sometimes bloodthirsty; but in Madagascar there appeared to be a singular lack of these dangerous animals, and at the same time an extraordinary innocuousness on the part of the population. Whether or not there was any connection between these facts he could not say, but it was not impossible that the people were harmless because their warlike instincts had never been called forth by the necessity of warring against wild beasts. He was sure they would all agree with him that a speaker of more graphic power than Mr. Cowan had seldom addressed the Geographical Society, and that he was well deserving of their thanks.

Notes on the Shaktú Valley, Waziristan.

By Captain G. F. Young, Bengal Staff Corps, Deputy-Assistant Quartermaster-General.

Map, p. 584.

THE Shaktú river issues from the Waziri hills and enters British India about 20 miles south of the frontier station of Bannu.

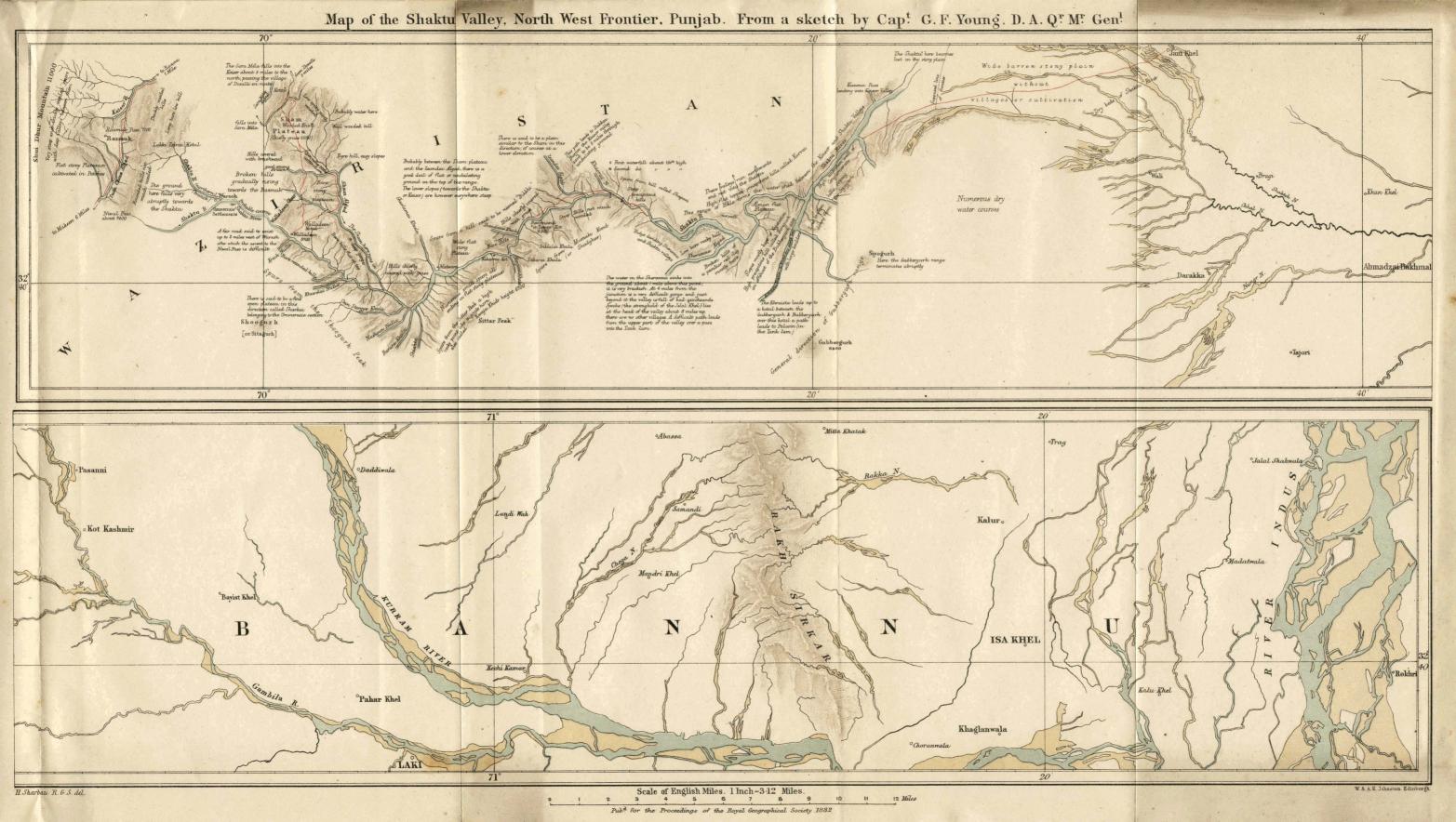
The Tochi (or Gambela), the Kaisor, the Shaktu, and the Tank Zam, all flowing through different parts of the Waziri hills, run, roughly speaking, parallel to each other in the order named, i.e. the Tochi is the most northern and the Tank Zam the most southern. Their courses are from west to east.

The valley of the Tochi is as yet only partially known or surveyed; those of the Kaisor and Tank Zam were visited in 1860 by General Chamberlain's force, and again this year (1881) by the columns under Generals Kennedy and Gordon.

The Shaktú had up to the present time remained entirely unknown, and the space between the Kaisor Valley and that of the Tank Zam was a blank on our maps. It is inhabited entirely by the Mahsúd Waziris, whose extreme jealousy of all other tribes has been an effectual bar even to native explorers. General Gordon's brigade in returning from the Ruzmuk Pass in May 1881, traversed its whole length, thus opening up an entirely new piece of country.

The Mahsúd Waziris.—The Mahsúds are the most powerful of the three main branches of the great Waziri clan, and are one of the most warlike, turbulent, and independent of the frontier tribes. The other sections of the clan hold the Mahsúds in considerable awe, and are consequently looked upon with much contempt by the Mahsúds themselves.

The Mahsúds do not appear to be so much given to intertribal feuds as other clans, and it is a noticeable fact in the Shaktú Valley that not only are the villages of four or five different sections of them considerably intermixed, but also that there is only one tower and two walled villages in the whole valley. They are as treacherous and



degraded as all other Afghans, but are brave and of splendid physique. Having few firearms, they fight principally with sword and shield and with stones, in the art of throwing which latter all of whatever age or sex are wonderfully expert. The sword is the short broad sword and not the usual Afghan knife.

Their repeated murders, cattle-liftings, and other raids on the villages within our border, culminating in 1879 by their burning the small frontier station of Tank, caused the late expedition to be sent against them just as had been done in 1860; and in May 1881, General Kennedy with the 1st Brigade advanced via the Tank Zam, while General Gordon with the 2nd Brigade advanced via the Kaisor, the two brigades meeting in the neighbourhood of the Ruzmuk Pass.

General Course of the Shaktú River.—The Shaktú river rises in the range of hills east of the Ruzmuk Pass. From its source eastwards to the small frontier fort of Jani Khel (Bannu district) is a distance of about 60 miles, but it is only in wet seasons that it reaches Jani Khel, generally becoming lost several miles west of the latter place in the wide stony plain which stretches along this part of the frontier.

From its source near the Niwal Pass, it runs south-east for about 16 miles through high steep hills; it then takes a sharp bend, widens considerably, and runs north-east for about nine miles. Thence for the next six miles it flows in a narrow gorge in which are two waterfalls. After emerging from this it continues for a few miles through a tolerably open barren valley, when it again contracts, becomes very tortuous, flowing between high precipitous hills, and at length emerges through "the Shakta Tungi" (or gorge), after which it flows north-east for several miles along the base of a precipitous range of hills, and beyond Karkenwom separates into several channels and soon disappears, sinking into the stony frontier plain.

The Hills.—The hills which border the Shaktú Valley and separate it from that of the Kaisor on the north and of the Tank Zam on the south are barren ranges varying from 2000 to 8000 feet in height. The lower hills are almost entirely of conglomerate, which is the principal formation of the whole country, and they are all very destitute of trees, though in the upper parts of the valley they are often thickly covered with bushes of holly, &c. The range to the south is higher and more precipitous than that to the north, which latter has an inclination to spread out flat on the top.

The Sham Plateau.—On ascending the dividing range from the Kaisor Valley, a remarkable plateau was found on the top of the watershed. This is called the Sham and is a fine grassy plain, having an elevation of 6000 feet, and an extent, roughly, of 1½ mile from east to west, and rather more from north to south; but several large side valleys opening into it make the actual extent of flat ground considerably more. It is the principal grazing ground of the Turi Khel and Mahmít Khel

(sections of the Darvesh Khel branch of Waziris) who bring their flocks here to graze about the month of June, and every possible attempt was made by them to prevent its discovery. The hills around the Sham rise 200 or 300 feet above the plain itself, and are covered with the dwarf oak common to all these hills. There are also a few fine trees scattered round the edge of the plateau. Streams both to north and south, the former flowing into the Kaisor and the latter into the Shaktú, are said to afford a steady supply of water throughout the year.

The plateau slopes imperceptibly towards the south, and at its lower end a stream, which takes its name therefrom, has its source. The latter flows for several miles southwards through a wide open valley until, after being joined by the Larai stream, it enters a deep gorge and descends to the Shaktú.

The route from the plateau follows the above-mentioned stream to the Larai Nulla, when it turns up the latter, ascends to a low "kotul" and descends thence to the village of Waladin.

The "Raghzaies."—A most noticeable feature throughout the whole Waziri country are the long flat-topped stony plateaux called raghzaies (or rogho). They are often of great extent and vary in height from 50 to 200 feet above the beds of the streams; they correspond to the similar feature seen in Kashmir, called karewaks, and undoubtedly mark what was once the bed of the valley; the streams have in course of time cut their way through this bed and now flow in wide deep-cut channels between high banks. The top of the latter, when ascended, proves generally to be the edge of a wide stony plain (a raghzaie), sometimes even taking the form of a long, low, flat-topped hill. The raghzaies are very seldom cultivated, being a mass of conglomerate.

The "Kutsa" Lands, Crops, &c.—Throughout the country cultivation is confined to the pieces of alluvial land lying along the edges of the streams below the high raghzaie banks, and called kutza. These kutzas are very rich, and produce two or three crops a year; they are a most prominent feature in the upper course of the valley, as being the only really valuable property in the whole country, and their importance is well shown by their all having names of their own, which is by no means the case of the villages which are mostly known only by the name of the tribe inhabiting them.

The crops are chiefly wheat and barley; they are measured by kanals a kanal being one-eighth of an acre.

Roads.—Speaking generally, there are no roads, the tracks used as such being simply the beds of the streams. They are, however, not quite so bad as this fact might usually imply in a mountainous country.

With the exception of the gorge below Baromand the bed of the

Shaktú is a broad and, comparatively speaking, level road from 50 yards to sometimes as much as 250 yards wide, with an imperceptible gradient. It is certainly trying to the feet of both men and horses from being entirely paved, as it were, with large waterworn boulders and stones; but in a country where, if this did not exist, a difficult and dangerous hill-path would be the only alternative, such a route is a great boon. General Gordon's column was accompanied by some 3500 camels and 2500 mules, yet the column was able to advance about 10 miles daily, which could not have been the case on an ordinary hill-path. Iron is brought down in considerable quantities by this route to Bannu. Though the Shaktú has a fair amount of water in it, the latter flows in a number of small streams between the boulders, and so is no obstacle to traffic.

To avoid the waterfalls in the gorge below Baromand, the force halted there one day and cut a road over which the whole of the baggage-animals were passed next day.

The gorge lower down the river, the Shaktú Tungi, has no difficulty if not defended by an enemy. As regards other roads, that by which the force entered the Shaktú from the Kaisor Valley, viz. over the Sham plateau, &c., is a fair hill-path by which mules can travel easily. So also is the road by the Zeandai Algad towards the Kaisor Valley.

General Description of the Valley, from the Niwál Pass to Jani Khel.—For the first ten miles of its course the Shaktú, which rises at the Niwál Pass (height 7500 feet), is called the Showáli. In this part of its course are situated the village of Wurzoh, and the several Ummerzaie settlements which do not appear to have any names of their own. They are surrounded by a fair amount of cultivated land, with a good many fine trees.

At Waladin, which is a miserable little hamlet of the Krach Khel section, the bed of the stream is about 70 yards wide, with a fair sized volume of water.

From Waladin to the mouth of the Sham stream are passed on the right bank two villages of the Shahabi Khel (whose chief settlement is on the lower slopes of the Shugush Mountains), and soon after, on the left bank, two villages of the Mirsangaie: each of these have several fine kutzas lying below them, and fringed with poplars and other trees.

The number of villages and amount of rich cultivated land in the Shaktú Valley was a complete surprise to us, it having been reported almost a barren waste. The villages are of the usual style of Afghan village, except that they are almost invariably without either towers or walls for defence: they are always situated on the high raghzaies overlooking the flat cultivated lands below, while behind them the hills rise steeply.

At the mouth of the Sham is the large village of Mir Kanai, or Mir Hussein, and a little beyond, on the right bank, the two villages of Sangér, called also respectively Kammolai and Shawal. Just beyond the latter village the Shaktú makes a sharp bend to the north-east. Here it opens out to a width of about 200 yards, receiving the tributary streams of the Shin Stargye Khula*, Náshpán, Barára Khula and Shishta, whose lower courses end in long flat plateaux, on which stand the villages of Khadari and Barára.

The Shin Stargye Valley is a fine open one, sloping gradually up to the foot of the Shugush, and there are said to be numerous villages at its upper end, as well as a fine open plain called Sharkai. The force marching as it did rapidly through the country, only halting for one day at Baromand, did not admit of these valleys being explored.

The next village passed is Kikarrai, with Shere Ali's tower, the only one seen in the Shaktú Valley.

This part of the valley is very wide, and in the next two miles are situated the four large kutzas of Dirgai, Pézhizwom, Malwom, and Zhandrwom; the villages of Malwom and Zhandrwom are the only ones in the valley which are not inhabited by Mahsúd Waziris (see list of villages attached to the present notes).

Here the Shaktú makes another sharp bend round a small hill which lies right in its course. The stream is here a good strong one, and for the next 2½ miles flows in a very wide stony bed, between high precipitous (raghzaie) banks, which shut out all view of what lies behind.

Soon afterwards we pass Kikarrai, a large village encircled by a strong wall, and after another sharp bend reach Baromand (or Zéwar Kôt), just beyond the mouth of the Shandzaie; here also there is a good deal of cultivated land. Two miles up the Shandzaie Nulla is situated the village of Pirgul.

At this point the valley contracts, and soon becomes a narrow gorge, in which (near the mouth of the Khaorai Nulla) are two small waterfalls—marked V and W on the map. This gorge forms the difficult part of this route, and, together with that lower down (the Shaktú Tungi), is relied upon by the Mahsúds as giving them immunity from all interference from the east. Our entire force was occupied one whole day in making a good road through this gorge.

At Baromand villages and cultivated land (with the exception of Mandrwom and Karkenwom) cease, and below this the valley is given up to marauding bands, chiefly of the Jalál Khel.

Emerging from the gorge, the large kutza of Mandrwom is passed—there is no village.

Below Mandrwom the river flows for several miles through a comparatively open valley; and soon after is joined by the Sheránna, a large tributary.

* Khula means "mouth of," and is often used as part of the name of a stream.

Below this the Shaktú becomes very tortuous, winding between high, precipitous, and rugged hills. Those on the north, called Karrai, are noticeable from the fact, that while their tops almost overhang the Shaktú, they form the watershed between it and the Kaisor, though the latter is about seven miles off; no water entering the Shaktú from this side.

At about nine miles below Mandrwom we reach the Shaktí Tungi (or gorge), caused by the stream piercing through a very precipitous rocky ridge. The strata here are very peculiar, viz. several narrow walls of rock parallel to each other, and at right angles to the course of the stream, which flows through a narrow gap in the "wall." In some cases the thickness of these "walls" is not more than four feet. They stand one behind another, like the side scenes of a theatre, and afford just the kind of position always sought for by an Afghan enemy, viz. perfect security up to the last moment, and then a safe retreat.

This gorge is the boundary eastwards of Mahsúd territory; shortly beyond it the Shaktú is joined by the Khraista, a broad river-bed paved with large stones, like the former, but with no water in it. This valley, in approaching from Jani Khel, appears to be the main one, while the opening of the Shaktú itself looks small and insignificant. The Khraista runs up to a kotul between the Gubbergurh and Bubbergurh hills, over which a path leads to Palosin, in the Tank Zam valley. The Khraista valley is quite uninhabited.

From here the Shaktu, whose bed is now about 300 yards wide, bends to the north-east, along the foot of a steep, rocky range of hills, which stand like an unbroken wall on the left bank. On the bank is a confused mass of low bare hills, lower spurs of the Gubbergurh, ending towards the river in a precipitous bank of conglomerate fully 100 feet high.

At five miles from the Shaktú Tungi, Karkenwom is reached, a large cultivated kutza like Mandrwom; but there is no village. About a mile to the north is a break in the range, through which a pass called the Kissonai leads into the Kaisor Valley, and shortly beyond this the Shaktú splits into a number of small channels and disappears, sinking into the dry stony plain. It is certain that throughout its course a great deal of the water sinks into the soil, as, notwithstanding the receipt of large tributary streams, such as the Sham, Shín Stargye, Barára, &c., it always remains about the same in quantity, and below Mandrwom sensibly decreases.

From Karkenwom the route runs for 11 miles over a wide stony plain to the small frontier post of Jani Khel, 16 miles from Bannu. The bare hills on the right gradually die away into the plain, which on the left stretches uninterruptedly for about 15 miles or more in width. At about three miles are passed some graves, and this point seems

commonly supposed to be the British frontier. Just before reaching Fort Jani Khel several dry nulla beds are crossed, into which in wet seasons some of the water of the Shaktú finds its way.

LIST OF VILLAGES IN THE SHAKTÓ VALLEY, WAZIRISTAN, showing Sections of the Mahsud Waziri Tribe to which they belong. Commencing from the Niwal Pass at head of Valley.

vaney.		
Right Bank.	Niwal	Left Bank.
4. Shahibi Khel, two villages (Shahabi Khel-Mahsud).	l l	Wurzoh. Other Ummerzaie settlements. Waladin (Krach Khel-Mahsud).
A Hot-Manibuty		 Mirzanzaie (Mirzanzaie-Mahsúd). Rabistan (Mirzanzaie-Mahsúd). Mir Kanai or Mir Hussein (Kikarrai-Mahsúd).
S. Sangér or Kammolai (Kikarrai- Mahsúd).		
9. Sangér or Sháwal (Kikarrai-Mah- sud).		
10. Khadari (Kikarrai-Mahsud).		
11. Barára (Kikarrai-Mahsúd).12. Kikarrai or Shere Ali's Tower (Kikarrai-Mahsúd).		
•		13. Malwom or Moghul Shah (Turi Khel-Darvesh Khel (not Maksud).
14. Zhandrwom or Gul Bayid (Turi Khel-Darvesh Khel).	!	
15. Mada Khel (Turi Khel-Darvesh Khel).	i	
16. Kikarrai Kôt (Kikarrai-Mahsud).		' 17. Pirgul (two miles up Shandzaie)
18. Baromand or Zéwar Kôt (Mirzan- zaie-Mahsúd).	! 	(Turi Khel-Darvosh Khel).
		Mandrwom belongs to Abdullai-Mah- súds.
The Shaktu Tungi bounds Mahsud Waziri territory. Karkenwom belongs to Turi Khel-		•
Darvesh Khel Wazirs.		

New Villages in the Kaisor Valley.

- 1. The Kaisor Valley having been already partially surveyed in 1860 (when it was called the Khissorah), it has not been thought necessary to send any sketch of it, but the following new villages were not entered in the old map.
- 2. The Kaisor is a valley very similar to the Shaktú, running roughly parallel to it on the north at an average distance of 16 miles. It is entirely inhabited by the Turi Khel section of the Darvesh Khel branch of the Waziri clan.
- 3. Villages enclosed in brackets are in the old map, and are merely entered here to show relative positions. The distances from the Ruzmuk Pass are given for the same reason.

KAISOR VALLEY.

Right Bank.	Ruzmuk Pass.	Left Rank.
2. Dosalli, 11 miles. (Sarobo, 16 miles. Musakki, 20 miles.	1	(Razoni, 5 miles.) 1. Khoni Zujarat or Zuide Ziarat, 10 miles. Wrongly placed in old map some miles further east.
Eti Ziarat, 21 miles.) 3. Sandu Killi, two villages, 23 miles. 4. Ali Must, 24½ miles. 5. Tota, 25 miles. 6. Mysdeen Khel, 25½ miles. 7. Dakkai Burj, 26 miles.		(Abbas Khan's tower, 24 miles.)
10. Karkanai, two villages, 29 miles.		 The hill east of Abbas Khan is called Tsapara, height 4800 fect. Wurmankai, 27 miles. (Seyn Ziarat.) The hill north of Seyn Ziarat is called Tarakai, height 3500 feet.

GEOGRAPHICAL NOTES.

Rescue of Mr. Leigh Smith and the Crew of the 'Eira.'—Sir Allen Young, in the Hope, arrived at Aberdeen on the 20th August, bringing Mr. Leigh Smith and the crew of the Eira, who had providentially escaped to Novaya Zemlya in their boats after wintering in Franz-Josef Land on the wreck of their vessel, and were picked up by the Relief Expedition. The Eira was severely nipped by the ice close to Cape Flora on the 21st August, 1881, and sank in deep water two hours afterwards, before the crew could rescue sufficient provisions to carry them through the winter. Happily sufficient walrus and bear meat was obtained not only to prevent their dying of hunger, but to pass the dreary months in health and comparative comfort. Their escape in boats was favoured by the large extent of open water-80 miles-met with on quitting Franz-Josef Land towards the end of June. Further details need not be here given, as an account of his voyage is in preparation by Mr. Leigh Smith himself.—One of the first acts of Mr. Smith, on his arrival, was to address the following letter of thanks to the Society:-

S.S. Hope, Aberdeen, August 20th, 1882.

I have the honour to request that you will be so good as to convey to the President and Council of the Royal Geographical Society my deep sense of their great consideration in giving their generous assistance and support to the Eira Relief Expedition, and also to express to them the gratitude of the crew of the Eira for the timely relief afforded them.

I have the honour to be, &c., &c.,

B. LEIGH SMITH.

To the Secretary of the Royal Geographical Society.