

sulla razza Negrita, and Il Brasile nel 1876, by E. H. Giglioli (*Author*). Baku as a Central point of the Overland Route to India, by W. Fabritius, translated by Capt. F. C. H. Clarke (*H.M. Sec. of State for War*). The Winds and their Story of the World, by W. L. Jordan (*Author*). The Puzzle of Life, by A. Nicols (*Author*). Det Danske Geografiske Selskabs Tidsskrift, i., Hefte 1 and 2 (*The Danish Geographical Society*). Ueber den Inhalt der allgemeinen Bildung in der Zeit der Scholastik, von R. von Liliencron, and Nanak, der Stifter der Sikh-Religion, von Ernst Trumpp (*The R. Bavarian Academy of Sciences*). Palæontologia Indica, ser. x. 2, and ser. xi. 1, and 8vo. Memoirs of the Geological Survey of India, vol. xii., pts. 1 and 2 (*The Governor-General of India, per Superintendent of the Survey*). Astronomical and Meteorological Observations for 1874 at the U.S. Naval Observatory (*The Observatory*). Report on the trade at the Treaty-ports of China for 1875, by H. Kopsch (*Author*). The Journal of Eastern Asia, vol. i., No. 1, edited by James Collins (*Editor*). Why is 43 a basal biblical number? and Key to the genealogical table of the first patriarchs in Genesis, &c., by Victor Rydberg, translated by S. M. Drach (*S. M. Drach, Esq.*). Bericht über die geologische Durchforschung der Provinz Preussen im Jahre 1876, and Das Relief der Provinz Preussen, Begleitworte zur Höhenschichtenkarte, von A. Jentzsch (*Author*). A refutation of the Report of the Scurvy Committee, by C. R. Markham (*Author*). And the current issue of publications of Corresponding Societies, Periodicals, &c.

DONATIONS TO THE MAP-ROOM FROM 14TH MAY TO 11TH JUNE, 1877. —Geographical Explorations and Surveys West of the 100th Meridian; I. Topographical Atlas containing 16 sheets; II. Geological Atlas containing 6 sheets (*Lieutenant G. M. Wheeler, U.S. Engineers*). 3 maps from the 'Geographische Mittheilungen,' and 2 maps to illustrate the Seat of War (*Dr. A. Petermann*). Williams' map of United States, Canada, Mexico, Central America, &c. (*A. Werbrouck*). Stanford's library map of Africa, mounted on spring roller, and Orographical map of Africa; Arrowsmith's Turkey in Europe and Turkey in Asia; Stanford's Turkey in Europe and Asia, &c.; Sheet I., Stanford's large scale map of the Seat of War in Europe, and map of the Acquisitions of Russia since the accession of Peter I. (*Edw. Stanford, Esq.*). The Mediterranean Sea, with enlarged maps of Egypt, the Suez Canal, &c. (*Messrs. W. & A. K. Johnston*).

The PRESIDENT informed the Meeting that the Paper to be read was by Bishop Crowther, who had been good enough, at his request, to prepare some account of his experiences in journeying to and fro on the Niger and in the adjacent countries. Some 30 years of the Bishop's life had been devoted to missionary

labours in that region, and he had amassed a large amount of knowledge regarding the tribes, languages, and geographical characteristics of the country.

The following Paper was then read by Mr. EDWARD HUTCHINSON :

1. *Notes on the River Niger*. By the Right Rev. Bishop CROWTHER.

It is now thirty-six years ago since I first visited the River Niger, having in the year 1841 been appointed to join the expedition sent out by the British Government, under the late Captain Trotter. Since that time I have accompanied I think almost every expedition of the Admiralty, and when they ceased, I have gone in the various trading steamers which now, to the number of five or six, make the annual ascent of the river. During this time I have had, as may be supposed, many varied opportunities of becoming acquainted with the geographical features, not only of the River Niger itself, but also of the countries which lie adjacent to it on either bank. I have twice marched from the Niger at Rabbah and Bida, to the sea-coast at Lagos, and I have endeavoured to gather such information as I could, as to the peoples, their habits, languages, and races; and also as to the chief directions of the trade from and to the interior of the countries which lie to the east of the Quarra, and to the north and south of the Tshadda Branches. The traveller, Dr. Barth, has given so full an account of those to the north of the Tshadda or Binue, that there is no occasion for me to say anything of these, and I am rejoiced to learn that the German traveller, Dr. Nachtigal, has explored the countries which lie between the limits of Dr. Barth's discoveries and the territory of Darfur. I shall, therefore, confine my remarks to what I know of the river and its branches, and also of the adjacent countries.

Two very marked divisions at once present themselves in endeavouring to give a description of the Niger and its adjacent countries, and these are the Upper and Lower Niger, or, to speak more correctly, the Delta of the river, and its course through the main land. What the actual extent of the Delta of the Niger is remains at present unknown. Whether the Old Calabar River with its affluents form any portion of the Delta is uncertain. It is not improbable that there is a communication between the Tshadda and Cross River, explored by the late Mr. Becroft; at any rate, it is remarkable that the Akpah tribes of Adamawa seem to have found their way down to Fernando Po by some short cut. But to the west there is no doubt that the vast system of marsh and lagoon, which reaches as far as Porto Novo, to the west of Lagos, is more

or less connected with the Delta of the river, though it also owes its existence to the smaller streams, which pour their mud-charged waters down from the higher levels of the Yoruba country. Thus, what may be called the Delta of the Niger is a vast tract of marshy country extending along a coast line of some 120 miles, with a depth to the interior of about 150 miles at the broadest part.

The recent explorations, begun by Sir John Glover and Captain Goldsworthy, and followed up more recently by the Rev. Messrs. Maser and Roper of the Church Missionary Society, have made us acquainted with the characteristics of the western portion of the Niger Delta, and have showed us that as regards the features of the land there prevails a monotonous uniformity of intricate canal and marsh, villages hidden in the dense growth of reeds, the people partaking of all the characteristics of the dwellers in African swamps; and all, as far as it was possible to ascertain, speaking, even up to Benin, with slight modification, the Yoruba language, the same as it is spoken at Badagry, Abeokuta, Ilorin, and Ibadan.

The character of the central portions of the Delta, as it presents itself to the eye on approaching, is so well described by Captain Allen, that I venture to quote his words here:—

“The Rio Nun, the chief entrance, from its size, has the appearance of an estuary, being more than a mile and a half wide and five miles in length; the other outlets resemble this.

“The opposite sides of the river appear to be of different formation. Cape Nun, the termination of the right bank, has a long spit of sand running into the sea about one mile and a half. The shore of the right bank is generally swampy, formed by a deposit of mud brought down by the river, the outside of which presents a sandy appearance; it is intersected by innumerable channels of water, of a brackish and putrid taste. Where dry spots are found, they are cultivated by the natives from the other side. The bed of the river is covered with a blue clay. Whenever the clay was broken by the rapidity of the current, the pieces were immediately carried off by the moving water; and it often happened that the spring tides washed them ashore, in the shape of cylinders. These, being left behind by the retreating ocean, formed one of the peculiar characters of the right bank of the river.

“In the swampy parts of the right bank, the mangrove abounds with its peculiar fructification. The numerous arching roots of this tree are favourable for the deposition of sand and mud.

“In the woods on this bank, the water was upwards of two feet deep in most parts, and the air close and confined.

“Passing through a narrow channel, the river expands to a wide sheet of water, with many islets, and several broad and promising channels on the right and left. Nothing at this part was to be seen indicative of anything like *terra firma*; the visible boundaries of the river in all these branches being an endless confusion of the arching roots of the mangrove, the only occupant of this swamp. At low water their roots are covered by slimy and stinking mud, with decayed vegetable matter; to which may, not unreasonably, be attributed the deadly character of the locality.

“The banks began gradually to assume the appearance of firmer land, at first without any vestige of the operations of man; but soon some small cultivated patches were seen, bearing plantains, a few fishing stakes and a small fishing hut, &c. The large and umbrageous trees, with their festoons of *Orchideæ* and purple and white *Convolvuli* hanging from the branches, formed a combination of forest scenery so striking, novel, and interesting, as enabled us to forget that the much-talked-of Delta of the Niger had been fairly entered upon. The reeds gave place more frequently to patches of cultivation, in the midst of which were small granaries, raised from the ground on poles, to secure the stored productions of the soil from the overflowing of the river, as well as other more cunning depredators, as the proprietor lives in a distant village. Sunday Island—20 miles from the sea—is the highest point to which the sea-tide reaches in the dry season, clearly indicated by the gradual but rapid disappearance of the mangrove-trees.

“Ferns, the *Ficus*, *Mimosæ*, and various shrubs and bushes of small growth, increase above Sunday Island; and the banks, which previously were swampy, become somewhat firm; and the eye—wearied by the melancholy and monotonous hue of the mangrove—is delighted to witness the rapidly increasing vegetation, which soon assumes all the dignity of the tropical forest.

“At about 65 and 75 miles from the mouth of the main stream there are two important branch outlets; the first flowing to the west, called the Wari branch, finding its way into the western portion of the Delta; and it is believed that the Niger might be reached by means of this branch from the lagoons at Lagos. The second outlet leaves the Niger at Ndoni, and from what I have heard at Bonny, I have good reason to believe it communicates with the outlets called the Bonny and New Calabar Rivers. Both these important outlets are closed by the jealousy of the tribes on the river.”

The Wari branch was called the Benin by Lander, because by it the town of Benin may be reached. This branch has been

explored recently by the steamers of the West African Company which reached the river.

It is also supposed that from the Ndoni branch there is a connection with the River Jumma, or the old Calabar or Cross River, explored by Becroft in 1841.

Up to these points the Niger flows between low clay-banks; the whole country around is flat and swampy. Here, however, at some little distance from the stream, gently-rising hills are seen on either side, indicating that we have passed the Delta proper, and are now entering on the main stream of the river. The character of the river here changes; instead of the numerous and rapid windings of the lower reaches its course is nearly straight, and the breadth is about a mile and a half. At this point, also, a change in the character of the people takes place. On the eastern side of the main stream they are of the Ibo or Idzo tribes, entirely pagan, with various forms of idol and fetish worship, two marked features being the idea of sacrifice, ordinary victims being domestic animals, and on special occasions single human beings, but with no such indiscriminate slaughter as at Dahomey or in Ashanti. The town of Adda-Mugu is the point where a new territory—that of Igara—begins. This was the town of that Abokko who was so friendly to the traveller Lander; and his sons, or kinsmen, are chiefs of the country on the east bank up as far as the confluence. One of these sons, with whom I had been on friendly terms for some time, took advantage of an attempt I made to ascend the river in a small boat, to make me a prisoner in 1868. I was rescued by Vice-Consul Fell, but in the scuffle he was struck by a poisoned arrow, and died.

At Adda-Mugu, also, the character of the dwellings changes. Here, for the first time, are seen the circular conical-roofed huts, which prevail in the interior; the dwellings up to this point are the usual square or oblong low huts.

About 40 miles above Adda-Mugu is the town of Iddah. This town I first visited in 1841, and have subsequently visited it on several occasions. The river here flows through a low chain of hills formed of red sandstone, and the cliffs of this material on either side of the river are an entirely new feature in the river scenery. They rise to the height of 185 feet; on the summit are the conical huts of part of the town of Iddah. From the summit a splendid view is obtained. To the north and south the river is seen extending for many miles, while on the western bank there is seen an undulating country, bounded on the far west by the mountains of the Yoruba country. The town of Iddah, the largest and

most important in the kingdom of Igara, is built on the summit of the cliff on the east bank of the river. There are about 2000 huts, and about 8000 inhabitants. Nearly all the dwellings are the usual circular huts; the walls rise about 6 feet, and are built of clay and stone; the roof is conical, and thatched with palm-leaves.

After leaving Iddah, the river continues to flow between sandstone cliffs and sloping banks, behind which are table-lands and gently-rising hills. In about 40 miles another region seems to be reached. Large rocks of quartz are seen, and the mountains on the eastern side are steep and conical. Down their sides are deep ravines, which, in the rainy season, are mountain-torrents. Continuing to the north, the mountains close in upon the river, until at last the confluence is reached, the junction of the two rivers, Quorra and Binue.

When I made the ascent of the river, in 1854, with Dr. Baikie, we together ascended the hill, called Mount Patted, opposite the confluence. I cannot do better than use Dr. Baikie's words to describe the scene we saw. "From an elevation of 400 feet we saw immediately beneath us the pretty green-topped Mount Stirling; on our left was a deep ravine separating us from another flat-crowned hill; on our right lay the land purchased in 1841 for the model farm, bounded to the southward by steep and rugged mountains.

"Flowing from our left, and meandering round the base of the chain of hills on which we stood, came the narrow Quorra, while full before us came journeying from the eastward the broad straight-coursed Binue, the mingling waters of the two mighty streams forming the lake-like confluence, its surface dotted with islets and banks, or rippled by contending currents, while in the distance on the right the united rivers rushed impetuously to the sea through the deep defile by which we had ascended.

"Along the banks numerous villages could be discerned. Far as the eye could reach, for miles and miles, the ground teemed with the exuberant vegetation. Such a fruitful soil in other climes, and with a happier population, would yield support and employment to thousands, and long ere this have proved the source of untold wealth. The peninsula formed by the junction of the two rivers is a miniature Delta, low, swampy, and intersected by numerous streamlets. The natives fancy there is a difference in the colour of the two streams, and call the Quorra the white water, while the Binue is known as the black water."

The furthest point to which I have been upon the Quorra branch is the town of Rabbah. Along the western shores of the river

there extend ranges of hills, which are, in reality, the fringe of the high table-land which stretches towards the Yoruba country, while similar hills are on the northern and eastern banks of the Quorra branch.

One remarkable characteristic of the Niger River is the varying character of its channel, caused, no doubt, by the remarkable rise and fall of its waters from the tropical rains. One result of this is that it is almost impossible to navigate the river except at flood time, unless in vessels specially adapted with a very light draught of water. There are parts where sand-banks so obstruct the channel, that not more than four or five feet of water is found during the dry season, and on this account it is most important that attention should be directed to the establishment of a route by land from Lagos to the confluence. This is an existing and long-established route, and I have myself twice traversed it. The last time was in the year 1871, when it was found impossible to return in the steamer, the river having fallen so rapidly as to render the attempt hopeless.

I had therefore to arrange for a return from Lokoja, at the confluence, to Lagos by land. About 8 A.M., on the 6th of November, we started for the journey, some on horseback, others on foot.

After going up and down two or three abrupt small hills and valleys, we came to the foot of the great mountain, Pati Aba, where there was a spring of water; here all rested and took refreshments, preparatory to the great ascent; this done, we betook ourselves to climb. About an hour's climbing, all got to the top of the mountain, where there was water in hollows of rocks. Though to us the ascent seemed formidable, yet the carriers, both male and female, with loads of from 56 to 60 lbs. on their heads, ascended it patiently with their burden; it was a hard labour for them, though they had been accustomed to travel on it; there was no other way to get to these hilly countries.

All our party having got to the top of the mountain, we rested awhile; then we travelled on the level rocky plateau for the rest of the day, till we arrived at the town of Agbaja, fortified with walls, and situated at the edge of a deep valley, in shape like an oval dish-cover, and well cultivated; native plants of every description were growing in it; besides which, it was adorned with a forest of stately palm-trees, and other trees of full, green foliage, resembling a gentleman's plantation in this country. A spring of water issued out of the mountain. Other similar valleys were passed. The plateau is sandstone, covered with shallow earth, from about 6 inches to 2 feet deep for miles. In many parts the rock is quite bare.

As we were perfect strangers in this part of the country, we had to follow the carriers, who, according to custom, carried our loads free of expense, because we were the King's strangers, till we came to the next town, called Ikushemi, about mid-day, where the carriers left the loads to their neighbours to carry in their turn, and returned to Agbaja. We travelled on the plateau in a parallel line with the river for about 8 miles, when we descended the mountain on the north-east side, and travelled on the lowland plain of Ikushemi. Our way now lay north-east towards the river, in very bad, swampy grass-fields. In some places we had to dismount, and cross the swamps and streams on foot to the middle, because not safe riding.

We crossed the river at Gori in canoes, and reached Bida on the 27th of November. We had interviews with King Masaba about our journey to Lagos. As we could not push our departure faster than the King could arrange, we thought it better to leave the whole arrangements with him; this being the Ramadan fast month, one could not push business very rapidly at this season.

The festival being over, the King also having received all the information he wanted, called and presented each of us with a horse for the journey—twelve in number—assigning this as his reason for doing so, because Saraona (the Queen) had been showing him special kindness since the last nine years, and he had not been able to make any suitable returns; this was an opportunity for showing his appreciation of the Queen's kindness to him.

From Bida we travelled along the eastern bank of the river, passing through a hilly country, until we reached the ferry at Shonga. This is the present starting-point from the Kowara for Ilorin and the Yoruba country.

From Shonga we marched to Saregi. At the gate of Saregi we came to the point of the road from Rabba, the way by which I came from Rabba in 1859. Shonga is about 20 miles below Rabba; travellers starting from either of the lower points of the two angles, Rabba or Shonga, will meet at the upper sharp point of the triangle at the gate of Saregi town, which is the highway from the Niger to the Yoruba country.

From Saregi we marched to Ilorin, which is a large and important town of about 120,000 inhabitants.

The population are a mixture of Fulahs, Yorubas, Haussas, and Nupes.

The route from this to the coast lies through the towns of Ogbomosho, Oyo, Ibadan, and Abeokuta to Lagos. In the neighbourhood of Ilorin, Ogbomosho, and Oyo, the country is very undu-

lating, covered in some parts with thick grass; in others, with close, dense forests of a low-spreading tree, with a bark like that of the cork-tree. A remarkable feature of the country is the frequent appearance of high abrupt masses of granite rock, sometimes with precipitous sides.

They seem to shoot up from the plain as if forced through from below, and yet without disturbing the level of the surrounding country. All the streams that are met with to the south of Ogbomosho flow southwards, as if to join the Ogun, which flows by Abeokuta, or the Oshun, which passes Ibadan. As Abeokuta is neared, the country becomes flatter. The rocks at Abeokuta are also granite, and the prevailing character of the soil is a rich loam, with gravel in some parts. From Abeokuta to Lagos the land is almost level; at one place there are some slight hills.

I now propose to return to the Binue or Tshadda branch, which I explored in company with Dr. Baikie, in 1854. We found the river, after leaving the confluence, of considerable breadth, but the channel very tortuous. Here, as also lower down the river, a fresh strong breeze, which always, except during squalls, blows up the river. The scenery daily increased in beauty as we advanced up the stream, until at a point about 70 miles above the confluence, the river presents a noble appearance, far exceeding in breadth any part we had yet seen. The banks are clothed with tall palms and other graceful trees, numerous green islands diversifying the scene, and green hills stand out against the dark mountains in the background. Our vessel drew 7 feet of water, and the numerous shoals and sand-banks rendered navigation very difficult.

The district along the north side of the Binue, as far as we had come, was known by the name of Igbira, its extent being from the confluence, eastward, about 50 miles. The chief town was Pánda, and the country is often styled Igbira-Pánda. The people are highly civilised, friendly, civil, and most industrious; and a great deal of trade is carried on by their means. A few Mohammedans are to be found among them; but the great majority are pagans, but with fewer barbarous rites than any other heathen tribe we encountered. Tattooing is not practised, nor have they any distinctive mark. In person they are rather tall and well made, with a sub-typical negro countenance, and they generally keep the body well covered with clothes. They use a peculiar language, differing from the Igára, and having mixed affinities, chiefly with Núpe and Yóruba.

The country on both banks of the river is covered with forest. Numerous towns and villages are placed along the banks, some-

times visible and sometimes hidden. Some of the scenery was occasionally varied by the appearance of ranges of hills, while in the various reaches of the noble river numerous wooded islands were passed as we ascended.

Above Ojogo the current ran nearly three knots, the river being for a short distance confined between banks, behind which was finely wooded rising land, where also oil-palms were noted for the last time. Along the river-edge, generally partially imbedded in the banks, were large, unshapely-looking blocks of rock, bearing evident marks of igneous action. A little farther on, a fine range of hills ran nearly parallel with the river on the north side, one extremity touching the water. Just beyond the current runs very strongly, averaging four knots, and the river takes a northerly bend. The banks on the south side are very high.

Many hills near this place have a very peculiar aspect, some being quite isolated and rising with steep sides almost suddenly from flat land near the river. Fresh breezes were blowing daily up the stream. Everything around us wore a smiling aspect. The river, still upwards of a mile in breadth, preserved its noble appearance, the neighbouring soil teemed with a diversified vegetation, and the frequent recurrence of hill and dale pleased and gratified the eye. Nor was animal life wanting, for from our mast-head we enjoyed the novel sight of a large herd of elephants, upwards of 100 in number, crossing a little streamlet, not much more than a mile from us.

Near this place we came upon a settlement of Fulahs, on the south bank. The district is named Zhibú, and there are three towns—Gándiko, Gankéra, and Zhibú. This settlement originated in a Fulah expedition sent to attack Wukari, a large town on the south bank, but it failed; so instead of returning to the northern shore, they founded these towns, and intermarried with the inhabitants of the district, the Djukus. The languages spoken are principally Púlo and Djúku, but Háussa is also understood by many. About one-half of the people are nominal Mohammedans, the remainder being pagans.

Most of the inhabitants were clad in native-made clothes, but some appeared in garments made of goat-skins, while a few wore still more scanty coverings of green leaves.

Pursuing our course up the river, we come to Zhibú. The town is about a mile from the river, situated on a rising ground, commanding a fine view of the Binue and the country around, and appears to be of greater extent than Idda in Igara, compact, and thickly populated. The chief said it would take us eight months

to go as far as Hamaruwa, and the river would rise during this month only, and begin to fall the next, and in a little time it would not be deeper than a man's waist; so that our ship, being large, would not have water enough for the voyage downwards. When the chief was asked if a bullock could be purchased, he said they had plenty, but they were with their masters. He was asked who these masters were, but gave an evasive answer; but we had learnt from the people that they were slaves of the Filanis, or Foulahs, who came from Yola and Hamaruwa.

About 40 miles from Zhibú the Binue, after passing through flat and then undulating country, receives its first affluent, which comes from the north. It then becomes extremely narrow, being hemmed in by rising ground, especially on the right side, for about a quarter of a mile. The depth was not less than 5 fathoms, and the whole volume of the Binue having to pass this narrow gorge, the current becomes so rapid, that it was difficult to stem it. After rounding Lynslager Point, we found the river spread its noble stream over as extensive a bed as before.

For some distance the river keeps its breadth, but there is plenty of water, from 3 to 4 fathoms. A new range of hills showed itself at a great distance on the left side of the river, consisting of many lofty conical mountains. It lay behind a long ridge of high lands, running to a considerable distance, almost parallel with the river, which presented a very picturesque appearance. The tops of some of these mountains are covered with luxuriant woods and jungles, and others are quite bare and rocky.

About 30 miles further up the river, we came to the town of Zhiru, on the southern bank, and landed; we found this to be another Fulah settlement, as in Gandiko, the conquering race reducing to slavery the aboriginal inhabitants. These are the Akpah, or Baibai Djukus, who are also met at Fernando Po. The old people retain their primitive costume of a few leaves; the younger having learnt from their conquerors to adopt a more becoming style of clothing.

Pursuing our journey, we anchored off the village of Tshomo, from which the capital town of Hamaruwa is about 14 miles distant. Hamaruwa is beautifully situated on a hill, rising on the south side of the range of the Muri Mountains, on the west side of the Binue. It commands a fine and extensive view. The river is seen stretching along like a narrow strip of white cloth, between the shades of light-green grass, which fringes the water's edge, and a little further back is the darker green of trees, and then the blue ranges of Fumbina, with the lofty Mauranu Mountain in Adamawa, on the left,

and the Muri Mountains in Hamaruwa, with their many fanciful peaks, on the right side, each at a distance of 12 miles from the river. In the valleys below the town, from 100 to 200 beautiful cattle were feeding, and this gave life to the scenery. The houses are round, with conical roofs, built mostly of mud, about 20 or 24 feet in diameter.

Although this period, the latter part of September, was not, as we afterwards found, that of the highest rise of the river, a temporary fall alarmed us, and preparations for a return were made; but in the meantime the leaders of the party had gone up the river in a boat, and had reached a point called Dulti, about 30 miles above Tshomo, and about 420 miles from the confluence.

One object of our expedition had been to inquire for the traveller, Dr. Barth; and though we heard of white men, we did not know that three years previously he had crossed the Binue at its junction with the Fáro, not more than 70 miles from the limit of our expedition. It is interesting to remember his description of the noble stream. He says:—"The principal river, the Bénéwé, flowed here from east to west, in a broad and majestic course, through an entirely open country, from which only here and there detached mountains started forth. The banks on our side rose to 25, and in some places to 30 feet; while just opposite to my station, behind a pointed headland of sand, the Fáro rushed forth, appearing from this point not much inferior to the principal river, and coming in a fine sweep from the south-east. The river, where we crossed it, was at the very least 800 yards broad, and in its channel generally 11 feet deep, and was liable to rise under *ordinary* circumstances at least 30, or even at times 50 feet higher. The second river, the Fáro, is stated to come from Mount Lábul, about seven days' march to the south. It was at present about 600 yards broad, but generally not exceeding 2 feet in depth, although almost all my informants had stated to me that the Fáro was the principal river. The current of the Fáro was extremely violent, far more so than that of the Bénéwé, approaching in my estimation a rate of about 5 miles, while I would rate the former at about $3\frac{1}{2}$ miles an hour; the current of the Fáro plainly indicating that the mountainous region whence it issued was at no great distance."

At this point we leave the River Binue. What is its origin remains at present unknown, but we have sufficient data to guide us to some general conclusions. From its vast volume, its collecting area must be large. From its extraordinary and rapid rise and fall, that collecting area is probably a mountainous region, and from the comparatively slow current, the fall for a very considerable distance

above Tépé, the point where Dr. Barth crossed, must be very gradual. The River Welle, discovered by the German traveller, Schweinfurth, would seem to answer to these conditions, although he assigns this to the system of the Shary, because no other region could supply the volume of water which that river pours into Lake Tsad. If this is so, the source of the Binue must be sought still more to the south. Now, if the Welle becomes the Shary, which at Lake Tsad has almost exactly the volume and current of the Binue at Tépé, it is not improbable, when we remember the rainfall of this part of Central Africa, that the course of the Binue is about the same length as that of the Shary and Welle. Then, removing its sources sufficiently to the south to allow room for two collecting areas of equal magnitude, we are almost driven to place them about 3° south, and in longitude about 25° east, which is not more than 100 miles from Nyangwè, on the River Lualaba. I am strengthened in this belief by the information furnished me by an Arab trader at Eggan, to which I shall presently refer.

It is somewhat remarkable that in the course of a journey of 700 miles, we come in contact with no less than thirteen different languages. Ten of them are apparently of the same family, and bespeak aboriginal tribes. One, the Mitshi, is apparently aboriginal, but the language is entirely peculiar; while two, the Fulah and Haussa, are languages whose original homes are remote, they have reached the Niger and Binue, the one accompanying Mohammedan conquest, the other in the path of trade.

With regard to the Haussa language, from the prefatory remarks to Schön's Haussa vocabulary, we learn that the territory in which the Haussa is the vernacular language may with some limitation be said to be the Soudan. Sierra Leone contains many of every province of Haussa. Near Cape Coast a little village was pointed out to me to be inhabited by Haussas, and I have met some at the island of Fernando Po; and there is every reason to conclude that the Haussa language has been the only medium of communication and intercourse with people, chiefs and kings, from Badagry to Borgou, Rabba, Boosa, Yaouri, Egga, and down the Niger to the Ibo country. I can corroborate the above statement from my own experience and observation on the River Niger as far as Eggan.

Leaving the west, and passing to the north, it has there also spread far and wide, and obtained the same notoriety as in the west, every traveller bearing testimony to this fact. Clapperton's incidental allusions to the importance of the Haussa language are numerous. Oberweg congratulates the Expedition in having met with an interpreter who was master of Afnu, that is, the Haussa

language. Barth, writing to Professor Lepsius from Ai-Salah, speaks of the absolute necessity of mastering the Haussa language.

At Oru, in the Delta, we already commenced meeting with solitary opportunities of communicating with the people through Haussa slaves. From Abo we engaged a Haussa interpreter, who was very serviceable to us throughout the Expedition. At Idda we found that the Haussa language was becoming more generally spoken by the inhabitants: salutations in that language generally sounded in our ears. At Igbegbe, near the confluence, the Haussa is one of the prevailing languages spoken by the mixed population of that market-town, and it is the chief medium of communication in commercial transactions, though Igbira is the language of the place.

At Yimaha, in the Igbira country, at Oruku, in the Bassa country, at Doma, also among the hitherto unknown Mitsbis, among the inhabitants of the extensive Kororofo, and with the Fulahs of Hamaruwa, the Haussa language was the chief medium of communication, both with the chiefs and with the people whom we visited during the late Expedition; and I was told that the knowledge of Haussa will bring any one to Mecca.

All the Mohammedans understand and speak the Haussa language, and through it the Koran is explained and interpreted in their own mosques throughout Yoruba; so that from Lagos, Badagry, and Porto Novo, and upwards to the Niger, where Mohammedans are found, the Haussa language is spoken by them. I may add here, that translational work in this language is proceeding under the care of Mr. Schön.

The other important language of this part of Africa is the Fulah, or Pulo, or Filani, a remarkable people who are found at Timbo and Falaba, on the West Coast, and have pushed their conquests as far as Yola, to the south of Binue. From the preface to a recently published grammar of the language by the Rev. J. C. Reichardt, of the Church Missionary Society, we learn that their wanderings towards the west had taken place about the sixteenth century. We now find a strong Pulo empire in a north-westerly direction, from the upper course of the Jaliba, with a government town at Hamd-Allah. But the larger stream of this inland emigration spread higher up, and occupied Futa Jallo and Futa Toro, with the seat of government at Timbo. These regions the emigrated Fulbe appear to have regarded as the landmarks to their western progress, and they maintain their domiciles within these confines to the present day.

In the course of time when, by the zeal of the ruling *walis*, the

doctrine of the Prophet had become the national creed of Futa land, the Fulbe, in obedience to the dictates of Alquran, and emboldened by the increase of numerical strength, agreed upon a holy war, for the coercion of their heathenish, and as yet unbelieving, neighbours and fellow-countrymen. The first attempt of the Fulbe to suppress heathenism became successful, and, with the introduction of the doctrine of the Prophet, the political supremacy of the Futa dynasty over the surrounding territories became established and finally acknowledged. Gradually the warlike spirit of this gifted nation led them to greater success among many contiguous nationalities; their influence is great and their name respected on the banks of the Senegal, the Rio Pongas, the Nunez, the Scarcies; they influence the trade far into the interior, at Segou, Buria, Sangara, the so-called gold countries; their importance is felt among the Bambaras and Mandingoes; in the Suleiman, Limba and Koranko countries, and has paved itself open roads and easy ways through the Susus to the Mellacoure, and they have obtained welcome passes through the Timane and Sherbro countries to the British settlement of Sierra Leone. As enterprising traders, they convey the gold-dust and ivory, obtained from the distant Serankules, to the French colonists of the Senegal, and to the stores of the European and mercantile population of Freetown, in Sierra Leone. The Fulbe in their further conquests seem to have been satisfied with the establishment of their imported religion and the expulsion of heathenism, and then, after receiving guarantees for the acceptance of their Protectorate, to have withdrawn their numerous armies to the confines of their fertile homes of Futa Jallo and Toro. This interesting nation now occupies a territory, both irregular and wide-spread, towards the interior; according to Dr. Barth, there is a considerable part of them in Adamawa; they are in power at Sokoto, and there is ample proof of their being largely mixed with the Hausa nation.

Ever since the times of Denham and Clapperton, the warlike Fulahs or Filani have continued their hostile and predatory attacks on the more peaceful tribes—towns are still destroyed, and it is their frequent attacks which unsettle the tribes, and render them suspicious of the presence of strangers.

I now beg to offer a few remarks on the trade-routes which meet at Eggan on the Niger. The chief routes are those which come from the north, from Tripoli, across the Sahara, bringing European produce on camels as far as Kano, and thence by donkeys to the Nupe kingdom, whence the goods are dispersed into the adjoining countries. Another route comes from the far East, apparently from the countries on the Upper Nile. With one of these caravans we

saw two camels which bore the English broad arrow, and we understood they had been used in the Abyssinian Expedition. Other caravans trade to the south-east. When I was in Eggan in 1852, I met a Hausa trader, who told me he had seen an old white man in a canoe on a lake; that he saluted him; and the white man had come to him and asked him why he saluted him. He described the white man as wearing white whiskers and having a red shirt and overall boots. I did not at the time gather from him how long before that it was that he had seen the white man, but I found last year that the journey must have occupied nearly two years, so that it may have been in 1869 or 1870 that he saw the traveller. Thinking it might possibly be the traveller Livingstone, I gave the trader a letter, with instructions to deliver it, and bring me back the reply. I never heard of the man until last September, when I was at Eggan; I found that the man had returned. My son saw him, and on asking about the letter, he told him that he had been to the same place, and there he had been told that the white man was dead, so he brought back the letter. My son asked him some questions; among others, what was the name of the water where he had seen the traveller, and the answer was, Tanganyika. The people at the side of the lake he described as very wild and fierce. The route taken seemed to be on the northern and western shore; then, turning southwards, was along the bank of the Binue, and no large river or mountain chain seems to have been crossed. If this is so, it would seem that the Binue turns to the south-east, running parallel to the upper course of the Bahr Kuta, or Welle.

In conclusion, I would remark that so good is the feeling towards the English among the rulers to the north of the Binue, that there is every opportunity for the introduction to a larger extent of British commerce; and though the Government have not continued the Niger Expeditions, and have withdrawn the Consular authority from the confluence, the fruit of the former policy is now being found.

Further attempts, carefully planned, and entrusted to men who would conciliate and not alarm the natives, would carry geographical discovery far to the interior; while the labours of Messrs. Schön and Reichardt, in reducing the Hausa and Fulah languages, have rendered most important assistance to the future traveller in these regions by putting him in possession of these keys to the interior of Africa.

Mr. HUTCHINSON said the Church Missionary Society was very anxious to give Bishop Crowther every facility for the purpose of continuing his

work, and that morning they had agreed that the circumstances were of such importance as to justify them in assisting the Bishop to procure a steamer to enable him to proceed still further up the Binue. It was hoped that stations would be occupied as far as Yola. The policy of the English Government in former days, although at the time accompanied by disaster and defeat, had produced results which were now very manifest in the friendly feelings of the natives towards Englishmen. The steamer, which had just been ordered from a well-known firm in the North, would draw 3 feet 6 inches of water, and the guaranteed speed would be 10 knots an hour. If the conclusions in the Paper were correct, they might expect to find a navigable river for some considerable distance, and perhaps through the centre of the only unexplored portion of the African Continent. It was very remarkable that the native traveller whom the Bishop had met should have himself mentioned the name of Tanganyika. Whether his statement was true or not, there could be little doubt that the Binue was of considerable length; and it was to be hoped that the little steamer, with which the Bishop would be supplied by the early part of next year, would greatly assist in solving the question of whence the Binue came. If its source lay within 100 miles of Nyangwe, it was not at all impossible that some portion of the Lualaba might find its way into the Binue. In this work the Church Missionary Society bespoke the interest and sympathy of the Geographical Society. The Missionary Society trusted that some day their operations would reach right across the continent, and, so far as could be seen at present, the Binue would form an important link in the chain.

The PRESIDENT said he had been very much struck by some of the Bishop's observations on the progress of the Mohammedan religion among the conquered races, and he wished to know what was the real effect of Mohammedanism upon the natives—whether it did in any sense purify and improve the social position and disposition of those who became subject to it. Mohammedanism had made such vast progress in Africa, that it was a matter of grave interest to know what was the influence of a religion which seemed by its simplicity, at least, to recommend itself to the African mind. There could not be a more striking example of how far the influence of one man might extend in those regions than the fact that the native women sang songs in praise of Glover. It had been said very wisely by some one, that others might write the history of a nation if he might write the songs; and when songs in praise of an Englishman found their root in Central Africa, it was very certain that the influences of Christianity and commerce would not long halt behind. He wished to ask Bishop Crowther how far he thought it possible that, if the tribes among whom he had travelled were once secured from predatory inroads, they might be converted into peaceable, industrious nations? For no one could doubt that the true means of combating slavery, and putting an end to the slave-trade, was to be found in legitimate commerce.

Bishop CROWTHER replied, that Mohammedans had done some good among the natives, for, as far as they dared do it with safety, they had abolished the worship of idols and the offering of human sacrifices; but if they had mingled charity with their teaching, the natives would have more firmly adhered to them. They, however, were very oppressive. They were slave-holders, and their object now was not so much to proselytise as to enslave, and the populations under their sway disliked them exceedingly. When he first established a Christian mission at the confluence of the two rivers, the Mohammedans attended the place of worship; but though they had been masters of the country to his own knowledge since 1841, no sooner did the Christian Mission go there, than the heathens voluntarily erected a shed, and invited him to preach the Gospel to them. Both that shed and a second were accidentally

burnt down, but the natives rebuilt it, and worship was still conducted there. Travellers very often made a mistake as to the religion of these tribes. From Aboe to the Yoruba country the dress of the people was the flowing toga; and because Mohammedans wore a similar dress, travellers sometimes concluded that the people were Mohammedans. That conclusion was not correct. Since Trotter's Expedition, in 1841, the Mohammedans had been masters of the Nupe country; but two years ago Umoru permitted him to build a station near the head-village, and it was found that out of a population of 500, there had not been a single convert to Mohammedanism, the people remaining idolaters, though they wore what were regarded as Mohammedan clothes. British influence in those regions was very great. This moral influence arose from their liberating slaves, who, on their return to their own districts, spread the name of England far and wide; and even the Mohammedans could not but admire the principle which actuated the British Government. He himself was the only person connected with Trotter's Expedition who was still working on the Niger, and both the late King Masaba, and the present King Umoru, asked him to tell the British Government that they wished to pay every possible attention to their subjects. The Sultans of Sokoto and Gondu were also extremely well disposed towards Englishmen, who might travel from the banks of the Niger to Sokoto or Gandu without being interfered with. Because he himself was an English subject, he had access to every part of the country.

Sir FOWELL BUXTON said he supposed he should be telling no secret when he alluded to the fact that the Geographical Society was making very special efforts to carry out on a systematic basis the exploration of Africa. By the establishment of an African Exploration Fund it was hoped that something might be done in a clear and definite way. If Englishmen were to take the lead in this work, they ought not to neglect the very great help which might be obtained from Africans. The Society had lately been doing their best to pay honour to a distinguished native of India who had told them much about the geography of the countries to the north of the Himalaya; and no doubt much information could be obtained by using the intelligence and the wits of African natives. It was manifest that there were many parts of Africa where Europeans could not travel in safety to their health, while the natives could go there at comparatively little risk, and it was worth while for the Church Missionary Society and the Right Rev. Bishop of the Niger to take some little pains to see if Africans could not be educated and trained for the special purpose of carrying out exploration. It would be remembered that last September a party assembled at Brussels from many countries of Europe, the one bond of union being that they all took an interest in the exploration and development of Africa. It was there agreed that for the purpose of civilising Africa it was very important that lines of communication should be opened up, and that the navigable rivers should be ascertained and used. It was remarkable how much of this work had been done by missionaries. In India traders led the way; but Colonel Grant and other African travellers would acknowledge that their first start was suggested by the maps that were sent home by the missionaries Krapf and Rebmann.

The DEAN OF LICHFIELD wished to take this opportunity of moving a vote of thanks to Bishop Crowther for his attendance that evening, and for the interesting observations he had addressed to the Meeting. When he himself joined the Society, while he fully appreciated its value as a means of laying open some of the secrets of this globe on which we live, he felt very strongly as a clergyman that it was the most effectual instrument for forming a highway for Christianity. He hoped that Bishop Crowther was the representative of a new race of native African bishops who, with enlightened knowledge and judgment, might be pioneers of those who should still further

explore the vast continent of Africa. His opinion was that Christianity would never really flourish in any land until it was led by the native blood.

Mr. FRANCIS GALTON asked what commercial use was made of the Niger and its two branches? How many European ships ascended the stream yearly? Did any ascend the Chadda? And what was the amount of exports?

Bishop CROWTHER, in reply, said at Egga, the limit of Trotter's Expedition, 360 miles up, about 46 tons of ivory were collected last year. When Mr. Macgregor Laird attempted to open up trade on the Upper Niger in 1857, only five casks of Shea-butter were collected, but during the past year 2000 casks were brought down. Between 5000 and 6000 casks of oil were also exported. Instead of the small steamers carrying 80 or 100 casks, large vessels were now being built to carry from 400 to 600 casks. There were about six steamers engaged in the trade, and they made five or six trips every year.

Mr. EMIL BRASS asked if Bishop Crowther had met with any traces of the dwarf race first met with by Dr. Schweinfurth, and afterwards by Dr. Bastian, on the Gaboon.

Bishop CROWTHER said he had met with very small individuals in different tribes, but not with any race of dwarfs.

The PRESIDENT said he cordially joined in the vote of thanks which had been proposed by the Dean of Lichfield. He did so with the greater readiness because he entirely agreed with him that no true progress would be made by Christianity in heathen lands which was not led by the native mind itself. The object should be to educate a minority, and teach them, by means of a European language, the truths of Christianity. Such teaching would then percolate through the native mind and take the vernacular form of expression, and in this way alone could Christianity spread among the tribes.

The following Paper was then read by the Author:—

2. *Progress of the Victoria Nyanza Expedition of the Church Missionary Society.* By EDWARD HUTCHINSON, Esq.

THE Society having decided that its approach to the Victoria Nyanza should be by the East Coast, it was determined that intermediate stations should be formed, and that parties should go contemporaneously to King Rumanika at Karagwe, and King Mtesa at Uganda. The points agreed upon for intermediate stations were Mpwapwa and Meninga. Attention was turned to the possibility of utilising one of the Eastern Africa Rivers.

The information furnished by Mr. Stanley as to the Wami River seemed to be supported by the views of Captain Speke; and the survey made under Sir Bartle Frere in 1872 of a portion of the stream determined the Committee to attempt this river, and also the Kingani, the head-waters of both rivers being not very far from Mpwapwa. A suitable boat was accordingly built, and both the Wami and Kingani were explored.

The following extracts from the Journal of Lieutenant Smith and Mr. Mackay satisfied us that the Wami is never likely to fulfil the part assigned to it by Mr. Stanley.

"Mackay and I left Zanzibar in the *Daisy* on the 12th, taking with us Bombay and a crew of fourteen men. Anchoring at Saadani for the night, and taking in a supply of coal previously sent across, we started in the morning for the Wami, which lies about 4 miles to the southward. Entering the river, we found plenty of water—6 to 7 feet—and had a current of 2½ miles to contend against, which, in the narrows and bends, increased to 3 and 3½ miles.

"The river is very tortuous, doubling oftentimes back on itself, so that you find the hills, which were in your front one minute are seen over the stern in the next. This tortuous character attaches to the river as far up as we went—about 60 miles—and renders the navigation difficult, owing to the sharp bends and curves which are met with at every 100 yards.

"As we ascended the river the country became more open and hilly, and apparently better populated, although no village of any size was seen on its banks. Fowls, goats, and sheep, were not plentiful, and high prices were charged accordingly. Indian corn and sugar-cane were cultivated.

"As far as we could learn from the aged natives, no trade by boats had ever been carried on. They all pointed to its tortuous course as a reason for preferring the road to the river. We found that, after toiling all day, and covering perhaps 20 miles of water, we had only advanced two hours of actual distance from point to point.

"After five days we had reached a point only 15 miles by land from Saadani; I therefore decided to return, as I saw no prospect of our being able to utilise the river.

"1. The current is too rapid for our rate of speed. 2. The river is so tortuous, that a land-journey could be performed in half the time. 3. It was falling so rapidly that, had we succeeded in getting up, it would have been doubtful whether we should have sufficient water to return.

"The river, in my judgment, is useless for purposes of trade, and I very much question that it has ever been used as a means of conveying goods to the coast."

Having left the Wami, the party were accompanied by Vice-Consul Holmwood, and an attempt to explore the Kingani was then made. This river, too, as a navigable stream, is worthless. Consul Holmwood's report is full of interest, and the following extracts may be acceptable—

"The Rufu, or Kingani, is, as a navigable river, at present simply worthless. Its course is so tortuous that, in ascending 48 geographical miles from point to point, 115 miles of water are traversed, the distance by road to the same position not being more than 70 miles.

"Beyond the tidal limit the stream is everywhere rendered dangerous by sunken snags and fallen trees. The river, though deep, soon narrows to about 20 or 25 yards in most places, making it very difficult for any but a short boat, and one having high steam-power, to get round the numerous sharp bends, where the current often increases to a rapid. Still more hazardous is the descent; indeed, with six oars and both screws working, the *Daisy* was more than once taken out of all control by the current, and dashed against the banks, or on some obstacle in mid-channel; in one instance the huge limb of a tree going through her sides, and the water filling the engine-compartment instantly.

"By such accidents, which would always be incidental to navigation in this river, we were delayed several days, and greater inconvenience and loss of time were occasioned thereby than would be incurred in the ordinary accidents of land-travel.