India.....	The Author.
TABLEAUX DE LA REVOLUTION FRANCAISE. Vols. 2. folio.....	The Govt. of B'bay.
WILSON's (The Rev. John D. D.), Short life of the Apostle Paul, with a Summary of Christian doctrine as unfolded in his Epistles. In Sanskrit version	The Author.

	Donors.
Wight's (Robert) Icones Plantarum Indiæ Orientalis, Part IV. Vol. IV.....	The Govt. of B'bay.
——— illustrations of Indian Botany Part III. Vol. II.	———
Zeitschrift der Deutschen Morgenlandischen Gesellschaft herausgegeben, Von den Geschaftfubrern. Heft I. II. and IV. 1850....	The Society.
Zeitschrift fur die kunde des Morgenlandes herausgegeben, Heft II. and III. Von Christian Lassen.	———

PRESENTS FOR THE MUSEUM.

Antipathes Spiralis, two large specimens of, from the Straits of Malacca..	Dr. Bremner.
Bag, made in Coorg by stripping the bark off a species of *Upas Antiaris* entire. These bags are closed at one end by a solid piece of the tree and are used for holding grain &c.	J. L. Blane, Esq.
Calcareous Incrustations, from a Calciferous Spring at Baneshwar near Nassapoor....	H. B. E. Frere Esq.
Cobra de Capello, specimen of	W. Hameg, Esq.
Coal, specimens of, from Kala Bagh.....	Col. Hallet.
Coins, five Silver and fourteen Copper, from Peshawar *(a)*	Col. Jervis.
——— Gold, one with Persian Inscription (Mohur, Mohammed Shah, 23d year of his reign, A. H. 1153.) *(b)*	The Govt. of B'bay.
——— Gold 24 viz. 1. Finam Annesgondee.—19 Pagodas.—4. Mohurs: Alumgheer, A. H. 1170. Shah Jehan, A. H. 1037. Shah Jahanabad, A. H. 1111. Jahandar Shah, A. H. 1124, *(c)*	———

(*a*.) See this Art. Proceedings Off. Lit. and Sc. 18th April 1850. (*b*.) Id. (*c*.) Id.

	DONORS.
Crocodilus Gangeticus, skin of, from Surat. ..	A. F. Bellasis, Esq.
Dendritic Limestone, portion of taken from a quarry about 30 miles from Neemuch. It is of the same kind as that of the Southern Maratha Country, and is quarried in like manner in large slabs.	Dr. Malcolmson.
Diorite, Magnetic, portion of, (discovered by Capt. Jenkins 10 Madras N. I. See Asiatic Journal, No. CCII. page 410.)	Dr. Spilsbury.
Elephas Asiaticus, portion of tusk of, from the valley of the Nerbudda near Bettaree. (Fos.)	———
——right side of lower jaw of, (a young animal,) containing a part of the molar tooth. (Fos.)	———
Geological Specimens collected about Travandrum and Cochin by General Cullen; consisting of Limestones, Lignites, Fossil Resin and Graphite	Dr. Buist.
Hippopotamus, portion of the right jaw of, containing the two posterior molars. (Fos.)..	Dr. Spilsbury.
Iron ore, specimen of, common to the neighbourhood of Saugar..	———
Janthina and Porpita, specimens of, collected between Bombay and the Cape of Good Hope.....	Capt. Montriou.
Laterite, Granite, &c., specimens of, collected from the neighbourhood of Vingorla....	N. A. Dalzell, Esq.
Mineralogical specimens collected at the Mauritius and Aden by Dr. Malcolmson.....	Dr. Malcolmson.
Quartz Rock, specimen of cellular, from Shahgurh near Dhamoree, in which is disseminated a large quantity of red and green oxide of Copper, together with crystalline calcareous spar.	Dr. Spilsbury.

	DONORS.
Red-clay, specimens of, possessing a columnar structure, from Trap-Rock, near Kolapoor, collected by Dr. Broughton.....	H. B. E. Frere, Esq.
Rock-specimens, a collection of, from the island of Bombay, consisting of greenstone, traps, basalts, clays and aqueous deposits; also of rocks foreign to the island of Bombay but found on its shores.....	Dr. Buist.
———specimens, collected from Maskat in Arabia, Persia, and Babylonia.....	Capt. Newbold.
———Salt, specimens of from Kala Bagh....	Col. Hallet.
Sculptures, fifteen fragments of, procured from a ruined Temple on a hill in the Eusof-Zai country, collected by Lieut. Miller.....	Dr. Arnott.
Talcose Sandstone, specimen of, light yellow, fine grained, containing here and there small red globular ferruginous concretions of the same material; found 40 miles south of Chandree.....	Dr. Spilsbury.
Talc-Schist, specimens of, containing specular iron ore, collected by Dr. Malcolmson from the hills above Pali, 60 miles north of Peshawar	The Hon'ble J. P. Willoughby.
Trap-Tufa, specimens of, from the island of Bombay.....	Dr. Buist.
Woods, specimens of, used at Peshawar for building, and all other purposes requiring timber of a strong and lasting nature; collected by Dr. Malcolmson.....	The Hon'ble J. P. Willoughby.

ORIGINAL COMMUNICATIONS.

	COMMUNICATED BY.
Anderson (The Rev. P.) some account by, of the Bhatti Kávya or Poems of Bhatti. 16*th April* 1850. *(a)*	The Author.

(a.) See last No. of Jl. p. 20.

	COMMUNICATED BY.
Anderson (The Rev. P.) Some account, together with Fac-simile Devanágarí transcript and translation by, of a Copper-plate Inscription in the Society's Museum. — 15*th August* 1850 *(a)*	———
Carter (H. J. Esq.) Observations by, on the Serpentine Rocks and Aqueous Strata of Mascat and its Neighbourhood. — 16*th May* 1850 *(b)*.....	———
Jacob (Major LæGrand) Fac-similes of Inscriptions in Ancient Sanscrit by, taken from Copper-plates found in the Sawant Wari Teritory, with translations. Second contribution.—24*th January* 1850. *(c)*.....	———
———Fac-simile and Translation of a Copper-plate Inscription in Sanskrit by, dated A. D. 1435, recording the Grant of a village called Varadengi, to one Pashun Sheti ; by Nagadew, a descendent of Dewa Sherma.—19*th Sep.* 1850. *(d)*	———
Newbold (Captain T. J.) a descriptive list by, of Rock-Specimens from Maskat in Arabia, Persia, and Babylonia. 24*th March* 1850. *(e)*	———
Perry (The Hon'ble Sir E.) Account by, of the Great Hindu Monarch Asoka, chiefly from the Indische Alterthumskunde of Lassen.—21*st Nov.* 1850. *(f)*	———
Robertson (Captain A. C.) Memoranda by, on Mud-Craters situated in the District of Lus, with Map and Sketches.—21*st Feby.* 1850. *(g)*	Captain S. W. Hart

(a) See this No. of Jl. p. 213. *(b)* See last No. p. 118 (c) See this Art. Proceed. Offi. Lit. and Sc. *(d)* To be inserted in next No. *(e)* See last No. p. 26. *(f)* This No. p. 149. *(g)* See last No. p. 8.

	COMMUNICATED BY.
Stevenson (The Rev. J., D D.) Observations by on the Grammatical Structure of the Vernacular Languages of India. No. 2.—21*st Feby.* 1850. *(a)*	The Author.
Summers (Augustus) An account by, of the Agate and Carnelian Trade of Cambay.—19*th Sep.* 1750. *(b)*	The Government.
Taylor (Captain M.) Ancient Remains at the Village of Jiwarji near Ferozabad on the Bhima.—13*th June (c)* 1850.....	Dr. Buist.
Wilson (The Rev. Dr. J.) Memoir by, on the Cave-Temples and other ancient Buddhist and Brahmanical and Jaina Remains of Western India.—15*th Augt.* 1850. *(d)* ..	The Author.
——————Supplement by, to Ditto. 19*th Sep.* 1850. *(e)*	———
——————on the Villages and Towns named Hadhar mentioned in the Sacred Scriptures, with the identification of the Hazor of *Kedar* with the *Hadhra* of the Arab Geographers, and the *Hatra* and *Atra* of the Greeks and Romans.—24*th Oct.* 1850. *(f)*	———

PROCEEDINGS, OFFICIAL, LITERARY AND SCIENTIFIC.

With reference to Government letter, General Department, No. 276 of 1850, forwarding 26 Gold Coins for the Society's inspection and report, with permission to select such as might be useful in the Society's cabinet, it was resolved, that they should be handed over to C. J. Erskine, Esquire, C. S., with the Society's request that Mr. Erskine would favor it with any observations on them which he might consider worth offering, and also be kind enough to select from them such as might be useful in the Society's collection.

(a) See last No. p. 1. *(b)* This No. p. 318. *(c)* Idem. p. 179. *(d)* See last No. p. 36. *(e)* Seet his Art. Proceed. Off. Lit. and Sc. *(f)* To be inserted in the next No.

The Government letter, General Department, No. 255 of 1850, calling attention to 268 Gold Coins submitted to Mr. Erskine for examination in February last; it was stated, that the papers which had been prepared respecting them were in the possession of Dr. Wilson, *Honorary President*, now in Sindh, and that they would be obtained if possible before his return. The *Secretary* was requested in the mean while to make this reply to the Government.

Major Jacob's fac-similes, etc. of ancient inscriptions before mentioned, were then laid before the Meeting. They are stated by Major Jacob to be of a subsequent date to those of the "Nerur Plates" presented to the Society by Government in the month of June last, and are, respectively, of the years A. D. 933, 1261, and 1391. The Copper-plates from which they were taken are now in the hands of native gentlemen, who refuse to part with them, from a supposition that they possess some mystic virtue.

"No. 1, of A. D. 933, records a grant, in the Shalivahun year 355, by a sovereign of the *Yadu* race Gowindraj, of the village Lohagram in the District of Rampur, to Keshew Dikshit, son of a Brahman fellow-student; the language is pure Sanskrit, but inflated with gigantic hyperbole, puerile conceits, and far fetched metaphors, containing little matter to compensate the labor of finding out the meaning.

"No. 2, of A. D. 1261, shews the Chàlùkyàs [after their overthrow by the *Yadu* race] to be again in the ascendant, and reigning at "Kalyán,"—Kanwadew the King—his Minister, Keshew Mahájani, bestows the village Terwatak, the modern Terwun in the Rajapoor Talooka, on certain Brahmuns, and the deity Vimaleshwar; the latter said still to enjoy his portion. The Sanskrit is not grammatical; the character approaches much nearer to the modern type; the inscription is probably the same as that of whichan imperfect copy and translation are given in the R. A. Society's Journal, Vol. V, page 177.

"No. 3, of A. D. 1391, is an interesting relic of the Beejanuggur dynasty, founded, according to Ferishta in A. D. 1344, by Bilal Dew, Raja of the Carnatic, who named it after his son Beeja * * * * This inscription gives only, the following genealogy: Achyut married to *Shree—Bukkaraj—Harihar*; the first named is not spoken of as

a sovereign, but the second is. * * * * * In alluding to Wigaya, it says, that Bukkaraj here lived as an Indra, defying all his enemies; and as no mention is made of Achyut's deeds, or residence, the inference is that Bukkaraj was the first of the race who established himself in power in this quarter. Harihar is described as ruling over the whole of the Indian Peninsula, that is washed by the ocean; and it seems doubtful whether supremacy to the Indus be not claimed; his Prime Minister, the aforesaid Madhawa, whom he invested with the sovereignty of Jayantissur, conquered Goa from the Turushkas (Turks), and re-established there the worship of the ancient idols which they had uprooted. This victorious personage, before transferring control over the Goa country to another Minister, named Narahari, granted to the parties named in the plates the village of Kuchchar, called also Madhawpur: this village, the modern Kochré, is not many miles from the present Goa frontier."

Dr. Buist in presenting the collections of Geological specimens before noticed, accompanied them with many interesting observations, more particularly as regards the specimens collected from the Island of Bombay. The several localities and extent of the Basaltic eruption, the positions of the Greenstone, White Trap, Trap-Tufa, and their varieties, were pointed out; also the localities of the aqueous deposits, consisting of the Kankar formation, Blue Clay with its Lignites, &c. and the Shell-Concrete, all of which Dr. Buist conceives to belong to the Newer Pleiocene series.

Among the rocks foreign to Bombay, Dr. Buist would, as far as his observations extend, place the Laterite, there being no doubt about the others, which have been brought to Bombay by ship as part of their ballast.

Of the specimens forwarded to Dr. Buist by General Cullen, Dr. Buist could state nothing but on conjecture, further than that which was contained in the list which accompanied them. The collection was extremely interesting, inasmuch as it contained specimens of Lignite, Mineral Resins, and Graphite, said to come from the Laterite formation; the latter from Trevandrum, the former from the Late-

rite deposits about fifteen miles S. of Quilon. They are found in common with Carbonaceous Clays and Pyrites, and, according to General Cullen, appear to extend all along the coast from Cape Comorin to Cannanore. Captain Newbold had noticed them at the latter place and at Baypore. They would also appear to be confined to the coast and shores of back waters, sometimes occuring on a level with the sea, at others on high laterite cliffs, as at Purkolly.—*2nd January*, 1850.

The letter from Cursetjee Jamsetjee Esq., (Secretary to the Committee appointed on the 25th April 1841, to carry into effect certain resolutions respecting a testimonial to the memory of the late Sir James Carnac,) having reference to a bust of Sir James Carnac now standing in the northern landing place of the Town Hall, requests, on behalf of the Committee, that the Society will do it the favor to receive this bust and its pedestal into the Library, as a temporary measure.

The *Secretary* was requested to acknowledge the receipt of this letter, and to express the Society's willingness to comply with the Committee's request.

Respecting the Gold Coins before noticed, presented by the Government, and those by Colonel Jervis, it was resolved that, the former should be handed to C. J. Erskine, Esquire, C.S., and the latter to the Rev. Dr. Stevenson, with the Society's request that these gentlemen would, respectively, favor the Society with a description of them.

In reply to the letter from J. Henry, Esquire, Secretary to the Smithsonian Institution, Washington, presenting the society with the Reports and Volume before mentioned, also requesting in return a complete set of the Society's publications; it was resolved that the best thanks of the Society should be transmitted to the Board of Regents of the Smithsonian Institution for the valuable presents referred to; and that a copy of each No. of the Society's Journal already published, as well as a copy of all Nos. hereafter published by the Society should be sent to the Smithsonian Institution.

The Reports of this Institution state, that it originated in a bequest of property to the amount of $ 515,169 by James Smithson, Esquire

of England, in trust to the United States of America, to found an Institution at Washington in the testator's name, which Institution was to have for its object, *The increase and diffusion of knowledge among men.* This trust was accepted by the Government of the United States, and the Institution established by Act of Congress August 10th, 1846.

The volume alluded to, is on the "Ancient Monuments of the Mississippi Valley:" it is the first of the "Smithsonian contributions to knowledge."

Mr. Smith, in adverting to the deficiencies in the Society's Library, stated, that among the list of Subscribers to "Layard's Nineveh" were the Hon'ble the Court of Directors for 40 copies, and that the Society might, in all probability, be presented with a copy from this source, if it would only take the trouble to apply for it. The *Secretary* was requested to make an application through the proper channel to this effect.

Further, Mr. Smith wished to know what had been done in the way of procuring a better supply of books for the Society since the last resolutions were passed relative to this subject.

The *Secretary*, in reply, stated that the *Committee of Management* had determined on meeting once every three months for the purpose of making selections from such Standard Works as might be recommended for the Library, and that the resolutions referred to, having come into operation on the first of the year, the meeting of the *Committee* alluded to would be held in the month of March.

Dr. Stevenson stated that he thought it advisable, for the purpose of insuring a systematic selection, to call upon each member to send in a list of the Standard Works in which he might think the Library most deficient, and that these lists should be brought before the meeting of the Committee mentioned. The *Secretary* was requested to make arrangements accordingly.

The following communication was made to the Society by Dr. Buist respecting the Laterite on the shores of Bombay: "I mentioned, in explaining the character of the specimens presented at last meeting, that it was doubtful whether the Laterite lying in blocks and pieces around Sewree might not have been brought thither by

the hand of man. I now no longer entertain any doubt about the matter, I find pieces of Laterite strewed all around the shores of the Island; at Sewree, Worlee, Lovegrove and Breach Candy; and on the shores of Salsette, Trombay and Elephanta, and all around the Islands of Henery and Kenery; and I have no doubt it will be found over a large expanse all up and down over our coasts. It is mentioned by Prinsep as existing in the blue clay at Calcutta, exactly as it does in our blue clay here, only that it is 150 feet under the surface. It was brought up in boring for water in 1837. Whatever may have been its transporting cause, it could not, under these circumstances, have been an artificial one. Within the Tropics we do not recognise the agency of Glaciers or Icebergs at the level of the sea.

Laterite is so hot and brittle, and so easily destroyed by the agitation of the waves, and these fragments are mostly found within the reach of the breakers, that it must, at no great distance of time, have been much more plentiful than at present. A few years hence, in all likelihood, every trace of it will have vanished from our shores, unless beyond the reach of the sea. I found some specimens of tuffa, in addition to those formerly presented, which may form a set of themselves illustrative of trap disturbed or flowing in a viscid state when in the act of cooling. Most of these are stratified or streaked; in some of them the spar which usually fills drusy cavities or veins has already come into existence amongst fragments of hard or semi hard matter not quite in contact with each other. I have lived most of my lifetime in the midst of trap-formations yet the phenomena here are altogether new to me."—21*st February*, 1850.

The Rev. J. M. Mitchell read an extract of a letter from Dr. Graul of Leipsic, containing a strong request that the Bombay Branch of the Royal Asiatic Society would aid in the rendering into English of the Gujaráti versions of the Zendavesta as one important contribution towards the elucidation of the Zend text. After some discussion, the following resolution was unanimously agreed to,—viz., "That the desirableness of having an English translation of the Gujaráti version and the commentary of Framjee Aspandiarji on the Zendavesta having been brought forward, the Society fully recognizes the importance of the proposal, and resolves to discuss it more fully at its next meet-

ing; appointing in the mean time the Rev. Dr. Stevenson, Rev. J. M. Mitchell, C. J. Erskine, Esq., and H. Green, Esq., to consider and report on the whole question."—*21st March*, 1850.

The Committee appointed to report on the question of rendering into English the Gujaráti version of the Zendavesta, by Framjee Aspandiarji, reported, that after full inquiry, it was convinced of the desirableness and practicability of the scheme, but as several modes of carrying it into execution had been suggested, they would beg permission to report on this specific point to a future meeting. The Society agreed to the report and continued the Committee.

Tables which had been drawn out by C. J. Erskine Esq., relative to the inscriptions and dates of the Gold Coins, submitted for description to the Society by the Government, with its letters No. 346, 276, and 572, dated repectively, 7th February 1849, 19th January and 15th February 1850, were laid before the Meeting with the following observations on those which accompanied the letter No. 346.

"There are 268 of these Coins and they are of three kinds, viz.—1, Fanam or Fulum, 261 Pagodas or Nand, and 6 Mohurs.

There is only one Fanam, of Annesgoondee, which seems to be correctly described in the list attached to the Collector's letter.

There are 6 Mohurs, which are described in the first appended lists

The remaining 261 Coins are Pagodas. They are of one or other of the following kinds. *Dharwaree, Hurpunhullee, Yekeree, Mohammed, Shahee*, and *Savanooree*. But there are several species included in some kinds, especially in the *Yekeree* and *Savanooree*. Some information on these details is given to the second appended list.

All these kinds of Pagodas are mentioned in Prinsep's list, but not all the species.

This kind of Fanam is not mentioned."

The Society expressed its thanks to Mr. Erskine for the great trouble he had taken, and requested the *Secretary*, after having had copies made of the Tables to forward the originals to Government with all the Gold Coins, excepting those which, by the kindness of Government, the Society had been allowed to select for its own Cabinet. (See p. 333.)

The Antique Coins presented by Colonel Jervis, *Vice-President*, to

the Society, at its Meeting held on the 21st February last, (See p. 333.) and subsequently submitted to the Rev. Dr. Stevenson for examination, have been thus described by that Gentleman :

" There are 2 Bactrian Coins of Menander with Greek and Bactrian Inscriptions ; 3 Rajput Coins, two of which are of Srí Samugur Deva, and the other Srí Syálapa Deva. The copper Coins, (one Indo-Scythian of four different types,) are described, as well as the silver ones, in Wilson's Ariana Antiqua as far as I have examined them."

Dr. Buist exhibited a large mass of specular iron ore, containing plumbago, from Southern India ; also a piece of lignite from the blue clay of Sewree ; and compared the formation of sulphate of iron in the latter with that of the lignites found on the Malabar Coast near Cochin.—18*th April*, 1850.

Fifteen fragments of sculpture, procured from a ruined temple on a hill in the Eusofzai country, by Lieut. Miller, 1st Fusiliers, were presented to the Society by Dr. Arnott, Surgeon of the same Regiment.

In Dr. Arnott's letter which accompanied these interesting remains, it is stated, that the hill on which they were found is on that part of the Eusofzai country which borders on Suwat, and not far from Sergao, the scene of operations of Brigadier Bradshaw's Force in December 1849.

There appears to be no traditionary account of this temple among the neighbouring inhabitants, and the sculptures, which have a strong Grecian style seem to shew from the manner in which they are fractured, that the Temple was intentionally destroyed.

It was resolved that these remains should be handed over, with Dr. Arnott's letter, to the Rev. Dr. Wilson, *Honorary President*, with a request that Dr. Wilson would favor the Society with any account that he could obtain respecting them.—13*th June*, 1850.

The following letter from John Ritchie, Esq. having been read, the *Secretary* was requested to acknowledge the receipt of it, and to express the Society's best thanks for the readiness with which the

Directors of the Peninsular and Oriental Steam Navigation Company had complied with the Society's solicitation.

No. 71 of 1850.

Bombay, 22d June, 1850.

To H. J. CARTER, Esq., *Secretary B. B. R. A. Society.*

SIR—Referring to your communication of the 13th April, I have the pleasure to inform you, that the Directors of this Company have agreed to allow the monthly transmission by this Company's Steamers to Alexandria, free of expense, of a small packet of books, for the Bombay Branch of the Royal Asiatic Society.

I have the honor to be, &c.

(Signed) JOHN RITCHIE, *Supt.*

—18*th July*, 1850.

The Honorable Sir Erskine Perry's letter enclosed one to his address from Dr. Blyth, Curator of the Museum of Natural History at Calcutta, relative to the deficiency of specimens from the Western side of India, which exists in that Museum.

Mr. Blyth states, "we hardly possess a specimen at present from the Western side of India, rich as we are in the productions of most other parts of the country, from the Himalayas to Ceylon inclusive, and also of the regions lying eastward of the Bay of Bengal.

"I wish that you could introduce me to some one in the Western Presidency who takes sufficient interest in the Natural History of the country, to procure for me certain zoological *desiderata*, for which I should be happy to reciprocate in any way, by doing my best to supply whatever may be wanted from this part.

"Among the Mammalia, I particularly wish for the perfect skeleton, or skull only, and skin prepared for stuffing, of the *Ghorkhar* or Wild Ass of Cutch, Sindh, &c., for comparison with the Tibetan *Kyang*, which I believe to be the same animal.

"I also want the entire skeleton, if possible or skull with teeth, of the beaked Dolphin of the Indus, which is a distinct species from the Gangetic *Soosoo*.

"Likewise specimens of the Wild Sheep and Goats of the Sulimani mountains, and extreme N. W. Himalayas.

"Again, we want skulls of both sexes, and skins for mounting of the Asiatic Lion. We have the perfect skeleton and the well-mounted skin of an African Lion from Algiers. Another Feline animal I want is the true Cheeta, or Hunting Leopard, *F. Jubata*, skin and skeleton.

"Among the smaller Mammalia the Bats would be particularly acceptable."

"Of birds, I want much to *see* collections from Mahabuleshwar and from Sindh; and I would return such collections, labelled, if kindly lent to me. I have drawn up a list of the birds of India generally, Burmah and the Malayan peninsula, including those of Sindh, so far as I know them, and of Assam, Ceylon, the Nicobars, &c. &c. But my knowledge is very limited of those of the Bombay Presidency.

"In other classes, I need only say, that specimens of Reptiles, Fishes, and Crustacea in spirit, are most acceptable; as also of Shells, whether marine or land, and freshwater. I could spare a collection of most of our Bengal Shells from my own private stock, and should be glad to send them to whoever would undertake to supply me with the Bombay species."

Sir Erskine Perry regrets, that there is no allowance made by Government for enabling the Society to obtain a Curator for its Museum, in order that the whole of the Natural History of this part of India might be at once brought under the eye of its European and Native population, both for instruction, and ultimately for the advantage of the country.

The Secretary was directed to inform Sir E. Perry, that Mr Blyth's letter should be handed over to the Museum Committee, with a request that they would make any exchanges with Mr. Blyth which might be mutually advantageous to both Museums.

In Dr. Buist's letter was also enclosed one to his address from Patrick Chalmers Esq., M. P. for Arbroath stating, that Mr. Chalmers had directed two copies of his magnificent work on the Sculptured Monuments of Angus to be forwarded to Dr. Buist's address; one of

which, on their arrival in Bombay, Dr. Buist intimated his intention to present, at Mr. Chalmer's suggestion, to the Society.

The following is an extract from Mr. Chalmer's letter relative to these monuments:

"I am much pleased to hear that these Monuments have excited some little curiosity in India. It is from the East that I have always looked for some explanation of the symbols on the earliest monuments, some of which may possibly date before the introduction of Christianity into Britain. I confess that the strong resemblance that some of the figures bear to those on Abraxas, leads me rather to the belief, that gnosticism was mixed more or less with our Christian faith, in these Islands at some time; and it is recorded in the Chronicle of Lanercost, that in the 13th century, the rites of Bacchus were openly celebrated by the Parish Priest of Inverkeithing; though it is also recorded that, the knife of some of the disgusted parishioners exacted the penalty of his misdeeds ere many months elapsed. What you mention of the supposed discovery of Druidic remains in India is very interesting. I should like much to see drawings of them. A friend of mine here thinks, he has traced the relation between the Runes and Oghams of Ireland, and Britain, and Scandinavia, and the Rock inscriptions of Asia Minor, and the arrow-headed characters of Babylon &c, and that he can read the one by the other. I observe that an Armoric student has arrived at a like conclusion independently. Both, however, are deficient in the knowledge of eastern languages, and the same value cannot attach to their lucubrations as to the coincident and independent discoveries of Dr. Hincks and Major Rawlinson. However, the proofs of the ancient course of Eastern Commerce, afforded by the discovery of Cufic coins and Asiatic ornaments, weapons, &c. prepares one for a connection, more or less, in letters."—*15th August*, 1850.

With reference to letter No. 890, dated 22nd ultimo, from H. B. E. Frere, Esq., Commissioner at Sattara, forwarding a list of Sanskrit Books which are in a Temple at Sattara, and offering to procure copies of any of them which the Society may think worth procuring, it was resolved—" that Mr. Frere's letter and accompaniment be circulated for the observations of those Members who are engaged

in the study of Oriental Literature, and that the Secretary be requested, in the mean time, to acknowledge their receipt, with the Society's best thanks, and to inform Mr. Frere of the Society's proceedings respecting his kind offer."

The Sanskrit Inscription and Translation, before mentioned, by Major LeGrand Jacob, forwarded in Government letter No. 3891, dated 19th ultimo, for any remarks the Society might have to offer on it, was handed over to the Rev. Dr. Stevenson, with the Society's request, that Dr. Stevenson would favour it with any observations which he might consider the subject to deserve.

The letter dated 22nd June last from Richard Clarke, Esq., *Honorary Secretary* of the Royal Asiatic Society, announces the dispatch to the Society's address, through Mr. Richardson, of some copies of the Society's revised Regulations; also states that henceforth all non-resident Members of the Society will be required to pay an annual contribution of one *Guinea*, in consideration of receiving the Journal.

The *Secretary* announced the publication of the XIIIth No. of the Society's Journal,

The Rev. Dr. Wilson, President of the Commission appointed for obtaining authentic information relative to the number and situation of the Monuments and Cave-Temples of Antiquity in the Territories under the Bombay Government, stated, that he had completed his "Memoir" on those remains of antiquity; which had been printed in the No. of the Society's Journal above noticed; and that 60 extra copies had been struck off, in anticipation that the Government would take them for distribution to the principal local authorities, in order that descriptions of any Cave-Temples or other Monuments of antiquity of the Presidency, which were not enumerated therein, or might have been since discovered, might be communicated to the Commission.

The *Secretary* was requested to address the Government accordingly, and to state the views of the Commission regarding further proceedings in these interesting inquiries.

Dr. Wilson read the following Supplement to his "Memoir :"—

"In my Memoir notice has been taken of several *structural temples*

in different parts of the country which appear to be coeval with the excavated temples, both Buddhist and Brahmanical. Of one of the latter description, first discovered, I believe by Vishnu Shastri, who reported its existence to Mr. Law, and situated in the Taluka of Kalyan, I have the pleasure, in consequence of Dr. Gibson's attention, of exhibiting to the Society several illustrative drawings. It is decidedly of a *Shaiva* character; and though originally built of the most substantial material, it has been considerably injured by the hand of violence, and has long ago lost its sacredness,—one of the many illustrations of the fact noticed in the 'Memoir' under the head of *Elora*, that the form of religion which the oldest Shaiva temples embodied has vanished from the Mahratha country, probably on withdrawment from it, by a change of sovereignty, of the patronage of the Chola Rajas, by whose influence it seems almost certain, the ancient Brahmanical excavations and Jhaina structural Temples were constructed. In this temple there is a *trimurti*, or three-headed Shaiva, proved without doubt to be of this god, not merely from the general representations of the Shaivas, which attribute creation, preservation, and destruction to their favourite deity, but from the embracement in its unity of *Parvati* the spouse of Shiva. The figure, strange to say, is not only monstrous, but from its multiplex and factitious heads and skeleton legs, of as grotesque and deformed a character as can be conceived. It is singular that its breasts in front seem ornamented with *clerical bands;* an authority for such appendages which will not add greatly to the dignity of our associations connected with their use. The efforts of the Hindu artist were probably directed to the representation of that gravity and austerity by which Shiva, as the prince and patron of ascetics is characterized; but he has ultimately made greater demands on the visible than the devotional faculties. The *beau ideal* of his nasal organ, one is almost tempted to believe, to have been the tortured and contorted proboscis of some inveterate snuffer!

At the close of the last meeting of our Society, one of the members, Captain French, mentioned to me, that he had observed an excavation in Khandesh, of which he had not noticed any published account. He has had the goodness to write to Lieut. J. Rose, now

in that province, for more information respecting it. While it turns out to be of an insignificant character, the inquiries made in connexion with it have led to the discovery of a small series, of Buddhist caves, with a *Chaitya*, which are possessed of very considerable importance. The following is an extract from the narrative of the visit of Mr. Rose to, and inspection of, these caves.

"When within less than eighty yards of the caves, it was almost impossible to believe the guide that the excavations he described were so near, though he pointed to the exact spot. The ravine is much grander, and the approach to the caves wider than at *Ajanta* and there were evident marks of their being frequented by wild beasts; but although I was quite prepared for all comers, not even a bear showed itself.

"I have spoken of the *caves;* but only one excavation deserving the name is remaining.

"This exactly resembles some of those at Ajanta.

"The arched roof and pillars covered with paintings of human figures &c., are just the same. The figures are very distinct in many instances, and women and men seem to be mixed. There is nothing about them unchaste; and in general they have circles, or what are sometimes called "glories" round their head, similar to those given in the fancied *representation of our Saviour.*

"One drawing struck me particularly, in which a female is represented with long ringlets, just as ladies sometimes dress their hair in our own time. This figure was quite fair, and yet close to it was a very dark female likeness of the *Habshi* caste of features, with very black curly hair.

"The stone here was much more brittle than at *Ajanta*, or *Elora;* and consequently some of the pillars are broken and the excavators failed in their attempt to represent arched rafters, as they succeeded in doing at Ajanta, for the same reason.

"The other three caves here are in fact nearly blocked up, from the rock falling down from above. One of them, however, on your descending into it over the fragments of rock, is in tolerable preservation, though none of them appear to have been quite completed, as is also the case at *Razah* and *Ajanta*. Where the rock had given

way, before the chisel, the masons had neatly substituted stone, and this is the case at Razah as I or rather Colonel Twemlow observed.

"In the painted cave, the paintings are plastered over with a coating of chunam.

"The only sculptures are two or three representations of elephants, tigers, bullocks, and deer, or goats, cut out in small dimensions back to back, like our lion and unicorn.

"There may have been other sculptures and inscriptions; but if there ever were, they have fallen into the ravine below, as the rock is constantly giving way.

"These caves, the guide, an old man, said, were never visited by a 'Sahib' before, though Marathas and even Brahmans come to see them and bathe in the river below. While I was there, it began to thunder and grow cloudy, and I got wet through, but I do not regret my visit to the *Pepolhow*, and should like to repeat it. I am going to see if there are any more caves in the hills of which we have not heard. I wonder how it is that none have been found in *Satpuda* yet. No natives of this country could, I think, have drawn the cave-paintings. The Greeks, or Italians, must have helped them; and indeed at Elora there is a woman's figure cut out in stone of such fair proportions as to shew that it is the work of an artist quite superior to those who executed the bulk of the unwieldy figures there.

"In the new caves I am alluding to, there is a neatness in the little sculptures I have mentioned."

These interesting notes of Mr. Rose, Dr. Wilson observed, do not throw any light on the comparative age of these Buddhist excavations. It would be well if the paintings which they bring to light could be speedily copied.

The explanation of the peculiarities of the female figures which are noticed is not difficult. As the Buddhist religion in the ages of its glory prevailed not only throughout India, but throughout the countries lying north of its boundaries, and beyond the Indian Caucasus, and Tartary and Tibet, its *Buddhas* and *Dhyani Buddhas*, and their female productions or associates, the *Dhyani Bothi Satwas*, are frequently represented as attended by devotees and servitors of

varied clans and colour. *Buddha* himself, and the *Dhyani Buddhas* and *Bodhi Satwas*, in their typical form, as seen in India, Nepal, Ceylon, Burmah, Siam, Pegue, China, and Tartary, are depicted and sculptured with curly hair and rather large lips, which the Buddhists, according to a strange taste, enumerate among the points of beauty. Mr. Hodgson of Nepal, when examining the learned priest, whose answers form the substance of his most interesting and highly valued, 'Sketch of Buddhism,' put to him the question 'What is the reason for Buddha being represented with curled locks?' and received the following answers—'*Addi-Buddha* was never seen. He is merely light.' But in the pictures of *Kairochina*, and the other *Buddhas*, we have the curled hair; and since in the limbs and organs we discriminate thirty two *(lakshanas)* points of beauty, such as expansion of forehead, blackness of the eyes, roundness of the head, elevation of the nose, and archedness of the eyebrows; so also the having curled locks is one of the points of beauty; and there is no other reason for Buddha's having been represented with curled locks.' Mr. Hodgson adds in a note:—'This is the true solution of a circumstance which has caused much idle speculation: though the notion is no doubt an odd one for a sect which insists on tonsure.' The colours of the five *Dhyani-Buddhas* are as follows:—"*Kairochina's* appropriate colour is white; *Akshobya's* blue; *Ratno Sambhava's* yellow or golden; *Amirabha's* red; and *Amogha Siddaha's* green. Those of their respective *Bodhi Satwas* are correspondent.

It is to be hoped that Mr. Ross will be able to explore a considerable part of the *Satpuda* range, which has hitherto been much neglected. The connexion with it from time immemorial of the Aboriginal *Bhils* who have submitted neither to Brahmanism nor Buddhism, but who have so long preserved the Turcoman worship of ghosts and demons, is no reason why we should not expect to find within it considerable numbers of Buddhist Monks, who could easily conciliate by their largesses the wild sons of the Indian forest, as well as the monks of the eastern Churches, who could conciliate the roving sons of the Egyptian, Syrian, and Arabian deserts."—*19th September*, 1850.

The following letter from H. B. E. Frere, Esq. Commissioner, Sattara, was read :—

No. 1031 of 1850.

To H. J. Carter, Esq., *Secretary B. B. R. A. Society.*

Sir,—I have the honor to forward per Bhangy Dawk, a Manuscript Volume of Arabic and Persian Inscriptions from Bejapoor, collected and copied by Hoossein Sahib Bhangay and Mahommed Ali Bhangay, Rogendars of Bejapoor, two of the few Mahommedans belonging to the place who possess a competent knowledge of Persian, and some acquaintance with Arabic.

2. These gentlemen assure me that they have taken great pains to make the collection full and accurate, and I can testify to their great industry and zeal in hunting out many inscriptions which had previously been unnoticed. They have thus been enabled to add a very great number of inscriptions to those noticed by Doctor Bird, in his paper on the subject published in the Society's Transactions. Some of them appear very curious and well worth preserving, and I trust that the zeal of these Gentlemen in collecting such a contribution towards the antiquarian history of their native place, may be considered worthy the favorable notice of the Society.

3. There are in the ruins of the Citadel at Bejapoor, near the Eastern gate, 10 or 12 long and very distinct Canarese Inscriptions, of only a few of which Mr. Walter Elliot, the great authority on Canarese antiquities, procured abstracts. They are cursorily noticed by Doctor Bird. I have hitherto been unable to get complete or trustworthy copies, owing to the difficulty of finding any one sufficiently acquainted with the ancient Canarese dialect to transcribe them. But as they probably, like all such inscriptions, contain valuable historical data, it would be very desirable to get perfect and accurate copies or impressions of them, and if forwarded to Mr. Walter Elliot, no doubt, good use would be made of any information they contain. The letters, though very clear, are so small, and the stone so uneven, as to defy all the attempts I made to get a good impression ; but they are evidently easily legible by any one who understood

the old dialect of Canarese, and possibly by giving publicity to the fact that they exist, and that accurate copies would be acceptable to the Society, some Canarese Scholar visiting the place might secure copies.

Sattara 24*th* *Sept.* 1850. } I have the honor to be, &c.
(Signed) H. B. E. FRERE.

Resolved :— That Mr. Frere be requested to state to the Society, in what manner they can best express their thanks to Hossein Sahib Bhangay and Mahommed Ali Bhangay for the manuscript, volume of Arabic and Persian inscriptions from Bejapoor, and whether a present of books would be appreciated.

With reference to M. Moirot's letter, accompanying the XIIth Vol. of the "Bulletin de la Societe de Geographie" it was resolved : That it should be acknowledged with the Society's best thanks, and the Nos. of the Society's Journal applied for therein, forwarded to the Parisian Geographical Society, by the earliest opportunity, with a request, that the preceding Nos. of that Society's Journal, might be presented to the Bombay Branch of the Asiatic Society in return.

A similar resolution was also passed respecting the request of the Imperial Academy of Sciences at St. Petersburgh, and the *Secretary* directed to forward a complete set of the Society's Journal to the address of the Perpetual Secretary.

The letter from Government relative to taking off the Society's hands the extra copies of the Honorary President (Dr. Wilson's) "Memoir on the Cave-Temples, &c.," and complying with the Society's request, that they might be distributed to the parties named by the Society, for the purpose of eliciting still further information on these monuments of Antiquity in Western India; also intimating the desire of Government to reimburse the Society for any expense incurred in endeavouring to carry into effect the wishes of the Hon'ble the Court of Directors in this respect,—was handed over for reply to the Commission appointed by the Society to direct their attention to this subject.

In return for the valuable MS. volume of Arabic and Persian

Inscriptions collected at Bejapoor, and presented through H. B. E. Frere, Esq. Commissioner for Sattara, at the last meeting, it was resolved :—That as Mr. Frere coincided with the Society, (in the suggestion above mentioned) that a present of books to the gentlemen who collected these inscriptions would be highly appreciated,—the Rev. Dr. Wilson be requested to expend a sum not exceeding Rs. (100) one hundred, to be laid out in the purchase of Arabic or Persian works for this purpose.

The Rev. Dr. Wilson brought forward a successful oil painting and sketch of some groups of figures in the Caves of Elephanta by Mr. Fallon, whose talents the Society considered richly deserving of of the countenance and encouragement of Government in pourtraying the beautiful remains of these ancient caves.—*24th October* 1850.

ANNIVERSARY MEETING.

Monday, the 25th November 1850.

The minutes of the last Meeting having been read and confirmed ; the following gentlemen were elected for the Committee of Management, Museum-Committee, and Auditors of the ensuing year viz :—

Committee of Management.

C. J. Erskine, Esq.	W. Howard, Esq.
S. S. Dickinson, Esq.	J. Smith, Esq.
H. Young, Esq.	J. Patton, Esq.
Lt. Col. J. Holland.	A. H. Leith, Esq.
C. Morehead, M.D.	Rev. P. Anderson.

Museum-Committee.

C. J. Erskine, Esq.	Capt. C. W. Montriou,
H. J. Carter, Esq.	A. H. Leith, Esq.
H. Conybeare, Esq.	Capt. J. G. Forbes.

Auditors.

Col. G. Moore. A. Spens, Esq.

It was proposed by Capt French, seconded by Captain Forbes, for consideration, at the next Meeting:—"That the annual subscription be reduced to Rs. 60, from the 1st January next."

Captain French seconded by Alexander Burn, Esq. also moved—"That the Committee of Management be requested to report on the best mode of proceeding to obtain the permission of Government, for transferring the Library and Museum of the Society to the large Room of the Town Hall, and the expense which would attend it."

The "Cape Town Mail" from the 1st January 1851, was ordered to be added to the list of Periodicals.

ERRATA.

Page.		Line.			read	
213		6	"	The reare	—	There are.
243		13	"	*Maccocephalu*	—	*Macrocephalus.*
250	Foot-note	3	"	Mahara مهرا	—	Mahrah. مهرة
265		37	"	Saiyad	—	Said.
251		11	"	Mahara	—	Mahrah.
—	Foot-note	"	"	مهرا	—	مهرة
290		5	"	*Trallas*	—	*Trullas.*
291		30	"	Makadahah	—	Makdahah.
		31	"	"	—	"
		33	"	*Kané*	—	*Cana.*
294		21	"	Ras l' Assidah	—	Ras el Asidah.
342		14	"	not	—	soft.
337		19	"	*Hadhar*	—	*Hazor.*
337		20	"	*Hadhra*	—	*Hadhar.*
349		12	"	*Mahratha*	—	*Maráthá.*
"		15	"	*Jhaina*	—	*Jaina.*
"		29	"	visible	—	risible.
350		36	"	*Razah*	—	*Rozah.*
351		21	"	*Razah.*	—	*Rozah.*
"		15	"	*Pepolhow*	—	*Pipalkhora.*
"		34	"	*Bothi*	—	*Bodhi.*
352		10	"	*Addi*	—	*Adi.*
"		11	"	*Kairochina*	—	*Vairochana.*
"		22	"	"	—	"
"		"	"	*Ratno Sambhava's*	—	*Ratna Sambhava's*
"		23	"	*Amirabha's*	—	*Amitabha's.*
"		"	"	*Amogha Siddaha's*	—	*Amogha Siddha's.*
"		30	"	*Turcoman*	—	*Turanian.*

NOTE TO THE ARTICLE ON ASO'KA.

Sir Henry Elliot in his valuable Supplemental Glossary, p. 78, points out a passage in Abúl Fázl which describes the removal of the Delhi Lat from a town in the district of Uánsi. I learn also by an interesting communication from that distinguished scholar, that he has discovered an inscribed column 18 miles southwest of Simla, the characters of which appear to be Thibetan, and which will probably turn out to be another monument of Asóka.—E. P.