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JOURNAL
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ART. 1.—*Notes on the Mahrah Tribe of Southern Arabia, with a Vocabulary of their language, to which are appended additional Observations on the Gara Tribe.* By Assistant Surgeon H. J. CARTER, Bombay Establishment.

In presenting to the Society this vocabulary of the Mahrah dialect, I regret that I have so little information to add to it, concerning the manners and habits of the people by whom it is spoken.

The Mahrah tribe (مهراة), descended from the ancient Hamyari of Hadramaut, occupy an extent of country exceeding that of any other tribe in the southeastern part of Arabia. The limits of their coast are generally allowed to be the opening of the great Wadi Masilah, on the S. W, in 51° 13' E. Long. and the town of Damköt (دمقوت), in the bay of Al Kamar, on the N. E, in 52° 47' E. Long., giving them a coast-line of about 135 miles; thus, while we have it in our power accurately to determine their maritime boundary, we know little or nothing of the extent of their country inland, though we may justly infer that the tribe is spread over an immense area, for, if we talk of entering Hadramaut by Makalla, the people of that place tell us we shall be assailed by the

Mahrah tribes on our way, and if we ask the inhabitants of Marbât, three hundred and sixty miles north-east of Makalla, what inland tribe comes next to the Beni Gara, their answer again is, the "Mahrah," while the Mahrahs themselves affirm that the divisions of their tribe extend to the confines of Hadramaut.

Like the other great tribes, they have their divisions, their subdivisions, and their families or *bâits* (بيت); but being so numerous and spread over such a vast extent of country, they are as much at war with each other, as if each division and subdivision were an independent tribe of itself.

In stature the Mahrahs are generally undersized, and when compared with their eastern neighbours, the Beni Gara, may almost be considered diminutive. In speaking however of their characteristic features, it should be understood that my observations are entirely confined to those who inhabit the southeastern borders of their territory. They are by no means a handsome race, for their features are for the most part short and irregular, their eyes small, sunken, black, and piercing, with a cunning and very frequently a sinister expression of countenance. Their dress is the same as that of the Garas, and likewise their arms, excepting that the double pointed stick is not commonly used among them. In their mode of salutation they touch each other's fingers in the manner of the Garas, but instead of kissing them afterwards, they bring their noses in contact with each other, side by side, and at the same time gently, though audibly, inhale the air through their nostrils. Their mode of subsistence follows their position; those of the interior live principally on milk and flesh, with now and then dates and a little *durah*, if they can afford to purchase it. The latter is ground in a mill called a *matakanét* (مطحنة), which consists of a flat oblong slab of stone, and a kind of rolling pin, moved backwards and forwards by a single person.—While the Bedwins of the interior live principally on milk and flesh, those on the coast seldom get any thing more than fish and dates. The fish they take, either in nets, or with a hook and line; but as few can afford to purchase either boat, or nets, and as they are not in the habit of using the inflated skin or *kirbah* (قربة), mentioned by Ptolemy, and so common on the coast to the northeastward of the bay of Kuria Muria, they drop their lines from the projecting shelves of cliffs, which overhang the sea.

have seen them with their shields and swords crawling down the precipitous side of *Ras Fartak*, which looks towards the bay of Al Kamar, where the cliffs in many parts, present a scarp 1,900 feet high; and our Pilot, who was from that neighbourhood, assured me that annually, one out of seven, or certainly one out of ten, perished from a false step, while prosecuting this perilous descent to obtain their daily food. Yet such is the force of habit and example handed-down from their forefathers, and also that of necessity, (for the extreme poverty of the different tribes admits of no pretext, under that of war, for any encroachment made by their neighbours on their several territories, in quest of food for man or beast,) that the *Bait Saloam* (ملوآم), who dwell on the barren ridge of *Ras Fartak*, have no other alternative than to descend daily for this miserable support, or perish above from a want of nourishment.

The Mahrah fishermen have also another contrivance for taking large sharks, and a species of ray exceeding sometimes fourteen feet in breadth, which frequents this coast. This consists in "rigging out a *darak*" (to use a nautical phrase) from the side of a cliff, with a pulley in the end of it, over which the line plays; in this way having chosen a favorable spot for fishing, they raise up sharks from eight to ten feet long; and having divested them of their fins, salt and dry the flesh for food, and sell the former to the Nakhudas of Bagalos, who trading along this coast purchase them for the China market. I may here mention that not only among the Mahrahs, but with all the inhabitants of the southeastern coast of Arabia, *Lahm* (لحم), or the dried flesh of sharks, is the staple article of food and commerce.

The Mahrahs are miserably poor, and their plains, mountains, and valleys, with the exception of the highland of *Hattob* (حطوب) close to Damköt, are rocky, sandy, and almost barren. They call the distant land lying due north of their coast, the *Arz-al-ahkaf** (ارض الاحقاف).

Religion they have little, or none. I was informed by our Pilot that it was only here and there on the coast that you met with a man, who could say his prayers, while the Bedwins of the interior were wholly devoid of religion, having no idea of God or devil, of heaven or of hell.

The Mahrah dialect, as spoken by the Mahrahs themselves, is the softest

and sweetest language I have ever heard; indeed, they appear to be so sensible of this, that they liken their *kalam d' Mhari* (كلام ذمھاري) as they term it, to the conversation of birds (مثل كلام ال طير). In my vocabulary I shall refrain from making any philological observations on it, preferring to leave this part open to the learned Secretary, whose extensive knowledge of the subject is so unquestionable that I am sure nothing will escape his notice, which is deserving of interesting or useful remark. All therefore that remains for me to do, is merely to offer the few preliminary observations which are necessary to convey to the reader an idea of the sounds of certain letters, and the pronunciation of the words in which they are introduced, leaving the *Arabic* spelling of the words exactly as they were written for me, by Mohammed bin Hamed *Mhari*, Pilot on board the H. C. Surveying Vessel *Patinurus*, in the Bay of Al Kamar, and resident of the village of *Ahsoel* (احصويل), eight miles west of *Ras Fartak*.

ACCENTS.

Long accent (-), *short accent* (˘), *diphthong* (◌◌).

RENDERING OF VOWEL SOUND.*

<i>u</i>	as	<i>u</i>	in	<i>but</i>	<i>oo</i>	as	<i>oo</i>	in	<i>boot</i>
<i>ee</i>	as	<i>ee</i>	in	<i>sce</i>	<i>ē</i>	as	<i>ay</i>	in	<i>say</i>
<i>i</i>	as	<i>i</i>	in	<i>thin</i>	<i>é</i>	as	<i>ey</i>	in	<i>they</i>
<i>o</i>	as	<i>o</i>	in	<i>note</i>	<i>oo</i>	as	<i>ow</i>	in	<i>how</i>

¹, for the most part has not a broad sound; thus, *مهرا* with the Mahrah has almost the same sound as that of the proper name *Mary*.

ج, is generally pronounced soft; I may here remark that *صجرا* forms as good a word as can be adduced for the purpose of giving the different pro-

* The system of orthography, followed by the author in his vocabulary of the Mahrah dialect, though not that usually followed in the Journal and other oriental publications, has been left unaltered except in the body of the notes, where it has been changed for that more commonly adopted by Orientalists.—

nunciations of this consonant along the southeastern coast of Arabia. Thus, it is pronounced as in *Hebrew*, by the inhabitants south of Maskat, and about Ras Al Had; *hard*, by the people of Dofar, and the inhabitants of the coast between Makalla and Aden; and *soft*, by the Mahrahs. By the first, it is called *Sair*; by the second, *Saghar*; and by the Mahrahs, *Sajar* or rather *Zājar*. Vide ص.*

ش, has a very peculiar sound in the Mahrah dialect; it is formed by placing the tip of the tongue against the anterior part of the palate, and allowing the air to pass out of the mouth on one side or the other of it, in the manner of a lisp, following it with the sound of the letter *l*, as in شيوط *fire* pronounced *shleeote*.

ص, has the softer sound of the letter *z*, as in ما جر which is pronounced *Zājar*.

ع and غ, have their peculiar sounds, and sometimes the latter has the sound of *q* in *qui* (F) as in غيغ *man* pronounced *qaij*.

In the *English* spelling, however, of the Mahari words, I have endeavoured to give the pronunciation of the Mahari who dictated them to me, without much reference to the literal rendering of the Arabic character. This, which would be disadvantageous if the *Arabic* spelling was perfect, becomes the reverse in the present instance, where the pronunciation will frequently point out the inaccuracies of the Mahari orthography.

“*Notes on the Gara Tribe;*” continued from p. 201 *Journal* No. ix. p. 201. 1845.

Since my notes of last year were presented to the Society, I have again had an opportunity of mixing with the Gara tribe; which, while it afforded me the means of collecting a little more of their history, has enabled me to define more correctly the coast-limits of the district they occupy.

Formerly, these were stated to be the town of *Marbat* on the northeast,

* In these observations the Arabic orthography of the names of three different portions of the south eastern Arabian Coast appears to be confounded: namely the tract of country called after the now desolate fort of *Al-Shihir* (الشحر) in lat; 14 38 30 N. longitude 49 27 35; the Cape of *Shajr*, شجر between Ras Fartak and Ras Marbat; and the town and district of *Sohar*, or *Zohar* صحار on the coast of Oman.—*Editor*.

and *Ras Al Sajron* the southwest, but, since I gathered this information from the inhabitants of *Dofar*, an intercourse with the *Mahrabs* and *Garas* in the bay of *Al Kamar*, during its survey, has enabled me to fix with more accuracy the exact line or neutral ground of demarcation between the two tribes on the west; while as regards the east, I have elicited from different sources the fact, that the *Beni Gara* are the sole inhabitants of the *Sabban* mountains, which extend from *Marbat* to *Hasek*. Hence it will appear, that, instead of *Marbat* and *Ras Al Sajar* being the true limits of their coast, the village of *Hasek* will be the northeast, and, as ascertained from the united testimony of the *Mahrabs* and *Garas* in the bay of *Al Kamar*, *Ras Tharbat Alee* ظربت علي will be the southeast termination of their maritime boundary. Between *Ras Tharbat Alee* and *Damkot*, there are as many *Mahrabs* as *Garas*, therefore this interval may be considered neutral ground.

Respecting the *Tribes*, whose several districts come next the confines of the mountainous tract inhabited by the *Beni Gara*, I have not been able to obtain much satisfactory information. The *Mahrabs* come next to them in the bay of *Al Kamar*, but at *Hasek* there are remnants of several tribes, the principal of which are the *Gara* قرا, *Mahra* مهرا, *Afar* عفار, *Hassarit* حسريت, and the *Baramah* برمعه; while all the towns in *Dofar*, with the exception of *Tagah* and *Marbat*, are inhabited by the *Al Kathiri* ال كئيري, who originally came from *Hadramaut*, and are always at war with the *Beni Gara*. Next the *Garas*, inland, I am told, are the *Thoar* طور, a large branch of the *Mahrah* tribe, the *Afar*, also a large tribe, and the *Al Kathiri*; these inhabit the table land called *Nejd*, or *Nejdi* نجد و نجد ي on which the frankincense tree grows, two days inland from the shore.

The *Mahrabs* and *Garas* affirm that they are descended from the ancient *Hamyari*, and that the *Afar* and *Al Kathiri* are descended from the *Ghafiri* غافري

The following are some of the principal branches of the Gara tribe.

BENI GARA OR HAKLI.

بني قرا حكلي

Bin Kabtan.....	بن قحطن.....	Báit Kashob.....	كشوب.....
Báit Mashanee.....	ما شني.....	—Jacob.....	جبوب.....
—Ayesa (<i>Esau</i>).....	عيسا.....	—Ghajod.....	قجاود.....
—Makheir.....	مخير.....	—Said.....	سعيد.....
—Tabok.....	طبوك.....	—Témin.....	تيمن.....

Several of the Garas assured me that Gara and Koreish were synonymous,* and that the latter was their ancient appellation. But to ascertain this more satisfactorily, I took the opportunity of asking the chief Shaikh of the Garas, in the presence of an influential Saiad, with whom I was then staying, if it were from his tribe that the prophet Mohammed sprung, and what was the ancient name of his tribe? To the former he replied in the affirmative, to the latter, "the Koreish." In both instances he was uncontradicted by the Saiad. By another person, however, who was called upon in the presence of a large assembly, as an authority in matters of history, to give me some information about the neighbouring tribes, I was told that the Garas and the Koreish were *not* the same people. Here the question rests, so far as I had an opportunity of determining it, but, as the matter is not altogether devoid of interest, I relate the observations for whatever, in the hands of others, they may prove worth.

Besides Gara, they are also called Haklee, and at the present time the two terms are used synonymously, though the first is by far the most general appellative.

The *Kahtan* family or branch, is considered the head or root of the Garas, and the Shaikh of this family, the Shaikh of the Garas; Salim bin Thoorec bin Kahtan, is the name of the present Shaikh; it was this man, who in a *blood feud*, murdered Saiad Mohammed bin Ageyl, the late governor of Dofar. Standing erect, he is full six feet high, finely proportioned, with most manly and handsome features, combining, with a generous expression of countenance, all the gentleness and determination, that could be sought for in the most chivalrous character. Though the murderer of the last governor of Dofar, (under whose sage but severe discipline that district was restored from the wretchedness of the worst state of anarchy, to a condition of ease and prosperity, and whose loss, by all the tribes inhabiting Dofar and its neighbourhood, has not failed for the last fourteen years, to prove a source of the most bitter lamentation) this man, (ignorant of the crime he had committed, in the eyes of an Englishman, and satisfied of the rectitude of his conduct as a Gara Chief,) calmly asked, why the English, knowing the extreme fertility of the district of Dofar, and the wretched state of the inhabitants for want of a ruler, did not send some one to take the country, and give them the benefit of our good Government. The

* The Koreish being the tribe from which the Prophet Mohammed derived, his origin, is it not probable, that if there be any truth in this assertion, the tribe of Garas derive their appellation from having early possessed, a knowledge of letters, as the word *Kara* قرأ literally signifies one who practises reading?—*Editor.*

Kahtan family are regarded as the great fighting men of the *Gara* tribe, and it is said that five *Kahtans* are enough to put to flight the whole of the *Beni Gara*.

To shew the faithful manner in which the duties of *Rabeea* ربيع, or *Protector*, are discharged in this tribe; how a man having a *blood feud* with another party may enter with security the territory of his adversaries; and under what circumstances a *blood feud* may be established, I may mention the following act of one of the *Kahtan* family, who accompanied a friend as *Rabeea*, from the mountains behind *Dofar* to the town of *Silalah*. When arrived in *Silalah*, two of the *Rabeea's* cousins approached the man whom he was protecting, and assailed him on account of a *blood feud*, which formerly existed between them. The *Rabeea*, (now the decrepit figure, of a once tall and powerful man, and who was sitting by me, when the *Saiad*, with whom I was staying, related the story,) faithful to his pledge, and having no alternative but to slay his cousins, did so, with as many blows of his sword, while the friend whom he protected fled back to the hills, and the *Rabeea* claimed the *Saiad's* protection until a large party arrived from the mountains to guard, and conduct him back to his own clan. In this act, we observe the binding nature of the pledge,—the *Rabeea* opening a *blood feud* with another party, his own relations for the sake of faithfully discharging the duties of the office he had undertaken. Such instances of fidelity are by no means uncommon among the wild and ignorant *Bedwins*. The *blood feud*, as a matter of course, is greatly dreaded by all, for it not only immediately excites families to mortal combat, but if remaining unsettled, which is most commonly the case, entails all the misery and bloodshed connected with it on the next generation, by whom, if not satisfactorily decided, it must descend to the third and fourth, and so on, until it is either amicably arranged or entirely forgotten. Thus, with the two men murdered by the *Rabeea* above mentioned, who belonged to a distant branch of his own family, their sons are still boys, but when they arrive at manhood, they will be expected by their nearest relations to take up the *blood feud*, occasioned by the murder of their fathers, and will either kill the old *Rabeea*, or if he be dead, two of his branch of the family. A *blood feud*, such as this is, arising between two branches of the same family, is considered the worst; it is blood against blood. In the assault of the young men, when they are grown up, on the *Rabeea's* family, they themselves may be killed, or instead of only killing two of the *Rabeea's* family, they may mortally wound three; in the first instance, instead of a *blood feud*, on account of two, there will be one of four against the *Rabeea's* family, while in the second instance, a *blood feud* will still exist between the families on account of the murder of a third person,—one more than was required from the *Rabeea's* side.

The difficulties which attend a *blood feud* may be endless, and the conse-

quences are disastrous, and although they tend greatly to restrain the Bedwin from committing bloodshed, and contribute much to protect his life, yet they are too often disregarded by this "wild man," who under the influence of passion will frequently commit murder on the most trivial occasion.

Note. For Gharah غارح read Gara قرا in my "Notes on the Gharah Tribe" published in No. ix of this Journal. It is also written قرح H. J. C.

VOCABULARY OF THE MAHRAH DIALECT.

English	Arabic	Maharee	Pron: of Maharee.
Age.....	عمر.....	عامر.....	āmar
Angry.....	غضبان.....	مغتيظ.....	maghateeth
Arms Pl. (body).....	الاذرع.....	حيد وتن.....	haidotan
Army.....	عسكر.....	عسكر.....	askēr
Ant.....	نملة.....	نوميل.....	nomeel
Antimony.....	كحل ائمد.....	كا حل.....	kahil
Appetite.....	توق.....	توك.....	tōq
Anchor.....	.....	بوهرت.....	boharat
Ashes.....	رماد.....	راميد.....	rameet
Arrow.....	سهوم.....	سهوم.....	sahom
As before.....	كما اول.....	هاش هوالا.....	hash hawalee
Above.....	فوق.....	حغلا.....	haghla
Afterwards.....	بعد.....	مغورا.....	maghora
Always.....	د ايماء.....	دويم ذ اوقات.....	doem da aukat
B.			
Bad.....	شريب.....	يغموم.....	yaghmom
Bravery.....	بلاطة.....	حروبي.....	harobee
Back.....	ظهر.....	ظحر موئن.....	dhara mōthan
Bone.....	عظم.....	عظظ.....	athêth
Blood.....	دم.....	دم.....	doom
Belly.....	بطن.....	جوف.....	djof
Brother.....	اخ.....	غاك.....	ghak
Blind.....	اعمى.....	عوريت.....	awareet

Body.....	جسد.....	جماد.....	jassēd
Beard.....	لحية.....	الحيت.....	albēt
Bowels.....	مصارين.....	مشغين.....	mosghén
Bread.....	خبز.....	خابز.....	khābs
Butter.....	زبد.....	خزرات.....	khazarēt
Black.....	اسود.....	حور.....	haowar
Blue.....	كحلي.....	حور.....	haowar
Bracelet.....	ساورا قرطه.....	مناكت.....	matakēt
Book.....	كتاب.....	كتوب.....	katob
Bed (of sleep).....	سرير.....	جودري (ذاشنت).....	jodaree d ashan't
Battle (land).....	قتال.....	غورت.....	ghorāt
Barren.....	مسمال.....	هيور.....	h'oor
Brook.....	جدول.....	هذ هبوت ذنهر.....	hazabōt d'nahr
Branch.....	عصن.....	رناك.....	ratāt
Bark.....	قشرا لشجرة.....	قشירות.....	kasheeroot
Blade of grass.....	السرخ.....	رهوت.....	rahoot
Brass.....	نحاس.....	نحوس.....	nahos
Bite.....	عصه.....	صوب.....	sob
Bitterness.....	صرارة.....	صيرير.....	mareer
Blow.....	لكمة.....	الكماك.....	alkamēt
Bird.....	طير.....	عقاب.....	agāb
Bug.....	.....	كتون.....	kāton
Bridle.....	لجام.....	غيناك.....	ghāianej
Bull.....	ثور.....	ثور.....	thor
Bow.....	قوس.....	مندافات.....	mandofēt
Boat.....	سنبوق.....	سنبوق.....	sambook
Bee (honey).....	نحل.....	هانوبات.....	hanobēt
Beak (of bird).....	منقار.....	اخوه.....	akhoh
Behind.....	خلف ورا.....	منغيرا.....	mangh'ira
Below.....	تحت.....	مصا.....	amsa
Bad.....	بطل.....	يغموم.....	yaghmom
Balance.....	میزان.....	میزون.....	meezon
Brain.....	دماغ.....	دماغ.....	damagh

Bagalo.....	بغلة.....	سایت.....	sâit
Bottle.....	لوقت.....	لوقت.....	logat
Buoy.....	كوي.....	كوي.....	koeec

C.

Cow.....	بقرة.....	بقريت.....	bakarét
Cash.....	فلوس.....	درهم.....	dareeham
Cold.....	برد.....	قا صم.....	kasim
Children.....	اولاد.....	قلیان.....	galleeān
Cheek.....	حدود.....	ظجمتک.....	thajamatak
Chin.....	دقن.....	ملحوت.....	malhôt
Coffee.....	قهوت.....	قهوات.....	kâwét
Comb.....	مشط.....	مشریق.....	mashareek
City.....	مدينة.....	رحبات.....	rahabêt
Coffin.....	صندوق البيت.....	منعش ذامیوت.....	manhosh da meeoot
Conqueror.....	غالب.....	خزة.....	khäzä
Conquered.....	مغوب.....	فوصل.....	fösal
Cultivated.....	مفلوح.....	قا جيد.....	kajoed
Cloud.....	سحاب.....	عفور.....	afoor
Clouded.....	.....	عفورماکن.....	aför maikan
Camel.....	جمل.....	هیبیت.....	hêbet
Cat.....	قطه.....	اسنورت.....	assanört
Cock.....	دیک.....	دیک.....	deek
Copper.....	غاس.....	صافر.....	sūfar
Cotton.....	قطن.....	غوزل.....	ghozäl
Cocoanut tree.....	.....	میدا.....	mēda
Crooked.....	حنو.....	عواج.....	awaij
Clear (op. foul).....	را یقه.....	سوال.....	soal
Calm a (sea).....	.....	شوال.....	shoäl
Clothes.....	.....	خلواق.....	khaloq
Corn.....	قمح.....	عمال.....	amēl
Colours (to hoist).....	بیرق.....	غلی بیرق.....	ghala bériq
Creep(er) (anchor).....	.....	بروصی.....	barosec
Crying.....	.....	تبیك.....	tabeck

Cable	مسبو	masabooa
Colt	عفو	habarēt
Crab	حيشي	hêshhec
Chain	سلسلات	salsalét
Cover (book)	قرطوس	gartos

D.

Dry	يا بس	قوشا	kōshā
Dog	كلب		id
Death	موت	ميوت	meeool
Dumb	اعرج	عجم	ajam
Deaf	طرشه	سقيت	sakeet
Day	يوم	نهور	nahoor
Dawn	فجر	فاجر	fējar
Defeat	هزيمة	هبوذفرعم	habo da faram
Deep	عميق	غازر	ghazar
Dark	مظلم	كتوي	katéwec
Donkey	حمار	حبر	hêir
Duck	وردك	مقوقوات	makokwat
Dove	حمامة	عيثار	úthar
Date	تمر	تومر	tōmar
Disease	مرض	مريض حمول الح	mareedth hamol aloo
Dokhan	ذخ	داخن	dākhan
Dthurah (grain)	ذرة	ذريت	dtharét
Date-tree		ناخل	nākhl
Dolphin		صعوبون	saobōn

E.

Eight	ثمانية	ثمانيت	thimaneet
Ears	اذن	حيدان	hêidthén
Eye	عين		id
East	مشرق	شقوقوت	sharkoot
Earth	ارض		id

Eyebrow.....	حواجب.....	احجور.....	ahajōr
Eyelid.....	شقوق العينون.....	شقرين العينتك.....	shakareen al aientak
Empty.....	فادغ.....	خلي.....	khalce
Eggs.....	بيض.....	.....	ibd.....
Earning.....	حلق.....	حلق.....	hélēk
Evidence.....	برهان.....	برهون.....	barhon
Enemy.....	عدو.....	عدوناغل.....	ādo-naghal
Eagle.....	نسر.....	نوهر.....	nohar
Ear (of corn).....	سنبلات.....	سبلات.....	sibalat
Enternent.....	دفنة.....	الجف ذاقوبر.....	alegaf d'gobar
Easy.....	سهلة.....	سهيل.....	saheel
Ever.....	ابدن.....	الوم.....	alōm
East-wind (N. E?).....	.....	هازياب.....	hazceeb
Edge sharp.....	.....	حدمكن.....	hud mēkān

F.

Fat.....	سبين.....	صالح ما لحات.....	salah or salhēt
Fishing line.....	تين.....	غلف.....	ghalf
Fidelity.....	اصمان.....	مشرة.....	misharec
Face.....	وجه.....	واجه.....	wojah
Fire.....	نار.....	شيوط.....	shleeōt
Father.....	اب.....	حيب.....	hēb
Flesh.....	لحم.....	تيوي.....	teewee
Frankincense.....	لبان.....	شيعز.....	shecaz
Fingers.....	اصبع.....	شوبع.....	shōba
Foot.....	قدم.....	مدحاتك.....	madhakak
Four.....	اربعه.....	ربوت.....	robōt
Five.....	خمسه.....	خمولة.....	khomo
Full.....	فملو.....	ملون.....	malon
Fish.....	سمك.....	صيد.....	sêit
Fort.....	طابية.....	قلعت.....	kālāt
Fertile.....	مخصبه.....	فاجيت.....	kājeet
Feathers.....	ريش.....	قطافوف.....	katafōf

Frog.....	صعدمة	ظفزا ت	dthafzāt
Fins.....	حناح	علقوت	alföt
Fly.....	ذبا بة	هذ بيت	hadthabét
Flea.....	برعوث	حشبيت	hashmét
Flower.....	ذهر	ذيري	athéree
Famine.....	نحط	ذبون	zabōn
Fatigue.....	عنا	تبك	tābak
Friendship.....	صحبة	صديق	sadeeq
Flint (for striking light).....	صوان	عيبال	aibal
Fever (ague).....	حمة	جولو	joloo
Forehead.....	حبهة	فيس	feesit
Foul (op. to clear).....		كدار	kadér
Fox.....	ثعلب	ميتال	ūthal
Fish-hook.....	صيدار	هانوبات	
Far.....	بعيد	راحق	rēhak
Flock of sheep (whose?).....		هارون المون	hāron almōn
Flying fish.....		فريفرت	fíreefart
Fear.....	خوف	فزك	fazak

G.

Goat.....	معدا	حوز	hoz
Goat, she.....	معدت	حوز بيس شخوف	hoz bees shakhof
Green.....	اخضور	اهظور	ahdthoor
Grand-father.....	جد حب ذ ا حيبك	ديك	déidak
Grand-mother.....	ست	هاما ذها ك	hamēdthm ċk
Gold.....	ذهب	ذ هيب	dtheeb
Gate or door.....	باب	بوب ذ مدينت	bob d'madcent
Gun (cannon).....	مدفع		Id.....
Gunpowder.....	بارود		Id.....
Goat, he.....	جدي تيس	تية	teyah
Grain.....	حب	عيش	ūsh
Gravel.....	حصا	حفش	hafash
Grief.....	حزن	حزانوت	hazanōt

Good.....	طيب.....	مشرة.....	
God.....	الله.....	بعلي.....	Bülee
Girdle (leather).....	حوبل.....		haðbal
Gazelle.....	غزال.....	صعر.....	sār
Grass (for sheep).....	حشيش.....	شجرا الحارون.....	shajar al haron
Garden.....	جنينه.....	ذ ابر.....	dahabar
Gun arabic.....	صمغ.....	صمغ.....	samagh
Girl.....	بنت.....	غجيت.....	ghajeet

H.

Hen.....	دجا جه.....	دجوجت.....	dijojat
Honesty.....	عدل.....	صونت.....	monat
Hand.....	يد.....	حيد.....	héid
Head.....	راس.....	حروة.....	haroh
Hair.....	شعر.....	شف.....	shof
Heart.....	قلب.....	Id.....	
Half year.....	نصف سنة.....	فقم ذ سنات.....	fakah dasinat
Hot.....	حر.....	حرق.....	haraq
Horse.....	حصان.....	احصون.....	hassōn
Hoofs (of horse).....	حوافر.....	مرظام ذ حصون.....	marthan d'hasoon
Horns (of goat).....	قرون.....	قرون الحوذ.....	karon al hoz
Hide.....	جلد.....	Ibd.....	
Hunger.....	جوع.....		
Hurt.....	مصرة.....	جيا ك.....	jeeāk
Heavy.....	ثقل.....	شبير.....	sheebar
Hire.....	كرا.....	كيرا.....	keeree
Heaven.....		ذ الهل خير.....	dthal al khéir
Hell.....		ذ الهل شيو ات.....	dthal al shleeōt
Honey.....	عسل.....	عسل.....	
Hair-band (bedwin).....		قديد.....	kadeed
Heel.....	عقب.....	مرظامك.....	mardthāmak
Husband.....	زوج.....	غيجيس.....	qājīs
How?.....	كيف.....	يبوه.....	yeboh

Hare.....	ها رناب	harnab
Here.....	هنا	boh
Herd of Cattle whose ?.....	بقا را لمون	bagar al mon
Herd of Camels whose ?.....	ريكوب الامون	rékobal amon
Hook (fishing).....	قلاو	kalaô

I. J.

Judge.....	قوصى	قوطني	kodthee
Iron.....	حد يد		Id.....
Infant.....	طفل	غيجان قنون	qâjjan ganoun
Inscription (on stone).....	مكتبه	كتوب بصور	katob b'saowar
Joy.....	فرح		Id.....
Jambeca.....	جنبيه	جنبيت	jambeca
Hex.....		واعل	wâal
I.....	انا	هوا	hoae
Indigo.....		صغ	sabagh
Idle.....	كسلان	كسول	kasool

K.

Kid.....	جدي	اهو طر	ahotar
Knee.....	ركبة	برك	barak
Knife.....	سكين	عيس	âis
Kick.....	رفسة	مر كظا ت	markadthat

L

Looking-glass.....		ميروت	méroot
Liver.....		خنفيش	khanfêsh
Lie.....		بادي	bâde
Leg.....	ماق	لشرينك	lasharank
Lip.....	شعة	كر فيف	karfeef
Laugh.....		ظحوى	dthahok
Light.....	نور	ظوي	dthōee
Left.....	يسرة	حيمل	hêimal

Large.....	كبير	أناخ	.....théakh
Lamp.....	مصباح		.....Id
Lofty.....	عالية	راحق	.....rahak
Lizard.....	برص	ظلوب	.....dthob
Louse.....	قملة	كنميت	.....kanamét
Leaf (Pl).....	ورق	صاف	.....saf
Lime.....		نورت	.....norét
Light (op. heavy).....		خفيف	.....khafeef
Lame.....	امرج	ثبار	.....thabēr
Lend.....	رصاص	رصوص	.....rassos
Lungs.....	فشة	نسامك	.....nasēmak
Lightening.....	برق	بورق	.....boriq
Love.....	صحبة	عجبك	.....ojbak
Loose (vest).....	عريض	شاخ	.....shèkh
Less.....	قليل ولا	شي خور	.....shee khor
Land high.....	نجد	بديت	.....badeet
Land wind N. W ?.....		نعشي	.....nashee

M.

Man.....	رجل	عيج	.....qájiz
Milk.....	حليب	شخرف	.....ishakhof
Mouth.....	فم	خوك	.....khok
Mother.....	ام	هامك	.....hamèk
Month.....	شهر	ورخ	.....warakh
Morning.....	صباح	كصوبح	.....kasobah
Moon.....	قمر	واريت	.....wareet
Mane..	شعر رقبة البهايم	شوف الحسون	.....shoof al hassōn
Mourning.....	ممر مر	تميس	.....gamees
Mill (of. Marhahs).....		مطحنات	.....matahanēt
Mill (of India).....		راحت	.....rahāt
Mule.....	بغل	بغلات	.....baghalét
Musquitoe.....		ذردير	.....dthardtheer
Merchant.....		التجار	.....tajeer
Massack (skin).....	قربه	حنيت	.....hanét

Mist	ضباب	غبرات	ghabrét
Mountain	جبل	جبال	jibél
Monkey	قرد	منجه	minjah
Misfortune	نكبت	متوت	matót
Match (of matchlock)		فتيلت	fateelat
More	اقطار	هزدي	hazdee

N.

Night	ليل	بحلي	bahalee
Nose	انف	نخريو	nakhareer
Nostril	منا خيز	فلخرنك	fankhar antak
Nail (of fingers &c)	اضا فر	ظفروتن	dthafarotan
Nine	تسعه	اسات	isét
Necklace	قلادة	صريت بغوثي	mariyet baghot-
			hee
Now	الان	لعصومه	lasōma
Nitre	شورة	عديت	adeet
New	جديد	هيدان	hèdeen
Net (large)		منقع	mange
Net (cart)		مغوير	maghweer
Noise	حس	هيم	hém
Neck		غوثي	ghothee

O.

Oil	ذيت	سليت	saleet
Old	سبخ	هاخر	hēkar
Oath	قسم	Id	Id
One	واحد	طاد	tād
Ostrich	نعم	قيظر	kéithar
Opposite, in front	قدام	فنون	fanowan
Old (cloth)	قديم	داويل	dāweel
Old man	شيبه	هاخر	hāēkar
Old woman		عاجوز	ajoz

P. Q.

Patience	صبر	صبور	saboor
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Pen.....	قلم	قلام	kalām
Quickly.....	فيسا	سمح واتوكي	samah watōkee
Quarter.....	ربع	ربات	rabet
Palace.....	قصر	قاصر	kūsar
Palm (of hand).....	كف	رحت	rabat
Pearl.....	لؤلؤ	Id	Id
Prisoner (of war).....	موقوف	هوثك غيج	hothak qāj
Pistol.....	قرد	طابنجه	tabanjah
Plain.....	سهل	حيق	hêik
Pain.....	الام	بشر	bashar
Protector.....		ربيع	reebā
Perspiration.....		نغال	naghal
Poison.....		سم	sam
Pit.....	خفرة	صحفروت	mahafaroot
Porpoise.....		معيلي	maeelce

R.

Red.....	احمر	موفر	aofār
Rib.....	ضلع	ضيلع	dthéilah
Rain.....	مطر	رحمات	rahamét
Right (op. to left).....	يمني	شيمل	sheemal
Ring (for finger).....	خاتم	خوتم	khotim
Rock (large).....	صخرة	صورحنوب	sowar hanob
River.....	نهر	ناحر	nahar
Rainbow.....	قزح نفاجه	قذات	kazat
Rat.....	جردون	جراد	giréd
Root (of tree).....	اعل	عروق	aroq
Rice.....	رز	حيراذ	héráz
Rope.....	خيل	قيود	keewood
Ruin (of anct : building).....		برهيس واقت	barhēs wakat
Road or way.....		حورم	horam

S.

Shade.....	ضل	هولا	hawala
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Sincerity	صد اقة	صدقات	sadigat
Scorpion	مقرية	قديدن	kabeen
Spider	عنكبوت	شبكة	shabakeet
Sea	بحر	رورم	roram
Sheep	نعجة	ثيوت	theewcet
Salt	ملح	ملحات	malhat
Serpent	حية	دبت	dabat
Shoulder	كتف	كتفه	katfa
Skin	جلد	جلدت	jaladét
Side	جنب	جنبتك	jambatak
Six	سته	يتيت	steet
Seven	سبعه	يبات	ibét
Small	صغير	قنون	ganoon
Sugar	سكر	سكار	askeer
Stirrups	ركابات	حلقات	halgāt
Spear	رمح	قنات	kanāt
Sword	سيف	شكي	shakee
Sky	فضا	هيتم	hétem
Sun	شمس	حيوم	hêiom
Star	نجمة	ككبوب	kabkob
Scales (of fish)	فلوس	صاف	saf
Snail	قوقع	حوكين	hokeen
Sap (of a tree)	صمغ	حموة شرة	hamo sharah
Seed		حبيب	habbáb
Sand	رمل	بطح	batah
Stone	حجر	صور	saowar
Sulphur	كبريت	Id	Id
Starving	فزعف	شيلة	sheela
Sleep	نوم	شنان	shanat
Slumber, sleepy	نعلى	هندى	handak
Sorrow	غم	بوكي	bokec
Song	غنا	غذوي	ghanoce
Shivering	رجفة	يطراط	yataowat
Storm	ريح عاصب	البدات	alabadet

Sick.....	مريض.....	حمول الع.....	hamool ala
Straight (op. to crooked).....	.....	سماح.....	sūmah
Scissars.....	مقص.....	مقراض.....	mogradth
Sails.....	.....	شروتن.....	sharōtan
Ship.....	مركب.....	مركب.....	markab
Silk.....	حرير.....	Id.....	Id
Stomach.....	معدة.....	كرش.....	karash
Silver.....	فضة.....	فظت.....	fadthat
Saddle.....	سرج.....	شد.....	shad
Standard (of an army).....	سنحق.....	ذاربت ذاعسكار.....	dtharabét askar
Steel (for striking light).....	زناد.....	قوات.....	Id
Slowly.....	هونا هين هون.....	خرو خرو.....	kharo kharo
Seer-fish.....	كناد.....	طرناك.....	tarnack
South wind S. W. ?.....	كوس.....	مديات.....	madeet
Seawind S. E. ?.....	.....	بحري.....	bharee
Shaykh.....	.....	دولت.....	dawalt
Slave.....	.....	حوجور.....	hojoor
Safe.....	امان.....	مون.....	mōn
Spring (of water).....	.....	مايون.....	maeeon
Stream or Brook.....	.....	صرف.....	saraf
Stairs.....	.....	مشعبات.....	mashabét

T.

Temper ill.....	ميرة شريسة.....	غيج فوصل.....	qāj fōsal
Temper good.....	جيد لصبح.....	غيج مشرة.....	qāj mashree
Tin.....	قزير.....	رازيس.....	razees
Two.....	اثنين.....	ثروة.....	tbaro
Ten.....	عشر.....	عشرية.....	ashareet
Town.....	بلد.....	رحبات.....	rhabét
Tree.....	شجرة.....	شجريت.....	shajareet
Thunder.....	راعد.....	اهد.....	had
Tongue.....	لسان.....	الشين.....	alshcen
Tooth.....	سن.....	مظورح.....	madthora
Thigh.....	فخد.....	فامرک.....	famak

Toes.....	اصبع الرجلين	شوبع	shūbah
Tomb.....	قبر	قبور	gōbar
To-day.....	اليوم	يامه	yamah
Turtle.....		حمسيت	hamseet
Tail-fin (of fish).....	ذيل	ذنوب	dthanob
Trunk (tree).....	قرمة	مجنذوت	majindōt
Thorn.....	شوك	شكا	shāka
Thirst.....	عطش	ظمون	thamōn
Talking.....	مخاطبه	غروي	gharoeo
Thread.....	خييط	Id	khéit
Three.....	ثلاثة	شاطات	shāthát
Tower (round).....	برج	درب	drab
Thus, so.....	كذا	واطه او اطه	oatha oatha
They.....	هم	نهه	nahana
This, that.....	هذا ذلك	ذا ذاك	dha dthak
There (place).....	هناك	حلوک	halōk
Track (of footstep).....		حضى	hadth
Tears.....		دمات	damāt
Throat.....	زور رقبة	قرد	garad
Thou.....	انت	هيت	hét
Tomorrow.....	بكرة	جهما	jahamina
Teat.....		واطب	wōtab
Tide flux and reflux.....		موشر	moshār
Tamarhind.....		صبور	sabor

V.

Victory.....	غلبه	مغلبيت	maghalbūt
Vanquished.....	مقهور	قهري	kahree
Valley.....	وادي	خوطر	khōtār
Voice.....	صوت	هرجات	harjat

U.

Udder.....		نايت	naeet
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W.

War.....	حرب	غورت	ghorat
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Wall	سور	درب	darab
Wine	خمر	خامر	kh-m-r
Wound	جرح	صوب	sōb
Water	ماء	حموة	hamoh
Wisdom	حكرم	عوقل	ōkal
Wife	امراة	حرمات	harmēt
Woman	امراة	حرمات	haramēt
White	ابيض	البنون	allabōn
Wedding	خصبة	هاروس	haros
Well	بئر	Id	Id
World	دنيا	عرض	aradth
Wave	موج	موجت	mojat
Wind	ريح	رياح وكول	reah kol
Wolf	ذيب	كوب	kob
Whale	حوت	شوحات	shohūt
Wakefulness	ابقاض	قهيود	kaheod
Wet (damp)		ثيري	théree
Wool	عوف	شف	shoof
Wood	حطب	ظرب	dtharab
Wing	جناح	Id	janā'h
Weak	ضايف	هوين	howcen

Y.

Young	شاب	قنون	ganoon
Yellow	اصفر	اهظور	hadthor
Year	سنه	سنات	sanāt
You		هيت	hét
Yesterday	امسى	يمشيه	yamsheeah
Yawn		فتروان	fatarooan

Verbs.

Come here	كالبو	kāl boh
Go there	سار الحلو	sar al halōk
Give me a little	هت شي	hat shee

Do not go there.....	تسيور لع	ta seeor la
Open the gate.....	فتاح بوب	fitaha bob
What is the matter.....	بوك هاشن	bok hēshān
What is your name.....	همك مون	hamak mon
Where are you travelling.....	نوكعك من هوة	nokāk man loh
Good evening.....	بوة وتخفكم	boh watakhaḥ kom
I am a bout to go.....	احوم الهقر	ahom alhagar
I want to drink.....	احوم اتق	ahom athag
What do you want.....	تحوم هاشن	tahom hēshān
Where are you from.....	مسوفرا الهوة	masofar al hoh
Dress.....	البوس خلوڤ	alabos klialōq
Never mind.....	يخلفالع	yakhalf ala
Ask (something).....	عثير شه	atheer (sheca)
Hear.....	هع	hama
Strike.....	البدده	albadee
Collect.....	جمع	jammā
Take hold of it.....	هثق	hothuk
Open.....	فتاح	fataha
Come back.....	ردد	radād
Eat.....	ته	tah
Come.....	نكاي	nakāee
Wait.....	سلوب	salob
Run.....	هواج	hqwah
Do.....	عمول	amol
Get up.....	عشيش	asheesh
Sit.....	ثوول	thowal
Call.....	سوق	soq
Take.....	هت	hat
Drink.....	تقي	tokee
Go.....	حرة	harah
Buy.....	شطوم	shatom
Ride.....	ركوب	rakob
Say.....	غقير	ghateer

Sneeze.....	عطشات.....	atishét
See.....	شئكس.....	shinks
Understand.....	غربك.....	gharbak
Laugh.....	يظحكوك.....	yadthahok
Clean it.....	رحظه.....	rahadtha
Throw it away.....	رداه.....	ardah
Place it above.....	طرحه حقلًا.....	tarah haghala
He flies.....	يفرور.....	yafaroor
Vomit.....	يقيوي.....	yakeewee
To taste (examine).....	طامه.....	tām

Sentences.

It is of no use.....	ييجوزلح.....	yajoz la
Do.....	ينوفلح.....	yanofa la
Where are you going.....	الهلويحوم.....	alho cehom
Man dead is put in the grave.....	غيج موت نلما الهال قوبر.....	qāj mot naham alhal gobar
The man said you struck me.....	غيج امورहत البودي يظك.....	qāj amoor hat al bōdā- kee
And the other said I did not strike you.....	واذاك امور هو البود كهلح.....	o dtick amoor ho albo- dak ala
I want to swim.....	حوم السبح.....	hom al sabaha
Do not fear.....	افزك لبح.....	fazakala
Who loves me I love him.	هال ذيا جوبي اجوب به.....	hal dthe ajobbec ajo- bah
What you wish I wish....	الحال تلحوم هوا حوم.....	al hal tahom ho ahom
What are you doing.....	يدوه تلعمل.....	yaboh tamol
In the house.....	با بيت.....	ba bet
All are good.....	كلهم جيا د.....	koolhom jeeat
The people say.....	غتير كها بو.....	ghateer kahaboo
Vicinity of a well.....	شترير.....	ishthareer
In the house.....	برك بيت.....	barik bet
First day of the moon or month...	هيوم ذا ورخ.....	hēom da warrakl

Good morning	صباحك	sabakah
The brain of the head.	دماغ ذ حروة	damagh d heroh
A place where there is no water or people (desert)	قابه حموة الع وقع به هبو الع	kabee hamoo ala o kabee habo ala
I cannot do this.....	قود ر العمله الع	kaodar alamalah la
Like a bird.....	غروي ذ الطير	gharo dtha tár
Take the money and give it to the Shaikh.....	ظوط د اريهم و ازا مسن دولة	dthot dariam o azamsán dawalt
What news from the place?	شي خبر من مكان	she khabar min makan
What do you say?.....	يا به تغتوري	yāboh taghatoree
You say what?.....	تا عمور يا به	tamoor yāboh
He is dead or living?.....	متوت والا حيوت	mātoot walla hé'oot
Every thing is ready.....	كله نوجز	kalah nojas
The boat is going to load with dharah.....	سنبوق جها م يشلول عيش	sanbook jahan yashal al ysh
It tastes bad (dharah).....	طامه يغموم	tama yaghamon
It tastes good.....	طامه حجيد	tama hajeed
Look at the red clouds.	غلا عمور عوفر	ghalla afoor aufar
What does the Shaikh say?.....	ايه عمور دولت	eaboh tamoor da'ulat
Where do you live now?	هوه تاحلول لعصومه	hoh taholol asomah

An experienced eye, on carefully reading over the above vocabulary, will at once observe the nature of the inaccuracies in the Mahrah's Arabic spelling. For instance, the pronominal affix *ك* is frequently added to names of parts of the body or any thing directly relating to man; *ا*, is also frequently substituted for the article *ال*, and often introduced when its vowel-sound would be sufficient &c. But these and other similar errors are of no great consequence, since they are easily detected, and cannot alter the radical spelling of the words, which are presented to the reader as the Mahrah wrote them. That the vocabulary therefore is perfect, I by no means wish to assert, but that so far as it goes, when the opportunity offered, an attempt to procure a little of the Mahrah language has not been wholly overlooked.

Remarks on the preceding Vocabulary by the Secretary.

This vocabulary of Mahrah words, though limited and imperfect, is the first attempt to collect facts from which we may trace the affinities of the language, cognate with the primitive Syrian or *Aramæan*, the Hebrew, and the current dialect of Northern Arabia. M. Fresnel, in the *Journal of the Asiatic Society of Paris*,* has given the grammatical principles peculiar to the *Mahri*, but withholds in a great measure the Philological evidence of words on which he has founded his conclusions. The present may be the ground work however for further extended investigation into this interesting dialect of Southern Arabia, termed by the inhabitants themselves the *Ehkkili idiom*, and by the people of *Hejaz*, or Northern Arabia, the *Mahri*. It is more commonly known however to learned Arabs under the name of *Hamyari*, and becomes more peculiarly an object of curiosity, connected, as it is supposed to be, with the idiom of the Hamyaric Inscriptions, the decyphering and reading of which may be said to extend, at present, little beyond a knowledge of their alphabet; and which from some recent examples appears to have been written alternately from left to right, and from right to left, like the writing of the Greeks, called Βῆσποφῆδον. The Geographer El-Edrisi, speaking of the *Curia Muria* islands, on the coast of Southern Arabia, says, "as to the islands of *Khartan* and *Martan*, of which we have already made mention, they are situated in the *Gulf of Herbs*, and are dependencies of the country of *Shajr*, where grows the Frankincense. They are in a flourishing state, inhabited by an Arab people, who dwell and live here, and who speak the language of the people of *Ad*, which is ancient and unknown to the Arabs of our day.†"—Masudi also somewhat earlier, in his "Meadows of Gold and Mines of Jewels," speaking of the country of *Shihr*, in Southern Arabia, says, "The inhabitants, who are of the tribe of *Kozaah-bin-Malik-bin-Hamyar*, and are called *Mahrah*, speak a language quite different from that of the Arabs; as they constantly use the letter *Shin* instead of *Kaf*.‡

* *Journal Asiatique*, troisième série, Tome VI. Décembre 1838, f. 529.

† *Geographie D'Edrisi traduite de l'Arabe en Français* par M. P. Amedec Jaubert, Tome Premier f. 48.

‡ Masudi under the section of his work, giving an account of the different seas, and the nations on their shores.

The Southern Arabs establish a distinction between the dialect of the *Garas* and that of the *Mahras*, asserting that the former contains a much less proportion of modern Arabic than the latter; so that an inhabitant of the coast of *Shihr* شحر, who knew no other Arabic than that of his own proper dialect, would be unable to comprehend the language of the people of *Shajr* شجر, who are the *Garas* occupying the Sabhan mountains and the coast from Cape *Shajr S. W.* to *Marbat* and *Hasek N. E.* These dialects of the two tribes are but idioms however of the same language, in which are found many Hebrew words not met with in Arabic; and both are perhaps, as Fresnel supposes, the elder sisters of the former. The proper appellation of the original idiom among the *Garas* is the *Ehkkili*, spoken at *Marbat* and *Zafar*, and throughout the district of *Shajr*: the Geographical limits of which, as we shall immediately notice, have been confounded with those of *Shihr*, or the maritime part of *Hazramaut*, chiefly occupied by *Mahras*, descended as would appear from the more ancient and original tribe of *Garas*.

It is principally in the country of *Shihr* that those Hamyaric Inscriptions are to be found, which were first brought to light by Officers of the Indian Navy, and which have latterly attracted so much learned attention from those cultivating a knowledge of the Semitic languages. A now desolate Fort on the sea shore,* in lat: 14° 38' 30" N. Longitude 49° 27' 35" E. seems to have given name to this tract of country, which corresponds as nearly as may be with the maritime part of *Hazramaut*; and is distinguished from that of *Shajr, N. E.* called after the Cape of this name, situated between *Ras-Fartak* and *Marbat*. The latter is called by *Abulfeda Sowahil Zafar*, or the coast of *Zafar*, or *Dhafar*, an ancient city of this quarter, of which the ruins are now called *El-Balad*, or the town *par-excellence*. It has been frequently confounded with the inland town of the same name† belonging to the *Sapphoritæ*,

* *Abulfeda*, in the preface to the *Tukwim-al-Baldan*, says that between *Shihr* and *Hazramaut* is only a distance of four days.

† *Monsieur Fresnel*, in his fourth letter on the history of the Arabs previous to the period of Islamism, *Journal Asiatique Juin 1838*, maintains that the ruined town, now called *El-Balad*, on the coast of *Marbat*, is the ancient *Zafar*, which was the capital of the Hamyaric Kings; but in this opinion he is certainly in error, as the *Sephar* of *Genesis*, is in the territory of *Jahseh*, a

but which has been satisfactorily identified by Niebuhr with a site, where are some Hamyaric Inscriptions, about two and half German miles *S: S: E:* of Jerim, in lat : 14° 17'.—This identification places the original seats of the *Homeritæ*, or tribe of Hamyar, much further to the westward than the maritime district of *Shihr*, where those Inscriptions have hitherto been chiefly found; and would lead to the inference that the maritime *Zafar*, was the capital of the *Ascitæ*, mentioned both by Ptolemy and Pliny, as situated in the neighbourhood of the sea near *Cape Syagros*, which corresponds with Ras-Shajr. The *Ascitæ* may have been named from being situated on the *Jun-al-Hashish*, or the Gulf-of-herbs, which is the Arabic name for the Bay in which *Khartan* and *Martan* lie; and though we cannot venture to assert that the name was only another appellation for the *Gerræ*, a poor people who originally fled from Chaldea to Arabia,* there is strong presumptive evidence that the modern *Garas*, whose language has so many affinities common with the Syriac and Hebrew, are descendants and remains of this ancient colony.—The most remarkable of these affinities can be best shewn in the following table, in which the Mahra dialect, is compared with that of Socotra, an undoubted derivative of the Ghiz or Ethiopic.

The two districts of *Shihr* and *Shajr* are but the maritime boundaries of the country properly known, by the name of *Mahra*, which is an extensive central desert, composed chiefly of moveable sands, interspersed with hilly tracts.—The length and breadth of this dry and barren

district of Arabia between the Red Sea and Sanaa, and not on the Indian ocean, as must be assumed by Monsieur Fresnel's identification. It is true that Abulfeda and Masudi only make mention of the *maritime Zafar*; but the absence of their testimony to their being a more ancient and inland town of the same name is no decided negative to the faithfulness of Niebuhr's identification, which is thus confirmed by the words of Edrisis' Geography—"Dhofar is the capital district of Jahsseb. It was formerly one of the most considerable and celebrated villages. The Kings of Yeman had here their residence, and here is to be seen the palace of Zeidan. These buildings are now in ruins and the population much reduced. The inhabitants have however preserved some remains of their ancient wealth, and possess cultivated fields and date trees in sufficient number for the supply of their wants." A very full account of the ruins and present state of El-Balad, or the maritime Zafar near Marbat, by Dr. Carter, has been published in the Transactions of the Bombay Geographical Society for 1844.

* Strabo, Book XVI, page 766

waste, has never been accurately ascertained either in ancient or modern times, though the Arab Geographers tell us that it is nearly nine hundred miles in length, and from fifteen to twenty-five miles in breadth.— Its greatest extent would appear to lie from the eastern portion of Arabia, near Ras-al-Had, to the mountain districts in the neighbourhood of Mekka. The following is the account of it by *Edrisi*: “The country of *Shajr*, inhabited by the Arabs of *Mahra*, who are of an unmixed race, adjoins that of *Hazramaut*. The camels which are produced here are unequalled for swiftness. It is reported also that with very little care they can be brought to understand whatever you wish them. They have names given them by which they are called; and they come to tender their obedience without hesitation. The principal fort of *Mahra* is *Shajr*. The language of the inhabitants is so corrupted that it is difficult to understand them; it is the ancient *Hamyaric*. This country is very poor. The only resources of the inhabitants consist in the transport of merchandise, and in the traffick of goats and camels. They feed their cattle on a species of fish known under the name of *wark*, which is caught in the sea of Oman, and which they give to their cattle after exposing it to dry in the sun. The people of *Mahra* are unacquainted with either corn or bread. They live on fish, dates, and milk, and drink but little water; they are so accustomed to this diet, that when they go into the neighbouring countries, and have to eat either bread or farinaceous food, they are made uncomfortable, and are sometimes seriously ill. It is said that the whole length of the country of *Mahra* is 900 miles, and its breadth from 15 to 25 miles. It is composed entirely of moveable sands; and from the extremity of the country of *Shajr* to *Aden* is reckoned a distance of 300 miles.”* Baron Wrede during an excursion in *Hazramaut* reached the borders of this desert after a 6 hours’ journey to the N. W. from *Sava* in the *Wadi Rachie*. He describes it as an immense sandy plain, strewed with numberless undulating hills, which give it the appearance of a moving sea, without a single trace of vegetation to animate the vast expanse. †

* Recueil de voyages et de memoires publié par la Société de Géographie, de Paris, Tome cinquieme feuillet 150.

† Baron Wrede’s excursion in *Hazramaut*, in the Journal of the Royal Geographical Society, vol: XIV p: 110.

The following are a few of the Mahri words compared with Socotran and Hebrew.

English.	Mahari.	Socotran.	Hebrew or Chaldee.
Back	Dhara mothan....	..tadah .....	..jaoi
Belly .....	..djof .....	.....	..jofah
Cow .....	..bakarét .....	.....	..bakar
Donkey .....	..heir .....	.....	..zaher
Eyebrow .....	..ahajor .....	..haj-har .....	..jaboth
Fire .....	..sheewot .....	..sheiwat .....	..eshūata
Father .....	..heb .....	.....	..ab
Four .....	..robot .....	.....	..raba
Fish .....	..seit .....	..sodah .....	.....
Frog .....	..đthafzāt .....	.....	..zafreda
God or Master....	..balee .....	.....	..baal
Hair .....	..shof .....	..shif .....	.....
Here .....	..boh .....	.....	..pah
Ibex .....	..waal .....	.....	..ael
Knee .....	..barak .....	.....	..berek
Lofty .....	..rahak .....	.....	..rahak
Lizard .....	..đthob .....	.....	..zab
Milk .....	..ishakhof .....	..huf .....	.....
Month .....	..warakh .....	.....	..yerah
Moon .....	..wareet .....	.....	..yerah
Net (cart).....	..maghweer .....	.....	..mager
Nose .....	..nakhrir .....	..nahir .....	..af
Nine .....	..iset .....	..saah .....	..thisath
Red .....	..aufar .....	..aufir .....	.....
Rice .....	..hiraz .....	..arhaz .....	.....
Rope .....	..keiood .....	..ket .....	.....
Six .....	..yiteet .....	..yitah .....	.....
Sword .....	..shakee .....	..ashko .....	.....
Sun .....	..heiom .....	..shohum .....	.....
Stars .....	..kabkob .....	..kokab .....	.....
Two .....	..tharo .....	..tarawa .....	.....
Ten .....	..ashareet .....	.....	..ashareth
White .....	..allabōn .....	..lebbem .....	..laban

Before the Koran had fixed the Koraish dialect of the Arabic language, the several vernacular idioms spoken in the Arabian peninsula, and in the plains between Syria and Mesopotamia, were indiscriminately used

in the earliest verses of Arabic poetry, called *rajaz*; which, from the variety of words and expressions they contain, were the favorite objects of study among the Arabic philologers and grammarians. Of these dialects the Hamyaric, spoken by the descendants of Kahtan, is considered generally to have approached nearer the purity of the *Aramæan* than the dialect of the Koraish; and the great number of Hebrew formations and words found in the *Mahri*, seems to support the truth of this opinion. It is also confirmed by Masudi, who makes Kahtan, or Joctan, to be descended from *Arfakhshad* and to speak *Suryani*; and states that *Yarub*, the son of Kahtan spoke another language that differed from the Syriac, and was as some think the Hamyaric dialect of Arabic; of which we must consider the *Garawi* and the *Mahri* to be remains, corrupted indeed by an admixture of Indian and even Greek words; which, if not borrowed directly from their original countries, were obtained from the inhabitants of Dioscoridis, or Socotra, whose inhabitants were in the time of Arrian's Periplus* a mixed race of Arabs, Indians, and Greeks.

One can scarcely fail to notice the similarity of the Mahri *objak*, (love) and the Greek term *αγαπη* though the former be disguised by the additional *k* which is the pronominal Arabic affix of the second person; nor can we be deceived in concluding that *افور* *afoor*, from *अभ्र* *abhr* a cloud, and *مانعشى* *maanash* the Arabic noun of place, formed from *नश* *nash* (annihilation), are evident Sanskrit derivatives. The Mahri terms for *heaven* and *hell* are also of Indian origin; the Arabic *dthal*, or Sanskrit *स्थल* *sthal*, (place) when compounded with the article *al* and *kheir*, (goodness) being the appellation for heaven, or the place of the good; while *dthal-al sheot*, signifying the place of fire, stands as the denomination for hell. But we shall not now pursue these interesting affinities of Mahri, which would require for their complete elucidation a more extensive vocabulary of the dialect than the one now given, and more ample illustrations of the grammatical principles common to this language, the Syriac, and the Hebrew, by one intimately acquainted with these three. There is enough, however, to excite interest and encourage further research.

J. B.

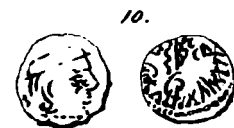
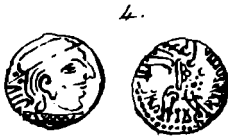
* Arriani Periplus Maris Erythræi in editione Geographiæ veteris, Oxoniæ vol. I f. 17.

FAC-SIMILE OF THE SAMANGARH COPPER - PLATE GRANT.

५३ सु य सुकोनेय कथं या
 कुम्भं कुम्भं ॥ अ यीदि वृत्ति मित्र मद्गु र म न नां पु पुमीद्वयं वृदि सु
 र्येन लक्ष्यं गीषा इ यः सुविधि दृष्टिवा प्रदि म क्ली विन्न विंका सः संति
 व द्य युसादृशि दः ॥ इष्टे म म दिमयी यद ७९ द य म् कुम्भि नं य परि
 योक्त र ले कुम्भि नं ॥ इष्टे म म दिमयी यद ७९ द य म् कुम्भि नं य परि
 कि ई व स र्वा रा य इ क ना ग्रा स र्वा त यु सा दृ सा मा क्म म य म् म म व य १ म
 द
 दये म् म
 इतदी र्म कीर्ति नास्त र्म चानि द विधि यु त य म व यी ॥ इ यः द रि ष्ट
 परु ता कृ कृ तिः कृ त र्दुःखी क कृ ना इः ति ॥ ७ ३ म लि र्दु वः ॥ इ यि यु स प
 मि म दी र्म पा दि ता कृ चै ता क य म वि व यैः परि क र्प जा लि स यु प्र यो व दि ए
 ता लि वि ल्पे इ य क्तः कु र्दु क्ति य यु मि रि वि का क ल दा ग म् म र्मः ॥ इ य दृ दि क
 इ काः सा क्राः सा दि या त क र्म नि ल्प प्र गु र्द गु ल्पे द य्म क र्म क य र ति म ति
 ७ ॥ इ य्म प्र दि कृ कृ न प कृ त दा क द वि द र्म प्र दा र्म इ वि ना लि वि ता

FAC-SIMILE OF THE SAMANGARH COPPER-PLATE GRANT.

श्री गणेशाय नमः । इति लतः पारलोवावा द्रुत लामः पकि मतः द्विगयादे
 गौमः उरु रतः मन्त्र वा टे ७ मः चंपेनु राण्य भक्तिता गामः ॥ ययुक्त
 मन्त्रा कुलसु ग्री मापये रू धि ग्रादि द्विरण्य युः सरं ७ ए षदसा
 प सवे य वा स म वि कुद्राग कर यु वौ न ग्रादि सदि ताद नः ॥
 अ ग्रा दुं प तः दुं प य न स कृ षतः क षाय य न ग्रा वा र क र वि न्य रि प
 क न का र्था ॥ कु रू ग व ता ग्रा से वा सु द र्पा प र द कुं वा या क न त व
 ष व सां । ष सिं व रं स द मा लि ति ग्रा या स य न कृ मि ॥ य शं
 परि र रू प तः प र दि त ग्रा य दि क य ग्रा तीः । ए स्र वा यु य क उ मि
 वृ ति म रु रू मे ग्रा का सा व क । न व द्रु म न व द्रु प र द स दि तः मी र
 वि व ग्रा दुं वा पी न्ने दं पि रि ये तं र द्रु न य शः ग्रा द्रु य वं सा ग वां ।



ARTICLE II.—*A Sanskrit Copper Plate Inscription, found in the Fort of Samangarh, in the Kolapur country, dated Shaka 675 (753 A. D.) and translated into English.*
By the late Ball Gungadhur Shastree.

May he (Vishnu), whose lotus-navel Brahma has made his seat, preserve you, as well as Hara (Shiva), whose head is adorned by a handsome phase of the moon. There lived a virtuous king, named *Govind Raja*, who, being always foremost in battle, and destroying his enemies with his uplifted sword, as the sun's orb removes the darkness prevailing in the night, became known by the title of the lion of kings, in the remotest quarters of the earth. Whenever he perceived an army in front, he biting his lips, and with eye-brows bent up, loudly laughed (at his enemies) in battle, relying upon his scimitar, (the nobility of) his family, his heart, and his spirit. No sooner he lifted up his scimitar, or even his name was mentioned, than grace, honour, and spirit, unseasonably departed from his enemies and at once. His son, *Kaka Raja*, shone in the family like a gem; supporting, like Hari (Vishnu,) a high character for relieving the distresses of the oppressed, and returning evil for evil, though grateful for the favours he received from others. While he was ruling over the earth, the tame peacocks cackled every evening for joy, mistaking for clouds the summits of palaces, smutted by the volumes of smoke proceeding from the sacrifices of the twice-born. These pacific Bráhmans, in the practice of their devotions, sprinkled so much sacred water that people had to pass through ankle-deep liquid. To him was born a son, named *Indra Raja*, the region of whose shoulders was scratched by contact with the teeth of elephants, whose gaping temples emitted a copious stream of temporal juice. He supported Rástra Kútā, as the golden mountain (supports the earth), and protected the world, destroying all his enemies. His queen who, like moon-light, complying with the desires (of supplicants) and removing the gloom (of poverty), was descended on her mother's side from the lunar race, and on her father's side from the Shalukya (Chalukya) race, in respect to the affording of protection and maintenance without reference to the service performed by the people, she attained an exalted rank among the ornaments of her sex. The good king *Indra Raja* had by her a virtuous son, as a recompense

for the protection afforded by him to this earth. The world being deprived of the splendour of *Indra Raja's* glory, *Shri Danti Durga Raja* assumed the functions of the sun to his lotus-like family. The elephants of his enemies, terrified in battle, as at the sight of a lion, fled away, pulling up their picketing-posts by the roots; and no body knew what became of them. The turreted castles of his enemies fell with their spirits, unable to bear the heat of his prowess and his wrath. Men perceived with astonishment the demolition of the steep banks of the great river *Rèva* (*Narbudda*), effected by his victorious elephants. His filial affection was demonstrated in the grants of land made by his mother in four hundred thousand villages. He obtained the title of the king of kings and great lord (of the earth), by subduing *Vallabha* without any effort, such as that of wielding weapons and sending armies, but merely by the torsion of his brow. He defeated with a few of his followers the whole army of the *Karnàtaka*, which had been renowned for the humiliation of *Snriharsha*, the king of *Kànchi*, *Kerala*, *Chola*, and *Pàndya*. This *Danti Durga Raja*, the lord of the earth, &c. commands all provincial and district chiefs, and heads of villages in their respective capacities, to take notice as follows:

In the *Shaka* year 675 corresponding to *Samvat* 811,* on the 7th of *Magha*, called *Ratha Saptami*, we, being desirous of securing virtue and fame to our parents and ourselves, have granted, by formally pouring water, the village of *Dèulvat*, situated in the district of *Koppar*, to *Narayan Bhatta*, of *Vasishta Gotra*, inhabitant of *Karàhàtaka*, the grandson of *Trivikram Bhatta*, and the son of *Krishna Bhatta*, eminently skilled in the *Vedas* and their subdivisions. This small gift of land is made for the promotion of the *Agnihotra* and other sacrifices. It is not to be entered into by the military and other officers of Government, or by any evil-disposed persons; but should always be protected and relieved from oppression by all future kings, whether belonging to the family or not. To the east of the said village lies new *Tyalavalhi*; to the south *Paragopagràma*, belonging to the *Brahmans*; to the west, *Higgur-vade*; and to the south, *Artavatagrama*. The village, bounded as above, has been given away altogether with all its revenues, arising from vegetables or minerals, or from fines, taxes, and other sources. May it receive invariable protection while being cultivated by the *Brahman* himself, or by others for his use and profit. As said by *Bhagwan Vyas*, he who

* The mention of these two dates is not uncommon in the grants of Southern India, according to Mr. Walter Elliott. See *R. Asiatic Society's Journal*. No. VIII 1837 p. 2.

resumes a grant of land, made either by himself or by another, becomes a worm in filth for sixty thousand years. This mandate, illustrating the great fame of *Danti Durga*, has been written under the order of that monarch, presiding in the assembly of great kings, by Indra, who, not elated by prosperity, was always willing to do the great duty of conferring obligations upon others and of promoting their advantage.

Remarks by the Translator.

The Rája, whose grant is commemorated in the preceding Inscription, is mentioned in the 1st line of the 2nd Plate, as one of the sovereigns of Ráshtra Kúta; with whose name, as a separate and important family, we first became acquainted on the publication of the Karda or Kardla and Van-Dindori grants in the Royal Asiatic Society's Journal, and on whose history some further light has recently been thrown by the Kharepátan grant, which the Bombay Branch of the Royal Asiatic Society did me the honour to publish, in the Vth No. of its Journal.* The Van-Dindori grant, which is the oldest of these three, is dated Shaka year 780 (A. D. 808); but the other two, being richer in giving the genealogy of their heroes, begin with Danti Durga, the predecessor of Krishna Rája, whose name is the first mentioned in the Van-Dindori grant, and who, according to that authority, wrested the sovereign power, for a time, from the hands of the Chálukyas. The present Inscription being 55 years older than this last named grant, supplies the date of Danti Durga's reign, which is 675 Shaka year (A. D. 753). As I have shewn on a former occasion how the three abovementioned grants confirm one another in their most important points, I shall only remark in this place, that the present copper plate is not an unimportant addition to the series of documents, which have already been discovered in relation to the Yádavas of Ráshtra Kúta. In addition to Danti Durga's date, it furnishes us with the names of three of his predecessors; viz. *Indra Raja*, *Kaka Raja*, and *Govind Raja*, the last of whom must have reigned towards the end of the 7th century of Christ, taking 25 years as the ordinary average duration of each reign.

The character † in which the Plates are engraved, does not differ

* See Nos. V. and X.

† The following well known letters, belonging to the ancient cave Alphabet, may be noticed in the accompanying inscription, ॐ for र; Δ for ए; ॐ for ष; ३ for अ; ७ for ग; ३ for घ; ७ for ङ; ३ for क and ३ for ख. The vowel marks for अ, आ, उ and ए, like the letters क, ग and some others appear as well in the cave form, as in their more modern shape. The symbols for अ, ग, ज, ड, ङ, घ, ख, ङ, च, छ and क are evidently in a state of transition.

much from that assigned by Mr. Prinsep to the 8th century of the Christian era; and from a note of Mr. Wathen's at the end of the Van Dindori Inscription, the resemblance between it and the modern Deva Nagari is not less striking.—The Cave character may have been in use in almost all its purity, as supposed by some, at the period under consideration; but from the evidence of the Valabhi plates* dated 328 A. D. and a mass of other Inscriptions, it is very certain that a modification of it was introduced into many parts of the Dekhan at a very remote period.

As Mr. Walter Elliott has not found any record of this family in the numerous collections which he made to the south of the Krishna, it is probable that its power never extended much beyond that river, notwithstanding the defeat of the Karnataka forces mentioned in the accompanying Inscription, and the excursions beyond the Tungabhadra adverted to in the Van Dindori grant. More extensive conquests were made by the Yādavas of Rāshtra Kūta towards Marwād and the Vindhya mountains. The Rāshtra Kūta family may hereafter be found to have some connexion with the Rattas, so frequently spoken of in the History of Rājasthan.

From the absence of the classical surname (the Yadavas) of this family, both in the accompanying and the Van-Dindori grant, we may suppose that it was not assumed by those who laid the foundation of its greatness. That the power of the Rāshtra Kūta family was in its infancy, in the days of Danti Durga, may also, to a certain extent, be inferred from the language of the accompanying grant, which is not only extremely simple but incorrect and unidiomatic in many places; showing that his Court was not yet adorned by poets or engravers of any eminence.

The seal obviously bears Shiva's image with a crescent and a snake.

The only other circumstance worthy of notice is the descent of Danti Durga's mother from the family of the Chālukyas, the opponents of the kings of Rāshtra Kūta.

The Brahman to whom the grant is made, is said to be an inhabitant of Karhātaka, (Karada or Kurar,) on the banks of the Krishna. The village assigned to him, as well as those places referred to as its boundaries, are all to be found in the neighbourhood of Kolapur; but I am not able just now to ascertain the precise locality of the gift. †

4th May 1846.

BALL G. SHASTREE.

* Bengal Asiatic Society's Journal for September, 1835.

† The Copper-plate grants belonging to this family, and their predecessors the Chālukyas, are of much interest and importance in their relation to the history of the Jaina religion.—*Jina Sena Acharya*, the author of the Jaina Puranas, is said to have been the Guru, or spiritual preceptor of *Amoghavarsha*, a Jain prince, of the Arcot district in the end of the ninth century, (*Wilson's Mackenzie Collection Vol. I p. c. xxxii*) who appears to be the same as the *Amoghavarsha II* of the Kharepatan grant, published in our Journal Vol. I p. 209.—*Editor*.

Transcript of the Plate in Modern Devunagari.

स्वस्ति सवोव्याद्वेधसाधामयन्नाभिकमलंकृतं । इरश्रयस्यकात्तेन्दुकलया
 क्रमलंकृतं ॥ आसीद्विषतिमिरमुदातमण्डलाग्रोध्वस्तीस्तिन्नयन्त्रभिमु
 खोरणशर्जरिषु । भूयः शुचिर्विजयितासदिगन्तकीर्तिगोविन्दराजइति
 राजसुराजसिंहः ॥ दृष्ट्वाचमूमभिमुखिसिंभटादृहासमुन्नामितंसपदि
 येनरणेषुनिर्यं । दष्टाधरेणदयताभृकुटीललाटेखड्गकुलंचहृदयंच
 निजंचसत्वं ॥ खड्गकराग्रश्रयतश्वशोभामानोमनस्तःसममेवयस्य । म
 हाह्वेनामनिशम्यसद्यस्त्रयंरिपूणाविगलयकाण्डे ॥ तस्याःमजोजा
 गृतदीर्घकीर्तिरार्त्तार्त्तहारिहरिविश्रुतधामधारी । भूयः सृतिष्व
 पकृतानुकृतिः कतज्ञः श्रीककराजइतिगोत्रमणिर्बभूव ॥ यमिन्प्रशास
 तिमहीश्वरपोद्दिजानावैतानभूमनिवहैः परिकर्पराणि । संध्यासुसौधशिख
 राणिविलोक्यकेकाः कुर्वतिवेश्मशिखिनोजलदागमोत्काः ॥ यस्यद्विजा
 जनाः शांताःशांतिवाचन वारिणा । प्रसहगुंफदधेनजनश्वरतिमंदि
 रे ॥ तस्यप्रभिन्नकरटच्युतदानदन्तिदन्तप्रहाररुचिरोल्लिखितां
 सपीठः । क्षमापःक्षितौक्षपितशत्रुरभून्नूनजःसद्राष्ट्रकूटकनकाद्विरिवेन्द्रराजः ।
 पूरिताशाशुचिर्ध्वस्तावृत्तिर्ज्योत्स्नेत्रमातृतः । राज्ञीसोमान्वयीतस्यपितृतश्व-
 शलुक्यजा ॥

श्रीमद्युवतिगणानांसाध्वीनामापनापदांरक्षणेभरणेलोकपारिचारनिरापदं ।
 सनयंतनयंतस्यासलेभभृदुत्तमः । नीतावैवमिवाशेषजगतःपालितायति ॥
 ध्वस्ततेजसिधामोघप्रक्ष्वेलितदिगन्तरे । श्रीदन्तिदुर्गाराजस्यस्वकुलांभोज
 भास्करः ॥

यस्याजौराजासिंहस्यविन्नस्तवैरिवारणाः । सलज्जास्तंभमुन्मूयज्ञायते-
 क्वापिनोगताः

॥ साट्टालकानिदुर्गाणिहृदयैःसहविद्विषां । पतन्तियत्प्रतापोयकोपां
 कुरसमुद्रकैः ॥ महीमहानदीरेवारोधोभित्तिविदारणं । लोकाविलोक्य
 न्युच्चैः कृतंयज्जयकुंजरैः ॥ मातृभक्तिःप्रतिग्रामंग्रामलक्षत्रुष्टये । ददत्या
 भूपदानानियस्यमात्राप्रकाशिता ॥ सभूविभेदमगृहीतविधौतशस्त्रमज्ञात
 मप्रणिहितांत्रमपेतयत्नात् ॥ योवलभंसपदिदंडलकेनाजित्वाराजाधिरा
 जरमेश्वरतामुपैति ॥ कांचीशकेरलनराधिपचोलपांड्यश्रीहर्षशब्दवि

मेद विधानदक्षं । कर्णाटकं बलमनंतमजेपरथ्यैर्भूयैः क्रियद्विरपियः
 सहसाजिगाथ । सत्तपुथिवीवल्लभमहाराजाधिराजपरमेश्वरपरम
 भट्टारकखड्गाधाराकश्रदिं सिदुर्गाराजदेवः सर्वानेवराष्ट्रपतिविष
 यपतिग्रामकूटां यथार्हप्रतिपत्याज्ञापयत्यस्तुवः संविदितं यथा
 पंचसप्तत्यधिकं सकृत्कालसंबः सरशतषट्ककेव्यतीते संवत् ८११ पोह
 रिकायां माघमाससप्तम्यां तुलापुरुषस्थिते मातापित्रोरा
 म्मनश्चपुण्ययज्ञोभिवृद्धये कोप्परपंचसप्तभुक्त्यन्तर्गतकरं
 द्विपदे जफितदे उल्लाटनामग्रामः करहाटकरवास्तव्यः बह्वक्षस
 ब्रह्मधारिणे वसिष्ठगोत्राय भद्रत्रिविक्रमपौत्राय कृष्णभद्रपुत्रनाराय
 णभद्राय वेदवेदांगपारगाय भद्रिहोत्रवलिचरुप्रवर्तननिमित्तं
 भूयच्छिद्रन्यायेन उदकपूर्वोदत्तः स चाच्छाटभटप्रवेश्यः भ
 सन्नरप्रवृत्तिविनिवृत्ताचारः सर्वावाधापरिहारेणास्मद्वंश्यै
 रन्यैर्वाप्रतिपालनीयो नृपतिभिः यस्य च पूर्वतः नवास्यलेव
 ल्हीग्रामः दक्षिणतः पारगोवाब्राह्मणग्रामः पश्चिमतः हिगुवाडें
 ग्रामः उत्तरतः अहतवाटग्रामः एवं चतुराघाटलक्षितो ग्रामः सवृ
 क्षमूलकुलस्वसीमापर्यंतसिंध्यादिहिरण्यायः स दंडदोषदसा
 पराययथासमवित्तभागभागकरत्तर्वोत्पत्यादिसहितोदत्तः
 अस्य भुंजत भुंजनाय तस्य कृषतः कर्षापयतस्य धारकेन चित्परि
 क्षनाकार्या ॥ उक्तभगवत्ताव्यासेन स्वदत्तांपरदत्तांवायोहरेतव
 सुंधरां । षष्टिवर्षसहस्राणिविष्टायां जायते कृमिः ॥ यः सं
 पाङ्गिरनुत्तथतः परहितव्यासंगिनोनीयस्पर्धीः । यस्तत्राप्युपकर्तुंभि
 ष्छति महत्तर्भस्य काष्ठाधने । तेनेन्द्रेण नरैर्द्रवृन्दसहितश्रीद
 त्तिवर्माज्ञयाप्रीत्येदं लिखितं तदुन्नतयज्ञः प्रोद्गासनं शासनं ॥

ARTICLE III.—*Some remarks on specimens of Saurarâshtra Coins, lately found at the village of Shirawl, near Junîr.*
By the Rev. John Stevenson D. D.

To H. J. Carter, Esq.

Officiating Secretary of the Asiatic Society.

MY DEAR SIR,—At Dr. Bird's desire I have the pleasure of sending you the accompanying specimens of the coins of the Regal Satraps of Saurarâshtra, found near Junîr in August last to the number of 400, that you may have fac-similes of them taken for the Journal of the Society. I shall number them according to Mr. Prinsep's system, not disturbing his figures, but by the sign +, shewing which of the names in his list the one in question should, I suppose, precede.

The most ancient of our coins, I mark + 1, as it is a new one, and precedes I conceive the whole of Mr. Prinsep's series.* It bears the following legend on the obverse:

Rājna Mahakshatrapasa Iswaradattasa [Bala] Putrasa.

The letters in this legend are well formed, and all very distinct except the two corresponding to the word put in brackets, and of which there may be some doubt. There is no doubt however of the name of the father occupying this place, and that he was a mere private individual. There are rudiments of a date and of Greek letters, as is usual in these coins, circling a bold and well executed head, but all too indistinct to furnish any clue to their import. It would seem that this sovereign had been commissioned to exercise a delegated royalty in Western India, but did not transmit his authority to any one of his family, as none of his descendants appear in the list of Royal Satraps.

I. The next is number 1 of Prinsep's list.

The legend on the obverse is,

Rājna Kshatra [pusa Rudra] Sahasa Swami Jina Dâma Putrasa.

The name indeed of the Raja is blotted out, but that of the father in this instance is sufficient to mark it out as the coin in question. The remarkable thing in this coin however is, the distinctness of the Greek let-

* No 3 of Plate xxiv.

ters around the face, and which as nearly as I can transcribe them are as follows :

Α Ι Ο Λ V Ι Ι Ι V Ι Ι Ι . The first eight of these letters, I read *Αιολπυις*. The last with the two fragments I suppose belong to a new word, of which too little remains to found any conjecture upon. If I am right in reference to the first word, it will be a tolerable translation into Greek of *Rudra*, or even of *Rudra Saha*, supposing *Dio* as in Dionysius &c. to be the name of Jupiter, and the other element meaning, like *Rudra*, the causer of grief.

2. The legend on the obverse of this coin, belonging to No 2 of Prinsep's sovereigns, is entire and as follows :

Rājna Kshatrapasa Aga Dāmna Rājna Kshatrapasa Rudra Saha Putrasa.

This sovereign was the son of the preceding. It is remarkable in his coins that the execution is altogether inferior to the preceding, and to one or two that follow in the series. There are rudiments of a date just behind the head, but none of Greek letters.

4. The fourth coin in our collection is that of *Vijaya*. Of his father *Dama Saha*, no coins have yet been found. The legend on this coin is not very distinct in some places, but enough of it remains to remove all doubt. It is,

Rājna Maha Kshatrapasa Vijaya Sahasa Rājna Maha Kshatrapasa Dama Saha Putrasa.

Behind the head, the following old numerals are to be read $\eta\eta\psi$ which probably mean 314.

5. This is a new coin. Besides the silver coin accompanying, I have a bronze one of the same monarch on which the name is quite distinct, though the father's is obliterated. On this coin the name is obscure in the letters $\chi\epsilon$ [मज]. The legend is,

Rājna Kshatrapasa Dāmajatasriyah Rājna Maha Kshatrapasa Dama Saha Putrasa.

The name is thus written $\epsilon\chi\epsilon\zeta\eta\omega$: and in the Nominative case will be,

Dāmajata Srih.

Of Prinsep's No 5, no coins are in my possession.

6. Is a coin of the great

Rudra Saha.

The legend is

*Rājna Mahakshatrapasa Rudra Sahasa Rajna Mahakshatrapasa
Vira Dāmna Putrasa.*

Behind the head are the numbers ३१३ which without much doubt mean 381; or if not, 385.

7. This coin was struck by a brother of the last named sovereign. The legend is partly defaced, but enough remains to identify it. It is

*Rājna Kshatrapasa Visva [Sahasa Rajna Maha Kshatrapasa Vira]
Dāmna Putrasa.*

+ 8. This is also a new coin. The legend of which is

*Rājna Kshatrapasa Visva Sahasa Rājna Maha Kshatrapasa Rudra
Saha Putrasa.*

This sovereign was therefore a nephew of the last mentioned king, and brother to No. + 8 of Mr. Prinsep's list. The letters are very distinct, and this sovereign is not to be confounded with his predecessor or successor of the same name.

9. I take this to be a coin of Mr. Prinsep's *Atri Dāma*: the reading on our coin however is clearly *Bhatri Dāma*, and Mr. Prinsep mentions this name as that of the father of the next in the series at p. 355 of the *Asiatic Journal* vol. VII. The two letters ॠ and ॡ are so like that they might easily have been confounded. The inscription is

*Rājna Maha Kshatrapasa Bhatri Dāmna Rājna Maha Kshatrapasa
Rudra Saha Putrasa.*

10. This is the last coin in our series, and has inscribed on it

[*Rājna Maha Kshatrapasa*] *Visva Sahasa Rājna Maha Kshatrapasa Bhatri Dāmna Putrasa.*

No coin of a later date than this last has been found at Junir, and most likely the collection of coins was made in the reign of this monarch. The principal historic fact of interest brought to light by this discovery is, that the country as far as Junir was governed by rulers, who were either at that time dependent on or had previously owned allegiance to the Grecian monarchs of Bactria; as we could not otherwise account for the current money of the realm bearing an inscription in Greek letters. The subjection, however, may in later times have been merely nominal. I think also we are quite warranted to infer that the art of coining metal was borrowed from the Greeks. The oldest coins, when we may suppose the Grecian connection to have been the closest, are well executed, and the more modern are of a much inferior type. The art of coining decayed with the decay of the Grecian connection. Let patriotic Hindus consider the lesson such a fact teaches.

I remain, Dear Sir, yours very faithfully,
Bombay, 10th March, 1847. J. STEVENSON.

ARTICLE IV.—*A description of the Frankincense Tree of Arabia, with remarks on the Misplacement of the "Libanophorous Region" in Ptolemy's Geography.* By Assistant Surgeon H. J. Carter, Bombay Establishment.

There is something peculiarly interesting in the history of the "Frankincense Tree," from the frequent allusions made to it in the Holy Scriptures. From the earliest periods of the Jewish history, its produce has formed one of the ingredients in their offerings of incense, and it still forms the "sweet perfume" of our catholic churches at the present day.

Whether we consider the description of the Arabian Frankincense Tree in a botanical or in a geographical point of view, both are alike interesting, for the tree, though described, has I believe never been identified, and the exact limits of that part of Arabia to which it is indigenous, viz. the *Libanophorous Region* of Ptolemy, have never been clearly defined.

They were subjects of much interest to the ancients, but sought after with little success; even Kings may be enumerated among others, who have personally engaged themselves in endeavouring to obtain a faithful description of the Frankincense Tree, and in discovering that part of the peninsula of Arabia, to which it is exclusively indigenous. Antigonus had a branch of it purposely brought to him for his inspection; * the Ptolemies planted it in Egypt, and are said to have watched it with the greatest care; † King Juba wrote an account of it to C. Cæsar, the adopted son of Augustus; ‡ and the latter sent Ælius Gallus to Arabia, at the head of an army consisting of ten thousand Romans, besides Jews and Nabatæans, there to discover “after the country of gold, that of the frankincense tree.” This even did not succeed, for when Ælius Gallus was within two days march of the Frankincense region, his army became so distressed for want of water, that he was compelled to abandon his pursuit, and to make as sudden and hasty a retreat, as his advance appears to have been slow and deliberate §

Theophrastus, after relating all he had collected on the subject, which is wonderfully correct so far as it goes, concludes by saying, “up to this time this is all we have learnt of it,” meaning the Frankincense Tree. ||

Pliny, in the following extract from the quaint but faithful translation of Dr Holland, writes, “we have waged war in Arabia, and our Roman army have entered a great way into that country. C. Cæsar, the adopted son of Augustus, won great honour and glory from thence; and yet verily to my knowledge there was never any Latin Author that hath put down in writing the form and fashion of the tree that beareth incense. ¶” From Pliny downwards, the subject appears to have excited less interest, and to have been almost wholly lost sight of, until the Danish Expedition to Arabia took place, when one of the “questions proposed by Michaelis to Niebuhr,” was, “to determine the site and description of the Frankincense Tree.”** It was however unanswered, for Niebuhr writes, “We could learn nothing of the tree from which incense distils, and Mr Forskael does not mention it.” ††

* Theophrast. Hist. Plant. L. ix. c. iv. † Pliny Hist. Nat. L. xii c. xiv.
 ‡ Idem. § Strabo Exp. Ælius Gallus L. xvi. || Theophrast. Op. cit.
 ¶ Pliny B. xiv c. xiv. Eng. Trans. Holland. ** Niebuhr Descrip. de
 l'Arab. T. iv. Quest. xxix. French Trans. †† Niebuhr Op. cit.

Rumph * and Stackhouse † appear to have been acquainted with it, Roxburgh ‡ first described it, and Colebrooke § gave a drawing and an account of it in the Asiatic Researches, relating the manner in which Dr Turnbull, then Surgeon to the Residency at Nagpoor, satisfactorily identified the gum of the Indian Frankincense Tree, with that called Olibanum. The produce therefore is determined, and it only remained to identify, if possible, the Arabian species, with that described and figured by Roxburgh and Colebrooke. With this view, I made a sketch|| of a branch in flower that was selected from many others which were brought to me on the 30th May 1846, at Rakheote, a small village close to Ras Sajar, on the southeast coast of Arabia, and as it appears to me to be identical with the Indian species, described and named by Roxburgh, *Boswellia serata*, I cannot do better, than add to it his description, and the accompanying observations of Mr. Colebrooke on the diversity in its fructification, almost all of which are in every way applicable to the Arabian tree.

Boswellia Serata. Roxb.

“Gen. Char. Calyx beneath, 5 toothed. Corol. 5 petaled. Nectary a crenulated, fleshy cup, surrounding the lower part of the germ, with stamens inserted on its outside. Capsule 3-sided, 3-celled, 3-valved. Seeds solitary membrane-winged.

“Spec. Char. Leaves pinnate, leaflets serate downy. Racemes simple, axillary. Petals ovate. Filaments inserted on the exterior margin of the nectary.

“A large tree, a native of the mountains of India. A most fragrant resin is collected from wounds in the bark, &c.

“Leaves crowded about the extremities of the branchlets, pinnate with a single terminal one.

“Leaflets sessile, sometimes opposite, sometimes alternate, in general about 10 pair oblong, obtuse, serate, villous; length about an inch or an inch and a half.

* Herbar. Amboin. Par. 1. L. iii. c. iii. † Ext. Bruc. p. 19. t. 3 Wight and Arnott. ‡ Flora. Ind. 2. p. 383. § As. Res. 9. p. 377. || Vide fac-simile Plate xxiii.

“Petioles round, downy.

“Racemes axillary, simple, shorter than the leaves, downy.

“Bracts minute.

“Flowers numerous, very pale, pink, small.

“Calyx five lobed, downy. (Perianth 1-leaved 5-toothed) Corol. petals five oblong expanding, downy on the outside, and considerably longer than the stamens.

“Nectary a fleshy crenulated cup, (coloured and adhering to the calyx) surrounding the lower two thirds of the germ.

“Stamens: Filaments ten, alternately shorter, inserted on the outer edge of the mouth of the nectary. Anthers oblong.

“Pistil: Germ above, ovate. Style cylindric, stigma of three pretty large lobes.

“Pericarp: Capsule oblong, three sided, three celled, three-valved, size of an olive, smooth.

“Seed solitary, winged, broad, cordate at the base, deeply emarginate, point long and slender, and by it inserted into the apex of the valve of the capsule to which it belongs.”*

Variations in the fructification, &c.

“The fructification is remarkably diversified on the same plant. I have found even on the same raceme, flowers in which the teeth or lobes of the calyx varied from 4 to 10. The number was generally 5, sometimes 6, rarely 7, more rarely 4, and very rarely 10. Petals as many as the divisions of the calyx; stamens twice as many; capsule generally 3-sided, sometimes 4, rarely 5-sided, with as many seeds and as many valves. Seeds generally solitary.”† ‡

* *As. Res.* 9. p. 379. † *Idem.*

‡ Since this paper was presented to the Society I have to a certain extent been able to compare a specimen of the Frankincense Tree which I brought from Arabia, with the *Boswellia serata* now in the Horticultural Garden at Bombay: and, though I have no reason to doubt its genus, yet there are some points, in which it slightly differs from *B. serata* which I wish to notice, in case those better acquainted with both the Indian species than myself, may consider them sufficiently specific to entitle the Arabian tree to a separate denomination.

In the Arabian tree, the leaflets are oval, of a deep green colour, glossy and sparsely-pilose; (in both it and the specimen of *B. serata* mentioned, they are crenate-serated and wavy); they average six pairs, an inch in length, and with the confluence of the terminal leaflets amounting to double, and frequently

In addition to India, and that part of Arabia which I shall presently point out, the Frankincense Tree is found in great abundance in Eastern Africa, on the limestone mountains which extend westward from Cape Gardafui through the country of the Somalis; * I have seen a living specimen in foliage brought from thence, and large quantities of the gum which is imported at Makalla for re-exportation to India: both the produce and the tree of Africa and Arabia appear to be the same, and I have no doubt from Rumph's description of the *Canarium hirsutum* in Amboyna, we may also safely extend its geographical distribution eastward to the Molucca Islands. †

Ibin Batuta calls the tree *al kundooroo*. † لکندر

The gum is called by the Arabs *laban*. لبان

The Maharas call the tree *maghrayt d'sheehaz*, مغرت ذ شیحز, and the gum *sheehaz* شیحز; but the latter are local terms, which are only generally understood among the inhabitants of that part of Arabia in which the tree grows.

The gum is procured by making longitudinal incisions through the bark, in the months of May and December, when the cuticle glistens with intumescence from the distended state of the parts beneath: the operation is simple, and requires no skill on the part of the operator. On its first appearance, the gum comes forth white as milk, and according to its degree of fluidity, finds its way to the ground, or concretes on the branch near the place from which it first issued, from whence it is collected by men and boys, employed to look after the trees by the different families who possess the land in which they grow.

It is curious to observe how correct the ancients were in many of their remarks concerning the Frankincense Tree, and in their description

treble the size of any of the others. The pericarp is pear-shaped and about half the size of an olive; indeed, the tree throughout appears to average half the size of the *B. serata*. The new cuticle is of a bright hazel brown, color, peeling off in large deciduous flakes from the bases of the principal branches and the trunk, and none but the oldest portions are cinereous. The racemes are fascicled, and as long as the leaves; in Dr. Roxburgh's description they are simple and shorter than the leaves.—H. I. C.

* Visit to the Frankincense country by Capt. Kempthorne, I. N. Jour. Geo. Soc. Bombay, 1841 to 1844 p. 402.—Carless's Chart of the Coast near Gardafui. †Rumph Op. et loc. cit. ‡ Ibin Batuta printed char. with Eng. Trans. by Lee. p. 16

of that part of Arabia in which it grew; curious, because in our days, no one thinks it worth his while, to go beyond the bare coast-line of Southern Arabia.

Theophrastus * and Pliny † have written, that it was only to be found in a particular part of Arabia, and that the name of the country in which it grew was *Saba*, the capital *Sabota*, which was eight days journey from the *thuriferous region*. The tree was about five cubits high and much branched, with leaves like those of the *Acacia*, and of an herbaceous green colour;—a description almost sufficient to enable one at the present day, to fix immediately upon the tree, in that part of Arabia where it grows. It grew on the mountains, and in the valleys beneath, and from the former small streams flowed into the plains. The soil was sub-argillaceous, sandy, and of a red colour inclining to white. To obtain the gum, slits were made in the bark, but no portion was cut away; that part of the incense which adhered to the tree when taken off, carried with it portions of the bark. The mountains and woods where it grew, were divided among the Sabians, and there was a strict faith observed towards each other, respecting the parts they severally possessed. — But for the disappearance of the Sabians and their towns, I could not offer a more correct description.

They relate also, that the incense was transported on the backs of camels, in bags and packages, marked with the owner's name and the price; these were deposited in the temple of the sun at *Saba*, ‡ and the whole transaction was held so sacred that they were left unguarded, and no one entertained the slightest apprehension of being robbed of the smallest portion of his gum; merchants arriving there paid the prices marked on the packages, one third of which was taken by the priest for the god of the temple, and the remainder was left for the people to whom the frankincense belonged. Arrian writes, that the whole of the frankincense of the *Sachilitic Sinus* was collected into one great heap, which, from its sacred nature, received safe protection from the gods; neither could any one secretly, or openly, take away a grain without the permission of the king, nor a ship laden with it leave the port against the will of the gods. §

Theophrastus, Pliny, and Arrian, however, differ a little in this unim-

* Theophrast. Op. cit. † Pliny Op. cit. ‡ "In urbe Sabis" *Sabmasius* T. 1. p. 355. A. § Arrian. Perip. Mar. Eryth.

portant detail; that it was carried on the backs of camels holds good to the present day, simply because in those parts there has never been any other way of transporting baggage, but the Sabian religion having passed away, there is now unfortunately for the "lords of the soil," no longer any mystery connected either with the tree, or its produce; and the gum, as it is collected, is brought to the nearest port, and finds no other outlet at the present time, but on the coast. Dear as it appears to have been in Pliny's time, when those who were employed in refining it at Alexandria entered upon their occupation "hoodwinked and naked as they were born", * that they might neither see to covet, or have power to conceal the smallest portion of it about their persons; it is now so cheap that it is difficult, even in the country where it is produced, to obtain a sale for it at any price.

The insalubrity of that part of Arabia in which the Frankincense Tree grows, is also fabulous. Diodorus Siculus said the country was infested with the most venomous snakes; † Arrian, that it was so unhealthy that not only the laborers who lived in it, and who were compelled from want of food to engage themselves in the employment of collecting the gum, died of the pest peculiar to the locality, but, that even those who sailed along that coast were affected by the same unhealthy influence. ‡ Probably the Sabians themselves raised these reports, from a desire to intimidate foreigners, who, from other motives than those of mere curiosity, might have wished to visit their country, then so remarkable for the value of its produce. In whatever way it originated, it is incorrect, inasmuch as the climate of the mountainous part of Arabia on which the Frankincense Tree grows, is most invigorating and healthy; it is the abode of the Bedouins of the district, and the resort of the lowland people of the coast during the hot season.

GEOGRAPHICAL POSITION.

In pointing out the position of the Frankincense Region of Arabia I shall dwell on the subject, more for its geographical than for its botanical interest.

* Pliny, Holland's Trans. loc. cit. † Diodorus Siculus. Bibl. Hist. T. I. L. iii. p. 214. Wessling. ‡ Arrian Op. cit.

Those who have attempted to compare the ancient with the modern geography of Arabia, are aware of the difficulty that exists, from the scantiness of detail in the former, of identifying names, localities, and places, mentioned by the ancients, with those of the present day; and, on this account, it is not a little gratifying, occasionally to meet with such aids as enable us to do this, without having to recur to the flexibility of the Arabic language, to anagrams and transpositions, or to a train of reasoning open to all kinds of objections. I allude in the present instance more particularly to the limits of the frankincense region, after pointing out which I shall endeavour to shew by their undeniable evidence, that Ptolemy's *Libanophorous region* is misplaced, and, by assigning to it its real position, hope at some future period, (assisted by other features equally imperishable and unalterable as those of the frankincense country,) still further to elucidate the ancient geography of the southeastern coast of Arabia.

The limits of the Frankincense Region of Arabia, situated on its southeastern coast, about midway between Ras-al-Had and Cape Aden, have, so far as it has been in my power, been ascertained in the following way. Passing along the coast from the northeast, I have by direct information, and by personal observation of the nature of the country, been able to satisfactorily determine the point, whereat the frankincense tree is first met with, the latitude of which, from the direction of the coast, at once gives its northern and eastern limits: while its extent westward has been ascertained, by carefully enquiring at each town along the coast in that direction, what quantity of frankincense is annually brought to it from the interior, until arriving at that place where the produce of the Arabian tree is never seen. In the same way by the quantity of frankincense brought to the several towns from the interior, it is easy to determine opposite to what part of the coast the tree most abounds, for the gum is so cheap, that to be worth any thing to those who collect it, it must be brought by direct route to the coast from the place where it is gathered.

Coming then from the northeast, we first meet with the frankincense tree on the Sabhan mountains in latitude $17^{\circ} 30' N.$, and longitude $55^{\circ} 23' E.$, where the desert ends, and the wooded mountainous region commences; and in following the coast, which runs southwest, we find the quantity of frankincense exported from the different towns, gradually diminishing after the Bay of Al Kammar, until we arrive at Makalla, from whence none is exported from the interior of Arabia, and but little used

except what is brought from the African coast opposite that town. By the same inquiry we learn, that the produce of the Arabian tree, is exported in largest quantities, from places on that part of the coast which intervene between the latitude and longitude mentioned, and the town of Damkote, in the Bay of Al Kammar, in $52^{\circ} 47'$ east longitude.

Between these two points, the trees are congregated in two distinct localities; on the summits and sides of the highest range of mountains near the coast, and on the plain between them and the sea: the former is called the *Nejdee* نجدية or high land, the latter the *Sahil* ساحل or plain on the coast. *

The *Nejd* or *Nejdee*, is about two days journey from the shore, it is the most elevated portion of the great limestone formation of this coast, which from a height of five thousand feet, here descends in sudden and lofty steps upon the Arabian Sea. To get to it you first cross the *Sahil* already mentioned, then ascend a minor range which is covered with long grass and trees, and after passing a less fertile region called the *Gdthän*, at last arrive at the *Nejdee*, where there is no grass, and but few trees besides those which produce the frankincense. The soil is red and sub-argillaceous, and in consequence of its scarcity, the trees are generally found growing out of the crevices of the limestone rock. It is from this part that the frankincense is chiefly brought; and as I have before said, that the largest quantities of it, are exported from the different towns on the coast between longitudes of $52^{\circ} 47'$ and $55^{\circ} 23'$ E., so the *Nejdee* lies behind these towns and between these points of longitude.

The other locality, viz. the *Sahil*, lies in front of that last mentioned; it is the plain between the base of the mountains and the sea, and is bounded on the east by the mountainous promontory of Ras Noos, and on the west by that of Ras Sajar. The frankincense trees are mostly

* Theophrastus says (Op. cit.) that those who went to see the Frankincense Trees, saw also the Myrrh Trees at the same time; this might have been the case in the Somali country where I believe it to be a fact, but not in Arabia; for where the frankincense tree exists in the latter country, the myrrh tree is unknown and *vice versa*; thence the ancient distinction of *Smyrnophorous* and *Libanophorous* regions. There is a tree called by the Bedouins *Akor*, which yields *Moql*, a gum slightly resembling myrrh in appearance and taste, but not in its perfume which is disagreeable, and which the Persians and Arabs use as a fumigation in the cure of Hæmorrhoids: this grows side by side with the frankincense tree and is equally plentiful.—H. I. C.

congregated towards each extremity of it, viz. about Marbat, and in the neighbourhood of Bandar Resoot, where they are found at the base and on the sides of the mountains, about five miles from the shore, and I believe they are also met with in a similar position near Hasek. The quantity of frankincense that is collected from them is proportioned to their number, which bears no comparison with the myriads that are spread over the *Nejdes*. The soil of the *Sahel* only differs from that on the tops of the mountains, in being richer and more abundant; collections of fresh water are common in most parts of it, and among the mountains above are rivulets and reservoirs, truly said by Theophrastus "not to be found elsewhere."—* In no part of the southeastern coast of Arabia, is there such an abundance of fresh water, such good land, such rich pasture, and such a variety of plants, shrubs, and trees, as in the Frankincense Region. It may fairly be said, to be the favoured part, the garden of Southern Arabia, while both east and west of it, all is characterized by a cheerless, dreary, arid waste.

So well as the Frankincense Region of Arabia is marked by its comparative fertility, in addition to its having ever yielded large quantities of an incense, that, from the remotest antiquity has been considered by the heathen nations of the eastern world as an essential in their religious ceremonies, it is not surprising that it should have gained for itself the appropriate designation of the *Libanophorous region*, under which appellation we meet with it in the geography of the ancients. But, as they do not appear to have been agreed as to its position, and their Commentators have been unaided by the means which we now possess to adjust their difference, I shall in conclusion, offer a few observations on its real position, compared with that which some of them would appear to have assigned to it.

On looking at Mercator's map of Ptolemy's Arabia, after what I have written, the misplacement of the *Libanophorous region*, becomes obvious; instead of being situated in the central part of the southeast coast of Arabia, we find it carried up into the province of Oman, upwards of four hundred miles from its real position, to a part of Arabia where, from the late Lieut. Wellsted's personal experience, † and my own repeated enquiries of the inhabitants of that province from north to south, I am satisfied the tree does not exist. On the other hand, Arrian, or the au-

* Theophrast. Op. cit. † Wellsted's Trav. in Arab. V. I. p. 285.

thor of the Periplus, * the most intelligible of all the ancient Geographers, in describing the southeastern coast of Arabia, advancing eastward, commences his *Libanophorous region*, at the *Syagrian Promontory*, (Ras Fartak,) which, in his general description, is sufficiently correct to shew that he was perfectly aware of its real position; yet, accurate as Arrian is in this instance, it is not more easy to comprehend why he should have said "adjoining Syagros" is a bay which runs deep into the mainland of *Oman*, than that Ptolemy should have transported the *Libanophorous region* across the great desert of Ahkaf, to that part of Arabia, which alone bears the name of *Oman* at the present day. Those who have witnessed the relative position of the Akhdthoor mountains of *Oman* in the northeast, and the abrupt commencement of the Nejd or the Sabhan mountains on the southeast coast of Arabia, with the vast expanse of desert between them, cannot well conceive how the oversight could have happened, and can come to no other conclusion, than that both Ptolemy and Arrian must have been misinformed, or have misunderstood their informants; the former as to the position of the *Libanophorous region*, the latter as to the extent of the province of *Oman*; unless we suppose, that formerly the province of *Oman* extended further to the westward than it does at the present day, when both Ptolemy and Arrian would be right as to the country, but the former must still remain wrong in the position of the *Libanophorous region*. In whatever way we conceive the error to have originated, or attempt to solve the difficulty, we must allow, that Ptolemy's *Libanophorous region* has been misplaced, and that the position given to it by the Author of the Periplus is the correct one.

ARTICLE V.—On two Balsam-trees (*Balsamodendra*) from Sindh. By Assistant Surgeon J. E. Stocks, Vaccinator in Sindh.

1. *The Googul Balsam-tree.*

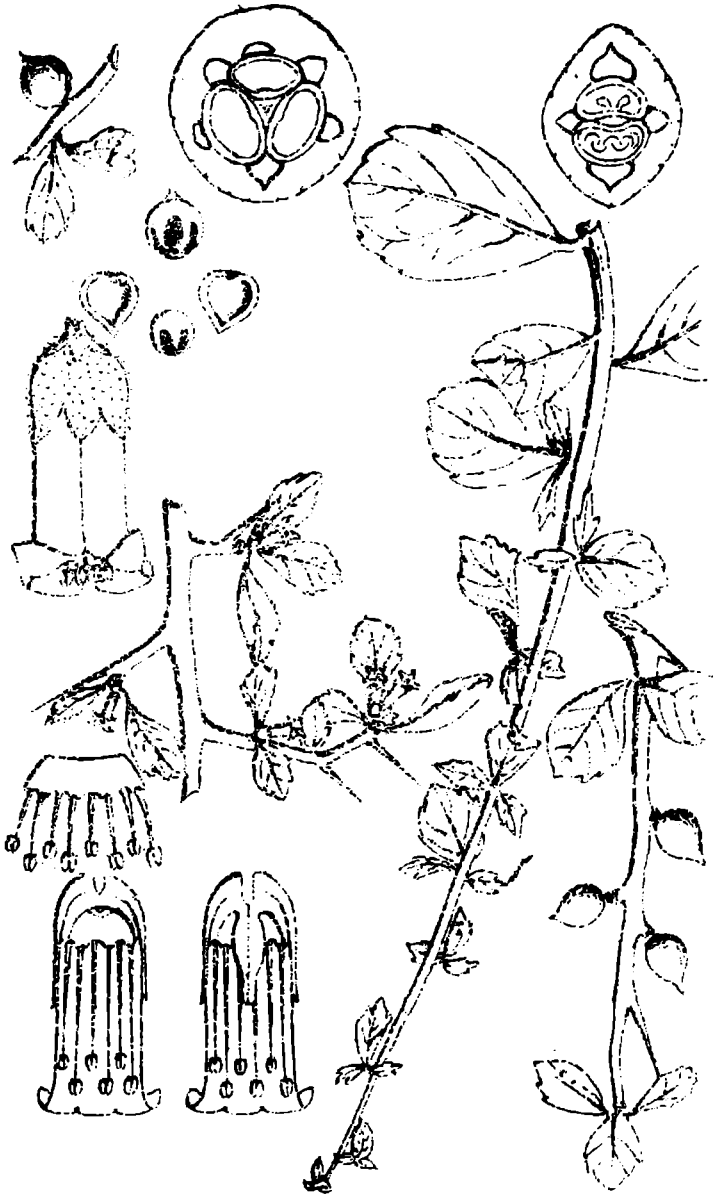
The gum-resin Googul (گوگل) has had its synonyms traced out by Sprengel (Hist. Rei Herbariæ I. 272), followed by Ainslie (Materia Indica I. 29), and Royle (Ill. Botany Himal. Mount. p. 176), and is the Mukul (مقل) of the Persians and Arabians, and the Bdellium

* Perip. Mar. Eryth

Balsamodendron Roxburghii (Am.)

W. Anderson del. J. E. S. Smith.

H. C. M.



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(βδέλλιον) of Dioscorides and (?) Genesis 2. 12; Numbers 11. 7.

There has always been, however, some degree of uncertainty about the tree from which it is taken.

It is unnecessary to dwell on the idea of Kæmpfer (*Amœnitatès*, p. 668) that it is produced by the *Borassus flabelliformis*, or of Matthioli, that it comes from the *Chamærops humilis*. Moreover it has no connection with the Googul of the Coromandel Coast, which is the Koonder gum from the *Boswellia glabra* (Ainslie I. 136). Virey, (*Hist. Nat. des Medicamens* p. 291) first suggested that Bdelium came from an *Amyris*, the Niotoutt of Adanson, *Voy.* 162. *Heudelotia Africana*, *Flora Senegambiæ* 1. 150. *Balsamodendron Africanum*, Arnott in *Annals Nat. Hist.* 3. 87. It is probable that African Bdelium is yielded by this shrub, which is a closely allied species to the Indian Googul-tree. This tree Roxburgh had growing in the Calcutta Garden, and described in the *Flora Indica* 2. 244, under the name of *Amyris Commiphora*, with the Sanscrit synonym of Googula; but he was not aware of its yielding a bazaar-gum.

In the *Hortus Bengalensis* it appears as the *Amyris Agallocha*, which was probably the name finally adopted by Roxburgh, from some suspicion of the distinctness of Jacquin's plant, the supposed identity of which had suggested the specific name in the *Flora Indica*.

Royle had this plant in the Saharunpore Garden, and was informed that it produced the Googul gum-resin, but recommends (*Him. Botany*, and more recently in his work on *Materia Medica Lond.* 1847) that the subject should be followed up by those who have the opportunity of examining the flowers and collecting the gum.

The tree is abundant on rocky ground in Sindh, about Kurrachee, Garrah, Tattah, Jerrok, &c. in short wherever the limestone formation extends. It is therefore, most probably, very common in Beloochistan and up the Persian Gulph, and is one of the plants connecting the Syrian and Indian Floras.

BALSAMODENDRON ROXBURGHII (Arnott).

Amyris Commiphora.— *Rox. Fl. Ind.* 2. 244.

Amyris Agallocha.— *Hort. Beng.* p. 28.

Protium sp. *Balsamodendron*.— *W. and A. Prod.* p. 96.

Commiphora Madagascarensis.— *Lindl. Fl. Med.* p. 173, and

O' Shaughnessy, Beng. Disp. p. 287, non (?) Iacq. Hort. Schön 2. 66. t. 247.

Balsamodendron Roxburghii.— Arn. Ann. Nat. Hist. 3. 86, and Wight Illust. 1. 185.

Balsamodendron Agallocha.— Voight. Hort. Suburb. Calcutt. p. 150.

A small tree 4 to 6 feet high, or more generally a stunted bush, with thick branches spreading on all sides. In barren and rocky situations the gnarled limbs spread from the crown along the surface of the rock. Branches knotty and crooked, with the ash-coloured bark peeling off in flakes; the sub-terminal ones short and spiniform, with buds and secondary spines on them.—Leaves and flowers collected at the end of short stunted buds, which finally develop into spines, or become young soft shoots, on which the leaves are arranged alternately.

Leaves smooth and shining, obovate, almost sessile, shallowly toothed anteriorly, the tapering base entire; in thriving plants and luxuriant shoots incise-serrate, cuneate-obovate or oval-acute, with a longer stalk from which spring one, or more generally two, lateral leaflets, which are sometimes minute and entire, but generally serrated, half the size of the terminal leaflet, and overlapping it in its induplicate vernation.

Young leaves, while in the bud, covered with glandular hairs which soon drop off, a few only remaining in the axil and on the petiole. Flowers minute, in little bundles at the ends of the non-developed buds, with or without leaves, subsessile, with 3 minute bracts to each flower.

Calyx cylindrical, 4—5 toothed, thickly covered externally (as are the bracts) with glandular hairs; tube splitting as the fruit develops, and remaining spread out and withered at its base. Corolla of four, rarely five, strap-shaped, brownish-red petals; margins slightly overlapping in aestivation, with an inflexed mucro; tips of the petals curled back.

Stamens 8—10, the four opposite the petals, shorter than the others.

Disk 8—10 toothed, the alternate sinuses deeper and in these are situate the short stamens. Ovary bisulcate, two-celled, rarely three-celled, and still more uncommonly four-celled; sometimes imperfectly developed. There is no relation between the quinary proportion of the perianth, and this increased number of the carpellary leaves.

Ovary tapering upwards and passing imperceptibly into the short and thick style.

Stigma obscurely two-lobed.

Ovules two in each cell, collateral, suspended.

Drupe red when ripe, ovate-acuminated, often bluntly angular, marked by two sutures along which the epicarp and a portion of the mesocarp fall from the base in two fleshy valves, whose position is that of the carpellary leaves, leaving the nut enveloped by a four-cleft orange-coloured pulp, whose arms meet at the apex.

Nut ovate-acute, readily splitting into two. Each half has a groove on the commissural plane, bifurcating upwards. Into this groove fits a prolongation of the axis.

The drupe has sometimes 3 sutures, and a six-cleft pulp; and rarely 4 sutures, 4 nuts, and a four-cleft pulp.

Out of a parcel of 56, two had 3 sutures and one had 4 sutures, the rest being normal.

Seeds generally one in each cell or $\frac{1}{1}$ (two ovules being abortive), often $\frac{0}{1}$ (three abortive), more rarely $\frac{2}{1}$ (one abortive), still more rarely $\frac{2}{0}$ (two abortive), and very seldom $\frac{2}{2}$ (all perfect).

Out of a parcel of 41

15	were	$\frac{1}{1}$
13	.....	$\frac{0}{1}$
5	.....	$\frac{2}{1}$
8	all abortive or uncertain.	
<hr/>		
41		

Out of a parcel of 61

24	were	$\frac{1}{1}$
17	.....	$\frac{0}{1}$
8	.....	$\frac{2}{1}$
4	.....	$\frac{2}{0}$
2	.....	$\frac{2}{2}$
6	all abortive or uncertain.	
<hr/>		
61		

Albumen none; embryo straight; radicle superior; cotyledons thin, intricately crumpled and plaited.

Obs. 1. This shrub is called Googul or Googur, by the Hill-Belooches, who do not know it by the name of Mukul. It yields the gum-resin Googul, which they collect and bring to the bazaars of Hyderabad and

Kurrachee, where it sells at the rate of 4 Rupees the Maund of 80lbs. At Bombay, its Tariff valuation is 2 Rupees the Maund. It is collected in the cold season by making incisions with a knife in the tree, and letting the resin fall on the ground. Hence the dirty and impure state in which it is found in the shops. I have obtained it from September to December, and have found it stand off in large tears from a clean incision, of the consistence and opacity of "pus laudabile." My informants say that from half to a whole seer is yielded by a single tree. It is regarded as cordial and stimulant.

Made up into a cake with bajree flower, it is commonly given to horses and cattle when they have a cold. The dealers from Cabool make a practice of giving it to their horses in the cold season, thinking that it keeps them in health and condition. The fruit and young shoots are given for a similar purpose.

The gum is made into a plaster and used to discuss tumours and boils, and is regarded efficacious in expelling the guinea-worm both taken internally and applied to the tumour.

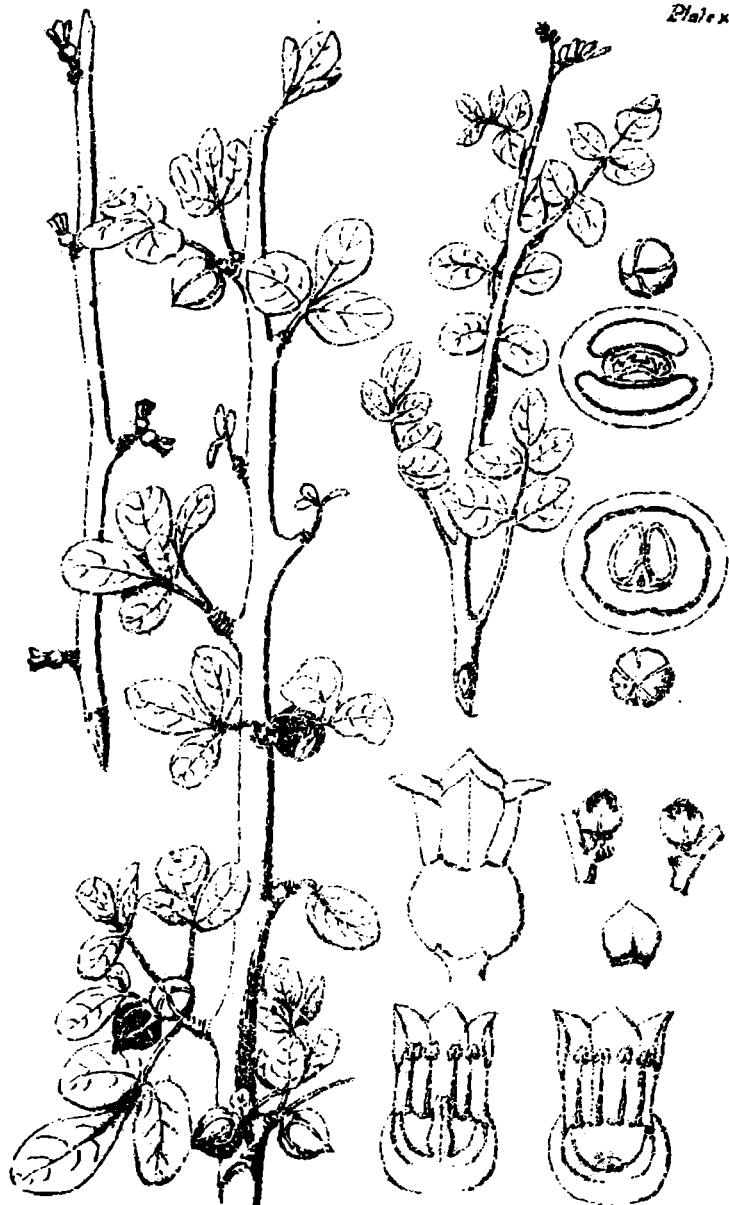
It is extensively used by the Hindoos as incense for burning in their temples, although its smell is by no means agreeable.

It is also much used by builders, who mix it with the mortar and plaster used in the construction of houses of a somewhat superior description, where durability is an object. The Googul is boiled in water for a considerable time, when its spirit (as they phrase it) is communicated to the water, and the dregs are thrown away. This solution of the gummy part, which according to Newman's analysis should be six drachms, two scruples in every ounce, is mixed with the lime, and employed with confidence to make the plaster adhere strongly, and to prevent it from crumbling and splitting. The Googul water is sometimes washed over the walls by itself.

OBS. 2. My friend Assistant Surgeon Carter showed me fine specimens of the "Mukul" gum collected by him on the southern coast of Arabia, together with numerous other gums, all accompanied by admirable drawings of the trees producing them. There is, therefore, some error in the statement of Dr. Malcolmson (Royle's *Materia Medica*) that Bdelium is not produced in Arabia.

Moreover the "Mukul" and the tree producing it, are from Dr. Carter's specimens, identical with the Sindh Googul, and its tree, as might be

Platanus



W. Abraham del. J.E.S. desit.

Z. G. G. lith.

Balsamorhiza hirsuta (J.E.S.)

expected from the great similarity between the vegetation of the rocky part of Sindh and that of Arabia.

The range of the Googul tree is extensive. Arabia (Dr. Carter); Northern India (Dr. Royle); Silhet and Assam (Roxburgh); and the Garrow Hills (Voigt). Aurungabad? (Dr. Walker). The Deccan? (Dr. Gibson). I have found it in Sindh, and at Deesa in Marwar.

2. *The Sindh Balsam-tree.*

BALSAMODENDRON PUBESCENS. (Stocks.)

A small tree, or stunted shrub, much resembling the Googul tree, but the sub-terminal branches, though abrupt, are not spiniform. Bark peeling off in flakes. Leaves ternate, fascicled at the end of the stunted buds, but on the young soft shoots alternate, with an additional distant pair of leaflets; long petioled, soft and downy (as are the young shoots) with short furfureous pubescence. Leaflets obovate, entire, often retuse; the terminal one stalked, the lateral ones subsessile, often somewhat rounded.

Flowers, sessile in bundles at the end of the stunted buds.

Calyx, tube shallow, contracted at the mouth.

Petals, red or white, with æstivation as in the Googul, but erect and not reflexed at the apex in anthesis.

Stamens, equal in height.

Disk, equally toothed.

Ovary, as in the Googul.

Drupe red, globose with a short point, marked by four conspicuous white sutures, the alternate ones (corresponding to the mid-rib of the carpellary leaves) not reaching to the apex of the fruit. Valves two, each cleft half way up by the secondary or false suture. Pulp orange coloured, four-toothed upwards, not reaching to the apex of the nut which is left naked. Nut ovate obtuse; one of the halves into which it splits is a mere flat plate or scale, the other is a perfect cell grooved on the commissural plane. Sometimes the number of carpellary leaves is increased. Thus out of a parcel of 120 there were four, and out of a parcel of 200 there were seven, which had 6 sutures and a pulp 6 toothed towards the top.

In these cases the additional carpel was represented by a second flat plate, or more rarely there were two perfect cells and one abortive

One seed in each perfect carpel.

Albumen none; embryo straight.

Radicle, superior; cotyledons, crumpled and plaited.

Obs. 1. This shrub is called *Bacc* by the Hill-Belooches, who make no use of it. Its young shoots and buds are remarkably fragrant when bruised. In the cold season it yields a small quantity of a tasteless, inodorous, brittle gum, almost entirely soluble in water. It flowers scantily in October, and its leaves and young shoots appear with a few flowers in April and May. It is a native of Beloochistan and the hills which separate that province from Sindh; probably also of Afghanistan, attaining its southern limit about Kurrachee.

Obs. 2. Dr. Arnott makes two sections of the genus *Balsamodendron*, depending on the relative depth of the calyx. The *Googul* tree has its calyx long and tubular. The one just described has its calyx shallow; and this is especially observable in a section of the flower. Moreover its fruit differs in having two additional imperfect sutures, in which it agrees with *B. Gileadense* and *Kafal*, as we gather from Forskall, and from *B. Berryi* and *Wightii*, as Dr. Wight kindly informs me.

ARTICLE VI.—*On the Brahmanical manner of contracting third Marriages*. By the Rev. J. STEVENSON, D. D.

The ancient Hindu legislators, not having courage enough openly to denounce polygamy, and yet having wisdom sufficient to see the hurtful effects of such a custom, if carried to any great extent, have endeavoured to deter men from its practice by working upon their superstitious fears. Bigamy they permit unchallenged, but place what might at first sight appear an insuperable barrier in the way of contracting a third marriage, by asserting that he who does so, will invariably die in a short period after the ceremony; and this wholly irrespective of the consideration of the wives formerly wedded being alive or dead. Indeed, it is by no means considered respectable for a householder to contract even a second marriage, while his former wife is alive, provided that he has a son; the want of an heir to inherit his property and perform his funeral rites being considered the only proper excuse for departing from adherence to what is generally admitted to be the law of Nature. Brahmanical ingenuity has,

however, without the indecency of running openly in the face of a threatening contained in one of their sacred books, found a way of evading it by getting married the third time to a shrub called by them *Rui* (रुई) a kind of Swallow wort. After this ceremony has been gone through, all the danger falls on the poor vegetable, and so leaving the Purans and their curses behind him, the disciple of the Brahmans may run in the path of polygamy as far as he feels inclined.

Thinking that a short description of such a singular rite might be interesting to the Society, I have translated a short account of such a marriage drawn up by the Principal of the Hindu college at Poona, and transmitted to me by the Superintendent, Captain Candy. The paper is to the following effect.

“In the Matsya Purána, a third marriage is prohibited, and it is there declared that if any one through ignorance or presumption contract such a marriage he will die, and this denunciation rests on the authority of Garga. In the work that contains the Synopsis of rites and ceremonies, it is stated that if a third marriage is contracted, the woman will speedily become a widow, and therefore in order to accomplish a fourth marriage it is necessary first of all to be affianced to the Rui tree. The rite is performed in the following manner: On Sunday or Saturday, or any time when the sun is in the Lunar Asterism Hasta, let the resolution be expressed and the message of greeting sent by a Brahman. Then let the Manes of the deceased ancestors be worshipped under the name of Nándimukha (Pleasurable faces). The Rui tree is then to be worshipped through the priest, and to be considered as a representative of the sun in union with his wife Chháya (Shadow); an offering at the same time of raw sugar and boiled rice is to be presented.

Then the following invocation addressed to the Sun is to be made:—
“O thou who dwellest in the three worlds, do thou along with thy wife Chháya obviate the dangers that attend a third marriage and confer on me felicity.” Then placing the hand three times on the bush, it is thus to be addressed at the first time:

“O Rui, created by Brahmá Deva that thou mayest preserve me, therefore, O beneficent goddess, I prostrate myself before thee. O daughter of the Sun, I worship thee; mercifully preserve me now that thou art come to be my wife.” At the second time, he says, “O swallow wort, thou wert produced by Brahmá Deva for the benefit of all living beings. Thou art the first born of trees, who increasest towards us the love of the gods, obviate

the dangers of a third marriage." Then putting the hand out the third time, after this the priest is to say, "I will give to you of such a tribe my daughter Arkakanya, the grand daughter of Savita, the great grand daughter of Aditya, of the tribe of Kasyapa." Then the ceremony of presenting curds, honey, and sweatmeats, is to be performed. The veil is then to be drawn between the parties, and the marriage benediction pronounced. Afterwards the veil is removed, the newly wedded husband puts a garland on the tree, and the priest one on him in the name of his new wife; the marriage is thus rendered indissoluble. Then the priest says, "Now I have given to thee my daughter Arkakanya, the grand daughter of Savita, the great-grand-daughter of Aditya, of the tribe of Kasyapa. After this, gifts are to be given to the attendants and to the priest." Then a thread is to be passed round the newly married pair, and a bracelet bound on one of each of their hands. Vishnu is then to be worshipped
 In all the four points of the compass sacred fire is also to be consecrated, and oblations made to Brahaspati, priest of the gods, to Agni (Fire), Vayu (Wind), Surya (the Sun), and Prajapati (the Progenitor of mankind). Two cows are next to be given to the officiating priest. Then the newly married husband is to utter the following prayer, "O Arka (Sun), as I who am a man, have gone through this ceremony with a tree, grant me descendants and pardon whatever has been done amiss." After which he takes some water and casts it from his hands as the termination of the rite.

[*Translation of the Preceding.*]

तृतीयेर्शां विवाह करण्याचा निषेध.

मत्स्यपुराणामध्ये रतिसाठीं तृतीयेर्शां विवाह कधीहि करूं नये, मोहाने किंवा भ्रमानाने जर तृतीया मानुषीर्शां विवाह करील तर मरेल पांत संदेह नाही, गर्गाचें वचन याप्रमाणें आहे, असा आहे व संप्रह मंथीं तृतीयेर्शां लग्न केल्यास ती विधवा होईल, यास्तव चतुर्थ विवाह होण्याकरितां दुईर्शां विवाह करावा असें लिहिलें आहे. याचें विधान; तर रविवारीं, किंवा शनिवारीं, किंवा हस्तनक्षत्री नवव्याने संकल्प करून स्वस्तिवाचन (भाश्विर्वाचन) ब्राह्मणार्हां कडून करवून पित्रांस

नांदी मुख नाम लावून, नांदी श्राद्ध करून, आचार्य वरून रुईचे ठाई छायायुक्त सूर्याचे पूजन करून, गुडादनाचा नैवेद्य करून, तंतूनी वेष्टन करून, हे रवे त्रिलोकांत राहणारा छाया सहित तूं तृतीय विवाहन्य दोषाचे निराकरणकरून, सुख कर, अशी प्रार्थना करून तीन वेळ पाणी घालावें; माझी प्रीति करणारे, मी उत्पन्न केलेली, प्राचीन सूर्यापासून जात, ब्रह्मदेवाने उत्पन्न केलेली रुई आह्याला संरक्षो, ह्यणोन एकवेळ हे मंगलकारके देवी तुला नमस्कार असो. हे सूर्य पुत्रि, तुला नमस्कार असो. मला कृपेने राख, तूं माझ्या पत्नीत्वाप्रति आलीस. ह्यणोन दुसऱ्याने. व हे अर्कवृक्ष तूं ब्रह्मदेवाने सर्व प्राण्यांच्या कल्याणार्थ उत्पादित आहेस, तूं वृक्षांचा आदिभूत आहेस, देवांची प्रीति वाढिवणारा, तृतीय विवाह जन्य दोषाचा, व मृत्यूचा लवकर नाश कर; ह्यणोन तिसऱ्याने पाणी घालावें. त्यानंतर आचार्याने काश्यप गोत्रांची आदित्यांची प्रपौत्री, सवित्याची पौत्री, माझी पुत्री, अर्ककन्या अमुक गोत्रांतल्या वराला देईन, असे वाणीने दान करून, वराची मधुपर्क पूजाकरून, दोघामध्ये वस्त्रधरून, मंगलाष्टक ह्यणून, मग वस्त्र काढून नवऱ्याकडून रुईस माळ घालावी, व आचार्याने रुईची माळ नवऱ्याचे गळ्यांत घालावी, असे लम लावावें. त्या नंतर काश्यप गोत्राची आदित्याची प्रपौत्री सवित्याची पौत्री माझी पुत्री अर्क कन्या अमुक गोत्रांतल्या वराला तुला दिल्ली, असे दानकरून दक्षिणा द्यावी. तदनंतर रुई आणि नवरा यासभोवतें सूत्र वेष्टून त्या सुताने रुईत एक, व नवऱ्याचे हातांत एक, असीं दोन कंकणे बांधून रुईच्या चोहो दिशेस कुंभावर विष्णुपूजाकरून, अभिस्थापन करून बृहस्पत्यर्थ व अग्न्यर्थ होम करून, अभि वायु सूर्य प्रजापत्यर्थ होमकरून, आचार्यास दोन गाई देऊन, मी मनुष्याने वृक्षाचे ठाई हें कर्म केले हे अर्क मला अपयें दे, आणि तें सर्व क्षमा कर, अशी प्रार्थना करून, या कर्माने परमेश्वरास संतोष व्हावा ह्यणोन पाणी हाताने सोडावें.

ARTICLE. VII.—*Reports accompanying Copper Ore from the Island of Maseera, and on Lithographic Limestone from the Southern Coast of Arabia.* By Assistant Surgeon H. J. CARTER.

To the Secretary to the Bombay Branch Royal Asiatic Society.

SIR,—I am directed by the Honorable the Governor in Council, to transmit to you, for presentation to the Bombay Branch of the Royal Asiatic Society, the annexed Copy of Reports, by Assistant Surgeon Carter, on Copper Ore from the Island of Maseera, and Lithographic Limestone from the south-east coast of Arabia, accompanied by specimens of the ore.

I have the honor to be.

Sir,

Your most obed. servant,

W. ESCOMBE,

Secretary to Government.

Bombay Castle, }
21st December, 1846. }

While the Officers of the H. C. surveying Brig "Palinurus" were engaged in surveying the channel between the mainland of Arabia and the the Island of Maseera, I occasionally amused myself by collecting specimens from the mineralogical productions of the latter, and having heard, (but from what source I cannot now remember,) that the Persians formerly worked Copper mines there, I determined to test as far as possible the validity of the report. With this view, I from time to time, as the survey of the inner side of the Island was carried on, landed and prosecuted my research by excursions across it, opposite the point at which we were stationed; But my investigations were unattended by success, and the inhabitants either could not or would not guide me to the mines, being altogether ignorant of the facts of their existence, or otherwise too cautious to enlighten me on the subject, not thoroughly understanding, for some time after our arrival, what was the real nature of our visit to their Island. We had reached the south-western extremity of Maseera, before I had the good fortune to discover a vein of the mineral, of which I had been so earnestly in search. I had wandered over many miles of the

forests of volcanic Cones, (for such is their appearance when viewed from a height), which pervade the island, and was about to relinquish my search, when, on the morning of February 1st 1846, I landed about a mile from Ras Abo Rasas, the south-westernmost point of Maseera; and after a short ramble fell in with some small portions of the blue carbonate of Copper, (Azure Malachite, M.). Had I seen the vein at that moment, I could not have felt more confident of its existence or more delighted with my success; and but a little further on, I halted at the sites of some old smelting-places, around which was a quantity of the blue mineral just mentioned, and slags containing portions of it in a reduced state; and a few moments more brought me to the object of my search viz. the ore itself *in situ*.

It occurs in the form of the blue and green carbonates, disseminated in crystalline quartz-veins which are about six inches in width, and associated with brown Hematite. These veins, to which the mineral appears to be confined, traverse a green hornblende earthy rock in the direction of north and south; they have not been much worked below the surface, and there are no remains of shafts or subterraneous excavations in their neighbourhood.

Afterwards I discovered some of the "Blue carbonate of Copper," strewn over the surface of the ground, on the outer side of the island near Ras Jah, but as it was towards evening that I fell in with it, and the sun had set, I had not another opportunity of returning to the same spot to seek for the vein.

The third and last place where I met with the mineral mentioned, is about a mile due east of Ras Jazeera, a little Cape on the outside of Maseera, close to which is a small island. Here the veins are in a reddish trap rock, and though much richer than those at Aboo Rasas, they have been less worked; as at the latter place they are about a mile from the shore, and from fifty to one hundred feet above the level of the sea.

After it became known to the inhabitants that we were aware of the existence of Copper in the island, I was informed that there are several other places, which I had not seen, situated near the village of Garen, where there are also the remains of smelting-places, said to have been built by the Faringhees; but as my excursions were over, the survey of the Island of Maseera completed, and we were about to weigh anchor to

take up a station on the opposite coast, I had not an opportunity of visiting them.

The specimens accompanying this Report have been collected from the *debris* of the decomposing metalliferous rocks which the veins traverse, and will serve to shew in what form the Copper occurs in the volcanic rocks of Maseera; but the richness or poorness of the veins themselves, lower down, in the undecomposed part, must be ascertained by a more extended examination than it was then in my power to accomplish. Of this I feel satisfied, that there are many others of the same mineral which I did not see, many also undiscovered, and that there is a vast quantity of Copper Ore scattered through the *Trap Rocks* of Maseera. That these mines at some time or other were, considered worth working, is proved by the presence of the remains of old smelting-places in the vicinity of the veins, but with what profit, is probably now unknown.

The Island of Maseera is inhabited by the Janabah tribe, a cognate tribe of the Beni-Bo-Ali, and a few families of the tribe of Hakiman, who people the islands in Gubat Hashish. At first they were much opposed to our landing, and threatened to murder the first boat's crew that came on shore; subsequently, however, Hamud, Shaykh of Soor, came down for the purpose of mediating between his uncle Mohamed bin Mohamed, Shaykh of the Janabah tribe, and ourselves, and after a reconciliation had taken place, the steadiness and kindness of treatment every member of the tribe received, won for us their good opinion, and our departure from the island was as much regretted by its inhabitants, as our arrival had been considered hostile and unwelcome.

So willing were the inhabitants to supply all our wants, after the object of our visit was thoroughly understood; so great is their confidence in our pecuniary transactions with them; and so much more are they given to habits of industry than the Bedwins of the mainland, that if any desire of the Government to work these Copper mines was intimated to them, I feel convinced that they would hail the proposition with delight, as holding out a prospect of amelioration which, from the barrenness of their island and their extreme poverty, they could expect from no other source.

The channel between Maseera and the mainland, though difficult to navigate, is safe, offers good anchorage and plenty of water. It would appear by the information obtained from the inhabitants, that having anchored there, you could not work out during the south-west monsoon, but

could remain as safe as during the north-east monsoon, when there is hardly a ripple there to disturb the surface of the water.

There is excellent fresh water to be obtained from shallow wells on the inner side of the island, but provisions of all kinds, excepting fish, are scanty from the barrenness of its soil.

*Report on Lithographic Limestone from the South-east
Coast of Arabia.*

As we approach the south-western half of Kuria Muria Bay, on running down the south-eastern Coast of Arabia from the N. E., a Limestone formation of great magnitude makes its appearance in the form of mountains near the sea, backed by table land, (a less disturbed part of the formation), elevated about four thousand feet. From the Bay of Kuria Muria this highland is continued on with trifling interruptions here and there, of valleys and passes, to the Fudhaylee mountains, a little to the north-east of Aden. In its composition are found limestone strata of various degrees of purity, passing from pure compact fine-grained limestone above, breaking with a conchoidal fracture, downwards into coarse micaceous sand-stone. It is near the village of Marbât towards the upper part of its series, that I observed a stratum possessing the character and properties of Lithographic Limestone, and from which I gathered the specimens I have now the honor to forward. One of them has been ground down by Dr. Buist, whose report on its genuine character, and its commercial value, I beg leave to annex to my own; and to prove its identity with that used for lithographic purposes, a design has been transferred to it, from which the accompanying impressions have been taken, that, in forwarding the specimens, satisfactory evidence might at the same time be given of what can be produced from them.

The stratum composed of this stone, is from three to four miles inland (varying with the distance of the highland from the shore), close to the summit or edge of the table-land above the village of Marbât; from whence there is a descent towards the sea, sometimes gradual, sometimes precipitous, so that blocks loosened from the top, could with little trouble, be rolled down to the water's edge, where they might be immediately shipped; there is also a running stream of fresh water on the spot. As however the stratum must be continued on, and the mountains are equally near the sea for some distance on both sides, there might even be a still

more convenient position for quarrying the stone than that above Marbāt; at allevents this would offer an advantage in the selection of material.

The people who inhabit the highland, where the lithographic stone is to be found, are the Beni Gara; they are fierce and revengeful, but if properly treated, are easily managed; and though they would not submit to be employed as quarrymen, yet they would be quite ready to enter into any engagement to protect others from being attacked by the more predatory part of their tribe. At the same time each Beit or family, of the Gara tribe, possessing its distinct and particular portion of the district they inhabit, and being exclusively entitled to its peculiar produce, it would simplify the matter much, to treat with that family only from whose land the stone might be required to be taken; this could not be done, however, without the concurrence and the aid of the Arab (not Bedwin) Shaykhs and merchants of the neighbourhood, who, under the idea of participating in the gain, would be quite willing to smooth the way for the introduction of any commercial scheme. Before however proceeding in the matter, it would be advisable to ascertain more satisfactorily what quantity of Lithographic Limestone the stratum is capable of yielding, as well as its average uniformity of texture; points, which from such investigations generally being considered of so little consequence compared with the main object of the survey, I had neither time nor means afforded me to determine.

Bombay; }
November 30th, 1846. }

H. J. CARTER.
Assist. Surgeon.

ARTICLE VIII. *Notice of Dr. Roth's investigations of the Vedas.* By the Rev. J. M. MITCHELL.

Some recent researches into the literature and history of the Vedas, conducted by a German Orientalist, Dr. Rudolph Roth, have been productive of results sufficiently interesting and important to claim the attentive consideration of our Society. These results have been communicated to the public in a volume, of 180 pages 8vo. entitled

Zur Litteratur und Geschichte des Weda. Drei Abhandlungen, von Rudolph Roth, Doctor der Philosophie. Stuttgart, 1846.

A special interest attaches itself to the Vedas at present, from the

fact that the Court of Directors is understood to have come forward in patronage of an edition of the Rig Veda, which is to be edited in Sanskrit by a German Scholar, Dr. M. Müller, with a translation into English by Professor Wilson. Independently of this, however, Dr. Roth's contributions to Oriental investigation would be most welcome to all who take an intelligent interest in the history of the human race, and in the unsealing of a book which is unquestionably one of the most remarkable of its records.

Dr. Roth seems carefully to have examined the MSS. of the Vedas that are deposited in the library of the East India House, London, the Bodleian library at Oxford, and the Bibliothèque Royale at Paris.

The following is a condensed statement of the results to which his inquiries have conducted him.

The Vedas are properly five in number,—the *Rik*, the *Sáma*, the *White Yajus*, the *Black Yajus*, and the *Atharva*. A Veda consists properly of two perfectly distinct parts, the first being collections of hymns, the second liturgical treatises. The first part is called *Sanhitá*; the second, *Bráhmaṇa*. These two parts are probably not of the same age,—the hymns being more ancient than the liturgical treatises. Among the five Vedic books denominated *Sanhitá*, there are, however, only four collections of hymns. The fifth, the *Taittiriya Sanhitá* (or the so-called hymns of the *Black Yajus*), is a liturgical work.

Among the four collections of hymns, the *Rik* is the most extensive, amounting to nearly 11,000 verses. The *Atharva* hymns are nearly as numerous; those of the *Vájasaneyya* (or *White Yajus*) may amount to half as many as those of the *Atharva*, and those of the *Sáma* to one fourth of those of the *Atharva*. The hymns of all the four Vedas taken together may amount to about 30,000 verses.*

But, as Colebrooke has remarked, the hymns of one Veda are often repeated in one or more of the others. Nearly the entire *Sáma* is in the *Rik*. About half the *Yajus* is in the *Rik*. Roth speaks doubtfully respecting the *Atharva*, of which he has been able to consult only an indifferent copy, but conjectures that one-third of it is in the *Rik*.

* In the *Jahrsbericht der Deutschen Morgenländischen Gesellschaft* for 1845 and 1846, the numbers are thus stated on Roth's authority; *Rik*, 10,500 double verses; *Atharva*, about 8,000; *Vájasaneyya*, considerably fewer; *Sáma*, about half of the *Vájasaneyya*.

The usual division of the *Rik* may be called purely mechanical. It is into 8 equal parts (*ashtaka*), each *ashtaka* being divided into 8 sections (*adháya*), and each *adháya* into *varga* of 5 verses each. This arrangement appears to have been adopted simply to facilitate reference to the Veda in schools. The true division is into 10 *mandala* (books), consisting of *anuváka* (chapters), which are again divided into *sukta* (hymns) and *rik* (verses).

The disposition of the parts of the *mandala* depends partly on ritual reasons, partly on similarity of subject; — for example, invocations of Agni generally come first, then of Indra, and so on.

We may specifically designate the *Rik* as the *historical Veda*. The collection of its sacred hymns is an astonishing work, and proves the existence of a scientific development of mind among the Hindús at a date long anterior to that when the Homeric poems were brought together. More than one thousand hymns are here before us, in which the ancient inhabitants of the Panjáb implored blessings on themselves and their herds, saluted the glowing East, sang the combat of the lightning-darting god with the dark night, and rendered thanks to the celestial powers, which had dispensed to them, as they believed, succour amid their battles.*

* Such, very nearly, is our author's animated description. It will be seen that he contemplates these ancient hymns in a purely literary point of view. It is however interesting and useful to examine them in another light; and when we do so, we are compelled to form a far less favourable estimate of their character. It is true, that the general absence of *anthropomorphism* from the Vedic notion of divine beings, necessarily excludes many of the worst outrages against morality that shock us in the Puránas, in which the worship of deified heroes and gods assimilated to men, plays so important a part. Still even in this respect the Vedas are faulty; and in the character of the sacred Rishis—particularly as these are represented in the commentaries on the Vedas—there is much that is morally repulsive. A dialogue is given in which Yama endeavours to seduce his twin-sister Yamuná. The Rishi Vasishtha is assailed by the house-dog, when about to steal grain. See Colebrooke, *Asiat. Res.* vol. viii. p. 401 402. The warlike and revengeful character of the Rishis will be afterwards noticed. Gross indelicacy (such as in Rosen's *Rig Veda* p. 214, 215,) is too common to attract much notice. More portentous is the passage from the *Vrikad Aranyaka* quoted by Colebrooke *ut supra* p. 440.

Enthusiastic antiquarians like our author sometimes dislike such remarks as these. But, even were we permitted to waive the claims of religion and morality, a purely literary estimate of the Vedic hymns would be chargeable with that one-sidedness which the Germans generally pride themselves on shunning.

It must not be supposed, however, that the hymns of this Veda are exclusively religious. A hymn in the 7th *mandala* (noticed briefly by Colebrooke) describes in jocular language the revival of the frogs at the commencement of the rains, and compares their croaking to the singing of the Bráhmans in worship. In the 10th *mandala* we have the lamentation of a gamester over his ruinous devotion to play. Other instances might be adduced. Probably, these non-religious portions belong to a later period.

The *Rik* professes to give the hymns in the complete form in which they were *seen* by the Rishis. Not so the *Sáma* and *Yajus*, the liturgical purpose of which has materially affected their contents. In the *Sáma*, the metre has had much influence; similarity of sound even, appears frequently to have affected the succession of verses.

The undoubted fact that the hymns of the *Sáma* and *Yajus* form part of the *Rik* does not prove that the contents of the *Rik* were first *collected*. Probably, those that were required in worship, viz. those of the *Sáma* and *Yajus* were first brought together. The collecting of the *Rik* hymns depended on other and more scientific grounds. We may even presume that science, as usual, may have overdone her task; and, instead of transmitting the ancient hymns in an unaltered form, may have tried to improve upon them, and so given us a *rifacciamento* (*ueberarbeitung*). Still, we see no cause for holding that the collectors of the *Rik* tampered with the old hymns in any thing essential.

The *Atharva* does not present us with single unconnected verses, but with complete hymns, the order of which is determined by their subjects. In this respect it resembles the *Rik*. Indeed, it may be called a supplement to the *Rik*,—a supplement which aimed at comprising the religious hymns of a period, when the *mantra* was no longer the expression of direct religious feeling, but had degenerated into a kind of charm or magical formula. This Veda, then, consists mainly of texts intended to protect against the hostility of divinities, against sickness, against wild beasts, &c. it contains curses against enemies, invocations of healing herbs, and prayers for aid in the occurrences of ordinary life, for safety in travelling, success in play, and so forth. In the passages common to the *Rik* and *Atharva*, the latter introduces many capricious inversions and alterations. In the portions peculiar to the *Atharva*, the Sanskrit approaches to the flowing diction of a later age, although the forms of the

words still remain archaic. A remarkable fact in the relation of the *Rik* and *Atharva* is, that the *Rik* towards the end (10th *mandala*, last chapter) contains many sections decidedly bearing the character of *Atharva* hymns, and actually found to be contained in the *Atharva*.

Many additional proofs might be adduced to shew not only the more recent collection of the *Atharva*, but also its more recent composition.

A very interesting section in Dr. Roth's treatise is on *the historical element in the Rig Veda*. He presents us with the text and a translation of various portions of the *Rik*, relating to the celebrated *Rishis Vis'wámitra* and *Vas'ishtha*. From these passages he thinks he is able to deduce important historical facts. They relate to a great struggle which is represented as carried on by the ancient chief families on the banks of the *Yáska*, which Roth identifies with the *Hydraotes* in the *Panjáb*. He holds it to be established by the *Rik* that the ancient Hindú families resided farther to the northwest than we find them in the later books, and nearer the *Indus* than the *Yamuná*. The *Sindhu* or *Indus* is often mentioned, and highly celebrated; in the *Rik* hymns, it is termed, for example, *apasám apastamá*, the most copious of streams,—whereas, Roth has found the *Ganges* only once referred to, and then, with no special commendation. The remaining rivers of the *Panjáb* can also be clearly made out.

We find the ancient families which are accounted holy in the later Indian books, represented in those early poems as actively engaged in strife and war. Races, which, at the remote period referred to, possessed a common habitation, a common speech, and a common creed with those holy families, were afterwards widely separated from them in all respects. The religion that was born on the banks of the five rivers, was reared into a stupendous system in more southern lands; and the Brahmanic people applied the appellation of barbarians to those tribes which they had left behind, and which received a different development from themselves. The ancient songs breathing strife and slaughter were succeeded, in the fertile plains of the south and south-east, by sacrificial hymns and prayers; the gods too changed: and the once chivalrous race, courting ease and abandoning itself to superstitious dreams, retained no trace, except in a rigid asceticism, of that dauntless and energetic spirit by which, in days of old, it had been so remarkably distinguished.

Among the Vedic *Rishis*, *Vas'ishtha* was farthest to the south-west,

and already possessed the region that subsequently came to be regarded as the holy land. *Vis'wámitra* was farther to the north-east, and in the tract which was afterwards held to be barbarous. *Vas'ishhta*, in whom the lineaments of the future Brahman are discernible, was in subsequent times exalted above his warlike compeer. *Vas'ishhta* is the priestly hero of the new order of things. *Vis'wámitra* is the last representative of the warrior-shepherds of the Panjáb.

Such would seem to be the general historical import of that great contest between the two Vedic families, the memory of which is preserved in the books of all succeeding times.

An interesting portion of Dr. Roth's treatise is occupied with statements relative to three Grammatical treatises, which he has been the first to bring to light. These are termed *Prátis'ákhya Sútráni*, i. e. Grammatical aphorisms belonging to each school. These works treat of the elementary part of Vedic Grammar, particularly the grammar of the *Rik* accent, *sandhi*, lengthening of vowels, pronunciation, & c. To these books Roth is disposed to ascribe a high antiquity. A passage in the ancient grammatical work called the *Nirukta*, proves that they are more ancient than *Yáska*, and consequently than *Panini*, the father, as he is often called, of Sanskrit Grammar. Supposing *Panini* to have flourished about 300 years before the Christian era, the *Prátis'ákhya* sutras now brought to light cannot be of later origin than between 450-400 B. C. These books again, however, frequently refer to still older grammatical treatises, and these we must suppose not more recent than from 500 to 450 years B. C. The collection of the *Veda* itself cannot well have been later, according to Roth, than the 7th century B. C.*

In the preceding remarks, I have contented myself with being simply the expositor of the views of Roth. The subject is so recondite, that few even of those who have paid attention to Sanskrit literature, can, without presumption, attempt to discharge the higher task of the critic. It appears, however, sufficiently plain that the results at which this zealous Scholar has already arrived, possess what our German friends would call an *objective validity* sufficient to excite the highest hopes regarding the services which he will render to Oriental literature, should his researches be continued in the spirit in which they have been commenced. Even already, although he has by no means equalled *Colebrooke* in ad-

* *Jarsbericht der Deutschen Morgenlandischen Gesellschaft.* p. 36.

ditions made to previously existing knowledge, and although the Essay on the Vedas of that profound and accurate Orientalist is at this moment by far the best exposition of those works, yet it must be admitted that Roth has brought forward not a little new and important matter.

Besides the treatise which has formed the subject of this notice, Roth has published an article on "Brahmá and the Brahmans," in the *Zeitschrift der Deutschen Morgenlandischen Gesellschaft, Heft I.* 1846, which, if it is not at all times perhaps convincing, is throughout most interesting.

Along with thorough-going German research, our author seems to possess an almost *Jonesian* ardour and imaginativeness. He is thus able to impart no small degree of fascination to his views. In his hands the old Vedic hymns, which lie withered and sapless in our collections, like the constituents of a *hortus siccus*, seem to burst afresh into life, and resume whatever of grace or fragrance they originally possessed; so that, when we consider them in a merely literary point of view, we are free to confess that among these faded leaves there lie, potentially, charms we could little have suspected. Many however will, we trust, approach the Vedas with yet other feelings; and, recognizing in them the most authentic and complete memorial of the human mind's early aberrations from primeval truth, will contemplate them in a far higher than merely esthetical point of view, and be enabled to deduce from those monuments "covered with the hoar of innumerable ages," lessons, which the human race, in all succeeding times, and throughout all lands, will do well to ponder and lay seriously to heart.

ARTICLE IX.—*Correction of the Girnar Asoka Inscription.*

By CAPTAIN LEGRAND JACOB. Belguam, 3rd March, 1845.

SIR,—I do myself the pleasure to send you a Table of corrections of sundry errors in the Lithographed copy of the Girnar Asoká Páli Edict, published in No. V. of the Society's Journal. My own copy may possibly be defective but it may help to aid any revised translation that may be attempted of this very ancient Inscription.

Girnar Asóká Inscription.

*Table of Corrections of sundry errors in the Lithographed Copy of the
Girnar Asóká Inscription published in No. V of the Bombay Asiatic Journal
1843. — By Capt. Le Grand Jacob.*

1st Division.

4th line 2^d letter for ¹𑀓 read 𑀓 3^d letter for ²𑀓 read 𑀓

8th. — 1st. — for ³𑀓 — 𑀓

10th. — 5th. — for ⁴𑀓 — 𑀓

11th. — 5th. — for ⁵𑀓 — 𑀓 10th. — for ⁶𑀓 — 𑀓 14th letter read or ⁷𑀓 16th letter for ⁸𑀓 read 𑀓

12th — last — for ⁹𑀓 — 𑀓

2^d Division.


1st line 2^d letter for ^{10.} ♂ read ♂
 2^d — 18^h — for ^{11.} ♂ — ♀ 23^d letter for ^{12.} ♂ read ♀
 4^h — 3^d — for ^{13.} ♂ — ♀ 10^h — for ^{14.} ♂ — ♀ 18^h let for ^{15.} ♂ read ♀
 5^h — 8^h — for ^{16.} ♂ — ♀
 6^h — 20^h — for ^{17.} ♂ — ♀
 8^h — 24^h — for ^{18.} ♂ — ♀


3^d Division.

1st line 29^h letter for ^{19.} ♂ read ♂
 2^d — 3^d — for ^{20.} ♂ — ♀ 12^h letter for ^{21.} ♂ read ♀
 3^d — 23^d — for ^{22.} ♂ — ♀
 4^h — 6^h — for ^{23.} ♂ — ♀ 23^d — for ^{24.} ♂ — ♀
 5^h — 7^h — for ^{25.} ♂ — ♀ 9^h — for ^{26.} ♂ — ♀

4th Division.

1st line 5th letter for ²⁷  read χ

2^d — 16th — for ²⁸  — ζ

4th — 14th — for ²⁹  — ξ

5th — 3^d — for ³⁰ h — λ 12th letter for ³¹ θ read ϵ

b. The "answer" should follow the 1st letter and not be below the 2^d.

8th line 14th letter for ³² R read κ

9th — 8th — for ³³ D — D 25th letter for ³⁴ ξ read ξ 29th letter for ³⁵ λ read ~~last~~ last letter ³⁶ for κ read κ

10th — 1st — for ^{omit.} D — D ³⁷ A — for ³⁸ Σ — Σ 20th — for ³⁹ ζ — ζ

11th — 4th — for ⁴⁰ ξ — ξ 7th — for ⁴¹ λ — λ 8th — for ⁴² D — D

D^o — 26th — for omitted between \circ and \circ read ~~last~~ last letter for ⁴³ Δ read Δ

12th — 18th — for ⁴⁴ \downarrow read \downarrow 25th letter for ⁴⁵ ξ read \downarrow

A. The first omitted letter counted.

5th Division.

4th line 13th letter for ^{47.} ~~⌘~~ read ⌘ 16th letter for ^{50.} ~~⌚~~ read ⌚ 46th letter for ^{51.} ~~⌛~~ read ⌛

5th — 2^d — for ^{52.} ~~⌜~~ — ~~⌜~~ 18th — for ^{53.} ~~⌝~~ — ~~⌝~~

6th — 2^d — for ^{54.} ~~⌞~~ — ~~⌞~~ 3^d — for ^{55.} ~~⌟~~ — ~~⌟~~

7th — 25th — for ^{56.} ~~⌠~~ — ~~⌠~~

8th — 15th — for ^{57.} ~~⌡~~ — ~~⌡~~

9th — 5th — for ^{58.} ~~⌢~~ — ~~⌢~~

6th Division.

1st line 1st letter for ^{59.} ~~⌣~~ read ~~⌣~~ 4th letter for ^{60.} ~~⌤~~ read ~~⌤~~ 11th letter for ^{61.} ~~⌥~~ read ~~⌥~~

2^d — 4th — for ^{62.} ~~⌦~~ — ~~⌦~~

4th — 1st — for ^{63.} ~~⌧~~ — ~~⌧~~ 28th — for ^{64.} ~~⌨~~ — ~~⌨~~

9th — 2^d — for ^{65.} ~~〈~~ — ~~〈~~ 22^d — for ^{66.} ~~〉~~ — ~~〉~~

^{65.}
 10th line 23^d letter for C read V 26th letter for A read N
 11th — 20 — for K — K
 13 — 24 — for L — L

8th Division.

1st line 31st letter for L read L
 2^d — 23^d — for L — L 26th letter for N read N 35th letter for Q read Q
 5th — 10th — for K — K

9th Division.

1st line 17th letter for L read K 30th letter for N read N
 6th — 35th — for I read L
 7th — 22^d — for L read L
 9th — last — for D D

B.
1st line 29th letter for ~~h~~ read h
3^d — 16th — for ~~l~~ — l
4th — 10th — for ~~7~~ — 7

2^d line 16th letter for ~~l~~ read l

4th line 39th letter for ~~o~~ read d
6th — 18th — for ~~3~~ — 3
9th — 10th — for ~~8~~ — 8

3^d line 6th letter for ~~r~~ read r 9th letter for ~~l~~ read l

10th Division.

B the two erased letters not counted.

11th Division.

12th Division.

13th Division.

88. C. 89.
4th line 1st letter for ^{omit} read ~~17th~~ 17th letter for ~~read~~ read ~~7~~ C. The first omitted letter counted.

N.B. The note to the 28th letter χ of this line has by mistake been given in the lithograph below the following line.

8th line 12th letter for ^{90.} ξ read ζ 13th letter for ^{91.} ψ read ς 20th letter for ^{92.} δ read δ

N.B. The notes to the 8th line have been inserted incorrectly, this line therefore is here given in full.

4

8th line ^{D.} ζ τ ξ ϵ ζ ς ^{space for two letters doubtful} ρ λ τ ρ ζ ζ ϵ ϵ λ ξ δ ϵ ρ χ λ ^{E.E.G.} τ δ δ λ ^{H space but very doubtful}

In the 11th line 13th Division, for the lithographed note to the blank space for "perhaps it", read "perhaps ζ but extremely doubtful."

D. ρ - all but, if not utterly impossible very faint trace apparently unevenness of rock of ζ

E. Very doubtful if there be an upper stroke to constitute a λ

F. Doubtful if dotted line be fracture or letter, the vowel, i, being the most likely portion.

G. k, impossible, n, quite plain.

H. "ga" rather than "tä", "ya" impossible.

14th Division.

2^d line last letter for λ read λ

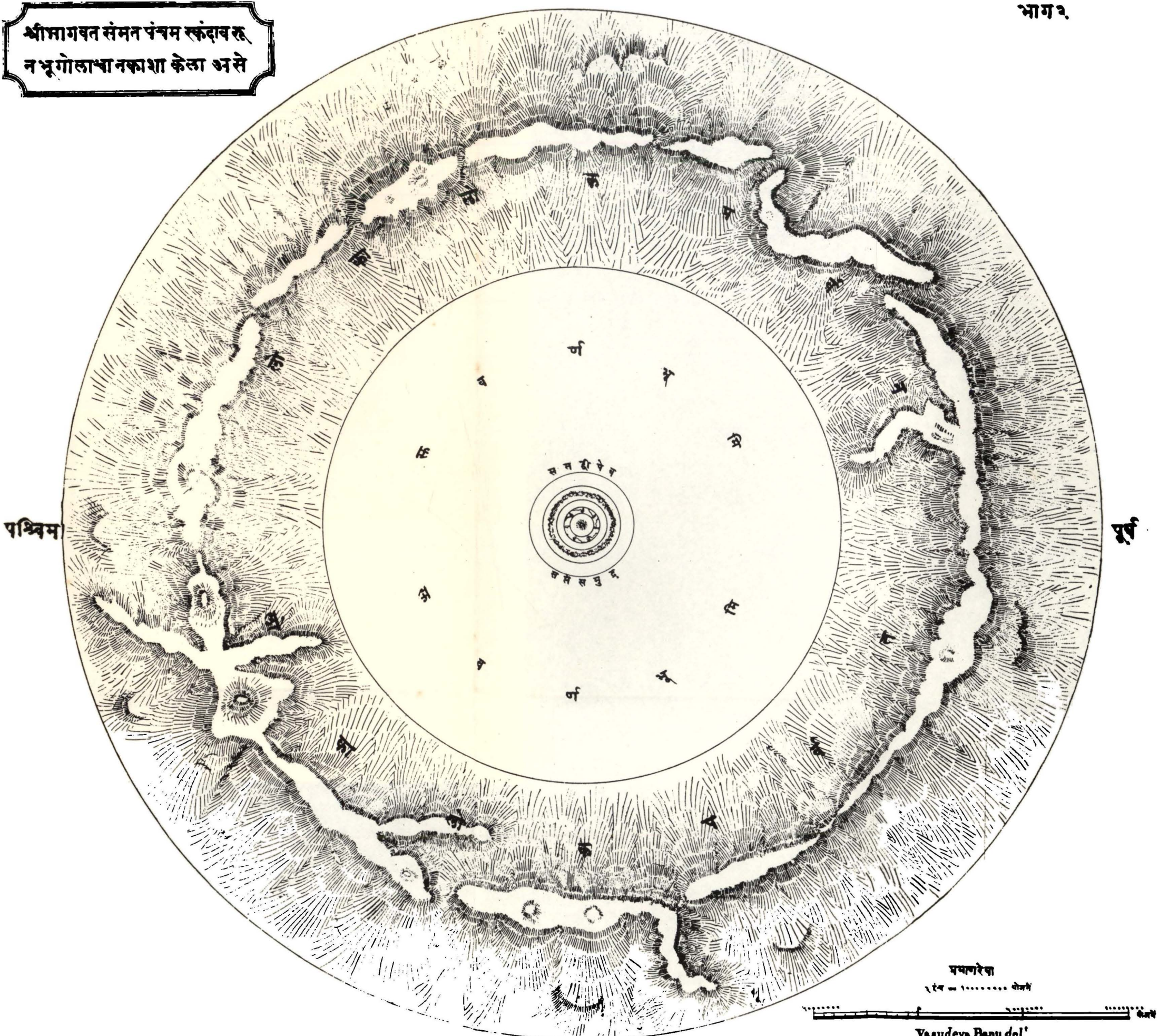
4th — 24th — for \odot — \odot

5th — 19th — for \oplus — \oplus

/ Signed / G.L. Jacob.

Mich.

श्रीमद्भागवत संमत पंचम स्कंधावरु
नभूगोलाभा नकाशा केला असे



मथ्यणरेषा

१ इंच = १०००००० योजने

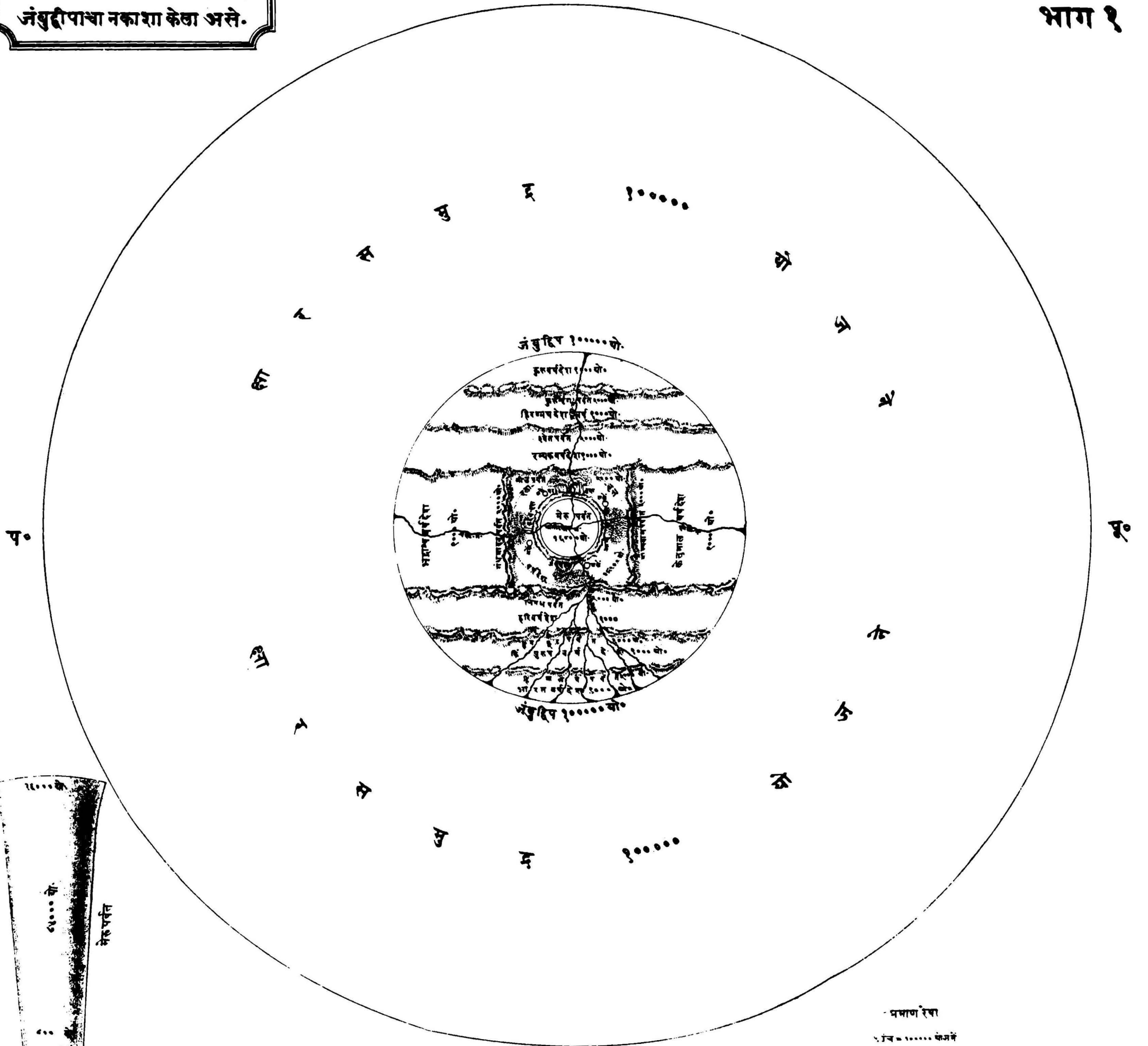


Vasudeva Bapu dol
Class C Eng'g Expt. In. et.

श्रीभागवत संमत पंचमस्कंदावरून
जंबुद्वीपाचा नकाशा केला असे.

उ०

भाग १



द०



ARTICLE X.— *Some Remarks on the Relation that subsists between the Jain and Brahmanical systems of Geography.*

By the Rev. J. Stevenson. D. D.

Before entering on the immediate subject of this paper, a few remarks require to be made upon the illustrative maps appended. I have to acknowledge my obligations for those necessary appendages, to a pupil of the Elphinstone College, Vasudeva Bapu, and to Bombay Lithography, which has not allowed his labour and skill to prove abortive. The maps were ordered to be drawn according to the Bhagavat, and in relation to the first I need not here make any remark. The difficulty all lay in the execution of the second. Jambudwipa and the Salt sea, the subject of the first map, is comparatively a known world, having some limits, but the remaining Dwipas and seas almost set reason at defiance. The whole diameter of a great circle of the earth is 50 crores of Yojanas, or four thousand millions of miles. The diameter of the seven Dwipas amounts to little more than a tenth of this. The Lokaloka mountains, at the extreme limits of the earth, are said to have a width equal to one fourth of the whole, or 12 crores and 50 thousand Yojanas. The distance from Meru, in the centre, to the circular mountains Manasottara, in the last belt of land, is found by computation to be 57 lakhs and 50 thousand, and this is said to be the extent of the Suvarna Bhumi, *land of gold*, used for a play ground by the gods. The radius of Jambudwipa is half a lakh; the width of the Salt sea one lakh of Yojanas; the next continent is two lakhs in width; the west sea is the same; the next continent is double of that, and so on; giving us as follows :

Radius of the circle embracing the 7 Dwipas	2,53,50,000
Extent of the golden land	1,57,50,000
Extent of Lokalaka	12,50,00,000
	<hr/>
	16,61,00,000
Subtract this from radius of the whole, viz.	25,00,00,000
And we have a remainder of	8,39,00,000

Leaving a belt of eight crores and 39 lacks of Yojanas unaccounted for. What then was to be done with this? Why, the best thing that

could occur to a school boy was done, and the excess was thrown up to the play ground, at the expense however of increasing it to five times the size assigned in the Puran. In the Vishnu Puran, the boundary chain of mountains is only 10 thousand Yojanas wide, but the whole extent is stated to be the same as in the Bhagavat. Professor Wilson supposes this total was intended to embrace also the planetary spheres.

The central region of the earth, it will be seen, is supposed to be occupied by the solid circle of land called Jambudwipa, the diameter of which is said to be a hundred thousand Yojanas, divided mostly by tranverse chains of mountains, into nine great Divisions or *Varshas*. The Salt sea, a belt of water a hundred thousand Yojanas wide, surrounds all this central continent, and is encircled by *Plakshas Dwipa*, a band of land twice its width, and which by tranverse ranges of mountains is separated into seven *Varshas*. This continent is surrounded by the sea of sugar of the same width, and it again encircled by *Salmali Dwipa*. In the same manner, and increasing in the same ratio, follow the sea of ardent spirits, *Kusadwipâ*; the sea of melted butter, *Kraunchadwipa*; the sea of milk, *Sakadwipa*; the sea of cream, *Pushkaradwipa*; and the fresh water sea. The last mentioned continent, however, instead of being divided by tranverse chains into seven parts as the rest, is divided by a circular mountain chain, called *Manasottara*, into two equal parts. Then follow the golden land and the boundary chain called *Lokaloka*, of which we have already spoken.

Instead of seven continents, the Jains acknowledge only three, and the outer part of the last being uninhabited, the two others and a holy continent with them, mean the habitable earth. The sea around *Jambudwipa* is a salt water band of twice its diameter, or two hundred thousand Yojanas. *Dhataki*, the next band of land, has a width of twice this extent, and the fresh water sea by which it is encircled, is twice that again, while *Puskara* is double of that, or 16 lakhs. This system is much simpler than the Brahmanical, and is evidently the original from which the other was formed, though the observations on which it was modeled, seem to have embraced little more than the knowledge that the Ganges and Indus ran into the sea, and that there were mountains and vast collections of fresh water to the north of the Himalayas. The Peninsula must have been wholly unknown, or the fabricators could never have made the line of coast, from the mouths of the Indus to those of the Ganges, the arc of a circle a hundred thousand Yojanas in diameter.

In reference to more minute particulars, both parties agree as to the position and heights of Meru, rising a hundred thousand Yojanas from its base, though of these 16 are under the earth's surface. This funnel-shaped central mountain is 16 thousand Yojanas in circumference at its base, and 32 at its summit. * On the top of Meru the Brahmans have placed the city of Brahma, while the Jains assign this site to the abode of Lakshmi, goddess of good luck, the Latin *Fortuna*. The great chains which divide Jambudwipa, are the same in position with Brahmans and Jains, only that the Jains interpose between us and Himavat the range called Waitadhya, or the white mountains, from behind which the sun is seen to rise. The chain on the north of Meru, which corresponds to the Himavat on the south, is called Sikhari, a name given also to Mount Parisnath. These two mountains are both of a light yellow colour, and send out at each extremity two lotus-leaf shaped promontaries, extending more than half way through the Salt sea, so that in all, we have eight of these projections. The two next chains, one on the north and the other on the south, corresponding to the Hemakuta and Sweta Parvata of the Purans, are called by the Jains Mahimavat and Suvarna Kuta, being respectively of a white and golden colour. The northern and southern Nishada, the former painted green and the latter red, and corresponding to the Nishada and Nila of our map, form the last pair of parallel ranges of mountains, running east and west. The central portion of Jambudwipa is divided by the Brahmans, as shewn on the map, into three sections. To these the Jains add two more, drawing lines from the extremities of the southern, till they meet the northern Nishada. These segments they call the eastern and western Máha-Vidrehas. In the angles of Ilavritta, called by them Devakuru and Uttarakuru, the Jains place four enormous tusk-shaped mountains, that on the southeast being yellow, that on the south-west green, that on the north-west white, and that on the north east red; near these also the four trees are situated which they, as well as the Brahmans, suppose to rise to immense height in these regions. The districts of Bhadrāsna and Ketumala they call Vijaya and Uttarardha Vijaya. These are divided by transverse ranges into thirty-two parts. Sixteen districts of Vijaya lie on the east, and sixteen on the west of Meru, and the districts of Uttarardha Vijaya lie to the south and north of these, and come in contact on both sides with the Nishada mountain. These 64 portions of

* By mistake the accompanying map gives but half these number.

land are divided from one another by alternately blue and red mountains. The smaller divisions of Jambudwipa amount in all to 190, of which though six belong to Bharat Khanda, or the region south of the Himalayas, only one, the district between the Indus and Ganges, is inhabited by men acquainted with true religion. The others are the abode of Mlechchas, men who do not follow the religious system of the Jains. The two rivers take their rise from the Himavat, not from Meru as on our map. The Jains place a lake on the top of each of the mountainous chains in its centre, from which have their source two rivers, one running eastward on the south of the mountains, and another westward on the north. The two rivers that run from the Nishadas to the central regions, pass through five additional lakes, after the manner of the St. Lawrence, till they approach Meru, when they take a bend, and pass perpendicularly down through the centre of the Vijayas. The river that flows from the top of the Himavat to the east, divides itself into two portions, forming the eastern and western sides of a spherical triangle, of which the Salt sea forms the base. The district of Airavartta, on the opposite side of Jambudwipa, corresponds in most particulars with Bharat Khanda. Its capital city is Prabhasa, while that of Bharat Khanda is Ayodhya. There are the only two districts that are subject to periodical destructions and renovations. They form the chief abode of human beings, though the Vijayas also are inhabited by men, and have four *Tirthankaras*, divine sages, living in them at present. The central portion of the earth around them, and the two immense plains to the south and north of the Nishada mountains, on either side of Meru, and contained between the longitudinal ranges of mountains above described, are inhabited by Hermaphrodites, called by the Jains, *Yugals*. The height of those in the central regions is three * *garas*, in the next division two, and in that nearest the abode of man, one. It is from these *Yugals* that the population of the earth is renewed after a periodic destruction; for by residence in our locality, and eating the fruit it produces, they become men. In their own territories the period of gestation is 79 days, 64 days, and 49, respectively. The parent dies immediately on the birth of a young *Yugala*. These persons are not the subjects of virtue and vice; they enjoy the reward of merits in a former state, which deserve nothing superior. Towards the four points of the com.

A *garas* varies from 5 to 9 miles.

pass in the Salt sea, there are four cavities of the shape of a large water jar, descending a hundred thousand Yojanas ; these are called Patala Khand, and form so many hells. The diameter of Jambudwipa is rated at a hundred thousand Yojanas, as is done by the Brahmans, but, as the Jains have only two seas and three continents, it was necessary to maintain their ground in the race of absurd exaggeration, begun with the Brahmans, to have a second Yojana, which they make 1,600 Kos, making the diameter of Jambudwipa 320 millions of miles. The width of the Salt sea encircling it, is double that amount ; Dhataki Khand, the next continent abelt, is double that again ; the freshwater sea double that ; and the last continent, Pushkara Dwipa, is double that, or 16 lakhs of sacred Yojanas, making the diameter of the whole terrestrial circle little short of two thousand millions of miles, just however one half of the computations of the Bhagavat. As the Bhagavat is the latest of all the Purans, the same total was likely formed without any regard to the different items, to get beyond the Jains, as they by the innovation of the sacred Yojana had got before the ancient Brahmans. Immense however as these figures are, the earth in which we live and the system to which we belong, is but one of an infinite number of Chakravali, which occupy space. The Jains, having no infinite deity or soul of the world, like the Brahmans, satisfy the aspirations of the human mind, as far as such systems can satisfy, by an infinite universe. Their geographical scheme was at first apparently not very complicated, and such as might satisfy the unscientific minds of those in Upper India, who had heard of a Salt sea to the south, and of mountains and vast fresh water lakes to the north of the Himalayas ; but it is vain to look into their books for any definite information relative to any distant locality, though patient research might, from this source, throw some light on the internal Geography of India.

ART. XI.—*Desiderata, relative to Thibet and Central Asia, in a series of questions, proposed by the Bombay Branch Asiatic Society, to the Members of the Embassy proceeding to the Frontiers of Chinese Tartary.*

On the following communication, from the Foreign Secretary to the Government of India, being received by the Bombay Branch Asiatic Society,

a draft of *desiderata*, relative to Thibet and Central Asia, was made and ordered to be forwarded to Mr. Elliot, in reply to his letter; of which a copy was also communicated to the Bombay Geographical Society, with a request to know if its Members had any questions to propose to the Mission. The reply from the Secretary of the Geographical Society, containing suggestions on certain points, to which the attention of Members of the Mission might be usefully directed, was accompanied by a letter from Mr. Chambers of Edinburgh. The latter, in reference to a paper on *ancient Beaches*, read by him at the Oxford Meeting of the British Association, sought for further information and facts, on the relative levels of sea and land over large portions of the Globe, similar to those from which his deductions had been made. The Bombay Society, at its Monthly Meeting of the 9th September 1847, resolved that both these communications should be forwarded to Mr. Elliot; and the *desiderata*, or notes of information supplied for the use of the Thibet Mission, are here published with a view that they may be serviceable to the researches of future travellers.

Simla, July 8th, 1847.

DEAR SIR,—As a Mission is about to start to the frontier of Chinese Tartary, I shall be glad to learn if there is any question of literary or scientific interest, which you would wish its Members to make the subject of their investigation.

A Barometer and a few Magnetical and other Philosophical Instruments accompany the Mission, which will consist of Captain Cunningham, Dr. T. Thompson, and Lieutenant Strachey; and to such careful and intelligent observers may safely be entrusted any enquiry your learned Society may wish them to prosecute.

I remain,

Dear Sir,

To
*The Secretary of the
 Branch Asiatic Society,
 Bombay.*

Your most obedient Servant,
 (Signed) H. M. ELLIOT,
Foreign Secy. to the Govt. of India.

The letter from the Foreign Secretary to the Government of India, now submitted to the Society, not informing us of the proposed route by which Captain Cunningham and the Mission intend to visit the frontiers of Chinese Tartary, a letter has been accordingly written to Mr. Elliot, requesting he will kindly intimate the line of route likely to be followed.

In order to prevent delay, and in anticipation of Mr. Elliot's reply, the following draft of a series of questions, on the *Orography, Hydrography, Ethnology, and Archæology* of Central Asia, can be forwarded to the Members of the Mission. The Society have reason to gratefully acknowledge this flattering reference made to it by order of the Governor General, and ought cheerfully to respond to this call by sending a catalogue of *desiderata*, on various points of investigation, relative to a portion of the earth now little known, but of great interest; such being connected, as Humbolt observes, with ideas of an extraordinary configuration of the surface, and being as it were the cradle of those primitive races of mankind, which have successively overspread and barbarized Europe.

The Mission may follow either the *Western* or *Eastern* route to the frontiers of Chinese Tartary; but many of the objects deserving of attention, and requiring investigation, would of course be somewhat different, according as its Members selected one or the other. If the former, Captain Cunningham will proceed I suppose from Kashmir to Lei or Ladak, and thence going along the banks of the river *Shayuk*, or northern branch of the Indus, will pass the *Karakorum* mountains, to Yarghien or Yarkand, Kashgar, and *Ili* or *Gulja*, the now Head Quarters of the Chinese Military Government, to which are subject the Mahomedan cities of Yarkand, Kashgar, Yengi-Hissar, Aksu, Ili, Ooch-Tur-fan, Koneh-Tur-fan, (or Hami), Gummi, and Lop. If he intends to pursue the latter, he will penetrate into Eastern Thibet, by the pass of *Tuklakoot*, on the eastern side of Kailas, or will follow the route already traversed by Turner, from the northeast frontier of Bengal, by way of Muri-chom, Tassisudon, and Dakka Je-ung, to Teshoo-Loomboo and Lhasa, the residence of the Grand Lama.

Under the supposition that either route may be taken, the following are some of the questions which the Society propose as subjects of research for Members of the Mission.

OROGRAPHY AND HYDROGRAPHY.

I.

What is the geognostical structure and highest elevation of the *Kuen-lun* mountain range, which separates Thibet from the western portion of Chinese Tartary, including the territories of Yarkand and Kashgar?

The Karakorum mountains, from which the Shayuk river has its source, form part of the Kuenlun range, and give origin also, on the opposite or northern declivity, to the rivers Karakash, and Yarang-Kash. These being joined by the *Serakol* river, of which a large branch flows from the *Karakol* lake, in the Bolor Tagh cross range of mountains, become then the river of Yarkand; which, after receiving two chief streams from Khoten, disembogues itself, on the eastward, in lake Lop, considered in the time of Marco Polo to be within the limits of Eastern Turkistan. The intermediate desert, from Kashgar to lake Lop, appears to have been anciently occupied by the *Yaghar-Ghoz*, a tribe of Turkish Nomades, frequently mentioned by the Arab Geographers, and who became early acquainted with the use of letters and the *Aigure* Alphabet, which is now generally used both among the *Turkish* and *Mongolian tribes*. This country, formerly designated on the maps as *Little Bukharia*, and more correctly known as *Eastern Turkistan*, is now, without much attention to accuracy or the origin of its tribes, and simply from having become subject of late years to the Chinese Empire, reckoned part of Chinese Tartary.

II.

What is the breadth and elevation of the Bolor Tagh mountain range, from southwest to northeast, at that part forming the water-shed between the *Sir-i kol* lake, or sources of the Oxus westward, and the *Kara-kol* lake eastward, which gives origin to the northern branch of the Yarkand river?

The Bolor Tagh, according to Humbolt, is that mountain range parallel to the Meridian, extending from $32\frac{1}{2}^{\circ}$ north to 45° , which intersects the Himalaya, the Kuenlun, and the Tien-shan, to the parallel of $45\frac{1}{2}^{\circ}$ north, and to the extent of nearly 780 miles. The culminating points of the Bolor, which is composed of a number of chains nearly parallel, are supposed to exceed 18,000 feet, and are situated between 35° and 40° north. Lieutenant Wood, who reached the Sir-i-kol lake on the 19th of February 1838, places it in $37^{\circ} 27'$ north, and $73^{\circ} 40'$ east, and estimates its elevation to be 15,600 feet; above which the surrounding mountains, covered with perpetual snow, rose 3,500 feet.

III.

What are the names of the passes, and nature of the roads running across the Bolor Tagh mountains?

Three great passes are supposed to cross this mountain range. The two most northerly are those to Kashgar. One of them, in 1557, was described to Jenkinson as a journey of 41 days from Bokhara, by way of Tash-kand and Khojend, along the banks of the Sihon, or Jaxartes. The same route appears to have been followed, in A. D. 1780, by a Russian Officer named Czerneschef, who went from Khojend to Kokan, Merghilan, Chihal-situn or Takhti-Suliman, (now called Oosh,) by some lead mines and the entrance of the plains eastward, to Kashgar. Meer Izzet Ullah, in returning from Kashgar to Kokan, reversed this route, having followed west by north for 98 hours the course of the Kashgar river, (*or northern branch of the Yaman-Yar,*) which has its source at Koku, near the pass called *Darwaza Dawan Tezek*, or valley gate of Tezek. Westward of this are the streams which unite to form the *Sir* or *Sihon*. Meer Izzet Ullah describes the road, leading from the top of this pass, to be at first west by south in a narrow valley, and then along the skirts of the mountain Tezek to the town of *Irchelak*, for a distance of 16 hours. From *Irchelak* a road is said to run south 3 or 4 days journey to the *Sir-i-kol* or northern branch of the Yarkand river.

The second pass to Kashgar follows the course of the Oxus, and is the same as that called in Mr. Elphinstone's *Kabul* the pass of Chiltung: from which two roads, to the left and right, lead respectively to Kashgar and Yarkand. Instead therefore of three passes by which the traveller is conducted across the Bolor Tagh mountains, or rather the *plateau of Pamir*, there are more correctly speaking only two; of which the first, along the Oxus, was taken by Marco Polo, and the latter by Goetz (A. D. 1603). This has been more recently traced in part, by Lieutenant Wood of the Indian Navy, who, in his journey to the sources of the Oxus, describes the road, from the latitude of Issar $37^{\circ} 02' 10''$ north, as running along the stream of the Oxus by the *Darah* or valley of the *Sir-i-kol*, which is divided, at Issar, from the *Darah* of Mastuch, conducting the traveller into the district of Chitral.

Marco Polo proceeded from Balkh to Taikan or Tailkan, thence ascended the mountain region of Balashan (*Badakshan*;) appears to have

crossed the Tokeba or river of Faizabad, and to have then followed the course of the Oxus to the elevated plain of Pamir; across which he journeyed for 12 days, before arriving at the region of Beloro, (Belor-Tagh), consisting of vast mountains with intermediate valleys; and thence, proceeded to Kashgar and Yarkand. Goetz also travelled for 20 days in a narrow track, overhanging the Oxus, before arriving at Sarchil, (Sarikol); and from thence went in two days to that part of the mountains covered with perpetual snow. He was then six days in crossing the southern portion of the plateau of Pamir, and was twenty days more in travelling to Yarkand by a very bad road. The Geography of these parts requires further elucidation as to the number of passes which lead in various directions. We have also as yet only approximations of the mean height of the *plateaux* of Ladak and the three Thibets.

IV.

What is the nature and length of the road said to lead across the mountains which separate the district of Rodokh, in Nari or Western Thibet, from the district of Khoten in Eastern Turkistan?

Thibet is the vast and mountainous tract of country between 73° and 98° east longitude, from Greenwich, and 27° $38'$ north latitude, inclusive of Beltistan (or Little Thibet,) to the frontier of China eastward, where its southeast boundary is little known, and is supposed to be inhabited by numerous Nomade hordes, speaking corrupt dialects of the Thibetan language. Nari, or Western Thibet, has, through the investigations of Gerard, Moorcroft, and others, become more familiar to us, though there be much still in this part of the country for the investigation of travellers. An extensive trade was formerly carried on between Khoten, (now Elchi,) and Hindoostan; and a royal road from Gardokh and Rodokh, in the eastern part of Nari, is said to have led to Khoten and other districts of Eastern Turkistan; but the present state of the route, and the direction of the mountains over which it passes, are worthy the attention of the Mission, as being little known at present. Humbolt thinks that the water shed, which here, to the eastward of the sacred lakes *Manusa* and *Rawana-hrada*, separates the sources of the Indus, the Sutlej, and the Dzangbo-tchou, is nearly 79° $35'$ of east longitude from Paris, and in north latitude about 31° $56'$. It must be considerably more to the eastward, however, as this is nearly the correct

position of the high ridge, which, running from northeast to southwest, separates the vallies of the Indus and Sutlej.

V.

What is the highest elevation of the Kantesi or Kailas peak of the Himalaya range, which gives origin to the branches of the Sinh-khabab river, or southeast branch of the Indus, and divides its source from those of the Sutlej, and the Yaroo Sanpoo river, supposed to have its source in the same lofty mountain range ?

The peak called in Thibetan *Tesé*, and *Kailasa* in Sanskrit, situated about 81° east longitude and 31° north latitude, is supposed to be the mutual boundary of Western and Middle Thibet, the last of which is generally called *Pot* and *U-tsang*, the capitals of which are *Lhassa* and *Zhikatsé*. Eastern Thibet or *Kham-yul*, is bounded on the north by the countries of the Turks and Mongols, called by the Thibetans *Her* and *Sokpo*. The greater number of the tribes inhabiting this part of Thibet, seem more nearly allied to the Mongolian than the Turkish races of men. The determination of this question as to the highest elevation of the Kailasa peak, with the elevation and direction also of other mountain ranges, which divide Thibet into various districts, is a subject requiring elucidation.

VI.

Is the Yaroo Sanpoo, the great river of Southeastern Thibet, the same as the Irawaddi or Ava river, as supposed by D'Anville and Klaproth; or is it the Brahmaputra, according to the opinion of Major Rennell?

Humbolt expresses himself doubtfully of the indentification of the Yaroo Sanpoo, or Dzangbo-tchou, with the Brahmaputra; and though the probabilities seem to be in favor of Major Rennell's opinion, as opposed to that of Klaproth, the subject of this question is a yet undecided point.

VII.

What are the traces of ancient Volcanic revolutions throughout the region of Central Asia, and are the fossil bones of the elephant and rhinoceros found here as in Siberia?

Three eminent Russian Mathematicians, Messrs. Tuss, Savitch, and Sabler, have, by independent trigonometrical levellings, determined

the long pending geographical question of the *depression* of the Caspian, which is now ascertained to be only 83, 6 English feet below the level of the Black Sea and Mediterranean. This seems rather unfavorable to the soundness of Humbolt's opinion, that this inland sea may be considered, in a Geological point of view, as a great *Crater*, connected with the volcanic elevation of the plateau of Persia, and the chain of Hindukush; if not with the up-heavement of that which is vaguely and incorrectly named the plateau of Central Asia. We are but slightly informed of the state of *ancient volcanoes*, and others lately in a state of activity, which have been met with in this great country; and the tracts of volcanic territory, including the mountains of Peshan, Houtcheou, Ouroumptsi, Kobok, and Aral-toube, and others not yet brought to notice, require to be better described and known.

VIII.

Do the rivers or mountains of Thibet furnish gold, and what are the other mineral productions of the country?

In Western Thibet, the mountains near *Gardokh*, or *Gortope*, are said to be rich in gold and mineral matter; and the sandy beds of several of the rivers of the country are known to contain grains of gold, which is also said to be disseminated, and in masses, through the *quartz* and other rocks of this country. Mines of lead, iron, and copper, are also said to occur, along with mines of mercury, the ore being cinnabar: all of which subjects will of course claim the attention of the Mission.

IX.

Does any great river flow out of lake Manasarowar?

Geographers are yet sceptical of the result of Mr. Moorcroft's examination of this lake, that no streams of any consequence, and none whatever on the northern, western, or southern sides, issue out of *Manasarowar*. Further evidence is wanting to decide the correctness of Moorcroft's opinion.

X.

Is there a mountain chain on the Northern frontier of Eastern Thibet, running parallel to the Yaroo Sanpoo river; or are the mountains in this

quarter detached groups, admitting the highland of Eastern Thibet to pass gradually into the plateau and desert of Central Asia, possessed by the Kalmuks and Monguls ?

The country, on the north and east, intervening between Thibet and the edge of the great sandy desert of *Shamo* and *Kobi*, is only known to us by vague report. From the prevalence however of lakes in these tracts, and the reputed origin of rivers of magnitude, such as the Hoang-Ho, which finds its way to the Eastern sea, there is reason to believe that a bifurcation of the Kuenlun range takes place far to the East, running along the southern edge of the desert, and that a hilly tract of country divides Thibet from the Great Desert.

XI.

If there be a mountain chain on the Northern frontier of Thibet, is it a continuation of the Kuenlun range, or an extension of the Kantesi and Kailasa peaks of the Himalaya ?

This question naturally follows from the former, with a view that a definite account of the system of mountain ranges, in these parts, may be obtained for Geography: for our present maps of the country are characterized by a blissful ignorance of this matter, and Humbolt distinguishes the tract as *Terra Incognita*.

ETHNOLOGY AND ARCHAEOLOGY.

XII.

What are the differences of Ethnological physical character and features between the Thibetan tribes of Ladak and Lhassa, and is there any reason for believing that the people of Nari, or Western Thibet, belong to the Turkish race, or that the Thibetans proper, and Bhutias, are of the Mongolian family ?

The Thibetans appear, as far as we may learn from their language and history, to be of mixed origin. The Western, or those of Ladak, are the descendants of the *Yeutchi*, *Indo-Scythians*, or *Sakas*, incorporated with the Turkish tribes of the *Houng-Nou*; and the Eastern Thibetans, or those of *U-tsang* and *K'ham-yul*, are said to have sprung from the *Khiang*, a yet wandering horde of savages in the fourth century of the Christian era; who, on being united with the *Thoufan* about A. D.

632, became an united people, and on adopting the *Bouddha* religion with its Sanskrit literature, soon after became conspicuous among the nations of Central Asia. If this opinion of the mixed origin of the Thibetans be true, it will probably be supported by the affinities of the Thibetan language being found cognate with the dialects of Turkistan and Kashmir, an opinion by the way which has in some measure received the sanction of Professor Horace Wilson. Such affinities can, however, only be looked for from a comparison of the *Jaghatai Turki* with the several dialects of Thibet.

XIII.

In what respect does the *Jaghatai Turki*, spoken at Yarkand and Kashgar, differ from the modern dialect of the same language now in use at Constantinople?

The modern *Osmanli*, spoken at Constantinople, is a very mixed dialect, which has adopted many Arabic and Persian words, with a large proportion also of Greek and Italian; while the *Jaghatai Turki*, in use among the *Usbeks* and the tribes of Khwarism, is a more pure and original language, of which the grammatical peculiarities and affinities have not, as far as I know, been made the subject of investigation by any modern Philologist. The *Jaghatai Literature* is said to be rich in works of Historical interest; of which those best known to us are the important histories of the Mongols by Rashid-ad-din, and of Jhengiz Khan by the Wazir Ala-ad-din; taken it is said from earlier Annals, written in the language of the Ouigours.

XIV.

What are the affinities of the Thibetan dialects, spoken by the *Brok-pa*, or *Hor-pa*, (remnants of supposed ancient Turkish tribes, living in the deserts north west of Lhassa) with the dialects of the two Turkish tribes of *Usbek* and *Khirgis*?

A more extensive comparison than has yet been made of these dialects is requisite before an opinion can be formed of how far Thibetan, and particularly its Western dialects, have any cognate affinities with the Turkish language.

XV.

Is there any good foundation for the opinion of Klaproth that the

Usbeks are the remains of the Ouigours or Aigures? And is there any tradition among them as to the period when the Ouigour alphabet, (known to be of Syrian origin,) was adopted by them?

According to Remusat and Klaproth the most ancient Turkish people, of which history makes mention, are the Hiong-nou, who possessed the original country of the Mongols, and were the ancestors of all the Turkish tribes. Among these the *Thou-khiou*, or Turks of the Altai, having obtained the superiority, and founded a vast Empire, about A. D. 552, assumed the national designation of *Thou-men*, from their first successful leader, who took to himself the title of *Il-khan*, or as written in Greek letters, on that series of coins belonging to him, *Aloukeno*, an apparent Syriac title derived from *Aloho deity* — and *Kahin*, priest or diviner. It is just possible that the latter part of the word *keno* may be meant for the Tartar word *Ken* or *Kan*, signifying the sun; and this supposition becomes more probable from our finding, on the reverse of these coins, the word ΛOH *loeh*, with symbols of the fire worship; which seems to be either the *Anamese* word *lua* signifying fire, or the Thibetan *Lu* or *Lawa*, the appellation for the moon. The coins to which reference is here made will be found in Prinsep's *Journal* vol. v. pl. ii, fig. 17 and pl. xlvi, fig. 12. The *Il-khan Thou-men* was succeeded by his son *Iski-khan*, who transmitted his kingdom to his brother, called by the Chinese *Ti-theou-pou-li Khan*, who reigned under the title of *Moukan Khan*, and is called by the Byzantine Authors *Diza-boul*, to whom Justin the II, in A. D. 569, sent his Ambassador Zemarkh. From this embassy we become acquainted with the fact of this nation of Turks having, at this early period, adopted the Ouigour Alphabet, in which were written the letters of congratulation to the Emperor, who had them explained to him, from the Scythian language and writing, by means of an Interpreter. (*Corpus Scriptorum Historiæ Byzantinæ e excerpta e Menandri Historia fol. 296*). The whole of the Indo-Scythian coins, bearing the name of *Kenorano*, belong in all probability to this very *Moukan Khan*, called *Ken-khan* by the Persian Historians of the Turks. The *Thou-men* Turks, being occupied with constant wars with the powerful Chinese dynasty of *Thang*, became greatly weakened and divided among themselves, so as to give the *Si-yan-tho* and the *Hoei-he* an opportunity of completely destroying their power about A. D. 744, and of founding a new Empire on their ruin. The language of the latter has

been declared to be the Oriental Turkish, or Jaghatai dialect, spoken in the greatest purity by the Usbeks, who appear to be the descendants of *Hoei-he*, and to have established themselves as Nomades in *Khiva*, *Ferghana*, and *Kokan*, about the beginning of the sixteenth century.

XVI.

On the Indo-Scythian Coins of *Kenorano* there are apparently corrupted Syrian titles written in Greek letters, and as the Nestorians had established themselves at *Merv-Shah-jehan* in A. D. 410, and had penetrated into Tartary so early as A. D. 636, is there reason for supposing that the *Thou-men Turks* obtained the Ouigour alphabet from these Christian sectaries along with the name of Ouigour?

The appellation Ouigour is by the Persians more correctly written *ایغور*, *Aighur* or *Ighur*; and has like the alphabet I think a Syriac or Nestorian origin.—This will probably be found in the Hebrew *Agur*, which Gesenius thinks may, like the word *Kohemoth*, signify one of the assembly of wise men; a most appropriate appellation certainly for those who had introduced a knowledge of letters and writing among the rude savage tribes of Turkish and Tartar Nomades. This derivation too seems more probable, as the Chaldee *Igareth* signifies a Royal epistle or edict, sent by a public Courier and the same word *nummated* in Persian *انگاره* *Angarah*, signifying a narrative of facts or journal.

XVII.

Does the language of Thibet approach in Syntax and Grammatical form the dialects of the Mongol hordes, and of others inhabiting the country and belonging to the Indo-Chinese race; or does this language constitute a distinct class from either the Turkish, Mongol, or Chinese branches?

XVIII.

At what period of the Christian era did the *Sangayanas*, or Bauddha Missions, from India to Thibet and Eastern Turkistan, carry with them into these countries the Prakrit alphabet of the Indian Cave Temples, along with the religion and literature of the people who formed them?

The Chronicle of Thibet relates that the Bauddha religion was introduced into that country A. D. 60, and that some of the most important Missions from India which established the national belief, took place in A. D. 225. Monsieur Remusat has endeavoured to shew that though this may be generally true of the people of Navi or Western Thibet, Ladak, and Eastern Turkistan, it is not so of the greater part of the nation, particularly the inhabitants of the eastern districts of Thibet, who remained in a state of ignorance till the beginning of the seventh century of our era, when the principles of Buddhism, eliminated and discussed in Sanskrit, appear to have been introduced from India.

XIX.

When was the religion of Bhuddha introduced into the district of Khoten, north of the *Kuenlun*; and what is the present state of the priests and followers of this faith, who are said to be numerous in that country?

M. Abul Remusa: acquaints us with the important discovery that the language spoken at *Khoten*, before the Christian era, was *Sanskrit*, or at least *Prakrit*, a colloquial dialect of that learned tongue, and called *Fan* in the Chinese historical accounts. It was at least a dialect of the Arian family of languages, spoken by the *Sace* of *Cusia* or Kashgar, and of *Bylta* or *Little Thibet*. The known existence of a colloquial medium of intercourse belonging to the Sanskrit class of languages tends to confirm *Masudi's* narrative, that *Naosherwan* the Great, after having killed the king *Akhshawan*, carried into Persia the original of the *Kalila Damna*. It has been already said, in the previous question, that the Bauddha religion was introduced into the country about A. D. 60; but there is reason to believe that the alphabet in which the Thibetan dialect was then written, a modification doubtless of the Indian-Cave alphabet, had been used in these countries at least 60 years B. C.

XX.

If there be any ancient books of the Bauddha religion met with in Khoten, what are the language and character in which they are written?

XXI.

Are there any works of value, written in the *Ouigour* alphabet or in *Jaghatai Turki*, relative to the history of the country to be met with in Eastern Turkistan ?

XXII.

Are there any sculptured stones or inscriptions in an unknown character and of supposed ancient date, to be met with in the countries of Thibet and Eastern Turkistan ?

XXIII.

Do any ancient *tumuli*, like the topes of Afghanistan and the Panjaub exist in these countries, and have any instruments of iron, or vessels of gold and silver ever been found in them ?

Since the draft of these questions was drawn up, another communication has been received from Mr. Elliot informing the Society that the precise route, taken by the Mission from India, will be along the upper part of the valley of the Sutlej near its origin; on which they will come after passing by the *Niti Ghat*, over the high southern ranges of the Himalaya mountains, at an elevation of 14,544 feet above the level of the Ocean, and about the 31st degree of north latitude and 80° of east longitude from Greenwich. They will then proceed across the Sutlej valley to the junction of its eastern branch (the river of Lan-zing) with the *Spiti* river, which is here flowing from the northward; and will thence proceed by the *Panj kang* lake to the pass of the Karakorum mountains, over which a road leads to Yarkand; or they will follow the pass across the mountains from Rodokh to Khoten, where they are desired to winter, if possible; but if not so, they are to remain at Rodokh, on this side of the *Kuenlun*, or go on to Yarkand on the other. As soon as the season will admit of travelling, Captain Cunningham is to explore the course of the Indus to *Gilghit*, and thence through the *Terra Incognita* of the *Dardu* country; and Lieut. Strachey will pass on through the district eastward of the *Sin-kha-bab* river, or eastern branch of the Indus to Gardokh and the *Manasarawa* lake, to which place he penetrated last year from *Kamaon* over the Himalayas. He may then follow the route into Eastern Thibet by the *La Ganskiel* pass, and is directed to explore

from thence the course of the *Sanpu*, ascertaining whether it be the river of *Ava*, or the *Dihung*, which falls into the *Bramahputra*. Dr. Thompson is to investigate all the mineral treasures of our northern frontier. They are provided with Barometers, Thermometers, Sextants, Altitude and Azimuth Circles, Magnetical Instruments, and with whatever is in fact necessary for the extension of Geographical knowledge and the domain of science. The Members are prohibited from going into Independent Tartary, in order to prevent the possibility of any of those accidents befalling to the Mission, such as have already happened to those who preceded them in the field of exploration. The following may be proposed as general questions.

GENERAL QUESTIONS.

XXIV.

What is the present state of the trade between Kashmir and Yarkand? and what is the annual amount of the *Ambar* or pure silver, the wool of the shawl goat, tea, and silk, brought in exchange for shawls, white piece goods and leather?

XXV.

What is the Revenue of Khoten, and the state of the traffic between it and Yarkand?

A considerable annual amount of Mahomedan prayer silk clothes, satin paper, gold dust, raisins, and other things, are exported to Yarkand for copper-pots and leather.

XXVI.

Is there any export of broad cloth, brocades and copper, to the frontiers of China, or to the *Khanate* of *Kokan*, in return for tea, China ware, rhubarb, and salammoniac?

XXVII.

What is the present amount of the transit trade of Eastern Thibet, by the *La Gauskiel pass*, to Ladak and the Panjaub.

Large quantities of impure borax, shawl wool, gold and silver, are said to be brought by this route from China and Thibet.

ART. XII.—*Biographical Memoir of the late Major General Vans Kennedy.*—By JAMES BIRD, Esq.

The late Major General Vans Kennedy was the scion of an ancient family long resident in Ayrshire in Scotland, and connected with the noble house of Cassilis (or Ailsa), a branch generally admitted to be the chief of the race of Kennedy's, who came originally from Carrick, of which they afterwards were the Earls. Many of his family greatly distinguished themselves in the early wars both of France and Scotland, where they obtained high honors. The subject of the present memoir therefore naturally and proudly thought that "no ignoble blood flowed in his veins," and would occasionally say that "one would rather be the child of some body than of no body". He was well pleased also to remember that he was of a stock connected on his father's side, with the Earls of Eglintoun and Dumfries, and on his mother's side, with the Marquis of Annandale; and that while three descents in the days of Chivalry made a gentleman, he himself could number seven till his distinct genealogy became lost among the Lairds of Bargany.

The General's immediate progenitors, though less noble, were not however less respectable than the more remote part of his ancestry. His grandfather, a younger brother of the House of Bennan, a man of high character, made a considerable fortune by the sale of cattle, which were bred by himself, and by assisting country gentlemen in the management of their affairs. Through this he was enabled to purchase the estate of Pinmore in Ayrshire, which he left to his eldest son Mr. Kennedy, the father of the General and of Miss Grace Kennedy the Authoress of *Dunullan*, *Father Clement*, and other deservedly popular works.

Mr. Kennedy, to whom the estate of Pinmore descended and the father of the two children mentioned, who were destined to attain celebrity in the literary world, was himself a man of considerable talent, acquirements, and brilliant conversation, but of peculiarly retired habits, and of great negligence in his affairs; his wife was Miss Vans Agnew, the eldest daughter of John Vans of Barnbarrock, in the county of Wigton, who, having married his cousin the heiress of Agnew, became

the representative of that family and assumed its name. Mrs. Kennedy, remarkable for general information and for sincere and genuine piety, lived in the utmost seclusion at Pinmore, until she had become the mother of ten children, five sons and five daughters. Soon after this, Mr. Kennedy's affairs becoming embarrassed by the failure of the Ayr Bank, he was obliged to sell his property and move with his family to the vicinity of Edinburgh, where he resided until his death, which took place in the year 1790, leaving his admirable wife with the responsible charge of her five sons, three of whom were afterwards educated to professions in which they appear to have given promise of future eminence, but died early, a fourth died when a child, and Vans, the youngest, was left (the representative of the family) with five sisters, who afterwards evinced intellectual superiority by various publications.

Two years previous to Mr. Kennedy's removal to Edinburgh, his son Vans was born (1784), and after having been educated in the Edinburgh classes, was sent when twelve years of age to England, where he attended Dr. Duprè's Academy at Berkhamstead, along with his cousins, the sons of Robert Vans Agnew. Here he soon gave proofs of his studious disposition and ready apprehension, and having been soon after removed to Dr. Powell's establishment at Monmouth, made such rapid progress in his studies there, that Dr. Powell told his uncle he would be happy if he had an usher in his school so well qualified as young Kennedy. So much at this time was he attached to books and yet so indolently disposed, that Dr. Powell had great difficulty in making him join his companions at play to take the exercise necessary for preserving his health; still, though in general averse to join in the recreations of the other boys, he would sometimes exert himself in performing feats of strength, which however, were accomplished so awkwardly that they frequently excited the ridicule of his companions. Naturally of studious habits with an irritable temper he was not generally liked, though a favorite with many by whom he was found warm-hearted and amusing. The desire of distinction through the acquirement of languages formed his ruling passion, so much so that even his holidays were devoted to attaining a proficiency in French and Italian, and having but little facility in pronunciation for acquiring the colloquial parts, his chief attention was directed to their grammatical construction and philological peculiarities.

On the completion of his fourteenth year, having hopes of an appointment for India, he returned to Edinburgh to spend the last twelve months of his stay in Britain with his mother and sisters. While with them, he still continued zealously to prosecute his studies, and having through the influence of Mrs. Crawford Bruce, (a lady much attached to his mother) obtained a cadetship, he sailed for Bombay in 1800, where, on his arrival, he immediately entered upon the distinguished literary career destined for him to pursue. Soon after reaching Bombay he was employed with his Corps, (the 1st Battalion 2nd Grenadiers) in a campaign against the people of Malabar and Cottiote, where he was wounded in the neck, and ever afterwards suffered from the effects of that injury. The nature of the service in which he was then engaged and the want of books prevented his following the natural bent of his inclinations to the extent that he wished, but unfavorably even as he was then situated, he continued to devote his leisure hours to the study of the languages and literature of the East and, as it appears, acquired a vernacular knowledge of *Malayálim*, the dialect of the province in which he was serving.

On returning from the Malabar Coast, Lieut. Kennedy was sent to the Dekhan, where in January 1807, he was appointed Persian Interpreter to Col. Wallace, then Commanding the Peshwa's Subsidiary Force at Seroor, and though little acquainted at this time with the *Persian* language, he soon acquired such a proficiency in reading it as well as *Arabic*, that he is said to have translated with wonderful fluency the Persian *Shikastah* letters, written to his Superior from the Native Courts and by the Jaghirdárs of the country. At this period, Col. Close, who was Political Agent at the Peshwa's Court and resided at the Sangam near Poona, was particularly fond of having Vans Kennedy at the Residency, and of discussing metaphysical questions with him. Lieut. Frissell, a nephew of Col. Wilks, another young man of much promise in those days, used to join in these colloquies. Sir James Mackintosh frequently spoke with the greatest respect of Col. Close's powers of argument, and of the ingenuity and indomitable hardihood of Kennedy. It is besides no insignificant testimony to Gen. (then Lieut.) Kennedy's talents and literary acquirements to state, that the Hon'ble Mountstuart Elphinstone who succeeded Col. Close, declared that at that time he knew no man with more varied and extensive

learning than the subject of the present memoir. He had not merely gleaned superficially from the authors he had studied, but had perused their works thoroughly and critically. He had read, for instance, all *Firdausi*, several of the *Puranas*, and many others works of antiquity. In study he was indeed indefatigable, and spared no expense on books, MSS. and Moonshis, while during the early part of his life he is said to have read for sixteen hours a day. He received no visitors and rarely went out, so that his presence in public was regarded with astonishment and curiosity. While he continued Persian Interpreter of the Seroor Subsidiary Force under four successive Commanding Officers, he was occasionally nominated to the duties of Deputy Judge Advocate General of Courts Martial assembled in the Dekhan.

Just preceding General (then Captain) Kennedy's appointment in 1817 to the Office of Judge Advocate General of the Bombay Army, in succession to Major Lewis, he became a member of the *Bombay Branch of the Royal Asiatic Society*, then the *Literary Society of Bombay*, when the well known Translator of the Emperor Baber's interesting Memoirs and the Author of other learned Essays, was the Secretary; and it is no mean proof of the estimation in which his abilities and extent of learning were then held by the members of the Society, to find, that at the Anniversary Meeting of that year he was unanimously elected one of its *Vice-Presidents*. About the same time he read at one of the Society's Meetings his "Essay on Persian Literature", which, though confessedly imperfect and of confined scope, gives a good general idea of the subject.

At the Society's Anniversary Meeting of 1819 Captain Kennedy took charge of the duties of Secretary, while by a most fortunate coincidence Mountstuart Elphinstone became its President. About this time the two first volumes of the Society's Transactions, (which have since become standard works in the literary institutions of Europe,) were published.

In 1825, Kennedy contributed several translations of the *Puranas* to the Quarterly Oriental Review, then published at Calcutta under the Editorship of the learned Director of the Royal Asiatic Society. The results of his labours in *Sanskrit* and other languages were published at home in 1828, under the title of "Researches into the Origin and Affinity of the Principal Languages of Europe and Asia"; and three years

after, his "Researches into the Nature and Affinity of Ancient and Hindu Mythology" appeared; it was the first publication of the kind derived from authentic and original resources. His reputation throughout Europe had now become established, and many subsequent contributions to periodical works both in India and England only confirmed the opinion already formed by the public, of the great extent and diversity of his knowledge. His oriental learning was profound and accurate, especially in the Sanskrit range, being particularly well read in the religion, philosophy, and law of the Mahommedans and Hindus, and that too in the writings of the *Vedanta School* pertaining to the latter. For the religion of the Parsis however, and the ancient books of that sect, he had no great respect. He often contributed to the *Asiatic Journal*, chiefly on subjects connected with Oriental Literature and to the Newspapers on matters regarding Military and Civil law. To the end of his days, he still kept up the character of a student, devoting his whole energy and thoughts to the study of Metaphysics and Philology, having, as he said, become tired of Theology, a subject to which in former days he had given much attention. He took a great interest in the prosperity of the Bombay Branch of the Royal Asiatic Society and was ever ready to volunteer his services for its support and improvement.

Those who were not intimately acquainted with General Vans Kennedy, would not conceive that under so cold an exterior, could exist such powerful feelings of affection and humanity as he possessed. Without the least regard to himself, he was ever ready to assist with all his might any one whom he believed to be the victim of injustice or oppression. He was careless of money and comfort, and was so liberal with what he had, that he was continually involved in pecuniary difficulties. At the same time he was most regular and punctual in his habits. Rising early, he first took exercise in his garden, then read the papers of the day and periodicals until breakfast time (about 8 A. M.); after this until dinner (about 4 P. M.) he engaged himself in his official duties and in attending to the more laborious part of his studies, devoting the evening to reading of a lighter character. His diet was abstinent and his hour of retirement early, and his health so good that he has been heard to say that he did not require to see a medical man for years together.

The duties of Judge Advocate General of the Bombay Army were

discharged by him up to the year 1835, when some misunderstanding having arisen between Sir John Keane and himself, he was removed from the appointment; but subsequently, on a Memorial to the Hon'ble the Court of Directors, was nominated Oriental Translator to Government, the duties of which Office he continued to perform up to the time of his death, which took place at his house in Bombay on the 29th of Dec. 1846. On the following morning his remains, attended to the grave by the principal people of this island, were interred in the European Burial Ground at Backbay with the Military Honors due to his rank.*

The following is a list of General Vans Kennedy's publications.

An Essay on Persian Literature.—*Transactions of the Lit. Society of Bombay*, Vol. II. 1819, London.

Remarks on the Chronology of Persian History previous to the conquest of Persia by Alexander the Great.—*Ditto*.

Notice respecting the Religion introduced into India by the Emperor Akbar.—*Ditto*.

Remarks on the State of Persia from the Arbela in A. C. 331 to the Rise of Ardeshir Babegan in A. D. 226.—*Ditto*, Vol. III.

Remarks on the 6th & 7th Chap. of Mill's History of British India, respecting the Religion and Manners of the Hindus.—*Ditto*.

Remarks on the Character of Muhammad.—*Ditto*.

A Dictionary of Maratha and English, and English and Maratha.—225 p. *Foolscap fol. Bombay*, 1824.

A Translation of the Legend of Jalandhara, 2 Parts.—*Quarterly Oriental Review*, Vol. IV. & V. 1825-26.

Researches into the Origin and Affinity of the principal Languages of Asia and Europe.—324 p. *4to. London*, 1828.

An Abstract of Mohammedan Law.—*Journal R. A. S.* Vol. II. 1835.

Researches into the Nature and Affinity of Ancient and Hindoo Mythology.—494 p. *4to. London*, 1831.

* See the Resolutions passed by the Bombay Branch of the Royal Asiatic Society on the occurrence of Major Gen. Kennedy's death, in this No. of the Journal. Art. XV.—*Extracts from the Proceedings &c.* for January 14th and February 4th 1847.

Remarks on the Vedanta System.—*Transactions of Royal Asiatic Society*, Vol. III. 1834.

A Treatise on the Principles and Practice of Military Law—378 p. 8vo. *Bombay*, 1832. 2nd & Revised Edi. 1847.

Five Letters on the Purans, with reference to the views of H. H. Wilson Esq.—*Asiatic Journal*, Vol. XXII. XXIII. & XXIV. 1834–40.

He is said also to have made a translation of the Diwan of Hafiz, but I believe it was never published.

*** For most of the facts on which the above sketch is founded I am indebted to Col. Ogilvie, and to C. J. Erskine Esq. C. S. whose father was an intimate friend of the deceased.

ART XIII.—*Literary and Scientific Notices.*

The Society is indebted to the Editor of the *Journal of the Indian Archipelago* for Nos. 1 to 6 of that interesting Periodical. The Ethnology, Statistics, and Conchology of those interesting regions have met with able and laborious students in the contributors to this Journal. On the first of these subjects, besides some general remarks in No. 4, there is a long article in No. 5 chiefly devoted to a history of the manners and customs of a rude tribe in the interior, called the *Binuas*. While another of these tribes, the *Beremun* tribe, is perfectly atheistical, the *Binuas* are theists. The author hesitates as to whether their religious ideas are to be traced to the Hindus or Mahometans. If *Pirman*, the substitute for *Brahma*, the Supreme Being, were the only word where a connection could be discovered, we might remain undecided; but when we have *Devádevá*, intercessors and mediators between man and the Supreme, and *Bumi* the earth, also an inferior divinity,—names which are used every where among the Hindus to this day in the same sense essentially as among the theists,—all our hesitation ceases.

The article on the Statistics of the Dutch settlements ought to shame some of us nearer home in regard to the way this subject has been neglected among ourselves, and the article on the *Conchology* of a region so rich in treasures of this kind, must be read with interest by all who love to survey the shining wonders of the deep.

THE GERMAN ORIENTAL SOCIETY.

A Society was formed under the above-mentioned name (*Deutsche Morgenländische Gesellschaft*) in October, 1845. It is under the especial superintendence of Professors Roediger, Pott, Fleischer, and Brockhaus.

We are indebted to the courtesy of the Society for copies of the first Annual Report and the two first issues of their Journal.

The objects contemplated by this important Society are,

1. To collect MSS. and printed works, and productions of nature and art, connected with the East.
2. To publish, translate, and digest Oriental works.
3. To issue a periodical.
4. To support undertakings for extending our knowledge of the East.
5. To correspond with similar learned Societies and individuals.

The Journal of the Society (*Zeitschrift der Deutschen Morgenländischen Gesellschaft*) is to be issued four times a year. The well-known and valuable Journal edited by Prof. Lassen merges in the above, which is to enjoy the aid of the learned professor.

In the 1st No. of the *Zeitschrift*, we have a long article by Professor Ewald on a collection of Ethiopic MSS. sent by Dr. Krapf, several of which were hitherto unknown. This is followed by an article on "The nations and languages southward of Ethiopia", by the same distinguished scholar. Another long and interesting article is on "Brahma and the Brahmans", by Dr. R. Roth.

In the 2nd No. we have the commencement of an eloquent and powerfully-written article by Professor Neumann, of Munich, on "Sinologists and their works," commencing with Dr. Morrison, to whom warm, although not indiscriminating, praise is given. Dr. Pruner of Cairo contributes a lively "Aphoristic sketch" on "the Negro". We have next the "Plan of a Colonial Commercial Establishment in the East Indian Archipelago," by Dr. Selberg, the *practical* character of which took us rather by surprise, and for which the Editors half apologise, while yet they express their strong desire for Germany to have "a direct and enduring connexion with the East". Other articles of interest are given. The whole concludes with a number of literary notices; of which one of the most im-

portant for us in Bombay, is an announcement that Dr. F. Spiegel, already well known as a Persian scholar, is employed on the Zendavesta, and a Grammar of the Pazend.

We have among the advertisements in the *Zeitschrift*, an announcement of the Mahābhārata being about to appear in "a complete critical translation," by Theodor Goldstücker. This will be an important contribution to Oriental literature.

We have been thus somewhat minute in our notice of the "Journal of the German Oriental Society", as we cannot doubt it will prove one of the most important means we possess of Oriental investigation. Germany has done much in this cause, and seems preparing to do more.

THE AMERICAN ORIENTAL SOCIETY.

We acknowledge with thanks the receipt of the 3rd No. of the Journal of this Society, which is for 1847. It contains a "Treatise on Arab Music", translated by the Rev. Eli Smith from a native work; "Notes on Arakan"; "Three chapters of Genesis in the Sooahelee language, by the Rev. Dr. Krapf", with an introduction by W. W. Greenough; Reviews of Mons. Burnouf's *Introduction à l'histoire du Bouddhisme Indien*," and of Lassen's *Indische Alterthumskunde*, both by Prof. E. E. Salisbury, of Newhaven. Subjoined are various literary Notices, the most important of which is a Statement of the progress hitherto made in the decyphering of the Himyaritic Inscriptions, with the Alphabets proposed by Fresnel, Gesenius, and Roediger.

The "American Oriental Society" has sustained a great loss in the death of its late learned President, John Pickering Esq., of Boston; but we rejoice to see that it is still carried on with zeal and ability.

MEDICAL AND PHYSICAL SOCIETY OF BOMBAY.

No. VIII. of the *Transactions of the Medical and Physical Society of Bombay*.—In this No. we have observed some remarks by Assistant Surgeon Carter, on the Freshwater Sponges in the Tanks of Bombay. The Author states, that there are four distinct species to be met with; and after describing them specifically, alludes to their structure and animality.

In a subsequent communication to this Society, he observes, that in

his Notes published in the Journal to which we have alluded, he has confounded two species under the head No. 2, and that the bright green colored species there mentioned, is distinguished from all the rest by having a crust of double pointed smooth spicula round its seed-like bodies. He supposes this to be *Spongia lacustris* (Lin.), *Spongilla friabilis* (Lam.).

Further, he observes respecting the animality of the Freshwater Sponges, that the animals of which they are but a congeries, are identical with the infusorium *Proteus*. 1st because they are composed of a semi-transparent gelatinous matter. 2nd because this gelatinous matter is endowed with the power of altering its shape and of locomotion. 3rd because in it are seen transparent cells (*contracting vesicles*) of various diameters from 1-9000th part of an inch to a mere point, (which he formerly supposed to be sphinctral orifices) dilating and contracting themselves as in other animalcules. And 4th because this gelatinous matter is provided with greenish yellow granules moving with, and especially characteristic of both the *Proteus* and the animal of the sponge.

He regards the *Proteus* as being more active in changing its shape, &c. than the animals of the sponge when first torn from each other, from the habits of the former having been vagrant perhaps from the commencement, and its full development thereby having been unimpeded, and states, that the *Proteus* feeds upon its like as well as upon other matter, enclosing its food within its own substance after the manner of the *Hydra*.

While examining the transparent border of a portion of sponge growing from the seed-like bodies, he has observed the contracting vesicles distinctly, and a little within this, the animals themselves distinguishable, though amassed together and ever changing their form, but he does not appear to have ever seen them enclose an object within their substance after the manner of the *Proteus*.

In the development of the contents of the Sphorangia or seed-like bodies, he observes, that when the latter are opened under water in a watch-glass the transparent cells within them having been eliminated, swell and burst by imbibition (*endosmose*) of that fluid; and that then the true ova of the Sponge with which they are filled, spread themselves over the surface of the vessel. Each ovum appears, not to be globular or ovoid as he formerly supposed, but discoidal, very much resembling

in size and appearance the globules of the blood, it being only when they are turned on their edges that they appear ovoid. The red spot in their centre he also now thinks to be an optical illusion, while he has every reason to believe that the ovum retains its planiform state until its transparent vesicles and granules have become developed and the power of locomotion in it fully established.

ART. XIV.—*Report on the State of the Society's Museum*
1845.—By A. B. ORLEBAR, M. A., *Secretary of the Museum*
Committee.

The object of the following Report is to bring the state of the Museum before the notice of the public, for whose benefit the Society undertook to form it. It was originally instituted with the view that all classes might derive instruction from visiting it, and that all the Educational Establishments in this Island might share in its advantages; at the same time it was expected that all engaged in teaching, would join in supporting and improving it. That the Society's liberal design however, has not been generally understood is much to be feared, while it is hoped, that the present advanced state of its Museum when sufficiently made known, will prove that the laudable object for which it was instituted has not been disregarded, that it is attainable and that the collections only require to be a little increased and a little more attention given to their arrangement to render the Museum capable of affording all the information it was originally intended to convey.

During the past year the "Propositions" of 1840, relating to the Museum, have been steadily kept in view. They are the following;—

1st.—To make a general collection of such specimens in the various branches of Natural History, as would afford means of study to beginners and of comparison to students.

2nd.—To make such local collections from the Presidency and other places ordinarily visited by its residents as would fully exhibit the peculiarities in nature and art both of India and the neighbouring countries.

To effect the first purpose, the shells possessed by the Society were

arranged early in 1841 according to the system of Lammark; so that any person now by taking Lammark's *Histoire Naturelle* in hand, and comparing his descriptions with the labeled specimens, may obtain a knowledge of *Conchology* sufficiently accurate for any practical purpose.

During the past year, the collection of minerals generally has also been undergoing a systematic arrangement; the most difficult part has been accomplished, and had not the attention of your Secretary been drawn away to other parts of the Museum by the numerous donations made to it, it would have been completed some months back.

The Serpents, Fish, and Corals, as yet remain unarranged.

CONTRIBUTIONS TO THE MUSEUM.

Our collection of *Perim* fossils is very extensive, and although no additions have been made to it during the past year, yet there is no doubt, that if any member would apply himself to their examination, and arrangement, it would richly repay him for his trouble and end by inducing gentlemen who have the opportunity, to forward large supplies from the extensive fossiliferous deposits which we now know to be continued on far beyond that little Island.

Our collection of specimens from *Cutch* is still small.

Sindh has contributed several fossils during the past year, and this division forms the richest part of our collection.

Dr. Spilsbury, Dr. Malcolmson, and Dr. Bradley, have also made us rich in fossils from the extinct lakes of *Central India*.

Our collection of *Granitic, Trap* and other *Plutonian* rocks with their minerals from all parts of India is very great, and during the past year has been increased by some valuable specimens from the *Trap formations*.

In addition to collections from *India*, we have been forming others from *Egypt, Arabia*, and the *Persian Gulf*.

Small local collections of Shells from the mainland of India and from Bombay Harbour, the Red Sea, Aden, and Zanzibar, are also under formation. It is hoped that a marine *fauna* of all these localities may soon be completed, to afford both a study to Naturalists who may visit us, and a valuable source of instruction and useful relaxation to those whose duties may afterwards lead them to the places from which the collections have been made.

The Society has resolved to confine its *Zoological collection* to the skeletons and less perishable parts of animals, as the difficulty of preserving the more delicate tissues is now too great to be overcome in a satisfactory manner. It will notwithstanding be thankful for all donations, as it proposes to send presents to Societies out of India, with the hope of being able to effect exchanges which may be generally advantageous to the Museum.

The antiquities of India do not yet occupy much room in the Museum. But one very valuable illustration of a Religion, whose remains are of the deepest interest to the students of Indian History, now occupies one of our cases, viz. the donation from Sir H. Pottinger of a set of figures exhibiting the punishments in the *Buddh Tartarus*, faithfully copied from a Chinese temple belonging to that persuasion.

ART. XV.—*Extracts from the Proceedings of the Society.*

At a monthly meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 3d of July, 1845.

Read and approved the minutes of the last meeting.

The following gentleman was proposed as a member of the Society, to be balloted for at its next meeting, viz. The Rev. A. Fraser, by John Peet, Esq., seconded by the Secretary.

Read a letter from R. Clarke, Esq., Honorary Secretary, Royal Asiatic Society, acknowledging the receipt of the *Yaena*, *Visparad*, and Nos. 1, to 7. of the Society's Journal.

Read a letter from Dr. Thomas Hodgkin to Manockjee Cursetjee, Esq., relative to the establishment in London of the *Philological and Ethnological Societies*, for the purpose of investigating the physical character, history, and present condition of the different nations and tribes of the human race; and requesting the co-operation in this learned task, of *all Societies and individuals in the East* capable of collecting and diffusing the requisite information. Dr. Hodgkin remarks, that although much has been done by learned men in the East and by others in Europe for the investigation of Asiatic History, the tribes and languages are yet so numerous and the obscurity of the subject so great,

that much remains to be done, which can only be effected by able workers in the country where the necessary enquiries can be satisfactorily conducted. The letter further makes allusion to Dr. Stevenson's *Essay on the Language of the Aboriginal Hindus*, published in No. III of the Society's Journal, and recommends the continuation and extension of the same subjects relative to the various tribes of India.

The following donations were laid on the table:

TO THE LIBRARY.

By the Honorable the Court of Directors of the East India Company. Lieut. Col. Edward Sabine's *Magnetical and Meteorological Observations for the years 1840, 1841 and 1842*, made at the Observatory of Toronto in Canada.

The Secretary then submitted a paper entitled, "The travels of *Kumal-ad-din Abd-al-Rizak* from Persia to India in A. D. 1842," containing an account of the then flourishing city of *Bijunagar*. Translated from the Persian of the Author in the *Matlaa-as-Sadein* and illustrated with notes by James Bird, Esq.

Resolved that the thanks of the Society be given for the donation and paper presented.

Notice of the following motions to be brought before the next meeting of the Society was given.

1st.—That the London, Edinburgh, and Dublin Philosophical Magazines and the Literary Gazette discontinued by the Society, be re-ordered from Home.

2nd.—That the resolution relative to the payment of subscriptions by newly elected members of the Society, carried at the meetings of the 27th March and 24th April 1839 be abrogated, and that Art. XXV of the Society's Rules be acted on, in order to simplify the collection of subscriptions and the accounts of the Society.

The meeting was then adjourned to Thursday the 14th of Aug. 1845.

At a monthly meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 14th of August 1845.

The minutes of the last meeting were read and approved of.

The Rev. A. Fraser proposed at the last meeting, having been balloted for, was unanimously elected a member of the Society.

Professor Harkness intimated, that E. Lyon, Esq. who was proposed a member of the Society, having become aware of circumstances which would compel him very shortly to return to England, begged to withdraw his name.

H. Conybeare, Esq., proposed as a subscriber to the Library by the Rev. G. Pigott, seconded by the Secretary, was admitted agreeably to the Regulations.

The following gentlemen were proposed as members to be balloted for at the next meeting;—viz. Robert Burn, Esq., by John Smith, Esq. seconded by Dr. James Burnes, K. H., and H. Conybeare, Esq., proposed by Professor Harkness, seconded by Dr. James Burnes, K. H.

With reference to a note from Major General Kennedy, it was resolved, that directions be given to have the copies of the new Catalogue stitched and covered as originally ordered by General Kennedy, and that when ready they be forwarded to the Library, where they may be had on application to the Librarian, at Rs. 3½ each.

Proposed by Dr. James Burnes, K. H., seconded by P. W. LeGeyt, Esq. and unanimously carried:—

That the best thanks of the Society are due to Major General Vans Kennedy, for the ability and zeal with which he has so disinterestedly undertaken and executed the laborious task of preparing and carrying through the press, the Catalogue now on the Table.

The following donations were laid on the table.

TO THE LIBRARY.

A Dictionary of the Amharic Language in two parts, Amharic and English, and English and Amharic, by the Rev. C. W. Isenbergh.—Presented by the Author.

A Grammar of the Amharic language, by the Rev. C. W. Isenberg. Presented by the Author.

Adumbratio Historiæ Mundi Amharice, or a sketch of universal history in the Amharic language, by the Rev. C. W. Isenberg.—Presented by the Author.

Regni Dei in terris Historia Amharice, or History of the kingdom of

God in the Amharic language, by the Rev. C. W. Isenberg.—Presented by the Author.

A Vocabulary of the Galla language, compiled by the Rev. J. L. Krapf.—Presented by the Author.

St. Matthew's Gospel in the Galla tongue, translated by the Rev. J. L. Krapf.—Presented by the Author.

By the Medical Board under sanction of the Honorable the Governor in Council.—A Report on Small-pox and Vaccination in Bengal, 1844; and Medical Topography of the Northern Hyderabad and Nagpore Divisions, the Tenasserim Provinces and the Eastern Settlements.

By the Asiatic Society of Bengal.—A Dictionary of the Technical Terms of the Sufies, edited in the Arabic original by Dr. Aloys Sprenger, of the Bengal Medical Service.

Presented through Professor Harkness.—Seven Inscriptions collected at Kolapur by Bal G. Shastree, Esq., who has added an English translation of one, and various explanations and remarks in regard to the others.

Presented by Professor Orlebar.—A paper on the Geology of the Egyptian Desert.

The Secretary was directed to forward the thanks of the Society, for the different donations and papers, and the meeting was adjourned to Thursday the 11th of September, 1845.



At a monthly meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 11th of September, 1845.

The minutes of the last meeting were read and approved of.

Robert Burn, Esq., and H. Conybeare, Esq., proposed as members of the Society at the last meeting, were balloted for and duly elected.

Jaganath Sankarsett, Esq. was proposed as a resident member of the Society, by W. Howard Esq. seconded by P. W. LeGeyt, Esq.,

Read a letter from E. H. Townsend, Esq., Secretary to Government, accompanying a copy and translation of a list of Persian and Arabic Manuscripts at Bijapur; forwarded by Government for the information of the Society. In the collection are many rare works on Mahomedan Law, which are believed to be in a good state of preservation.

The following papers were read:—

1st. Notes on the Gara Tribe made during the survey of the south-east Coast of Arabia in 1844-45, by Assistant Surgeon H. J. Carter, of the Honorable Company's Surveying Brig *Palinurus*.

2nd. Extracts from a Journal kept during the survey of the Red Sea, by Capt. (then Lieutenant) Carless, I. N. Assistant Surveyor.

The thanks of the Society were unanimously voted to H. J. Carter, Esq., and to Capt. Carless for their interesting communications, which will appear in an early number of the Society's Journal.

The following donations were laid on the Table:

TO THE LIBRARY.

From Government.—Report of the Board of Education for the year 1844, three copies.

From the Chamber of Commerce.—Report of the Bombay Chamber of Commerce for the third quarter of 1844-45.

TO THE MUSEUM.

From Dr. Grierson, by Professor Orlebar,—some fossils collected in Sindh.

Thanks were ordered to be returned to the respective Donors, and the meeting was adjourned to Thursday the 9th of October, 1845.

At a monthly meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 9th of October, 1845.

The minutes of the last meeting were read and approved of.

The ballot for the election of Jaganath Sankarsett, Esq. was unavoidably postponed, there being only eight members present, ten being required by the laws of the Society in all ballots for the election of members.

The following paper was read;

By the Author.—*Memorandum* of the Great Comet of 1844-45, by William Pole, Esq., F. R. A. S., Professor of Civil Engineering in the Elphinstone College. The thanks of the Society were unanimously voted to the Author for his acceptable communication, which will appear in an early number of the Society's Journal.

The following donations were laid on the Table:

TO THE LIBRARY

From the Author.—*Zeitschrift für die Kunde des Morgenlandes*, von Chr. Lassen, Phil. Dr. A. A. L. L. Mag.

From the Author.—*De Taprobane Insula Veteribus cognita Dissertatio*, by Chr. Lassen, Phil. &c.

From Col. Griffith.—*Digest of the Reports made by the Commissioners into Charities.*

From the Society for the promotion of knowledge through the medium of the Vernacular Languages.—*Prospectus and Proceedings of the Society.*

From Government.—*Transactions of the Medical and Physical Society of Bombay for 1844.*

Thanks were ordered to be returned to the respective Donors of the above presents and the meeting was adjourned to Monday the 24th of Nov. which being the Anniversary of the Society, the Office-bearers and Committee of Management for the ensuing year will then be elected—the latter by ballot, according to the rules of the Society.

At the Anniversary Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Monday the 24th of Nov. 1845.

The minutes of the last meeting were read and approved of.

Jaganath Sankarsett, Esq., a member of the Royal Asiatic Society of Great Britain, proposed at a former meeting to be a resident member of the Society, was balloted for and duly elected.

Assistant Surgeon Heffernan, H. M.'s 47th Regiment, proposed a subscriber to the Library by the Rev. G. Cook, seconded by the Secretary, was admitted agreeably to the Rules.

The Society then proceeded to the nomination of its Office-bearers, and a ballot being taken for the election of ten members of the Managing Committee, the following gentlemen were duly elected for the ensuing year, viz;—*Dr. Morehead, W. Howard, Esq., S. Dickinson, Esq., Professor Harkness, Captain H. B. Turner, Rev. G. Cook, J. L. Phillips, Esq., J. Peet, Esq., R. W. Crawford, Esq., and Captain H. B. Lynch.*

The President, Vice-Presidents and Secretary were continued in Office, agreeably to the rules of the Society.

R. W. Crawford, Esq., Captain H. B. Turner, Professor Orlebar, and the Secretary, were nominated a Committee to audit and report on the accounts of the Society.

The following donations were laid on the Table :

TO THE MUSEUM.

1st. From the President the Hon'ble J. H. Crawford.—A collection of Egyptian Relics and Geological Specimens, from the valley of the Nile and country in its neighbourhood.

2nd. Geological Specimens from the Southern Mahratta Country and Konkan.—By Lieutenant Suart of the Engineers.

3rd. Geological Specimens in illustration of the extinct lakes of India from the Gowel-Ghar Hills.—By Dr. Bradley.

4th. Fossil shells from Sindh.—By the Rev. G. Pigott.

5th. Shells from Johanna and Malwan Iron Ore.—By Dr. Grey.

6th. Coral from the African Coast. By R. X. Murphy, Esq.

7th. Specimens of fossil fish from Mount Lebanon.—By Major G. Jamieson.

TO THE LIBRARY.

1st. Report of the Superintendents of Roads and Tanks for the year 1843-44.—Presented by the Government.

2nd. The Hon'ble Mr. Justice Perry's Charge, delivered to the Grand Jury of Bombay, September the 25th, 1845.—By the Author.

Read a letter from Professor Chr. Lassen of Bonn, acknowledging the receipt of the Society's Journal (No. VIII), and thanking the Society for this acceptable and valuable gift.—The letter further noticed, and highly approved of the proceedings of the Society in collecting and publishing *Ancient Inscriptions* relative to India; such being the only authentic documents of information *on the former condition of it and the history of past times.*

Read a letter from Edwin Norris, Esq, Deputy Secretary of the Royal Asiatic Society of London, presenting a vocabulary of the *Makna Language* spoken on the African Coast of the Mosambique Channel.

Read a letter from Dr. Charles William Ball, Professor of Hebrew in the University of Dublin, on the subject of *Hamyaric Inscriptions* from Southern Arabia,—to which he is disposed to assign no higher antiquity than the fourth century of our era, from the circumstance of the letters being separated into distinct groups; it being ascertained that spaces between the words in any Greek writing are not older than the seventh century, and there is no reason to suppose that either the *Ethiopians or Arabians* arrived at this improvement in writing earlier than the Greeks.

Professor A. B. Orlebar, Secretary to the Museum Committee, submitted a report on the present state of the Museum, and remarked, that the objects for which it had been instituted had been steadily kept in view during the past year, and were rapidly progressing towards fulfilment. These were,—1st to make a general collection of such specimens in the various branches of *Natural History*, as would afford means of study to beginners and of comparison to students.—2nd, to make such local collections from the territories under the Bombay Presidency and other places visited by travellers from Bombay, as would at once exhibit the peculiarities of *nature and art*, both in India and the neighbouring countries. The report will be published in an early number of the Journal.

The meeting nominated Professor J. Peet and C. J. Erskine Esq., to supply the places of the Rev. G. Pigott and H. B. Frere Esq., as members of the Sub-Committee for the Museum.

Mr. Orlebar further presented a learned paper of Observations on *Solar Spots*, made between the 31st December and the commencement of the S. W. Monsoon of 1845.

The Secretary then read part of a Discourse on Arabia and the Arabs.

The thanks of the Society were accorded to the various Donors, and the meeting adjourned to Thursday the 11th of December, 1845.

At a monthly meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 11th of Dec. 1845.

The minutes of the last meeting were read and approved of.

The following Gentlemen were proposed as members of the Society to be balloted for at its next meeting.—viz. M. Stovell, Esq., proposed

by the Secretary seconded by Captain H. B. Turner.—Dr. J. Don, proposed by the Secretary, seconded by Dr. Burns, K. H.—E. I. Wallace, Esq., Barrister, proposed by A. S. LeMessurier Esq., seconded by the Secretary.

It was proposed by Manockjee Cursetjee, Esq. Dr. Burnes, K. H. and James Bird Esq., Secretary, and carried unanimously, that the names of James Cowles Prichard, M. D. F. R. S. of Bristol, and Thomas Hodgkin, M. D. F. R. G. S. of London, be placed on the list of *Honorary Members* of the Society.

The following donations were laid on the Table:

TO THE MUSEUM.

1st. Two Jain figures from Katiawar.—By Dr. Nicholson, Civil Surgeon, Rajcote.

2nd. Specimens of large bricks dug from below the mounds which mark the ruins of the ancient city of *Vamilapura* in Kattiawar.—By Ditto.

TO THE LIBRARY.

Report of the Bombay Chamber of Commerce for the fourth quarter of 1844-45.—By the Secretary of the Chamber of Commerce.

Professor Orlebar presented a series of Tables calculated at the Observatory from those by Major Boileau, in order to enable Meteorologists to find immediately from each observation of the wet-bulb Hygrometer, the amount of moisture in the air and its pressure. They will enable observers readily to find the correction required for Barometric observations on account of moisture.

The Secretary then read an interesting letter from His Excellency Major General Sir Charles Napier, G. C. B. Governor of Sindh, acknowledging with sincere thanks, the Society's attention in presenting through him for the use of the Sindh Association, the 1st volume of their Journal. The letter pointed out in a graphic and luminous manner the recent improvements which had been made in the construction of *Bunds*, to keep the waters of the Indus within proper channels and thus reclaim large *swamps* from the inundations of the river, which, annually overflowing, produces marshy and unhealthy localities affecting

the health of the Troops and the inhabitants. One of these *Bunds*, thirty miles in length, had been lately constructed between Sukkur and Shikarpur, in order to prevent the superfluous water of the river flowing into an unhealthy *basin* in that neighbourhood : to the construction of which Sir Charles is disposed to attribute the superior healthiness of the Troops stationed at Sukkur for the past year, compared with the amount of sickness among them during previous seasons ; but carefully notes, that the experience of future years is requisite to establish the correctness of this opinion. Sir Charles further enumerates the productive capabilities of Sindh as a mineral and agricultural district. In return for this obliging communication, it was moved by James Bird, Esq., *Secretary* of the Society, seconded by James Burnes, K. H. *Vice-President*, and carried unanimously—"That the Society have received with the greatest satisfaction His Excellency Sir Charles Napier's highly interesting letter now read, and with his permission will include it in the next number of their Journal."

The thanks of the Society were then accorded to the various Donors, and the Meeting was adjourned to Thursday the 15th of January, 1845.

At a monthly meeting of the Bombay Branch of the Royal Asiatic Society held in its Library on Thursday the 15th of Jan. 1846.

The minutes of the last meeting were read and approved of.

The following gentlemen were proposed as members of the Society, to be ballotted for at the next meeting.—viz. Lestock Reid, Esq., and Charles James Davies, Esq., of the Civil Service, by the Hon. L. R. Reid, seconded by the Secretary.

The following donations were laid on the Table:

TO THE MUSEUM.

Minerals from Katiawar.—By Dr. Nicholson, Civil Surgeon, Rajkote.

TO THE LIBRARY.

Grammaire Persanne de Sir William Jones, seconde edition Francaise revue, corrigée et augmentée, Par M. Garcin De Tassy, Membre de l' Institut Royal de France, etc.

The Secretary then read a note from the Rev. Dr. Stevenson, accompanied by a Devanagri transcript of the great inscription from the Bauddha Caves of Nasick, with an English translation which records that the Cave was appointed for the gods and Brahmins, to mortify the passions; and was excavated at the expense of the lord *Dinika*, son of the *Kisaparátá*, ruler of the Kshatriya tribe and protector of men. The inscription further records that the constructor of this holy place gave one hundred thousand cows along with the river *Banasa* and a gift of gold on the occasion of its dedication; and sings its praises as a more desirable place of pilgrimage than *Prabhasa* (Somnath,) the holy Gaya, the Bauddha monastery of the city *Pratiraya*, or even the edifice by *Depankora* on the shore of the fresh-water sea. The date of this Inscription seems also to be mentioned under the astronomical position of the sun and planets, at the period of the gift before mentioned.

The thanks of the Society were accorded to the various Donors, and the Meeting adjourned to Thursday the 12th of February, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 12th of February, 1846.

The minutes of the last Meeting were read and approved of.

M. Stovell Esq., Dr. J. Don, E. J. Wallace Esq., Lestock Reid Esq., and C. R. Davies, Esq. C. S. duly proposed and seconded as Members of the Society at former Meetings, were balloted for and unanimously elected.

Dr. Ogilvie M. D., Assistant Garrison Surgeon, was proposed as a Member of the Society by Dr. Burnes, K. H. seconded by the Secretary.

The following donations were laid on the Table:

TO THE MUSEUM.

1st. From the President, the Hon'ble J. H. Crawford; a further collection of Egyptian Relics and Geological Specimens from the valley of the Nile.

2d. Specimens of Minerals and Plants at Aden. Presented by J. P. Malcolmson Esq.

TO THE LIBRARY.

1st. A Supplement to the Glossary of Indian Terms used in the North Western Provinces. By H. M. Elliot, Esq., of the Bengal Civil

Service, accompanied by a note to the Secretary, requesting to be favored with any comments on the present or suggestions for a future volume, which may be deemed necessary.

2d Abdul Rizak's Dictionary of Technical Terms, used by the *Sufies*, edited in the Arabic original by Dr. Aloys Sprenger, of the Bengal Medical Service. Presented by the Asiatic Society of Bengal.

3rd. The Bengal Pharmacopœia by W. O. O'Shaughnessy, M. D. F. R. S., Bengal Medical Service; and Pathologia Indica, by A. Webb, Esq. Bengal Medical Service. Presented by the Medical Board.

4th. Icones Plantarum Indiæ Orientalis, by R. Wight Esq. M. D. F. L. S., of the Madras Medical Service, Vol. III part 3. Presented by Government.

5th. Circular Orders of the Sudder Dewanee Adawlut of Bombay, for the years 1843 and 1844.—Presented by Government.

The thanks of the Society were accorded to the various Donors, and the Meeting adjourned to Thursday the 12th of March, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society (postponed from the 12th of March), held in its Library on Wednesday the 8th of April, 1846.

The minutes of last Meeting were read and approved of.

G. Ogilvie, M. D., Assistant Garrison Surgeon, duly proposed a Member of the Society and seconded at the last meeting, was balloted for and unanimously elected.

His Excellency Monsieur de Lagréné, French Ambassador to China proposed an Honorary Member of the Society by the Secretary, J. Bird, Esq., and the *Vice-Presidents*, Dr. Burnes, K. H. and Col. Jervis, was duly elected in accordance with Art. III of the Regulations.

Col. Jervis, seconded by Dr. Burnes, K. H., moved that a deputation consisting of those who brought forward the forgoing proposition should wait on His Excellency Monsieur de Lagréné, and announce to him his election as Honorary Member of the Society. The proposition was unanimously carried.

On the proposal of Dr. Burnes, K. H.; seconded by Col. Jervis, it was unanimously resolved—That His Excellency should be presented with a complete copy of the Society's Journal from its commencement.

The Hon'ble James Henry Crawford, *President* of the Society, having resigned his Office consequent on his intended departure for Europe by the Mail of the 1st May next, it was proposed by the Secretary, seconded by Col. Jervis and carried unanimously—That the Society record the high sense of obligation it is under to their late *President*, for the devoted zeal and attention he has bestowed on the financial affairs of the Society, for the interest he has at all times manifested in promoting its literary objects and exertions, and for his liberal donations at various times to the Museum.

Moved by Major General Barr, seconded by Col. Dunsterville, and carried unanimously—That the Hon'ble Lestock Robert Reid be requested to accept the office of *President* of the Society, become vacant by the resignation of the Hon'ble James Henry Crawford, returning to Europe.

A letter from the Deputy Secretary of the Royal Asiatic Society of London, relative to the re-publication of the "Bombay Literary Society's Transactions", as agreed on by the Society at its Meeting on the 15th January 1844, was submitted to the Meeting, upon which the Secretary was authorized to reply that in the present state of the Society's finances, with the required list of one hundred subscribers at Rs. 20 each, not filled up, the publication must be abandoned.

The following donations were laid on the Table:

TO THE MUSEUM.

- 1st A Cobra de Capello, from W. Graham Esq.
- 2nd. A pair of horns from the "wild goat," inhabiting the hills bordering on the northern shore of the Persian Gulf, from Capt. C. Giberne, 29th Regt. N. I.
- 3rd. Specimens of *Algæ*, from Dr. Grierson.

TO THE LIBRARY.

- 1st. Appendix G. to the new Edition of Tredgold on the Steam Engine, being a Treatise on the *Cornish Pumping-Engine*; by W. Pole; F. R. A. S; F. G. S.—Presented by the Author.
- 2nd. A collection of *Integral Formulæ*, translated from the German of Meyer Hirsch. Presented by J. Waterston, Esq.

3rd. Persian and Gujarati verses in praise of Ardaseer Dhunjeeshaw. Presented by Jehangeer Pochajec.

4th. Transactions of the Bombay Geographical Society from May 1844 to February 1846. Presented by the Society.

The *Secretary* then read an interesting letter from B. A. R. Nicholson, Esq., Civil Surgeon, Rajcote, containing notes on the Ruins of *Vamilapoor* or *Valabipoora*, near Bhao-Naggar in Khatiawar; which ancient city gives name to an era commencing A. D. 319; and which is mentioned, by the Arab Geographer Abdul Rihan-al-Bairuni, as commencing at the same period as the era of the *Guptis*, or 241 years after the *Shalivahana* year, which dates from A. D. 78.

The *Secretary* also read part of a paper on the Arabian system of Geography, translated by himself from the Introductory Chapter to the *Takwim al Baldan* of Abulfeda.

The thanks of the Society were accorded to the various Donors, and the Meeting adjourned to Thursday the 14th of May, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 14th of May, 1846.

The minutes of the last Meeting were read and approved of.

A letter from the Hon'ble L. R. Reid was read, expressing a deep sense of the honor conferred him on by the Bombay Branch of the Royal Asiatic Society in having elected him their President, and intimating his earnest desire to forward the interests and promote the objects of the Society to the utmost of his power.

A Memorandum from Sir William Harris was also read, accompanying a presentation to the Society of Charles Futschek's *Galla Grammar* and *Dictionary*, in the name of Dr. Roth of Munich; Dr. Roth has kindly volunteered his services to purchase any books required by the Society from Germany.

TO THE LIBRARY.

No. 1. A Grammar and Dictionary of the *Galla language*, by Charles Futschek; Edited by Lawrence Futschek M. D. Presented by Dr. Roth of Munich.

The Secretary then submitted a note from the Rev. J. Stevenson, D.D., accompanying his translation in part, of the *Kalpa Sutra*, the Scriptural book-authority for the *Jaina* religion. This was written by *Sri Badra Bahu Swami*, who states in his account of the 24th or last Jain Tirthankara called *Mahavira*, that he wrote 980 years after his apotheosis; from which Dr. Stevenson assumes the date of the work to be A. D. 453; while there is reason to suppose that the author of the *Kalpa Sutra*, otherwise called in tradition *Jaina Acharya*, was cotemporary with *Kikka Raja*, otherwise named *Raja Amoghvershu*, whose date from Copper-plate grants is known to be Saka 894. A. D. 972.

A letter from the Rev. Dr. Stevenson relative to the astronomical date given in the great Inscription from the Baudha Cave at Nasick, submitted at the January Meeting of the Society, was also read. In this, Dr. Stevenson states the date for the calculation to be the *Sun's Longitude* in the Hindu Ecliptic 10° , *Venus* 357° , and the *Moon's Ascending Node* somewhere between 60° and 90° ; from which he deduces the date of the Inscription to be B. C. 453.

The Secretary then submitted to the Meeting an English translation, by Ball G. Shastree Esq. of a Copper-plate Inscription in Sanskrit, found during the late Kolapoor campaign in one of the Hill-forts of that country. The date of the inscription is Saka 675, A. D. 753, and the grant of land recorded was given by *Danti Darga Raja* son of Indra Raja, son of Kakka Raja, son of Govinda Raja, of the same family and race as *Raja Amoghaversha*, between whom and *Danti Durga Raja* the apparent founder of the family, other Copper-plate grants give a lineage of fourteen princes, bringing (on the supposition of twenty years to a reign) the origin of the family to nearly the period given in the present grant.

The thanks of the Society were accorded to the various Donors, and the Meeting adjourned to Thursday the 11th of June, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday, the 11th of June, 1846.

The minutes of the last Meeting were read and approved of.

Capt. J. H. G. Crawford, Engineers, proposed as a Subscriber to the Library by R. W. Crawford, Esq., seconded by Capt. H. B. Turner, was admitted agreeably to the Regulations.

The following gentlemen were proposed as Members of the Society, to be ballotted for at the next Meeting, viz. G. J. Blane Esq, C. S. by W. Escombe Esq. seconded by the Secretary of the Society; and A. Malet, Esq., Political Secretary to Government, by the Hon'ble John P. Willoughby, seconded by S. S. Dickinson, Esq.

Read an account by Assistant Surgeon W. J. Stuart, of a bird of the Swallow tribe (*Hirundo esculenta*.) of which a specimen, preserved in proof spirit, was presented for the Museum.

Read also an account, by the same gentleman, of the tree from which the gum *Kino* is procured in this country and of the mode of preparing it, accompanied by specimens of the gum and the wood of the tree from which it is procured.

The best thanks of the Society were accorded to Dr. Stuart for his valuable communications and presents.

The Meeting was then adjourned to Thursday the 9th July, 1846:

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 9th of July, 1846.

The minutes of the last Meeting were read and approved of.

G. J. Blane, Esq. and A. Malet, Esq., Civil Service, proposed as Members of the Society and duly seconded at the last Monthly Meeting, were ballotted for and unanimously elected.

The following Gentlemen were proposed as members of the Society, viz. E. Down, Esq. C. S. by C. J. Davies Esq. C. S., seconded by the Secretary, and Capt. J. H. G. Crawford, Engineers, by H. B. Turner, seconded by R. W. Crawford, Esq.

A letter from Sir Erskine Perry, resigning his Office of *Vice-President*, was submitted to the Meeting.

A letter from the Marquis de Farrier-le-Vayer, accepting with thanks the mark of distinction conferred on him by the Society in electing him an Honorary Member, as communicated in its Secretary's letter of the 17th February, 1845.

A letter from the Curator of the Museum of the *Literary and Philosophical Society* of St. Andrews, dated the 29th May 1846, announcing that a donation from that Society of Geological Specimens and Minerals, in return for the contribution of the Indian Minerals sent

home by the Bombay Branch Royal Asiatic Society, had been shipped from Liverpool, on board the brig *Hesperus* for the latter.

James Bird, Esq. proposed by J. Burnes, K. H. seconded by Major Gen. Barr, was unanimously elected a *Vice-President* of the Society to fill the vacancy made by the resignation of Sir E. Perry, the former to retain his Office of Secretary of the Society in conformity to a similar proposition of the Bengal Asiatic Society, in which H. Torrens, Esq. was elected to the double Office of V. P. and Secretary,

The following donations were presented to the Society :

TO THE MUSEUM.

1st. From Assistant Surgeon F. Broughton, through the *Vice-President* J. Burnes, K. H., a skull from New Zealand, and some specimens of Lead and Copper ore from the mines of *Glen Ozman*, near Adelaide in South Australia, and from the *Montacute* mines in the same neighbourhood; also a specimen of the *Sphaeria Robertii*.

2nd. From Capt. J. Young I. N. a collection of Birds' skins, from New Zealand. Presented through Professor Orlebar.

The Secretary then read some "Notes," by Assistant Surgeon H. J. Carter, on the great *Mahrah* Tribe of Southern Arabia; accompanied by a Vocabulary of the *Mahrah* Language and further "Notes" on the *Garah* Tribe.

A note from Professor Orlebar accompanying a description of the phenomena attendant on the annular Eclipse of 1840 in India, with computations and illustrations drawn up by Keru Luxuman, one of the Assistants at the Observatory, was also read.

The best thanks of the Society were accorded to the Donors of the above valuable presents and communications, and the Meeting was adjourned to Thursday the 13th of August, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 13th of August, 1846.

The minutes of last meeting were read and approved of.

E. Down Esq., C. S. and J. H. Crawford, of the Engineers, proposed as Members of the Society and duly seconded at the last Meeting, were balloted for and unanimously elected.

The following gentlemen were proposed and duly seconded as Members of the Society, Capt. Curtis, by W. Escombe Esq., seconded by W. H. Harrison, Esq.; A. F. Bellasis Esq. C. S., by W. H. Harrison, Esq., seconded by W. Escombe Esq.; and Lieut. J. F. Jones, I. N. by Capt. H. B. Lynch, seconded by Capt. H. B. Turner.

Agreeably to the notice in the Monthly Circular, the proposal to have the Calcutta Review taken in from its commencement, was submitted to the Meeting; relative to which it was resolved—

That this proposition recommended by the *Committee of Management*, be sanctioned; in consequence of the Asiatic Journal (one of the periodical publications retained in the list adopted by the General Meeting held on the 13th of February 1846.) having been discontinued.

Read a letter from Sir Erskine Perry accompanying a present of copies of some of the printed minutes of the Law Commission with reference to a new Law Tribunal. Sir E. Perry regrets that it is not in his power to forward to the Society a complete series, as the views contained in them are especially applicable to India. The other part of the letter comments on the deficiencies that exist in the classes of works in the Society's Library, which refer to the Government of India and Oriental Literature.

The following donations were presented to the Society :

TO THE LIBRARY.

1st. From Sir Erskine Perry,—Minutes on Law Reform with reference to a New Tribunal.

2nd. From E. Wallace, Esq. Barrister at Law, Bombay,—A Map of the *Oregon Territory*, the subject of dispute between the British and United States' Government, with a Pamphlet on the controversy written by the Donor.

3rd. From the Government with a letter from W. Escombe, Esq.—A Copy of the Reports on the Roads and Tanks for 1844-45, drawn up by the Government Superintendent.

TO THE MUSEUM.

From the *Literary and Philosophical Society* of St. Andrews,

through Dr. Buist.—119 Geological Specimens and Minerals, chiefly from the County of Fife.

The best thanks of the Society were accorded for the various Donations, and the Meeting adjourned to Thursday the 10th of September, 1846.

At a Monthly Meeting of the Bombay Branch Royal Asiatic Society, held in its Library on Thursday the 10th September, 1846.

The minutes of the last Meeting were read and approved of.

Capt. Curtis, A. F. Bellasis, Esq. By. C. S. and Lieut. J. F. Jones, I. N. proposed as Members of the Society, and duly seconded at the last Meeting, were ballotted for and unanimously elected.

The following gentlemen were proposed as Members of the Society to be ballotted for at its Meeting viz.—T. S. Cowie Esq., proposed by R. W. Crawford, Esq., seconded by the Secretary;—A. Blackburn Esq. proposed by John Holland, Esq. seconded by R. W. Crawford, Esq.; and T. J. A. Scott, Esq. proposed by the *Vice-President* Col. Jervis, seconded by the *Secretary*.

The following donations were presented to the Society :

TO THE LIBRARY.

Memoirs of the Royal Astronomical Society of London. Presented by that Society.

TO THE MUSEUM.

From Capt. T. Johnson, Commanding the Ship *Recovery*, a large specimen of *Cheiroptera* from the island of Java.

A letter from Capt. P. T. French, dated Mundlaiser, accompanied by copy of an inscription in the round character of the Armenian, was also submitted. The stone from which the inscription was taken, was brought several years ago from Asseer, and records that it belongs to the *tomb of Sarkies, the son of Lagar Khoorsian of Jevan, who died suddenly on Ascension Day, the 17th June, 1131.* There is a second inscription in the same character on another stone, which is somewhat broken; a copy also of which Capt. French offers to forward to the Society.

A letter from W. Escombe Esq., Secretary to Government, presenting to the Society a copy of a *Prakrit* inscription, (taken from Copper plates found at *Oojein*,) forwarded to Government by Assistant Surgeon E. Impey, was also laid before the Meeting.

The Secretary then submitted for examination a collection of undescribed *Parthian Coins* belonging to John Bowman, Esq. accompanied by Numismatic observations on leading historical points and peculiarities of this collection.

The best thanks of the Society were accorded for the various donations and presents, and the Meeting was adjourned to Thursday the 8th October, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 8th October, 1846.

The minutes of the last Meeting were read and approved of.

S. Cowie Esq., Andrew Blackburn, Esq. and T. J. A. Scott, Esq. proposed as Members of the Society and duly seconded at the last Meeting, were balloted for and unanimously elected.

MUSEUM.

The following donation was presented to the Society by James Bird, Esq. viz. Ten silver Coins, being a part of four hundred lately found in a ploughed field near Shirouli, distant ten miles eastward of Narayan-goan, in the district of Junir. The Donor states that they are of *Vijaya Sah*, *Rudra Sah*, *Atri Dama*, and *Wiswa Sah*, four of the ten *Sah Rajas* of whom a nearly correct list was given by the late James Prinsep, Esq., that they will prove of great use in further investigation of the Sah dynasty, and their dates and Greek legends will afford considerable help in determining the relative position of these Princes to the *Valabhi* and *Gupta Rajas* of the fourth and fifth centuries of the Christian era.

The thanks of the Society were accorded to Dr. Bird, and the Meeting was adjourned to the 12th of November, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 12th of November, 1846.

The minutes of the last Meeting were read and approved of.

Members proposed; Lieut. G. F. Ashburner 8th Regt. N. I., proposed by Dr. James Burnes, K. H. V. P. and seconded by Major Holland.

Letters and Communications.— Letters were read from Major General Vans Kennedy and Professor Orlebar, respecting the merits of Mr. McCudden's work on Oriental Eras.

The Meeting adjourned to the 12th December, 1846.

At the Anniversary Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Monday the 30th November, 1846.

The minutes of the last Meeting were read and approved of.

Lieut. G. E. Ashburner, 8th Regt. N. I. proposed a Member of the Society and duly seconded at the last meeting, was balloted for and unanimously elected.

The Meeting proceeded to the election of *Office-bearers* for the ensuing year; on the proposition of Col. Jervis, *Vice-President*, seconded by J. Glen, Esq., the Rev. John Stevenson, D. D. was unanimously elected a *Vice-President* of the Society.

The *Committee of Management*, was then balloted for, and the following gentlemen chosen, viz. Professor John Harkness, Capt. H. B. Turner, S. S. Dickinson, Esq., Rev. G. Cook, J. Glen, Esq., J. Don, M. D., C. Morehead M. D., Capt. H. B. Lynch, I. N.; W. Howard, Esq. and J. Scott, Esq.

The following gentlemen were also chosen as a *Committee for the Museum*: Professor A. B. Orlebar, Rev. G. Pigott, H. J. Carter, Esq. C. J. Erskine, Esq., Lieut. W. F. Marriott, and Capt. T. M. B. Turner.

The Meeting was then adjourned to the 10th of December, 1846.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 10th December, 1846.

The minutes of the last Meeting were read and approved of.

The Rev. P. Anderson, Chaplain, was proposed as Member of the Society by the Rev. G. Pigott, seconded by the *Secretary*, to be balloted for at the next Meeting.

The Secretary submitted a letter from the chief Secretary to Government, transmitting ten printed copies of a despatch from the Honor-

able the Court of Directors to the Government of India, intimating that a *Statistical Department* had been formed in the Home Establishment, where all information relative to the Geology, Climate, Cultivation, and Agricultural Productions, Population, Commerce and Political Geography of the various districts in India will be received, arranged, and recorded for reference.

The Secretary was authorized to thank Government for the information communicated, and to state in reply that the Society is ready to promote the useful and interesting researches contemplated by the Honorable Court, and to aid in carrying out its object in any way which Government may propose.

The following donations were presented to the Society :—

A copy of the *Bhagavata Puranu* lately printed in Sanskrit, at the Royal Press of Paris, under the superintendence of M. Eugene Burnouf, Member of the Institute of France. Presented and accompanied by a letter from the French Government to the *President* of the Society.

The Secretary was instructed to draft a letter of thanks for this most acceptable donation, and to acquaint Monsieur Lebrun, Director of the Royal Press of Paris, that copies of the Society's Journal from its commencement, will be forwarded in the name of the Society, for presentation to the *Royal Library*.

TO THE MUSEUM.

120 Specimens of Ores from Germany. Presented by J. Bowman, Esq.

The best thanks of the Society were accorded to Mr. Bowman for his valuable present.

The Meeting then adjourned to Thursday the 14th January, 1847

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 14th January, 1847.

The minutes of the last meeting were read and approved of.

The Rev. P. Anderson, Chaplain, proposed as a Member of the Society, and duly seconded at the last meeting, was balloted for and unanimously elected.

On the motion of R. W. Crawford, Esq., seconded by J. Bird, Esq.,

intimating that Sir David Pollock, *Chief Justice*, Member of the Royal Asiatic Society of Great Britain, should be invited to become a Member of this Society,—the *Secretary* was instructed to write to Sir David Pollock, and to inform him that he had been admitted a Member by virtue of his belonging to the Home Society.

The following Gentlemen were proposed and duly seconded as members of the Society to be balloted for at its next meeting; Lieut. C. G. Constable, I. N. by H. J. Carter, Esq., seconded by the *Secretary*, and Dr. W. C. Coles, B. M.S. by the *Secretary*, seconded by H. J. Carter, Esq.

On the motion of the *President* the Hon. L. R. Reid, seconded by the *Vice-President* Col. Jervis, it was resolved,—That in testimony of the profound learning, deep and varied acquirements, in History, Philology, and other branches of Oriental Literature, of the late Major General Vans Kennedy, this meeting, from a grateful appreciation of his long and valuable services in connection with General Literature, and the special object for which the Bombay Branch of the Royal Asiatic Society was instituted, do record its admiration of his great and varied talents, with an expression of deep regret for the loss experienced by his death; and that a special meeting be convened on Thursday the 4th February next, for taking into consideration the best method of manifesting the Society's respect for his memory.

The following donations were presented to the Society :

TO THE LIBRARY.

A letter from the Chief Secretary to Government, presenting Vol. III. Part 4 of Wight's *Icones Plantarum Indiæ Orientalis*.

A letter from the Secretary to Government, in the General Department, presenting Report No. V. of the Board of Education, for the year 1845.

TO THE MUSEUM.

Specimens of Copper-Ore brought from the Island of *Maseera* on the South-East Coast of Arabia by Assistant Surgeon Carter. Presented by the Government.

ORIGINAL COMMUNICATIONS.

Assistant Surgeon Carter's Report on Copper-Ore from the Island

of *Maseera*; and of Lithographic Limestone from the South-Eastern Coast of Arabia.

An account, by the Rev. Dr. Stevenson, of the Marriage Ceremony of Brahmans, who wish to contract the *third* Marriage, and are anxious to avert the evils and misfortunes denounced against such contracts.

The best thanks of the Society were accorded for the various donations and interesting papers noticed.

The Meeting was adjourned to the special Meeting appointed to be held on the 4th of February, 1847.

At a Special Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library, on Thursday the 4th of February 1847, for the purpose of taking into consideration the best method of manifesting the Society's respect for the memory of the late Major General Vans Kennedy.

The minutes of the last meeting were read and approved of.

A Biographical Memoir of the late General Kennedy was then read by the *Secretary*, after which it was moved by the Hon'ble the *President* L. R. Reid, seconded by the *Vice-President* Col. Jervis, and resolved, —That in reference to a resolution of the Society passed on the 14th of January to call a special meeting on this day, to take into consideration the best method of manifesting its respect for the memory of the late Major-General Vans Kennedy, this Society, in addition to its opinion of his valuable services in connection with *Oriental Literature* &c. already recorded in its proceedings, do open a subscription for the purpose, —1st of erecting a suitable monument over his remains, and 2nd of providing a Gold Medal, to be placed annually at the disposal of the Board of Education, and awarded by it in a manner that may seem most conducive to the promotion of Oriental Literature.

2nd. It was moved by Chief Justice Sir David Pollock, seconded by the *Vice-President* and *Secretary*, J. Bird, Esq.—That the subscription should not be confined to members of the Society alone, but be open to all persons.

3rd. It was moved by the Hon'ble J. P. Willoughby, Esq., seconded by J. Glen, Esq.—That the Biographical Memoir of Major General Vans Kennedy be printed in the Society's Journal, and copies of it distributed to all the learned Societies connected with Oriental Literature

in all parts of the world, with an expression of the Society's deep regret at the demise of one so deservedly celebrated in the *Annals of Oriental Learning*.

4th. It was moved by C. J. Erskine, Esq., Priv. Secy. to the Governor, seconded by A. Malet, Esq., Secy. to Government—That the several Asiatic Societies in Asia, Europe, and America, be specially invited to join in this tribute of respect to the memory of one whose reputation as an Oriental Scholar is so widely extended throughout the civilized world.

Sir David Pollock, seconded by Dr. Buist, then proposed—That the cordial thanks of this Meeting be presented to the *Secretary* of the Society, for his able and satisfactory Memoir of Major General Vans Kennedy. The above propositions were carried unanimously.

The Meeting was then adjourned to Thursday the 11th of February, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library, on Thursday the 11th February, 1847.

The minutes of the last Meeting were read and approved of.

Lieut. C. G. Constable, I. N. and Dr. W. C. Coles, By. M. S. who were duly proposed and seconded as Members of the Society at the former Monthly Meeting, were balloted for, and unanimously elected.

Capt. Partridge, of the 8th Regiment N. I. proposed as a Member of the Society by Dr. Buist, seconded by the Secretary, to be balloted for at the next Monthly Meeting.

On the motion of the *Vice-President* Col. Jervis, seconded by the *Vice-President* and *Secretary*, J. Bird, Esq., it was resolved,—That a deputation, consisting of the *President*, *Vice-President*, and *Secretary*, should wait upon the Hon'ble the Governor, George Russell Clerk, to solicit his Honor to become the Society's Patron.

On the motion of R. W. Crawford, Esq., seconded by the *Vice-President* the Rev. J. Stevenson, D.D., it was resolved,—That Sir David Pollock, Chief Justice, be further requested to do the Society the honor of becoming its *Vice-Patron*.

It was then proposed by the *Vice-President*, the Rev. J. Stevenson D.D., seconded by the Rev. G. Pigott, and unanimously resolved,—That in consideration of the many and deep obligations which this Society is

under to Professor Orlebar, both for the assiduous labour and varied talents which he has devoted to the classification of the Museum, in all its branches, as well as for the zeal which he has invariably displayed in furthering its literary and scientific objects, *this Society* do convey to professor Orlebar, through their Secretary, their sincere regret at the cause which has compelled him to finally leave India, with an expression of their high sense and appreciation of the extent and value of his former services as Secretary (already placed on record in the proceedings of the Society), and since as Conservator of the Museum.

On the suggestion of the Rev. G. Pigott, H. J. Carter, Esq., B. M. S. was unanimously nominated by the Society as *Conservator* of the Museum in succession to Professor Orlebar.

The following donations were presented :—

TO THE LIBRARY.

Twelve volumes of the Bible for the Blind, and a copy of Grammar embossed for the purpose of teaching them to read. Presented by H. B. E. Frere, Esq.

No. III. of Jordon's Illustrations of Indian Ornithology. Presented by Framjee Nasserwanjee, Esq.

A copy of the *Sanhita* of the *Sama Veda*, translated into English by the Rev. John Stevenson, D.D. Presented by the Author.

TO THE MUSEUM.

1. A collection of Fossils from Sindh and the valley of the Indus. Presented through Dr. Buist, by Capt. Partridge, of the 18th Regiment N. I.

2. A collection of Geological Specimens from Khatiawar, collected by Capt. H. Aston, Ist Assistant to the Political Agent at Rajcote, with a letter from A Malet, Esq., Political Secretary to Government. Presented by Government.

ORIGINAL COMMUNICATIONS.

Assistant Surgeon Carter's account of the *Frankincense Tree* of *Arabia* with remarks on the misplacement, of the "*Libanophorous Re-*

gion," in Ptolemy's Geography accompanied by a Botanical drawing of the tree producing Frankincense.

The best thanks of the Society were accorded for the donations to the Library and Museum; and the Meeting adjourned to Thursday the 11th of March, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 11th March, 1847.

The minutes of the last Meeting were read and approved of.

Capt. Partridge 18th Regt. N. I., duly proposed and seconded as a Member of the Society at its last Meeting, was balloted for and un-animously elected.

The following Gentlemen were proposed and duly seconded as members of the Society, to be balloted for at its next Meeting; Dr. Hyslop, by Capt. Carless I. N. seconded by James Bird, Esq; Lieut. J. B. Dunsterville, by Col. J. H. Dunsterville, seconded by J. Glen, Esq; and E. Impey, Esq., by Capt. Montriou, I. N., seconded by H. J. Carter, Esq.

Letters were then read from Sir David Pollock, accepting the Office of *Vice-Patron* of the Society, and from Dr. Sperschneider, accompanying a present from Dr. Pruner of Munich.

The following donations were presented to the Society:

TO THE LIBRARY.

1st. Two copies of the "Provisional Report on the Meteorological Observations made at Colabah, Bombay, for the year 1844" by G. Buist, Esq., L.L. D. Presented by the Author.

2nd. A Copy of a paper on the identity of feature between the Ancient Egyptians as figured in the tombs at Thebes and the Fellahs of the present day, by Dr. Pruner. Presented by the Author.

The best thanks of the Society were ordered to be transmitted to Dr. Buist, and to Dr. Pruner for their valuable contributions to the Library.

Respecting the motions, of which notice was given at the last Meeting, for the alteration of Arts. VII and XLI. of the Society's Rules, it was proposed by R. W. Crawford, Esq., seconded by T. M. B. Turner, and carried,—That the following sentence shall be added to Art. VII of the Society's Rules, viz.—

“The Members of the Society resident in Salsette, Caranja, or Angria’s Colabah, are allowed the option of being considered Resident or Non-Resident Members.”

The Meeting then adjourned to Thursday the 8th of April, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 8th of April, 1847.

The minutes of the last Meeting were read and approved of.

Dr. Hyslop, Lieut. J. B. Dunsterville, and E. Impey Esq. who were duly proposed and seconded as Members of the Society at its last Meeting, were ballotted for and unanimously elected.

Col. G. Moore, Auditor General was proposed as a member of the Society by the *President*, seconded by W. Escombe, Esq.

The following donations were presented to the Society:

TO THE LIBRARY.

1st. The sixth volume of Thornton’s History of British India, *in sheets*. Presented by the Hon’ble the Governor in Council, accompanied by a letter from W. Escombe, Esq., Secretary to Government in the General Department.—2d The Bengal Pharmacopœia, and General Conspectus of Medicinal Plants, by W. B. O’Shaughnessy, M. D. F. R. S. &c. Presented by the Author.—3d A translation from the German, of Dr. E. Alban’s, High-pressure Steam-Engine investigated, with notes by W. Pole, Esq., F. R. A. S. Presented by the Translator.

ORIGINAL COMMUNICATIONS.

Geological Observations on the banks of the river Taptee, accompanied by a section taken from a Ford near the village of Dolan, by A. B. Orlebar, A. M. Presented by the Author.

TO THE MUSEUM.

A collection of Geological Specimens from the Ford near the village of Dolan above mentioned. Presented by A. B. Orlebar, A. M.

The best thanks of the Society were ordered to be transmitted to the

several Contributors for their valuable additions to the Library and Museum, and the Meeting was adjourned to the 13th of May, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday, the 13th of May, 1847.

The minutes of the last Meeting were read and approved of.

Col. Moore, Auditor General, duly proposed and seconded as a Member of the Society at the last Meeting, was balloted for and unanimously elected.

Mr. Wattenbach, was proposed as a Member of the Society by Capt. T. M. B. Turner, seconded by Lieut. Marriott.

Letters were read from Lieut. Col. Melville, Secretary to Government, Lieut. Col. Waddington, Capt. Montriou, I. N., and the Rev. William Clarkson.

The following presents to the Society were laid before the Meeting :

TO THE LIBRARY.

“Magnetical and Meteorological Observations made in the Observatory at Colabah, Bombay, from April to December 1845.” By Professor A. B. Orlebar, M. A. of the Elphinstone Institution. Presented by the Hon’ble the Governor in Council.

Through the Lord Bishop of Bombay,—“Expository Lectures on St. Paul’s Epistles to the Colossians,” by Daniel, Bishop of Calcutta. From the Author.—“Five Sermons on public occasions,” by the Bishop of Calcutta. From the Author.—“Journal of a Visitation Tour through the provinces of Madura and Tinnevely in the Diocese of Madras, to which are added two Charges,” by the Right Reverend George Trevor Spencer, Lord Bishop of Madras. From the Author.

Through the Hon’ble L. R. Reid, *President* of the Society, “A Catalogue of Chinese Buddhistical Works,” also “Statistics of Government Charitable Dispensaries.” Presented by Lieut. Col. W. H. Sykes, F. R. S.—Through the Hon’ble the Governor in Council, from the Hon’ble the Court of Directors. “Facts and suggestions concerning the Economic Geology of India,” by Professor D. T. Ansted, F. R. S. Vice-Secretary, Geological Society.—“A Grammar of the Gujarati Language,” by the Rev. William Clarkson, of the London Missionary Society. Presented by the Author.

TO THE MUSEUM.

A large collection of Mineralogical Specimens from the Countries of *Khatiawar* and *Cutch*, each labelled with the name of the place from whence it was taken and its distance from some known station. Presented by Lieut. Col. Waddington, C. B.

The best thanks of the Society were voted to the several Contributors for their valuable presents to the Library and the Museum; and the Meeting was adjourned to Thursday the 10th of June, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 10th of June, 1847.

The minutes of last Meeting were read and approved of.

Mr. Wattenbach, duly proposed and seconded as a Member of the Society at its last Meeting, was balloted for and unanimously elected.

Letters were read from H. M. Elliot, Esq., Secretary to the Government of India with the Governor General, and Henry Cope, Esq., Secretary to the Archæological Society of Delhi.

Presented to the Museum.—Two Specimens of *Scorpio afer* from Cochin on the Malabar Coast by Capt. Lynch, Indian Navy.

With reference to the letter of H. M. Elliot, Esq., requesting the Society to furnish him with a list of its manuscripts on subjects connected with Indian History,—it was resolved, that one should be made out after the form transmitted and forwarded to his address by the earliest opportunity.

It was also resolved, upon the reading of the letter of Henry Cope, Esq.,—That a complete set of the Society's Transactions be forwarded to his address for the acceptance of the Archæological Society of Delhi, and that the Secretary be requested to intimate the willingness of the Bombay Branch of the Royal Asiatic Society to co-operate with it in any way that will tend to promote its objects.

Adverting to the printed dispatch forwarded by the Hon'ble the Court of Directors to the Government of India for the purpose of obtaining general statistical information of India, copies of which had been transmitted through the Government of Bombay to the Society,—Dr. J. Stevenson *Vice-President*, stated, that at the last meeting, the Hon'ble the Governor had been pleased cursorily to ask what had been done in

this respect, and that actuated by this, he was induced to submit the following resolutions to the Society, viz.—

1st. That as the subject of Statistics has of late particularly occupied the attention of the Royal Asiatic Society at home, this Branch appoint a Statistical Committee for this special object.

2nd. That as a general *Census* of the population of the island of Bombay must form one of the fundamental elements of a Statistical Report, steps be immediately taken in connection with Government, to have an accurate *census* made.

3d. That as considerable expense will attend the taking of this census, the Statistical Committee be directed to put itself in communication with Government and to obtain from that quarter the necessary funds, as unfortunately at the present time the Society's finances will not permit of its doing more than directing and superintending the operations of the Agents employed in the work.

4th. That to ensure the completion as soon as possible of an accurate Statistical Report of the Island, the Statistical Committee be directed to divide itself into sections, as for example, into a Population, a Geological, an Antiquarian, a Mercantile, a Medical, and an Educational Section.

5th. That it be distinctly understood, that if the labours of the Statistical Committee succeed in Bombay, the results will be published in the Society's Journal, and steps taken for extending operations of a similar nature to the other cities and districts of the Presidency through the Non-Resident Members of the Society in their respective Provinces.

The above resolutions having been read, a copy of them was ordered to be posted in the Library, and their discussion deferred until the next Meeting of the Society.

The best thanks of the Society were voted to Captain Lynch I. N. for his valuable present to the Museum, and the Meeting was adjourned to the 8th of the July, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society held in its Library on Thursday the 8th of July, 1847.

The minutes of the last Meeting were read and approved of.

Capt. Ethersey, I. N. was proposed as a member of the Society, by Capt. Carless, seconded by James Bird, Esq; Major D. Davidson, Com-

missary General, was proposed a member of the Society, by Dr. Don, seconded by J. Glen, Esq.

Read a letter, from Professor Lassen of Bonn to the Secretary, intimating that No. IX of the Society's Journal, which was forwarded to him by a private channel, had not been received. In reference to this, it was resolved, that Nos. IX and X. of the Journal should be forwarded to Professor Lassen by the first Mail, to the care of Mr. J. M. Richardson, London.

PRESENTED TO THE LIBRARY.

A Copy of M. A. W. Von Schlegel's Bhagavad Gita, edited and corrected under the care of Christian Lassen. Presented by the Editor.

An account of China, comprising the Topography, History, Customs, and Languages,—written in Gujarati, by Cowasjee Sorabjee Cowasjee Patell. Presented by the Author.

Royal Astronomical Society's Proceedings No. 12 of Vol. VII, February 1847. By that Society.

Files of the London Times Newspaper from 1822 to 1846. Presented by the Proprietors of the Bombay Times, through Dr. Buist.

A Copy of the Report on Roads and Tanks for the years 1845 and 1846, by the Superintendent. By the Government.

Dr. Stevenson's propositions for appointing a Statistical Committee, to obtain in connexion with Government a correct *census* of the population of Bombay as the first step to a Special Report of the Island, and afterwards to extend its labours to the several districts of the Presidency, was submitted to the Meeting for discussion, and it was resolved,—That the following gentlemen be appointed a Sub-Committee for ascertaining and reporting to the Society whether it be practicable to carry out the objects contemplated by these propositions.—viz. The Rev. Dr. Stevenson, *President*; Professor John Harkness; Assistant Surgeon H. J. Carter; The Rev. G. Pigott; The Rev. Mr. Mitchell; H. Young, Esq. C. J. Erskine Esq; J. Smith Esq; Capt Curtis; Capt. H. B. Turner, Cursetjee D. Pestonjee, Esq; Juganath Sunkursett, Esq; Aga Mahomed Jaffer, Esq; Manackjee Cursetjee Esq; and the *Secretary* of the Society.

On the proposition of the Rev. G. Pigott, seconded by the Secretary, it was resolved,—That a Sub-Committee consisting of C. J. Erskine, Esq. Professor John Harkness, H. J. Carter, Esq. and the Secretary be ap-

pointed to report on the present state of the Library, and the best means of securing a better preservation of the Standard Works and valuable MSS. belonging to the Society.—It was further resolved on the motion of the *President* that Mr. Pigott's name be added to this Committee.

The Secretary then submitted to the Meeting a valuable and interesting paper on the "Balsam-Trees (*Balsamodendra*) of Sindh," by Assistant Surgeon J. E. Stocks, Vaccinator in Sindh.

The best thanks of the Society were voted to the Author of this communication, and to the several Contributors for their valuable presents to the Library.—The Meeting was then adjourned to Thursday the 12th of August, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday, the 12th of August, 1847.

The minutes of the last meeting were read and approved of.

Capt. Ethersey, I. N. and Major D. Davidson, Commissary General, who were duly proposed and seconded as Members of the Society at its last Meeting, were balloted for, and unanimately elected.

Read,—The following letter dated Simla, July the 8th, from the Foreign Secretary to the Government of India in attendance on the Governor General.

Simla, July 8th 1847.

Dear Sir,—As a Mission is about to start to the frontier of Chinese Tartary, I shall be glad to learn if there is any question of literary or scientific interest which you would wish its Members to make the subject of their investigation.

A Barometer and a few Magnetical and other Philosophical Instruments accompany the Mission, which will consist of Capt. Cunningham, Dr. T. Thomson, and Lieut. Strachey; and to such careful and intelligent observers may safely be entrusted any enquiry your learned Society may wish them to prosecute.

To,

*The Secretary to the
Branch Asiatic Society,
Bombay.* }

I remain,

Dear Sir,

Your most obedient servant,
(Signed) H. M. Elliot,
Foreign Secy. to Govt. of India.

With reference to this letter, the Secretary submitted a draft of *Desiderata* relative to the *Orography, Hydrography, Ethnology* and *Archæology of Central Asia*. On which it was resolved,—That the draft be adopted, and forwarded without delay to H. M. Elliot, Esq. the Foreign Secretary with the Governor General; and that a copy of his letter be transmitted to the Geographical Society, requesting to be informed if its Members have any questions to propose to the Mission.

Read,—A letter from the Secretary of the Bombay Government, presenting three copies of the Report of the Board of Education for 1846.

The following presents to the Society were laid before the Meeting :

TO THE LIBRARY.

Zeitschrift fur die Kunde des Morgenlandes heransgegeben, von Christian Lassen.—By the Author.

La Rhetorique des Nations Musulmanes d'apres le traite Persan, intitule Hadayik ul-Balagat, par M. Garcin de Tassy.—By the Author.

Statistics of Civil and Criminal Justice, and of Government Charitable Dispensaries in India. By the Author Lieut. Col. Sykes, C. B.

Circular Orders of the Sudder Dewanees Adawlut, Vol. I, part 3, and Report of the Board of Education for 1846. By Government.

Prospectus of a general exposure of the Oriental Pantheon, or a Review of the spurious creeds now extant in the East. By the Author, Mr. Muhleisen.

TO THE MUSEUM.

Specimens of Iron-ore from Malwan. By Lieut. C. W. Montriou, I. N.

In reference to the proceedings of last Meeting appointing a Sub-Committee for ascertaining and reporting whether it be practicable to carry out Dr. Stevenson's propositions for obtaining a correct *Census* of the population of Bombay, the Sub-Committee reported to the Meeting of the Society, that having made the necessary preliminary inquiries, and obtained returns of the number of houses in the several divisions of the Island, the Committee are of opinion that, under present circumstances, and in deference to the feelings of the Natives, it is advisable to postpone the *Census*.

For the donations to the Library and Museum the thanks of the Society were unanimously voted; and the Meeting was adjourned to Thursday, the 9th of September, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 9th of September, 1847. The minutes of the last Meeting were read and approved of.

H. P. Malet, Esq., C. S., proposed as a Member of the Society by A Malet, Esq., seconded by James Bird, Esq., to be balloted for at its next Meeting.

In reference to the proceedings of last Meeting, that a Copy of the Letter from the Foreign Secretary to the Government of India, be forwarded to the Geographical Society, requesting to be informed if its Members have any questions to propose to the Mission proceeding to the Frontiers of Chinese Tartary,—the Secretary read a reply from that Society, containing suggestions on certain points to which the attention of the Members of the Mission might be usefully directed. This reply was accompanied by a copy of a letter from R. Chambers, Esq. of Edinburgh, who, in reference to a paper on *Ancient Beaches*, read by him at the Oxford Meeting of the British Association, sought for further information and facts similar to those on which his deductions had been made, on the subject of the relative levels of sea and land over large portions of the Globe. Resolved—That both Communications be transmitted to H. M. Elliot, Esq., Secretary with the Governor General, for the purpose of recommending the proposed investigations contained in them to the favorable attention of the Members of the Mission.

There being no other business, the Meeting was adjourned to Thursday the 14th of October, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Thursday the 14th of October, 1847.

The minutes of the last Meeting were read and approved of.

In reference to the proceedings of the Society's Meeting of the 12th August last, directing that the Notes of Inquiry for the Thibet Mission, should be dispatched to the Foreign Secretary to the Government of India in attendance on the Governor General, to be followed by ques-

tions expected from the Geographical Society. Read,—letters of thanks acknowledging their receipt, and stating that they had been forwarded for the use of the members of the Mission.

The following presents to the Society were laid before the Meeting :

TO THE LIBRARY.

Royal Astronomical Society's Proceedings No. 13 of vol. VII, March, 1847.

TO THE MUSEUM.

A white marble Jain Image dug up in the Town of Broach. Presented by A. W. Ravenscroft, Esq.

A Bow and Arrows taken from a Sikh Soldier on the field of Sobroan. Presented by Mr. Blackwell, through Dr. Buist

The following papers presented to the Society were read to the Meeting :

Notice of Dr. Roth's investigations of the Vedas, by the Rev. J. M. Mitchell. Some Remarks on the relation that subsists between the Jain and Brahmanical Systems of Geography, accompanied by two Maps illustrative of Puranic Geography, by the Rev. John Stevenson, D.D.

The Society's best thanks were voted for 'the several donations, and for the interesting and valuable communications mentioned. The Meeting was then adjourned to Thursday the 11th of November, 1847.

At a Monthly Meeting of the Bombay Branch of the Royal Asiatic Society held in its Library on Thursday the 11th November, 1847.

The minutes of the last Meeting were read and approved of.

H. P. Malet, Esq., C. S. duly proposed and seconded as a Member of the Society, was ballotted for and unanimously elected.

The Hon'ble Sir William Yardley, and J. G. Lumsden, Esq. C. S. were proposed as Members of the Society, by the Hon'ble Sir Erskine Perry, seconded by Col. Jervis *Vice-President*, to be ballotted for at the next Meeting.

The *Secretary* announced his approaching departure for Europe, and

consequent intention of resigning his office at the Anniversary Meeting of the 29th instant.

The following donations to the Library and Museum were laid before the Meeting:

TO THE LIBRARY.

Notizia intorna alla famosa opera istorica di Abd-er-Rahhman Ibnu Khaldun del Conte Cavaliere Jacobo Graberg Da Hemso.—Ultimi Progressi della Geographia, by ditto.—Observations authentiques sur La Peste du Levant, by ditto. Presented through the Rev. J. Wilson D.D.

TO THE MUSEUM.

Shells from Kattiawar, collected by Capt. H. Aston. Presented by Government.

There being no other business, the Meeting was adjourned to Monday the 29th November, 1847.

At the Anniversary Meeting of the Bombay Branch of the Royal Asiatic Society, held in its Library on Monday the 29th November, 1847.

The minutes of the last Meeting were read and approved of.

Dr. Arbuckle, Bombay Medical Service, was proposed as a member of the Society by Dr. Glen, seconded by Dr. J. Scott.

The Meeting, in conformity with Art. X of the Rules, proceeded to the election of Office-Bearers; when on the proposition of the *President*, seconded by Dr. Stevenson, Sir Erskine Perry was unanimously chosen *Vice-Patron* of the Society; and the following gentlemen were duly elected, for the Managing Committee of the ensuing year, viz.—Professor John Harkness; C. J. Erskine Esq.; S. S. Dickinson, Esq.; Rev. G. Cook; J. Glen, Esq.; J. Don, M. D.; C. Morehead, M. D. Capt. H. B. Lynch I. N.; W. Howard, Esq., and John Scott, Esq.

The following gentlemen were also nominated a Committee for the Museum, viz.—The Rev. G. Pigott; H. J. Carter, Esq.; C. J. Erskine

Esq. ; Lieut. W. F. Marriott ; Lieut. C. W. Montriou I. N. and Dr. W. C. Coles.

Col. G. Moore and A. Spens Esq. C. S. were nominated Auditors for the Society's Annual Accounts.

Dr. Bird, *Vice-President* and *Secretary*, having resigned these Offices, in consequence of his approaching departure for England, the Hon'ble J. P. Willoughby, was unanimously elected *Vice-President*, and H. J. Carter, Esq. *Secretary*.

It was then proposed by the *President*, seconded by Sir Erskine Perry, and resolved,—That the thanks of this Society be given to Dr. Bird, who has now resigned the Office of Secretary, which he has so ably and zealously filled for a period of three years, during which his scientific attainments and great knowledge of Indian Literature have proved highly beneficial to the Institution ; and that the Society further express its regret at the loss of his valuable services in India, resting assured that, although removed from the scene of his labours, he will continue his exertions in the cause of Indian Literature and Science.

A letter from Dr. Buist, embodying certain propositions relative to the *Malcolmson Testimonial*, which had been previously circulated to the Managing Committee, was then submitted to the Meeting.—Resolved that the two first of Dr. Buist's propositions be adopted, viz.—

1st. That the subscription to the *Malcolmson Testimonial* be closed.

2nd. That one half the sum subscribed be devoted to the purchasing of *dies*, and of *ten silver medals* to be struck from them for distribution by the Society, with such devices and inscriptions as may be considered expedient ; and that the details, as to the mode of distribution of the medals, be left for the future consideration of the Committee.

The following donations were presented :

Historical Researches on the Origin and Principles of the *Bauddha* and *Jaina Religions*, by the Author, J. Bird, Esq.

A Fac-simile of a Copper-plate Grant found in the vicinity of Ujein, dated *Sumwat* 1036, A.D. 980. Presented by R. N. C. Hamilton, Esq. Resident at Indore.

The Society's thanks were voted for these donations, and the Meeting was adjourned to Thursday the 9th December, 1847.