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KURDISTAN.

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ALTHOUGH many travellers have passed through this portion of the Ottoman dominions, there is still a good deal of it the geography of which is but imperfectly known. Kurdistan is not an accurately defined province, but the expression may be used to define the extensive area inhabited by the Kurds. The north-western limit of this is the mass of rugged mountains of the Dersim country lying south of Erzingan, and filling up the space between the two arms of the Upper Euphrates previous to their junction. To the north the boundary lies along a line traced up the Frat Su Valley from Erzingan, through Erzerum and along the Russian frontier to Ararat. The greatest extent of Kurdistan is south-eastward, where it covers all the mountainous country contiguous to the Persian frontier as far south as a line drawn through Kifri, the Manisht Mountain, and Kermanshah in Persia. On the west the Kurds inhabit very little of the plain country of the Middle and Lower Tigris basin, and a line drawn from Kifri to Mosul and up the course of the Tigris to Diarbekr and on to Kharput and the Dersim country would mark the limit in this direction. On the east a considerable portion of the most fertile provinces of Persia are inhabited by Kurds; from Kermanshah northward through Sinna, and along the frontier mountains west of Urmia to Ararat marks the limit here.

It is only in Southern Kurdistan that the population is exclusively Kurdish, as north of Mosul there is a large Christian population in the country as well. These are of various sects, but principally Armenians, Nestorians, Chaldeans, and Jacobites. To the north and north-west the Kurdish element comes in contact with the more lethargic races of Osmanli descent, and in the Tigris Valley they meet the Arab tribes of the great deserts to the south-west. On the south the mass of the

* Paper read at the Royal Geographical Society, June 26th, 1893. Map, p. 163.
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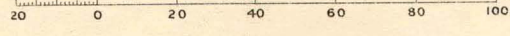


KURDISTAN

by Capt. F. R. Maunseil R.A., F. R. G. S.

1892

Scale 1: 3,000,000 or 47.5 miles-1 inch
ENGLISH MILES



Capt. Maunseil's land routes ———
river routes - - - - -
Altitudes in feet

Significations

- | | |
|----------------------------------|-------------------------------|
| <i>Baghaz Delle</i> Bridge | <i>Koupri</i> Church |
| <i>Chai</i> Stream | <i>Kilissa</i> Mountain |
| <i>Dagh</i> Mountain | <i>Kah</i> Open Plain |
| <i>Dere</i> Valley | <i>Ova</i> Spring |
| <i>Gelek</i> Col | <i>Pinar</i> River |
| <i>Gul</i> Lake | <i>Su</i> Hill |
| <i>Jebel</i> Mountain | <i>Tura</i> Mountain |
| <i>Kale</i> Castle | |
| <i>Keui</i> Village | |

Manisht Mountain divides them from the grazing-grounds of the Faili Lurs.

The Kurdish subjects of the Shah are not looked upon with much favour, as they in common with the rest of Kurdistan profess the Sunni faith, while Persians are for the most part Shias, which means a very sharp and bitter dividing-line.

Not many years ago Kurdistan was a separate province, and Kurdish begs ruled in Amadia, Julamerk, Rowanduz, Suleimania, and other strongholds; but this state of things has now been altered, and the country is for the most part under the direct control of Turkish officials. There still remain mountain districts such as Dersim, Bohtan, and Modikan which form natural strongholds, and owing to the difficulty of getting at them the tribes remain almost entirely independent.

The original Kurdish organisation was undoubtedly tribal, and the prevailing habits of the tribes still remain nomadic and pastoral; but in a country and climate of so varied a nature there are many local circumstances which alter this.

On the upland plateaux lying between Lake Van and the Russian frontier, the winter climate is remarkably severe, and the Kurds have to remain in villages all that season, the distance being too great to migrate to a warmer plain-country. In the summer, however, the nomadic instinct shows itself, and the population of all the Kurdish villages turn out into their black tents, pitched either a short distance away, or on some convenient grazing-ground in the neighbourhood. The Armenian population on the contrary keep to the valleys, and are strictly agricultural and sedentary. On the steep impracticable slopes and deep ravines of the Dersim country the Kurds are perforce obliged to be sedentary.

In Central and Southern Kurdistan, the tribes have easy access to the plain country on either bank of the middle course of the Tigris, and here a large number are true nomads, living in tents all the year round. In the winter and early spring they pasture their flocks on the extensive plains on the Tigris right bank between Mosul and Jezire. These grounds have to be rented from the powerful Arab tribe of Shammar Tai, who roam over the country south-west to the Euphrates. As spring opens and the snow gradually clears off, they cross the river and ascend the hills. It is probably July before the snow permits them to encamp on the summits of the great ranges of Central Kurdistan. The formation of the country favours them, as the ascent to the higher ranges is fairly gradual, and they do not commence the ascent until the grass on the lower levels is consumed or withered.

In the religion of the Kurds, especially of the nomads, there exist under the outward forms of Mohammedanism traces of Pagan doctrines which probably descended to them from very early ages. Principal among these is the worship and making of vows paid at the tomb of some local

celebrity. One of these, the Ziaret or Shrine of Khalil Aghwar near Zakho, was of particular interest, as it lay on the road taken by the nomads in their annual wanderings. The tomb was hidden in the brushwood and under a heap of stones. Round it enclosing a space about 50 yards square was a low stone wall on which were set at intervals small green and white flags. Inside the wall was crowded with offerings, either propitiatory or otherwise, which the nomads had placed there as they passed by. Some of their black tents, tent-matting and cloths, tent-poles, and a couple of their brightly-painted cradles were among the articles I noticed, each of which was of considerable value to these people. On the branches of the trees which overhung the shrine were numerous rags and scraps of clothing which passers-by had tied there, each person imagining that by so doing they were leaving their ills and ailments there behind them. Round about was a fine grove of oaks which were well grown, as these trees are never touched for firewood. These isolated groves are often met with throughout Kurdistan, and are always treated with veneration, and the wood left untouched. As a general rule there is no control over the cutting of firewood, and much of the country which would otherwise be well wooded is almost denuded by reckless cutting and burning.

A heap of stones by the roadside to mark the spot where a murder was committed is also a roadside incident in some places, and each passer-by is supposed to add an additional stone to the pile. There are among the tribes a certain number of saints or holy men who possess considerable religious influence, and to whom the superstitious tribesmen pay almost idolatrous honours.

During my journey last summer I entered Kurdistan from the north, and left Erzerum on August 20th, 1892.

The road to Van round the north-east corner of the lake was taken, and lay over a bare and treeless country, but well watered and with plenty of pasture-land. The Bingeul Dagh, or Mountain of the Thousand Lakes, is a favourite grazing-ground in summer. This is a somewhat remarkable mountain and contains no prominent peak, but at the summit the sharply defined cliff which borders the old crater can be traced, and the rest is a long gradual slope cut up with numerous stream valleys edged with low basalt cliffs. At one period this region must have been a remarkable centre of volcanic disturbance. In this neighbourhood, also showing traces of having been at one period active volcanoes, are the Sipan Dagh, a solitary peak shaped like a truncated cone rising on the north shore of Lake Van, and the Nimrud Dagh on the west shore, which has a crater nearly 8 miles in diameter which contains now a number of hot springs and lakes. The Tendurek Dagh to the north-east also shows traces of lava streams and a large crater, and Ararat itself is also of volcanic origin. The

basaltic ravines on the slopes of the Bingeul and Sipan Mountains and the numerous fragments of obsidian which can be picked up close to the Sipan Dagh are further evidence of this. In the Hartoshi Mountains and the upper basin of the Great Zab River numerous sulphurous springs are to be met with. Some are hot springs, some give off sulphuretted hydrogen, and in others the pure sulphur can be gathered from incrustations round the edge of the springs. This is much prized by the Kurds for the manufacture of powder. In the country between Erzerum and Van the Kurds prefer the mountain districts, where they can pasture their goats and sheep, and only cultivate sufficient barley and wheat for their present wants. The Armenians are most industrious cultivators of the soil, and collect in large villages in the valleys. In Bulanuk some Kurdish villages that I passed through were half underground and were the merest hovels. Sledges were used also to bring home the harvest, although it was summer-time and the ground was almost level and fit for carts. Sledges drawn by two bullocks are used also to a certain extent in the Kawash and Karchikan districts on the south shore of the lake during the summer, but there the slopes are steeper and more difficult. All round the shores of Lake Van the soil is fertile, the supply of fresh water very abundant, and fruit gardens and vineyards abound. Van, Aganz, Akhlat, Vostan, and Adeljivas are all famous for their gardens, which produce apples, pears, plums, cherries, apricots and walnuts.

A very curious feature noticed near the Armenian villages of Chevirme and Heramik in the Khanus Su Valley were the ancient cemeteries close to them. In these, over each tomb, were a number of stone blocks carved roughly to represent a horse ready saddled and bridled. The largest reached to about half the natural size of a horse, and were of various sizes down to about 2 feet high.

From Van I followed the south shore of the lake to Bitlis. The waters contain carbonate of potash, which is dried out in pans near the town and collected in cakes about an inch thick for use as a substitute for soap.

Wheat harvests in the Van province are as a rule very prolific, and grain sometimes rots for want of storage room or means of transport to a profitable market. This province suffers perhaps more than any other in this region from want of efficient means of communication with the coast and the outer world. The neighbouring rich province of Azerbaijan in Persia has scarcely any outlet either for its produce except by long and tedious caravan routes.

The Lake of Van, as is well known, has no outlet, and it is difficult to discover any traces of one. At the small bay of Ziwa on the south shore there is a single ridge, which rises steeply 600 feet out of the lake, separating its waters from one of the tributaries of the Bohtan River, which joins the Tigris. In the Guzel Dere, farther west, the watershed

is slight, and also at the head of the Bitlis Valley, but with these exceptions the wall of rocky ranges along the south shore seems to be complete. The most acceptable theory as regards the formation of the lake is that at one time the Mush plain extended eastward as far as Van, but that an overflow of lava from Nimrud volcano blocked up the valley to the south of the mountain, and so the lake came into existence.

Leaving the lake shore at Shamunis, I turned down a by-path to Bitlis across the hills following the Guzel Dere, which runs generally parallel to the Bitlis River. South of Shamunis the track crossed a ridge rising only 150 feet above the lake level, and entered a wooded valley with a fine mountain torrent fed by numerous streams from the high ranges on either hand. At 6 miles from the lake we left the stream, which made a sweep round to the westward and flowed into the lake near Ortap, and passed through Khotum, a small village only 100 feet above the lake. South of this we crossed a very slight watershed, and passed a spring which was the source of the Keser Su, a stream going south to the Bohtan Su, so that in this direction the watershed between the lake and the Tigris basin is slight. The number of streams in these mountain valleys is very great, and this spring alone formed a stream 50 yards wide and 18 inches deep of clear water coming out of the base of a small cliff.

These mountain valleys are well wooded with low oaks and junipers for the most part, but walnut, ash, elm, and poplar are found by the stream banks. The hill-slopes on the south shore of the lake are almost entirely denuded of trees for firewood for Van, and even the roots are dug up out of the ground for this purpose. Coal is known to exist a short distance to the eastward of Van, but is not worked at all, although its use would be of the greatest service to the saving of the forests and progress of agriculture.

From Bitlis I went south to Sairt and Jezire, descending quickly through a rough wooded country from the level of the Armenian highlands to that of the Tigris basin. The road follows the narrow rocky valley of the Bitlis Su, winding through a forest of low oaks with a thick undergrowth. On either side rise abruptly steep limestone hills, wooded except along the summits. Four miles south of the town are some valuable mineral springs by the roadside which produce water very similar to that of Vichy. A mile farther on is a calcareous deposit 60 yards long and 30 feet high formed by the deposit from another mineral spring on the hillside. This entirely blocks the space between the steep slope on one side and the cliff forming the river-bank on the other, and the road passes through by a short tunnel or archway 15 feet high and 12 feet broad, said to have been cut by Semiramis. As the descent to the plain is accomplished, the country can be divided into zones varying in climate and productiveness as the altitude gets less. There is first the plain country of the Tigris basin, especially on

the left bank, extending to Mosul and the Great Zab River, which grows fine wheat crops and, where irrigated, maize, millet, cotton, and hemp. The next zone is from 2000 to 4500 feet, and is perhaps the most fertile. It is formed of the lower outliers from the main ranges and is cut up by numerous valleys and streams, and the hillsides are covered with oaks principally of the gall-bearing and valonia kinds.

The many small streams are utilised to grow rice on the hill-slopes; there are numbers of vineyards and fruit-orchards, and tobacco, maize, and corn crops are very productive. The highest zone is the summits of the mountains, which are quite bare of trees, and the general level of those in the district, south of Lake Van, is from 9000 to 10,000 feet above sea-level. These summits form, in many instances, great rolling downs, like the Pamirs on a small scale, from which the snow never entirely disappears. They constitute the grazing-grounds, in summer, for numerous nomad Kurd tribes. In July 1888 I spent a fortnight among the nomads of the Hartoshi Kurds in their "yaila" or summer quarters east of Jezire. The black tents were dotted along the banks of one of the many streams that came from the melting snows. The soil was a rich loam, probably of volcanic origin, and directly the snowdrifts disappeared the ground was covered with a carpet of short grass, thickly studded with flowers of great variety and brilliancy. Among others I noticed an Alpine gentian with a deep-blue flower, a small blue hyacinth, several kinds of iris and polyanthus, which were very plentiful. The difference of climate between here and the Tigris Valley was very marked. On June 27th, on the river-bank near Jezire, the temperature rose to 106° towards mid-day, while on July 4th, at an elevation of 7900 feet, the ground in the early morning was covered with hoar-frost, and the thermometer marked 30°. The dress of the Hartoshi Kurds in this region is a very distinctive one, and suitable to these sudden changes of temperature. The handsomest portion consists of the short jacket or pelisse, embroidered with gold lace down the front, and worn open, with the back covered with long black goats' hair of a very fine texture. A white conical felt cap is worn with a turban of black and red cotton wound round it. The sleeves of the shirt are open, and hang down almost on the ground when walking. There is an inner waistcoat and a jacket with open hanging sleeves worn under the pelisse, usually made of bright coloured silk. Wide trousers are worn, tucked into a pair of high boots of red or yellow leather, which reach half way up the leg. Most of the cloth is made from goats' hair, and is very strong and durable. A species of wild silk called "gez" is found in the hills near Jezire, and is a good deal used by the Kurds also.

Jezire is an important centre for the Kurdish tribes, both settled and nomad, who inhabit the mountain districts to the north and east. The nomads are obliged to cross at the boat bridge here in their annual

migrations in search of pasture, and the sheep-tax is levied as they cross. They dispose of wool and goats' hair on the way through, and these, with oak galls from the neighbouring forests, form the principal exports. Sheep are exported in large quantities also, and are driven westward along the caravan route to Aleppo, Damascus, and Beyrut. The mountain districts of the Bohtan and Hakkari to the north-east and east of Jezire form a wooded region of great fertility; but the population is at present insufficient, and much of the country lies idle and almost depopulated.

From Jezire I turned aside to Shakh, a small village some 8 miles to the east, where I was told there were extensive ruins and inscriptions. After 6 miles, we crossed a large mountain stream called the Nurdush, and began a steep ascent to the village, the track winding up over a succession of small terraces irrigated by canals. The walnut and mulberry trees here were particularly fine, and the pathway in places was choked with trailing vines and briar roses. Almond, fig, olive, and pomegranate trees also appeared, and on the terraces were grown patches of Indian corn, wheat, melons, and hemp. A little cotton was seen on the higher slopes. Few scenes could be prettier than this winding ascent through large leafy trees, hedgerows of roses, myrtle and pomegranate, with vines twining overhead.

It was soon evident that we were approaching the site of some important city, as for some 2 miles to the east, along the summit of a spur, were scattered extensive remains of masonry walls, with towers at intervals. The Kurds have many traditions about this place, and the guide said that seven distinct walls could be traced which used to encircle the town. At the top of the ascent we entered the village of Shakh through a gateway in a strong masonry wall, which evidently formed part of the line of fortifications on this side. The modern village is built on the edge of a cliff projecting over the Nurdush stream 300 feet below. On the opposite bank rises a bare rocky wall of grey limestone. Running north is a side valley lined with cliffs, down which comes a large stream. I ascended this for nearly a mile and a half, and found a number of chambers cut in the side of the cliff, which had apparently been used for dwellings. One of these measured 20 feet long, 15 feet broad, and 10 feet high, with a door and window, all cut in the hard limestone, and still in excellent preservation. Near the head of the valley was the remains of a strong masonry wall which used to defend this defile.

Higher up the cliff to the east was a large arched opening leading into a chamber 60 feet long, 30 feet broad, and 30 feet high. This the Kurds called the council-chamber. Up the main valley of the Nurdush, 2 miles distant, were a number of other rock-cut chambers, some 6 feet long and 4 feet high, evidently used as tombs. The stream valley above Shakh is lined by cliffs rising, in a series of pinnacles, 1000 feet

above the stream, and crowning these on either hand were the remains of two forts, the Kala Baginuk and the Kala Kelhuk, which were built to defend the passage. Along the base of the cliff, on the right bank, could be traced the line of an aqueduct 3 feet wide and 2 feet deep, cut in the rock for nearly $1\frac{1}{2}$ miles, now broken in several places, but which was used to lead the water round the end of the rocky spur on that side. In former times this must have been a place of considerable importance, and I think it may be taken as the site of the Roman city of Bezabde, the capital of the Zabdicene province. This has never been definitely fixed; but hitherto it has been supposed to be in the neighbourhood of Fenduk, higher up the Tigris. Rock-cut dwellings exist in the neighbourhood at Hassan Kaif, in the Bohtan Su Valley near Sairt, and the Tigris Valley near Fenduk, but none of these are as numerous or as well constructed as those here.

On leaving Jezire, I descended the Tigris on a raft made of a light framework of timber and reeds, made buoyant by a number of inflated sheepskins fastened in rows underneath. A raft of eighty skins gave sufficient room to pitch my tent and for the men to work the two long oars. Progress was very slow, as the speed of the current was usually depended on, and at this season, in September, it was very slight. The oars were used principally for steering.

Rafts of one hundred and fifty to two hundred skins are used by traders to carry wool and wheat down the river from Jezire to Mosul and Baghdad. On arrival at Baghdad the rafts are broken up and the wood sold, while the raftsmen return by road, carrying the skins on mules. This is a very primitive method of carrying goods, and the sculptures at Nineveh show that it was in use when that city was at its prime.

South-east from Jezire, along the foot of the hills, is a fine plain, and this depression extends up the Khabur valley as far as Amadia. Southward of this, following the course of the Great Zab until it joins the Tigris, comprises one of the most productive districts of Central Kurdistan. Near Amadia this is known as the Bahdinan District, and crossing it are a series of steep limestone ridges, which rise to about 4000 feet, and enclose well-watered valleys of great fertility, wooded with oak, elm, pistachio, juniper, and other trees. This belt of hills continues into Southern Kurdistan to the districts round Suleimania, where the ridges run nearly parallel in a north-west and south-east direction, and where the valleys are equally fertile and well watered. On the south-west edge of these ridges lies a belt of undulating gravelly hills between the Diale and the Great Zab. The limestone disappears and sandstone overlying conglomerate formations takes its place. Numerous strata of gypsum are met with, particularly round Mosul and extending south-east to Kifri, and also along the western edge of the Pusht-i-Kuh mountains farther south. At various points in this zone are petroleum and bitumen

wells, the principal being at Hammam Ali, a short way south of Mosul, where the bitumen oozes out of the calcareous rock in long threads, at Erbil, Kirkuk, Duz Khurmatli, Kifri, Mendali, and at various other points along the Pusht-i-Kuh to near Shuster in Persia. These will be seen to follow a well-defined belt running south-east from Mosul, and no doubt, if properly exploited, would yield valuable results. Also on the left bank of the Tigris, at the El Fatha defile, a short way below the junction of the Lesser Zab, are bitumen deposits which extend for some 5 miles along the bank. The strata of whitish calcareous rock run nearly horizontal on the bank, which is here from 10 to 12 feet high, and from between the strata the bitumen oozes out in considerable quantities, said to be greater in summer than in winter. It floats down the stream and pollutes it for a good way down.

Through Southern Kurdistan a description of part of my journey will show the nature of the country and the mode of travelling in it. Starting north from Baghdad on May 1st, I reached the small town of Kasr-i-Shirin, just over the Persian border on the high road to Kermanshah. My party was small, and consisted of my dragoman and myself, with a couple of muleteers, and four mules for baggage and tent. It was found better to engage the muleteers from one large town to another and not for the whole journey, as they knew the roads better.

From Kasr-i-Shirin I turned aside in a north-westerly direction, and, after crossing a country of undulating gravelly hills producing good wheat crops, at 12 miles crossed the line of round masonry towers which mark the frontier of Turkey. The small party in these towers was constantly on the alert, and sometimes had to retire into their fortress and stand a siege against a band of Kurdish raiders; 12 miles further we reached the edge of the Diala River, then in high flood, and had to halt to improvise some method of crossing. The flat river valley contained some rich alluvial soil, watered by several canals, and grew wheat and rice. Several tumuli were visible, and in one village houses were being constructed from bricks dug up from one of these. These old bricks, when obtainable, are far preferable to the sun-dried ones of the present day. Each mill had its watch-tower to protect the corn in it from raiding parties. After some time a man was found who undertook to ferry us across the river, and with a dozen sheepskins and some reeds set to work to make a raft. In about an hour's time it was ready, and was nearly 7 feet square.

It took the party and baggage over in three trips, but the current was rapid, and the raft was carried down stream a long way at each crossing, which made the work very tedious. It was pushed along and steered by a man swimming behind. The river flowed over a wide stretch of shingle in several channels, some of which we forded, and the main one remained, about 300 yards wide. Two attempts had to be made before the horses and mules would face the stream; but eventually they were

induced to follow a muleteer who swam beside the horse who acted as leader of the caravan, and guided him across. One mule less experienced than the others was swept down for nearly a mile, and was only saved by being drifted on to a shingle bank, where he got foothold and reached the shore. On the other bank we camped with some of the large nomad tribe of Jaf Kurds, whose winter grazing-ground this was, but most of whom had already left for their summer pastures on the Kuh-i-Chahil-Chashma, on the Persian frontier. From the river the track lay over a bare undulating country, mostly a gravelly soil, but crossed by numerous low ridges, and sandstone and gypsum formations.

After a march of nearly 20 miles I reached Kifri on the Baghdad and Mosul road, and from here I turned north-east towards Suleimania, the capital of Southern Kurdistan. I had some difficulty in procuring guides, as the road was said to be closed by raiding parties of the Hamawand Kurds, a tribe who possess a number of well-mounted horsemen. These move rapidly from one point to another on the great trade routes, swoop down on caravans, and disappear as soon as a superior force is brought against them. After much argument I obtained two zaptiehs, men of the local gendarmerie, to act as guides, and left on the morning of May 11th. For the first few miles the road led over some sharp ridges of sandstone, with strata of gypsum and conglomerate. An excellent cement for building is obtained from the gypsum, and houses in Kifri and Mosul are largely built from it.

The country soon opened out into an undulating plain, crossed by a great number of small gravelly ravines, with low ridges of sandstone appearing at intervals. Round Kifri is a fine wheat-growing district, and water is to be found in the streams all the year round. Just now the rivers were partially in flood, and were difficult to cross. The country was almost deserted, and we passed only two small villages during the day. In these the inhabitants turned out immediately on our approach, carrying any weapons they possessed, as they thought horsemen coming down the road must be a party of Hamawands, such a thing as a peaceful traveller being unknown. Also in a bush by the roadside I noticed a leg sticking out, and found it belonged to a small boy who had crept in there, imagining he had securely hidden himself from the dreaded Hamawands, whom he thought were approaching. Late in the afternoon the Ak Su was reached, flowing in a narrow valley bordered by gravelly hills. The zaptiehs knew nothing of the way, and the water was in flood and very muddy, so that the ford was obliterated. I tried to lead the way over where I imagined I could trace the ford, but my horse was rolled over by the force of the stream, and I swam to the opposite bank. The ford was discovered at length a short way down, and, after a march of 35 miles, we halted with some nomads of the Jaf Kurds we found by a stream bank. There was

still an abundance of grass to be found on the plain, and they were pasturing their flocks here.

Starting at daybreak the next day, I found the zaptiehs had disappeared in the night, and it was only after some difficulty I induced one of the nomad Kurds to show me the way on to Suleimania. This day comprised another long march over a grassy country similar to the last without meeting with a single soul or seeing a house. Towards evening the guide led us towards a small village called Gcuk Tepe, which lay behind some rising ground. I was riding with my dragoman some distance ahead of my baggage, and on reaching the top of the hill the village became visible a short way off at the other side of a ravine. Here again we were taken for Hamawand raiders, and the villagers turned out with great promptitude and opened fire.

Matters were beginning to look serious, as these villagers were armed with Martini-Peabody rifles, when some minutes later the mules arrived on the scene, and they realised then that we must be travellers, and ceased fire. We camped there for the night, it being the only village for miles, the headman explaining his conduct by saying the usual method of attack by the Hamawands was to advance at a gallop and rush the place, so that unless fire was opened at once there was no chance of driving them off! Next morning, a short distance after leaving the village, we crossed the Karadagh, the first outlier of the ranges of Southern Kurdistan, and entered a pretty wooded country, with a number of small streams. The sandstone and conglomerate formation was now left, and a series of parallel ridges of hard limestone with strata in some instances perfectly vertical, intervened. A few small Kurdish villages were met with, scarcely distinguishable from the surrounding country in consequence of the thick grass which grew on the flat roofs of the houses.

We made a short march of 12 miles, and halted at the village of Temar, which was hidden away in a small side valley by a stream. The soil was very rich, and the slopes round this little village were dotted with vineyards and fruit-orchards, growing pears, apples, peaches, apricots, and plums. There were a number of mulberry-trees also, and a good deal of coarse silk is produced, but not in the quantities that might be expected if proper methods of sericulture were pursued. The forest trees were species of oaks (*Quercus valonia* and *Q. infectoria*), which produced galls much used for dyeing, and also the pistachio, from the berries of which a kind of soap is made. Walnut trees are very plentiful in the frontier ranges between Suleimania and Sinna; wheat, rice, and tobacco were also cultivated in small patches round the village, the rule being to grow only sufficient to supply the bare necessities of the place, as the market of Suleimania is very small, and to reach Baghdad is a long and difficult journey for caravans. Leaving Temar and crossing another steep limestone ridge we descended into the Shehrizur Plain,

and reached Suleimania on the other bank of the Khanjiru stream. This plain extends south-east nearly to the Diala River, a distance of some 30 miles. It is well watered, and naturally extremely fertile, while at various points can be noticed tumuli, the sites of villages in ancient times; but now the population is very small in comparison to the productiveness of the soil, and only a very few Kurdish villages are to be seen down its length. The population of Suleimania is almost exclusively Kurdish, and it is a typical town of this part of Kurdistan. There are about two thousand five hundred houses, nearly all single-storeyed huts with flat roofs, with few buildings of any size. The narrow winding streets of the bazaar, with the stalls on either hand, were shaded from the sun by an arrangement of branches and leaves stretched across overhead. The articles displayed for sale reflected the tastes of these warlike Kurdish mountaineers, always fond of something bright and showy in their accoutrements and a good weapon by their side. The principal manufacture is saddles and horse furniture, shoes and leather work generally, the leather being cleverly dyed in various brilliant colours. A curious assortment of flint-locks and guns, swords, knives and daggers of all shapes, round shields of bullock hide, belts with a row of pouches for powder and bullets, and felt saddlecloths embroidered with coloured worsteds, made a very interesting display. A fair quantity of Manchester piece goods, cotton kerchiefs, etc., could be seen; but to a Kurd a Martini rifle or a good horse, looted from some Arab on the plain, are of more value than very many yards of cloth. Of eatables there was the universal Kurdish drink of curdled milk called "yaurt" cheese, raisins and several kinds of dried fruits, chiefly plums and apricots. The Jewish quarter of about one hundred houses lies outside the town a short distance off to the south.

From Suleimania I returned to Baghdad, which is the highest point to which British river steamers navigate the Tigris, and so was enabled to return home. Travelling in this country is almost entirely done on horseback; in fact, there is no other way of getting over these rough mountain roads. The pack-mules are very fine, and will go along almost any track, and the baggage is entirely entrusted to them. A small tent is a necessity, as sometimes in the mountains villages are not met with for days, and the varying climate at the different altitudes is trying to Europeans.

Before the reading of the paper, General STRACHEY, Vice-President, who occupied the Chair, said: Before proceeding with the regular business of the evening I would call attention to the very long list of gentlemen who are seeking election to the Society, which I think should satisfy you all that the reputation of the Society and the desire to join it are not any less than they have been for many years past, I might rather say they have increased. I will now ask Captain Maunsell to read his paper. I may just briefly mention to you that it is the account of the portion of a journey along the north-west frontier of

Persia, where that country joins on to Turkey, a region of which comparatively little is known, and I do not doubt that you will find Captain Maunsell's account of it is of considerable interest.

After the reading of the paper the following discussion ensued :—

Sir HENRY HOWORTH: I feel rather embarrassed in being called upon to speak about a paper of which I have no geographical knowledge, and on which the only things I have to say are on the side of history and ethnography, of which there is of course much to be said. I may remind you with regard to that wonderful martial figure on horseback shown on the screen, that the most famous Kurd that ever lived, and the only one who made himself an historical position, was Saladin, the opponent of our great Richard I. One of the interesting features of the ethnography of this country is its extraordinarily persistent character. If you detach from the map a few names which are purely Turkish you detach from it also nearly all traces of more recent populations. Going back to those very early times when the Assyrian kings made their famous expeditions into this area they undoubtedly fought against the ancestors of the Kurds. With regard to their language, like some other races under pressure from a foreign yoke, they have changed it, but they have retained their nationality, appearance and other characters. Before they began to speak a dialect of the Iranian language, the Kurds no doubt were the aborigines of this country, whose language is represented by the inscriptions at Van, deciphered by Professor Sayce. One of the interesting things in an area like this is to find that not only the race is persistent but has persisted almost exactly in its primitive form—I am speaking of the Kurds, and excepting in the north the Armenian race, whose advent also we can completely date. Now if we detach this Armenian race we have from Tiflis right down to the spurs of the mountains out of which the affluents of the Tigris rise one continuous race, to which Herodotus gave the name of Allophyllian; the southern part of it has adopted another language as I have said, but in the north it retains its old language the Georgian, but in other respects, in the whole of this area from Tiflis to the plains inhabited by the Arabs, they form one continuous people. The misfortune of mountain peoples separated into small valleys is that they have no annals, and the history of the Kurds has been the history of mountaineers, harassed, destroyed, trampled upon by every invading horde that has passed over this district. No more terrible page in all history is there than the story of the Mongol conquest of this district and the adjacent district of Luristan. Nowhere was there so much bloodshed, and nowhere was there an area so completely depopulated. The Seljuks, when they came into this area, performed the same part. It is a curious thing that in Kurdish history the only prominent figure is the famous martial chief against whom the early crusaders fought. We can carry back the history of this country to a very early date. The very earliest accounts we have of the Assyrian campaigns north of the Tigris show that the whole of these mountains was occupied by one people divided into a great number of small tribes, each with a chief living in his castle, exactly as the reader of this most graphic and excellent paper has pointed out they do still. I must be allowed in conclusion to say, if I am not impertinent, that both history and ethnography are under deep obligation to a traveller so well equipped as Captain Maunsell, whose description was so graphic, and whose paper contains so much that is interesting and valuable, and I would also submit that these ethnographical and historical sides of geography may be somewhat germane to the discussions you hear here.

Mr. HOLMWOOD: Although I am on duty very near to the scene of the paper read to-night, I have learnt all I know in a geographical sense about Kurdistan

from what we have just heard, and really have nothing whatever geographically to say that can interest this meeting. Speaking generally, the whole of Asia Minor is more or less in the same condition as Kurdistan in regard to its development. I do not think we shall ever see the proper opening up of these immensely fertile plains, extending nearly from the west coast of Asia Minor to Armenia and Kurdistan, until not only we have a more civilised government (although Turkey has done very much recently in the way of increasing the efficiency of her government), but also until we have much larger populations. In Asiatic Turkey, where my duty lies in increasing British interests and commerce, I see what I saw in East Africa, that the great bar to developing these countries, one which never existed throughout the history of the development of India, is its very sparse population. In Africa we know the slave trade has brought the populations to their present very low ebb. In Turkey undoubtedly the wars have reduced the men to a comparatively small number, but I believe that as government increases in civilisation, and, above all, as the railways which now communicate with the interior whose extensions, already commenced, will reach fully half way, from Smyrna to Baghdad, we shall have these Armenians settled in the plains, where their natural taste for agriculture will induce them to populate and cultivate the country, leaving the Kurds, who are nomads, and always will remain so, with their flocks and herds in their own mountains. I have much pleasure in saying these few words in response to the request of the President, and am very sorry I can say nothing whatever geographically to interest you who know probably much more than I do about the country that has been described this evening.

MR. DOUGLAS FRESHFIELD: I am very sorry that we have not more of the recent travellers in Kurdistan here to-night. I wish we could have heard Colonel Clayton, who recently contributed to the *Alpine Journal* an excellent description of the mountains round Lake Van, and the probably volcanic causes of the present condition and want of exit of that lake. I wish still more that an accident had not prevented Mrs. Bishop, one of the most recent travellers in the out-of-the-way parts of that region, from being present. As to my own knowledge of Kurdistan, the first thing I heard to interest me in the country came from a traveller whose talent touched upon genius, the late Gifford Palgrave, who described Kurdistan and the Kurds to me when I was in Constantinople in 1868. You may remember an interesting article, republished in Palgrave's 'Ulysses; or, Scenes and Studies in Many Lands,' in which he dealt with the future of the Kurds. He believed that they might supply the nucleus of a nation, which, if supported by English politicians, might be made the backbone of resistance to Russian advance in that part of Asia. I saw the Kurds principally on their northern frontier, near Erivan, and about the slopes of Ararat and the highlands just inside the Russian frontier, where the Kurds come in the spring. There is nothing more picturesque than the Kurdish women in their bright dresses. The men are said to be great robbers; but I like robbers, if they do not rob me, and, so far as I had anything to do with them, they were extremely hospitable. Their country, as seen from a high perch on Mount Ararat, is in most striking contrast to the Caucasus, which is broken up into hill and dale, like Switzerland. The excellent paper read to-night probably describes Kurdistan very well as a Little Pamir. The effect it gives you is of a country raised up nearer to heaven than most countries, high bleak tablelands separated by hills rising up in isolated blocks. Leaving it on the north, you go over a low grass pass, and suddenly descend into valleys where you may fancy yourself in the Jura among pine woods, bright running streams, and villages. I do not know that I can add anything more than these rusty and rather vague reminiscences to the paper you have heard

to-night. I am quite sure that much remains to be done in this region, particularly in the way of archaeology. There must be, as along the whole of the frontier of the Eastern Roman Empire, lost cities with inscriptions to be deciphered, and older remains than Roman to be discovered.

General STRACHEY: I have to ask you to return your thanks to Captain Maunsell for his very interesting paper, and to the gentlemen who have spoken to-night.

NOTE ON CAPTAIN F. R. MAUNSELL'S MAP.—The instruments used by Captain F. R. Maunsell, B.A., were a 6-inch sextant, an artificial horizon, a half-chronometer watch, an aneroid, and prismatic compass. The following are the places at which the error and rate of the watch were determined:—Samsun, Sivas, Erzerum, Mosul, and Busra; longitudes being taken at fifty-nine different stations. As a rule only one star was observed, but in several cases both sun and star were taken. A large number of aneroid observations were recorded, from which the heights shown have been determined. In the compilation of the map, outside the routes traversed by Captain Maunsell, use has been made of the most recent and reliable material.

THE GEOGRAPHY OF MAMMALS.*

By W. L. SCLATER, M.A., F.Z.S.

NO. I.—INTRODUCTORY.

It has long been evident to naturalists that the ordinary political divisions of the Earth's surface do not correspond with those based on the geographical distribution of animal life. Europe, for instance, the most important of all the continents politically speaking, is for zoological geographers, as well as for physical, but a small fragment of Asia. Again, the strip of Africa which borders the Mediterranean and extends to the Sahara agrees closely, as regards its animal life with Europe, and is altogether different from the great mass of the African continent. Proceeding to America we find that physical geographers, as well as political, divide the two great masses of the New World at Panama. But those who study distribution have ascertained that Central America and Southern Mexico belong zoologically to South America, and they are consequently obliged to place the line of demarcation much further north.

Let us, therefore, dismiss from our minds for the moment the ordinary notions of both physical and political geography, and consider how the Earth's surface may be most naturally divided into primary regions, taking the amount of similarity and dissimilarity of animal life as our sole guide. In order to endeavour to solve this problem, let us select the mammals, as the most highly organised and altogether the

* Map, p. 168.