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I.—*Account of a Visit to the Ruins of Simroun, once the capital of the Mithila province.* By B. H. HODGSON, Esq. Resident in Nipal.

[In a letter to the Editor.]

I TRUST that the drawings and inscriptions lately sent you from Bakra, Mathiah, Rádhiáh, and Késariah, will serve to draw attention towards the remains of Hindu science and power still extant in this direction—the Mithila, or Maithila Dèsa of the Sástras, and North Bihár of the Moghuls. But it is not merely on the British side of the boundary that these astonishing traces of ancient civilization exist; for, in the Nipalese Taraï, also within a few miles of the hills, where now (or recently) the tiger, wild boar, and wild buffalo usurp the soil, and a deadly malaria infects the atmosphere for three-fourths of the year, similar vestiges are to be found. The Nipalese Taraï is synonymous amongst Europeans with pestilential jungle. It was in the halls of Janakpur, however, that the youthful RÁMA sought a bride: it was from the battlements of Simroun that the last of the Déva dynasty defied so long the imperial arms of TOGLAK SHÁH!

But the ruins of Janakpur and of Simroun *still exist* in the Nipalese low-lands: and he who would form a just idea of what the Hindus of Mithila achieved prior to the advent of the Moslems must bend his pilgrim steps from the columns of Rádhiáh and of Mathiah, in the British territories, to the last but still astonishing vestiges of the cities of Kings JANAKA and NÁNYUPA, in those of Nipal.

Of the Nipalese Taraï it might justly be said, until very lately,

‘A goodly place it was in days of yore,

But something ails it now: the place is cursed.’

Five centuries of incessant struggle between Moslem bigotry and Hindu retaliation had indeed stricken this border land with the

double curse of waste and pestilence. Nature, as it were, in very scorn of the vile passions of man, having turned the matchless luxuriance of the soil and climate into the means of debarring his future access! Such *was* the Nipalese Taraï until 1816. But since that period the peace and alliance existing between the two efficient Governments of the hills and the plains have given security to the borders, and man is now fast resuming his ancient tenure of this fertile region. Still, however, there is little temptation or opportunity for Europeans to enter it; and as chance recently conducted me past the ruins of Simroun, I purpose to give you a hasty sketch of what I saw and heard; because these ruins are evidently *disjecta membra* of the same magnificent body to which the mausoleum of Késriah, and the solitary columns of Mathiah, of Rádhiyah, and of Bakhra belong. About 15 miles from the base of the hills, and at a nearly equal distance from the Bágmaty, south of the former, and west of the latter, stand the remains of Simroun, in the Nipalese district of Rotahat, and opposite to the Champárún division of the British zillah of Sárún.

The boundary of Nèpal and of our territories confines the ruins to the south, and the Jamuni Nadí to the west. On the *immediate* east lies the village of Kachorwa, and on the north, that of Bhagwánpur, both belonging to Nèpal. Here, in the midst of a dense jungle, 12 miles probably in circuit, rife with malaria, and abounding in tigers, wild boar, and spotted axis, are secluded these wonderful traces of the olden time. The country around is well cultivated *now*, both on our and the Nipalese side, but no one presumes to disturb the slumber of the genius of Simroun; superstition broods over the tainted atmosphere; and the vengeance of Káli is announced to the rash peasant who would dare to ply an axe, or urge a plough, within her appropriately desolate domain. It was only with difficulty that my elephants could make their way through the jungle; and when I had reached a central position, and ascended an elevation of some 25 feet, composed of the debris of the palace, nothing but a wilderness met my eye. Yet it is barely 500 years since Simroun was a pakka, fortified city, the pride and the defence of Mithila! After the war with Nipal, Lieutenant BOILEAU, I think, surveyed these ruins, and drew up a plan of them. What is become of it, I know not; and regret that my own opportunity of research was limited to one hasty visit. In this, however, I traced the northern wall, in all its extent: measured the dimensions of the great Pókrá or reservoir called Isrá; and clambered to the top of what were once the citadel and the Ráni-bás or Mahal Saraï. On my return I had much conversation with an intelligent Brahman of Bhagwánpur, who told me that in April and May,

when the jungle is at its barest state, the form and extent of the city may be distinctly traced. From his communications, and from my own observations, I gather that the form of the city is a parallelogram, surrounded by an outer and an inner wall, the former of unburnt, the latter of burnt, brick—the one having a compass of seven cos, and the other, of about five cos.

On the eastern side, six or seven wet ditches may still be traced, outside the pakka wall, and three or four on the western side. The Isrá reservoir or tank is still perfect. It is 333 paces along each greater, and 210 along each shorter, face; and its containing walls or sides consist of the finest burnt bricks, each of which is a cubit square, and nearly a maund in weight. 50 to 60 yards of causeway, constructed of similar bricks or tiles, are yet entire in the neighbourhood of the palace; and vestiges of the same causeway, traceable at other points, indicate that all the streets of the city were of this careful and expensive structure. The remains of the palace, of the citadel, and of the temple of the tutelary goddess, exhibit finely carved stone basements, with superstructures of the same beautifully moulded and polished bricks for which the temples and palaces of the valley of Nèpal are so justly celebrated. I measured some of the basement stones, and found them each 5 feet long by  $1\frac{1}{2}$  broad and deep: and yet these blocks must have been brought from a distance of 25 miles at least, and *over* the lesser range of hills; for, till you come to the second or mountainous and rocky range, no such material is to be had.

Some twenty idols, extricated from the ruins by the pious labour of a Gosain, are made of stone, and are superior in sculpture to modern specimens of the art. Many of them are much mutilated; and of those which are perfect, I had only time to observe that they bore the ordinary attributes of Puránic Brahmanism. Not a single inscription has yet been discovered: but wherefore speak of discovery where there has been no search? I noticed four or five pakka wells round, and each having a breast-work about three feet above the ground, similar precisely to the wells of this valley.

What I have called the citadel is styled on the spot the *Kotwáli Choutara*, and my palace is the *Ráni-bás*. The latter has a very central position. The *Kotwáli Choutara* is in the northern quarter; and the great tank, called *Isrá Pokrá*, is about  $\frac{3}{4}$  of a mile from the north-east corner of the city wall. As already mentioned, the last is still complete: the two former exist only as tumuli, some 20 to 25 feet high; and more or less coated with earth and trees.

Hindu tradition, eked out by a couple of Sanscrit slokas, copy of which I subjoin, asserts that Simroun was founded by NÁNYUPA DE'VA,

A. D. 1097 ; that six† of the dynasty reigned there with great splendour ; and that the sixth, by name HARI SINHA DE'VA, was compelled to abandon his capital and kingdom, and take refuge in the hills A. D. 1322. The Moslem annals give 1323 for the date of the destruction of Simroun by TOGLAK SHAH. Of the accuracy of the latter date there can be no doubt ; nor is the difference between the Musalmán and Hindu chronology of the least moment. But, unless NÁNYUPA had more than five successors, we cannot place the foundation of Simroun higher than about 1200 A. D. That is *clearly* too recent ; and, in fact, no part of the tradition can be trusted but that vouched by the memorial verses, which only give the date of *destruction*.

*Memorial verses of the founding and desertion of Simroun.*

रामस्यविचिनसराजविचं पुरुरवोविचमन्कर्काज :

इदात्समुद्रत्यनिषात्यनागं श्रीनात्यदेवोनिरमात्स गर्चम् । १ ।

वाणाच्चियुग्मशशि सन्मिन शकवर्षेपौपस्य शुक्लनवमी रविसूनुवारे ।

त्यक्तास्वपट्टनपुरं हरसिंहदेवो दुर्देवदेशितपथायगिरिविवेश । २ ।—

The following is a literal translation of these memorial verses :

'The wealth accumulated by Rájás RÁMA, NALA, PURURAVA, and ALARKA, was preserved in a tank (that of Isrá), and guarded by a serpent. NÁNYUPA DE'VA destroyed the serpent ; appropriated the wealth ; and built (Simroun) Garh with it. (His descendant) HARI SINHA, compelled by cruel fate, abandoned his beautiful city, and went to the hills in the year of the Saka 1245.'

The kingdom of the Déva dynasty in the plains expired with the destruction or desertion of Simroun. It extended from the Kosi to the Gandak, and from the Ganges to the hills of Nèpal : at least, such were its limits in the days of its greatest splendour, when consequently it embraced *all* the several localities from which I have recently forwarded to you such signal memorials of Hindu power and science.

II.—*Further particulars of the Sárún and Tirhut Láths, and Account of two Buddha Inscriptions found, the one at Bakhra, in Tirhut, the other at Sárnáth, near Benares.* By JAMES PRINSEP, Sec. As. Soc. &c.

[Read at the Meeting of the 11th March.]

The following note, from Mr. HODGSON, (alluded to in the preceding article,) accompanied the drawings of Buddhist monuments, which had been promised to the Society in his letter, read at the meeting of the 28th May, 1834.

† 1, NANYUPA. 2, GANGA. 3, NARA SINHA. 4, RA'MA SINHA. 5, SAKTI SINHA. 6, HARI SINHA, all with the cognomen Déva.





“ I have at last the pleasure to send you my drawings of the Bakhra column, and the Rádhia column, with their inscriptions, and a third of the Kesriah mound, surmounted with its hemispherical temple or Dehgope. I trust you will animadvert severely upon the barbarous custom of cutting cyphers and names upon these ancient monuments—if there were any inscription on the Bakhra column, it must in this way have been scribbled over and destroyed.”

At one of the very earliest meetings of the Asiatic Society, held on the 29th January, 1784, I find by the records, that Mr. LAW presented “ A Short Account of Two Pillars to the North of Patna.” The paper does not seem to have been printed, nor has it been preserved among our archives ; we may therefore conclude, that it was of a merely cursory nature : nor could we be certain to which of the three pillars, now again brought to our notice by Mr. HODGSON, the remark applied, were it not that the Bakhra pillar of Tirhut, and the Rádhia or Arah-ráj pillar of Sárún bear too palpable evidence of the visit of Europeans, in the names engraved over the surface of the stone. In the former we find the names of C. H. BARLOW, 1780, General BRISCO and others in 1799 ;—in the other at the foot of the original inscription is inscribed the name of REUBEN BURROW, 1792. This practice of scribbling over and disfiguring ancient monuments is as barbarous as the vain-glory of JEHANGIR, evinced in the zone of Persian cut over the Allahabad inscription ; but fortunately in the case of the Bakhra column, it seems to have been harmless : for there are no traces of an ancient inscription upon it, at least on the parts of the shaft aboveground. Such Nágari characters as appear in Mr. HODGSON’s facsimile are all modern, and record merely the names and dates of native visitors as gothic as their European precursors.

It is quite unnecessary, therefore, to give an engraving of the Bakhra transcript furnished by Mr. HODGSON. The view made by his native artist (see Pl. VII.) is very faithful, and entirely accords with two already in my possession, one by Mr. R. H. RATRAY, the other by Mr. J. STEPHENSON\*, whose accurate description of the monument, and of the marks of an ancient city in the neighbourhood, as well as his discovery of a Buddhist image there, form the subject of a very interesting note, already submitted to the Society, and to which I shall presently allude.

Passing then to the Rádhia or Sárún Láth, which is evidently the one alluded to by Mr. STIRLING, (and not the Bakhra column, as Mr. HODGSON supposed, for the latter bears no inscription,) it is satisfactory to discover that this pillar is in very good preservation, although it has lost its capital and surmounting *Sinha* or lion ; for

\* Dr. MILL has also favored me with a sight of two paintings of the same column made by a native artist for Mr. J. R. ELPHINSTONE in 1814.

it bears a long inscription in the Allahabad character, No. 1, which, upon a careful comparison with the plates of the 7th volume of *Researches*, is also identical with that of Fíroz's Láth: so that we are now in possession of four copies of the same inscription, three of them perfect, viz. the Delhi, the Mattiah, and the present one, and that of Allahabad mutilated. The dimensions of the Rádhia Láth, are thus given by Mr. HODGSON's artist: (see Pl. VII.)

|   | ft. | in. |
|---|-----|-----|
| Height from the ground to the top of the shaft, ..... | 39  | 0   |
| Circumference at the base, .....                      | 11  | 2   |
| Ditto, at the summit, .....                           | 8   | 0   |

Its locality is described in the Persian memorandum as in the village of *Púrnia*, پورنيا near *Arakráj*, اراكراج zillah *Sárun*. I find in ARROWSMITH's map, a place called *Purownah*, between Gorakhpur and Bettiah, which may probably be the spot indicated; for Mr. HODGSON himself states it to be at Rádhia, near Arahraj-Mahádeva, in the district of Majhuah, in the zemindáry of Bettiah, (*JOUR.* Vol. III. p. 483.)

Mattiah, the site of the third pillar, is, by the map, a good way farther to the north.

In my notice on the latter pillar I mentioned that it wanted the last eleven lines of the Delhi version. The same omission occurs in the present copy; which corresponds also in some other respects with its neighbour, such as in having double letters, or letters superposed where they are single on Fíroz's Láth:—in having the half-moon letter in lieu of the triangle; in the frequent omission of the initial letter  $\xi$ , and the addition of the final inflection  $\lambda$  (See Vol. III. p. 485). The suggested order of the reading, on Fíroz's Láth, namely North, West, South, East, is also confirmed.

Being now in a condition to correct the few errors of the Delhi version, by collation with two other, and in many parts with three, authentic texts, I propose immediately to lithograph a revised copy of it, to assist in the elucidation of this very curious monument of antiquity; while, in the meantime, I now annex a facsimile of the *Sárun* version, (Pl. VIII.) with interlineary notes of its chief variations from the standard text, to be consulted in any case of disputed reading.

With regard to the architecture of these columns, it has been pointed out to me, that Lieut. BURT's drawing of the Allahabad column did not render justice to the ornamental work on its capital, which has a decidedly Greek appearance. That officer proves also in error (as was suspected by Mr. HODGSON) in supposing the mutilated figure on the summit to have been a *bull*. I have been favored with the following note on the subject from Lieut. КИТТОВЕ, whose architectural taste and

peculiar study of the ornaments of Hindu and Muhammedan buildings in such parts of India as he has visited, will, we may hope, hereafter contribute to our better acquaintance with the detail of oriental architecture of various epochs.

“ On perusing No. 27 of the Asiatic Society’s Journal, for March, 1834, I observed a long treatise on the Allahabad column, which has been lying partly buried since 1804, when wantonly taken down by that enemy to Hindustaní architecture, Colonel KYP, at which time the capital of it (of which I am about to treat) was destroyed.

“ I obtained my information from a very old inhabitant, a Musalman classic, who had seen the obelisk erect, opposite the inner gate-way of the Jumná Durwázá; he informed me, that a figure of a lion was on the capital before it was destroyed.

“ I am sorry to say, that from absorption of damp and saltpetre, the outer crust is fast caking off, carrying the inscriptions with it; though, at the fiat of the commandant of the garrison, a working party of a couple of hundred sípahís could be sent and the column placed on stone trucks, or on logs of wood cut for the purpose, and thereby be saved from further destruction.

“ My attention was first drawn towards this monument of antiquity by the uncommon ornament on the periphery of the mutilated capital, of which I enclose a rough though correct sketch, (fig. 4, Plate IX.) and upon examination, I found that Lt. BURR’s bull was once a figure of a lion couchant, the claws in each paw being very plain; and the square shape in which the chest is cut between the forelegs, led me to a supposition that there had been a like figure to the colossal representation of the lion and elephant on the bridge at Jaunpur, and which was found in the ruins of the fort there, during the repairs of the bridge by Capt. MCPHERSON, who placed it on a pedestal—(if acceptable I will at a future period send a drawing and description of it\*.) I am the more convinced of the correctness of my conclusion, since the perusal of October’s number of A. S. Journal, in which a drawing and description of the Mattiah Láth is given, on which precisely the same figure occurs, the elephant excepted.

“ The ornaments on the periphery of the block will be found to resemble those common in the cimarecta of Grecian cornices; the astragal or beading of it is also of common occurrence in Grecian and Roman architecture.

“ On comparing Lieut. BURR’s copy of the character No. 1, I observed several errors in the shape of the letters, and in their actual number; this however has become of no moment since your discovery, that the three inscriptions of the Delhí, Pryag, and Mattiah pillars are each other’s facsimiles.

“ However, there is one omission, I consider, of great importance;—that of the interlineation of nearly the whole character No. 1, with one more modern, like unto No. 2, and which may probably be a translation into Sanscrit of the former; it is cut or rather dotted in a very rough manner, and in some places the letters join into those of No. 1, to which I attribute the errors in the copy of that character.

“ I shall here conclude by remarking, that the number of lines effaced by JEHAN-GÍR’s pedigree are seven, by correct measurement; whereas three are the number mentioned: this may probably be a misprint.”

\* We shall esteem this a favor. There was however no elephant on the Allahabad column.—ED.

The most important fact in the above note, namely, that of the ancient inscription No. 1, being interlined with a more modern character, was not adverted to by Lieutenant BURT, in his account of the pillar. I accordingly requested our associate, Mr. WALTER EWER, of Allahabad, to re-examine the pillar, and his reply, received a few days since, says, "True enough, the unknown character is interlined *with Sanskrit*, which is the least distinct, and appears to be the older of the two." It is possible they may prove to be contemporaneous, and there will be an end of the mystery which has hitherto hung over this writing. Mr. EWER has undertaken to make a copy of the interlineation, and to collate the other printed inscriptions with the original.

I may here mention, that Major COLVIN of the Engineers has given me notice of two more Láths in upper India, one at Hissar, and another at Fatihábád near Delhí. The former, though in a decayed condition, still contains a few characters: of both we may hope to obtain further particulars in a short time.

I now return to the Bakhra column, for the purpose of introducing Mr. STEPHENSON'S description of the discovery of an image of Buddha in its neighbourhood. The Kesariah mound, of which Mr. HODGSON has also favored us with a drawing (Pl. VII. fig. 3.) is situated about 20 miles to the north of Bakhra, in sight of the river Gandak.

III.—*Excursion to the Ruins and Site of an Ancient City near Bakhra, 13 cos north of Patna, and six north from Singhea.* (Extracted from the Journal of Mr. J. STEPHENSON.)

[Read to the Asiatic Society on the 14th January, 1835.]

Near to this village are the remains of a mound of solid brick-work, about 40 feet high, and about the same diameter at the base: on the top are two Musalman temples and the tomb of a saint, whose name I was told is *Mír-Abdulla*, dead about 250 years ago. On the side of the mound fronting the south, a large Burr tree rears its lofty branches to a great height, and supported by about 30 trunks, forming a cool pleasant shade to the Musalman devotees. A little to the north are the ruins of a large fort of an oblong shape, one side of which is full 1000 yards in length. It is surrounded by a ditch, at this season filled with water and jungle grass. Its elevation above the common level of the country is from 6 to 8 feet, and it appears to have been entirely built of brick—a circumstance of which the native Hindus have taken

advantage to build a temple on the south end of the ruins, which appears about half finished. The mound and fort are no doubt coeval with each other, and of considerable antiquity, for no tradition exists, that can be depended upon concerning their origin.

At 9<sup>h</sup>, arrived at a remarkable pillar, and heaps of brick rubbish. This superb monument is the only remains of former grandeur, that has escaped the ravages of time, owing to the solidity of its structure. The smooth polished shaft is an immense solid block of a small grained, reddish coloured sandstone, surmounted by a singular and beautiful sculptured capital, on which rests a square tabular block, supporting a well sculptured lion in a sitting posture, of the same material. This pillar seems to have no pedestal, though from the soft and alluvial nature of the ground, on which it stands, it is reasonable to suppose, that it must have sunk and buried itself deep in the soil\*. If a part of the earth was removed by digging round the present base, its pedestal might be discovered, and its real height accurately determined. It is also probable, that if it ever had a pedestal, an inscription might be found, which would throw light on its present obscure history: I have no doubt but it is anterior to the mounds of brick rubbish by which it is surrounded, and which extends for the space of several square miles in all directions. The numerous magnificent (though old) tanks, amounting to about 50 in number, large and small, strengthen the general opinion that this place is the site of a large city, at a remote period inhabited by a numerous and civilized wealthy people. I found the dimensions of this pillar to be as follows:

|  |         |
|--|---------|
| Length of shaft, .....   | 26 feet |
| From the top of the shaft to the top of the lion's head, ..... | 6 do.   |
| Total height, .....  | 32 do.  |
| Circumference of shaft, four feet from the ground, .....       | 12 do.  |

Such are the present dimensions, but I have no doubt but half its height is at present buried in the ground.

The sculpture is better than the Egyptian, and the general appearance striking and good. On the shaft are cut the names of a number of Europeans who had from time to time visited the spot. The native name for the pillars is *Bhím Sinh ka Lattea, Láth, or Gadá*; literally, BHÍM SINH's walking stick. The following tradition is prevalent amongst the natives of *Bassar* and *Bakhra*. I had it told me by several, without deviation.

“ Two thousand years ago lived *Bhím Sinh the great*. The pillar was used by him as a walking stick, by which he supported himself when carrying a large tree

\* Mr. RATTRAY informs me that an excavation was once made to its base, but no inscription was discovered.—ED.

on his shoulder as a *bhangl*, laden with two hills. The *bhangl* however broke with the weight near to the spot where the pillar stands, and two hills or mounds were there left by *Bhim Sinh*, and remain to the present day, and are to be seen, one near the pillar, the other at a distance of a few hundred yards.

“Many years after this happened, the spirit of the place appeared to a Bengali in a dream, and informed him that there was immense treasure buried under the pillar in copper *handis* or vessels bound with chains. The spirit requested him to take a journey or pilgrimage to the spot and possess it. The Bengali travelled to the place, and found the pillar a few feet above the ground, in the middle of a large jungle, inhabited by wild beasts of every description. However, notwithstanding the danger, he began to clear away the jungle, and dig for the treasure. At a great depth, he came to a well or small tank, on the surface of which floated a large silver *chokl* (or seat), and through a hole in the middle, the pillar descends down into the water to an unknown depth. By the side of the well are stationed two *swáms* (large black bees), the size of a man’s fist, to protect the place and treasure. The Bengali entered this sanctuary, disappeared, and was never heard of more. The pillar after this affair rose to the height of two *tádl* trees, and has since been sinking at the rate of an inch annually. Many years after the Bengali’s disappearance, an English gentleman came to the place and dug down to discover the base of the pillar, but when he came to the silver *Choki* he was attacked by two *swáms*, one of which stung and killed him on the spot: since that time, no one dare venture to dig below the pillar, which has subsequently remained unmolested.”

It is easy to reconcile some parts of this tradition with natural causes. For instance, that the place has at no distant period been a jungle, inhabited by wild beasts, is very probable; for several that have been known to avoid the habitations of man are now found on the spot, unwilling to quit their ancient haunts. On the elevated part of a heap of brick rubbish a porcupine has now its den: four holes lead to its tenement, which is situated at a great depth below. The quantity of earth and brick rubbish this animal had thrown to the surface might strengthen the idea that the den had been made by a larger animal, had it not been frequently seen by the natives who live close to the spot, one of whom endeavoured to capture the animal, but his formidable armour proved too sharp for the man’s hands and arms, and he escaped into his den with the loss of a few quills, which I purchased of the hardy hunter for a few pice.

A few yards to the north of the pillar stands a mound or tumulus of solid brick-work, of a conical shape, similar to the one above described, near Bassar: the top is surmounted by a large *pípal* tree, to all appearance many centuries old. The outward parts of this mound are dilapidated by time. The bricks it has been built with are a foot square, and have been well burnt; mud has been used in place of mortar. On the north side an excavation has been made to the very centre, by a doctor (as I was informed), resident at Mozafferpur, 30

years ago, whose name I could not ascertain. The doctor, however, (according to a native's account, who assisted in the work,) found no treasure, but only a well of great depth, situated immediately under the centre, which I could not find any vestige of, although I made a search for it. At present a Hindu *Faqir* has availed himself of the doctor's labours by converting the extremity of the excavation into a place of worship, making a few images of clay, and fixing them to the sides of the cavity.

One of these images, coloured black, attracted my notice from its singular grotesque appearance: on closer inspection, I discovered that the lower part was of stone, finely sculptured, and altogether different from the upper which I found to be made of clay. I succeeded in purchasing the deity from the *Faqir* for two rupees, and after washing, picking, and separating the outward covering of clay, in an adjoining tank, a fragment of beautiful ancient sculpture was brought to light. On further inquiry, the *Faqir's* artfulness was detected by a person present, who recognized the fragment to have been found by the zemindar of the place when digging among the ruins for bricks to build his present *pakka* house, a few hundred yards distant. This fragment of sculpture represents the lower part of a figure of Buddha, sitting cross-legged, according to the custom of the east, with the arms resting across the upper part of the thigh. On the soles of the feet (which are turned up), and on the palm of the left hand, is represented the lotus flower\*. The back of this fragment is beautifully sculptured, with two lions standing in an erect position, upon two elephants. On each side of the base is cut a lion half couchant with a small female figure in the centre. The stone is the same as that of the pillar, viz. a red fine grained sandstone, very hard. On the lowest part of the fragment is an inscription in Sanscrit, which the Pandits of this part of the country cannot as yet decypher.

I have no doubt but this fragment is coeval with the pillar, if not connected with its history.

*Note on the above by J. P.*

The mutilated image thus fortuitously rescued by Mr. STEPHENSON, and by him presented to the Asiatic Society, is represented in Plate IX. The inscription around the pedestal, which had baffled the pandits of Tirhut, excited considerable curiosity on its exhibition to the Society, from the circumstance of none of the ancient Buddhist images in our museum, whether from Benares or from the Bhágelpur hills, possessing such a characteristic.

\* The emblem always borne by a Chakravartti, or universal sovereign, and *à fortiori* by Buddha.—ED.

A singular coincidence shortly after served very materially to increase the interest thus raised regarding this short and otherwise trivial inscription.

It may not be generally known to the members of the Society, that some of my Benares friends, Captain THORESBY, Secretary of the Sanscrit College, Major GRANT, and Lieut. ALEXANDER CUNNINGHAM, of the Engineers, stimulated by the success of GENERAL VENTURA'S operations in the Panjáb, have undertaken at joint expence with myself to open carefully the large Buddhist monument at Sárnáth\*, so frequently alluded to in the Asiatic Researches, wherein it is conjectured from the evidence of some ancient inscriptions on copper, dug up near the spot, to have been erected by the sons of Bhupála, a Rájá of Gaur, in the eleventh century†.

Lieut. CUNNINGHAM, who is still zealously occupied in this interesting work, at such moments as his official duties will permit, has himself promised me a full account of his operations, when the whole shall be completed; but he has permitted me to anticipate him in mentioning the subject I am now about to introduce, should I be able to furnish a full explanation; which the sequel will prove to be the case.

At the depth then of ten feet and a half from the summit of the stone building, he extracted a slab of stone  $28\frac{3}{4}$  inches long, 13 inches broad, by  $4\frac{3}{4}$  thick, bearing an inscription in an ancient form of Devanágari, of which, after referring in vain to the Pandits of the degenerate Kási, he sent me an exact facsimile by dák.

The stone was found lying with its head to the south-west, among the bricks and mud. It is of a pinkish hue, and all the letters are in excellent preservation.

Lieut. CUNNINGHAM remarked the similarity of some of the forms to the Sanscrit of the Manikyala coins, Plate XXI. figs. 10, 11; and to some letters of the Allahabad inscription, No. 2. in the second volume.

The facsimile, (represented on a smaller scale in fig. 2 of Plate IX,) reached me, as I have before stated, while the Tirhut image was under examination, and it immediately struck me from one or two prominent letters, as well as from the general appearance of the whole, that the

\* It must not be supposed, that in this enterprize, the feelings of the natives are in any way offended. The Hindus are quite unconcerned about the tope, and the two sects of Jains in Benares, who are now at variance with each other, had joined in requesting me to open the building at their expence, that it might be ascertained to which party (Digambari or Swetambari) the enclosed image might belong. My departure from Benares alone prevented my satisfying their curiosity in 1830.

† See As. Res. vol. ix. pp. 74, 203; x. 130.

two inscriptions were substantially the same, although the characters of the two differed as much from one another as the Nágari from the Bengálí alphabet. Upon shewing them to GOVIND RÁM SHÁSTRÍ, Mr. WILSON's intelligent Pandit, and comparing the letters with the Tibetan and Gya forms of the Sanscrit alphabet, the identity of the two was confirmed, and several words made out, among them the titles "*Tathágata* and *Mahá Sramana*," both of an important Bauddha acceptance; but the context was devoid of meaning. The Pandit's meritorious efforts were communicated to our learned Vice-President, Dr. MILL, who, recognizing at once the form of the ancient *dh*, a semilunate letter, which had been taken for a *v*, was enabled to complete and give the true meaning of the inscription, with the exception of the initial word, which (in consequence of the stroke at the commencement) was read अयं *hic*, in the Sárnáth version, and एष, in the other sentence, instead of ये *qui*, in both. This mistake led to the reading of the word प्रभवो *prabhavo* in the singular, in lieu of प्रभवा in the plural, and connecting with it the word धर्म as part of the compound instead of धर्मा separately, thus :

अयं धर्महेतुप्रभवो हेतुं तेषां तथागतो ह्यवदत् तेषां च यो निरोध एवं वादी  
महाश्रमण ॥

the interpretation of which was thus given by Dr. MILL :

"This is the generative source of the cause of meritorious duties. For the cause of these hath TATHÁGATA [OR BUDDHA] declared. But as to what is the opposing principle of these, that likewise doth the MAHÁ SRAMANA [the great ascetic], declare."

The Tirhut inscription was found to differ only from the other in the substitution of two entirely synonymous words, the transposition of two others, and the omission of the particle *hi* "for," united to *avadat* in the second line. The translation of the passage was precisely the same. Introducing the corrections subsequently made, (as it is unnecessary to repeat the reading in its imperfect state) the text of the Tirhut image will stand thus in the modern Devanágari character :

ॐ ये धर्मा हेतुप्रभवा स्तेषां हेतुं तथागत उवाच तेषां च यो निरोध एवं वादी  
महाश्रमणः ।

We shall come to the corrected translation presently.

It was remarked that the latter part of the passage being in the present tense, as compared to *avadat* and *uvácha* in the former part, seemed to imply a continuation of the sentence; or, at any rate, left something inconclusive and unsatisfactory in the translation.

The circumstance, however, of two sculptured inscriptions found at distant places in terms of the same import, though varying in phrase

and in form of letter so much as to prove that one was by no means a mere copy of the other, suggested to my mind, that they must assuredly contain some very common text from the Bauddha scriptures, and I accordingly hastened to enquire of my friend Mr. CSOMA DE KÖRÖS, whether he had met with any similar passage, in his extensive examination of the Tibetan volumes.

He did not at first recognize it, but promised to bear it in mind; and sure enough, in the course of a few days, Mr. CSOMA brought me the pleasing intelligence that he had discovered the very sentence, agreeing word for word with the Sárnáth version, in three volumes of the Kah-gyur collection; being in Tibetan characters, according to their mode of writing Sanscrit, and without translation. Moreover on referring to the corresponding Sanscrit originals, in the Lántsha and in the modern Devanágari copies of the same work (forming part of the treasures of Bauddha literature, made known to the world by our associate Mr. B. H. HODGSON) no less than fifteen examples were brought to light, of the verbatim introduction of the same text.

In all these instances it was found to occur as a kind of peroration, or concluding paragraph at the end of a volume. Thus, it is introduced at the termination of the first, second, and third *khanda* of the *Prajná Paramita*, (Tib. *Sher-chin*,) each containing 25,000 *slokas*; and again, at the end of the 5th *khanda*, which is an epitome of the *sata sahasriká*, or 100,000 *slokas*, contained in the four preceding sections\*. In the Tibetan version the sentence is sometimes followed by the word *བཀྲིས་* *bkrís*, a contraction for *བཀྲ་ཤིས་* *bkra-shís*, "blessing, glory†," and sometimes by its Sanscrit equivalent in Tibetan characters *མངལ་ལྷོ་*, *mangalam*.

Something however was still wanting to remove the ambiguity of the abbreviated sentence, and this Mr. CSOMA's acute and assiduous research soon enabled him to supply; for in the *མདོ་* *Do* class of the Kah-gyur, vol. ൯ or 9, leaf 510, he was so fortunate as to meet with the same passage connected with another Sanscrit *sloka*, in the Tibetan character, and followed immediately by a faithful translation into the latter language.

As the development of the passage has thus acquired importance, Mr. CSOMA has obligingly transcribed the whole from the Tibetan volume, first in Sanscrit, and below in Tibetan, with a literal version in the Roman character.

\* See Mr. WILSON's account of the Kah-gyur. GLEANINGS, vol. iii. page 243, and JOURNAL, vol. i.

† See CSOMA'S Tibetan Grammar, page 24.

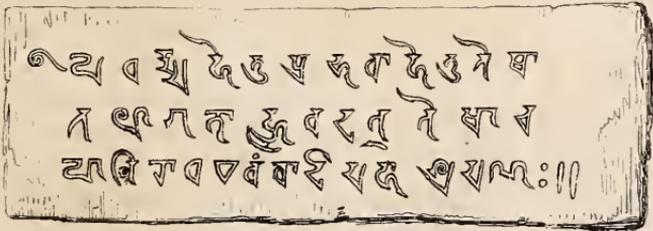
Image of Buddha

dug up in the neighbourhood of the Bakhra Lath, in Tirhut  
with an inscription on the pedestal



~यवक्षिदकु प्र सुवा नखदकु नथानन वर नखव वागि सा वि रवकादी म द्मममः॥

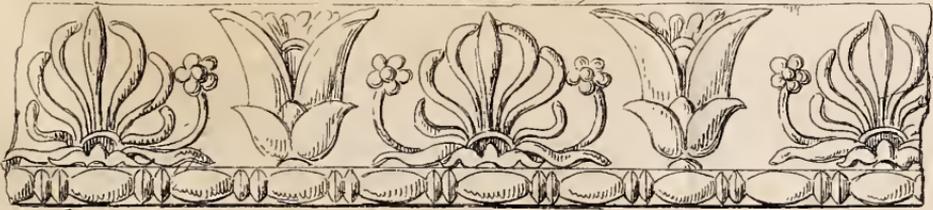
Inscription on a Stone extracted from the Sarnath Tope, near Benares.



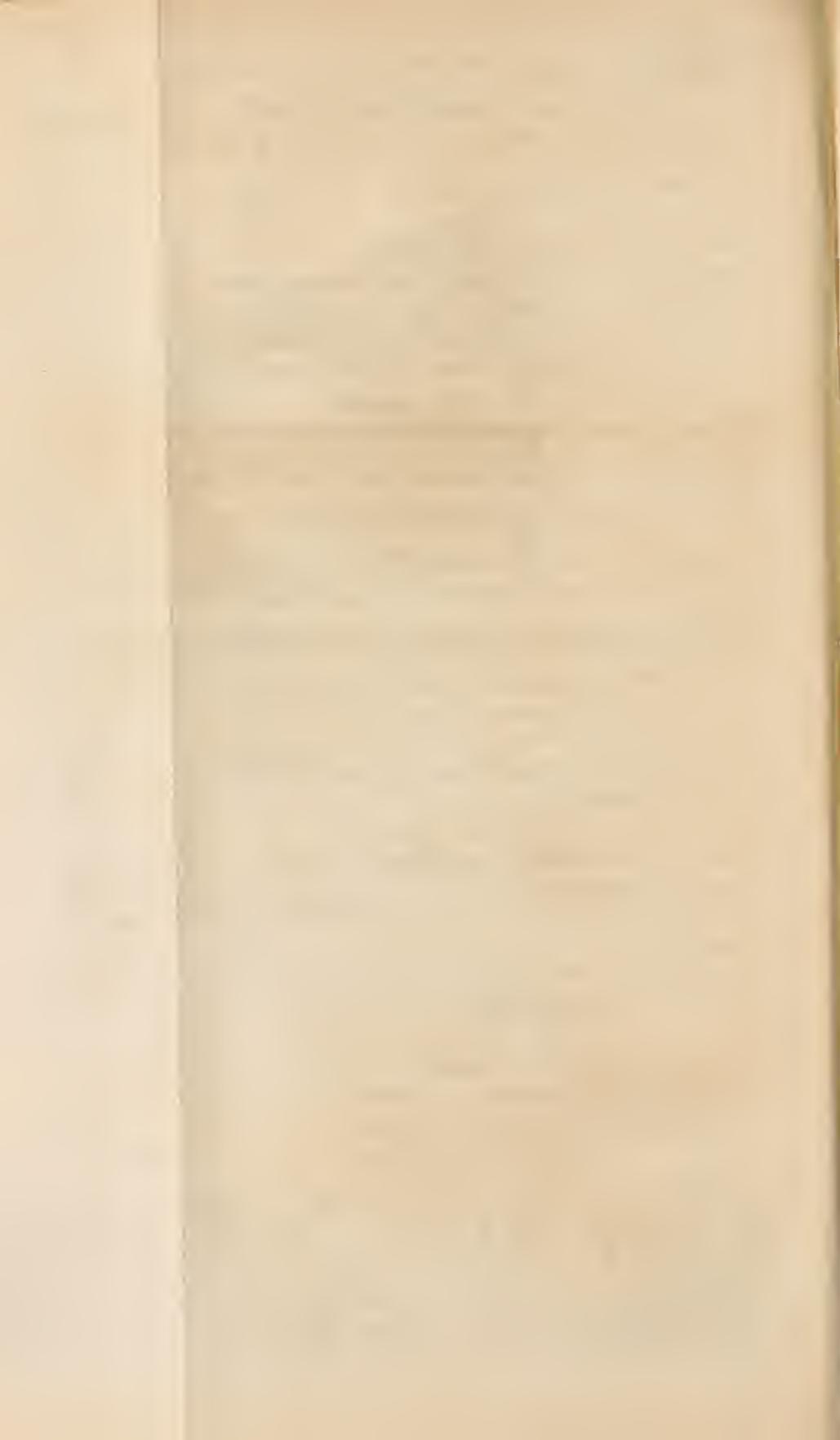
Inscription on a rock of the Mandara Hill, near Bhagelpur

१ ॐ म र ह क प ड ग ह वि ग  
ह श्री ऊ ञ्ज रु । व २ २ र य ह य

Ornament on the periphery of the Capital of the Allahabad Lath.  
(See Vol. III. Pl. III)



Prinsep. sc.





Is thus set forth by the great SRAMANAS.

‘ No vice is to be committed :

Every virtue must be perfectly practised :

The mind must be brought under entire subjection ;

This is the commandment of BUDDHA.’ ”

It is unfortunate that the Sanscrit text of the moral maxim has not been any where found in the Lantsá copy of the Prajná Parámita. Its authenticity rests, therefore, solely on the Tibetan version, in which there is apparently some error ; for the sentence, as it stands, is not pure Sanscrit, and certainly will not bear the interpretation which Mr. CSOMA has given literally from the vernacular translation of Tibet. Dr. MILL has favored me with some valuable observations on the passage, which, with his permission, I here insert. Mr. HODGSON will doubtless be able to confirm the true reading by consulting the Sanscrit original of the  $\text{२५२'५१'२३'५२'१'२'२'३'३}$  *dPah-var hgrovahi tiñgé hdsin* (Sans. *shúraṅgama samádhi*, the heroical extasy), which may still exist in some of the monasteries of Népal.

“ The interesting discovery of the passage in the Buddhist sacred books from which the Sárnáth inscription is taken, by M. CSOMA DE KÖRÖS, removes all doubt as to the reading of the first word which I unfortunately took for the *demonstrative* pronoun  $\text{अयं}$ , whereas it is the *relative*  $\text{ये}$  to which the  $\text{तेषां}$  in the next line refers. It follows that the next word  $\text{धर्मा}$  should be read *separately* from the compound  $\text{हेतुप्रभवाः}$  which is of course plural. M. CSOMA’S version is here perfectly agreeable to the Sanscrit ; and my translation of the former half of this sentence requires to be corrected by his.

I am by no means equally well satisfied with the *other* sentence quoted by M. CSOMA as following the former in *some* of the places where it occurs in the Buddhist scriptures : the Sanscrit text of which is certainly corrupted in the copies he cites, and, except in the last line, exhibits no sentence corresponding in form to his Latin or English version. I have also very considerable doubt of the accuracy of the opinion, that this second stanza is the clue to the supposed enigma in the first, or necessary in any respect to complete its meaning. That it is even the object of reference in the former stanza, appears to me doubtful. The occurrence of the former passage,—not only in the two several inscriptions of Benares and Tirhut, by itself,—but at the end of chapters in the places you pointed out to me from M. CSOMA’S Lantsá MSS., seem to indicate that it has a complete meaning in itself : and the  $\text{एवं}$  “ thus ” or “ alike ” of the fourth line may as well be understood with reference to the preceding clause, as to any sentence following. The metrical structure of the two passages confirms me in the idea of their independency : the latter being in the ordinary *Anuṣṭup* measure, with about the same degree of license as we find that measure in the Puránas : whereas the former, though approximating in places to the measure of eight syllables, is as remote from the rules of VALMIKI’S sloka as are the hymns of the Vedas : and it is equally irreducible to the laws of the *A’rya* or any more modern poetical measure.

In the translation of the latter passage, I would advert particularly to the line which M. CSOMA has translated, ‘ Every virtue must be practised.’ I do not see how

the Sanscrit, however amended, can bear that meaning. The first word, *kusalasya*, ordinarily means 'of felicity,' or else, 'of skill and cleverness :' while the other word, which, coalescing with *kusalasya*, makes up the whole line, is certainly not Sanscrit in its present state ; for there is not, and cannot be, any such compound as उपसप्रदं. By making the two last letters म्पदः i. e. *mpadas* instead of *pradam*, (which however seems clear in the Tibetan character), and reading the last word of the first line करणे instead of करणि, I obtain the meaning,

'In the abstinence from [lit. non-doing of] all sin, is the attainment of felicity.'

A third meaning of *kusala*—though much less used among brahmanical Hindus—is pointed out in the *Nāna-artha-varga* of AMARA-SINHA, who was himself a Buddhist, in the following line, (*Kōsha*, lib. iii. c. 4, s. 23, l. 206,) which may furnish us with an approximation in ultimate meaning, though not in the structure of the sentence, to the Tibetan explanation given by M. CSOMA.

पर्याप्तिं चेमपुण्येषु कुशलं शिञ्चिते त्रिषु

"Accomplishment, happiness, holiness : in these three meanings is the neuter noun *kusalam* learnedly understood."

Adopting the last of these three senses, that of *punyam* or sanctity, and taking the word *upasampadas* in a sense which the Buddhist\* use of the term points out, we may render the second line in question,

"The advancement, or high attainment, of purity."

The third line requires the omission of the *anusvāra* over the *tt* of the word *chitta*, to make it good Sanscrit, viz. 'the subjugation of one's own mind,' स्वचित्तपरिदमनं ; unless, retaining this *anusvāra*, we altered the other word from *paridamanam* to *paridamanīyam*, viz. 'One's mind must be subjugated,' स्वचित्तं परिदमनीयं. I think the choice lies clearly between these two readings, of which the former seems the best, and most accordant with the last line, as well as with the rules of Anustup measure.

I subjoin a literal version of both the stanzas according to my notion of them, dropping however the proposed emendation of अकरणे for अकरणि in the first line of the latter, and adopting the reading अकरणं as proposed by M. CSOMA.

ये धर्मा हेतुप्रभवा ।

हेतु तेषां तथागता ह्यवदत् ।

तेषां च यो निरोध ।

एवं वादो महाश्रमणः ।

सर्वपापस्याकरणं ।

कुशलस्योपसम्पदः

स्वचित्तपरिदमनं ।

एतद्बुद्धानुशासनं ।

Quæ quæ officia exstant in-causâ- quâ-  
vis-originem-habentia,  
Causam eorum SIC-PROFECTUS ille  
(Buddhas) quidem declaravit.  
Eorum que quod obstaculum exstat,

Ita quoque dicens MAGNUS ASCE-  
TICUS.

Omnis-peccati renunciatio,

Sanctitatis profectus,

Proprii-intellectûs-subjugatio,

Hæc est BUDDHÆ-disciplina."

Dr. MILL's conjectural emendation of the 2nd line of the second of these stanzas, has been since unexpectedly confirmed by the Singhalese

\* The word *upasampada* is technically understood of the superior order of the Buddhist priesthood, the supply of which, when it had become extinct in Ceylon, has frequently been an object of solicitude to the more religious of the Candian monarchs, and has even been the occasion of embassies to Siam. For the attainment of the order, the possession of 227 separate *gunas* or virtuous qualities is requisite : each of which is distinctly mentioned in their treatises concerning ordination.

Christian convert from Buddhism, RATNA-PÁLA: who repeats both passages in the Páli or Prácrit form from memory—describing the former especially as universally current among the disciples of Buddha. His reading, however, gives *upasampadá* (Sanskrit उपसम्पदा: *profectús*) in the plural. And in the former passage, that of the inscription, he omits the particle *hi*, and instead of the verb *avadat* or *uvácha*, he reads the synonymous *áha*. His Páli reading, which will be immediately recognized by scholars as good Magadha Prácrit, is as follows:

“ *Ye dhammá hetappabhavá, Tesán hetun tathágato*  
*A’ha tesan cha yo nírodha: Eran vádi mahá samana.*  
*Sabba pápassa akaranan: Kusalassa upasanpadá:*  
*Sa chitta paridamanan: Etan Buddhānusāsanan.*

but RATNA PÁLA says that the latter couplet is not necessarily connected with the former. On the contrary another series of verses generally follows it in the daily service of the Buddhist temples of Ceylon.

The compendium of the precepts of BUDDHA certainly occurs in numerous instances without the previous couplet. Thus it is inserted in the Tibetan version of the saint’s letter to RATNAVÁLÍ, given as one of the examples in Mr. CSOMA’S new Grammar, which will also be found among the extracts published in the third volume of this JOURNAL, page 61; and there would have been no reason to suspect that it was implied in the inconclusive sentence engraved on the Tirlhut and Sárnáth tablets, had not the actual text been found by our learned Hungarian guest, to whose laborious and willing investigation of the volumes which are sealed to all but himself, we are mainly indebted for this probable if not conclusive solution of the enigma.

IV.—*Report on the Island of Socotra.* By Lieut. J. R. WELLSTED,  
*Indian Navy, Assistant Surveyor.*

The following Report has been compiled from a daily journal, containing copious notices of all that came under my observation during a deputation of two months on the island of Socotra, under orders of Lieut. HAINES, commanding the Palinurus surveying Brig; but as the admission of minute details, illustrative of either the condition and character of the inhabitants, or the productions, topography, &c. of the Island can scarcely be deemed necessary in an official paper, similar to that which by my instructions is required of me in this instance, I have considered it necessary to condense the whole into as brief a space as *has appeared* consistent with the objects therein specified, notifying at the same time, that I have preserved the original notes, in the event of Government requiring either more detailed or extended information on the various points to which my attention has been directed.

By separating the various subjects contained in this paper into sections under different heads, I trust the Right Honorable the Governor in Council will be enabled, without wading through any extraneous matter, to seek at once the species of information which he may require.

The Island of Socotra appears to have been known at an early period to the ancient geographers. **PTOLEMY** notices it under the appellation of *Dios Cavedis Ins*: and **ARRIAN** specifies, that the inhabitants of it were subjected to the authority of the kings of the Incense Country; but from this period it appears to have attracted little attention, and may almost be considered as lost to Geography, until the visit of **MARCO POLO** in the 13th century, who does not however make any particular mention of its inhabitants or resources. **VASCO DA GAMA**, in his memorable voyage from Lisbon to Calicut in 1497, passed Socotra without seeing it; but seven years afterwards, it was made known to European navigators by **FERNANDEZ PEREIRA**; and **ALBUQUERQUE**, at a somewhat later period, took possession of it. At the commencement of the 17th century, when the increasing spirit of commerce and enterprise led several of our squadrons to enter the ports in the Red Sea, Socotra was frequently visited for shelter or refreshment; and in consequence of a general belief during the year 1798, that **BUONAPARTE**, who was then in Egypt, contemplated a junction of his forces with those of **HYDER ALI** in India, **Commodore BLANKET**, with a squadron from the Cape of Good Hope, was dispatched to take possession of it\*. But notwithstanding these several visits, our accounts connected with its inhabitants, appearance and produce, have been vague and contradictory. By one traveller, **Captain DAUNTOUN**, a notice of whose travels is in my possession, it is observed, that "its chief produce is aloes, though the annual amount does not exceed a ton—cattle may be bought but exceedingly small, according to the dry rocky barrenness of the island—wood at 12 pence a man's burden, every particular is a very dear penny worth." By another, it is described as a populous fruitful island; that the inhabitants trade to Goa with its produce, viz. fine aloes, frankincense, ambergris, dragon's blood, rice, dates, and coral.

Inconsistent as these statements appear, there is reason to believe both may have described with fidelity that which at the period of their visit was presented before them. Independent of the evidence which exists as to the former fertility of the island, it is necessary to consider, that those parts which would be exposed to the view of the passing traveller are mostly naked limestone, parts of which are indeed covered with a scanty sprinkling of soil, but that of a quality so hard and bad, that it merely nourishes a feeble grass, which dries up almost as soon as the rain ceases, which may have caused it to spring forth. Upon our first arrival at Tamarida, in the early part of January, some recent showers had clothed the hill with a lively verdure to the very base of the granite spires, and the whole looked fresh and beautiful; a month afterwards all was parched and barren.

More than one vessel at different periods had been dispatched to examine the nature of its harbours and anchorages; but owing to some cause which I cannot explain, our information on these points could in no higher degree be depended on. Our ignorance on these subjects strikes us the more

\* These and the other scanty notices found in this paper, are extracted from books in my possession on board; other information will of course be found in works to which I have it not in my power at present to refer.

forcibly when we consider the position of Socotra, its lying directly in the route of the trade from India, by the way of the Red Sea: the entrance to which, it may be said to command on the one hand, and close to the track of our ships by the way of the Cape on the other—a position, the advantages of which under an enterprising population and enlightened government, could scarcely have failed at some period to have brought it into great commercial notice and prosperity. In periods of antiquity, Socotra served as a station for merchants; and it may be observed, that these advantages were not over-looked by a maritime nation like the Portuguese. The ports which remain in the vicinity of Tamarida still attest the importance which they attached to its possession; but since the decline of their power, at the conclusion of the sixteenth century, Socotra has continued to be disregarded by European nations.

At the commencement of this year, various causes combined to render the establishment of a steam communication between India and Europe an object of general interest, and discussion; and the attention of Government became particularly directed towards this island, along the shores of which it was anticipated, that some well-sheltered harbours might be discovered, which would serve at all seasons as a *dépôt* for coals. In order to determine this point, Captain HAINES in the *Palinurus* Surveying Brig was directed to proceed at once to the island, and to execute a minute trigonometrical survey of its exterior, while his attention at the same time was called to “obtaining the fullest information regarding the government, population, produce, fertility and quality of soil, as well as the religion, customs, manners, and wealth of its inhabitants.” While Captain HAINES should occupy himself with the former of these duties, confining his observation to the sea coast and its vicinity, I was directed to proceed towards the interior in order that I might, from personal observation, report on the various subjects on which Government was desirous of possessing information.

Providing myself with camels, and a guide, I first journeyed by the interior towards Colesseah, examining the greater part of the western portion of the island. After concluding my observations in this neighbourhood, and communicating with the ship, I returned to Tamarida. A chief, in the mean time, named HAMED BEN TARY, arrived at Colesseah, who after leaving most positive directions, prohibiting our further progress, again left for the continent. We were in consequence closely confined to the town for a few days, but I at length got clear and completed my survey of the western end. The map will best exhibit the nature and extent of these journeys, and I shall not enter into any detail of them here, or make any other remarks than that the Arabs were unceasing in their attempts to throw obstacles in the way of my completion of it.

The Island of Socotra is of the shape of an acute triangle, having for its vertex, a flat promontory towards the east called Ras Manse; the coast line on the other side runs in a S. W. direction, and is nearly straight; the general direction of the northern face is formed by a succession of small bays; the base is also indented by a deep bay. Its length is  $71\frac{1}{2}$  miles, and breadth at the broadest part  $21\frac{1}{2}$  miles. The whole island may

be considered as a pile of mountains of nearly equal height, which are almost surrounded by a low plain, extending from their base to the margin of the sea : this is of an irregular width, varying from 4 to 2 miles, excepting that between Ras Kattany and Ras Shab, where the mountains rise up perpendicularly from the sea, and it there disappears altogether. Throughout the whole extent of this belt, with the exception of those parts which are watered by the mountain streams in their progress towards the sea, and some spaces hereafter specified, the soil is hard, and of a bad quality, and does not, in its present state, appear susceptible of cultivation. The southern side, though considerably less fertile than the northern, affords, nevertheless, in the vicinity of Ras Mamse many of its productions ; but to the westward, it is as arid and barren as the worst parts of Arabia. There the force of the S. W. wind has blown the sand up from the sea shore, where it is so fine as to be nearly impalpable, and formed it into a continuous range of sand hills, which extend parallel to the beach for several miles : from hence it spreads over the plain, and is even in some places deposited in vast quantities, at a distance of three miles from the sea, at the base of the mountains, which there form a barrier that alone could prevent it from overwhelming the natural soil of the whole island on the northern side. This belt is stony, and is covered with a dwarfish bush about six feet in height, the foliage of which is retained throughout the year, and gives to the space, when it is grown, an appearance of being clothed with verdure. Such is the appearance of the sea coast ; but the high lands exhibit a great variety of soil and surface. As a general remark, it may however be observed, that nothing in the N. E. monsoon presents a stronger contrast than the western and eastern parts of the island ; while the former is destitute of verdure, has but scanty pasturage, and has (with the exception of a few places near the sea) no other water than that which is retained in natural reservoirs ; the latter or eastern portion is fed by numerous streams ; its valleys nourish luxuriant grass ; herds of cattle are numerous, and the scenery in some places little inferior to that of our own country.

But we must now, as the most central and lofty, examine the granite range of mountains in the vicinity of Tamarida ; steep valleys intersect this chain, dividing it into narrow ridges, which extend in a north-easterly and south-westerly direction. Of these the lower part is composed of a red aluminous porphyry, and the upper of a coarse-grained grey granite which protrudes several of its spires to the height, as was ascertained by a trigonometrical admeasurement, of five thousand feet ; the summit of these is consequently seldom free from clouds ; but when the weather is clear, their appearance is broken and picturesque. The lower part of this chain is covered with the same dwarfish tree which is found on the plains : higher up there is a great variety of trees and aromatic plants ; but the granite spires merely nourish a light-colored moss, and are destitute of verdure. Connected with the granite range, and extending from it to the S. W. there is a lower ridge, averaging in height about 1500 feet, composed of a compact cream-colored limestone. From this the hills diverge

in short ranges towards the southern shore : their outline is mostly smooth and rounded, excepting on the side nearest to the sea, where it in general presents a steep wall. The whole of the western and the greater part of the eastern portion of the island is composed of hills similar in their appearance, elevation, and structure to this range.

As the whole Island of Socotra may be considered as one mass of primitive rock, we cannot expect to find it distinguished by any remarkable fertility of soil. I yet find it so varied, that it is difficult to speak of it in any general terms. The summit and sides of the greater part of the mountains, composing the eastern portion of the island, present in some places the smooth surface of the rock entirely denuded of soil ; in others the rain has worn the surface into hollows, and other irregularities, in which there is lodged a shallow deposit of light earth, from whence a few shrubs spring forth. On the sea face of the hills, on the northern side of the island, and amidst the sides and elevated regions in the vicinity of the granite peaks, we find a dark rich vegetable mould, which teems with the most luxuriant vegetation. In the plain about Tamarida, some portions near Cádháop, and several beautiful valleys and plains which I crossed on my return from Ras Mamse, the soil consists of a reddish colored earth, which nourishes at certain seasons an abundant supply of grass, and appears well adapted for the cultivation of grain, fruits, or vegetables. In those valleys through which the streams flow, there are now only extensive groves of date trees ; but the existence of a broad border of beautiful turf, occasional enclosures of Dekhan, and (though but rarely) a plantation of indigo or cotton, indicate no want of richness or fertility of the soil.

#### *Climate.*

Though this island is situated but a short distance from the continents of Arabia and Africa, and is in fact on the same parallel with their most parched and burning plains, yet from both monsoons blowing over a vast expanse of water, it enjoys a climate remarkably temperate and cool : a register of the thermometer which I kept during our stay, from the 12th of January to the 14th March, exhibits the mean daily temperature at  $70\frac{1}{2}^{\circ}$ , while several springs at but a slight elevation from the sea, into which the thermometer was immersed, indicated the mean annual temperature at  $73^{\circ}$ . On the hills it is of course found to be much cooler. Until within a few days previous to our quitting the island, the monsoon blew very fresh, and even at times swept through the valleys with a violence I have rarely seen equalled. The sky was usually overcast with clouds, and while other parts of Asia and Africa, under the same parallel, had yet some months to elapse before their termination of the dry seasons, Socotra enjoyed frequent and copious rains ; for these she is principally indebted at this season to her granite mountains : their lofty peaks obstruct the clouds which strike against their sides : either depositing their aqueous particles near their summit, or precipitating them in plentiful showers on the surrounding country. It is these also which contribute to nourish the numerous mountain streams which intersect several parts of the island. Several

of these are of a width and depth that in Arabia would almost entitle them to the appellation of rivers. They all originate near the granite mountains, and rolling with a considerable descent down the rocky ravines, they generally unite several with each other near their extremity, and afterwards wind their way more slowly through the valleys into the sea. Those on the western part of the island have a rapid descent, and are in the N. E. monsoon dried up, at but a short distance from their source, while those on the eastern side continue throughout the year to discharge their waters into the ocean.

I could learn but little concerning the influence of the S. W. monsoon here from the natives. They describe the rain as being frequent and heavy, and the showers in July and August nearly incessant. No buggalows at this season touch at their island, nor do any of their own boats venture to sea. The trees, wherever the wind has reached them in their inclined and beset position, bear good evidence to its power. Thunderstorms are frequent at the setting in of the monsoon, and accidents from the lightning are described to be of frequent occurrence.

#### *Natural Productions.*

Among the few natural productions which are found on this island, that which holds the first rank is the aloe, "*Aloe spicata*, and *Aloe Socotrina*," called in the language of the island Tayof, and by the Arabs Subal, for this plant has been held famous from the earliest periods and it is consequently too well known to need any description. They are usually found on the sides and summits of the limestone mountains, at an elevation of from 500 to 1000 feet from the level of the plains. The plant appears to thrive only in parched and barren places. Its leaves are plucked at any period, and after being placed in a skin, the juice is suffered to exude from them. In this state they are brought in to Tamarida and Colesseah, and there disposed of for dates. From hence it is mostly shipped off to Muscat, where its price varies very considerably. In 1833, the best sold for one rupee the Bengal seile (seer?), while of that which was more indifferent, five seiles might be procured for the dollar. The Socotrina aloes, when pure, are the finest in the world, but owing to the careless manner in which they are gathered and packed, they contract many impurities, and their value is proportionably deteriorated. Formerly every part of the island producing the aloe was farmed out to different individuals, and the whole produce at a fixed valuation was monopolized by the Sultán, who then resided on the island. The boundaries, which consisted of loose stone walls, and had been carried with immense labour over hill and dale, still remain under the present unsettled government; the descendants of the owners to whom they were allotted have either withdrawn their claims, or are forgotten. At present any one collects it who chooses to take the trouble, and not a grain is levied on account of the Sultan, as they lodge but little in ware-houses and merely collect it when the arrival of a ship or buggalow creates a demand. The quantity produced has been erroneously supposed to be much less than it is in reality; but on the western side of

the island the hills for an extent of several miles are now so thickly studded with it, that it is not likely even at any future period that the whole of that which might be, will be collected. The quantity reported within the last few years has varied very much ; in 1833 it amounted to 83 skins, or about two tons. Next in importance to the aloe comes the Dragon's blood tree, *Pterocarpus Draco*, the gum from which, *Sanguis Draconis*, is also collected by the Bedouins at all seasons. As this gum is known to be produced by several trees, and the species on which it is found in Socotra may not therefore be known in Europe, I shall give a short account of it. Like the aloe it is usually met with on the limestone hills, rarely at a less elevation than 800, and sometimes as much as 2000, feet above the level of the sea ; but it is never found on the plains. The trunk is usually about 12 inches in diameter, and its height varies from 10 to 12 feet ; the branches are numerous, but short and thickly interwoven with each other. The leaves are of a coriaceous structure, and about 12 inches in length ; they are of a sword-like form, pointed at the extremity, and somewhat extended at the base, where they are sessile and somewhat resemble those of the pine-apple. In this part they are connected with the branch of the tree, and radiating from it an indefinite number, they assume a fan-like shape. These together form the upper part of the tree, and by the variety in their shape and distribution, give rise to most fantastic appearances. We were not sufficiently fortunate to obtain any specimen of the flower or fruit, but Botanists describe it as belonging to the 17th class of Linnæus, and to the natural order Leguminosa.

The gum exudes spontaneously from the tree, and it does not appear usual, on any occasion, to make an incision for that purpose. Two kinds were shown to me, of which that which is of a dark crimson color, called "Moselle," is esteemed the best ; its price at Muscat is from 6 to 8 rupees the seile. Dragon's-blood is called by the Arabs *Dum Khoheil*, and *Edah* by the Socotrians. I was frequently assured, that not more than a tenth of the quantity which might be procured, was ever collected by the Bedouins ; but this, as with the aloes, appears to be owing to there being no regular demand.

From a tree, called in the language of the island, *Amara*, they procure a light-colored gum, which is slightly odoriferous, but is much inferior to that called Oliban, obtained on the Arabian coast. Sketches and descriptions were taken of the other varieties of trees on the island, but as they do not appear available for building, or any useful purpose, and are merely remarkable for being indigenous to the island, I have not considered it necessary to swell this paper with any remarks on them. A large collection of plants was also made, and the Botanist on the granite peaks would yet meet with a rich harvest. On the summit of these mountains the Bedouins collect a grey-colored moss, called *Shennah*, which is used by the Arab females to dye their faces of a yellow color. It adheres firmly to the granite spires, the whole surface of which is covered with it ; they thus receive a coloring which is not their own, but which is not however far removed from it. As agriculture is almost wholly unknown on the island of Socotra, the only

grain which is cultivated on any part of the island is called *dekhan*; this is preferred to any other, because it requires less attendance, and if watered, will produce a crop at any season: provided there is water in its vicinity, they do not appear to be at all solicitous as to the quality of the soil, or the spots they select to serve as fields. They merely remove the loose stones, and with them build up a well, to prevent the inroads of the cattle; the soil is then somewhat loosened with a pointed stick, (for they have no articles of husbandry,) and after being divided by low narrow embankments into small squares, the seed is thrown on them much in the same way as it is in England. In the absence of rain these squares are filled with water twice a day, until the grain has nearly attained its full growth, when once is considered sufficient. It is now tied in the upper part into portions about the size of sheaves, in which state it is allowed to remain until it is ripened and is cut down. When milk is abundant, and they can obtain dates, *dekhan* is rarely partaken of; but when the supply of these is but scanty, it forms the chief article of their food. It adds not a little to the value which they place on this grain, that they are enabled to keep it uninjured for a long period. No *dekhan* is grown on the west end of the island; but on the east the enclosures in some of the valleys are very numerous. It is however to their date groves, next to their flocks, that the inhabitants look for their principal means of support. With the exception of a small one at Colesseah, and another on the west side of the granite peaks, these are also confined to the eastern portion of the island. Here the borders of the numerous streams which intersect it are lined for miles with them: the foliage is somewhat more scanty than that of those of Arabia, but I observe no other peculiarity in the tree. Some are fecundated at the latter end of December, and others as late as the early part of March; they must therefore secure to themselves a supply of fresh dates for two months. Those which are cultivated amongst the granite peaks produce the first crop. There are however some groves on the sandy belt at the southern side of this island, which I have been repeatedly assured bear two crops during the year; the one in May, after the N. E., and another in October, after the S. W. monsoon; the fruit is not held in much estimation. From the other groves, though a large quantity is collected, yet it is not sufficient for the consumption of the inhabitants, and a considerable supply is annually drawn from Muscat.

In all the other valleys which may have contained water, or through which water may have passed, there are an astonishing number of Nibet trees (*Lotus nebea*, well known in Egypt and Syria); the fruit is about the size of a cherry, of rather a pleasant flavour, and is produced at all seasons. The Bedouins collect it, and after bruising the berry between two stones until it forms a paste, they mix with it a little ghee, and devour the whole with much relish. Their camels are exceedingly fond of the young branches of this tree, and from its bark the Bedouins extract a tan for their hides. The tamarind occurs frequently among the hills; as well as the wild fig; from the fruit of the former the natives decoct a cooling and refreshing

drink, and the umbrageous foliage of the latter affords to the Bedouins a most grateful shade during the heat of the day. The Bedouins also eat the inner bark of a tree so called, which is found growing near the sea shore. In the vicinity of Tamarida, some melons, beans, and a little tobacco, sufficient for the consumption of the inhabitants, are cultivated; on the granite hills some few orange trees, a species of wild grape, and a kind of wild pear (?) are also found, but no other fruits or vegetables of any description is produced or known. I have already noticed the fertility of the soil in some parts of the island, and the extraordinary advantages it possesses in its numerous streams: both are utterly disregarded by the natives. The whole of the land in the vicinity of the granite peaks is in the highest degree susceptible of cultivation. Grain, fruits, or vegetables to any extent might be reared in the plain near Tamarida, and amongst the rich valleys in the direction of Ras Mamse. The face of the hills on the northern side might be terraced and cultivated in the same manner, as is customary in Yemen and Palestine. In a word, was it not for the prevailing ignorance and sloth which exists among its inhabitants, Socotra in a few seasons might be rendered as celebrated for the extent and variety of its productions as it is now remarkable for its total want of them.

#### *Natural History.*

The only animals we saw in Socotra were camels, asses, oxen, sheep, goats, and civet cats. The camels were as large as those of Syria, and were more remarkable for strength than for speed. As they are continually ascending and descending the mountains by bad passes, they become nearly as sure-footed as mules; but being constantly fed on succulent herbs, they do not, if this food is taken from them, display the same endurance of thirst as those of Arabia; when confined to the parched shrubs which grow on the low land, they require to be watered daily. Camels are principally used either by the traders while seeking ghee among the mountains; or by the inhabitants, for the purpose of bringing dates or fire-wood from the interior; the whole number on the Island does not exceed two hundred. For those I took with me I paid six dollars the month; the price for which they are sold is usually from 20 to 30 dollars. Cows are very numerous in the vicinity of Tamarida, on the granite range of mountains, and in many of the eastern parts of the island. They are usually of the same color as that which distinguishes the Alderney breed in England, though their size does not far exceed the Welch breed. The hump which marks those of India and Arabia is not observed here. They find an abundance of pasture, are sleek and fat, and their flesh of a most superior quality. The natives prize them for the sake of their milk, with which they make the ghee, that is in so much estimation on the coasts of Arabia and Africa. They are not therefore solicitous to part with them, and the price they demand compared with that for which they are purchased on the Arabian coast, is proportionally high; 10 dollars was the sum we paid for those we procured. Their flesh was pronounced equal to our finest English oxen. Should Socotra, as is contemplated, become a station for our steamers, an agent would be enabled with little

trouble to supply as many of these as might be required. The number on the island at present exceeds 1600.

Vast flocks of sheep and goats are found in every part of the island, the latter are indeed so numerous, that the owners never trouble themselves with counting them; the sheep have not the enormous tail which disfigures those of Arabia and Egypt; they are usually small, and lean, with remarkably slender legs, and their flesh is not well tasted. The Bedouins wash them every two or three months, to prevent them from getting the rot; their wool is manufactured into the thick cloaks which are so well known in Arabia and Persia. There are several varieties of goat on the island, and a milch-goat, of which nearly equal care is taken with the sheep: another kind, of a reddish color, with long shaggy hair, which is permitted to rove about the island, and which appears common property; a third is the wild goat, which is only found in the loneliest glens, or on the summit of the loftiest hills; their flesh is much prized by the Bedouins. When the shepherds are desirous of catching them, they seek about for their haunts until they discover the track by which they pass up and down the mountains; across this they spread a net. One of their number then ascends to the summit of the mountain by another route, and makes his appearance before the animal, who no sooner discovers him than he darts down the path and becomes entangled in the net, where he is quickly secured by those who are stationed there for that purpose. Amidst the hills over Tamarida and on the plain contiguous to it, there are a great number of asses which were described to me as differing in some respects from the domestic ass, but after repeated opportunities of observing them I find there is no reason in such a distinction. It is more than probable that the introduction of camels superseded the necessity of employing them as beasts of burden, and they were therefore permitted by their masters to stray where they pleased. They now wander about in troops of ten and a dozen, and evince little fear until they are approached too close, when they dart off with much speed. Although they were not applied by the natives to any useful purpose they would no doubt be found, should occasion hereafter require it, of much utility. The only wild animal that is known among the hills is the civet cat, of which it is needless to give any description. This animal is very abundant and was frequently brought to me for sale, but I have not been able to learn that the natives take any trouble to collect much of its perfume. Hyenas, jackals, monkeys, and other animals which are common to the hills on the shores of either continent, are unknown here; we do not even find the antelope, which is the more singular as it abounds on most of the other islands of the Arabian coast. The dog is also unknown, and one we had on board was frequently mistaken for a swine. I saw but one snake during the whole of the time I was on the island, and the head of that was too much bruised for me to ascertain if it was poisonous, though the natives assured me it was so. From them I also learnt, that after the rains a great many made their appearance, and some marvellous stories were told me respecting their size and fierceness; how true these may be, I

know not, but on the low land they have an astonishing number of scorpions, centipedes, and a large and venomous description of spiders, called (?) the bite of which creates alarming inflammation, and even with young children, it is said, sometimes proves fatal. In some places it was a chance if a stone was removed but that you would find one or more of these insects. Locusts have rarely been seen in Socotra, and those which were, are said to have been few, and were most probably stragglers. Ants are numerous, and the bite of one kind is scarcely less painful than the sting of a wasp; near the dekhan enclosures, field mice are often observed, and on the hills they are much troubled with rats and other vermin. The chameleon is a native of this island. The only birds I saw were cranes, flamingoes, wild ducks, a species of water-fowl, wood pigeons (very numerous); the swallow, the lapwing, owls, bats, and four varieties of the vulture: the last are particularly serviceable in cleansing the earth of carcasses and filth. There is also a small bird, with a red beak and dark purple plumage, called in the Socotrian language *Mabeared*, which utters a shrill and loud cry, not unlike that which might be produced by an effort of the human voice. Casowaries are said to have been seen on the island, but I neither saw nor could learn any thing of them.

#### *Government.*

It has already been noticed, that the government of the Island of Socotra, from a very early period, was dependent on the kings of the incense country, and the early Portuguese navigators found them, on their first arrival, still in the undisturbed possession of their ancient patrimony; but after ALBUQUERQUE had conquered and overrun the island, he vested its government in the hands of some of his officers, who, with a remnant of his troops, was left behind to retain it. The Portuguese appear to have held possession until the decline of their power in India, when they intermarried with its inhabitants, gradually lost their ascendancy, and Socotra, after this short interruption, again resumed its solitary dependence, under its ancient masters. From this period, there is reason to believe, that a brother or some near relation of the Sultan of Kisbeen, on the Arabian Coast, resided permanently on the island as its governor, until within the last century, when it has been merely subjected to an annual visit from Kisbeen. The revenue is then collected, and any complaints which require the interference of the Sultan, are brought before him. When these objects are accomplished, he again takes his departure. During our stay at Kisbeen and on the island, we made numerous inquiries to ascertain who at present exercised this power, but this it proved no easy matter to discover. The old Sultan is blind, and incapable of managing the affairs of his government, and all has gone to confusion. Various claimants appeared, but ABDULLAH was pointed out as the influential individual; from him therefore we procured letters specifying the nature of our visit, and requiring from the islanders every assistance which we might stand in need of. Little attention was however paid to this letter, and during our stay another chief, HAMED BIN TARY arrived, and under the threat of burning the town,

he succeeded at Colesseah in procuring about fifty dollars worth of ghee, with which, after sending on directions to Tamarida, forbidding our being furnished with either camels or guides, he again sailed for Kisbeen, and openly boasted of what he had done. During the present year, no other member of the family is expected on the island, and as the sum collected annually, at other seasons, rarely exceeds in value 200 dollars, the authority of the Sultan may be considered as more nominal than real.

ABDULLAH in his visits has been known to inflict chastisement with his own hand on the Bedouins, who have neglected to bring him the full quantity of ghee, to which he has considered himself entitled, and even to imprison them for a few days; but I could not learn that he possessed sufficient power to inflict punishment of any kind on the Arabs, the greater number of whom are indeed exempted from contributing to any part of his revenue. It is from those who collect the ghee at Tamarida, Colesseah and Codhaop that he procures the greater part of the only article which he now draws from the island. The attention of ABDULLAH during his visits appears solely directed towards this object, and though complaints from former usage are occasionally brought before him, yet the instances are rare, and his decisions are not much cared for.

At Tamarida, an old Arab, who was formerly a sipáhi in India in the service of Báji Ráo, by virtue of his age, and long residence in the town, possesses some influence. Another at Colesseah named SALEM, is also qualified by the townsmen with the title of Shekh, in order mainly it would appear that he might secure presents from the vessels visiting the port, but nothing is more certain than that they do not possess throughout the island a constituted authority, either civil or military, or of any description whatsoever. Notwithstanding the singular anomaly of so great a number of people residing together without any chiefs or law, offences against the good order of society appear infinitely less frequent than amidst more civilized nations; theft, murder, and other heinous crimes are almost unknown. No stronger instance can be given of the absence of the former than the fact of my wandering for two months on the island, without having during that period missed the most trifling article. Some intelligent Arabs, who had resided there some fifteen years, assured me that the only disturbances known were occasional quarrels among the Bedouins, respecting their pasture grounds, and these were as usual settled either by the individuals fighting the matter out with sticks, or by the interference of their friends. It is no doubt this security of person and property, which has brought from the shores of the continent on either side so many settlers to the island.

#### *Inhabitants.*

The inhabitants of this island may be divided into two distinct classes, those who inhabit the mountains and high lands on the western extremity of the island, and which there is every reason to believe are its aborigines, and those who reside in Tamarida, Colesseah, and Codhaop, as well as several tribes who occupy the eastern portion of the island: the latter are a

mongrel race, the descendants of Arabs, African slaves, Portuguese, and several other nations. Of the former I shall now give as full a description as the limits to which I have considered it necessary to confine this paper will admit. It is however necessary for me to premise, that though from personal observations I have been enabled to elicit every necessary degree of information connected with the present physical habits and domestic manners of this isolated race, yet there were some interesting points connected with their former condition, religion, and usages on which I was anxious to obtain some knowledge. This however from the jealous and suspicious character of those with whom I was obliged to converse, I found to be almost impracticable; they either declined answering the questions altogether, or they only furnished replies which were calculated to mislead. Some of this reserve melted away before we left, but my inquiries did not tend to elucidate facts of any importance. In the subsequent sketch I shall however have occasion again to touch on this subject.

*On the Bedouins.* The Arabs who visit Socotra, in consequence of their pastoral habits and wandering mode of life, have bestowed on this class the appellation of Bedouin, to which race, though they widely differ in some points, there is yet in others a striking resemblance. The principles of their political constitution are like theirs exceedingly simple: all are divided into families or tribes, each occupying a determined domain on the island, and each having a representative head, who formerly exercised what might be termed a patriarchal authority over them. In general, the office is hereditary, though it is sometimes filled by persons who have been selected for the superiority of their abilities. It was to this individual that the Sultán formerly, when he resided on the island, looked for the collection of his tribute, and to the Sultán he was also in some measure answerable for the good order of the six tribes; but at present his authority appears to be merely that of an influential individual, before whom complaints are taken for arbitration, but who possesses no power to punish a delinquent: an individual may also carry his complaint before the Sultán, or his deputy, or he may, which is the usual practice, retaliate on the injurer or any member of his family; but these affairs are not carried to the sanguinary lengths they are in Arabia, where the murder of one individual is revenged upon the person of his assassins or their relations. I made numerous inquiries, but I could not ascertain that any of their quarrels terminated in bloodshed: certainly this may be owing in some measure to their having neither fire-arms nor weapons of any other description than sticks and stones; but these peaceable habits are forcibly illustrated by the fact of so many tribes occupying territories so intermingled with each other, where the variable nature of the pasturage, and the scarcity of water, compel them from different quarters to meet on the same spot, without reference to the actual owners; and yet that skirmishing among them should be of such rare occurrence.

*Physical Character, Persons, Diet, &c. &c.*

The men are usually tall: their limbs appear strong and muscular, and remarkably well formed; the facial angle is as straight as that of Europeans;

the nose is slightly aquiline; the eyes lively and expressive; the teeth good, and the mouth well formed: their hair is worn long, and curls naturally, but without the slightest approach to the woolly texture or appearance of that of the Negro; they wear generally a beard and whiskers, but no mustachios: their complexion varies a good deal; some are as fair as the inhabitants of Surat, while others are as dark as the Hindus on the banks of the Ganges. They walk with an erect gait over the worst ground, and will bound over the hills like antelopes. From constantly climbing the rocks and mountains, they have contracted a habit of turning in their toes, which gives them over the plains a slight degree of awkwardness in their walk; notwithstanding this slight defect, the regularity of their features, the fairness of their complexion (for those which are very dark comprehend but a small portion of their number), and the models of symmetry, which are occasionally presented to the eye, render them a remarkable looking race, far distinct and removed from any of those varieties of the human race which I have seen on the shores of the continent on either side.

Their dress consists of a piece of cloth wrapped round their waist, and the end thrown over the shoulder. No ornaments are worn: in their girdle is placed a knife; but as they have no weapons, they carry in their hands a large stick. In their various modes of dressing their hair they display a little foppery: some frizzle it out like the Arabs on the coast of Egypt; others allow it to curl naturally; while the generality permit it to grow to a considerable length, and plait it into tresses, which are confined to the head by a long braided cord, made from their own hair. Their skins are clear and shining, and remarkably free from eruptions or cutaneous disorders. Many are however scarred from the application of hot irons for the removal of local complaints—a mode of cure they are quite as fond of practising as their neighbours the Arabs of the peninsula.

*Of the Females.* The same remarks which I have given to the person and features of the men may be applied with little alteration to those of the females: there is the same symmetry of form, the same regularity of features, and the same liveliness of expression; but their complexion does not vary in an equal degree: few are darker than the fairest of the men, and some, especially when young, were remarkably pretty: the legs of some of those advanced in age were of an astonishing thickness; but this defect is more observable among those who reside near the low-lands, and it but seldom occurs among the high-land females. Their dress consists of a coarse Cameline, secured round their waist by a leather girdle, and a kind of wrapper of coarse Dungree cloth, which is thrown over their shoulders: around their necks they wear a necklace made of red coral, colored glass, amber, &c. with sometimes a string of dollars. In each ear they wear three and sometimes four large ear-rings made of silver and about three inches in diameter; two of these are worn in the upper, and one in the lower, part of the ear. They go unveiled, and whenever we approached their houses, they conversed with us.

*Of their habitations.* In a moist climate like Socotra, it would be impossible for several months to live in tents; and as the variation of the seasons compels the Bedouins to shift with their flocks in search of pasturage, it may be considered as a bountiful provision that they are in the numerous natural caverns with which the limestone hills abound, provided with habitations ready fashioned to their hands. A Bedouin merely selects one of these, which from its size and situation is best calculated for his purpose; he then by means of loose stone walls portions off different apartments for himself and family, while the remainder is left to afford shelter to his flock. Singular spots are occasionally chosen for these places of abode: I have seen them on the face of a nearly vertical hill, at the height of 800 feet from the plain. In the valleys, and on the margin, they have another description of dwelling place: the rocks there whenever limestone occurs is equally cavernous with the hills: a cave is selected; they widen if necessary the entrance, so as to allow it to open into an enclosure; the upper part is then covered over with rafters, on which turf and some earth is placed, so that it becomes difficult at a short distance to distinguish it from the surrounding country: a wall constructed of loose stones encloses a circular space about 30 yards in diameter, which serves at night as a fold for their sheep and goats. I visited the interior of several of these: the only furniture they contained was a stone for grinding corn, some skins on which they sleep, other skins for holding water or milk, some earthen cooking pots, and a few Camelines hanging on lines taken across the roof. In one of these tied by the four corners and suspended from a peg by a string, you will frequently see a child sleeping. It also serves as a cradle, which they swing to and fro when they wish to compose it to sleep. In hot-weather, when the ground is parched with heat, these caverns are of a clammy coldness; the Bedouins are by no means particular in keeping them clean, and they usually swarm with fleas and other vermin. A few days after my first arrival, I had occasion to ascend a mountain on the southern side of the island, seeking for plants; and other pursuits had detained me until it was too late to descend. I therefore took up my quarters with a Bedouin's family in one of these caverns. It was formed by the overhanging of an enormous rock, which left a sheltered space of 50 yards in length and 10 in breadth. In the interior the surface of the limestone exhibited rounded masses, with cellular cavities in and between them; but I could not discover any stalactitic traces. These were the first Bedouins we had met with, and none of the party had seen Europeans before. Our coming unexpectedly on them, therefore, created with the females some little alarm; but a few words of explanation from our guide soon quieted them: a few needles to the females and some tobacco to the men set the whole party in good humour. Milk, dates, and whatever their cave afforded was readily placed before us, and they cheerfully assented to our request of passing the night there. At our suggestion, some grass was collected for us to sleep on, but this unfortunately proved an inducement for the goats and sheep, which were lodged in the same part of the cavern with several members of

the family to visit and run over us repeatedly during the night, so that we obtained but little rest.

The men pass their time in tending their flocks, in collecting dragon's blood, or aloes, and in occasional visits to the town, when the two latter with their ghi are exchanged for dates, *dhona*, the *jawari* of India, and clothes. Accustomed to traverse these mountains from childhood, they perform on these occasions journeys of 30 or 40 miles, climbing almost perpendicular precipices, and crossing deep ravines, without occasionally experiencing any fatigue or inconvenience. The principal employment of the females abroad is also looking after their flocks; at home they make ghi, curd, and spin wool, which they afterwards weave into Camelines, and attend to their other duties. They have a curious method of cleansing the wool: they place it in a heap on the floor, over which they hold a bow, and snap the string against it, until the whole of the dust has flown off. Their method of weaving is also very simple, but a description of it here would occupy too much space. As it is very difficult to procure steel of any description on the island, the Bedouins have recourse to a method of obtaining combustion, which is practised by several savage nations. They procure two pieces of wood, the one hard Nebek (if procurable), and the other a short flat lath, from a date branch. The former is about 12 inches in length, and is inserted into a hollow, which is formed for that purpose in the latter.

The stick is then twirled briskly between the two palms, until the dust which is worn out by the friction, and which escapes down the side by a small groove cut near one side of the hollow, ignites. The dust is then placed on the top of a palm-branch, and a flame is soon produced. They have a method of obtaining a whiff of tobacco equally curious and simple. They slip off a branch of the Luhah tree of the required length and thickness for the tube, the extremity of this is then cut much in the same way as we do a quill before we split it: this part serves as a bowl, in which the tobacco is placed, while a small wooden plug, having a hole in its centre, at once prevents it from ascending the tube, and at the same time permits the smoke to be inhaled.

*Food, &c.* The Bedouins subsist principally on milk, and the grain and dates which they receive in exchange for their ghi. Whenever occasion calls for it, or a visitor arrives, they kill a goat or sheep; their mode of cooking is very simple: they separate the meat from the bones, cut it into small pieces, and boil the whole in an earthen pot; they use no dishes, and the meat is placed on a small mat, round which they seat themselves in eating. Contrary to the usual practice of the Musalmans, these islanders always cut their meat with knives, which are procured from the whalers and other vessels that touch at the island.

The moral character of the Bedouins stands high. The absence of any heinous crimes among them has already been noticed, and in general they may be considered as a lively generous race; but the most distinguishing trait of their character is their hospitality, which is practised alike by all, and is only limited by the means of the individual who is called on to

exercise it. Nor is this, as with the Socotrian Arabs, confined to those of their own faith; and while with the latter we were unceasingly tired with silly questions relating either to our religion or our views on the island, the Bedouins gave themselves no concern either about one or the other. A watch excited much mirth among them, and it was long before they would cease to believe it was a living animal; but unaccustomed as they were to the sight of fire-arms, what excited their utmost astonishment was a pair of pistols with detonating caps. Ever cheerful, they were always ready to enter into conversation, or to be pleased with what was shown them. I saw no instrument of music during my stay on the island, but they appear passionately fond of song, and on one occasion, at a wedding, I observed them dancing. A party stood round in a circle, and while one of their number continued to sing, two or three others, without any pretence to a regular step, by a succession of jumps or bounds, endeavoured to keep something like time to it.

The Bedouins have a great variety in their modes of salutation: two friends meeting will kiss each other on the cheek or shoulder six or eight times, then shake hands, kiss them, and afterwards, exchange a dozen sentences of compliments; they have also the same singular and indelicate mode of salutation which is observed at Kisbeen, when they place their noses together, and accompany the action by drawing up their breath audibly through the nostrils at the same time. Male and female relations salute each other in public in this manner. Those of different sexes, who are merely known to each other, kiss each other's shoulder or hand, except with the principal individual of the tribe. When the females fall in with him, they salute his knees, and he returns it on their forehead. The old men salute children in the same manner. With the use of the compass the Bedouins were totally unacquainted, and they had no terms in the Socotrian language to express the cardinal points. The superiority of the Arabian numerals for extended calculations over their own, has induced them to entirely discontinue the use of the latter, and in all transactions among themselves, as well as with the Arabs, the Arabian alone are now used; it was therefore not without some difficulty that I was enabled to collect the Socotrian numerals, they are as follows:

|           |          |                  |
|-----------|----------|------------------|
| 1 Tand    | 5 Hamish | 9 Scab           |
| 2 Terean  | 6 Heitah | 10 Usharî        |
| 3 Thedder | 7 Heibah | 11 Usharî and    |
| 4 Urubah  | 8 Tomani | 12 Usharî terean |

and so on to 20, which is two tens, or usharum, and usharin tand 21; thirty, which is thedder usharî, urubah or three-tens; forty, which is usharî, or four tens, and so on to one hundred, which is meyen or meian, which is like the Arabic mit or meat.

But by this decimal mode of calculation they could advance no further than ten hundred. I have frequently sought without success for something to express a thousand: this gives no very high opinion of their mental capacity, and it evinces, unless they have sadly retrograded, a strong proof

of their never having made any considerable advances in civilization. During my stay among these high islanders, I saw few cases of sickness; three or four sufferers from cancer, and as many from elephantiasis, were brought to me for medical assistance, and hard painful swelling of the abdomen, brought on by irregularity in their diet, was also frequent; but this was in no way surprising. A Bedonin will live on nothing but milk, and a little Dekhan, for several days, and then feast most exorbitantly on a sheep, the flesh of which is but half-boiled. Some bad sores were also shown me, occasioned by punctures from the thorns of the Nibek. But in general diseases are of very rare occurrence, and the Bedouins may be considered a hardy, healthy race. In the most solitary and lonely ravines and valleys I have occasionally met with idiots, who are permitted to stray about by themselves. Food is given them when they approach any habitation, but they usually subsist either on the wild herbs, which they gather on the mountains, or on the wild goats, which they knock over with stones near Ras Mamí. I saw one of these men going about perfectly naked. I came on him unexpectedly, but he fled with much celerity the instant he saw me.

*Language.* I am not sufficiently versed in oriental literature to ascertain what affinity the Socotrian language may bear either to the Arabic or any other language. I have therefore subjoined a copious vocabulary of words in general use among the Bedouins, by which I trust the scholar may be able to proceed in an inquiry that can scarcely fail to lead to most interesting results. I may notice in passing that the mountaineers from the Arabian coast are enabled to make themselves well understood by the highlanders of Socotra; but the Arabs from Muscat, or from any of the other towns, are quite unable to do so. The Socotrian language is spoken even among themselves by all those who have permanently settled on the island, and the Arabic is only used by the merchants while transacting business with the traders who arrive in buggalows.

At a period as late as when the Portuguese first visited Socotra, they found in it books inscribed in the Chaldean character. I had anticipated procuring some manuscripts or books which might have served to throw light on the history of the island; but in answer to repeated applications which I have made to different individuals for them, I have always been assured that some which they acknowledge to have possessed were left behind in their houses when they fled to the hills; and that the Wahabís, during their visit, destroyed or carried them off. The latter is the most probable, as these sectaries in their various eruptions are known to have manifested a strong desire to possess themselves of historical works\*. The only vestige which I have been enabled to trace of any other character than the Arabic now in use, being adopted by the inhabitants of the islands, are some singular and interesting inscriptions, which I discovered on the sea shore about a mile in a direction from Ras Mamí.

They are inscribed in the horizontal face of a sheet of limestone rock, which is on a level with the plain, and is about 300 paces in circumference;

\* Vide BURKHARDT'S Travels in Arabia, Vol. i. p. 393.

those parts which by their smoothness are best adapted for the purpose are covered with inscriptions and figures. I subjoin a sketch of a few of the most legible, which for the sake of greater accuracy I copied a second time. The resemblance in the character to some I copied near Wedgi in Arabia, which are supposed to be Ethiopic, is so striking, that I am tempted to believe they owe their origin to the same people. Should this on further examination prove the case, some interesting inquiries would suggest themselves. Independent of these inscriptions, there are immense number of rude representations of the feet of men, camels, sheep, oxen, asses, and cows; some of the human feet were as small as those of an infant, while others are treble their natural size; they are all placed in pairs, but with no general direction. The feet of the animals are cut so as to represent a soft rock, yielding to the weight of their impression. These occur sometimes in line, in others they are thickly crowded together, and amidst the latter is usually found the characters. The cross occurs very frequently, as well as a figure with a snake's head. I passed several hours in examining and sketching the most legible of the characters; but vast numbers are obliterated. I was at first tempted to ascribe these inscriptions to the work of the shepherds in their leisure hours; but they are so numerous, and must withal from the nature of the rock have been executed with so much labor, that I cannot on reflection refer them to that origin. The unity of design, exhibited in the constant recurrence of the same apparently unintelligible symbol, would rather induce us to suppose that a place of worship or pilgrimage must have formerly existed in its vicinity. At present there are half a dozen small ruinous buildings to the southward, and the remains of a wall running along to the northward, near it; but nothing more to verify such a supposition.

In a hill near Tamarida, I discovered several caves, which contain human skeletons. A wall eight feet in length had been built up parallel to, and at a distance of about seven feet from, the side, so as to allow a sufficient space for the bodies to be laid at full length; they appear to have been deposited in layers, though at different periods. Between and above each skeleton, there was a space of about two feet, which was filled up with earth until the whole mass reached the upper part of the cave. Among the mountains in the interior, I was assured, that these occur frequently, and there is reason to believe, the Bedouins deposited their dead in them, until a late period; but as they entertained great dread of my writing them down, as they termed it, they were never shown to me. I entered and discovered these by stealth. Upon conversing with the Bedouins, afterwards, on this subject, they admitted the fact of their serving as cemeteries to their ancestors, but denied they had been used since the propagation of the Musalman religion. At present they observe the same mode of interment as the Arabs of Tamarida.

Of many other peculiar customs, a few only are now retained, of which the most singular is that they do not circumcise their male children until they are past the age of puberty, while with other Muhammedans, it is

performed at a very early age. On the eastern part of the islands, amidst the mountains, I was shown a rude stone chair, in which it was customary for the Bedouins to seat their youths (who were sometimes brought from a long distance) while the operation was performed. They have preserved the remembrance of a singular trial by ordeal, which was formerly practised on an individual supposed to have been guilty of any heinous crime; he was placed bound hands and feet on the summit of some eminence, and there compelled to remain for three days. If rain fell during that period on or near him, he was considered guilty, and punished by being stoned to death; but if the weather on the contrary continued serene, he was acquitted.

At first sight it may appear singular, that while, as will be shown by the subsequent section, the population of the eastern portion of the island should be found so mixed and varied, that of the western should have continued pure, and should still present the same general characteristics, but the causes on examination are almost self-evident. The Bedouins make no scruple to give their daughters to the native Arabs, and even to visitors who may pass but a short time on the island. The wives of the latter live with their husbands; while of the offspring by those of the former, the boys naturally follow the avocation of the father, and rarely if ever turn to the pastoral pursuits of their maternal progenitors: while the females are married not to the Bedouins (for though the Arabs have no objections to take a Bedouin wife, they would yet hold themselves disgraced were they to marry their daughters to one of that race), but to one of their own class. This accounts for the great disproportion which may be observed on the mountains between the males and the females. Independently of this, as one cause, want of water, which is felt on the western part of the island during the greater part of the year, and its general sterility, offer so little inducement to the native Arabs to reside there, that with the exception of some hamlets on the sea coast, in which they take up their quarters for the purpose of fishing, I did not in the course of my journeying in that part meet half a dozen families. But of those which are comprehended under the name of Bedouin, there are a few distinct tribes, of which it is necessary separate mention should be made.

Those most worthy of attention or remark are of a small tribe, of about 150 men, called Bahi Rahom, in the vicinity of Ras Mamí. Their forefathers are said to have been Jews, and the features of their descendants still retain a strong resemblance to those of that race. The Sarí, the Sayffí, the Dermí, and the Zirghí descended from the Portuguese, under the general appellation of Cambar or Gambar, occupy the granite mountains; they are rich in flocks of sheep and oxen, and though the resemblance to the European cast of countenance may still be traced, and even in some instances they have preserved their original names, yet there are none of those symptoms of physical degradation which are observed in the race of the Portuguese at present in India. On the contrary, some of the finest figures and the most intelligent of the natives I saw on the island were of this class. Though readily recognized by the other tribes, their descent

appears in no way to have been urged as a reproach against them. It was told me that a few families amidst the mountains continued to speak their own language, but I was never sufficiently fortunate to fall in with any of them. Some of the hills on the north side of the island still retain the appellations which were bestowed on them by this nation.

As I have reserved the name of Bedouin, bestowed on the mountain tribes, without regard to the general application of the term, it will be as well to retain the name of Arab, with which the remainder with no higher claim have invested themselves.

Under this designation are included those who occupy Tamarida, the villages of Cadhúp and Caleseah, and the greater part of the eastern portion of the island; they may all be classed as foreigners, or the offspring of foreigners, who have settled here. The greater number are Arabs, who being left by boats passing between Zanzebar and the Arabian continent, to dispose of cargoes, take unto themselves a wife, and remain permanently.

The others are Indians, Sumaulies, Nubians, slaves, &c. who are attracted here from various motives; all are careful in preserving the recollection of their original country, and for this purpose they subjoin its name to their own. Thus our guide was called Suliman Muscaty, or Suliman from Muscat. Though so mixed a class, the Socotrian Arabs wear the same dress, and have adopted the same language and customs; their colour, features, and figure, as may be anticipated from their different origin, are so varied, that it is impossible to speak of them in any general terms. We have in fact every grade, from the flattened nose, the thick lips, and the woolly hair of the Negro, to the equally well-known characteristics of the Arab. Their dress consists of a loose single shirt, descending below the knee, which is confined to their waist by a leathern girdle, in which is placed all the arms they can muster. The lower classes wear nothing but a piece of striped liuen round their waist, with another, when they are exposed to the sun, thrown over their shoulders; in rainy or cool weather, they all wear a thick woollen coat, sufficiently large to completely envelope them. The dress of the females consists simply of a long shirt of Indian cloth, over which is worn a loose wrapper, which after being taken round their person, the end is brought up over the neck, in order to serve them as a veil when they are desirous of concealing their faces.

The only employment in which the Socotrian Arabs engage themselves are either in tending their date groves, or flocks; in collecting ghí, or in the trade between Muscat and Zanzebar. Their date groves give them but little trouble; for directly the owner can scrape together a few dollars, he purchases a slave to attend them, and if his master's wealth increases, he adds to the number both of his trees and his slaves. Traders proceed among the mountains on camels, taking with them various articles which they exchange with the Bedouins for their ghí. The quantity collected is very great.

The Arabs who engage in the trade to Zanzebar and Muscat with this article receive in exchange for it grain and slaves. Contrary to the general prac-

tice of the East, the Socotrian Arabs treat their slaves with much harshness; they are hard worked, and indifferently clothed and fed. As these pursuits can only be engaged in during the fair or N. E. monsoon, it follows that a considerable portion of their time is passed without employment of any kind. To obviate the tedium of this period, I cannot learn that they have recourse to games of chance, or amusements of any description; the time appears spent in visiting each other, drinking coffee, smoking, and sleeping. In place of taking up their abode in caves, in the same way that the Bedouins do, the Arabs who reside outside the town live in huts, which are mostly of a circular form; the walls are constructed of loose stones, and are cemented with a mortar of which mud is the principal ingredient; they are rarely more than four feet in height, and they commonly enclose a space from 12 to 14 feet in diameter. On the top of these, and projecting nearly a foot over their sides, a conical roof, constructed of the branches of the date-tree, is sometimes raised, the apex of which at the point where the ends of the branches unite together, is chunamed, in order to prevent the rain from getting through. In others, though the walls are of the same height, they first place rafters across in a horizontal direction, cover them with date branches, and then cement them over with lime, mixed with earth, and sometimes with turf: the goats may frequently be observed grazing on the grass growing out of the latter. In several of these which I visited, in which it was impossible to stand upright, which were swarming with fleas, and which in size, it will be remembered, are scarcely larger than an English pig-stye, two or three families, each consisting of four or five individuals, were residing under the same roof. It is not therefore a matter of any surprise that fever sometimes sweeps off a whole hamlet. Were the materials of which these wretched and miserable buildings are raised scarce, and to be procured with difficulty, we might pardon or excuse the little attention to comfort, accommodation, or health which their construction exhibits; but when they are abundant, and when they have better models in the town before them, it furnishes a strong proof of their sloth and indolence, and warrants with many other proofs which may be adduced, that they have little inclination or capacity for improvement.

Notwithstanding Socotra's numerous inhabitants, Tamarida is the only collection of houses which may entitle it to the appellation of a town. Cadhup and Calesseah are but small villages, and the Arabs on the western portion occupy numerous small hamlets, consisting of from six to a dozen houses. Concerning the two villages of Cadhup and Calesseah, all that is necessary to be known of them will be found in Captain HAINES' description of the exterior of the island.

*Tamarida.* I have been unable to ascertain at what period Tamarida was erected; but both from its name and the appearance of the houses, I am inclined to think it must have been anterior to the first visit of the Portuguese, and most probably founded by those who followed them. The natives date its existence from a much earlier period, but little reliance can be placed on their testimony. The nearest range of mountains in the

vicinity of Tamarida approaches the sea in the shape of an arch, on the chord of which, and nearly equidistant from the points where its extremities reach the beach, is situated the town. It consists at present of about 150 straggling houses, which are unconnected with each other, and are surrounded with date trees: of this number not a third is now inhabited, the others remain in the same ruinous state as they were left by the Wahabis in 1801. Though small, the houses are well constructed, of lime and coral, cemented over, and from this being kept white-washed, they have a neat appearance. They are usually two stories in height, of a square form, and with a tower in one corner, through which the stair-case is usually built; the windows face the N. E., and they are closed like those on the houses of Arabia, with wooden shutters, cut with a variety of ornaments, through the interstices of which the air and light is admitted. The upper rooms are appropriated to the use of the harem; in the lower, seated on a platform, of which there are two, one on either side the door, with a passage between them, the Arabs receive their visitors, and transact all business. Attached to each house there is a small garden, in which is grown a sufficiency of beans and melons for the use of the inhabitants—enclosures of tobacco may also be seen among the houses. The number of inhabitants at the period of our visit did not exceed a hundred: several were absent at Zanzibar; but fifty added on that account to their number, gives the full number of those who at any period reside here. The Arabs flock down from the hills on the arrival of a ship, and may induce the visitor to estimate their number higher than I have done. There are but two shops in Tamarida, and the articles exposed for sale are grain, dates, and clothes; every individual, therefore, on the arrival of a boat supplies himself with whatever he requires.

In commercial transactions among themselves, money is rarely if ever used: certain quantities of ghí, &c. are substituted. Dollars are demanded from strangers who visit their port, and from my party rupees were taken when they were assured of their value; but there is no small coin of any description on the island.

The dollars are made into ear-rings for their women. Amher and ambergris, both of which are brought from Abdul Curia, were formerly substituted for money; but the practice for some reason has been discontinued. Amber is occasionally found along the southern shore of this island, but is not of frequent occurrence. The plain enclosed by the range of mountains already spoken of, which surrounds Tamarida, is watered by three mountain streams flowing fast close to the houses, which are with the others at no period of the year wholly dried up. A line of date groves on either side of each of these extends from the base of the hills to the sea shore, where they spread out into large groves. The ground through which these pass is composed of a few sloping hills, and rounded hillocks, intersected by plains and small ravines: these are destitute of trees or bushes, but the grass which is nourished there affords good pasturage to sheep and goats. The soil in some of the valleys and plains is of a reddish-coloured earth, and appears especially in the vicinity

of the date grove rich and fertile ; in others, it is of a light colour, is filled with small stones, and looks of a poorer quality. With the exception of the palm trees, a few melons, some tobacco, and a few enclosures of dekhán, no part of this plain is cultivated ; and the traveller who may hereafter visit Socotra in the period between February and June, may from this circumstance and its then parched and almost sandy appearance form a different opinion to mine respecting its fertility. But the least promising parts of this plain, when cultivated for a single season, essentially alter their character for the better, and others, on our first arrival in January, wore a most luxuriant vegetation. I therefore repeat of the part particularly, what I have only mentioned generally before, that not only might grain or vegetables be cultivated here to a large extent, but that the nature of the climate and the soil would also nourish the greater number of our tropical fruits.

*Of the Inhabitants in general.*

Notwithstanding the healthiness of the Bedouins, the Arabs appear a weak and sickly race, and dangerous fevers are said to prevail among them. After the rains the graves in the town of Tamarida are frightfully numerous ; and it may be truly said of Tamarida, that it contains treble the number of houses that it does inhabitants, and of tombs more than ten times the number of both included. In other parts of the island, where the vestige of former habitations could be traced, there also might be seen the same proportion of graves. The Arabs formerly paid great attention to the state of their tombs : of three stones, one was placed at the head, another at the foot, and a third in the centre. On the former of these was inscribed the name, age, &c. of the deceased ; but the Jobasmus, during their visit, from their known aversion to any kind of decoration over the remains of the dead, broke and destroyed the whole of these, which came under their notice during their stay.

My attention is particularly directed towards obtaining information respecting their form of religion. At present every individual on the island is, or professes himself to be, a Mussalman. The Bedouins, as in Arabia, hold the doctrines but loosely : many neglect the fast of the Ramzán, few are acquainted with their morning and evening prayers, and these few rarely trouble themselves with repeating them. Circumcision, I have already noticed, is not practised until a late period, and in some families, I have reason to believe, it is omitted altogether.

The Socotrian Arabs, on the contrary, are zealous professors of the Mussalman faith ; although, at the same time, they are utterly ignorant of its most essential doctrines, and like all those nations who possess but a slight knowledge of its tenets, they are bigotted and intolerant to an insufferable degree. During my stay at Socotra, individuals of the party occasionally fell sick, and the horror which they expressed on these occasions at the idea of its becoming necessary to bury a Christian on the island, convinced me that if it was ever done, they would perform their threat of disinterring the corpse with every indignity, and throwing it into the sea. The Mahara Arabs, from the Coast of Arabia, a noble race of Bedouins, who occa-

sionally reside for a few months on the island, ridicule them unmercifully for this spirit of intolerance, and have assured us, even in the presence of the zealots, that the Socotrian Arabs were poor wretches, who had nothing to plead in defence of it save the lowest state of ignorance, and their mongrel descent. After the receipt of HAMED BIN TARY's letter, prohibiting our further progress through the interior of the island, I was confined by the Socotrian Arabs for several days in the town, and it was principally through the influence which the Mahara Bedouins exercised on that occasion that I was again enabled to set forward on my journey. The behaviour of the former on this occasion exhibited a mixture of irresolution, timidity, and avarice which I have never seen equalled; they wavered between dread of the Shekh if they permitted us to go, and their fear of missing what they might gain by hiring out their camels if they prevented us. Exorbitant demands were at first made; and when they found that I would not listen to these, they continued to hold councils for three days, during which period, whenever I had commenced and packed up all in readiness for starting, permission was given and cancelled more than half a dozen times.

It is observed by MALTE' BRUN in his "Universal Geography," that the population of this island might furnish a subject of lengthened discussion. He notices on the authority of PHILOSTORGES, EDRISSE, and UMDAULAH, that a colony, sent here by ALEXANDER THE GREAT, remained for a long period; and during the time of PHILOSTORGES, an ecclesiastical historian, who wrote a history of the church on the Arian principles at the conclusion of the fourth century, that they spoke the Syriac language. Various other authorities are cited by the same author, to prove the existence of a race of Christians with which the island was peopled until as late a period as 1593, when the Nestorians and Jacobites had each a bishop residing on it; and even when Sir THOMAS ROE visited it in 1614, he observes, that "the Bedoignes," as he styles them, "were of the Nestorian persuasion." In the absence of books or manuscript of any description, for I believe no notice connected with the habits or religious character of the islanders has since this period been handed to Europeans, it might prove a hazardous task to venture, on the mere traditions of the islanders, any observation on the causes or events which have led to the total abolition of the Christian, and the universal establishment of the Mohammedan, creed. Information on these points may possibly be gleaned from authors to which I have not at present any means of gaining access; but I cannot, however, dismiss the subject without observing, that as the channel of the Indian trade, at the early period to which the above-mentioned authors refer, was by the way of Socotra, and the ports at the entrance of the Red Sea, it can excite but a small portion of surprise to find proselytes of these persuasions residing on a spot so far removed from where the principles on which these were founded were avowed and practised. It is observed by SALE, in his preliminary discourse, that the persecutions and disorders which happened "in the eastern church, soon after the beginning of the third century, obliged great numbers of Christians

to seek for shelter in that country (Arabia) of liberty, who being of most part of the Jacobite community, that sect generally prevailed among the Arabs;" and, although it does not appear that the southern parts of the peninsula were subjected to the ecclesiastical rule of either the Nestorian or Jacobite bishops, yet from the causes I have before mentioned, it is not likely they would have overlooked a spot like Socotra, where there is every reason to believe they could have indulged unmolested in the open profession of their faith. With respect to the disappearance of these primitive Christians, as well as those which were left on the island by the Portuguese, the causes appear almost self-evident. It would produce an anomaly in human nature, almost as striking as that which is afforded by the history of the Jews, if surrounded as they were by natives universally professing the Mussalman religion, receiving no fresh influx from those of their own persuasion, and left an isolated and neglected race, if they alone had refrained from embracing the new doctrines; and although occasional skirmishing, consequent to a difference of opinion, may have occurred between the different sects, yet that this was accomplished by a gradual and silent change, and not by any violent or exterminating measures, appears equally evident by the simple fact of their descendants existing as a distinct race to the present day. Evidence to the fact of numerous colonies of different countries or persuasions formerly existing on the island may be found in the present arrangement and distribution of its inhabitants into distinct tribes, many of which are still recognized as of foreign origin.

Time has not produced a greater change in the government or condition of this island than it has in its ecclesiastical masters. In place of an archbishop and two bishops, we have now but a single priest, who combines in his own person the various offices of Mullah, Muezzin, and school-master. A single Cádi solemnizes the whole of the marriages which take place throughout the island, and I have on more than one occasion met Bedouins seeking him for a license, when he has been absent among the hills cultivating his date groves.

Two small and insignificant mosques at Tamarida, the one called Mir Advance, and the other Abder Rahan, and one yet smaller at Calesseah, are now the only places of worship for the reception of the faithful.

It would form a curious subject of enquiry to ascertain what form of religion the establishment of the Christian faith displaced. A ruinous building was shown me on the spot, marked out in the map, which was said to have been an ancient place of worship; but it was in too dilapidated a state to enable me to ascertain the truth of the tradition, nor have I been able to discover others that would serve to throw any light on the subject.

The population of this island, as stated by some travellers at a thousand souls, is evidently much under-rated, but from their wandering mode of life, and other causes, it became difficult from any section of the island to form a correct inference of the population of the whole. The method I adopted was, at the conclusion of each day, to note the number of individuals I had seen, and these I find amount to upwards of two thousand, though I am

confident it does not comprehend more than half their number, for in several places they concealed themselves whenever we approached, and though, as will be seen by the map, my rambles led me to many parts of the island, yet there were necessarily many hills and remote valleys I could not inspect. I am further strengthened in this belief by summing up the number of the tribes, and I therefore fix the amount of the population at 4,000. Two intelligent Arabs, who have resided on the island upwards of 10 years, and have journeyed to many parts of it, tell me they consider this far below the actual number; but with Arabs an allowance should always be made for numerical exaggeration.

Comparing this calculation with the whole surface of the island, which amounts to about a thousand square miles, it gives four individuals to each, which when we reflect on the great proportion of bare rock, which the surface of the island exhibits, appears very considerable.

Although I have made diligent search and constant inquiries, I have been unable (with the exception of those which indicate the stay of the Portuguese) to discover any ancient vestiges or monuments that would prove this island to have been peopled by a race further advanced in civilization than the present, although I think there is reason to believe the population must have been more numerous, and that the island was consequently better cultivated. It is impossible to ascertain at what period their numbers were thinned; but that they have not been exempted from contagious fever, or some other desolating scourge, appears evident from the existence of such a multitude of graves in every part of the island, many of which appear to have been constructed at the same period; but that this period was somewhat remote, is equally evident, not only by the total disappearance of all traces of such improvement, on the face of the country, but by the present condition of the inhabitants. It must not be referred to the period immediately preceding the visit of the Wahabis, as has been suggested in some late discussions connected with the island; for those fierce sectaries confined their outrages, and the extent of their devastation, to Tamarida and its vicinity, and they did not attempt to pursue the inhabitants who fled from the town to the mountains at the first intimation of their approach.

[The length of the foregoing Report prevents our giving insertion to the equally interesting remarks of Capt. S. B. HAINES on the same Island. This Officer was charged with the examination of the coasts and the circumstances of the various harbours, which though more interesting to nautical men, and drawn up in a most complete form, would not perhaps interest the general reader so much as the view of the interior of the island. There are but 22 boats on the island, capable of carrying about 80 gallons of water in fine weather. They are sewn together with thongs of hide, or a kind of coir rope made from the young leaf of the date tree. Tamarida Bay on the north of the island is the principal port during the S. W. monsoon, but Ras Kourina lat.  $12^{\circ} 38' 35''$ : long.  $53^{\circ} 55' 50''$ , affords a better shelter, and is also serviceable in the opposite monsoon.

In the N. E. monsoon Gollonseer Bay is the best anchorage:—the town contains about 130 inhabitants, and 16 fishing boats. There are unfortunately no ports where vessels could ride in safety from all winds, and opposite sides of the island must be resorted to with the change of season.

We subjoin a vocabulary of the Socotrian language drawn up by Captain HAINES from a Town Arab—it is confessedly imperfect, and contains a large admixture of Arabic.—ED.]

## A few words of the Socotrian Language.

|                    |                            |                 |                                 |
|--------------------|----------------------------|-----------------|---------------------------------|
| Rheon,             | Tall, long.                | Kurrhain,       | Crooked.                        |
| Kurrhar,           | Short.                     | Geih,           | Plenty, numerous.               |
| Rheeho Rhain,      | Salt water.                | Haraheeme,      | Few, scarce.                    |
| Rheeho Hali,       | Sweet or fresh water.      | Yashar,         | Dry.                            |
| Rheeho Lahrer,     | Water to drink.            | Ferhain,        | Daughter, or female child.      |
| Ustal,             | To eat.                    | Adjoose,        | Old woman.                      |
| Kahr,              | A house.                   | Shebah,         | Old man.                        |
| Jeerhae,           | Town.                      | Ree,            | The head.                       |
| Eshookko,          | Sword.                     | Shiff,          | The hair.                       |
| Bundook,           | A musket.                  | Teffcoose,      | The eye-brows.                  |
| Rohsahse,          | Musket-ball.               | Taáhn,          | The eyes.                       |
| Hussin,            | Iron.                      | Hadjhur,        | The forehead.                   |
| Suffur,            | Copper.                    | Eidaben,        | The ears.                       |
| Teheal,            | Wood.                      | Nahreer,        | Nose.                           |
| Mushhein,          | Day, fine.                 | Sheebah,        | The lips.                       |
| Ahtay,             | Night, fine.               | Thetrinsh,      | The teeth.                      |
| Eerah,             | The moon.                  | Lissen,         | Tongue.                         |
| Kokut,             | The stars.                 | Nuhharhur,      | The throat.                     |
| Sheehin,           | The sun.                   | Konrie,         | The shoulders.                  |
| Sahbedah,          | Come here.                 | Tahdah,         | The back.                       |
| Setoah,            | Go away.                   | Meer,           | The stomach.                    |
| Stahooa,           | Sit down.                  | Aiah,           | The arm.                        |
| Saahd,             | Make haste.                | Asábak,         | The fingers.                    |
| Ardein,            | To sleep.                  | Dthuffer,       | The nails.                      |
| Kussah,            | Scarce.                    | Soab,           | The feet.                       |
| Huhr,              | To-day.                    | Ahrur,          | Rice.                           |
| Kuneree,           | To-morrow.                 | Hammer,         | Ghí.                            |
| Aig,               | Male.                      | Kutmehr,        | Butter.                         |
| A jah,             | Female.                    | Sulet,          | Oil.                            |
| Mobiahee,          | Boy or male infant.        | Koof,           | Milk, sweet.                    |
| Aunt,              | Large timber.              | Dthedadjee,     | Fowls.                          |
| Cutthaine,         | Small timber.              | Baithde,        | Eggs.                           |
| Shaahr,            | A month.                   | Urhain,         | Goats or sheep.                 |
| Anah,              | A year.                    | Elhayten,       | Cows or bullocks.               |
| Allef Ahew,        | One thousand years.        | Kelb,           | A dog.                          |
| Shoohut,           | A fishing line.            | Jerback,        | Civet cat.                      |
| Ucklaher,          | A hook.                    | Gemeeher,       | Camels.                         |
| Bild,              | Sounding lead.             | Tahreeher,      | Antelopes.                      |
| Baroosir,          | Anchor.                    | Teb,            | Meat.                           |
| Sinsetah,          | A chain for anchor.        | Sodah,          | Fish.                           |
| Duckhur,           | A mast.                    | Bussell,        | Onious.                         |
| Tormahl,           | A yard.                    | Serage,         | A light of a candle, lamps, &c. |
| Seerar,            | A sail.                    | Scheat,         | Fire.                           |
| Deerah,            | A compass.                 | Sebhem,         | White.                          |
| Famoose,           | A lantern.                 | Ophir,          | Red.                            |
| Bindeerah,         | A flag.                    | Gee Reeho,      | Plenty of water.                |
| Teelaher,          | A hill or mountain.        | Rheeho harehen, | Scarcity of water.              |
| Oubchaine,         | A stone.                   | Ebhem,          | A well.                         |
| Seerhoc,           | At a great distance.       | Kute,           | Rope.                           |
| Shalee,            | At hand, close.            | Sahrey,         | A knife.                        |
| Thermooheen,       | A tree, forest, &c.        | Kullum,         | A pencil.                       |
| Muckedeerah,       | Jewarree.                  | Donaiko,        | An inkstand.                    |
| Burrh,             | Corn or wheat.             | Koortass,       | Paper.                          |
| Degig,             | Flower.                    | Tokoothib,      | To write.                       |
| Aishahr,           | Bread or cakes.            | Ketab,          | A book.                         |
| Toohlerdee,        | Come here.                 | Jild,           | Skin or hide.                   |
| Tooshdsheioc,      | Go away.                   | Kofeiah,        | A cup.                          |
| Tahdsab,           | Go to market or bazar.     | Ahmateenahe,    | A turban.                       |
| Hairah Tahr,       | Go to-day.                 | Thobe,          | A shirt.                        |
| Kuneiah Teedailiw, | Come to-morrow.            | Ahrahder,       | A sash or cummerbund.           |
| Deeah,             | Good.                      | Umekfaf,        | Trowsers.                       |
| Deah,              | Bad.                       | Sundook,        | A hox or chest.                 |
| Tashw,             | Well-dressed.              | Koorsir,        | A chair.                        |
| Sonah,             | Correct, proper, straight. |                 |                                 |

|               |                           |                  |                                  |
|---------------|---------------------------|------------------|----------------------------------|
| Sahahm,       | A plate or dish.          | Sunkab,          | Do not bring.                    |
| Merooah,      | A fan or punkah.          | Deeah,           | Good or well.                    |
| Medfar,       | A cannon.                 | Deah,            | Not good, bad.                   |
| Baroot,       | Gun-powder.               | Ustah,           | To eat.                          |
| Seloobah,     | Stop, gently.             | Unetook,         | I have not eaten.                |
| Tahfah,       | To give.                  | Tootah, r,       | Come very close.                 |
| Telloo,       | Take hold.                | Teloosahr,       | Go away to a distance.           |
| Sherachah,    | Go away.                  |                  |                                  |
| Tuchalith,    | Come here.                | Haihhe,          | A man.                           |
| Tahrise,      | Kill.                     | Dthamah,         | Alive.                           |
| Keen,         | Plenty of any thing.      | Sahmee,          | Dead.                            |
| Toahde,       | Make haste.               | Shohoom,         | The sun.                         |
| Addahfaarhar, | To be on good terms.      | Meeloa,          | A roof or top, awning, &c.       |
| Kasuh,        | To behave properly.       |                  |                                  |
| Semahto,      | To converse.              | Shemtahr,        | Dressed well or in good clothes. |
| Aber or Urr,  | Take hold.                |                  |                                  |
| Alleh,        | To ascend.                | Sheekah,         | Close to.                        |
| Tuckkafah,    | To descend.               | Seerhoe,         | At a distance off.               |
| Estahel,      | Sit down.                 | Enineshuch,      | What have you got ?              |
| Tukaatee,     | To read.                  | Aahumeh,         | True or truth.                   |
| Tennaffer,    | To mind.                  | Toobat,          | Untrue, a falsehood.             |
| Teneoash,     | To spoil.                 | Fezaine,         | Take hold.                       |
| Trasher,      | To spread any mat or bed. | Enlazaine,       | Do not take hold.                |
|               |                           | Tuckahab,        | Do not sit down.                 |
| Shahleen,     | To strike a bargain.      | Tehtooah,        | Do not stand.                    |
| Taongah,      | To beat.                  | Ishoop,          | To sleep.                        |
| Eulajhah,     | Do not strike.            | Tessobah,        | To wash.                         |
| Takassah,     | To break.                 | Tohtatrer,       | To look.                         |
| Entuftuf,     | Do not break.             | An Tahtcher,     | Do not look.                     |
| Anelpad,      | Make no agreement.        | Taber,           | Broken.                          |
| Entenduff,    | Do not give.              | Tekoodaiher,     | Come near.                       |
| Aahrah,       | Remove or take away.      | Tonde Sirhoc,    | Go away.                         |
|               |                           | Habra Rheebo,    | Briog some water.                |
| Arachenooch,  | To take any thing away.   | Rheebo Durnaham, | Salt water.                      |
|               |                           | Ustugah,         | To buy.                          |
| Aláteeaiha,   | Do not take away.         | Kuthooan,        | To sell.                         |
| Nichiahn,     | To bring.                 | Esshenal,        | I will sell.                     |

V.—*Note on an Inscription on the Mandara hill near Bhagelpur, (forming a postscript to Article III. of the present number.)*

On considering the form of the Sárnáth characters, it struck me that they resembled considerably those of an inscription engraven on the rocks above the *Talao* called Poupnar, on the Mandara hill, of which a reduced engraving is published in the second part of Colonel W. FRANKLIN'S Inquiry concerning the Site of Ancient Palibothra. The mountain is situated to the south of Bhágalpur: it is covered with mutilated images, fragments of stone and ruins; and although it now exhibits images belonging to the Brahminical mythology or passing as such in the present day, it may owe the abject condition of many of its temples to their having been Bauddha structures, destroyed during the well known persecution of this religion. Colonel FRANKLIN gives no conjecture as to the purport of the inscription, of which he merely says: "Descending from the summit to *Sankar-kund*, we proceeded to view some figures cut in the rock on the north-west of the hill: their appearance was singular."

I have introduced a drawing of this inscription, as fig. 3 of Plate IX. as from the size and good preservation of the original sculpture it furnishes some well-formed specimens of the written character of the period. A moment's inspection of this inscription shewed me my favorite land-marks, the title of a great sovereign, *mahárāja adhi rāja srí*. Most of the letters forming this expression agreed closely with the Allahabad forms:—the *srí* only differed materially, and corresponded rather to the type found on several of our ancient Hindu coins, especially the remarkable descendant of the Indo-Scythic series discovered in the cylinder at Manikyála (Plate XXI. fig. 9, of Vol. III. Journ. As. Soc.)

The restoration of the whole sentence, as far as I have been able to convert it into Devanágari with the assistance of GOVINDA RA'MA, is as follows :

१ परम भडारक महाराजाधिराज श्री कुल्य भरन देव दया चय

“The mighty and venerable, the great king of kings, SRÍ KULYA-BHARANA DEVA, the mountain of mercy.”

The letters of the name, however, are very doubtful:—the first seems more like an ऊ; the dental न न cannot follow the lingual र र, and the letters read as *deva* are uncertain. Neither is such a name known among the sovereigns of Magadha or Mithila. I only introduce the inscription into my plate to invite attention to it, as every authentic name of Hindu sovereigns is of importance to history.

VI.—*Extracts from a Journal kept during a Voyage from England to Calcutta, in 1831. By Lieut. T. HUTTON, 37th N. I.*

On the 19th August in latitude 11°54' north, longitude 25°24' west. Thermometer at noon 88°; with hot, calm weather, the first albatross was seen. Flying-fish, albicores, porpoises, bonitos, whales and medusæ were seen in abundance daily.

On the 14th September, in latitude 25°5' south, longitude 30°38' west. Therm. 70½°; wind variable, we saw the first Cape pigeon.

This bird, called also the pintado bird, is known to ornithologists as the Cape petrel, (*procellaria capensis*.) They are about the size of, or perhaps rather larger than a teal (*anas crecca*), and look very beautiful when sitting on the water; but their flight, although strong, is rather heavy and ungraceful. They are prettily spotted over with black and white, on the back, rump, and wings; head and neck black; under parts pure white, legs and feet black; beak shining black. Length 15½ inches, breadth with wings expanded 2-6 feet.

They are remarkably fat and plump, thickly clothed with feathers, under which is a close beautifully soft down of a dark greyish-brown colour.

The Cape petrels appear to be stupid unwary birds, easily caught by throwing a line out astern, and allowing them to entangle their wings in crossing and recrossing the wake of the ship; or, perhaps this may be attributed less to stupidity than to their great greediness, making them more intent on securing any morsel thrown overboard, than on avoiding the snares which are laid for them.

They are also taken with small hooks, and even crooked pins, baited with a little piece of fat, which they greedily swallow, fighting and screaming over the savoury morsel, until a sudden jerk of the line, hooks some unfortunate gourmand, and proves even to the poor petrel the truth of the saying, "there is death in the pot!"

When brought on board they both bite and scratch very sharply, and often successfully defend themselves by squirting over the assailant an oily liquid of a deep orange colour, smelling so rank and offensive, as to render the clothes so bespattered scarcely bearable for many days afterwards, and it is indeed very difficult to get rid of it from the hands even after repeated ablutions. Along with this nauseous fluid, many of them restored the pieces of pork with which we had so treacherously supplied them.

The natural food of these birds consists most probably of molluscous animals and medusæ, particularly those which shine with a phosphoric light in the night time, and which light, *if* the petrels are nocturnal birds, as Professor RENNIE says they are\*, may be the means of guiding them to their prey; I am, however, rather inclined to doubt their being nocturnal, for reasons which will presently appear.

In examining the substance disgorged by some of these birds, I found a number of the interior cartilaginous membranes of the "*villosa scaphidia*," quantities of which had been seen a few days before, of a beautiful blue colour, floating on the surface of the glassy sea.

Their numbers varied considerably on different days, sometimes following us in large flocks, and coming close to the ship's stern, while at other times there were only two or three to be seen.

I was much astonished at the coolness with which they would sit on the swelling waves and even allow the spray to dash right over them without rising, and seemingly with perfect indifference, continuing their squabbles for the baited hook, and diving very prettily should the object sink before they could pick it up. They alight upon

\* "*Architecture of Birds*," p. 30.

almost every thing that leaves the ship, and this generally attracts the attention of the albatrosses, which keep at a greater distance.

I am much puzzled to account for the total disappearance of these birds during the night, and not only of these, but the albatrosses, stormy petrels and blue petrels also, for although they had continued about us in numbers all day, yet no sooner did the sun touch the horizon, than all disappeared as if by magic.

The question is, where do they go ?

*Petrels* are said to be *nocturnal*; but such cannot be the case with the Cape petrel, stormy petrel, or blue petrel, for we had them sporting in our wake the whole day, and at night they disappeared, to rest I should suppose.

But *where* do they rest ?

If on the waves, is it not strange that we never found them sleeping in the calm, clear moonlight nights, as we held steadily on our course ? Yet never did we see one after sunset.

To suppose that they could wing their way to some of the rocky islands scattered through those southern latitudes would be absurd, for often we had flocks of these birds around us, when the nearest land must have been from 15 to 20 degrees distant, and although their powers of flight must be great indeed to enable them to keep on the wing with little intermission during the whole day, even when "blowing great guns," yet, as they did not leave us until sunset, with what fearful rapidity they would require to fly, when 10 or 1200 miles at sea, in order to reach their resting-places before the shades of night should overtake them !

Pigeons have been proved to fly at the rate of 60 miles an hour, but the petrels would require to perform a flight of 3 or 400 miles in the same time !!

That they are *not nocturnal* is clearly proved by their continuing with the vessel *all day*, and as it is evident they cannot exist without repose, we may fairly conclude that they *rest* at *night*, and again this rest must be taken on *land* or *water*.

That they cannot rest on land, is plain, from what I have already stated. There remains then nothing but the water for them, and we may conclude I think with safety that the reason of our not seeing them at night, is because they are able to descry the tall white-robed masts of the vessel at a sufficient distance to enable them to make a clean retreat before we came upon the spot which they had occupied, and this is the more probable, as they would, like other water-fowl when sleeping in any number, have a watchful sentinel to warn them of the approach of dangers to which they must be constantly ex-

posed from the monsters of the deep. I have repeatedly inquired of seafaring men, whether they had seen these birds at night, but none could recollect a single instance. One person mentioned having caught a stormy petrel on a small hook, which had been towing astern all night, and therefore he concluded that the bird was nocturnal. But this is no proof at all, since he did not know the hour when the bait was taken, and it is therefore more than probable that it occurred at early dawn, when these little skimmers of the sea were as usual on the wing in their restless search for food.

Quere—As the albatrosses and petrels must be many days at sea, without being near land, whence do they find water to drink, unless it be that of the briny ocean? or, will their food, supposing it to consist of mollusca and medusæ, supply them with sufficient moisture?

On the 28th October, these birds deserted us, and we saw them no more during the voyage, having followed us from the 14th September in latitude south  $25^{\circ}5'$  and longitude west  $30^{\circ}38'$  down to latitude south  $41^{\circ}38'$ , and longitude east  $33^{\circ}8'$ , and up again to latitude south  $31^{\circ}54'$  and longitude east  $80^{\circ}8'$ . A period of one month and 14 days.

Although we saw the albatross on the 19th August, we were not fortunate enough to procure one until the 26th September, in latitude  $33^{\circ}38'$  south, longitude  $3^{\circ}5'$  west; thermometer  $54^{\circ}$ , weather cold.

This bird was shot by a passenger, and although in all respects agreeing with the generic description, and a true albatross, was by the officers of the ship termed a "mollimawk."

The plumage beneath is pure white, as also the rump, head and nape; through the eye is a dark bluish-black stripe; back and sides of the neck, as also the back and tail feathers, slaty-brown: wings the same but darker. Beak dark cinereous or greyish-black, and the legs and feet yellowish flesh-colour. Length 3 feet, breadth 7 feet. Irides yellow.

On the 21st October, in latitude  $37^{\circ}14'$  south, longitude  $69^{\circ}8'$  east, thermometer  $63^{\circ}$ , with a dead calm, we saw several albatrosses apparently of different species.

One of these birds came following up the wake of the ship, so closely and with his eyes so intent on the water, that at first I thought he was coming on board, but when he saw me standing on the poop, he turned suddenly across the wake; at the same time I jerked up the line with which I was fishing for them, and luckily struck him on the wing, which throwing him off his balance, obliged him to settle on the water from whence he might have made his escape with ease, had he not in a fit of rage, and spite at being struck with the line,

turned round to bite the innocent means of his discomfiture ; by so doing, however, he contrived to entangle his wing, and to my great joy I succeeded in hauling him on deck, unspotted and unharmed in plumage.

He belongs also to the genus *diomedea*, or albatross, but whether a young bird, or a distinct species from the large white-bodied bird usually known to sailors by that name, I cannot positively determine, as I have never had an opportunity of comparing them ; but from the description of both, I am inclined to think them distinct.

The breadth from tip to tip of the expanded wings is six feet ; and its length from tip of beak to end of tail 2 ft.  $5\frac{1}{2}$  in.

The whole of the under parts are pure white, as are the rump and upper tail coverts ; the wings and back and tail feathers are of a very dark chesnut-brown ; the head and back part of the neck are white, faintly clouded with a tinge of bluish ash, which gradually grows darker as it joins and blends with the dark colour on the back.

The legs are of a very pale bluish-white. The beak is very beautifully marked on the ridge of the upper mandible with a line of clear bright yellow, which is well set off by the rest of the beak being of a jet black, except the hook, which is rosy flesh-coloured, and is a continuation of the yellow line.

At the base of the lower mandible is a small caruncle, stretching on each side from the edge to the bottom of the bill in a narrow line of deep orange-yellow. The eye has a narrow stripe of bluish-black running through it, and blending with the plumage on the back of the head and neck. Irides hazle.

On examining the gizzard of this bird, we found the eyes of a fish, which, to judge from their size, must have been from a pound and a half to two pounds in weight.

Both of these specimens had a beautifully soft white down, very close, beneath their feathers.

Whenever the Cape pigeons alighted upon any thing, the albatross immediately perceived it, and sweeping over the waters with outstretched wing, threw himself into the midst of them with a hoarse croaking scream, and obliged them to abandon the prey to him.

On first alighting on the water the albatross holds his wings half-folded high over his back, and if he finds any thing to devour, slowly folds them in on his sides ; but if he is disappointed in obtaining prey, he throws forward his head and neck, and once more expanding his long wings, runs with three or four splashing steps on the wave, and then rising gradually into the air, skims along with incredible strength and rapidity.

Nothing can be more majestic than the long, sweeping flight of this bird, as he skims closely over the face of the deep, almost without moving his wings, which are kept at full stretch, until he suddenly throws himself far above the waves, and then with a long sweep dashes down again, and skims away as before for many yards without any apparent motion of the wing, save now and then a slight bending near the tip as he avoids the foaming crest of a wave. They always alight on the water before taking their prey, holding the head and neck very erect when swimming, and looking both bold and graceful.

The sooty albatross (*Diomedea fuliginosa*), called by the officers of the ship, a "*Peeroo*," is both more numerous and more familiar than the other kinds, and flies rather differently, not sweeping so long and steadily over the surface of the deep as the larger albatrosses, and rising far above the yards, impudently skirting the sides of the ship, and looking down upon the decks\*; they flap their wings frequently in flying, which the larger birds do not. If the weather is calm, however, and the wind very light, they all flap their wings oftener, so that the above description is more applicable to windy weather.

The sooty albatross or Quaker bird, was first seen on the 26th September, latitude  $33^{\circ}30'$  south, longitude  $3^{\circ}5'$  west, thermometer  $54$ , weather cold wind variable; and left us on the 26th October in latitude  $33^{\circ}34'$  S. longitude  $77^{\circ}16'$  E. thermometer  $59\frac{1}{2}^{\circ}$ . Thick hazy weather; wind S. S. E.

The other albatrosses continued to be seen until the 29th October, in latitude  $29^{\circ}37'$  S. longitude  $82^{\circ}28'$  E. thermometer  $69^{\circ}$ . Fine weather; wind easterly.

In GRIFFITH's translation of CUVIER, the petrels are stated to "drop upon their prey with extreme promptitude, and carry it off with their bill, as with a harpoon: but they have not the habit of diving to attain it. They are in fact never seen to submerge, and when the animal they are watching is somewhat below the surface, they sink a portion of their body in the water to seize it."

This is not correct, as the petrels, or at least the Cape petrel, as I have already stated, can dive very prettily, and I frequently saw them do so, after the pieces of pork which we threw overboard to them. They certainly alight very quickly upon their prey, but not with the sudden and headlong rush of the rapacious tribes, as the word "*drop*" would lead one to expect. It must however be remembered that I speak only of the Cape petrels, which also devoured their prey before rising from the water: other species may perhaps act differently.

\* Perhaps COLERIDGE may have alluded to this bird, in his "*Antient Mariner*."

I am happy to find that my description of the manners and flight of the albatross agrees so nearly with that of the author just mentioned. He says, however, that this bird constantly dips its head below the surface of the water, during its flight, in search of food.

This I never saw, although I have sometimes watched them for the greater part of the day. Like the Cape petrel they always settled before they seized their prey, and never rose until they had devoured it.

As truth is the grand desideratum in all scientific researches, I do not think it necessary to offer any apology for having set forth my remarks in opposition to those of more experienced men, because I have stated no more than what actually passed under my own observation : whereas the authors above mentioned have written in a great measure from hearsay, and consequently may have been obliged to take on credit a great deal of unauthenticated matter.

[We regret that we cannot find room for Lieut. HUTTON's daily Journal, kept during his voyage to India. We presume however that the principal facts in natural history observed by him have been alluded to above.—ED.]

VII.—*Account of Oxygyrus; a new Genus of Pelagian Shells allied to the Genus Atlanta of LESUEUR, with a Note on some other Pelagian Shells lately taken on board the Ship Malcolm. By W. H. BENSON, Esq. Bengal Civil Service.*

The following characters of a new Pelagian shell, taken on the surface of the Southern Atlantic and Indian Oceans, may prove interesting to naturalists, inasmuch as hitherto only one genus of the family, viz. *Atlanta*, has been discovered; and of the remaining family of the order, a single genus, bearing a shell, is known, that of *Carinaria*, of which scarce and beautiful groupe we took, in the Indian Ocean, two new species, which I hope shortly to describe and illustrate. The shell of the genus *Atlanta* was first made known by LAMANON, in a paper sent to France during the progress of LA PEYROUSE's voyage. Overlooking the absence of septa, he called it "Corne d'Ammon vivante." The only specimens he met with were dead, and were taken from the stomachs of Bonetas, which he supposed to have brought them up from great depths, little dreaming that hundreds of living specimens were nightly within his reach on the surface of the Ocean. Lately the genus has been re-discovered by the American French naturalists, the animal has been referred to its proper place in the system, and a scientific name has been conferred upon it by M. LESUEUR. I now come to my description of the allied genus, which

from its most obvious distinguishing character, the rapidity of convolution, I have named *Oxygyrus*. From  $\text{O}\xi\upsilon\varsigma$  *velox*, and  $\text{E}\rho\upsilon\pi\omega$  *incurvo*.

Class—*Gasteropoda*, CUVIER.

Order—*Nucleobranchi*, BLAINVILLE.

Fam. *Atlantidæ*, RANG.

Genus, *Oxygyrus*, mihi.

Char. Gen. TESTA subcartilaginosa, discoidea, cito convoluta, duobus lateribus similibus, utroque latere profundè umbilicata; anfractibus exterioribus antecedentes ferè amplectentibus; anfractu ultimo latè et acutissimè carinato; carinà ab ore usque ad dimidium periferiæ extendà, illuc desinente, extremitate angulatà; aperturà cordiformi, sinu carinam intrante.

*Operculum cordiforme, medio depressum, sabcanaliculatum.*

ANIMAL spirale, capite proboscidiiformi, tentaculis duobus brevibus cylindraceis, oculo magno saliente ad basin exteriorem munitis; ore terminali; branchiis pectiniformibus, inter jecur et penem obliquè sitis; pede alà natando aptà, foliaceo, lobis duobus prædità; lobo majore versùs extremitatem dilatato, cyatho ad latus posito; minore oblongo-ovato, membranaceo, tenuissimo, margine dentato, quasi rupto, operculum facie inferiore gerente; operculo corneo.

Shell subcartilaginous, quickly convolute; the first whorls being nearly enveloped by those succeeding, discoid, symmetrical, deeply umbilicated on each side; last whorl broadly and sharply keeled from the edge of the mouth to about half the circumference; keel angular at its posterior termination; aperture sinuous, heart-shaped, not entire, being encroached upon by the preceding whorl; peritreme acute, with a narrow slit or sinus on the front edge, running into the keel, which is there double.

Operculum heart-shaped, depressed, and channeled with a medial line.

Animal spiral. Head proboscidiiform, with two short cylindrical tentacula, having a large prominent eye on the exterior base of each. Mouth terminal. Branchiæ pectiniform, lying obliquely between the liver and the male organ. Foot a foliaceous swimmer, having two lobes, the larger widening toward the extremity, and having a lateral sucker; the smaller lengthened anteriorly, extremely thin, jagged, and bearing the operculum on its under surface. Operculum horny.

The animal much resembles that of *Atlanta*, but differs in the form of the greater lobe, the position of the sucker, and the foliaceous appendage to the operculated lobe of the foot, which is traversed by veins having the appearance of tendons, which admit of the contraction of the organ. The proboscidiiform head is more swelled towards

the centre and base, and is broader than that of *Atlanta*: the tentacula are much smaller in proportion, and the centre of the spire is occupied by the dark brown mass of the liver: whereas in *Atlanta* this part appears to be filled with a series of forms resembling ova.

The shell differs principally in having whorls closely convolute, and partly enveloping the preceding ones; while in *Atlanta*, the whorls are loosely rolled\*, and the keel (which stops short at half the circumference in *Oxygyrus*) runs on between the whorls, and connects them together. In *Atlanta* the form of the mouth, which is entire, is elliptical, with an operculum of the same shape. In *Oxygyrus* the operculum is cordiform, corresponding to the form of the aperture, and in the only species yet discovered the shell is cartilaginous, while in *Atlanta* it is testaceous. This cartilaginous shell shrinks in drying, particularly the last whorl, the centre ones appearing to be of firmer consistence. In the species described, the shell is tumid, herein widely differing from the very compressed and flattened form of *Atlanta*.

Having sketched the animals of both shells while alive, under the lens, I can speak confidently regarding their affinity, which I had noted as probable, before I had an opportunity of examining the animal of the new genus.

Like *Atlanta*, the animal moves by sudden starts, quickly agitating its swimmer. It occasionally adhered to the bottom of the vessels in which it was placed, by its sucker, which then was flattened out to the surface to which it adhered.

We first met with the shell in the Southern Atlantic from S. Lat.  $15^{\circ}$  to  $20^{\circ} 30'$  and between W. Long.  $29^{\circ} 30'$  and  $23^{\circ} 30'$ . In the Southern Indian Ocean, we again met with it in  $29^{\circ} 30'$  S. Lat. and  $32^{\circ}$  E. Long., and it continued to occur at intervals up the Bay of Bengal to N. Lat.  $17^{\circ}$  and E. Long.  $87^{\circ}$ . It has therefore a very extensive range of sea and climate, and I am surprised that the French naturalists, who have of late swept the seas with so much zeal and success, have not met with it.

The animal comes up to the surface, with the *Pteropodous mollusca* and the *Firolidæ*, shortly after sunset, and may then be taken with the tow-net. With this apparatus I was extremely successful, during my late voyage from England, in procuring Pelagian shells, as the following catalogue will shew. My example being followed by two other passengers, we allowed but few objects on our route to escape us. I was also enabled, with a throwing-net, to capture such large shells as were visible from the poop, and which would have otherwise

\* NOTE.—*Oxygyrus* bears to *Atlanta* nearly the same relation that *Orbulites* does to *Ammonites*.

passed at too great a distance from the vessel to have fallen into the line of the tow-nets.

*Gasteropoda.*

1. *Janthina*, 6 species.
2. *Litiopa* (RANG.), 2 species.
- 3, 4. Two new genera, which I have not yet sufficiently examined.
5. *Carinaria*, 2 new species.
6. *Atlanta* (LESUEUR), 2 species.
7. *Oxygyrus*, mihi, 1 species.

*Pteropoda.*

8. *Limacina*. A single new reversed species, being the second discovered of the genus, hitherto confined to Arctic regions. I took an unique specimen in Lat. 40° S. Long. 33° E.

9. *Hyalæa*, 9 species.
10. *Cleodora*, 3 species.
11. A new perforate genus allied to *Cleodora* (*rarissimum*).
12. *Cresis*, (RANG, Manuel des Mollusques, page 115,) 3 species.
12. *Cuvieria*, (RANG.) 2 species. Our capture of two perfect specimens of this shell will enable me to correct the character given by RANG, from imperfect specimens. Out of the number caught by us we took only two perfect specimens, one of which I unfortunately broke, its excessive fragility reducing it to the state in which RANG has described it.

*Cephalopoda.*

14. *Argonauta*, 1 new species.
15. *Spirula Peronii*.

*Cirrhipedes.*

16. *Anatifera*, 2 species.

*Iacertæ Sedis.*

17. *Campylonaus* (mihi). A new genus, which I am unable to assign to any known class or order, from the three specimens taken by Lieut. McNAIR being defective of the animal. I can only conjecture that it may belong to the *Firolidæ*, and that it is probably related to *Carinaria*.

It only remains to give the specific character of *Oxygyrus*.

*O. inflatus*. Testa tumida, anfractibus transversè conjertim striolatis; suturis profundè excavatis.

Shell tumid, whorls transversely and closely striate; sutures deeply cut.

Calcutta, Feb. 21st, 1835.

VIII.—*Proceedings of the Asiatic Society.*

*Wednesday Evening the 11th March, 1835.*

The Rev. W. H. MILL, D. D. Vice-President, in the chair.

Captain T. M. TAYLOR, proposed at the last meeting, was duly elected a member of the Society.

The Chevalier General VENTURA and M. A. COURT, proposed as honorary members at the last meeting, were unanimously elected.

The Honorable GEORGE TURNOUR, of the Ceylon civil service, was proposed as an honorary member, by Dr. MILL, seconded by Mr. J. PRINSEP, and referred to the committee of papers.

The Secretary announced that two vacancies had been caused in the committee of papers by the departure of Captain TROYER and Dr. TYTLER, for Europe; upon which a ballot was held, and Mr. H. T. PRINSEP and Captain PEMBERTON, were elected by the majority of votes.

Read a letter from C. K. ROBISON, Esq. intimating, with reluctance, that he was compelled to withdraw from the Society.

Read a letter from Dr. J. T. PEARSON, stating that in consequence of his residing at such a distance from the museum of the Society, he could not any longer perform the duties of Curator, and therefore tendering his resignation of the situation, and proposing that a person be sent for in that capacity from England.

*Resolved*, that the thanks of the Society be presented to Dr. PEARSON, for his past services, and that the subject of his present recommendation be referred to the committee of papers.

Read a letter from Mr. C. TREBECK, on the subject of his brother's and Mr. MOORCROFT's manuscripts. The Secretary also had received a letter from Mr. W. FRASER of Delhi, offering to place such papers as were still with him in the hands of the Society, on condition of their being published for the sole benefit of the author's family.

Referred to the committee of papers.

Read a letter from Monsieur E. BURNOUF, Secretary to the Asiatic Society of Paris, acknowledging his election as an honorary member, and noticing the receipt of the 17th volume of the Asiatic Researches and 1st volume of the Journal of the Asiatic Society.

*Library.*

Read a letter from Captain H. HARKNESS, Secretary to the Royal Asiatic Society, forwarding the 3rd part of the 3rd volume of the Society's Transactions, also the first part of the New Quarterly Journal.

Read a letter from H. T. PRINSEP, Esq. Secretary to the Government of India, General Department, forwarding on behalf of the Right Honorable the Governor of Bengal, a copy of the 1st volume of Colonel BEAUFOY's Nautical and Hydraulic experiments, with numerous Scientific miscellanies.

Read a letter from Baron SILVESTRE DE SACY, presenting his recent publications as follows :

De L'ASIE, ou Considerations, Religieuses, Philosophiques, et Litteraires, sur L'ASIE, 4 vols.

Extrait Du Sefer Tahkemoni.

Notice sur La Vie et les Ouvrages De M. CHAMPOLLION LE JEUNE.

Discours pronoucé à la Sèance Generale de La Societé Asiatique du 29 Avril, 1833.

*Alfiyya* ou La quintessence de la Grammaire Arabe, ouvrage de DJEMA'L-ED-DI'N MOHAMMED.

The following books were presented on the part of the Royal College of Surgeons of London, with a letter from Sir ANTHONY CARLISLE.

Catalogue of the Library of the College of Surgeons.

Descriptive and illustrated catalogue of the physiological series of comparative anatomy contained in the museum, vol. 1st.

Catalogue of the Hunterian collection in the museum, in 5 parts.

Memoir on the Pearly Nautilus, with illustrations of its external form and internal structure, drawn up by RICHARD OWEN, M. R. College of Surgeons. Alleged discovery of the use of the Spleen and Thyroid gland, by Sir A. CARLISLE.

The following works were also presented.

Report of the third meeting of the British Association for the advancement of science—*by the Association.*

Madras Journal of Literature and Science, Nos. 5 and 6—*by the Madras Literary Society.*

The Indian Journal of Medical Science, Nos. 14 and 15—*by the Editors.*

Journal Asiatique, No. 78, September, 1834—*by the Asiatic Society of Paris.*

Ciceronis Opera Omnia, printed in the year 1596—*by Dr. J. Tytler.*

A valuable Aldine edition of Herodotus, printed in 1513—*by Ditto.*

The following works, published by the Oriental Translation Fund, were received from the London Committee.

Tohfut-ul-Majahideen, an Arabic history, translated by Lieut. M. J. ROWLANDSON.

An essay on the Architecture of the Hindus, with 48 plates, by RA'M RA'Z, native judge, Bangalore.

Travels of Macarius, part 5, translated by C. F. BELFOUR.

Travels of Evliya Effendi, in Europe, Asia and Africa, in the 17th century, translated from the Turkish—*by R. J. VON HAMMER.*

Description of the Burmese Empire from the MS. of father SANGERMANO, translated by W. TANDY, D. D.

Alfiya, an Arabic Grammar, by the Baron SILVESTRE DE SACY.

Fifth general report of the proceedings of the Oriental Translation Fund, 1834.

The following books were received from the booksellers.

Lardner's Cabinet Cyclopedia, Middle Ages, Vol. 4th.

————— British Admirals, Vol. 3rd.

Illustrations of Indian Zoology, Parts 15, 16, 17, and 18, (two in one.)

Illustrations of the Botany, and Natural History of the Himalayan Mountains, &c. Part 4th. By F. J. ROYLE, Esq. F. L. S. and G. S., M. R. A. S.

The Secretary reported the completion of the Index of the first eighteen volumes of the Asiatic Researches, and submitted a Bill from the Military Orphan Press, for Rupees 1210, being the expence incurred in its publication, which was ordered to be discharged, and thanks were voted.

*Museum and Physical.*

The Secretary announced that he had been requested by Lieut.-Colonel BURNLEY to beg the Society's acceptance of the collection of fossil bones from Ava, exhibited at the meeting of the 6th August, 1834.

The best thanks of the Society were voted for this splendid and costly present.

A note was read from Mr. J. H. STOCQUELER, presenting for the Museum a spear, knife, and mallet, used by the nations of King George's Sound.

These very primitive implements are made by cementing sharp splinters of flint upon the side or end of a stick with a kind of tough pitch. The mallet, formed of two rounded stones attached in the same manner, is used for indenting the gum tree, up which the aborigines climb in search of the opossum, and also for killing the animal:—the pointed end of the knife for skinning him.

Three specimens of the *navicella tessellata* (LAMARCK), found adhering to piles in the Húglí river, Fort William, were presented by W. H. BENSON, Esq.

Read, extracts of a letter from Lieut. WM. FOLEY, dated 6th January, forwarding some specimens of Sulphuret of Antimony, occurring in vast quantities in a hill near Moulmein.

Extracts of various letters from Captain CAUTLEY and Dr. FALCONER, describing the progress of their explorations in the Siwálik hills.

The rhinoceros, hitherto a desideratum in their fossil cabinet, had at length been recognized by seven veritable molar teeth. The Museum at Seharanpur is now so richly stored with subjects, that it will be better to await a full account of it from the meritorious founders of it themselves, than to publish the detached notices we have hitherto ventured to glean from their private correspondence: but we could not refrain from announcing to the world the rapid progress made at the onset, in this remote theatre of discovery.

Some vegetable stalactitic kankar and fossil shells of the Gawelgiri hills were presented with notes by Dr. MALCOLMSON of Madras.

*Antiquities and Papers Communicated.*

A letter from Dr. G. E. RANKIN, dated Riewara 7th February, 1835, was read, forwarding a facsimile of an inscription from the ruins of a Hindu temple on the hill of Harsh in Shekawati, about 40 miles north of Sambhur, and seven or eight south of Seekur.

A letter from Lieut. NEWBOLD, communicating a Memoir on the History and Government of Naning.

Also a sketch of the four Menang Cabowe States in the interior of the Malayan Peninsula, by the same author.

The following valuable papers and documents were submitted and presented by Lieut.-Colonel H. BURNLEY, resident in Ava.

A chronological account of the kings of Siam, obtained from the rightful heir to the Siamese throne, now residing as a druggist at Ava.

Translation of an epitome of the kings of Prome, Pagan, and Ava, drawn up by order of the king of Ava for Colonel BURNLEY.

Translation of the official registers of the population of the Burmese Empire made in 1783, and revised under the present king in 1826.

The whole population of Burma proper from these documents, exclusive of the "wild tribes," only amounts to 1,831,467 souls.

Translation with critical explanation of the proclamation made every month in the city of Ava, as noticed by CRAWFURD, enjoining the inhabitants to observe certain moral precepts.

Colonel BURNEY having kindly undertaken to look over these papers, and prepare them for the press, they were re-delivered into his charge for the present.

A description of the ruins of an extensive ancient town called Pora in Assam, was communicated by Captain WESTMACOTT, Assistant to the Political Agent on the N. E. Frontier.

[This will be published in our next.]

The following particulars of some singular ancient monuments in the neighbourhood of Hyderabad, were communicated in a letter to the Secretary from Dr. S. G. MALCOLMSON of Madras.

"Your remarks on the liquid from the Manikyála tope induce me to think, that a notice of the singular tombs near Hyderabad may be interesting. There is an account of them in a volume published by the Madras Society some years ago from the pen of Captain YOUNG. They differ in appearance very much from those figured by Mr. BABINGTON, and also from some in Mysore, mentioned in Colonel WELCH's book; but are exceedingly like the smaller, and ruder Druids' circles, and in some no square coffin or "kiot" is found, their place being supplied by the small stones and soil, which contains much clay, and some iron and lime, and becomes naturally very hard when pressed together. In none did any mortar seem to be used. Captain YOUNG found bones and even skulls. I was not so fortunate, although very anxious for a skull, being in hopes of ascertaining that they had been monuments of the same people, whose remains are found in some parts of Russia. Some of the graves had been opened before, and I believe that in these skulls had been found. In those I opened, there were many of the earthen vessels of very different shapes, and the more perfect ones contained a peculiar soft almost unctuous looking earth, in thin layers of a white and dark-gray color. In some places there seemed to be a white powder like ashes interposed between the dusky layers."

The contents of two of the jars were sent up as first extracted; but they seemed to contain little or no animal matter:—the earth from its stratification in their horizontal laminæ had evidently been deposited by gradual infiltration during a long course of rainy seasons, until it had completely filled the vessels. Dr. M.'s sketches of the jars are engraved at the foot of Plate VII. "No. 1 was found inserted into one of the long jars, and probably answered as a cover. The mouths of it and of No. 5 had a more graceful curve, and in this respect had a distant resemblance to some ancient vases."

Adverting to Mr. HODGSON's opinion that Buddhism had preserved an identity of character in all times and places, Dr. MALCOLMSON writes:

"In May, 1828, I passed through a town called Bandoek, 18 miles from Chandá, on the road to Nágpur, and finding many Hindu ruins well sculptured on the sandstone of the district, I spent the day in examining

them. To the greater number I could give names, but one insignificant head, much injured, struck me as having the composed sleep-like appearance of the Buddhist sculptures. This induced me to make some inquiries, and I soon heard that in a hill two miles off there was a cavern, and on reaching it I found an excavation consisting of three parts, the principal of which penetrated 20 paces into the rock, but was narrow in proportion to its length. In a small apartment at its extremity was a sitting Buddha figure, six feet high. The passage was arched with several recesses on each side, and near the entrance, the two other portions of the temple extended 10 paces into the rock, like the arms of a cross, and were in every respect similar. A rude outline of Buddha could be traced on the rock, where it was smoothed away on each side of the mouth of the cavern. There was a figure of Durga inside the temple, and one at the door, on separate pieces of stone, and of modern appearance. The small head which first attracted my attention was found amongst the rubbish of a ruined temple, which some Jain Banians in the town were engaged in removing in search of their images, and amongst these I found several of the naked figures, (four or five feet high,) with curly hair, and differing amongst themselves, usually found in Jain temples, and also representations of Buddha in the sitting posture, with the hands laid over each other, the palms uppermost, the hair curly, the forehead wide, with little figures kneeling before him, and others fawning him; amongst them was a figure of Durga. The Jains have also a modern temple there."

Adverting also to the same subject, Dr. R. TYTLER mentioned to the meeting, that he had remarked while in Scotland, the close resemblance of "the little steeple at Brechin" to a Buddhist monument. The same remark has frequently been made of the Round Towers of Ireland. He had written a note on the subject in the *Freemason's Review*, for October, 1834, which he presented.

"The little steeple of Brechin consists of a beautiful slender cylinder or hollow pillar, about 80 feet high, with 60 rows of smooth stones, cemented by mortar, and is surmounted with a cone of masonry of a subsequent period of architecture. On the western front are sculptured figures of an *elephant*, having the feet of a lion, and a *horse*: each 11 inches long and 8 broad. The combination of the elephant and lion is observable on the temples of Java, and in many statues of Buddha elsewhere."

A note from B. H. HEDGSON, Esq. Resident at Nèpal, forwarded drawings of the Láths or columns at Bakra in Tirhut, at Araháj in Sarau, and of the mound at Kesriah, in the former district; with exact *fac-similes* of the inscribed characters on the two pillars.

Lieutenant A. CUNNINGHAM, Engineers, forwarded the facsimile of an inscription on a stone slab extracted by him from the Buddhist monument at Sarnáth near Benares.

A note by the Secretary on the same subject, and on the inscribed pedestal of the Buddha image, presented at the last meeting, was read.

[See the foregoing pages of the present number.]

Upon the close of the regular business of the evening, Dr. R. TYTLER exhibited to the meeting several interesting experiments in Electro-mag-

netism, concluding with the *experimentum crucis* of Dr. FARADAY, by which the identity of the galvanic and magnetic fluids, is considered to be finally established. The magnetic spark was produced continuously by SAXTON'S rotating apparatus, of which a description will be found in the *Arcana of Science* for 1834.

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*Wednesday Evening, the 1st April, 1835.*

The Honorable Sir EDWARD RYAN, President, in the chair.

The Honorable GEORGE TURNOUR, of the Ceylon Civil Service, proposed as an Honorary Member at the last Meeting, was unanimously elected.

Captain M. G. WHITE, Sen. Asst. Commissary, Arrakan, proposed by Mr. W. H. MACNAGHTEN, seconded by the Honorable Colonel MORRISON.

Professor LEA and Dr. HARLAN, of Philadelphia, were proposed as Honorary Members by Mr. J. PRINSEP, seconded by Mr. MACNAGHTEN.

Read a note from JOHN LACKERSTEEN, Esq. enclosing a letter from the Right Reverend JEAN LOUIS, Bishop of Isauropolis, and Vicar-Apostolic of Cochinchina, Camboge, and Ciampa.

The Reverend gentleman's letter, in French, stated, that he had in his possession a manuscript Dictionary, Cochinchinese and Latin, originally prepared more than 40 years ago by his predecessor, Monseigneur PIGNEAUX, Bishop of Adran, and revised and much augmented by himself during 14 years' residence in the country. He had also nearly completed a second volume of the same materials reversed, or Latiu-Cochinchinese, and he had prepared a grammar of the same language in Latin, adopting for all three works the Roman alphabet, in lieu of the complex hieroglyphic characters of the country, which somewhat resemble those of China, but have different powers.

These three volumes he tendered to the Asiatic Society, requesting to be informed of its intentions in regard to their publication. If it were possible to print them at Penang, where the Bishop and a few of his Cochinchinese converts have sought refuge from the severe persecutions to which the Mission has been subjected by the present king (who owes his seat on the throne to this very mission), he would there undertake the revision of the proofs: or if it should be necessary, he would proceed to Calcutta for the purpose of superintending the publication under the auspices of the Society. In the latter case, he must look to the Society for pecuniary aid, as all had been lost to the mission, through the cruel treatment it had lately endured.

*Resolved*, that this important communication be submitted to the Committee of Papers, who will make the requisite inquiries regarding the work, and report on the expediency, and on the means, of effecting its publication.

#### *Library.*

Mr. C. E. TREVELYAN, presented, on the part of the author, a copy of the *Jāme Bahādur-khānī*, an epitome (4to, 600 pp.) of European sciences in the Persian language, compiled by KHAN BAHADUR, son of Rāja MITRA JITA of Patna, including treatises on astronomy, optics, and mathematics, and copious tables of logarithms for natural numbers, sines, tangents, &c. Also, a small octavo volume on Perspective (*Ilm-ul Manāzarat*), in the Persian language, by the same author.

Mr. H. PIDDINGTON presented a copy of the Transactions of the Geological Society of Pennsylvania, for August, 1834.

Meteorological Registers, for Jan. and Feb. 1835—by the Surveyor General.

From the Book-sellers.

LARDNER'S Cabinet Cyclopaedia, SWAINSON'S Natural History.

*Museum and Antiquities.*

Read a letter from Mr. W. DAWES, of the Delhi Canal Establishment, forwarding at the request of Lieut. KIRTOE, a drawing of an image found about 10 years ago near the Herrod Ghat, on the western branch of the Jumna, and offering, if desired, to send the image itself to the museum. *Resolved*, that the offer be accepted with thanks.

A notice by B. H. HODGSON, Esq. of an inscription in Tibetan and Lantsa (correctly Ranza) characters, on a temple on the confines of Tibet, was submitted.

[This will be printed in the next number of the Journal.]

*Physical.*

The President brought to the notice of the Society Dr. PEARSON'S suggestion regarding the Curatorship. He had conversed with the Baron HUGEL (who was present at the Meeting) on the subject of procuring a competent person from Europe, and was assured that a salary of 150 or 200 rupees per mensem would be ample. The funds were in a state to warrant the measure. He therefore proposed, and it was resolved, that a Special Committee, consisting of the Honorable Col. MORRISON, Mr. W. H. MACNAGHTEN, Dr. PEARSON, with the President and Secretary, be formed for the purpose of carrying the measure into effect, limiting the vote of salary to 200 rupees, and empowering the Committee to arrange other incidental expences with reference to the present means of the Society.

Read a letter from Serjeant DEAN, dated Delhi, the 20th March, acknowledging the receipt of the remittance of Rupees 100, on account of the expences incurred by him in transmitting fossil bones and other specimens, and announcing further contributions from himself and friends.

A letter from Lieut. N. VICARY, forwarding a small box of fossil bones from Julalpur, on the banks of the Betwa river; also some fossils of the Alligator, from between Chunar and Mirzápur on the Ganges; and a specimen of limestone from Landour, with impressions or erosions by water similar to those alluded to by Dr. McCLELLAND.

Some of the bones from the Betwa, the metacarpus and femur of an ox, were lined with beautiful crystals of dog-tooth spar, which was also remarked lining the cavities of the kankar conglomerate forming the matrix in which they were imbedded.

Mr. BENSON, who was acquainted with this fossil site, stated his opinion that they were of modern fossilization, being found abundantly in the bed of the Betwa river.

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Mr. H. B. BENSON exhibited to the members present, the collection of shells made by him on his recent return to India, comprising many new genera and species.

[Notices of this collection will be given in the Journal.]

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of March, 1835.

| Day of the Month. | Observations at 10 A. M.  |                      |                    |               |                         |               |                           |                      |                 |                    | Observations at 4 P. M. |            |               |         |                   | Register Thermometer Extremes. |              |               | Wind.    |          | Weather.  |            |          |                          |    |
|-------------------|---------------------------|----------------------|--------------------|---------------|-------------------------|---------------|---------------------------|----------------------|-----------------|--------------------|-------------------------|------------|---------------|---------|-------------------|--------------------------------|--------------|---------------|----------|----------|-----------|------------|----------|--------------------------|----|
|                   | Standard Barometer at 32° | Wet Baro. meter, do. | Aqs. Tem. deduced. | Ther. in air. | Diff. M. or T. Depress. | Leslie's dif. | Hygrom. Hair Thermometer. | Standard Bar. at 32° | Wet Bar. at do. | Aqs. Tem. deduced. | Thermometer in air.     | Different. | Leslie's dif. | Hygrom. | Hair Thermometer. | Cold on roof.                  | Heat in sun. | Rain, inches. | Morning. | 10 A. M. | 4 P. M.   | Morning.   | 10 A. M. | Evening.                 |    |
| 1                 | 29.830                    | 8.940                | 0.871              | 77.5          | ...                     | 4.2           | 96                        | 27.10                | 677             | 1.033              | 80.3                    | 10.2       | ...           | ...     | 62                | 66.0                           | ...          | ...           | s.       | sw.      | se.       | clear.     | clear.   | hazy.                    |    |
| 2                 | 879                       | 863                  | 965                | 79.3          | ...                     | 4.2           | 97                        | 732                  | 695             | 1.037              | 82.5                    | 8.6        | ...           | ...     | 36                | 64.0                           | ...          | ...           | s.       | sw.      | se.       | do         | do       | clear.                   |    |
| 3                 | 871                       | 866                  | 965                | 78.5          | ...                     | 5.1           | 95                        | 782                  | 635             | 1.007              | 81.3                    | 16.4       | ...           | ...     | 82                | 67.2                           | ...          | ...           | sw.      | sw.      | se.       | hazy.      | do       | fine.                    |    |
| 4                 | 864                       | 860                  | 974                | 78.9          | ...                     | 5.8           | 93                        | 652                  | 766             | 1.065              | 81.3                    | 10.4       | ...           | ...     | 82                | 65.7                           | ...          | 0.15          | w.       | sw.      | se.       | clear.     | do       | clear.                   |    |
| 5                 | 832                       | 861                  | 1,007              | 77.5          | ...                     | 4.4           | 96                        | 893                  | 749             | 1.054              | 82.1                    | 9.8        | ...           | ...     | 52                | 70.3                           | ...          | ...           | sw.      | nw.      | nw.       | cum.       | do       | clear.                   |    |
| 6                 | 843                       | 852                  | 951                | 78.3          | 6.3                     | 8.7           | 83                        | 819                  | 662             | 1.157              | 83.6                    | 16.6       | ...           | ...     | 52                | 70.3                           | ...          | ...           | sw.      | sw.      | sw.       | th. fog.   | do       | clear.                   |    |
| 7                 | 834                       | 864                  | 970                | 78.7          | 2.7                     | 3.2           | 89                        | 790                  | 582             | 1.228              | 86.3                    | 11.3       | ...           | ...     | 61                | 64.5                           | ...          | ...           | sw.      | sw.      | sw.       | do         | do       | do                       |    |
| 8                 | 880                       | 877                  | 1,063              | 81.1          | ...                     | ...           | 95                        | 780                  | 600             | 1.180              | 85.1                    | ...        | ...           | ...     | 85                | 65.4                           | ...          | ...           | n.       | nw.      | nw.       | cl.        | do       | do                       |    |
| 9                 | 046                       | 954                  | 062                | 79.9          | ...                     | ...           | 86                        | 869                  | 793             | 1.081              | 82.3                    | 12.2       | ...           | ...     | 78                | 66.1                           | ...          | ...           | nw.      | o.       | n.        | cum.       | do       | do                       |    |
| 10                | 007                       | 907                  | 920                | 78.7          | 10.0                    | 8.5           | 84                        | 878                  | 760             | 1.118              | 81.6                    | 13.6       | ...           | ...     | 73                | 66.4                           | ...          | ...           | o.       | sw.      | nw.       | clear.     | do       | cumuli.                  |    |
| 11                | 998                       | 931                  | 967                | 79.2          | 9.3                     | 8.3           | 88                        | 870                  | 756             | 1.114              | 82.9                    | 12.7       | ...           | ...     | 66                | 66.2                           | ...          | ...           | o.       | sw.      | nw.       | do         | do       | do                       |    |
| 12                | 994                       | 919                  | 985                | 80.9          | 10.7                    | 9.8           | 84                        | 830                  | 689             | 1.131              | 84.5                    | 13.2       | ...           | ...     | 70                | 66.1                           | ...          | ...           | o.       | sw.      | sw.       | cloudy.    | do       | do                       |    |
| 13                | 968                       | 904                  | 904                | 80.7          | 6.4                     | 4.6           | 96                        | 842                  | 859             | 0.963              | 79.9                    | 8.7        | ...           | ...     | 46                | 67.8                           | ...          | ...           | o.       | sw.      | nw.       | overcast.  | do       | do                       |    |
| 14                | 950                       | 900                  | 950                | 80.5          | 6.2                     | 4.4           | 96                        | 836                  | 824             | 1.012              | 80.6                    | 8.2        | ...           | ...     | 48                | 64.4                           | ...          | ...           | o.       | sw.      | nw.       | do         | do       | hazy.                    |    |
| 15                | 945                       | 902                  | 983                | 77.2          | 5.9                     | 4.0           | 97                        | 820                  | 890             | 0.980              | 78.1                    | 5.3        | ...           | ...     | 95                | 65.5                           | ...          | 0.70          | e.       | e.       | w.        | hard rain. | do       | overcast.                |    |
| 16                | 906                       | 900                  | 950                | 76.2          | 4.7                     | 3.4           | 98                        | 767                  | 827             | 0.960              | 78.8                    | 5.2        | ...           | ...     | 68                | 66.5                           | ...          | ...           | o.       | sw.      | w.        | overcast.  | do       | cloudy.                  |    |
| 17                | 906                       | 872                  | 934                | 77.7          | 3.6                     | 2.5           | 99                        | 789                  | 789             | 1.000              | 81.3                    | 8.1        | ...           | ...     | 65                | 66.5                           | ...          | ...           | o.       | sw.      | s.        | cum.       | do       | overcast.                |    |
| 18                | 858                       | 826                  | 832                | 78.1          | 3.4                     | 2.4           | 99                        | 834                  | 722             | 1.112              | 82.6                    | 7.5        | ...           | ...     | 88                | 70.2                           | ...          | ...           | o.       | s.       | sw.       | th. fog.   | do       | clearing.                |    |
| 19                | 869                       | 860                  | 1,009              | 79.9          | 5.1                     | 4.0           | 96                        | 792                  | 569             | 1.223              | 84.8                    | 13.7       | ...           | ...     | 73                | 71.2                           | ...          | ...           | o.       | sw.      | s.        | do         | do       | clear.                   |    |
| 20                | 819                       | 796                  | 1,023              | 80.7          | 4.9                     | 3.4           | 95                        | 682                  | 476             | 1.296              | 86.9                    | 12.0       | ...           | ...     | 79                | 71.4                           | ...          | ...           | o.       | sw.      | sw.       | scud.      | do       | clear.                   |    |
| 21                | 786                       | 800                  | 1,046              | 82.5          | 5.1                     | 4.3           | 95                        | 668                  | 362             | 1.266              | 87.9                    | 10.9       | ...           | ...     | 83                | 72.3                           | ...          | ...           | o.       | sw.      | w.        | do         | do       | do                       |    |
| 22                | 858                       | 800                  | 1,058              | 82.5          | 13.4                    | 12.7          | 75                        | 747                  | 590             | 1.157              | 84.7                    | 16.1       | ...           | ...     | 67                | 69.7                           | ...          | ...           | o.       | sw.      | w.        | do         | do       | do                       |    |
| 23                | 905                       | 896                  | 1,069              | 80.2          | 17.6                    | 16.0          | 66                        | 762                  | 598             | 1.164              | 84.9                    | 19.2       | ...           | ...     | 57                | 67.1                           | ...          | ...           | o.       | sw.      | nw.       | do         | do       | do                       |    |
| 24                | 906                       | 908                  | 908                | 79.2          | 16.0                    | 15.3          | 68                        | 776                  | 698             | 1.039              | 84.2                    | 19.3       | ...           | ...     | 56                | 61.0                           | ...          | ...           | o.       | sw.      | nw.       | do         | do       | do                       |    |
| 25                | 876                       | 896                  | 908                | 79.7          | 16.2                    | 14.6          | 70                        | 744                  | 580             | 1.154              | 85.7                    | 20.4       | ...           | ...     | 57                | 62.7                           | ...          | ...           | o.       | sw.      | nw.       | do         | do       | do                       |    |
| 26                | 858                       | 882                  | 976                | 73.6          | 12.9                    | 12.6          | 75                        | 740                  | 561             | 1.179              | 85.6                    | 18.5       | ...           | ...     | 56                | 62.4                           | ...          | ...           | o.       | sw.      | sw.       | do         | do       | do                       |    |
| 27                | 820                       | 880                  | 1,040              | 81.1          | 13.0                    | 12.6          | 79                        | 806                  | 570             | 1.236              | 87.7                    | 18.5       | ...           | ...     | 56                | 66.0                           | ...          | ...           | o.       | sw.      | sw.       | do         | do       | do                       |    |
| 28                | 829                       | 880                  | 1,049              | 82.5          | 10.6                    | 11.0          | 81                        | 810                  | 576             | 1.234              | 87.9                    | 20.3       | ...           | ...     | 56                | 71.8                           | ...          | ...           | o.       | sw.      | sw.       | dew.       | do       | do                       |    |
| 29                | ...                       | ...                  | ...                | ...           | ...                     | ...           | ...                       | ...                  | ...             | ...                | ...                     | ...        | ...           | ...     | ...               | 72.0                           | ...          | ...           | ...      | o.       | sw.       | sw.        | th fog.  | do                       | do |
| 30                | 998                       | 805                  | 1,112              | 82.0          | 5.9                     | 5.0           | 95                        | 830                  | 584             | 1.246              | 86.9                    | 12.2       | ...           | ...     | ...               | 79                             | 70.5         | ...           | ...      | o.       | sw.       | sw.        | cum.     | do                       | do |
| 31                | 999                       | 880                  | 1,110              | 83.7          | 0.7                     | 7.4           | 90                        | 888                  | 616             | 1.272              | 86.3                    | 16.6       | ...           | ...     | 62                | 71.3                           | ...          | ...           | o.       | nw.      | nw.       | do         | do       | do                       |    |
| Mean              | 829.21                    | 940.0                | 995                | 79.8          | 8.3                     | 7.2           | 89                        | 795                  | 671             | 1.194              | 83.6                    | 13.0       | ...           | ...     | 74                | 67.4                           | ...          | 0.65          | ...      | ...      | variable. | ...        | ...      | generally clear and dry. |    |

The instruments the same and situated as usual.



