

THE GERMAN EXPEDITION TO ADAMAWA.*

By Dr. PASSARGE.

THANKS to the assistance afforded to the undertaking by the Royal Niger Company, the expedition reached Yola with seventy porters on August 31, 1893, having left Berlin in June. From Garua, a town with a promising future, which formed the base of operations of the expedition, an advance was first made by way of Laddo to Bubanjidda. This land, originally a vassal state of Yola, has ever since Barth's time asserted its independence, and, secure in its position on the group of mountains rising centrally from a broad plain, a warlike robber-state has arisen here, which lives at enmity with all its neighbours, and each year increases its territory by war. Though at first received in a friendly way, the expedition was treacherously attacked at Jirum, two hours' march from the capital, Rei Buba. The unmanageable nature of the caravan of donkeys, with which the expedition was equipped in order to save porters, prevented advantage being taken of the complete victory which was gained. A return was made to Garua, and it was determined now to press forward to Bagirmi by way of Marua. For several days the march led through an undulating gneiss region, above which massive granite ridges, all running from east to west, rose to a height of 2600 feet. In association with them numerous bands of porphyry are noteworthy, all with a dip of 35°. With the eastern slope of the Mandara range, and the broad plain which stretches away beyond the Shari, the region of independent heathen races is reached, by which the sultanate of Marua is separated from the rest of Adamawa, and which harass the caravan-road with their robberies. The caravans are accustomed to cross the district, which is two days' march broad, by night only. The pagans belong to the stocks of the Mattafall, Usuel, and Musugoi, and are related to the Musgu, having the same small ponies of the pagan breed, and the same throwing-knives, but with them the bow and arrows of the Fulla. The only covering of the men is a sheath woven of grass, while the women content themselves with a narrow lappet passed between the legs.

On December 23 the expedition reached the broad and fertile plain of Marua, and passed, one after another, the large towns of Songoiä, Kattual, and Miskin. It is rather an under- than an over-estimate to say that on this one day two or three hundred thousand natives were passed. The Arab invasion of Bagirmi here put an end to all attempts at further progress. The expedition again turned towards the south in order to reach Ngaumdere (this, and not Ngaundere, is the spelling of the Fulla). The beautiful mountainous districts of Adamawa that were passed through are inhabited by isolated pagan tribes, mostly in only nominal dependence on the Fulla, and their representatives came to the forest encampments of the caravan to exchange their yams and millet for beads and salt. They belong to the race of the Durru, which formerly peopled the land much more thickly. Countless traces of former settlements are met with, existing in an almost imperishable form by the hollowed stones on which the women of the village once pounded the corn into meal, and which last for centuries. The escarpment of the South African plateau stretches like a wall from east to west, and when the traveller has mounted its height of 1600 feet, he finds himself on a broad grassy upland, on which the town of Ngaumdere, containing about thirty thousand inhabitants, lies at the foot of some granite ranges. The town is

* Paper read at the Berlin Geographical Society, July 7, 1894.

strongly fortified with wall and trench; it is the richest sultanate of Adamawa, and has spread its conquests over the pagan lands, principally to the south. On the return journey to Ibi, the expedition first followed the old route of Flegel as far as the Faro, and then proceeded by new routes over the Chebobi range, which has a height of 6500 feet, and stretches like a long wall in the direction of the volcanic line through Fernando Po and the Cameroons, and of which the Mandara range is the northern continuation. It is inhabited by the independent Dekkawa, who are perhaps allied to the Battawa. Crossing the fertile plain of Muri, the expedition reached Bantaji and Ibi, and arrived at Akassa on March 20.

Adamawa is in its essential features a mountainous land, traversed by the depression of the Benue valley running from east to west. In consequence of the occurrence of two distinct tectonic directions, the mountain structure is very complicated, and there is frequent alternation of mountain groups and plains. It must be said, in general, that the development of large states has been hindered by the broken nature of the land. The vegetation consists for the most part of mixed bush-forest, *i.e.* of moderate-sized trees and shrubs, now close together and now far apart, between which grass grows, often without underwood. The mountain woods of Combretaceæ, which are clothed in January with fresh bright-green foliage, with a gloss like that of varnish, are especially noticeable. True savannahs and park-like landscapes are only met with locally, primeval forests are altogether wanting, while extensive grassy plains cover the upland region near Ngaumdere. Animal life nowhere forces itself into notice. Antelopes (springbok and hartebeests) are never quite absent, it is true, but are met with singly as a rule. The extensive wildernesses on the Faro above Chamba are especially rich in large animals, elephants, rhinoceros, and buffaloes occurring in large numbers, together with large Carnivoræ.

The inhabitants of Adamawa are very varied. Two large groups, differing in religion and nationality, can be distinguished. The Mohammedans are composed of Fulla, Haussa, Kanuri, and Arabs, among which the Fulla are the most powerful race. Their tall slim stature, fine Caucasian features, wavy hair, and clear yellowish-red colour, distinguish them sharply from the negroes. The various grades of admixture between the two can often be studied. The clear colour is the first to disappear, next the face and figure become plump and fleshy, while the shape of the skull and the relatively long and narrow face are retained the longest. While there are few pure Fulla in the Haussa lands, they are here very frequently seen, especially in the small states of Central Adamawa. The nomadic Fulla—Borroro—who have retained the mode of life of their ancestors, move with their herds of cattle from one district to another. One but seldom gets a sight of the men—lusty individuals adorned with brass rings and feathers, and clothed in skins—whereas the women, who are at once recognized by the brass rings in their ears, and their coiffure consisting of numerous plaits, come frequently into the towns to sell milk and butter. The stationary Fulla have, as a rule, adopted the dwellings and manner of life of the subject races, and have the same round clay huts with pointed grass roofs, the same mat fences cutting off the separate houses, as are in use in the Haussa lands.

The Arabs, who live in isolated settlements, as, *e.g.*, at Yola and Garua, do not in the remotest degree play the part which they do in Wadai and Bornu.

Whilst the Mohammedans occupy the rich plains, large towns, and trade routes of the country, the pagans principally inhabit the mountainous tracts. They are divided into single large tribes, as the Batta, Dekka, Durru, Falli, Mundang, and Baia, which speak different languages. The important states of Lére, Lame, and Lakka, have since Barth's time hindered all advance of the Fulla. As a rule,

however, each town forms a state in itself, and constant feuds separate the tribes. The physical type is mostly robust but ugly, with the characteristic round, broad, and plump negro countenance. The original dress of the men must have been bark-cloths, or the simple sheath above mentioned, while many tribes may have gone quite naked. But in their intercourse with the Fulla, they have now for the most part adopted their clothing, and each wears at least a fragment of cloth. The women, on the other hand, have been more conservative, and still wear only a string of beads round the hips, to which a bunch of leaves is fastened before and behind.

The pagans are very skilled smiths, and supply the greater part of the weapons for the whole of Adamawa and the central Sudan. They also supply much of the salt from the ashes of plants, which is a bluish-grey powder, and tastes strongly of potash salts.

The political relations of Adamawa can only be elucidated by the history of the land, of which we know but few positive facts. The Fulla appear to have intruded as cattle-rearers into pagan Adamawa as far back as the fifteenth century, and to have occupied the upland plains between Bango, Tibati, and Ngaumdere. When, at the beginning of this century, the movement of the Fulla in this direction from Gando and Sokoto, based on political and religious grounds, began, the victorious Fulla forced their way into Adamawa, which was already strewn with numerous Fulla colonies. The history of the Fulla states of Adamawa thus differs from that of those of all other parts, since they were built up, not on the foundation of previous civilized communities, as those of the Haussas, Nupe, or Sonrhai, but on the ruins of uncivilized heathen races. The indigenous races were conquered—the Batta in the Benue valley between Yola and Garua first of all—and this fertile valley became the cradle of the Fulla states of Adamawa; the victorious Fulla pushed constantly forwards, and with the help of the Borrero, already on the spot, the foundation of the important states of Buban Jidda, Ngaumdere, Tibati, and Banyo, all placed in lands suitable for cattle-rearing, was successfully carried out.

The organization of the new states proceeded thus. The Emir of Yola, the first Fulla state of Adamawa, which had itself been formed under the banner of Sokoto, gave the newly conquered land to the leader of the army, the latter having to pay a definite yearly tribute and to supply a contingent to the army, while his successors had to recognize the suzerainty of the Emir of Yola. The new king on his part divided the land into smaller portions on the same terms on which he himself had been set up. The Fulla have thus formed a feudal state, as fully developed as any that existed in Europe in the middle ages, and the development has run the same course here as there, and has led to a complete decentralization. The vassals are sometimes more powerful than the liege lord, and are now only nominally dependent.

The Fullas became in part settled on the land, and cultivated the fields with the help of the captured slaves. The rich land became a favourable field for the activity of enterprising Haussas and Kanuris, who settled down as merchants, weavers, potters, dyers, etc., and exchanged their products chiefly for slaves and ivory. The pagans were more and more pressed, and became subject voluntarily and paid tribute, or retired leaving unpeopled wildernesses behind them. In the central Fulla states a balance of power was soon established; the slave-raids ceased, or brought in but little proceeds. The chief source of the wealth of the Fulla was exhausted, the cattle-plague of recent years has destroyed the stock of cattle, and the Fulla is impoverished and burdened with debt, while the active Hausa and Kanuri have become rich. Even the Fulla chieftains are already in a state of pecuniary dependence, and have usually their Hausa bankers, to whom they are

deeply in debt. It has been otherwise with the development of the exterior states, such as Tibati, Ngaumdere, and Buban Jidda. With boundless pagan lands before them, they have constantly extended their supremacy, and slave-raids have become for them an inexhaustible source of wealth. True though it is that whole tribes have been annihilated, whole lands devastated by the spread of the Mohammedans, one good has resulted from this advance of the Fulla, namely, the opening of these regions to trade. The Hausa trader fetches ivory from Ngila on the Sannaga, from the Shari, the Sanga, and Logone, in order to bring it to Yola and the markets of the Sudan.

A new element, which will constantly become of more decided importance, both for the political and economic relations of the central Sudan, and which has already brought about great changes, is the European trade on the Niger and Benue. Down to a recent date, the Sudan had intercourse with the Mediterranean lands and Europe across the Sahara. Ivory, ostrich-feathers, and slaves were exported in exchange for European wares. One of the most important articles of trade was salt, brought from the desert by Tuaregs and Arabs. Since the impulse given to European trade on the Benue, the Sudan has been flooded with European stuffs, salt, etc., in such quantities, and at such a cheap rate, that the trade across the desert has been completely ruined. Adamawa was, and is still, the main region of export for ivory and slaves. All the trade now goes to Yola in the hulks of the Royal Niger Company. Ivory, caoutchouc, indigo, ground-nuts, and sesamum are the articles of export dealt in there. It is to be foreseen that a war of extermination must break out between the Fulla and European civilization; for the Fulla lives by slave-hunting—it is the source of his wealth. He is of necessity an opponent of European culture. The future of this land is in the hands of that energetic race of born traders, the Haussas, whose speech even now forms the most important organ of intercourse from the Senegal to the Shari.

MOUNT BROWN AND THE SOURCES OF THE ATHABASCA.*

By Professor A. P. COLEMAN, Ph.D., School of Practical Science, Toronto.

THOSE two giants, Mounts Brown and Hooker, which on the maps stand guard over the Committee's Punchbowl in the Athabasca pass, have long had a certain fascination for me. Geographers give them an altitude of nearly 16,000 feet,† much surpassing any other mountains in the United States or Canada; but there seems no record as to who determined the reputed heights, nor how the work was done. They were named after two distinguished English botanists by Douglas, who crossed the pass in 1826; but having been unable to obtain the copy of the Geographical Society's *Journal* in which the results of his travels are recorded, I cannot say whether he assigned the heights generally given.

To reach Mount Brown is not so easy as it looks upon the map. An attempt made by a friend and myself by canoe on the Columbia and its

* Map, p. 96.

† Keith Johnston's 'Physical Atlas of Natural Phenomena,' p. 26, gives 15,900 feet for Mount Brown, and 15,700 for Mount Hooker. Reclus, in his 'Nouvelle Géographie Universelle,' p. 261, gives the latter mountain a height of 16,980 feet.