Through the Hun Kiang Gorges; Or, Notes of a Tour in "No Man's Land," Manchuria

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the great road from the coast to the Victoria lake; and I think you will agree with me that he and the late Captain Sclater showed, during the progress of that work, a fertility of resource and a power of gaining the confidence of the natives which are beyond all praise. I always watched the career of the late Captain Sclater with the greatest interest, and I fully concur in the tribute which Captain Smith has paid to his memory this evening. The second part of the paper deals with the work done by himself, viz. the survey from the coast to the Victoria lake, and I can only say that it has been executed with great care and exactitude, and that it is a very solid contribution to our knowledge of Africa. I have looked through the appendices to his paper with very great interest, and, as an old survey-officer, I can bear testimony to the great care with which the survey has been made, to the accuracy of the observations, and to the admirable way in which the work was carried out. I hope he may be spared to make further surveys, if his inclination leads him again to Africa. It is just such surveys that are so much wanted there. I hope you will allow me to convey to him your very cordial vote of thanks.

THROUGH THE HUN KIANG GORGES; OR, NOTES OF A TOUR IN "NO MAN'S LAND," MANCHURIA.*

By ROBERT T. TURLEY.

As the attention of many is turned to North-Eastern Asia just now, perhaps a few notes on a district little known at present, but which must become of more importance in future, may be of interest.

Captain Younghusband's party traversed, some years since, the northern portion of the region in question, and a good description of that section may be found in Mr. James's able book, 'The Long White Mountain.' A reader of this book would naturally conclude that the country is almost impassable. The contrast, however, between summer and winter travel is as great as the difference in temperature, which is tropical or arctic according to season. In winter locomotion is usually rapid and easy, and the route taken by Captain Younghusband from Mukden to the Yalu can at that season be traversed by heavily laden freight-carts in eight days, though the distance is fully 250 miles. The valleys on the 42nd parallel east of Mukden run almost east and west, and where rivers and bogs are frozen, travelling on this route is easy. Once on the Yalu, a good road exists on the ice to a point not far distant from Possiet bay, which could, no doubt, be duly reached by carts. A Russian scientific party dragged a four-wheeled vehicle, before winter set in, across from Vladivostock to the fine cart-road above referred to. Teams, dragging carts with two tons of goods, were daily seen, denoting good roads, and by their large numbers a prosperous country.

"No Man's Land," or the once neutral zone, commences about 80 miles east of Mukden, from which point due east to the Yalu is about 150 miles. Further north the "neutral zone" was much wider, whilst

* Map, p. 352.

near the mouth of the Yalu it was only about 20 miles wide. This area, once a wilderness, but thrown open to settlers about 1860, was slowly occupied and brought under cultivation. Until quite recent years this cultivation did not extend far north of lat. 43° , but now the whole area is being rapidly peopled, and fully 50,000 square miles are settled and organized.

Although all maps show a palisade of stakes along the boundary, there seems but little doubt that no such ever existed. There was a rough dyke of earth across the valleys, especially where gates guarding the routes into Korea were situated, but nothing more. At the present day, certainly, no native knows of a palisade anywhere.

This land is generally very fertile, and is almost everywhere known to be rich in minerals—gold, copper, iron, coal, and silver, which have hardly as yet been touched. There are not very many high or rugged mountains, but the whole region is hilly, and in some sections wild and grand. Wide and fertile valleys abound, and if due care were taken to retain the rich forest soil on the hills, many of these could be perpetually cultivated, and good maize, etc., grown. No care is, however, taken, and the soil is soon washed off the steeper slopes, whilst, despite the warnings of Eleucius two thousand years since, the settlers—Shantung emigrants—are striving to emulate their ancestors of Eleucius's time, and do all in their power to strip the hills of all timber, and even scrub, causing droughts and floods in regions where such would otherwise scarcely be known.

The southern part of "No Man's Land" was once occupied by Koreans, who were driven out and over the Yalu by Chinese, who settled in their places. These were in turn driven out and deported westwards by the Manchus early in the seventeenth century A.D., so that a buffer, or uninhabited zone, might be formed between Chinese or Manchurian territory and Korea. It is scarcely forty years since it entailed a death penalty to settle there, but at about that time the outlaws became unmanageable, and settlers were allowed to enter. The robbers in time became peaceful and law-abiding farmers; they formed guilds, which to this day, although their former power is now largely in the hands of the regular mandarins, maintain better order than anywhere else in Manchuria. Property is still quite safe, and brigandage—the curse of Manchuria—is in these semi-wild regions, where guilds exist, practically unknown, whilst an independent and enterprising race has grown up.

Leaving Mukden early in February, we travelled almost due east for about 80 miles, going up the Hunun river as far as a place called Ying Fan, where it is joined by a large stream called the Shu tsu Huo, coming in from the east, whilst the main stream is now from the north-east. Our route followed the east river, more or less, for, being lightly equipped, we could cut corners over the spurs of hills. Heavily laden

carts follow the river. The country is very pretty, but not very wild or rugged, consisting of hills and open valleys, with a good number of inhabitants. Seventy miles from Mukden we passed Yung-ling, now a small and unimportant market town. It is, however, famous as the place where the Manchu power had its first origin, and for the tombs of five old chiefs near by.

Just beyond Yung-ling is Shing King, a small walled village, with a few dirty Manchu soldiers. It once boasted the dignity of a capital city. Five miles beyond this is the place where "No Man's Land" was entered by the so-called Korean Gate, though there is now no sign of gate or barrier. From this point to the Yalu is about 75 miles.

Twelve miles beyond Yung-ling the Shu tsu Huo river is joined by a large stream from the north-east. At the junction is the town of Shin Ping Fu, the seat of a large and flourishing trade, and the headquarters of the district magistrate, who performs many of the duties of a prefect. This town is the emporium of a large area, trade flowing in from all sides. Timber is brought on carts and sledges, and stored until the flood season, when it is despatched on rafts to Mukden. The Mukden river is not navigable above that city. Timber is sent from Shin Ping Fu south over the hills to a place called Chien Chang, 40 miles away, where there is a large affluent of the Tai tsu Huo, which flows past Liao-yang and down to Niu-chuang. By it timber is thus sent to Niu-chuang port.

The merchants of Shin Ping Fu are enterprising. They are obtaining much of the Eastern trade, the principal articles being on the one hand gold-dust, ginseng, deerhorn, furs, medicines, and grain, and on the other foreign stuffs, especially cotton goods, lamps, and kerosine oil, for which there is evidence of a large demand. Once in "No Man's Land," there are no vexatious Manchu copyhold land laws, and no *Imperial tombs*, to restrict mining within a wide radius.

Ten miles beyond Shin Ping Fu we crossed the watershed and went down into a valley, the stream of which runs into the Fu Kiang, a tributary of the Hun Kiang, a large river flowing into the Yalu. The watershed is crossed at about 2000 feet above sea-level, but the ascent is so gradual—the ridge itself being only a few hundred feet above the valleys—that one does not realize it. In the distance, to the south-east, were some fine expanses of dense pine forests, but the best trees have already been cut down. The hills were part of a long chain called the Kang Shan Ling, the geological formation of which differs much from that of the older hills which we had been travelling through. On crossing the ridge, we found, instead of coarse granitic rocks, fine gneiss, limestone, and clay slate, with iron ore, copper, and also silver. In fact, there are many indications that this range is rich in minerals. Gold is quite abundant in some of its eastern valleys, and in one last season three thousand miners were at work; much gold was obtained,

including some quite large nuggets. Dealers purchased the gold on the spot for twenty-nine ounces of silver per ounce of gold, and sold the same in Mukden for thirty-three to thirty-five ounces of silver. Every miner has to obtain a licence; the government price is about three-hundredths of an ounce of gold per month. The local official in charge, however, doubled this amount. The gold is best and most plentiful at the head of a narrow valley called Erh Tao Ku. In another valley ten thousand men were at work some years since, and found gold plentiful; but trouble arose, and since then no work has been allowed there. The people have no idea of seeking gold except in the sand and shingle, and do not believe that it exists in solid rock.

The centre of the gold district is the town of Tung Hua Hsien, 180 miles east-south-east of Mukden. We struck the Hun Kiang to the south-west of the town, and followed its course in preference to a climb over a ridge. Travelling on the ice, we wound up through a deep gorge, with a hill of gneiss on one side, and on the other limestone which had been cut away, leaving perpendicular cliffs. We emerged into a wide open valley, coming down from the east-north-east, skirted on either side by limestone hills, and opening out in many places into beautiful and fertile side valleys. The limestone is blue, but it has undergone some severe experiences, being foliated, and often changed into impure marble. The fissures have been frequently filled in with quartz, and often the strata stand up almost perpendicularly. The directions of foliation are always in a line with the valley, but irregularly. There can be but little doubt that there was once a large lake here, whose bed was raised by volcanic action; this is borne out by some bluffs of conglomerate, consisting of rounded and smooth boulders of rocks, foreign to the limestone surroundings, set in a hard matrix of red lava-mud.

Farther up the valley is a ridge coming in at right angles, consisting of ironstone, with lime, and probably much coal, for in one nook are several mines. The coal is bituminous, full of petroleum, and burns with a clear flame and hardly any smoke. It makes splendid coke, and quantities are sent down the Hun Kiang on the timber-rafts to the seaport near the mouth of the Yalu.

Coke is burnt in pits, very much as charcoal is made. The iron ore is very good, and looks like lead ore when freshly broken. The natives extract forty pounds of iron on an average from one hundred pounds of ore. It is broken into lumps about the size of small walnuts, and placed with coal-dust in dried mud cylinders. These are about 4 inches in diameter and 30 inches in depth. A bed is formed by layers of tiles, so placed that an inch space is left between each tile, the spaces being filled in with coal-dust. A mud wall surrounds this bed of tiles on three sides, the other side being open. The walls rise only a few inches above the cylinders, a hundred of which, or thereabouts, are placed in a bed. Between the cylinders is placed coal-dust, and the whole is ignited

gradually, by fire penetrating from the open side underneath the tiles. In a few hours all the mass is in a red glow and burns brightly, but much heat is wasted by the open nature of the furnace. The furnace burns out and cools down, when the congealed iron is separated from the dust and slag, and remelted in a second furnace. This latter is a crude blast furnace, made of dried mud in the form of a cauldron or bowl, 4 feet deep and 2 feet in diameter. Wood fuel is used, and a draught made by two bellows—boxes with a movable side, which is driven in and out by two men, who thus force air into the furnace. The molten metal is drained out into moulds, and cast into various articles, chiefly temple bells and plough-shares.

The iron makes very good steel; but this and wrought iron generally are made from old European iron, old horseshoes and gas-piping being in evidence in the blacksmiths' forges near by. The question arises, how can old iron be brought from Europe and delivered here, over 200 miles from the nearest river-port, more cheaply than native wrought iron, despite cheap labour, can be made?

The coal now being worked is not in beds, but has the appearance of having been pitched with great force into a gorge. The miners have gone down over 100 feet, and are still in the coal, which rises nearly to the surface, and in the coal are many roughly broken rocks of coarse gneiss. Farther north-east, towards Mao-erh Shan, we were assured that coal, splendid coal, abounds; whilst due north 100 miles away there is a mine, which is very productive even when worked by native methods. Copper is being worked, but not to any extent, still further within the hills; whilst over the Yalu, in Korea, it has been worked for ages.

There are about ten thousand families of Korean settlers to the north and east of Tung Hua Hsien. These are now under no law; the Chinese Government ignores their existence, and the Korean, since the Japanese war, has no control on this side. Previously the Chinese controlled the Koreans within its borders by a mutual arrangement, not very satisfactory to those governed. The Koreans are here a quiet, law-abiding people, but they feel their position, and yet do not like to leave their little homes, especially as they have prospered fairly well. They own their lands indirectly through Chinese, who pay the land-taxes. A stranger would not realize that there could be so many Koreans. They are a very shy and retiring people, and inhabit the nooks and higher valleys, whilst the Chinese occupy the main valleys.

In a valley called Lo Cheng Ku, we heard of a wonderful foreigner who shot small birds on the wing, having been there with others twelve years since, and no doubt it was either Captain Younghusband or Mr. Fulford. A Russian scientific expedition had been through here last autumn (1897), and its four-wheeled carriage, probably a tarantass, had caused some amusement. From Lo Cheng Ku we retraced our steps

to Tung Hua. As already mentioned, a good road for heavy traffic exists in *winter* right through from Mukden to the Yalu, passing south of the Lao Ling, which gives summer travellers trouble. Once on the Yalu, a good sledge road runs right up to near the Long White mountain, and thence across, it is said, to Possiet bay.

From Tung Hua we went south-south-west down the Hun Kiang, leaving behind us the forests and piles of timber awaiting the spring. We saw a Korean with a large dead tiger on a sledge, and some Chinese with four tigers—two of them enormous brutes—on a cart. All had been shot in the forests about Mao-erh Shan by guns set in the jungle in paths frequented by the tiger. They are generally placed near some animal that has been killed, or a bait; a string attached to the trigger causes the gun to go off, and usually, if the animal is not killed, it is so badly wounded as to fall an easy victim to the hunters. The shot usually enters the shoulder or the heart. It is very difficult to find the spot where the wound has been, it having been most carefully washed and sewn up, so as to not lessen the value of the skin.

After about 80 miles we came to the town of Huai-yen Hsien, a small place situated in a plain. The river winds with a big westerly sweep round a famous mountain north of the town. This mountain is famous, according to tradition, because five great chieftainesses, six hundred years since, had a stronghold on the top, and it is consequently called Wu-nu Shan (Five Women mountain). It rises rather steeply about 1000 feet above the plain, then in an abrupt and perpendicular cliff of basalt another 400 or 500 feet. The top is an irregular square measuring about three acres, and is quite flat, with Taoist temples, and a large pool of water in the middle. The approach is by one solitary path, and thus the hill forms a perfect retreat.

Leaving Huai-yen, we soon plunged into the beautiful and almost unknown Hun Kiang gorges. Here the river has cut a deep bed through hills for nearly 50 miles, winding in all directions. In many places, as we travelled on the ice, it was dark and weird, and not a sound broke the stillness. The water was flowing in a strong current beneath the ice, and here and there were open pools, caused generally by warm springs. These are rarely, if ever, frozen, even though the ice around is 4 feet thick. At these pools of open water we almost always saw a small black bird, which we had never before noticed—very like the common English blackbird in appearance and movements, but a little smaller. These lively birds winter in and near these pools, sitting on a ledge of ice, usually under another ledge. They dart in and catch the small fish, wading also, though their legs are short, where the water is shallow, but appear unable to swim. The common wild duck and mandarin ducks in larger numbers seem able to winter in a climate where for nights together the thermometer is below zero, given there are open pools of water which do not freeze.

The cliffs rarely rise in the gorges more than 600 feet above the river-bed, and usually about 300 feet. In many places the bed is only 150 yards wide, and in one or two much less. The rocks are black basalt, especially on the eastern side, for a long distance. Then gneiss appears, followed by an odd limestone section, and at the lower end basalt is again seen, with huge whitish-yellow rocks of quartz and also gneiss. The basaltic cliffs are often very beautiful. Owing to their columnar structure, castles, church spires, and Gothic pinnacles seem to rise sharply one above another, while miniature glaciers fill up pretty cavern-like niches. Gothic arches are filled in with ice tinted by oxide of iron, and hence look like rough stained-glass windows, whilst the white snow-covered ice below, glistening here and there in the sunlight, shows up the dark shadows in perfect relief. The castle towers and pinnacles are crowned with dwarf fir trees, and here and there a wee log-cabin is tucked away under a sheltering rock. All was quiet and in winter sleep, but every now and again carts with women and children were met going to the homes their husbands and fathers had prepared for them, taking with them all their riches, consisting of a few cattle and a little furniture. These people, originally, if not directly, from Shan-tung, make splendid settlers, being hardy and industrious. They, however, retain their ancient propensity for stripping bare the hills. They follow the wood-cutter and clear the ground by fire; they cultivate the steepest slopes and never terrace, hence the soil soon washes away, and a fresh space has then to be cleared. In time, when the land cannot support them, they begin to terrace, but most of the hills are then useless, and fuel scarce. Forest laws are much needed, and whatever power may rule, a first step must be to save the remaining forests, and to compel the people to cease the wanton waste now going on, which causes the droughts and floods which make life so uncertain in many places.

Large families are a great *desideratum* with these settlers, the boys being required for work, the girls to sell for wives. Women for wives realize four times the usual value in "No Man's Land." Again and again we met carts with salt and cotton goods, etc. These had been down to Sha Huo-tsu, or An-tung Hsien, with grain and local produce, and were returning north to various places. From Tung Hua Hsien to An-tung, the great river-port of the Yalu, 40 miles from the sea, is a distance of only seven or eight days for heavily laden carts, which, travelling on the ice to below the Hun Kiang gorges, strikes across to the Yalu by a good road. There is only one pass, and even here, thanks to the local guild, the road is well cut. The Hun Kiang turning back east-north-east, they go down on the Yalu ice-road, or more frequently stop short at one of the smaller ports.

The Yalu trade is becoming very important, and is destined in the near future to be very great indeed. Vast quantities of timber, grain,

etc., are annually shipped per sea-junks, whilst river-junks run up 600 miles, calling at the twenty odd little emporiums on the river-bank, Chinese side. There are many places, too, on the Korean bank, as well as many towns just inland. The up-stream route is somewhat slow, owing to the usually strong current.

Before leaving the Hun Kiang gorges, one must mention that near the lower part of them is a large basin with huge rocks, where there must be in flood-time an awful whirlpool; the lower end is guarded by a large quartz bluff. These whirlpool rapids smash the rafts, so that the owners build them in sections, with the logs firmly tied across each other, whilst the sections are loosely joined; even then many smash up, judging by the remains we saw. Otherwise, one would think that this river might be used for upward navigation.

Below the gorges we found that the wild silk, or oak-tree silk, was being widely cultivated. It is only of late years that it has extended so far north. There are no Korean settlers down here, but before leaving them it should be added that they have now for three years succeeded in growing paddy rice on boggy ground in "No Man's Land," under the 41st and 42nd parallels. The Chinese are naturally conservative, though in "No Man's Land" less so than usual; yet they were slow to encourage the Koreans to cultivate water-land rice. Now, however, they purchase readily all the Koreans can produce, and doubtless will themselves extend the area, as much of the bog-land in Manchuria would, were the Korean methods adopted, grow it well.

The country produces such a superabundance of food-stuffs that the present population is content not to try experiments. The rivers and streams have not a plentiful supply of good fish, although the water must be the same as that which runs into the Sungari, where the finest kinds of freshwater fish abound. Salmon, for instance, breed in vast numbers just over the hills, in rivers which connect with the cool, clear waters of the Japan sea, but none venture into those whose outlets are in the Yellow sea. That good freshwater fish might be cultivated is proved by the fact that one tributary of the Hun contains splendid trout, which are preserved for the court in Peking, whither they are sent frozen. A nice one was given to us, which reminded us of a home dish.

The Yalu, both above and below the junction with the Hun Kiang, is a noble stream; the width between the hills on either side is comparatively regular, and averages about 800 yards. The river in winter, or rather the ice, is about 500 yards across. On the Chinese side the hills generally end abruptly in almost perpendicular cliffs, wooded with scrub-oak, and composed of gneiss, mica schists, etc. The valleys often have narrow outlets opening out further inland. A short distance from the river, limestone hills extend irregularly for many miles, whilst hills composed of igneous rocks have been thrust up through them. In one

valley we found splendid white marble; in another odd blocks of marble were being gathered for lime. Lime made from marble, the natives say, is useless for dying purposes, especially with indigo, and also inferior to that made from blue-grey stone for building purposes. Asbestos is dug from one spot, and used for lamp-wicks. Silver-mining does not pay; the veins, or "threads," as the natives call them, are bedded irregularly in hard quartz, and this with their methods, together with the cheapness of the metal, makes the working of the mines useless, to say nothing of the trouble that is certain to arise with an unenlightened government.

On the Korean side of the Yalu, the hills differ somewhat from those on the Chinese side, but are said to be rich in minerals. They are much less wooded, and present no signs of oak-silk culture, which is carried on everywhere on the Chinese side, south of the Hun Kiang mouth.

The trade of the Yalu is timber. All North-East China draws its supplies hence, and but for the wanton waste it would still last for years. Next to timber, beans, bean-oil and cake rank for quantity. From An-tung, the port for sea-junks, fifty thousand tons per annum is said to be a minimum of the beans alone exported. Maize is very largely grown. It needs but little labour, growing on the steep hill-sides until the soil is washed away.

The import trade bears no comparison to the needs of the people. Given better and more regular markets for their exports, the demand for European materials for clothing and for luxuries would be very great. This refers to the Chinese, whilst the border Koreans, who are the most manly, and in fact *the* traders of Korea, would be large consumers. One wonders why the Yalu has never been opened to foreign trade. Ocean steamers could find a good port at or just below An-tung (or Sha Huo-tsu), whilst smaller river steamers could run up to the Hun Kiang mouth, and tug-boats with barges could go up 600 miles. The said barges could sail down-river easily.

Leaving the Yalu, we struck north-west, and after travelling about 20 miles came on the remains of a pre-Manchu walled town, called Yang-tien. Another 10 miles brought us to Kuan-tien. The places hereabouts are all marked on the maps as cities, but all are equally empty, except Kuan-tien, which we reached at noon on the second day. It is about 55 miles from the Yalu, and is the seat of a district magistrate. According to an old stone tablet still there, this city was built about three hundred years since. The walls are nearly a mile each way, with a gateway in each wall, except the north, where there was no opening, as bad luck was feared from a certain hill in the distance. The walls were built of lava blocks, very well squared and fitted, but with no mortar, and were surmounted by brick ramparts, which have disappeared. Forty years since, old men told us, the whole city, together

with the country around, was a dense forest, famous for its deer and wild boar. Now all the land is cleared and well cultivated, whilst a small market town covers a portion of the space within the old walls.

Near the town is a beautiful hill—a comparatively modern crater—which rises gently from the plain to a height at the rim of about 600 feet. The base is about 1000 feet above sea-level. Around is a plain extending about 10 miles by 30, which was, without doubt, once a large lake surrounded by old volcanoes. Their craters had been filled up with basaltic rock, which now stands up black and rugged, whilst the old walls have been washed away. These certainly all belong to an earlier period than the crater in the plain. A river winds through the plain and around the crater's base, having cut a deep channel through at least ten well-defined beds of volcanic matter, right down to the old lake-bottom, which was upheaved, more or less, near the crater. The lake seems to have been gradually filled until its bottom rose level with its outlet. It was then drained dry, and its river cut a deep bed as above described, and rushes into a valley at a lower level to the south.

North-west and south-east of the crater for many miles, patches of land, in one place fully 2 miles square, were covered with huge volcanic bombs, the larger of basalt which had been partly remolten, the smaller of coarsely vesicular lava, while, from the iron oxide seen, others must contain much iron. This output must have been a sudden shower, as the bombs are strewn over the surface of a deposit formed subsequent to the draining of the lake.

North-west of the crater our road wound through a gorge, the side valleys of which are still filled to a great depth with burnt sand, and pebbles, black and dirty, bedded in clean sand in thick beds. In a recent cutting, worn by a stream which made a new bed for itself last year, there are trees which are now inferior lignite, and have been charred as they were swept along in the heated sand. Further north-west is another plain, rising from which is a noted mount, "The old White-headed Rocks." It rises steeply for about 2000 feet, and then two huge pinnacles, with a smaller one between, rise at a very sharp angle, almost perpendicularly, for nearly another thousand feet. The pinnacles and all the upper portion are bare white quartz rock, which looks like yellowish-white snow.

Further north-west we descend into a valley at a much lower level, and striking the Ai Kiang, a tributary of the Yalu, which empties into the latter nearly opposite the Korean town of Ai Chu, or Yi Chu, we followed it to the old frontier city of Ai Yang, now a mere village, and there emerged from the once "neutral zone." In the Ai Kiang, which is very shallow, we find beautiful boulders of conglomerate, such as the Japanese polish into balls, etc. They are

composed of pebbles, closely set in a minimum quantity of black lava as a matrix, and are usually of quartz of every colour. Here for the first time since entering the zone we met with pure granite. One bluff, however, we had seen a few miles back. The exposed surface looked like red Aberdeen granite, finely grained and pure.

A few miles beyond Ai Yang is Huang Ku, a famous though small coal-mine. It is in the old Chinese territory, and has been worked a long time. The seam is only, at the best, 2 feet thick; but it runs horizontally into the hill some little distance above the base, and is tunnelled for over half a mile. This coal is expensive, and is noted as the best for blacksmiths' use in the province. The bed has not been disturbed by volcanic action, and is easily drained. From here on to Mukden the country abounds in coal and splendid iron and limestone. The best coal can rarely be obtained, because of the water and the absence of pumping-machinery. Iron is now but little smelted; but, with European enterprise and its waterways, which can be made navigable, this will become the "Black country of Manchuria," and No Man's Land an "Eldorado." *

THE CAMBRIDGE ANTHROPOLOGICAL EXPEDITION TO TORRES STRAITS AND SARAWAK.

IN 1888, Dr. A. C. Haddon, F.R.S., went to Torres Straits solely with the intention of studying the coral reefs and marine zoology of that district. When engaged in his zoological studies, Dr. Haddon's interest was attracted towards the natives, and he devoted his spare time to recording all he could learn about their past manners and customs, in addition to what he observed of their present mode of life. He was led to devote a good deal of time to the subject, as he found that none of the white residents in Torres Straits knew much about the natives, or cared about them personally, and as the natives were in some cases rapidly either dying out or becoming modified by contact with alien races. Some of the results of these investigations were published in the *Journal of the Anthropological Institute*, xix. (1890) p. 297; *Folk-lore*, i. (1890) pp. 47, 172; *Internationales Archiv für Ethnographie*, iv. (1891) p. 177; vi. (1893) p. 131; *Proceedings Royal Irish Academy*, (2) ii. (1893) p. 463, iv. (1897) p. 119; *Cunningham Memoir*, x.; *Royal Irish Academy*, 1894. All of the zoological results have not yet been published, and the geographical and geological observations were published in a joint paper, 'On the Geology of Torres Straits,' by Professors A. C. Haddon, W. J. Sollas,

* South-east of Mukden the natives have splendidly made turbine water-wheels; but they use the power, not for crushing quartz, but for grinding the bark of the elm tree into powder for incense.—R. T. T.

CENTRAL AND SOUTHERN MANCHURIA

Compiled from R.T. Turley's observations,
the latest Admiralty Charts & Russian Maps.

1899

Scale of Miles

Natural Scale 1:2000,000 or 1 inch = 31.6 miles.

Main Trade routes

Roads & Cart tracks

Telegraph lines