old rights of the Mikado were restored, and after years of civil war the work of peace began. Civilisation was the word. What could have been more convenient in such a case than to apply the foreign pattern to the new organisation of public order? For the administrative system for the navy, the army, the post, the telegraph, &c., foreign models were speedily adapted. It must be remarked that those changes did not take place spontaneously. The ends aimed at by the Imperial party during the civil war were of a political character, the civilising reforms were not anticipated. Had those civilising reforms been the direct result of internal development, no doubt they would have been undertaken with a great deal more moderation, steadiness, and perseverance.

The acquisitions made up to the present are commonly looked upon with admiration. Certainly the Japanese deserve our full sympathy for their endeavours, and it cannot be denied that they have been in some degree successful. We hope that the final result will be favourable to them. The rate of advance desirable depends, in my opinion, altogether upon the opening up of the country. And the country must be opened up some time or other, in consequence of the constant pressure acting from without. When it is so opened up, it will be shown how far the power of the Japanese has been developed to become an agent in international struggles. The power of the people should be strengthened both intellectually and materially. In the latter direction the Geological Survey was expected to become an important aid to progress. object of this survey was the systematic investigation of the local and physical conditions of the country and the dependence of the population upon these conditions. From the result of these investigations proposals were to be drawn up for the utilisation of the country's resources. The entire work was therefore a species of applied geography. I am extremely sorry at not having been able to convince the Japanese Government of the high importance, nay, of the necessity of the undertaking, and the surveys are consequently being continued without much attention being paid to the practical aims with special reference to which they were originally started. I may be allowed to express the hope that the Geological Survey of Japan may still become what it was intended to be, namely, a mediator between science and the economical requirements of the country.

Captain Maitland's and Captain Talbot's Journeys in Afghanistan.

A VERY interesting piece of exploration was completed in Afghanistan in the autumn and winter of 1885 by Captain P. J. Maitland and Captain the Hon. M. G. Talbot. These two officers ascended the valley of the Heri-rud, past Obeh (visited by Khanikoff) as far as Daulatyar. Here the party struck upon the route followed in 1837 by Captain Arthur

Conolly in his adventurous journey from Cabul to Khiva, of which unfortunately no complete record exists, though there are some interesting extracts in the 'Calcutta Review' for 1851. At Badghah, where Conolly must have probably turned off northwards over the mountains to Maimanah, Captain Maitland was shown a certificate in Persian from Colonel Conolly, stating that he had received important services from Muhammad Azim, the late Ataluk or petty chief of the district. The story told to Captain Maitland was, that the Ataluk and his men had beaten off an attack made on Conolly, but from the latter's diary it would seem that matters did not come to actual fighting, though on one occasion, at least, things were very near to it. Crossing the waterparting between the two head streams of the Heri-rud, the Sar-i-jangal and the Lal streams, Captain Maitland ascended the course of the latter, through a well populated and cultivated valley. Large flocks of sheep and goats were seen, the former of which supply the skins for a large number of postins or woollen coats made at Kabul. The winter is severe, and snow closes all the roads from the middle of November till the middle of February, and for forty or sixty days after that the country is said to be absolutely impassable even for pedestrians, the clayey roads being very deep and slippery, and every little stream a raging torrent. The Hazarahs appeared to be a simple, good-natured, industrious people, but of no value for fighting. The women did not seem to merit the character for immorality ascribed to them. There is a welcome absence of crime in the Hazarajat, which is no doubt due to the comparatively tractable nature of the people. Captain Maitland's route from the upper valley of the Heri-rud into the Yaikolang or Yak Walang valley is difficult to trace, owing to the unsatisfactory nature of the existing maps,* but it lies probably along the same line as that taken in reverse direction by Captain Conolly. The pass over which they crossed, descending upon Zari in the Yak Walang valley, is called the Bakkak Kotal, and Captain Maitland says it is the only real difficulty on the whole road between Herat and Bamian, and much worse, so far as he knows, than anything on the Besud road between Herat and Kabul. This latter road was examined by Dafadar Muhammad Akbar Khan, who had instructions to follow the main Kabul road through Besud to Gardan Diwal, and continuing along the Kabul-Bamian road to cross the Irak pass and join Captain Maitland at Zubak in Bamian. This was carried out by the Dafadar, and his topography has furnished a reliable knowledge of the remainder of the main road from Kabul to Herat. The point where the Besud and the Bamian routes diverge is a small deserted fort, called Kala Sofarak, between the Lal and Kerman valleys, and forty-one miles from Daulatyar.

The Yak Walang stream comes from a watershed to the east, on the *The most trustworthy of the old maps is the large one prepared by Eldred

Pottinger in 1840, on the scale of eight miles to the inch.

other side of which the drainage is to Bamian. Its principal course is at the Band-i-Amir or Band-i-Barbar, a series of curious natural dams forming seven narrow and deep lakes. It forms the upper course of the river called Balkh Ao or stream of Balkh, along the course of which runs the ancient road from Bamian to Balkh. Part of this road was examined by Captain Maitland, and en route he visited the ruins of Chahilburj and Khana Yahudi. On a high scarped hill between the two are the ruins of Shahar-i-Barbar, which according to tradition was once the capital of kings who ruled over a country most of which is now included in the Hazarajat. The people are said to have been called Barbar, and to have been in possession of the country, when the Tartars or Mughals, from whom the Hazarahs are said to have sprung, first invaded it. Captain Maitland considers that they may have been Tajiks of the same stock as those now living in Badakhshan. An excursion was made to the celebrated Band-i-Amir lakes, which are mentioned by the poet Moore under the name of "Bendemeer's stream." thence there are roads to Kamard and to Mazar-i-Sharif by Dara-i-Yusuf. The former is very difficult, and the latter by no means easy in certain places, but nevertheless important. On crossing the high flat watershed of the Yak Walang and Bamian streams the main features of the country became apparent. On the north side of the main range stretches a vast broken plateau diversified by small ranges and scored by deep valleys and ravines, but there is a tolerably well defined elevated tract lying between the Rud-i-Band-i-Amir on the west, and the Ghori or Kunduz river on the east. It thus fills up, with the exception of the narrow valley of these rivers, the whole space between the Hindu Kush and the high mountains about the sources of the Hari-rud and Murghab. The plateau slopes gently to the north and parts of it are fairly level. It comes to an end about the latitude of Haibak, but between it and the plain of Afghan Turkistan is another range or narrow irregular plateau rising to a considerable height above the latter, and sharply defining the boundary between the valley of the Oxus and the Kohistan. This range runs east and west at a distance of five to twelve miles from the towns of Tashkurgan, Mazar-i-Sharif, and Balkh, and appears to extend from near Shibarghan on the west to not far from Kunduz on the east. This feature was a great surprise, for it is hardly indicated on the map, and is not mentioned by previous travellers. The main plateau is intersected by three very deep parallel valleys, running from west to east and draining to the Kunduz river. The first is that of Bamian near the main range, the next that of Saighan, and the third Kamard. North of Kamard is the rather high ridge which the road crosses by the Kara Kotal, and from its farther side the long deep defile of the Tashkurghan stream runs north through the whole remaining lengths of the plateau to that town.

At Bamian, which is about 380 miles from Herat, and 132 from

Daulatyar, the officers stayed several days and examined the famous idols—a detailed account of which was written by Captain Talbot—the caves and ruins. To see Bamian alone, Captain Maitland remarks, was worth all the trouble of the journey. Full details were obtained respecting the three passes over the main range from the lower end of Bamian, viz. the Panjfilan, the Irak, and the Shibar or Shabar. Bamian is a deep valley bounded on the south by spurs of the main range, here known as the Koh-i-baba. On the north side is a long mountain over which there are only one or two indifferent tracks. The main road goes up the valley westward, and for some miles through a defile from which two parallel roads lead to Saighan, the population of which, as of Bamian, is Tajik with a certain admixture of Hazarahs. The valleys, though narrow, are well cultivated, and there is abundance of fruit. The hills, however, are too high and rocky for the daima cultivation so universal in the Hazarajat, and grain is imported. All the way along the route Captain Maitland found a constant stream of people migrating from the country about Kabul to Afghan Turkistan, a movement which is always proceeding more or less, but which was at that time more marked than usual on account of the scarcity at Kabul. To the valley of Kamard, which is just beyond Saighan, there are three roads, the Maidanak, the celebrated Dandan Shikan or "tooth-breaker," and the Dosht-i-Sufed, which appears to be the best of the three, as well as the shortest line to Bajgah. The lofty cliffs inclosing the valley of Kamard are very striking, and the land is excellently cultivated, but there is not much of it. Passing through Bajgah, the farthest British post occupied in 1839, and Rui, Khuram was reached, whither Ferrier claims to have come from Balkh, and from thence to have turned off eastward to the Rud-i-Band-i-Amir. The opinion, however, of both Captain Maitland and Captain Talbot is that Ferrier's travels were drawn up from hearsay information and that he probably never left Herat.

At Haibak the two officers parted company, Captain Talbot proceeding into the valley of the Ghori, while Captain Maitland prepared to continue the journey via Mazar-i-Sharif and Sar-i-Pul, to rejoin the British Commissioner, Sir Joseph West Ridgeway, on the Murghab. Accompanied by a Mehmandar from Sardar Ishak Khan, the Governor-General of Afghan Turkistan, Captain Maitland proceeded to Taskhurghan, a large town embedded in fruit-trees, and possessing a fine covered bazaar of 450 or 500 shops. Some distance out on the plain to the north are mounds marking the site of Khulm, the capital of the former Khan. It was abandoned by one of the last Khans, as the water supply was liable to be cut off, and Tashkurghan built instead nearer to the hills. The Governor, a learned Ghilzai named Purdil Khan, called on Captain Maitland and personally accompanied him through the citadel and over the bazaar. He had known Sir Herbert Edwards at

Multan in past years, and had also lived at Lahore. The friendly behaviour of the Afghans was here very striking, and the people continually assured Captain Maitland that the English and the Afghans were now one, and that he was to consider himself in his own country.

Here the plain of Afghan Turkistan is bounded on the south by the high range already mentioned. Its spurs are insignificant and the great level expanse stretches almost from the base of the hills away north to the Oxus, the nearest point of which is somewhat less than thirty miles from Tashkurghan. The plain is an alluvial flat, resembles portions of the Panjab, and is watered here by the Tashkurghan stream run off into irrigation canals, but the cultivation does not extend very far. To the west the plain is fertilised by the water of the Band-i-Amir which supplies eighteen canals (nahar) through the whole tract from Akcha nearly to Tashkurghan. On the way to Mazar-i-Sharif one crosses the Abadu Kotal, where Sardar Muhammad Jan and two others were put to death by the Amir's orders a few years since. Captain Maitland was honourably received at Mazar-i-Sharif, and the day after his arrival he took a ride outside the town, the country about which is very well cultivated, and is intersected with numerous irrigation ditches. The town is now thoroughly established as the capital of Afghan Turkistan, Balkh being at the present day a comparatively. insignificant place, quite unworthy of the prominent place it occupies on Mazar-i-Sharif is not so large as Tashkurghan, but is increasing rapidly in size and has quite outgrown its walls, which were never more than sufficient to protect the place from marauding Turcomans. It possesses a citadel built, as usual, on a mound, and contains an arsenal moved from Takhtapul, the military cantonment six miles west.

The Sardar, or Governor-General, received Captain Maitland and later on Captain Talbot with great friendliness. He is a rather stout, good-natured looking man of seven or eight and thirty, is very hand-somely dressed, and affects all the state of a royal personage. He is said to be a hard-working administrator, to keep everything in good order, to be popular with the Afghans, and is everywhere spoken of as a humane ruler.

Captain Talbot quitted Mazar by the road going south up the Bandi-Amir river, which enters the plain through a gap in the hill S.S.W. of Mazar, the regular road going in a different direction through Balkh and Akcha to Shibarghan, and thence to Sar-i-Pul and Maimanah. The country traversed along the former route consists entirely of low grassy, but often steep-sided ridges, running from the high hills on the south to the outer range on the north. There are many fertile and well cultivated valleys in this tract all draining to the Sar-i-Pul stream. The low ridges, hills, and hillocks of light sandy soil, covered with grass in spring and summer, are characteristic of Afghan Turkistan, and cover a great part of its surface. They extend also west of the

Murghab, and merge into the rolling downs of Badghis. Dafadar Sahibdad Khan ascended the Band-i-Amir stream some three marches beyond Tukzar, which was reached by Captain Maitland. Some fifty miles of the course of the river therefore remain unexplored, but reliable information about the road has been acquired.

At Sar-i-Pul Captain Maitland was very hospitably received by the Governor-General. The town itself is a mass of orchards, something like Tashkurghan, but in a wide valley, surrounded by low hills. The Mamanah valley is well cultivated and populated; the town is perhaps two-thirds the size of Herat, and stands in an open, cultivated plain; there is a large covered bazaar, but the houses of the town are very poor, and irregularly distributed within the area enclosed by the walls. From Maimanah Captain Maitland marched 53 miles to Chahar Shamba, arriving there on the 16th of December, exactly three months since leaving the headquarters of the Mission at Deh Afghan, in the Herat valley.

Captain Talbot in his notes remarks that the Balkh Ao runs in a narrow, deep valley, closely shut in by precipitous hills several thousand feet higher. North and east of it there is a plateau rising gently northwards for many miles, and culminating in rounded knolls about 11,000 or 12,000 feet high. The edge of the plateau facing the river is abruptly precipitous, while beyond the culminating knolls there is probably a pretty steep drop to the north. The whole of the region is uninhabited, except where the plateau is intersected by the Dara Isuf.

The general results of the expedition are that the Herat triangulation has been carried to Bamian, and connected with points in the immediate neighbourhood of those fixed by the Kabul triangulation. It is possible that some point may be found to be common to both surveys, and so afford a check on the work. From Bamian triangulations have been carried northward to Tashkurghan and the immediate neighbourhood of Mazar, while points have been fixed north of the Oxus and east of Kunduz. The heads of the Hari-rud and Balkh Ao rivers have been surveyed, not completely, but all the main features have been obtained. The road from Daulatyar to Bamian has been surveyed, as also that from Bamian to Haibak and Tashkurghan, and from Haibak viâ Ghori to within two marches of the Chahardar Pass. All the country overlooked on either side the route has been sketched, a total area of about 9000 square miles having been surveyed and reconnoitred on the one-eighth inch scale, and multicient points fixed trigonometrically to determine the greater part of the Helmand valley, a large portion of the country between the Balkh As and Tashkurghan rivers, and the unsurveyed portion south of the Oxus from the meridian of Tashkurghan to that of Khanabad.