XV.-Report of a Journey to the Sources of the Āmí Deryá (Oxus); with some Observations on the River Indus. By Lieut. Wood, I. N.

After observing that the Indus, from the flatness of the alluvial land at its mouths, and the perpetual changes to which the course of the streams forming its Delta are liable, presents insuperable obstacles to navigation by any but very small vessels, such as the natives use, and that Karáchí is the only harbour near its entrance which affords safe anchorage from February to October, Lieut Wood says, that by means of fairs established at suitable places on the banks of the river, depôts might be formed for goods sent by European merchants, and a beneficial commerce carried on with the natives of Afghanistán on one side, and the Panjáb on the other, who at present have no intercourse with Europe, except by very circuitous routes. Wool, he observes, might be procured to almost any amount by that channel. The country immediately above the commencement of the alluvial deposit, furnishes rocksalt, alum and sulphur, in the immediate neighbourhood of the river. Good coal is found near Kálá-bágh, but in beds of such small depth as to make it doubtful whether they could be profitably worked. Iron and other metals abound in the mountains between that place and Atak. Grain and other indispensable articles of food could also be supplied by the Indus to Western India, independently of the monsoon, so as to secure that country from such a calamity as the dearth of 1814 , the horrors of which are so feelingly described by Captain Basil Hall.

It is in vain, says Lieut. Wood, to look for remains of antiquity in such a country as the Delta of the Indus, where the buildings themselves are so perishable, and the changes in the river's channels so frequent and destructive. The imbedded hull of a gun-brig, near Sikkar, is a striking evidence of the latter circumstance, which may also be inferred from the tamarisks everywhere indigenous between Karáchí and Kach'h (Cutch), which are mere shrubs in the lower tracts, and large trees* higher up the country. The Heads of the Indus, or rivers of the Panj-áb, are subject to similar changes; and that, says Lieut. Wood, will account for our inability to find any remains of the altars erected by Alexander at the easternmost limits to which his army had advanced.

The Trial by Ordeal, which is still prevalent among the natives on the banks of the Indus, was very unexpectedly wit-

[^0]nessed by Lieut. Wood. "Seeing a crowd," he says, " one day congregated round a well, I walked to the spot, and was witness to the following Trial by Ordeal, which may be termed that of water, and the bow and arrow. The depth of water in the well was 18 feet, and in its centre stood an upright pole. Two criminals were to be tried for theft, one of whom was already in the well, clinging to the pole, with only his head above the water. A little on one side, with his back to the criminal, stood an archer with his bow bent and his arrow on the string. At a given signal, away went the arrow, and the culprit disappeared. No sooner had the arrow reached the ground than a young man, swift of foot, left the bowman's side and made towards it, which on reaching, another runner, equally fleet, snatched up the arrow and set off for the well. As he reached us at a winning pace, all eyes looked over the parapet into the well for the criminal's reappearance. His friends breathed short, while hope and fear were depicted in the countenance of all. At last the runner reached the goal, and was followed by the appearance of the suspected person. A loud shriek proclaimed the latter's innocence, and the crowd's satisfaction. The other criminal now prepared to descend into the well; but before doing so, a lock was shorn from his thin grey hairs and fastened to the arrow. He was the reverse of confident, and his looks were certainly not in his favour. Prayers were offered, and many fingers pointed to the heavens, while voices exclaimed, 'Allah will clear the innocent!' The trial was gone through, and with the same happy result as before. These injured men were now placed upon the backs of two bystanders, and so mounted, were led through among the crowd to receive its noisy congratulations. This over, their female relations came forward, and contented themselves with printing a silent kiss upon the cheeks of the once suspected but innocent men."

The Indus beyond Kalá-bágh, where it escapes from its mountain barriers, being little better than a series of rapids as far as Atak, that portion of its course had never been examined. Lieut. Wood was therefore directed by Sir Alexander Burnes to go up by water, while Sir Alexander himself proceeded by land: but, with a good boat and a powerful crew, it was not possible to work against the stream for more than about 20 miles, to Tórá Málá. Quitting the stream, therefore, at that point, and going by land to Atak, Lieut. Wond procured a boat there and went down the
*The use of the word "Allah," in Lieut. Wood's narrative, would lead the reader to suppose these natives were Muselmins: as, however, the parikches, or trial by ordeal, is one of the most ancient ordinances of the Hindú law (As. Res., i. 402, 800), they were probably Hindiu.-ED.
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Indus to Kálá-bágh, in order to complete the survey from Attak to the Sea. "The passage," he says, "was fearful enough in some places ; nor could he say where it was most so." Occasionally the channel is contracted and pent in by high rocky walls on each side, and the stream rushes onwards at the rate of 9 miles an hour : in other places the current is opposed by a jagged ledge, and the water foams and rages along through narrow channels, and dashes over the protruding rocks that continually impede its course. Immediately above Kalá-bagh the stream is enclosed between walls 100 feet high.

Lieut. Wood, on his return, followed up the western branch of the Indus,* through the country of the thievish Bangi Khail, Khattak, and Bangash tribes; stopped some days to examine the sulphur-mines near Kohát, crossed the Afridi mountains, and, after rejoining the mission at Pésháwer, returned next day down the Kábul River to Atak, in order to connect those two points by chronometric observations. From the sea to Miṭ'han-kót, where the rivers of the Panjab join the Indus, our maps, he observes, are generally correct in latitude, but wrong in longitude; while the reverse is the case between Mit'han-k $\delta t$ and Atak. Two excellent chronometers, used by Lieut. Carless, I. N., in the survey of the Mouths of the Indus (Royal Geogr. Jour. viii. 328), were carried by Lieut. Wood through the whole of these journies, and their regularity was such that the positions determined by the mean of their data may be fully relied upon. In the latitude of places between Pésháwer and Kábul, he adds, there is an error in our maps of about 10 miles. $\dagger$

The remainder, and most important part, of this Report, shall be given in his own words:-
"We had not been many days in Kábul when I was sent to map the adjacent province of Kóh-Dáman, from which I was soon recalled, to accompany Dr. Lord into Tartary. On starting, we attempted to penetrate by a new route to Europeans,-the Pass of Sari-lang; but the season was too far advanced; and after having been all nearly lost in the snow, we returned to Kabbul, and thence proceeded by the common road of Bámiyán.
"We had a carte blanche from Sir A. Burnes, who, with his well-known zeal for the improvement of geography, was not wanting in stimulating us to make the best use of this glorious opportunity. We reached Kunduz on the 4th December, 1839, and by the tioh Dr. Lord had obtained permission of Murad Beg for me to trace the $\bar{A} m$ (Oxus) to its source; and next day I started on this

[^1]interesting journey. In Badakhshán I was delayed a month, by the severity of the season and unfavourable accounts of the roads; but here I had ample employment, in making vocabularies of the different dialects spoken around, there being in Badakhshán alone, five in use. In the interim I also visited a deposit of lapis lazuli, and saw, though ice and snow debarred any farther approach, the direction of the celebrated ruby mines, about 40 miles to the $\mathbf{S}$. That month, however, was a weary one; and right glad was I again to set forward towards the original object of my expedition. On the 31 st of January, 1838, going up the Āmú, we reached Wákhán (the Vokan of Marco Polo) ;* and in this valley, were fortunate enough to stumble on a horde of that singular people the Kirghiz, from Pamir, who this season, for the first time on record, had come down to pass the winter in Wákhán, instead of descending along the table-land to Khokand. Our introduction to them was as follows. In the midst of a heavy fall of snow, we reached a village called Ishtrákh. I should have passed it unnoticed, but for a Tibetian yák or kúh-gáu (mountain cow), as the animal is here called, standing before a door with its bridle in the hand of a Kirghiz boy. There was something so novel in the sight that I could not resist the impulse of mounting so strange a steed; but in doing so, met with a stout resistance from the little fellow who had it in charge. In the middle of our dispute the boy's mother made her appearance, and very kindly permitted me to try the animal's paces. It stood about $3 \frac{1}{2}$ feet ligh, was very hairy and powerful. Its belly reached within 6 inches of the ground, which was swept by its bushy tail. The long hair streamed down its dew-lap and fore-legs, giving it, but for its horns, the appearance of a huge Newfoundland dog. It bore a light saddle, with horn stirrups; a cord let through the cartilage of the nose, served for a bridle. Nor was the rider less interesting than the steed she bestrode. The good Kirghiz matron wore some half-dozen petticoats, under a showy blue-striped gown; the whole sitting close to her person, and held there, not by ribbons, but by a stout leathern belt round her waist. Her rosy cheeks and Cbinese countenance shone from under a high white starched tiara or crown, while a broad band of the same colour and material protected her ears, mouth, and chin; worsted gloves covering the hands; and her feet were equally well taken care of. She chid her child for not permitting me to mount the kúh-gáu; and I quite won the good woman's heart, by praising the lad's spirit, and hanging a string of beads about his neck.

[^2]" Nor were the natives of the valley less interesting than these strangers, since all the rulers around professed to be descendants of Alexander the Great. I may add that in this secluded region traces, faint, but marked, of Zoroaster's creed, are still found; not to mention the ruins of three temples ascribed to his followers, one of which is still known as belonging to Sumri Atish Purast, or Sumri, the fire-worshipper.
" From Wakhán, escorted by the Kirghizes, we set out for Pamir, having first ascertained that one of the sources of the
 surface, at others in its rough snow-encumbered valley, we reached a plain, where, to quote from Marco Polo, "you might suppose the surrounding summits to be the highest land in the world. Here, between two ranges, you perceive a large lake, from which flows a handsome river that pursues its course along an extensive plain covered with the richest verdure." This account of the Venetian traveller is substantially, though not literally, correct.

My own remarks made on the spot were as follow:-"We had no occasion to remark the absence of snow this day; for every step in advance, it lay deeper and deeper, and near as we had approached to the source of the Ämú (Oxus), we should not have succeeded in reaching it, had the river not been frozen. We were fully 2 hours in forcing our way through a field of snow not 500 yards in extent. Each horse of the party took the lead by turns, and struggled onwards until exhaustion brought it down in the snow, where it was allowed to lie and recruit its strength, while another was brought forward. It was such a relief when we again got upon the river, that in the elasticity of my spirits, I pushed the pony to a trot : this a Wákhání perceiving, seized hold of the bridle, and cautioned me against the woind of the mountain: we had indeed felt the effect of a highly rarefied atmosphere ever since leaving Wákhán; but the ascent being gradual, its effects were inferior to what would be experienced in climbing a mountain of equal altitude. As we got near to the head of the Àmú (Oxus), the ice became weak and britle; a fact of which a yabd's (pony's) disappearance gave the first warning: though deep, there was fortunately little current at the place where the accident occurred; and as the missing animal was fastened to one of its companions by a halter, it was extricated at the expense of its gear and lading. The kind-hearted Kirakásh (mule driver), to whom the animal belonged, wrapped it in felts, took off his own warm patín (a large coat of sheepskin with the wool inside), and bound it round the shivering beast: had it been his son instead of
his yábú, he could not have passed a more anxious night as to the effects of the ducking. The morning in due course dawned, the yábú was alive, and the good mule-driver thankful.
"Shortly after this accident we came in sight of a rough-looking building decked out with horns of the wild sheep, and all but hidden in the snow. It was the last home of many a wandering Kirghiz, and lay a little to the right of our line of road; but on coming abreast of $i$ t, the leading horseman who chanced to be of the same tribe, pulled up and dismounted : his companions followed him, and wading through the deep drift, reached a tombstone, the top of which was uncovered: before this they knelt, all encumbered as they were with their huge forked matchlocks strapped to their backs, and offered up prayers to the Almighty: the whole of the party involuntarily stopped till they had finished. The stillness of the scene, the solitariness and wintry aspect of the waste, with the absence of all animated nature save the Kirghizes and ourselves, was not unimpressive to a reflecting mind.
" After quitting the surface of the river, and having travelled about an hour along its right bank, the Kirghizes signified its source to be very near. Declining a little to the left hand, we ascended a low mound that shut out the view to the eastward, and on reaching its summit at about 5 o'clock in the afternoon, we stood (to use the native expression) upon the Bámi Dunya (terraced roof of the world); while before us lay stretched out a noble lake, from the $W$. end of which issued the infant river Āmú (Oxus). This fine sheet of water,* the length of which is 14 miles by 1 in mean width, is crescent-shaped, the chord of the arc extending due $E$. and $W$. On three sides it is bordered by hills which, along its southern convexity, rise into mountains mantled with eternal snow, from which never-failing soutce this lake is supplied. To the E. and N. the hills are ridgy and low, few swelling to the height of 500 feet, and all are free from snow long before the icy fetters of the lake are dissolved. On the $W$. the water is confined by the mound before mentioned, and the passage by which the rivulet escapes looks much as if it had been cut in a natural embankment. The stream, when clear of the reservoirs, is 5 yards wide and a little better than ankle-deep, moving over a smooth bed with a

[^3]gentle velocity of from $3 \frac{1}{2}$ to 4 miles per hour. Its colour, like the lake, was touched with a reddish shade, and the smell of the water was slightly fetid. The temperature of both was $32^{\circ}$ of Fabrenheit, and yet neither were frozen when they parted. The rill continued free for about $\frac{1}{2}$ a mile below its fountain-head, and the same phenomenon extended over 15 square yards of the lake.* The mean of several observations on the boiling point of water by our thermometer, $\dagger$ gave 15,600 feet for the level of the lake above the sea; nor do I think the highest peaks of the snowy mountains lying on the S . side of the lake, rise 3400 feet higher, which would give about 19,000 feet for the altitude of the Pamir or Tartaric Caucasus."

* The ice on other portions of the lake was 3 feet thick.
$\dagger$ This thermometer is now in the possemsion of the Royal Geographical Society.


[^0]:    * But are they of the same species? The tamarisks indigenous in southern Europh, and in most parts of Asia, rarely, if ever, attain the size of trees.-ED.

[^1]:    * Of which there is no trace in our beet mape.-ED.
    $\dagger$ Lieut. Wood does not saywhether N. or S.-ED.

[^2]:    * Vocan, chap. i. Fr. Vers. ; Mascham, i. ch. xxxvii. Latin Vers. (Rec. de Voyages publié par la Société de Géographie.) See also Astley's Coll. of Vojages, iv., 586.-ED.

[^3]:    * It is known in Turkistin by the name of Sari-Köl, which literally means the head of the Darah, Sir signifying the head, and kol a darah, defile, or valley. [The author seems to have been misled by his knowledge of Persian; Darahi Sir is probably the valley of the Sir (Jaxartes), here confounded with the Amú (Oxus): K6l is a Turkish word, pronounced ĝ̣l (like the French word gueule), at Constantinople, and signifying a lake. The Tátírés say Kúl or Kól.-Ed.]

