

THE VALLEY OF THE UPPER EUPHRATES RIVER AND ITS PEOPLE

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The article published in the «Bulletin of the American Geographical Society» is devoted to the physical-geographical and climatic characteristics of the vilayet of Harput (Armenian Kharberd), as well as discusses briefly the mode of life of its population.

On account of the mountainous character of the country, and the obstacles to travel imposed by the Government, many of the most interesting parts of Turkey are almost unknown to foreigners. One of these is the «vilayet» or province of Harput, about as large as the States of Massachusetts and Connecticut combined. It contains not only the fertile plains of Harput and Malatia, the rugged mountains of Shiro, and the wild fastnesses of Dersim, where the Kurds are still independent, but also the meeting-place of the two streams which form the famous Euphrates river. Elsewhere I have described in detail the great river and its cañon, the archaeology of the region, and its climate; in this paper it is my purpose to give a general description of the geography, using the word in a broad sense to include the physical features, the inhabitants, and the relation of the two.

TAURUS MOUNTAINS.- On the south lie the Taurus Mountains, which run nearly east and west from the northeastern angle of the Mediterranean Sea to a point south of Lake Van. The rather flattened, square-shouldered summits vary in height from 5,000 to 8,000 feet, and are separated from the waste-floored intermont basins by slopes which are usually steep even when covered with soil, and almost everywhere show ledges and cliffs of naked rock. In the very middle of the range is a great longitudinal valley, containing Lake Gyuljuk, which lies high in the neck of a great bend of the Euphrates river, and gives rise to the longest branch of the Tigris river. At this point the mountains

contract from a width of a hundred miles, and a height of 6,000 feet or more at the passes, to a width of only thirty miles, and a height of but little over 4,000 feet, so that there is an opportunity for easy communication between the people of Mesopotamia and those of the series of elevated plains which form the floors of the intermont basins. The important road which here crosses the mountains from north to south forms the only much-used wagon route in an east and west distance of over four hundred miles. In ancient times this physiographic feature seems to have been as important as now. A comparison of the pre-historic mounds found in the plains just north of the contracted portion of the mountains, on the one hand, with those still farther to the north and at a distance from the low, narrow part of the mountains, on the other, shows that while the latter are of purely Thracian-Armenian style, the former - i. e., those near the break in the mountains - by their size and composition, and by the bricks and burial urns which they contain, indicate that at this place of easy passes Babylonian influence crossed the mountains, which elsewhere interposed an almost impassable barrier.

INTERIOR PLAINS.- The plains of the interior, like those of the Basin region of the western United States, are typical examples of deformed basins, partly filled with waste from the surrounding mountains, under the influence of a somewhat dry climate. They lie in several longitudinal series, between great mountain ranges. The series which lies just north of the Taurus Mountains stretches from Alashgerd, north of Lake Van, to Malatia, and contains eight main plains. Those that I have seen are very smooth, although they have a general slope toward and with the streams which drain them, and the line where they abut against the mountains is so marked that, when seen from an elevation, it suggests a shore-line, with bays and promontories. I am inclined to believe that the basins, of which the plains form the floors, have been formed by depression and faulting or folding, and have been filled by waste from the mountains, brought in by streams and deposited partly by the streams themselves, but more generally in lakes, as is shown by the uniformly fine character of the deposit in the centre, and by the marshy tracts which still persist as witnesses of the former lakes. Most of the population naturally centres in these fertile, easily-tilled regions.

ANTI-TAURUS MOUNTAINS.- North of the plains lie the Anti-Taurus ranges, the highest and most rugged of which are the Dersim Mountains, which, when seen from the south from the mountains around Harput, show a number of parallel ridges, which gradually grow higher toward the north. My one journey across them made it clear that they become much more rugged and, perhaps, more youthful in the northern portion. The southern ranges have rounded, gently-domed summits of varying height, with moderately steep, usually soil-covered slopes, supporting a growth of oak scrub, and are separated by broad valleys. The highest ridges, which reach an elevation of from 10,000 to 11,000 feet, present a crest-line of comparatively even height, with few detached peaks, but very many smaller elevations, producing a roughly-jagged,

serrated sky-line. The tops of the mountains are naked rock, chiefly limestone, and the sides are, for the most part, barren ledges, bordering steep, inaccessible valleys. On the north the highest ridge of the Dersim Mountains falls off steeply 6,000 feet or more to the plains and valley of the western branch of the Euphrates. The wildness of the mountains has prevented the Government from fully subduing the lawless Kuzzilbash Kurds who inhabit them.

DRAINAGE.- Except for the strange angle around Lake Gyuljuk, where the branches of the Tigris rise within five miles of the great encircling curve of the Euphrates, the whole region is drained by the latter stream. Numerous wet-weather mountain torrents bear immense quantities of waste down their steep valleys to the larger, imperfectly-graded streams, which, in turn, give it to the Euphrates to use in building up the fertile plains of Mesopotamia. The main rivers flow characteristically in large, right-angled zigzags, where the east and west part parallel to the mountains is a quiet river flowing usually on or slightly intrenched in one of the plains, while the other part, transverse to the mountains, leaves the open valley and flows over rapids through a steep gorge or cañon. Almost universally the streams are so young that they have not yet had time to broaden their valleys and develop flood-plains. Accordingly, as in all such countries, the people find it easier to climb over the mountains than to clamber along the steep sides of the rocky valleys. Communication is, of course, very slow and rare, and the effect of this is seen in the provincialism of the people and the great number of local dialects and customs.

THE CAÑONS OF THE EUPHRATES RIVER-EVIDENCES OF YOUTH.- Near the centre of the Harput vilayet the two main branches of the Euphrates unite and form the stream which has for so long been famous. It enters at once into a cañon, from which it emerges into the Malatia plain, only to plunge into the deepest and wildest of all the cañons. This immense cutting through the Taurus Mountains is, in certain places, almost as deep and grand as that of the Colorado, and the two resemble one another in many ways, although the Euphrates cuts across a folded mountain range, while the other is incised in a flat plateau. The extreme youth of the Euphrates is indicated by the numerous great rapids, the swift current, the steep walls and narrowness of the V-shaped valley, and the little hanging valleys which open into the cañon high on its sides. Below the mouths of these latter the main stream has cut so fast that the little ones could not keep pace with it, and are obliged to fall into the river in a series of lovely cascades. These hanging valleys are interesting as furnishing one of the very few examples of the normal type, although the glacial type is characteristic of many northern countries. The latter open at a high level into steep-sided but very wide and flat-floored U-shaped valleys with meandering streams. Those of the Euphrates and the Colorado, on the contrary, open into narrow, precipitous, V-shaped valleys, where the river not only has no room to meander, but has not even a flood-plain, and washes the solid rock

at the base of the sides. Other streams tributary to the Euphrates in this part of its course flow in steep-sided, narrow, new valleys cut in the bottoms of broader, flatter, older valleys. These seem to show that the Taurus Mountains have been re-elevated and the streams tilted in very recent geological times, so that the slope of the streams has been increased, and they have rapidly cut narrow valleys in the bottoms of the old ones.

CLIMATE AND IRRIGATION.- In climate the Harput vilayet somewhat resembles the State of Colorado. The long dry season lasts from the middle of June to the middle of October, and dries up all vegetation, except where there is running water. During summer the long-continued heat is trying in the lowlands, but on the mountains the nights are always cool. Spring and autumn everywhere enjoy a delightful climate, and the winters, with some snow and a temperature ranging from 10⁰ F. to 40⁰ F., are cold enough to be bracing, but are not severe. The rainfall of twenty inches or more is sufficient for all sorts of crops, but, owing to its uneven distribution through the year, irrigation is everywhere necessary. It is carried on in the most primitive way by small open ditches, and no attempt is made to conserve the supply of water, either by making reservoirs or by planting trees on the deforested mountains. Many, perhaps half, of the fields that are in use have no water supply, and are planted on the chance that the rain may be abundant; consequently in dry years the crops fail and there is much distress. Most of the larger streams are slightly intrenched in the plains to a depth of from twenty to a hundred feet or more, and, so far as I have seen, are never utilized for irrigation, although they might easily be used if several villages would combine. No one trusts his neighbour, however, and no one cares to work when he fears that the profit of his labour may be taken from him by violence or fraud. In the Malatia plain I saw a hundred square miles of the finest black soil lying unused, although surrounded on three sides by rivers, which might easily be turned on the land by canals a few miles long. As far as possible, villages are located on the edges of the plains, where water is abundant and pure; but where the plains are too large for the centre to be reached daily by farmers living on the edge, villages grow up wherever there is water at the surface. In such villages some wells are dug. The size of a plain may often be gauged by the location of its villages.

THE DESTRUCTION OF FORESTS.- Previous to the Christian era the whole country, except the plains, seems to have been well wooded; but now the mountains are bare, except in the remoter districts of Shiro and Dersim, where there are so-called forests, which consist mostly of oak scrub, with some large oak trees. Even this growth is fast being cut away; and when it is once gone, new trees have great difficulty in starting, because here, as in so many other cases, the soil is washed away very rapidly, and the goats eat up the young sprouts, which might otherwise start new forests. Only the gnarled, inhospitable, thorn apple tree is able, by means of its spines, to defend itself.

WILD ANIMALS.- Among the mountains but few animals are found, although insects and birds are abundant. Long-legged jerboas hop over the stony ground; hares are hunted during the winter; foxes and wolves are sometimes forced to approach the large towns by the stress of winter, and the latter are said to engage in fierce fights with the half-wild dogs which roam the streets of every city and town. Among the rougher mountains ibex are numerous, while in the more level regions there are a few gazelles. The people of the open plains and treeless mountains have a strange fear of the forests and of the fabulous snakes and wild beasts which they are supposed to contain, although the only dangerous animal is the comparatively harmless brown bear. He is held in great respect because of a certain impish hostility which he is supposed to entertain toward man. One night, when floating through the cañon of the Euphrates on a raft of skins, I decided to camp on the only available site - a little ledge of rock at the foot of an overhanging precipice. The Armenian raftsmen were much alarmed. «Don't stop here,» they said, «the bears will come in the night and throw stones upon us from the top of the precipice.» The only game bird that is much shot is the partridge, although wild pigeons, ducks, snipe, bustard, and other birds are abundant. Snakes are very rare, but turtles are found everywhere.

VEGETATION OF THE PLAINS.- The plains have probably worn nearly their present appearance ever since the dawn of history. That of Harput, in the centre of the country, is fairly representative of the larger and richer ones. For four years I saw it spread out like a map at the foot of the mountain on whose top the houses of the city cluster round the ruined castle, twelve hundred feet above the plain. Each year the wonderful change from season to season was more impressive. No dweller in a green land like the eastern part of America can fully realize the beauty of the brief snatch - of spring verdure which in this semi-arid land is gone from the lower mountains almost as soon as it comes, and stays on the plains but two or three short months. During the time of the spring showers, from the middle of March to the middle of June, the plains resemble our prairies, except for the universal background of mountains, which are never out of sight in Asia Minor. In the early spring broad stretches of waving grain are brightened by red tulips and big blue grape hyacinths, and later are gay with yellow mustard and red poppies. Occasionally unsown stretches are covered with a veritable sheet of purple, blue, yellow, red, or white flowers. Seen from above, these, with the far more numerous green grain fields and the brown ploughed land, give a strangely-checked plaid effect. Before the end of June the last showers have fallen, the bright flowers have given place to thistles and a few other hardy inconspicuous composite, the wheat and barley are turning yellow, and soon the plains assume the same dull grayish or yellowish-brown which the mountains always wear. After the long cloudless summer a few heavy autumn rains in October bring out such flowers as the yellow crocus, and the winter wheat gives some verdure to the plain, but in general the brown remains until it is covered with snow in late December or January.

CHANGES IN THE APPEARANCE OF THE VILLAGES FROM SEASON TO SEASON.- In early spring, before the leaves of the trees come out, the villages, with their flat-roofed houses of sun-dried brick, crowded together as closely as the cells of a wasp's nest, look like unsightly gray daubs of mud breaking the smooth verdure of the surrounding fields. Later, this ugliness is masked by the dark green of the encircling gardens, with their fruit trees (chiefly mulberries), their vineyards, and their slender, closely-trimmed poplars, which are planted in stiff rows, and form the only timber of the country. May and June are the time of greatest beauty, when the light green of the fields, the dark green of the vineyards, and the still darker green of the trees make the villages look like bits of Eden, set most of the time beneath the bluest of skies against a background of imposing brown mountains tipped with glistening snow. It is at this time that the real value of the omnipresent mulberry tree is evident. The leafy branches are cut for silkworms, and the berries are not only eaten at almost every meal, but some are dried, and either kept as a sort of raisin or powdered into flour for sweet-meats; while others are boiled to make molasses or *bastegh* - a sweet leathery gum, which is kept indefinitely in the form of great thin sheets and is eaten like candy. When the mulberry season arrives the number of beggars in the cities is materially decreased, for many of them go to the villages, where they camp under the mulberry trees and literally live on the fruit. With the mulberries come the hot days of summer, when the villages are dusty green patches set in a frame of fields of stubble; then follow the gray days of autumn, when villages, trees, plains, mountains, and sky seem at first sight indistinguishable. And lastly, in the winter the villages once more seem to be what they are -clusters of miserable mud hovels, soiling the purity of the snow, and often shut in for two or three weeks by a benumbing valley fog which keeps out all the sun's heat and makes the plains inexpressibly dismal, although the higher mountain slopes above the sea of fog are rejoicing in the most perfect winter weather, with a temperature ten or fifteen degrees higher.

I have spoken of the mountains and of the plains, but the most attractive region lies between the two, at the mouths of the little valleys where the mountains join the plains and send out numerous springs. Water is here abundant all the year, and so, in spite of the perfect chaos of boulders, pebbles, and sand brought down by floods, the villagers clear the stones away on the two sides of the channel and make gardens in the midst of a very desert. It is in such places that the finest vineyards, orchards, and vegetable gardens are found; and it is there that one realizes what a splendid country this might be if it were properly developed.

THE PEOPLE - KURDS -These rugged mountains and level plains, with their fine climate and splendid possibilities, are inhabited by three races-Armenians, Kurds, and Turks - the remnants of successive migrations. Of these races the most primitive is the Kurds, probably the Carduchi of Xenophon, who comprise three main divisions - Kurman, Zaza, and Kuzzilbash - differing in language and customs, and probably in

race, although all are usually spoken of as Kurds. The Kurmans, in the few places where I have seen them, are an avaricious, suspicious people. Farther south they are partly nomadic, and have retained their own character and customs, but here among the Turks they are sedentary, and have assumed many of the traits and habits of their neighbours. The Zazas are more interesting, perhaps because I know them better. They are largely shepherds, and either live among the mountains or are nomads wandering to Mesopotamia in winter and to the high mountains in summer, giving a simple illustration of climatic control of mode of life. In character and habits they much resemble the third division - the Kuzzilbash - although they are much better Moslems.

THE KUZZILBASH - ORIGIN AND RELIGION.- Kuzzilbash means «red head,» but whether it was applied to the people whose centre is in Dersim because of their fair complexions, or because of the red turbans which they often wear, is uncertain. They seem to have come westward from Persia, and to have brought with them a language related to Persian, some traces, possibly, of Persian fire worship, and the Persian or Shiah doctrine of Mohammedanism. The orthodox or Sunni Turks consider this Shiite doctrine the rankest heresy, and regard its professors as even more contemptible than Christians. The migrating Kuzzilbash found in the mountains a population of Christian Armenians, with whom, in course of time, they mingled, so that Armenian words and names are common in their language, and their religion has become a strange mixture of Shiite Mohammedanism and Christianity, with a trace of Paganism. Accurate information is hard to obtain, because, in talking with a Christian, they try to make their religion appear like Christianity. A prominent "agha" or village chief said to me:

We have four great prophets - Adam, Moses, David, and Jesus - of whom Jesus is the greatest. We have four holy books. [He used the word that is always used for the four Gospels.] All religions are but different roads to the same end-one long, one short, one easy, one hard. You go yours, and we go ours.

When I tried to talk about Mohammed he avoided the subject as though it were unpleasant, and others who were present insisted on changing the subject, so that I could learn nothing. The Kuzzilbash are said never to pray in private, but only when led by one of their sehids or religious chiefs, who have great influence among them. At certain times they observe a sort of sacrament, which closely resembles the Christian communion service. I have heard of this many times from Armenians who lived among them, but no competent observer seems to have witnessed it. The Kuzzilbash reverence all Christian sanctuaries and churches, and will even go into a church where service is being carried on and take part, kneeling and bowing with the Christian Armenians. To be sure, they will do the same thing in an orthodox or Sunni mosque; but in the latter case it is for fear of persecution, while in the former it is a matter of their own choice.

RELATION OF KUZZILBASH AND TURKS.- Wherever the Kuzzil-bash live in open, easily-accessible regions the Turks oppress them. I stopped one night at a village whose inhabitants I knew to be Kuzzilbash, and after we were seated in the dark, dirty, mud-floored, mud-walled room of the agha, I addressed them as such, in Turkish. By the light of the smoking, ill-smelling linseed oil taper I could see that their faces looked troubled, and they all asserted that they were Sunnis, not Kuzzilbash. A little later, when my escort, a Turkish soldier, left the room, an old man pointed to the whip which the Turk had left on the floor.

"What is that for?" he said.

"For his horse," I answered.

"No, it is for men, for us Kuzzilbash," and he went on to tell me a long story of how the soldiers had of late years come every year at harvest time and beaten them in order to extort more taxes. (To be continued.)