

*Notes of Observations on the Boksas of the Bijnour District.—By*  
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Travellers in Central America tell us that the phrase *quien sabe* ("who knows?") stops them at every step, when they seek to inquire into the past history of the natives, and some analogous expression is probably in frequent use, in similar circumstances, among all barbarous or half-civilized races who have no literature. In this country *quien sabe* is fully represented by *khobar nahin* and *Khuda jane*, and of these I have had much more than was pleasant, in trying to discover something of the past history of the Boksas of the Bijnour district. My attention was first directed to the existence and peculiarities of these people, while making some investigations as to the food of the inhabitants of the district, and various circumstances subsequently led me to be somewhat curious about them. And although I have miserably failed in making out anything definite as to whence the Boksas came or from whom they sprung, a few facts have been elicited regarding the habits, mode of life and health of those who inhabit the Bijnour Forest and the Patli Doon, which may have some interest as relating to a section of this tribe, the last of which, it seems not unlikely, will be seen by a few more generations.

This information was only acquired by a good deal of patient digging among these Boksas themselves, during several weeks of the cold season of 1862-63 when I visited a considerable number of their villages, and conversed with many of their inhabitants, including some of the most intelligent headmen among them.

No detailed description of the Boksas, or of any section of them, has hitherto been published, but there are many scattered notices of those who inhabit the eastern portion of the Rohilkhund forests, in the reports and papers of Traill, Batten, Jones and Madden; and Sir H. M. Elliot, in his supplement to the Glossary, gives some interesting traditions as to their origin. Frequent reference will be made to these notices hereafter, but, meantime, a few general facts gleaned from these and other sources may be given regarding the distribution and characteristics of the eastern Boksas. Since our occupation of

Rohilkhund they would appear not to have extended in any numbers to the eastward of Kilpoory, beyond which the Tharoos, a similar race begin to prevail, and their chief settlements were near Guddurpoor and Roodurpoor. On the rearrangement of the canal system of that part of the Rohilkhund Tarái, the Boksas were concentrated to the north of Guddurpoor, where their settlement is now known by the name of Boksár. Nearly 300 years ago this term was applied to a tract a little further to the eastward, in which, at that time, probably the greater number of the tribe resided. Captain Jones, about 1845, gave the number of inhabitants of (the present) Boksár as 2,293, and I have no information, subsequent to that date, shewing what proportion of the Boksas of the neighbourhood may still inhabit scattered villages.

The Boksas inhabiting the forest to the east of the Ramgunga, who are called by those of Bijnour *Púrbiá Boksas*, and sometimes *Khalsí*, are described as mild, inoffensive and truthful, but indolent, fickle and unthrifty, and extremely ignorant; and, ere they were taken in hand by British officers, they are said to have been kept in grinding poverty by the usurers and their own Pudhán. They are stated also to have shewn an invincible disinclination to settle down for more than two years on one spot, yet never to emigrate outside of the Forest and Tarái, to be excessively partial to the flesh of game, especially wild pigs, and to exhibit a "wonderful immunity from the effects of malaria."

The Tharoos or Tharwi above alluded to, present many points of resemblance to the Boksas, though neither will acknowledge any connection with the other. But the former cover a much greater extent of country than the latter, as from the point a little west of the Sardah where the two tribes dovetail, the settlements of the Tharoos stretch eastward through the forests of northern Oudh and Goruckpore to the river Gunduck.

I can find no evidence that on the east the Tharoos meet the Meches, who are called by Dr. Hooker "decidedly Indo-Chinese," and who occupy a similar position abreast of Darjeeling, to that held by Tharoos and Boksas to the west, and to whom they appear to possess a considerable resemblance.

The fact of different segments of the Sub-Siwalik forest being

inhabited by three tribes which acknowledge no relationship, and which, at the same time, have many peculiarities in common, is deserving of more attention than it appears to have hitherto attracted.

To the westward of the Ganges, there are some Boksa villages inside the Siwaliks, in the Dehra Doon, but I can discover nothing certain regarding their numbers, nor as to whether any of the tribe inhabit the forest outside the Siwaliks in the Saharunpore district. These western Boksas are called by those of Bijnour, *Mchras* or *Meri*, and are acknowledged by them as in every respect of the same caste with themselves. But isolated statements by members of such ignorant tribes can hardly be accepted without check, for the Pátli Doon Boksas repudiated all *barádári* with the *Meri*, as well as with the *Púrbiá*, whom they asserted to be nothing but Tharwí, and to eat frogs and lizards.

We need not, however, suppose *their* ignorance to be strikingly exceptional, for, at an early period of my inquiries, I was informed, upon what would ordinarily be called "good authority" in the Bijnour district, that the Boksas were chiefly remarkable for living in houses built on poles, for the indifference of their women to decent clothing, and for mainly earning a livelihood by gold-washing. As will be seen by and bye, there is some little truth in the last statement, while the two first are baseless. But this is beaten by the characteristics attributed to the Boksas of Dehra Doon by the other inhabitants of the district, who say that the former are famous for dealings in witchcraft, for successful treatment of insanity and syphilis, and for their pot-bellies, all which peculiarities probably originate in the imagination of the narrators.

The number of inhabited Boksa villages in the Bijnour district outside the Siwaliks, including two in the Patli Doon within the outer hills, is fifteen, of which the thirteen outside are pretty equally distributed over the Forest, but are rather more numerous towards its western end. Of these, four are situated near the base of the Siwaliks on the inner edge of the Forest, five on canals at some distance from either border of the latter, and four—all in the eastern part—on or near its outer edge in the Tarái proper. It is out of my power to give aught like a correct census of these, but the number of inhabitants in single villages, ranges

from twenty to at least two or three hundred in one or two of them. Having found out the exact number of persons in a few families, and made a good many inquiries, about most of the villages, bearing on the point of population, I should put down the total number of Boksas in this tract as at least two thousand, and possibly nearer three thousand.

Of the fifteen villages, eleven were visited. All are built on the same plan of one straight street generally of considerable width (in some cases as much as forty to fifty feet) and kept very clean, in both respects, differing remarkably from the ordinary villages of the plains. The huts are placed end to end with intervals after every group of three or four, and the walls are, for the most part, built of wattle (of split bamboo) and dab, but sometimes of *chhuppar*, of which latter the roofs also are constructed. The houses are windowless, but each has a door in front and another behind, the latter affording access to the sheds for cattle, &c. The doorways and roofs are very low, and the floors of beaten earth are considerably raised above the general level of the ground, and are kept scrupulously clean. The only "furniture" in the houses, besides an occasional *charpáí*, or more frequently small *chhappars* (which are often used to sleep on, as cheaper than the former), consists of a few cooking vessels and one or two barrel-shaped utensils three or four feet high and fully as much round, made of wattle and dab, and used for storing grain.

There is no change made in the houses or household arrangements during the rains, so that these western Boksas do not at any time "live in houses built on poles," as is stated to be the case with those opposite Kumaon.

The members of the tribe are of short stature and very spare in habit, in both respects, somewhat exceeding the ordinary Hindoo peasant of the district, from whom, however, they do not differ much in general build or in complexion. No measurements of their crania were made, but so far as ordinary inspection goes, their features are marked by several of the Turanian peculiarities. Thus, the eyes are small, the opening of the eyelids being narrow, linear and horizontal (the inner angle not inclined downwards so far as I observed), the face is very broad across the cheekbones, and the nose is depressed, thus increasing the apparent flatness of the face, the jaw is

prognathous and the lower lip thick, and the moustache and beard are *very* scanty. Some of these peculiarities are much more marked in certain individuals than in others, but most of them were noticeable in almost every man's face I saw, and it seems certain that a Boksa will at once recognize another to belong to his tribe even if he never saw him before, although some persons (Kumaonis) said they could not recognize one of the tribe until he *spoke*.

The features of the few women that I had an opportunity of seeing closely, were comely enough and of the same general character as those of the men; but, as might be expected, in the children of both sexes and even in a descendant the above peculiarities were but little noticeable. Indeed, some lads were remarked in whose features could be discovered no difference from those of the ordinary peasant of the district. I cannot say, whether or not, it was owing to the Boksa peculiarities of feature striking one less after a time, but in the western part of the forest, which was visited last, "features hardly so marked here" are noted more than once.

As will be seen presently, I am inclined to lay considerable stress on the fact of the Boksas having features with so many points of resemblance to the Turanian type so well-marked, that they have in a general way been commented on by all previous observers.

The dress of the men is the same as that of the ordinary native of the North West Provinces, but, except in one or two cases where the Pudhán may be presumed to have put on his "Sunday clothes" for inspection, none of them wore turbans over the thin cotton cap which generally covers the head. The little boys run about *in puris*; or nearly so, the girls wear a scanty rag. The women's dress consists of a petticoat, generally blue or of an orange-red, with a dirty-white or orange-red *chaddar*.

The proper names, in use by the Boksas, are almost always the same as those of Hindoos generally, with a few exceptions such as *Pálú*, *Dhanni*, *Mangú* and *Kahha*, which may be supposed to have been corrupted from Hindoo names. All of those, who were questioned on the subject, were quite positive that their language is quite the same as that of the other inhabitants of the district, and I heard of no words peculiar to these people, with the exception of some names of trees. The most remarkable of these is *Kandár* for the *Sal* tree,

which, however, was only heard locally. Singular enough, the Tharoos as Madden mentions, apply a special name *Koron*, to that tree. But little stress, however, can be laid on any, specially in the names of plants, which, with the natives of other parts of India, are often found to alter within a few miles, even among the same or closely allied tribes.

There are some peculiarities in the *boli* of the Boksas by which one of them is at once recognized by members of their own or other tribes. Thus *n* is constantly substituted for *l*, as *sán* for *sál* and *nath* for *lath*, and less frequently changed into *r*, and *n* into *l*, as *đári* for *đáli* and *thalela* for *thanela*. Two of these changes are often met together, as *Baglana*, which is very often substituted for *Bagnala*, the name of their chief village. One is struck also by a dialectic manner of pronunciation, which alters the short *a*, and occasionally the long *a* of Hindustani, into a sound approaching that of the French *æ*. Thus, *Boksa* is called *Boksuh*, and *achha súkha rahtá hai* is pronounced *achhuh súkhuh rahtuh hai*.

The earliest historical indication of the existence of the Boksas consists in the circumstance of a certain division of the Chourássi Mull in Rohilkhund, nearly 300 years ago, having been called *Boksár*, a term which is now, as then, applied to a tract of country thickly inhabited by them (as well as to the tribe, and sometimes to a single village of the *Boksas*). With regard to the traditional origin of the race, the clear and connected statements given by Elliot and Batten on this head are by no means borne out by the discrepant and, in some cases, absurd scraps of information which only these western Boksas, and the three *purohits* who are their spiritual guides, can impart. The writers mentioned, state that the traditions of the Boksas make them out to be Powár Rajputs descended from Oodya Jeet, (or his relative Jug Deo) and his followers, who in the 12th century left his native place in Rajputána on account of family quarrels and came, either mediately or directly, to settle here.

In reply to the inquiries I made on these points, instead of frequently, or at all getting a connected account like the above, the only assertions that most of these Boksas agreed in, were two, viz., that they are of Rajput origin, although they confess that the Rajputs of the plains hold them impure on account of their less cleanly

habits, &c., and that they had come from the Dakkan, but even in this they were not unanimous. When they came to details, and many professed to know none, their statements were more varied than satisfactory. Thus, several of them agreed that they came from Dháranaggari, which, however, one man declared was close to Kangra Devi. One stated that they came from Delhi, and another that they had been driven from their original home in the Dakkan by the Marhattas; one *pudhán* stated that they came from Chittorgurh, "beyond Delhi" in the wars of the old Rajas, and the most intelligent *pudhán* of all, the only man among them that I met who could read, affirmed that they originally came from "Boondee Kolah" having been exiled thence "by the king." On this subject I found the three *purohīts* quite as ignorant as the members of their flocks.

A still more curious statement, than any of these was made by an intelligent old Bengali Baboo, who has held a village in the Boksa district for many years. He solemnly affirmed that, before the commencement of British rule, the Boksas were Mussulmans in faith and ceremonials, and that, *in his time*, they had Hosseini Brahmins as *purohīts*, and used verses of the Koran in their *puja*. This is a very suspicious story, at the same time it is difficult to see what motive the man could have had in narrating it.

It is not easy to reconcile the clear statements made to Elliot, especially regarding the origin of the tribe, with the above discordant and fragmentary information which alone is current among the western Boksas, and the explanation of the difficulty may be the following. If the story about Oodya Jeet is the true one, it would be more likely to be retained by the numerous and concentrated Boksas to the east of the Ramganga, than by the few and scattered members of the tribe to the west. Or, if that tradition is, as there seems reason to suspect, a mere concretion, resulting possibly from the original conversion of the tribe by Rajputs, and their centuries of contact with Hindoo castes and traditions, it may, in a similar way, have more readily assumed a definite form, where the tribe was most numerous and united.

Still less than my inclination to theorize definitely, are my qualifications to dogmatize on such a subject, but the suspicion has grown on me, since commencing inquiries regarding these people, that their origin may be very different from what has ordinarily

been supposed. It seems exceedingly unlikely that, had they been a tribe of Rajput extraction whom mere accident had driven to take refuge in this inhospitable tract six or seven hundred years ago, they would have, for such a length of time, remained so isolated as they undoubtedly have been, from other sections of Rajputs. But this is a minor difficulty, compared with the necessity to account for the very decided Turanian characteristics of feature which have been mentioned in detail, and which appear to be quite incompatible with a descent from any Indo-European race.

It may be objected that the language of the Boksas, barring slight dialectic differences, is identical with that of the ordinary inhabitants of this part of this country. But, not to lay too much stress on the circumstance that, in a case of this kind, positive is much more valuable than negative evidence, it is a recognized principle in ethnology, that the physical structure of a tribe, and the nature of their language, may change at very different rates, the possible alterations, in each, depending on very different conditions, and supposing that the Boksa originally sprang from a source different from that of the ordinary Hindustani, and that the physical circumstances in which he is placed are not such as, even in the course of centuries, greatly to alter the peculiarities of feature, &c., by which he was at first distinguished, it is difficult to conceive any position in which his language would be more likely to be rapidly and, at last, completely changed, than that in which he is now placed. Scattered in scanty colonies, over a very narrow strip of country, the language of the inhabitants, on both sides of which (we assume), differs wholly from that in use by him,—when each successive political or social convulsion in the neighbouring tracts, and, for hundreds of years, we know that these were neither few nor slight, was seen to be followed by an influx of these outsiders, what more likely than that his language should, at last, become completely assimilated to that of the latter?

The fact of the Boksas holding the Hindoo faith, and performing its rites, seems to me to present no stumbling-block in the way of adopting the view that they are of non-Aryan derivation. A race so few in number, and occupying so circumscribed a position, surrounded by Hindoos, and brought into close and frequent contact with them, would be likely to adopt the dominant religion almost as readily as



the dominant tongue. It is evident that, if my supposition is correct, all the traditions which assign to the Boksas a Rajput origin are baseless, but precedent are not wanting of tribes, assuming traditions in accordance with the history of their new co-religionists. Indeed, such traditions sometimes arise even where the smaller tribe has not adopted the religion of those who surround it. This is the case of the Nilgiri Todas whose ancestors are now represented to have been the palanquin-bearers of Kunya-Swámi, a Hindoo deity, though the Todas, far from being Hindoos, seem to have no religious beliefs or ceremonies whatever. •

To the question, whence the Boksas came, and, if they are of Turanian origin, to which of the great tribes of that race are they nearly allied, the information at my disposal does not enable me to offer any definite answer. It may be, that they sprang from the same source as the Bheels, Gonds, Coles, and other so-called "hill tribes" of Peninsular India, relics of the original Tamulian inhabitants of the country, still subsisting in the out-of-the-way corners into which they were driven by the Aryan influx. But it appears to be indicated by the fact of a series of analogous tribes occupying segments of the Sub-Himalayan forest-belt from Assam to the Jumna, and seems on the whole more probable, that the Boksas are the furthest authors of the stock whence sprung the aborigines of the northern part of the Malayan peninsula. In any case, if they are really non-Aryan, the complete substitution of Hindustani for their original language, and the thorough assimilation of their faith and customs to those of the surrounding race may form insuperable obstacles to their true relationships ever being found out. Here, however, I shall leave this subject to be discussed by those who are better qualified to handle it, in order to revert to less theoretical matters.

The Boksas conform to the Hindoo religion in an ignorant, unmeaning way, and the usual rites of that faith are performed on the occasion of births, marriages, and deaths. Marriage, as among the Hindoos, takes place at 8 to 10 years, and at this ceremony the *purohit* receives a fee of about four annas. After a birth, he gets from four annas to one rupee four annas. The bodies of the dead are burned at the Ramgunga, or other neighbouring large stream, and the *phúl* (ashes) are carried to Hurdwar, there to be consigned to Gunga ji, by a Brahmin

who gets a rupee or two for his trouble. Besides his special fees, each *purohit* receives a general contribution from every village in his beat, apparently amounting to about 5 maunds of grain each crop, which is allocated among families according to their means.

In small matters also the Boksas adhere to Hindoo customs. Thus, they do not wear their shoes (when they have any to wear) during cooking, and they kill animals to be used as food, by *jhatka* a blow or cut on the back of the neck, and not by the throat-cutting *halál-karna* of the Mussulmans.

A good many of the tribe are said to profess special devotion to particular deities, the only ones named to me being the spouse of Siva; under her designations Bhowani and Devi, with Baba Kalu and Surwar Sakhi. Of the personality of the last, I could learn nothing. Kalu Saiyid is a local saint, who, curious enough, they state to have been a Mussulman, as indeed the appellation Saiyid, if it be not a corruption, would indicate. Some traditions about his life and death are current, and before his shrine, at the entrance to the main pass through the Siwaliks into the Patli Doon, Hindoos of all sects make offerings, and his name "*Kalu Saiyid ki jai*" is invoked in the neighbourhood of the tomb on entering upon an undertaking, or when engaged in severe exertion such as heaving up a load, &c.

The Boksas only marry among their own tribe, but there does not appear to be any restriction within its limits. In this tract they will have nothing to say to intermarriage with the Tharoos (who, they declare, "eat frogs and lizards"), and there is some authority for believing that Elliot must have been misinformed, when told that some of the eastern Boksas, "in Kilpoory and Subna, occasionally intermarry with the Tharoos." The wife always follows the *path* of her husband, and the children that of their father, in regard to a difference to be presently mentioned.

Their *purohits* are Gour Brahmins who hold the office hereditarily. They do not live among their flock, but outside the forest tract, one residing at Afzulghur, towards the eastern end, and two in Nujeebabad towards the western end of the *hathi*. One of those of Nujeebabad has the six most westerly villages in his charge, the other has the three in the centre, and the Afzulghur man has the four easternmost with the Patli Doon villages. I conversed with all

of these *purohīts*, and found two of them apparently most ignorant and stupid, while the third was fairly intelligent, sensible and communicative.

A considerable proportion of the tribe follow *Nának Mathá*, *i. e.* have adopted the Guru of the Sikhs as theirs, indeed they are called Sikh by their brethren, and not *Nának sháhís* as followers of Nának are in Hindustan generally. The ordinary Boksa does not "take Nának's name" at all. In some of the villages, including Bugnalli which is by far the largest of all, the proportion of Sikhs to the others is very nearly or quite equal, but in some especially of the western villages, there are few or no Sikhs.

Among so rude a people as the Boksas, it would be vain to expect to find any elaborate set of religious tenets either held or understood by such a sect as these Sikhs, and accordingly their one distinctive mark is avoidance of spirituous liquor, opium and *charras*, which the Boksas in general use freely. The Sikhs will not even smell spirits voluntarily, nor will they use the hookah or eat in the house of one who has smoked on the same day. It is said that the *purohīts* also adhere to the latter rule. Tobacco is lawful to the followers of Nának, and they, and the rest of the tribe intermarry without restriction, the wife and children as above mentioned invariably following the man's sect.

The Boksas bear an excellent moral character. I have no definite information as to their intimate domestic and social relations, but for three years at least, not one of the tribe had been a party in either a civil or criminal suit in the district courts. Any disputes that occur are referred to the village elders, and in extraordinary cases, it would appear that the *pudhán* of one of the more important villages (Bagnulli or Chuttróowali) is called to adjudicate, but such quarrels of any moment are extremely rare.

Their indolence and ignorance are fully as remarkable as their inoffensiveness. They have a strong objection to all labour which is not absolutely essential to provide means for subsistence; for example, near some villages immense quantities of manure, of which they well know the value, were lying unused, the trouble of taking it to their fields being too much for them; and they assigned as the reason for not collecting *Kíno* (*Mrakkiyond*) in the forest that it would be *barri mehnat*, although it is really very light work.

They seem to have no spirit of inquisitiveness whatever, even in regard to points in which one would naturally suppose they might be interested. Thus it was frequently found, that they did not know who was the *purohit* of villages within half-a-dozen miles of their own: and several said that there were *no* Boksas beyond Nawabpoora, which is the most easterly village of *this* section of the tribe. As a specimen of their combined ignorance and credulity, I may mention, that a *pudhán* of one of the largest villages having brought up his sick child, for some time declined to answer any questions, believing that by merely feeling its pulse the details of the disease would be discovered, and that any information from him would be superfluous.

They have among them no arts or manufactures whatever, all clothes, leather, &c., being imported; nor do they, so far as could be learned, use a single medicinal substance. I only met one Boksa who could read, and heard of one other.

They are much more frank in manner than the villager of the plains of the North West Provinces, speaking their mind pretty freely, and they appear to have some sense of humour, which if the latter possesses, it never comes out in his intercourse with Europeans. One of the Boksas when asked what remuneration he got for being *pudhán*, answered with a grin "Nothing but *dikkat*;" the question, "What will you get, for having guided me, if you do not wait till my servants come up?" elicited "Plenty of *kántá* on my way back;" an old fellow on seeing me examining under the ribs of some of the others for spleen, complacently patting his lank abdomen said with a droll expression such as is often seen to accompany some stroke of "Scotch wit," "Do you think I've got spleen?" And I had a hearty laugh, one intensely cold morning, when on my suddenly stopping to ask the old guide who, with chattering teeth, was panting up an acclivity after me, some question about their traditions, he replied "I may remember by and bye, but its so *bara jáara* just now, I can recollect nothing."

Their only amusement seems to be the pursuit of game, terrestrial and aquatic, and they complained bitterly that the recent carrying out of the Disarming Act had deprived them of a chief means of livelihood. They are excessively greedy after animal food, and

Mr. Batten informs me Boksas have told him, that without wild pigs a Boksa would die. This statement has probably something to do with their fondness for sporting, but, independent of this, wild pig is said to be almost a passion with them.

The Boksas are undoubtedly restless in their habits, and there are more migrations from village to village than would appear to be absolutely necessary. Still, this propensity doubtless shows more strongly when contrasted with the generally extreme adhesiveness of the Hindustani agriculturist to his native village. Here, among the western Boksas, there is nothing like the "Never stay in a place more than two years" which Jones and others state to be the case with their eastern confreres. On the contrary, most of the former appear never to shift their village at all, and the most extensive changes going on of late years among them, seem to arise from the Government orders to clear the Patli Doon.

With the minor development of the nomadic instinct, shown by their restlessness, they evince unconquerable adhesiveness to their *natale solum* among the swamps and jungles. I could not hear of a single instance of a Boksa having emigrated from the forest belt, and they mentioned the existence of a tradition that no Boksa had ever gone abroad for service.

Although they are so fond of flesh, they keep no goats or sheep, and in only one instance did I find that a few fowls were kept. Agriculture may be said to be almost their sole employment, but one or two others, which are followed by a few of them at times, may be here noted.

A very small number of them ever engage in cutting bamboos or timber for export, and the collection of drugs and gums, which are largely produced and gathered in the forest, affords employment to almost none of the tribe. In some parts, however, they collect a few of these (viz. gum of *jingan*, *Odina wodier*, and *sohanjan*, *Hyperanthera pterygosperma*, kamela powder from the *Rottlera tinctoria*, *aorila*, fruit of *Emblia officinalis*, and *harra* immature fruit of *Terminalia chebula*) for sale to the *bunyas*, who come hither to buy such things. I have already here mentioned, that the collection of the *kino* of the *dhak* they object to as being too laborious, and probably we must attribute to sheer laziness the fact, that they do so

little in availing themselves of the natural products, which are literally scattered around them.

But the most important and interesting of the extra-agricultural avocations the Boksas ever engage in, is gold-washing, and it deserves a somewhat more extended notice. Within the last 25 or 30 years, the first part of the course of the Ganges, outside the Himalaya, furnished gold from its sands, but at present the *Sona naddi* in the Patli Doon, and the *Ramgunga*, below the junction of the former, are the only streams in this neighbourhood, whose sands are regularly or frequently washed. Little is done on the *Ramgunga* outside the Siwaliks, but there appeared every indication that the gold-washing was a regular employment of the Boksas on the *Sona naddi*, and there is reason to believe, that the proceeds derived from that minor Eldorado had a good deal to do with the manifest reluctance of these people to leave the Patli Doon, on the occasion of its being shut up for the preservation of the timber. In the aggregate, however, the amount annually collected does not seem to have been very large, for some years ago, the sum paid to Government by the contractor of the Doon as gold-dues was only 25 rupees yearly.

The Boksas say that there is nothing in the appearance, of the gold-bearing sand to let them know if it will be productive or not, and only "prospecting" by a trial will shew this. The sand itself is dug from the bed of the stream at many places extending over several miles, and the superficial layer generally contains much less gold than some of those a few inches below. In the sand, there seems to be a good deal of ferruginous matter, and there are iron-markings along many parts of the borders of the little stream, which here runs down an intra-Siwalik valley similar to, but very much smaller than the Dehra Doon. The soil, in and near the bed of the stream, is mostly gravel, and soft gray sandstone, similar to that of the Siwaliks, frequently crops out.

Three or four people, often members of one family, work in a gang, each having a separate part of the process assigned to him. A shovelful of the sand is first put upon a little close-set bamboo screen or sieve, placed over the upper hinder part of a flat *toon* wood cradle (*sand*), the lower end of which is open, and which has handles by which its

upper end can be tilted. Water is then poured on the sand from the mouth and lateral hole of a handled *túmri* (pumpkin), the operator stirring the sand with his left hand while he sits alongside the cradle, which is raised a foot or two from the ground.

The sand having been washed through, the gravel left on the screen is tossed off, but the screen itself is left on, so as to soften and equalize the fall of the water from the pumpkin passing through it on to the sand, which the left hand keeps stirring about, and raking backwards toward the upper end of the cradle. After all the lightest of the sand has thus been washed out, small quantities of the remainder are placed on a round, slightly hollowed plate of *toon* (*pharú*) which is dexterously twirled and made to oscillate on the fingers of the left hand, while the washing is very gently continued. When as little as possible, and that consisting mostly of dark particles apparently of hornblende,—except gold, is left, mercury is rubbed with it by hand, to take up the gold, and the mercury is afterwards dissipated from the amalgam by heat. This finishes the process, which agrees almost entirely with that followed on the Biás, as described by Col. Abbott (J. A. S. March, 1847), the chief difference being, the trough used by the Boksas is considerably smaller.

The mercury is supplied to the Boksas at two annas a *mansuri paisa* weight by the same *bunyas* who purchase the gold from them, sometimes giving them advances on the possible future production, at sixteen rupees a tola. Several of the tribe, who could have had no possible collusion, stated that a gang of three or four people will average two annas worth of gold a day, and one man, of fair intelligence, said that into his village of under one hundred people, old and young, from one to two hundred rupees a year might come from gold-washing.

The gold is here invariably in minute particles, and the Boksas cannot conceive of the metal as ever being found in large pieces or imbedded in solid rocks; and a theory I have heard of the manner of its production has the quality of being as simple as are the people who credit it. Thus, it is said that the *sál* leaves which are burned by the forest-fires, act on any iron or copper which the soil or sand contains, so as to turn it into gold!

The agricultural operations and implements of the Boksas are the same as elsewhere in the N. W. Provinces. The chief crops of the hot weather (*kharif*) are rice, of several varieties, and *mandai* (*Mandua*, *Eleusine coracana*), and of the cold weather (*rabi*) wheat with some *barley*, but besides these, most of the cereals grown in the open plain are also cultivated to some extent. Maize (*makki*) is but rarely grown, as it is said to be very subject to be eaten by wild animals (elephants, pigs and jackals!) So great is the damage to the crops by these, that the inhabitants of one village said, that since most of their guns were taken away, they had been obliged to give up cultivating a number of their outlying fields in consequence of not being able to protect the crops.

The pulses are very seldom cultivated, as the leaves are stated to be peculiarly liable to the attacks of *gindar*, a kind of worm which injures the plants so much as to prevent their maturing their fruit. For this reason, almost all the pulse used is bought from the *bunyas*. Another insect, *sundi* a sort of weevil, commits great damages among their stored grain, especially, they say, during the blowing of the *purwa* (east wind).

Nor are the pumpkin tribe cultivated, the reason given for this being that they do not ripen their fruit. This, if really true, is a very curious circumstance, the Forest tract being so moist that one would have supposed this class of plants would grow well.

A good deal of *sarson* (*Brassica campestris*, mustard) and *lahi* (*B. eruca*, rocket) are grown, chiefly for their oil, that of the former being used as food, that of the latter for burning. The young plant of the *lahi* is also consumed as greens,—as in France and other parts of Continental Europe,—and this is the only green vegetable they raise, such a thing as a garden being unknown among them.

Their agriculture is probably very slovenly, if one may judge from the large piles of manure near some of the villages, which they will not take the trouble to remove to, and spread upon, their fields. A still stronger evidence of laziness in this respect is, that they do not, so far as could be learned, raise a single stalk of tobacco, (which all use), although large quantities are grown in each village every year by *Sanis*. The latter are men of the plains and almost all of them reside in the forest for a few months only of each year, specially



for the tobacco-crop. A very few of them remain all the year in the forest (I met with one), and take two crops off the ground. The *Sanis'* houses are almost invariably in a little cluster apart from the Boksa village. I could not clearly discover what terms as regards land-rent are made with the Boksas. The facilities for getting excellent manure render tobacco a very luxuriant and lucrative crop, but men of the plains say, its quality is not so good as that grown outside the forest. The Boksas give as the reason why *they* do not grow tobacco, that it is unlawful for them to break off the top of the plant (as is done to prevent its running to stalk and flower); but this appears absurd enough, and the cause assigned for their allowing the *Sanis* to cultivate their village-land on any terms, viz. that the Boksas *have too few men*, seems to me almost equally so. It is to be found that laziness is the chief cause of both circumstances.

I can only give details, as to the area of land cultivated in proportion to the number of inhabitants, in regard to one village, and that the most comfortable-looking of all those visited. It contained less than one hundred inhabitants of all ages, and the extent of land under cultivation, for one or other or both crops, was about fifty acres. The Government land-rent paid by the Boksas appears to be in general exceedingly light.

After what has been said of the agriculture of the Boksas, it will be apparent that their food is of the simplest. It consist of bread made of the flour of wheat, barley, or some of the millets, or of rice with a small proportion of *dal*, and more rarely some *lahi* or wild herbs cooked as greens with a little oil. They also, as above indicated, consume a large amount of the flesh of wild animals compared with the ordinary inhabitant of the plains. And, were they always able to procure such food as the above, they would be, to say the least, no worse off than millions of the inhabitants of India. But, besides that the disarming process has affected their supply of meat, it will be at once evident, that if the proportion of land to population throughout is similar to that in the village instanced above, even were it cultivated in the highest perfection, sufficient food could not be grown for the inhabitants. We accordingly find that, even in ordinary years, most of the Boksas live for months on a wild yam, called *githi*, which, fortunately for them, is found in abundance in

these forests. The plant of which this is the root is the *Dioscorea bulbifera*, L. (*D. versicolor* Wall; *Helmia*, Kunth) which is common in the Sub-Siwalik belt as well as in the Himalaya to some distance inward. It is of the same genus as the West Indian yam, and as the *ratálu* which is cultivated for its tubers in most parts of India. The tubers of various other wild *Dioscoreas* are eaten in different parts of this country, and Buchanan Hamilton mentions one, with a similar native name *gength*, as being largely consumed by the savage *Bhars* (*Tharoods*?) of the Goruckpore jungles. The plant is a graceful climber having large handsome, heart-shaped leaves, and with little bulbs (whence the specific name) in the axils of the leaf stalks. The Boksas say the plant is always produced from these bulbs rather than from seed, and as the tubers examined had exactly the same kind of markings on them as the former, this is probably for the most part the case. The tubers themselves are found at varying distances, from a few inches to several feet, under the surface of the ground. The plant is luxuriant from the commencement of the rains in June, till about March, after which, as the stem dies away, there is no clue by which to find the tubers, so that, for at least three months of the year, they are seldom if at all dug. The Boksas declare that the *githi* will not keep for more than a few days, after which it dries up or gets rotten, but, from various circumstances, it seems not unlikely that this was merely given as an excuse for their having none stored up.

These tubers weigh from an ounce to (it is stated) five or six pounds, averaging perhaps a pound. For cooking, they are peeled and cut into *phanks* (slices), which are put into an earthen vessel with water and ashes, the latter being added in order to remove the excessive bitterness of the raw tuber. They are then cooked over a slow fire for from six to ten hours, generally in the night-time, and are afterwards washed before being eaten. An adult, it is said, will get through from two or four pounds at a sitting, using as a relish flesh (*kahya*) or pulse.

The Boksas themselves assert that they always prefer the cereals as food when they can get them, and that it is only necessity which drives them to eat the *githi*. They say the latter merely acts as *pet-boja* and has no strength (*kuwat*) in it, and in the more prosperous villages it is never consumed except in time of famine. In some of

the worst villages, again, they affirmed that during the two years of the late famine they had no vegetable food whatever, except the *githi*. Still, with the usual tendency of mankind to make the best of a bad bargain in such a case, they attribute various virtues to this kind of food. Thus, they state that it does not cause thirst or flatulence, and that their freedom from spleen is attributable partly to eating it. Their estimate of it, as tending but little to strengthen the body, is much nearer the truth, as like the other yams, it is mostly composed of starchy non-nitrogenous matter, and long-continued subsistence on any such diet will tend to debility of body. This must be kept in mind when we come to consider the general questions as to the health of these people.

The Boksas are fond of tobacco, which, when they have no hookah by them, they smoke in a twisted-up leaf (*patwiri*); and they took kindly to Cavendish, which, however, they found very strong after the light unfermented tobacco they use.

All the men except those who follow Nának, indulge in spirit drinking. Some of them denied that their women drink, or said that they never do so until past the child-bearing age; and one man indignantly asked "What need have they for spirits, since they do not have to go out into the jungle, or sit for a whole night up in a *tánd* (= *machán*) among the musquitoes, crying, *hoo-hoo* (to frighten wild animals from the crops?)" But it seems certain that many of the women also drink. Boys begin to consume spirits at the age of ten or eleven, and the adults confess that they all drink whenever they can get liquor. Yet, it would appear, they very seldom carry it to intoxication or so far as to unfit them for work, but are generally contented with two or three glasses. The liquor, here as elsewhere in the district, is manufactured from *shira*, and as it is sold at one anna and two annas a seer, this does not imply a very large consumption of alcohol. In one village, the *abkár* informed me that his customers comprized about fifty adult males, and his sales per month were equal to 80 seers of two anna spirits, which indicates a not very considerable average consumption of the liquor such as it is.

The best of their *purohits* often lectures them on their drinking habits, declaring that when they get a few annas they invariably run off to the *bhatti* to invest them, but he confessed with some sadness

that his admonitions do no good, while the Boksas standing round half-laughing denied the charge of drinking more than is good for them. They affirm that the spirits help, with *githi* and flesh to save them from spleen and *badi*.

I now come to what is practically perhaps the most interesting question connected with the Boksas, viz., their general state of health and the diseases to which they are liable. And, in palliation of the meagreness of what I have been able to discover under this head, it must be remembered that, among savages like these, each little fact must be expiscated separately, and the information derived from one man checked by repeated cross-questioning of him and others.

It may be premised that inoculation is quite unknown among them, and all denied that they use any medicinal substance whatever. As one man put it "What medicine do we know except *Bhagwán kí nám?*"

The only diseases unconnected with malaria regarding which particular inquiries were made, were urinary calculus, leprosy, cholera and small-pox. Cases of the two first have occurred among the Boksas, but the aggregate number of the tribe is so small, that no generalization of value could be made as to the rareness or frequency of these diseases among them, as compared with the inhabitants of the district generally.

Only one epidemic of cholera was mentioned to me. This occurred in 1862, and carried off nineteen people out of one middle-sized village. One sporadic case appeared in another village apparently about the same time.

The people were able to furnish some particulars of epidemic small-pox in five different villages, four of them apparently in the same year. The details indicate very varying intensity, as in two of the epidemics, although a good many children had the disease, no deaths occurred, while in each of the other three, ten to twenty, mostly young persons, died.

Ordinary intermittent fever is not unknown amongst the Boksas, but it is by no means common, and a number of those examined had had no attack for many years. Deaths occasionally occur from a form of fever which seems from their description to be a typhus with bilious complication, and which proves fatal in five or six days, if at all.

In a proverbially malarious district like that inhabited by these people, one might have been prepared to find the "Spleen-test," of some importance, and I was somewhat surprised to discover that in not one of the numerous adults examined, was the spleen notably enlarged. Indeed most of them had never heard of such a thing as *pilai*, while those who had, generally attributed their freedom from it to—as usual the *githi* and alcohol they consume. The percentage of enlarged spleens among the inhabitants of a district, as a test of the intensity of malaria in it, was first proposed by Dr. Dempster, when on the "Canal Committee" in 1847, and, since that time, it has been held as a dogma by probably the bulk of the profession in India, that a large number of "ague cakes" shew increased malarious activity in a district, while a blank return as to enlarged spleens would indicate absence or weakness of the miasm. Indeed, a report is on record, by a member of our service, who, when acting on a committee appointed to select a sanatorium, having in the course of a few minutes examined some of the residents of the village, and found few or no enlarged spleens, immediately pronounced the site "free from fever influences." But the almost total absence of spleen affection among this tribe, who inhabit from year to year, and all the year long, a tract where all the elements generally considered necessary, for the development of malaria are in full perfection for several months each season, and where it is but too certain that the miasm itself exists in the greatest activity at that time,—would induce us to believe, that there is still some datum to be discovered ere the "spleen-test" theory can be formalized.

Nor are we by any means at the bottom of the question of acclimatization so-called, in regard to a case apparently so simple as that of the Boksas living in comparative health throughout the year, in a tract twenty-four hours of many parts of which, at certain seasons, would be deadly to the newcomer. The Boksas' comparative immunity from malarious fevers has frequently been attributed especially to two causes; 1st, their not going out of doors after sunset in the fever-season, and 2nd, their houses being raised on poles at that time. Unfortunately, among our Boksas, neither of these habits has any existence,—houses on poles are unknown, and although in the rains, the Boksas naturally are not inclined to go out after dark

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if it is avoidable, yet they make no special difference on account of the risk of fever. Thus those whose turn it is to go out and spend a night up in the *tánd*, in order to drive away wild beasts from the crops, do so in the rains as at other times. Nor are the Boksas the only people who may become "acclimatized." I met at least one *Sáni* who had spent two complete years in a Boksa clearing and had no fever. Again, some others do not so easily undergo the "acclimatizing" process. I inspected one *gote* of herdsmen from near Almora, of whom a certain number had that season (as in other years) remained down to tend their herds throughout the rains, a very large proportion of them had had fever severely and at least one had very bad spleen. Very many of these *gotiyas* suffer severely in the forests during the unhealthy season.

If we cannot as yet explain fully the cause of this difference, I may at least state in what respects the habitations of the Boksas and of the *gotiyas* ordinarily differ from each other, more especially as the differences observed tend to confirm the truth of modern views as to sanitary improvements. The Boksa villages are generally situated at some distance from forest and jungle, in or near the centre of the wide open space comprising their fields; they consist of one very wide, roomy, clean street, unencumbered by out-houses, &c., the floors of the houses are raised a foot or more above the surface of the ground, and are kept beautifully clean; the cattle are almost never lodged under the same roof with the human residents, except when there is great fear of tigers, and then they are in a separate chamber divided off by a well-lipped wattle and dab partition; nor is their dung allowed to accumulate close to, far less in the house.

In almost all these respects, a *gote* shews a very marked difference from a Boksa village. The former consists of immense quadrangular sheds, which are not necessarily or often pitched in an open space, but, as more frequently happens, are surrounded close up to their doors by forest and brushwood. In these sheds the herdsmen and their herds live in common, the former occupying the inner, the latter the outer end of a shed. The floors of these are not raised above the level of the ground outside, and the dung of the animals is not, so far as I could learn, removed for many weeks or months at a time, or at most only to just outside the doors, so that the whole place is one vast

dunghill and affords by no means a pleasant promenade even in the cold weather. With our modern views as to the effect that filth and close, foul air have on health, we need hardly wonder that the *Gotiya* is more subject to sickness than the Boksas, or that the latter attributes the greater liability of his neighbour to fever to the state of uncleanness in which he lives.

In the course of my inquiries among the Boksas, it became evident that there is a very strong scorbutic tendency amongst them, of which the state of the gums affords a fair indication. In this pre-eminently statistical age, it would have been more satisfactory had I been able to give a good many figures bearing upon this point, but my attention became directed to it so late that I can speak positively as to the state of the gums in ten men only. These were taken promiscuously, and the gums of *nine* were more or less livid, spongy and hæmorrhagic, the one exception, with sound gums, being a robust young lad. In order to have some ground for comparison, the gums of several scores of prisoners in the Bijnour jail were subsequently examined on admission and at the time of discharge, and, with the exception of 2 (or 3) old thin-blooded men, and one lad who had been subject to considerable privation ere admission, the gums of all were healthy. These were sound even in the case of several who had been for some months on the *havalát* diet, which consists of only 16 oz., of flour with 4 oz., of pulse or 10 oz. of fresh vegetables.

The hæmorrhagic tendency of the Boksas appears to be shewn also by the great frequency and fatality of dysenteric affections among them. Of seven deaths, the causes of which were at various times, and without special design, detailed to me, five were from simple dysentery or diarrhœa, and two from dysenteric complications of fever and small-pox (respectively).

It may be a question whether the malaria, though it does not cause fever among the Boksas to anything like the extent which might be expected, has not something to do with the lowering of the system indicated by these purpuric or scorbutic symptoms, but I do not think we have any cause for it beyond the wretched food on which many of these people live. It has been seen, that the area of land tilled in a village is generally much less than would provide a sufficient quantity of cereals for the inhabitants under any system of culti-

vation however energetic, and that consequently, except in one or two favoured villages in good seasons, the mass of these people mostly subsist for a great part of the year on the wild yam, which does not contain all the elements for properly replenishing the blood,—that their supply of pulse which might supplement this want is not large, and that they grow almost no vegetables. Doubtless the flesh they eat, when it can be got, tends to lessen the detrimental consequences of their monotonous and miserable diet, but with the Disarming Act even partially enforced, they do not get the full benefit of that palliative. They are, at the best, but spare small men, and become prematurely old and feeble. Men of forty I have noted as “thin, grey, and breathless,” and they themselves attribute their ailments to scanty food.

It would appear that the state of system induced among the Boksas, by the circumstances of their diet, is similar to that arising among some classes of the Irish from continued subsistence upon the potato alone, as detailed in a paper read to the Dublin Royal Society by a medical member in the course of last year. It is also analogous to that condition which is noted by Dr. Mouat as leading to the fearful mortality among the Sontals, and members of other wild tribes in the jails of Bengal, and which has also at times been observed among prisoners in Great Britain, in consequence of ill-advised changes in the dietary. Within the last few months, the existence of a similar state of constitution caused by poor diet has been suggested, by an experienced medical officer, as predisposing to the fatality of epidemic fever among the prisoners in the Punjab jails. This state of system, as existing among the Boksas, is perhaps more nearly allied to scurvy than to any other disorder, and although they or other people, in a condition of freedom, in whom it exists, probably seldom die *immediately* from it, yet it renders them infinitely more liable to succumb to attacks of epidemic or other disorders.

It is likely that the debility so evident in the adults likewise exists in the children of this tribe. Besides the numbers of young persons alluded to above, as carried off by epidemics; of 14 instances in which the age at which death occurred was incidentally mentioned, eight occurred before puberty, only six afterwards; and in almost all the families whose circumstances happened to be detailed, the minority



only were then alive, and in only one of these, had so many as three persons reached manhood.

The statements given above, however, though significant enough as indications, may not be very definite or on a sufficiently large scale to convince; the following facts do not labour under the latter defect. Seven Boksa villagas have become extinct, and no new Boksa settlements have been formed within our limits, in the memory of living men, and as the Boksa does not emigrate from the forest, the question arises "What has become of their former inhabitants?" There is *no* trace of any of them having migrated to the villages of the eastern Boksas beyond the Ramgunga, and only a very few from the westernmost extinct village Lullutpore, appear to have crossed the Ganges into the Doon Boksa settlements, so that naturally one might expect the existing villages to have increased. But the fact is that of seven of the villages, where special inquiries were made as to increase or decrease of the population of late years, the largest of all (Bugnulli) had slightly increased, two others had remained stationary, while the remaining four had decreased from 50 to 90 per cent., and either figure will leave a margin, even for the irrepressible inexactness of the oriental.

While trying not to exaggerate the importance of these facts and indications, I cannot resist the impression that these western Boksas, the far outliers, as I presume, of one of the aboriginal races, are surely and not slowly, dying out. Several causes seem to contribute to this process. First among these may be put the unhealthy climate of the forest-tract, although it is impossible to say how, or to what extent, it acts in impairing the health of the race, or to separate its effects from those of the other agents in operation. Second, and most palpable, is the miserable diet on which most of the tribe habitually subsist; and third, the effect of epidemics is most fatal among a people whose blood is impoverished, and their strength impaired by the preceding causes. It has been seen that epidemics of small-pox, in particular, are frequent, and often fatal among the younger Boksas, and, had I remained longer in the district, I meant to have taken steps for sending vaccinators amongst them, so that the severity of this scourge might be lessened in its future visitations. It is possible, however, that ere this time the Boksas have come within the range of the general vaccine operations for Rohilkhund.

It might be supposed that Boksas are frequently killed by tigers and other wild animals, but I only heard of one man who had perished thus, having been killed by an elephant. I was subsequently informed, on doubtful authority, of three of them having been killed by one tiger, in 1863. In all likelihood, the frequency of wild beasts near their villages at certain seasons, renders these people peculiarly wary. At the same time they have the reputation of being very daring with tigers. I met one man who had been seized and mangled by a tiger a good many years before. The brute having been driven off by the other Boksas, who had no fire-arms, was shot by the wounded man as soon as he let him go, although he was laid up with his wounds for many weeks afterwards.

In bringing to a close these observations on the western Boksas, attention may be directed to three special points which have come out more or less strongly in the course of them.

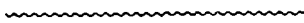
The first of these is a fact, which may possibly be of some practical moment, viz., the certainty that, among the inhabitants of a strikingly malarious tract, the proportion of enlarged spleens is not necessarily great, as the prevailing opinion would have us to believe.

The second point is also of some importance, not only as bearing on the inquiry, as to how, and to what extent the Boksas resist the influence of the funereal tract in which they live, but as related to the great sanitary questions which are agitated in the present day: it relates also to the nature of some of the circumstances in the sites and construction &c., of the Boksa villages, which apparently have some effect in warding off the deleterious effects of the climate, during and after the rains.

The third point is a mere hypothesis, and consists in the suggestion that so far from the Boksas being Rajputs, who migrated hither many generations since from Rajputana, as the traditions of the eastern Boksas say, they are probably either the relics of one of those waves of aborigines which the advancing tide of Aryan immigration drove from the Gangetic plain into the wilder recesses of the country, or, as is more likely, they constitute one of the extreme branchlets of that stem of the Turanian tree, which, rooted beyond the Kuenlun, has, at various times, sent its boughs far and wide towards the south. The materials available to me, under this head, are so scanty that the case

has necessarily been left "not proven." Some other enquirer may be able to throw fresh light on this subject.

But, even should these observations answer no very definite practical purpose, still, if my belief that the western Boksas are gradually vanishing be correct, it may be of some interest to have on record their peculiarities while they are still numerous and united enough to deserve and repay attention, and I shall not consider my labour lost, if, in the opinion of those whose views are worth having on such a subject, this end has here been at all adequately fulfilled.



*Religion, Mythology, and Astronomy among the Karens.\*—By the Reverend F. MASON, D. D., Missionary to the Karen people.*

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#### RELIGION.

The Karens pray more, and make more offerings than the Burmese; but their only object in these observances is to obtain benefits in the present existence, principally health and prolonged life, so they cannot be regarded as religious; while the Burmese make them to procure benefits in a future state, and are therefore a religious people, though by no means so moral as the Karens.

The Karens believe in the existence of one eternal God, the Creator of heaven and earth, and have traditions of God, and the creation that must have been derived from the Old Testament Scripture. The following affords a specimen:—

"Anciently, God commanded, but Satan appeared bringing destruction.

Formerly, God commanded, but Satan appeared deceiving unto death.

The woman E-u and the man Tha-nai pleased not the eye of the dragon,

The persons of E-u and Tha-nai pleased not the mind of the dragon,

\* The following pages have been prepared in reply to "Queries respecting the human race addressed to travellers, by a Committee of the British Association for the advancement of science."