

PAPERS READ
BEFORE THE
ROYAL GEOGRAPHICAL SOCIETY.

I.—*On the Nile and its Tributaries.* By CHARLES T. BEKE, Esq., PH. D., F.S.A., F.R.G.S., Corresponding Member of the Geographical Society of Paris.

NOTWITHSTANDING all that has been effected during the last few years in the way of acquiring a knowledge of the upper basin of the Nile, the position of the source of that celebrated river remains as unknown as it was in the earliest ages: the saying of the ancients, *Nili quærerere caput*, continues as applicable at the present day as it was when first used to denote the impracticability of any undertaking.

Still, the want of success which has hitherto attended the attempts to discover the head of the Nile, instead of discouraging, ought rather to incite us to more arduous endeavours. If the birth-place of the giant-stream of Africa has not yet been detected, we are at least in a better condition than ever before to decide where it is *not*. In this, as in most other questions of research, it is by a long and tedious journey round a spiral, with the face never directed in a straight line towards the centre, that that point is at length attained; and it is only by the consciousness, that, as the folds of the spiral become more and more contracted, all that is untrue is left on the outside, that we are encouraged to persevere in our course till at length we reach the goal.

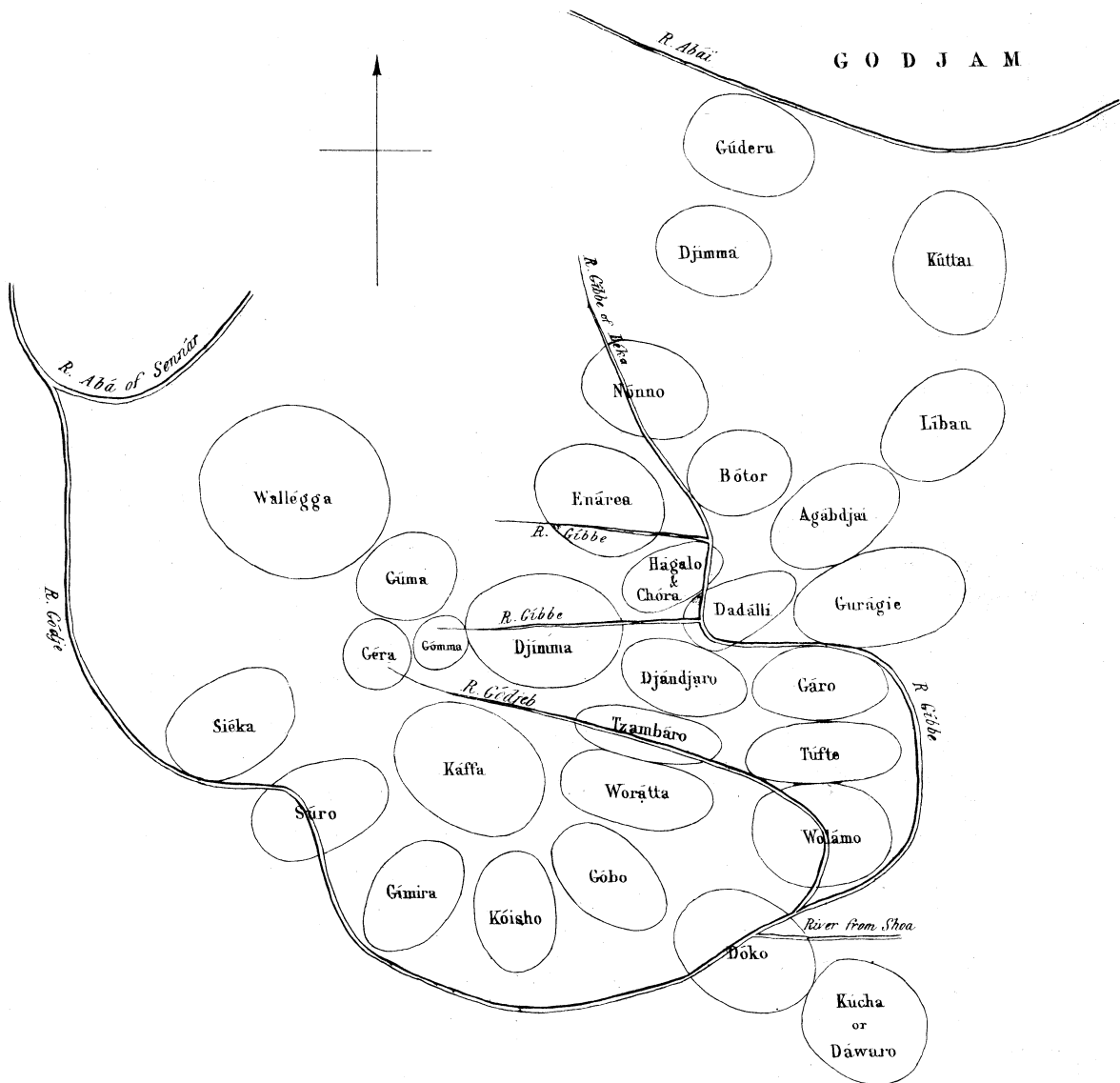
The last few years have been most fruitful in results bearing upon our knowledge of this interesting subject. The expeditions undertaken by command of the Páshá of Egypt on the one hand, and the explorations of the numerous travellers who have entered Africa from the eastern coast on the other, have supplied rich materials for the history of the upper basin of the Nile. We have on many points acquired certainty, where before all was doubt and speculation; and the vantage-ground thus gained affords us a sure and firm footing for the prosecution of further labours.

As an aid towards the solution of this important geographical problem, it is proposed in the present Essay to take a general survey of the numerous streams which unite to form the river of Egypt, so far as our knowledge of them extends. In the performance of this task we shall confine ourselves as much as

Map of the
COUNTRIES SOUTH OF ABESSINIA,

drawn under the Dictation of
'Omar ibn Nedjät
by
D^r BEKE.

Yejübbi, 9th February. 1863.



possible to the actual results which have been obtained by the various travellers who have visited the countries watered by those streams. That speculation must still, at times, come in aid of facts is unavoidable; but it will be our endeavour to confine this speculation within legitimate bounds, and to limit it, indeed, to the reconciling of seemingly contradictory statements and to the arranging and combining of isolated and unconnected facts, where actual information is still insufficient and unsatisfactory. To say that we shall, on all points, come to definite results, is more than is warranted by the imperfect nature of the premises.

The usual and most methodical mode of describing a river is to commence at its source, and to follow its course down the entire stream, noting its various tributaries as they consecutively join it. This method is, however, forbidden to us in the case of the Nile; for its head is still enveloped in the clouds of mystery which have in all ages concealed it from our sight. The next best method is to reverse the process and to ascend the river, enumerating its various tributaries as they, from time to time, fall into it. When we come to a fork of the principal stream, each arm of the fork must be considered separately, and its affluents noticed in the same manner as in the case of the main stream itself.

It is this latter process which must be adopted with respect to the Nile. And the right or eastern bank of that river being the more accessible, and consequently the better known to us, is naturally first entitled to our consideration.

For a distance of upwards of 1200 geographical miles from the Mediterranean, into which it discharges its waters, this mighty river, the largest in the continent of Africa, and one that is probably unsurpassed in length by any on the entire surface of the globe, is a *single* stream. Fed by the incessant rains of the tropics, which are collected by its innumerable head-streams in the south, it is enabled to contend with the burning sun and the scarcely less burning sands of Nubia and Egypt throughout this great extent of country, without the aid of a single tributary; presenting a phenomenon which finds its parallel in no other river.

In about 18° N. lat., at the northern limit of the tropical rains, the Nile receives on its right bank its first great affluent, the Atbarah—the Astaboras of Ptolemy. This river bears also the name of El Mokádah, as coming from Abessinia,* and at its

* Mokádah, Makádah, or Mekiádeh, is the name by which the entire hill-country of Abessinia and the Gállas is known among the inhabitants of the lower districts of Atbarah and Sennár. By the Arabs this country is called *Habesh*. But, in order to prevent misconception, it should be remarked that they apply this name not merely to the *Abessinia* of European geographers and travellers, but generally to the elevated range of table-land of Eastern Africa—the country which, as producing slaves of a character totally different from that of the Negroes, is by the Arab merchants and slave-dealers contradistinguished from the Belád el *Súdan*, or country of the *Blacks*. Thus, the

confluence with the Nile it is called El Mokrán.* It is further designated Bahr el A'swad, or the Black River,† from the quantity of black earth brought down by it during the rains, which is so great as even to affect the general colour of the Nile.‡ In Abessinia it is known as the Tákkazie. In the lower part of its course the bed of the Atbarah is from 400 to 500 paces in width, with but little water except during the rains, it being stagnant and not drinkable for three or four months in the year.§

At about 2 days' journey up its stream the Atbarah receives on its right bank a small tributary, having its rise in the Bisháriyeh mountains towards Suwákin,|| which is nearly dry in the summer, and appears to be nothing but a collection of wádis, or winter-torrents. To this stream Burckhardt attributes the name of Mogren, adding that below its junction with the Atbarah the latter assumes the name of its tributary.¶ Cailliaud asserts, on the contrary,** that the term *Mokrán* (Moqrân) signifies “confluence” or “junction,” and that there is no such river as that mentioned by Burckhardt. As, however, the French traveller admits that several *torrents* join the Atbarah, Burckhardt, whose accuracy as a recorder of facts is beyond dispute, must be understood as alluding to one of these torrents, even if it should happen that

slaves called “Hubshee” (Hâbashi) or “Abessinian” in Egypt, Arabia, and India, are not usually natives of *Abessinia*, in the ordinary acceptation of that term, but of the countries S. of the Abái; and even those who are particularized in Abessinia and Egypt as “Enáreans,” come, in many cases, from countries still further to the S. and W., being called by that name because the slave-merchants of Abessinia purchase them in the markets of Enárea. See on this subject the ‘Friend of the African,’ vol. i. p. 15.

As regards the use of the form “Abessinia” instead of “Abyssinia,” it is justly observed by the Rev. C. W. Isenberg, in his ‘Abessinien und die evangelische Mission’ (12mo., Bonn, 1844), vol. i. p. 1, that “the spelling of the name of this country ‘Abyss-

sinia’ is etymologically incorrect. For, from the Arabic *خبيش Habesh*, we had first the Latin *Abassia*, from which *Abessinia* or *Abassinia* would naturally be formed, but not *Abyssinia*, which seems to point to the word ‘Abyss’ as its root, which it is not.” This erroneous mode of spelling the name is adopted by Dr. Johnson in his Translation of Father Jerome Lobo’s ‘Voyage to Abyssinia,’ published in 1735; but in his ‘Rasselas,’ published in 1759, four-and-twenty years later, he has “Abessinia.”

* Commonly pronounced Mogrân. Cailliaud, ‘Voyage à Méroë et au Fleuve Blanc,’ vol. iii. p. 176.

† ‘Narrative of the Expedition to Dongola and Sennaar, &c.,’ pp. 125, 197.

‡ Linant, in ‘Journal of the Royal Geographical Society,’ vol. ii. p. 185.

§ Cailliaud, vol. ii. p. 130, sq. Mr. English says (‘Narrative, &c.,’ p. 197), “I estimated it at about two-thirds of a mile at its embouchure.” This was during the rains.

|| Burckhardt, ‘Travels in Nubia,’ p. 373. [Suwákin, or Sawákin, signifies “Inhabitant.”—F. S.]

¶ I believe that our accomplished and worthy Secretary, Colonel Jackson, was the first to direct attention, in his valuable little manual ‘What to Observe’ (2nd edit. p. 17), to the circumstance of a river, below the confluence of two streams, being regarded by the inhabitants of the opposite banks as the continuation of the one or the other of those streams, as a not unfrequent cause of discrepancy in travellers’ accounts of countries little known. The necessity for this caution was never better exemplified than in the case of the Nile and its various tributaries.

** Vol. iii. p. 176.

he is mistaken with respect to its name; since it is clear, from his mention of it on several occasions, and from the fact of his having traced its course upwards nearly as far as Suwákin, that such a water-course actually exists.*

At the same time that Cailliaud denies the existence of the "Mogren," he states † that there is no tributary of the Atbarah except the Sitit, which joins that river 3 degrees (180 miles) above its junction with the Nile. M. Werne, ‡ on his way from Taka to Kóz-Rádjeb, § crossed a large water-course in about this situation, which he calls Khór el Gash, and which, though usually dry, was, at the time when he passed it (in the month of November, 1840), no less than *four thousand feet* in breadth, in consequence of the rains. On looking to the position attributed in our maps to the Máreb, which is made to run towards the Atbarah in about 16° N. lat., but without joining it, we should be led to the conclusion that that river is the upper course of the Sitit, or Khór el Gash. But from the relation of Dr. Petit, || the junction of the Máreb with the Atbarah, or Tákkazie, takes place considerably higher up—in fact, opposite to the province of Walkáit, in about 14° N. lat.; so that the Sitit must be a separate stream.

Proceeding up the right bank of the Tákkazie—as, in accordance with the native usage in Abessinia, the Atbarah will henceforward be designated—we next come to the Máreb. This river is generally supposed not to reach the Tákkazie, but to lose itself in the sands of an extensive marshy and woody district, named Bárakwa or "the Desert:" ¶ indeed, Dr. Rüppell goes so far as altogether to deny the existence of the Máreb as a river, ** and applies that name, or, as he writes it, "Maleb," to the desert country just alluded to. But this must have arisen from some misunderstanding; since nothing is more certain than that the Máreb is a river, "large, deep, and smooth," †† which has been crossed by myself in common with all other travellers who have passed (which Dr. Rüppell has not) between A'dowa and Seráwe. ‡‡ That this river becomes nearly stagnant in the dry season is, however, not to be denied; §§ and it may even be that at the height of that season its lower course is altogether dried

* Burckhardt was, however, mistaken in supposing the "Mogren" to be the lower course of the Máreb. See his 'Travels,' p. 264. † Vol. iii. p. 177.

‡ In Ritter's 'Blick in das Nil-Quellland,' p. 43; and 'Monatsberichte' of the Geographical Society of Berlin (1845), vol. ii. p. 16.

§ *i. e.* the moving sand-hill.—F. S.

|| 'Bulletin de la Société de Géographie de Paris,' 3rd Series, vol. iii. p. 37.

¶ See Lefebvre, in 'Bulletin, &c.,' 2nd Series, vol. xiv. p. 130.

** 'Reise in Abyssinien,' vol. ii. p. 301, *sq.*

†† Bruce, 'Travels to discover the Source of the Nile' (Edit. pr.), vol. iii. p. 115.

‡‡ See 'Journal of R. G. S.,' vol. xiv. p. 64. §§ *Ibid.*

up. Still it is most probable that during the rains its waters find their way to the Tákkazie.*

As early as the beginning of the seventeenth century the Portuguese missionaries in Abessinia had laid down the Máreb, in a general way, as rising in the neighbourhood of Dobárwa, in Hámasien, the most north-easterly province of the kingdom of Tigre; and in their maps they plainly showed the remarkable peculiarity which it possesses, in common with many of the rivers of the Abessinian table-land, of returning on itself, so as to perform a sort of spiral course.† In the more recent maps the upper portion of the Máreb has gradually been withdrawn from its true position, till at length even its existence has been disputed. But in the map of MM. Combes and Tamisier ‡ the Máreb, notwithstanding that it is not quite correctly laid down, is restored to its importance as a river, and the general accuracy of the delineation of its upper course by the earlier Portuguese is established.

On its right bank the Máreb is shown in the maps, apparently on the authority of Bruce, as receiving the Lidda, which river has its head in close proximity to that of its recipient, though its course is considerably to the northward of the latter.§ It may be, however, that the Lidda is only the upper course of the Sítit, or Khór el Gash. On its left bank the Máreb is joined by the Angúya, which river has its rise not far from A'degrat, the chief town of Agámie, and is erroneously made by Ruppell to appropriate to itself the honour of being the upper course of the former river.||

As Tigre is that portion of Abessinia which has been the most frequented by Europeans, it would naturally be imagined that its rivers would be well known and their courses accurately ascertained. Yet such is far from being the case. Even the Hássam (not Assa nor Assam), the small stream flowing by A'dowa, a place which has been visited by every traveller in Tigre and where many of them have resided for years, was

* M. d'Abbadie states that the lower portion of the Máreb is called *Gash* (Gach), and that it joins the Atbarah above *Kóz-Radjeb*, but apparently only during the rains. See 'Bulletin,' 2nd Series, vol. xviii. p. 205. But if M. Petit is correct in his information, there must be here some confusion of this river with the Sítit of M. Cailliaud. M. d'Abbadie further describes a *second* river Máreb, also called *A'usaba*, as rising like the other near Dobárwa, but running northwards, and discharging itself into the Red Sea near Suwákin.

† This led Vossius to place here the peninsula of Meroë. See Delisle, in 'Mémoires de l'Académie Royale des Sciences,' 1708, p. 368.

‡ 'Voyage en Abyssinie,' 8vo., Paris, 1838. Dr. Ruppell says, however ('Reise, &c.,' vol. ii. p. 301), that this is merely copied from Berghaus's Map of the Nile.

§ Much more precise information respecting all these rivers is requisite, before we can determine their courses satisfactorily.

|| 'Reise in Abyssinien,' vol. ii. p. 301.

always regarded as joining the Máreb (it being so laid down in the maps of Bruce, Salt, and others), till Dr. Rüppell first pointed out that in reality it flows south-westward towards the Tákkazie.* But this state of things is on the eve of terminating. The military survey of the whole of the north of Abessinia lately executed by MM. Galinier and Ferret by order of the French Government, and that made by M. Lefebvre and his colleagues under the same auspices, will, when their results are published (which may shortly be expected), clear up all doubts upon this subject, as likewise on many other points connected with the topography of that country.

Leaving the Máreb, we have now to proceed up the right bank of the Tákkazie. This river is joined by several streams, which bear to it the waters of the north-east of Abessinia, among which are especially to be named the Gebáa (the Gibba of Salt), which divides the district of Sabárte from Témbien, and the Arékwa, which joins the Tákkazie between Témbien and Abargále.

A little to the south of the junction of the Arékwa, the Tákkazie divides into two arms. Of these the eastern one is called the Tselári, while the western one retains the name of the main stream, though in size and in the quantity of water which it carries to the common channel the former river is at least equal to the latter,† and according to Bruce‡ it is the principal branch.

A recent French traveller, M. Even, in his journey through Lásta to Shoa, followed the course of the Tselári from near its junction with the Tákkazie to its source; and in the map of his route recently published§ the name of the latter river is attributed to the former. This I am inclined to regard as an error. As far as my own personal knowledge extends—and I have crossed *both* rivers—the western or left branch is called the Tákkazie, and the right or eastern one the Tselári. Dr. Krapf also mentions having crossed the *Terári* (as the name is frequently pronounced) not far from Lake A'shangi;|| but he makes no allusion whatever to the Tákkazie as being in that direction. The Tselári is stated by Bruce¶ to rise in A'ngot, near a spot named Suámi Midre, close to the village Gurri, where it has, he says, three spring-heads or sources like the Abái. It receives a large proportion of

* 'Reise in Abyssinien,' vol. i. p. xi. *sq.*; and see 'Journal R. G. S.,' vol. xiv. p. 63. In M. Even's Map of Abyssinia, just published in Paris, the old error is repeated.

† 'Journal R. G. S.,' vol. xiv. p. 59.

‡ 'Travels, &c.,' vol. iii. p. 156.

§ 'Carte générale de l'Abyssinie, &c.,' par P. F. Even; Paris, 1846. This map appears to be a copy, not always accurate, from mine in the fourteenth volume of the Society's 'Journal,' on which the traveller's route has been filled in by no very skilful hand.

|| 'Journals of the Rev. Messrs. Isenberg and Krapf,' p. 463.

¶ 'Travels,' vol. iii. p. 156.

the waters of Wáag as far as Wóffa. Its principal tributary on the right bank is the Zámra, which rises in Wódjerat and receives the waters from the southern side of Endérta.* Of this latter river the Tsána crossed by Dr. Krapf † is a tributary. Southward of the Zámra the Tselári is joined by the Sássela, coming from Wóffa, ‡ and by the Shémsheho and Gébia, two rivers mentioned by Dr. Krapf as having been crossed by him. § Of the tributaries of the Tselári on its left bank, I am acquainted only with the Káha, a small stream, which runs to the east of Sókota, the capital of Wáag, and is joined by the Chúa coming further from the east; the Shagálu, a “torrent,” which falls into the Tselári much further to the north, and down the dry bed of which I journeyed in the month of April, 1843, on my way from Wáag to Bóra; and the Mai Lómi, the upper portion of which was visited by me before reaching the Shagálu, and which joins the main stream somewhat lower down towards the north-west.

The high land of Lásta, of which Mount Biála forms the northern extremity, divides the head waters of the Tselári from those of the upper Tákkazie. || Ascending the right bank of this latter river above the confluence, we meet with the Télla, A'rri, and Mérrí, all having their rise on the western flank of Mount Biála. The source of the Tákkazie itself is in the kingdom of Lásta, and in the neighbourhood of Lalibala, one of the most celebrated places in all Abessinia, and remarkable for its churches hewn out of the living rock. Of these churches a minute description, with plans, is given by Father Francis Alvarez, who visited the spot in the year 1520. ¶ In Biégamider I heard, that, shortly before I passed through that country, M. Antoine d'Abbadie had visited Lalibala; but I have not been able, since my return to Europe, to find any record of the fact. Should it be as reported, that traveller will doubtless have it in his power to lay down, with accuracy, the position of the head of the Tákkazie and the direction of its upper course, and thus to clear up the discrepancy between my description of it from information obtained from native sources,** and that given by Mr. Salt †† on the authority of Pearce.

Passing over to the left bank of the Tákkazie and following its course downwards, we shall not pause to consider the various small streams which fall into it from Biégamider and the adjoining districts, but shall proceed at once to the Béllegas, or Shoáda. This river has its rise in the lofty mountains of Sámien, ††

* 'Journal R. G. S.,' vol. xiv. p. 59.

† 'Journals,' p. 490.

‡ 'Journal R. G. S.,' vol. xiv. p. 58.

§ 'Journals,' p. 484.

|| 'Journal R. G. S.,' vol. xiv. p. 58.

¶ 'Viaggio nella Ethiopia,' in Ramusio's 'Navigazioni e Viaggi' (Venetia, 1563, Edit. 3^a), vol. i. pp. 210, *sqq.*

** 'Journal R. G. S.,' vol. xiv. p. 54.

†† 'Voyage to Abyssinia,' p. 277, *sq.*

†† Ruppell, vol. ii. p. 64, *sq.*

and taking a spiral course to the S. and E.—in a direction contrary to that of most other rivers of Abessinia, which go round to the S. and W.—joins the Tákkazie at some distance to the south of its confluence with the Tselári. Further down are the Angrab and Gwangwe, rivers of some magnitude, having their rise in the province of Démbea, in the vicinity of Lake Tsána. These rivers, the head-streams of which were crossed by Bruce* on his road from Góndar to Sennár, unite with the Tákkazie in the low marshy and woody districts of Waldábba and Walkáit, opposite, as it would seem, to the confluence of the Máreb with the same river.

Below this, we are not acquainted with any tributaries of the Tákkazie or Atbarah on its left bank; and we may therefore take leave of that river, and pursue our original course up the right bank of the Nile.

For upwards of 160 miles from the junction of the Atbarah, the main stream may be ascended without meeting with anything which deserves particular mention, till in lat. $15^{\circ} 37' N.$, at a short distance to the south of the town of Halfáyah, we come to the confluence of the Baħr el Abyađ and the Baħr el Azreķ—the White and Blue Rivers.

Without pausing here to institute any comparison between these two rivers—a subject which will be more in place in a later portion of this investigation—we shall proceed to ascend the right bank of the Baħr el Azreķ. Here we first meet with the Ra'ad (Rahad), † and then the Dender; two rivers having their rise in the high land to the west of the lake of Démbea, and both running from about S.E. to N.W., in courses nearly parallel to the Blue River itself. ‡ The source of the Ra'ad is not far from Chélga; and it flows between Kwára and Sennár, forming the boundary between Abessinia and Nubia. In the latter country it is known by the name of Shimsah. § At its junction with the Baħr el Azreķ, the bed of the Ra'ad is from 150 to 200 paces in width, but it is full of water only during the rains: at other times of the year it is in several places almost dry. ||

The precise position of the source of the Dender is not known; but this river is said to be of greater length than the Ra'ad. ¶ In March, 1841, I crossed the head of a small stream named Gúder, having its rise in Mount Barf, in A'gaumider, in $11^{\circ} 5' N.$ lat. and $36^{\circ} 40' E.$ long., at a short distance westward of the source of the Abái; and I was informed that this stream (the Gúder) falls into the A'sher, which joins the Baħr el Azreķ

* 'Travels,' vol. iv. pp. 314, 321, 324.

† Cailliaud, vol. ii. p. 219.

‡ Cailliaud, vol. ii. p. 220.

§ Ra'ad, *i. e.* "Thunder."—F. S.

¶ Bruce, vol. iv. p. 416.

¶¶ Ibid.

far to the north.* I look upon it that the A'sher is the same as the Dender, or, at all events, one of its principal tributaries; so that, from the head of the Gúder to the junction of the Dender with the Baħr el Azreḡ, the Dender has a course of at least 250 miles in length. When Bruce crossed this river at the end of April, almost at the close of the dry season, its waters stood in pools; but, from the width of its banks (Cailliaud says about 200 paces), and the great depth of its bed—all of white sand—it would seem that during the rains it contains nearly as much water as the Baħr el Azreḡ.† It is important to bear in mind the length and size thus attributed to the Dender, as they will form material features in the consideration which will shortly be given to the subject of Cailliaud's river "Hessénn."

Beyond the Dender, and considerably to the south, we come first to the Sodahab, mentioned by Cailliaud‡ as being a day's journey to the north of Famaka, a place on the right bank of the Baħr el Azreḡ, opposite to Fázokl; and then to the Gana,§ half-a-day's journey higher up. Both the Sodahab and the Gana are stated to be "torrents," that is to say, streams which cease to run in the dry season. From the position of the Bolássa and Dúrra, two rivers of A'gaumider, which join the Baħr el Azreḡ in the country of the Shánkalas, or Negroes, below Chughāi.¶ it would seem that M. Cailliaud's two "torrents" are the lower courses of those streams,¶ which, having their sources in a country of no great elevation, and being not more than 90 miles in length—for the head streams of the Dender cut them off from coming from further east than about 36° 30' E. long.—have not sufficient water to cause them to flow throughout the whole year.

Above these two torrents, Cailliaud places, from hearsay, a river, named *Hessénn*, coming from the S.E., and having its confluence with the Baħr el Azreḡ not far from the junction of the Yabús with that river, but on its opposite bank; ** that is to say, in about 10° 40' N. lat., as laid down in that traveller's map. The Hessénn is "said to be as large as the Dénder."†† Upon this, the question arises where a river of such magnitude can have

* 'Journal R. G. S.,' vol. xiv. p. 10, sq.

† Bruce, vol. iv. p. 419. Cailliaud says (vol. ii. p. 220) that the Dender is never absolutely dry at any time of the year.

‡ Vol. iii. p. 62.

§ Kaná in Arabic means "Red or black water."—F. S.

¶ 'Journal R. G. S.,' vol. xiv. pp. 8, 11.

¶ M. d'Abbadie mentions the Gadjué in Alafa, and the Alatis in Kwára, as coming between the Dender and Bolassa. See 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 111.

** Yebús signifies "dry" in Arabic.—F. S.

†† "Une seconde, que l'on dit être aussi considérable que le Dender, et qui se nomme Hessénn, vient du sud-est, et a son embouchure à peu de distance de l'Yabous."—'Voyage à Méroë, &c.,' vol. iii. p. 61.

its origin and course. If we consider the position of Mount Giesh, in $10^{\circ} 58' N.$ lat. and $36^{\circ} 50' E.$ long.; on the one side of which rises the Abái having its course northwards, and on the other side the Fátsum running to the S.—the sources of some of the head-streams of those two rivers being almost contiguous; * it is impossible that any river coming from the S.E., and joining the Baħr el Azreħ in about the parallel of $11^{\circ} N.$ lat., should have a course of 100 miles in length; much less 250 miles, which is the length of the Dender. And if, further, we consider the position of the Zíngini, the head of which river is close to that of the Gúder (that is to say, of the upper course of the Dender), and the entire course of which I am acquainted with from personal observation,† we shall perceive that this length of 100 miles must, in fact, be considerably reduced. Where, then, shall we find a place for the *Hessénn* of the French traveller—a river “as large as the Dender”?

To enable us to answer this question, we must first discuss another, viz. : whether the Abái—the “Nile” of the Portuguese and of Bruce—is, in reality, the upper stream of the Baħr el Azreħ; or whether its sources ought not to be deprived of the honour of being regarded as the fountains of the Blue River, in the same way as they have already lost that of being those of the true Nile.

For the decision of this question, it is necessary to ascertain what is really known to us of the course of the Baħr el Azreħ above $11^{\circ} 14' N.$ lat., where it is joined by the Túmat from the W.; ‡ beyond which point, or thereabouts, the personal observation of European travellers ceases. In the first place, M. Cailliaud says, § that, from repeated inquiries of the natives, he learned that *the Blue River comes from much higher up than Abessinia*, and that it winds for a distance of 30 days' journey round a mountain called Djebel Mehet. He remarks that “it is difficult to draw any reasonable conclusion from information so vague and probably unfounded;” || and accordingly, in the construction of his map, he would seem to have disregarded it altogether, and to have given the Baħr el Azreħ the course usually attributed to it; though, by his so doing, the *Hessénn*—a river “as large as the Dender”—sinks into an insignificant “torrent.”

In the next place, Mr. English, who was in Sennár at the same

* See ‘Journal R. G. S.,’ vol. xiv. p. 12. In the Amharic language the word *Fátsum* signifies “end” or “termination.” As this river actually shuts in the peninsula of Gódjam, so as to leave a *portage* of barely a couple of miles between its head and that of the Abái, it may be presumed that the name is significant, and derives its origin from this circumstance.

† See the Map in ‘Journal R. G. S.,’ vol. xiv. part i.

‡ Russeger, ‘Reise in Europa, Asien, und Afrika,’ vol. ii. part ii. p. 552.

§ Cailliaud, vol. iii. p. 59.

|| Ibid.

time as Cailliaud, was told by the people of the country, as well as by caravan-merchants, that * “the source of the Adit (so the people of Sennaar call the river that runs by their city), is in the Gibel el Gumara † (*i. e.* that great range of mountains called the Mountains of the Moon), about sixty days’ march of a camel from Sennaar, in a direction nearly south. It receives, at various distances above Sennaar, several smaller rivers which come from Abyssinia and from the mountains south of Sennaar.” On a consideration of the whole subject, Mr. English is “disposed to believe that *the main stream of the Adit, or Nile of Bruce, does not take its rise in Abyssinia*, but rather in the mountains assigned as the place of its origin by the people of Sennaar.” For, he says, “on viewing the mass of water that runs by Sennaar, even now [between the 7th and 14th of Shawâl=7th and 14th of July, 1821] when the river has not attained two-thirds of the usual magnitude it acquires during the rainy season, I can by no means believe that the main source of such a river is only about 300 miles distant from Sennaar.” ‡

The evidence of a more recent traveller, M. Russegger, is of even greater weight than that of the two former authorities, inasmuch as he gives us the result of his own personal observations; he having ascended the Baḥr el Azreḳ and its tributary the Túmat much further to the S. than the others, and having likewise gone eastward towards the Yabús, which they did not. The extreme southern limit of M. Russegger’s journey was the camp on the Pulkhidía, between the Túmat and Yabús, in 10° 16' 17" N. lat. § Before leaving this spot, he went a little way westwards to the summit of Mount Gewésh, to observe the surrounding country. “From hence,” he says, || “we had a splendid prospect. . . . Towards the E. we saw some very lofty mountains in the Galla country, on the Yabús and Baḥr el Azreḳ. Of these, Belfudi, Beshori, and Belamili, three mountains in a south-easterly direction *on the right bank of the Baḥr el Azreḳ*, were most remarkable for their height and immense size. On the horizon, peak was seen to rise above peak, and it appeared that in that direction there must exist a connected chain of mountains of considerable extent and importance.” This information is too

* ‘Narrative, &c.,’ p. 179.

† He means Djebel el Kámar, *i. e.* “Mountains of the Moon.”—F. S.

‡ P. 182. These arguments of Mr. English, as cited in Dr. Russell’s ‘Nubia and Abyssinia,’ p. 70, *sq.*, were referred to by me in a letter to the Reverend J. M. Trew (now Archdeacon of the Bahamas), written at Yáush, in Góljam, on the 6th September, 1842, as confirmatory of the conclusion to which I had at that early period arrived, from independent native evidence, of the existence of a great western branch of the Baḥr el Azreḳ. See page 26, *sq.* of the present Essay.

§ ‘Reise, &c.,’ vol. ii. part ii., p. 580.

|| *Ibid.*, p. 590.

precise to admit of misconception ; and, accordingly, the right or eastern bank of the Baħr el Azreķ being shut in by these mountains, the southern course of that river is absolutely determined as far as $9^{\circ} 35'$ N. lat. ; as it is laid down, in fact, in M. Russegger's map of East-Sudán accompanying his work.

The course of the Baħr el Azreķ being traced thus far to the south, we have next to inquire what are its position and direction higher up the stream. On this point M. Russegger expresses the opinion that "the identity of the Abáí of Abessinia with the Baħr el Azreķ cannot be questioned ;" * the course of its upper stream between Gódjam and Shoa having, as he says, "been unquestionably established as far southwards as the ninth parallel of north latitude." † And he goes on to say ‡ that Bruce's position of the southern curve of the Abái, in about 10° N. lat., "is decidedly erroneous ; this curve lying, according to the reports of the latest travellers in Shoa and his (Russegger's) own observations, much further to the south."

In this remark respecting the position of the southern curve of the Abáí, M. Russegger agrees with Mr. McQueen ; who, in his 'Geographical Memoir,' prefixed to the 'Journals of the Rev. Messrs. Isenberg and Krapf,' states § that "the Nile [Abáí] goes a little farther S., about 20 miles, than it has hitherto been laid down ;" in accordance with which opinion he carries the curve of the river as far to the S. as $9^{\circ} 30'$ N. lat. || No "traveller in Shoa," except myself, has, however, had an opportunity of ascertaining from personal observation the extent southwards of the curve of the Abáí ; and as its latitude at several points was determined by me astronomically, I may, without fear of contradiction, assert that the extreme southern limit of that curve, near the ford of Mélka-Kúki, in Líban, in about $37^{\circ} 30'$ E. long., is not more than $9^{\circ} 52'$ N. lat. ; while at the ford of Mélka-A'bro, in Shínasha, in about $36^{\circ} 25'$ E. long., the course of the

* 'Reise, &c.,' vol. ii. part ii. p. 73.

† Ibid., p. 73, sq.

‡ Ibid., p. 75.

§ P. [28].

|| See the maps accompanying the work of Messrs. Isenberg and Krapf. The date of these maps is June, 1843. In December following, the map to Major Harris's 'Highlands of Æthiopia,' constructed by Mr. McQueen, brings back the southern curve of the Abáí to its former position. There is also a no less marked variation between the map in Major Harris's work and those in Messrs. Isenberg and Krapf's volume, with respect to the eastern limit of the curve of the same river, which variation is as much as half a degree of longitude.

The delineation of the peninsula of Gódjam in the map in Major Harris's work is strikingly similar to mine in the 14th volume of the 'Journal of the Royal Geographical Society.' This latter was not published till July, 1844 ; but Mr. McQueen had the use of the original drafts of the eastern portions of it as early as June, 1843 (see 'Friend of the African,' vol. i. p. 27), and doubtless "preserved a copy" of them, in the same way as he says he did of my map of the 6th September, 1842 (see 'Blackwood's Magazine' for June, 1844, vol. lv. p. 739), which reached his hands at the same time.

river advances as far N. as $10^{\circ} 17' N.$ lat. ; its direction, at this latter point, being about west-north-west. Now, *it is physically impossible for a river in this position and with this course, to be the upper portion of the Baħr el Azreħ, which was traced by Russegger as far southwards as $9^{\circ} 35' N.$ lat., and there found to come from still further south.** Consequently, that traveller is in error in his identification of the Abái with the upper course of the Baħr el Azreħ, or Blue River, as laid down by him ; and Messrs. Cailliaud and English were correctly informed that the latter river has its rise in the Galla country to the S. of Abessinia.

It will, by and by, be shown that it is the *Dedhésa* which is the direct stream of the Baħr el Azreħ ; † but the system of investigation adopted in the present Essay requires that we should, for the present, confine ourselves to the Abái. From what has been already advanced, we cannot come to any other conclusion than that this river is merely *a tributary* of the Baħr el Azreħ ; and thus we can readily understand, that, when M. Cailliaud's native informants in Sennár described to him the Hessénn, a river "as large as the Dender," joining the Baħr el Azreħ from the south-east, they meant no other than the Abái. In further corroboration of this conclusion, we find in M. Russegger's map a dotted line, which is evidently intended to represent the course of a considerable stream, joining the Baħr el Azreħ on its right bank, in about $11^{\circ} N.$ lat. ; and if the line of the Abái, as determined by myself, be continued from my extreme point at Málka-Abro, in Shínasha, in the direction of about W.N.W., it will be found to meet the Baħr el Azreħ just at the place so marked in Russegger's map as the point of junction with a tributary.

Regarding it, then, as an established fact, that the Abái is not the direct upper course of the Baħr el Azreħ, but a tributary of that river and identical with the Hessénn of Cailliaud, our next task is to proceed upwards along its right bank. The spiral course of the Abái round the peninsula of Gódjam is too well known to require more than an allusion to it. All round this curve the river is joined by numerous streams, having their sources in the mountain-chain which forms the core of the peninsula, and to which, in the absence of any generic native name, may be attributed the appellation of Tálba-Wáha, ‡ such being the designation of the most elevated and best known portion of the entire range. § It is not necessary here to particularize these tributary streams, all

* On the 18th December, 1843, I placed in the hands of Col. Jackson, the Secretary of the Royal Geographical Society, a sketch showing the non-identity of the Abái with the Baħr el Azreħ of M. Russegger's map. † See page 26, *sqq.*

‡ In Amharic means "flax river"—also "linseed-tea!"

§ 'Journal R. G. S.,' vol. xiv. pp. 1, 29, 30, 43.

of which are shown in the map contained in Vol. XIV. of the Society's 'Journal.'*

Neither is it within the scope of the present Essay to give any description of the source of the Abái, a spot which Bruce has rendered so famous. But, while alluding to the subject, it would ill become me to pass it over without bearing testimony to the minutely accurate description of this spot first given by Father Peter Paez, who visited it in the beginning of the seventeenth century.† The attempt made by our countryman‡ to deprive Paez of the merit of having anticipated him in the discovery and description of the source of the Abái, or supposed Nile, must ever

* Bruce (vol. iii. p. 257) thus defines the position of the province of Damot:—"On the south-east of the kingdom of Gojam is Damot. It is bounded by the Temci on the east, by the Gult on the west, by the Nile [Abái] on the south, and by the high mountains of Amid Amid on the north. It is about 40 miles in length from north to south, and something more than 20 in breadth from east to west." And accordingly that province is laid down in his map as being situate in the south-eastern corner of the peninsula of Gódjam. On my own entrance, however, into the peninsula from the east, towards the end of the year 1841, I found the province of Gódjam Proper to occupy the precise situation attributed by Bruce to Damot; and on my further journey into Dámot and A'gaumider in the beginning of 1842, I found the true position of Dámot to be altogether to the west of Gódjam Proper, extending at least 60 or 80 miles from east to west, and lying to the south and south-west of the source of the Abái, i. e. beyond it.

With regard to the rivers "Temci" and "Gult," mentioned by Bruce as being the boundaries of Dámot on the east and west, I must remark that during a residence of fifteen months in the peninsula of Gódjam, and repeated journeys through it in various directions, I could neither find nor hear of any rivers of those names either in or adjoining to Dámot or Gódjam Proper, though I frequently inquired after them, they being laid down, from Bruce, in Arrowsmith's map, which I had with me. But in the north-east of the peninsula—Dámot being in the south-west—between the districts of Enássie and Móta, I met with the Támme (Journal R. G. S., vol. xiv. p. 28),—evidently the Temee of the Portuguese Jesuits, for which I imagine Bruce's Temci is intended; and close to it I also found the Gult, which is the upper course of the Tádjatiel, a tributary of the Támme (Ibid., p. 44).

As Dámot is situate altogether to the south and south-west of the source of the Abái, that is to say, beyond it, it is manifest that Lobo, in proceeding to Lídja-Negús (Liginous = Lídja-Nehús) in Dámot, whither he was sent to establish one of the religious houses of his Order, must have passed by, or very near to, the source. Another of the residences of the Jesuits was at Temhuá (Tummahá) in A'gaumider, at a distance of less than thirty miles beyond the source of the Abái (see Journal R. G. S., vol. xiv. p. 7); and one was also at Nefassá, only a league and half to the west of the upper course of that river, between its head and Lake Tsána. (See 'Archæologia,' vol. xxxii. p. 42, sqq.) It is therefore quite a fallacy to suppose that the Jesuits in Abessinia had any difficulty in visiting the source whenever they may have thought proper to do so.

Such being the case, and the positions of Temhuá and Nefassá being laid down in Teller's map with tolerable accuracy, Bruce cannot well be freed from the suspicion of having intentionally misplaced Dámot.

Other residences of the Jesuits within the peninsula of Gódjam were at Kóllella, Hádasha, Sérka, and Mártula Máriam. At this latter place a splendid church was begun to be erected by Father Bruno Bruni in 1627, but was left unfinished in 1633, when he and the other members of his Order were compelled to quit Gódjam. A brief account of the ruins of this church is given in 'Journal R. G. S.,' vol. xiv. p. 26, sq., and a detailed description, with plates, will be found in 'Archæologia,' vol. xxxii. p. 38, sqq.

† See Kircher's 'Œdipus Ægyptiacus,' Syntagma I., cap. vii. p. 57, sqq.

‡ 'Travels,' vol. iii. p. 615, sqq.

remain a sad blot on the fame to which he had sufficient legitimate claims, without seeking to appropriate to himself what justly belonged to others.* It is not my intention here to enter into any details on this unpleasant subject, especially as I have felt it my duty, as the first traveller possessing from personal observation the means of fully estimating the relative value of Bruce's statements and those of Paez, to record the result of my investigations in a communication which I am about to make to the Geographical Society of Paris.†

Leaving the source of the Abáï and proceeding down its left bank, we come to Lake Tsána, also called the Lake of Démbea, through the southern extremity of which the river passes, its current being distinctly visible across the waters of the lake. About fifteen miles lower down we reach the A'lata, a small stream inconsiderable in itself, but entitled to particular mention on account of its proximity to the cataract of *T'is Esát*, or "The Smoke of Fire," ‡ which Europeans, from Father Jerome Lobo§ downwards, have called the "Cataract of A'lata," after its name.

The first river of magnitude falling into the Abáï on its left bank is the Báshilo, the recipient of the waters of the province of Ambára, and as such well known to us from the writings and maps of the Portuguese. Its source is at the northern foot of Mount Sagarat,|| at the extreme eastern edge of the table-land, and not far from the sources of the Bérkona and Mílli, two tributaries of the Hawásh.¶ Next in order is the Wálaka (or Shónkora?) of smaller size, which has its course through the district of that name, now inhabited by sub-tribes of the Túloma Gallas; and further to the south is the Djámma, one of the largest tributaries of the Abáï, which receives through it the waters of the whole of Shoa, Márrabiete, Mans, and Tégulet, as far as the western flank

* Bruce's dishonesty, which a reference to Kircher's 'Œdipus,' a book which he probably never saw, could not but immediately detect, was completely exposed as early as 1796 by Professor Hartmann, in his 'Edrisii Africa,' p. 13, *sqq.*—F. S.

† My two visits to the source of the Abáï are described in 'Journal R. G. S.,' vol. xiv. pp. 12 and 34. M. Arnauld d'Abbadie and Mr. Bell had both been there before me; and the latter has given a short account of his visit in 'Miscellanea Ægyptiaca' (4to. Alexandria, 1842), vol. i. part i. p. 22. M. Antoine d'Abbadie has since been there, and his visit is recorded in the 'Bulletin' of the Geographical Society of Paris, 3rd Series, vol. iii. p. 346, *sqq.*; and 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 221, *sqq.* His remarks on my description of the source are commented on by me in the latter work, 1846, vol. iii. p. 223, *sqq.*

‡ A description of this cataract and of the bridge near it, is given in 'Journal R. G. S.,' vol. xiv. p. 48, *sq.*

§ Bruce (vol. iii. p. 425, *sqq.*) is not less unjust to Lobo with reference to this cataract, than he is to Paez in respect of the source of the Abáï; as will be shown in my communication to the Geographical Society of Paris, above alluded to.

|| 'Journals of Messrs. Isenberg and Krapf,' p. 419, *sq.*

¶ For proofs that the Mílli (the Melee of the Maps) is a tributary of the Hawásh, see 'Journal R. G. S.,' vol. xiv. p. 72; and Johnston's 'Travels in Southern Abessinia,' vol. i. p. 197.

of the mountains of I'fat (or E'fat). This river, like the Bâshilo, was first made known to us by the Portuguese. From the Itinerary of MM. Combes and Tamisier,* which is very incorrectly represented in the map accompanying their 'Travels,' and from that of Dr. Krapf,† which is scarcely less accurately laid down in the map illustrating his 'Journals,' we are made acquainted with the numerous tributaries which unite to form this river, the main stream of which has been traced by myself throughout the greater portion of its course.‡ Of these tributaries the principal one is the Wâncit—the Anacheta of the Portuguese—which, like the Djâmma itself, was crossed by Alvarez in 1520 on his way to Shoa.§

To the south again of the Djâmma is the Múger, or Mógur, which river rises in the lofty mountains of Salála, on the opposite flank of which are some of the sources of the Hawâsh. In the lower part of its course the Múger forms the boundary between the Túloma and the Kúttai Gallas.¶ Where it joins the Abáï, the latter river has already quitted its southward course, and has taken a direction westwards along the south of the peninsula of Gódjam, separating it from the table-land now inhabited by Galla tribes, but which, as is shown in the maps of the Portuguese, was formerly the country of the Gáfats, of Dámot, and of Bizámo. In consequence, however, of the irruption of the Gallas and their occupation of the districts to the south of the Abáï, the inhabitants of Gáfat and of Dámot were driven across that river into Gódjam, where they have perpetuated their names and languages.¶¶

Of the various streams which flow into the Abáï along the southern part of its course to the south of Gódjam, it may be sufficient to mention the Gúder, which forms the boundary between the Gallas of Kúttai and Líban to the E. and those of Gúderu to the W.; the Fincháwa, or Agúl, between Gúderu and Hórru; and the Dibúk and Aléitu in the country of A'muru.**

M. d'Abbadie further names the "*Walmál* (Ouelmâl) of Limmu," as a tributary of the Abáï††; the mention of which stream calls for some special observations with respect to a certain river

* 'Voyage en Abyssinie,' vol. i. pp. 167—346, *passim*.

† 'Journals of Rev. Messrs. Isenberg and Krapf,' pp. 277—315, *passim*.

‡ 'Journal R. G. S.,' vol. xii. p. 247, *sqq.*

§ In M. Even's Map the Wâncit is altogether omitted.

¶ 'Journal R. G. S.,' vol. xiv. p. 23. M. d'Abbadie says, in a letter from Gódjam, dated April, 1844 ('Nouvelles Annales des Voyages,' 1845, vol. ii. p. 112), that "the Mogar has its source in Limmu, and separates Chélea from Hébantú;" but this is a mistake, unless he speaks of some *other* river of the same name with which I am unacquainted.

¶¶ See 'Proceedings of the Philological Society,' vol. ii. p. 93.

** These rivers are all laid down in the map in the 14th volume of the Society's 'Journal.'

†† 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 112.

“Habáhia,” which has of late years found a place in our maps. The first mention of the Habáhia was made by M. Jomard in his very interesting ‘Notice sur les Gallas de Límou,’ contained in the ‘Bulletin de la Société de Géographie de Paris,’* which Memoir was drawn up from information obtained from a young Galla lad named Wáre (Ouarè), a native of Sóbiche in Límmu. Wáre expressly stated that his country, Límmu, was situate on the banks of a large river named Habáhia, having among its tributaries the *Wálmá* (“Wouelma”), or, as it is written in the map accompanying the memoir, “Ouelmál,” *i. e.* *Wálmál*. From the great distance said to have been travelled by the young Galla from Sóbiche to the ford of the Abáí (Mélka-Fúri) between Gúderu and Básó; from the enumeration of the various districts lying along and on each side of his route; from his express statement that *the Habáhia runs from N. to S.*; and from the various other particulars furnished by him to M. Jomard, the latter was no doubt justified in regarding the “Habáhia” not merely as differing from the Abáí of Abessinia, but as belonging to a distinct hydrographical basin; as being, in fact, the head of one of the streams flowing into the Indian Ocean.

It was not long before this hypothesis was adopted by other writers on geography. The first of these was Mr. McQueen, who, in his ‘Geographical Survey of Africa,’† enters into a detail of arguments intended to prove that the Límmu of Wáre should be placed upwards of a degree to the S. of the position attributed to it by M. Jomard, and nearly 2 degrees further to the W. Of course, the position of the “Habáhia” would have to follow that of Límmu; and, accordingly, that river is laid down in the map accompanying Mr. McQueen’s work, as rising in about 7° 10′ N. lat. and 32° 30′ E. long., and as being the upper course of the “Kilimaney,”‡ which river is shown in the same map as discharging itself into the Indian Ocean in about lat. 3° S.§

* 2nd Series, vol. xii. p. 5, *sqq.*

† P. 251, *sqq.*

‡ So the name is written in the map; but in the body of the work it is “Quilimancy.” The author says, “Proceeding southward from Jubah, we find, betwixt the parallels of 2° to 3½° S., that is, between Malemba [Melindah] and Patta, a large delta thickly intersected by streams, the estuaries of a large river, which, according to the authority of the Portuguese, as searched out by that excellent geographer D’Anville, are the mouths of the great river Quilimancy.”—‘Geogr. Surv. of Africa,’ p. 250.

It may be proper to observe, that in d’Anville’s Map of Africa, published in 1749, it is stated respecting the Zeebe, that “the course of this river is *unknown*, and it cannot be determined whether it is the Quilimanci or the river of Paté.”

§ Mr. Arc Angelo, who in February 1844 ascended the Jubb or Gowín (the pseudo-Góljeb or “Gochob,” see p. 45, *sq.*) says:—“The island of Patte is in about 1° 50′ S.; Melinda is in about 3° S. Between these latitudes, that is, in about lat. 2° 44′ S., is the river Ozay or Ouzay, navigated by small craft chiefly. . . . The river Ozay is of great extent, but has very little water at the entrance. . . . This river is not known to the natives or people on the coast as the ‘Quilmaney.’ . . . The correct latitude of the river Ozay will be found in Capt. Owen’s charts.”—‘United Service Journal,’ 1845, part i. p. 127, *sq.*

Mr. Arc Angelo further remarks: “The only river of Eastern Africa up which the

This view of the course of the "Habáhia" has been likewise adopted, with some slight modifications, by Lieut. Zimmermann and Professor Ritter; the former of whom, in his map annexed to the latter's 'Blick in das Nil-Quellland,' makes that river to be one of the head-streams of the "Goschop," that is to say, the *Gódjeb*, which river, under the name of "Gochob," and as the supposed upper course of the Jubb or Gowín [*i. e.* the *Wábbi-Giwéyna*], has of late attracted so much notice.*

The "Habáhia" has, however, since assumed another position. According to M. Russegger,† this river is made by Professor Berghaus, in his 'Grundrisse der Geographie,'‡ to be the upper

Portuguese have penetrated, is the Quilmaney, a branch of the Zambéze, situated in lat. 18° S.—18° of latitude only—from the Juba or 'Gochob,' *besides longitude*.—*Ibid.*, p. 127. In Mr. Cooley's map in vol. xv. of 'Journal R. G. S.,' the river is called the Cuama, and Quilmane is a town at its mouth, in about the latitude stated by Mr. Arc Angelo. Mr. Salt, in the map at p. 12 of his 'Voyage to Abyssinia,' lays down the town of Quilmane on the Zambéze in the same position; but in p. 66, he speaks of "the port of Quilmaney, at the mouth of the river Zambezi."

[When this Paper was read before the Society, on the 28th December, 1846, Mr. McQueen stated that, in his opinion, the Kilimancy and the Kilimane are two distinct rivers. This notion is to be thus accounted for. When lake Tsána was carried away to the south by the early geographers, and was made to take the place of lake Zambéze (as will be shown in page 73), it was quite natural that the Wábbi, a river running at no great distance to the south of the former lake, should have been conjectured to be the head of the Kilimáne, which was well known to enter the Indian Ocean in a parallel of latitude not far south of the latter lake. But the connexion between the two rivers being purely imaginary, it ought of course to have been severed as soon as lake Tsána was restored to its place, and the true position of the Wábbi was found to be to the north of the Equator. *Instead of which, the Kilimane, under the name of Quilmaney, was made to accompany the Wábbi northwards, and to enter the ocean near Melindah, in about 3° S. lat.; the Zebeé being made by Delisle to supersede the Wábbi as the upper course of that river. The true position of the river Kilimáne (Quilmane), Zambéze, or Cuáma, having since been positively determined to be in 18° S. lat., the hypothetical "Quilmaney" in 3° S. lat., would unquestionably have been abandoned long ago, were it not for Bruce's statement (vol. ii. p. 318) that "the Zebeé is universally allowed by the merchants of this country [Abyssinia] to be the head of the Quilmaney, which passing through such a tract of land from Narea [Enarea] to near Melinda, must have opened a very considerable communication with the inland country." As, however, the connexion between the Zebeé and the Kilimáne is one not of fact, but of hypothesis on the part of the geographers of Europe, it is manifest that the idea of such a connexion would never have been entertained by the merchants of Abyssinia, who could not well possess any knowledge of a river which runs at a distance of 30 degrees of latitude (1800 miles) away from their country. And the truth is, that when Bruce was in Abyssinia, his own opinion, derived no doubt from native sources, was, as the fact really is, that the Zebeé joins the Nile (See page 60, sq. of this Essay); and it was only after his return home that he adopted the error of the early Portuguese, as modified by Delisle.]*

With reference to the spelling "Quilmaney" for "Quilmane," I cannot do better than cite the following remarks of Mr. Cooley:—"The disfigurement of proper names in the Decades of de Barros and his continuators is so frequent and manifest, that no critical student can allow their text to be conclusive authority with respect to names. We find in their pages 'Aghirimba' for 'Agizimba'; 'Zuuama' for 'Cuama'; 'Suabo' for 'Cuavo.' These errors, with hundreds more, have been copied with thoughtless servility."—'Journal R. G. S.,' vol. xv. p. 186. The only mis-spelled names which have to be noticed by me are 'Quilmaney' for 'Quilmane' (Kilimáne), 'Toavy' for 'Tacyu' (Takui), 'Zembere' for 'Zambéze,' and 'Abanhi' for 'Abahui' or 'Abái.'

* See page 43, sqq.

† 'Reise, &c.,' vol. ii. part ii. p. 98.

‡ Breslau, 1841, p. 286.

course of the Bahr el Abyad, or true Nile; which opinion has been adopted by M. Russegger himself, and likewise by Mr. McQueen in his more recent maps in Major Harris's 'Highlands of Æthiopia' and 'Blackwood's Magazine' for June, 1844.

In the first of these maps Límму and Sóbiche were made to retain their relative positions with regard to the "Habáhia;" which, seeing that it was from a native of Límму alone that we derived what knowledge we were supposed to possess of that river and the neighbouring countries, was only consistent and reasonable. But in the latest of them Sóbiche is removed altogether away from the "Habáhia," and is placed to the N. of the "Gochob," while Wáre's country, Límму, is made to extend as far northwards as Enárea; and in the remarks which accompany this latest map it is stated,* that "Enárea and Límму are the same." It is added, "There is another Límму . . . near or the same as Sibou, which, according to Bruce, is ten days' journey from the capital of Enarea, and, according to the French Geographical Bulletin (No. 114), not far from Horro and Fazoglo. *But the first Límmu is the Límmu of Jomard's Galla Oware*, because he states distinctly that Sobitche was its capital; that, in marching northwards from it, he crossed the Wouelmae river; and that Gingiro, to which he had been, lay to the right, or east, of his early route; and further that the river which passed near Soltiche ran to the south."†

To these assertions and arguments, however positively advanced, I reply that nothing is more certain than that Wáre's country is not "the first Límму," namely, "the same as Enárea," but is the "Límму near Sibou," and "not far from Horro and Fazoglo" (Fazókl). For the young Límму Galla, Amóchi, whom M. d'Abbadie brought to Europe, was indisputably a native of *Enárea*, and his country was *not* the Límму of Wáre.‡

Secondly, as regards Wáre's alleged personal knowledge of "Gingiro" *from having been there*, all that M. Jomard says is, that "Ouarè a aussi connaissance du Djendjiro qu'on suppose sous le 7^e parallèle et sous le 34^e méridien, peut-être trop à l'O. Djendjiro restait à sa droite. *Il est regrettable que Ouarè n'ait pas de plus amples notions de ce pays intéressant*, appelé tantôt Djendjiro (ou Gengiro) et tantôt Zendero.§ *Il passe pour renfermer des*

* 'Blackwood's Magazine,' vol. lv. p. 733.

† Ibid.

‡ See 'Bulletin,' 2nd Series, vol. xii. p. 188. M. d'Abbadie at first doubted the existence of two Límముs (ibid., vol. xiv. p. 240), as originally maintained by M. Jomard (ibid., vol. xii. p. 17); but he subsequently admitted the correctness of the opinion of his learned countryman (ibid., vol. xix. p. 438).

§ The native name is Yángar, or Yángaro. By the Gallas it is called Djándjaro, the Gingiro of the Portuguese. This name the Abessinians change, by way of ridicule, into Zindjero, which word means "monkey" in Amharic. The people of Tígre, who have a difficulty in pronouncing the *dj*, which sound does not exist in their language, change the Galla name into Zéndero.

mines.” * This last is manifestly an observation, not of Wáre, but of M. Jomard, with reference to the “ mines d’or de Bosham dans le Djendjiro,” which are more particularly noticed in the next page of the Memoir. Mr. McQueen appears, however, to understand this observation as coming from Wáre himself, and the words “ il passe pour renfermer des mines,” as meaning “ he had been sent there to stop some mines;” † and understanding it so, it is not altogether unintelligible that he should entertain the opinion that Wáre had been to a country of which, according to M. Jomard’s explicit statement, he knew nothing except its name, and that it lay to the right of his route—particulars which Wáre might easily have picked up, and, no doubt, did pick up, from some companion in captivity from Djándjaro, that country being one of those whence Abessinian slave-dealers obtain their supplies.

And, not to allow any point to remain unnoticed, I must add that to draw a conclusion from the positions of Sóbiche and the river Walmá, or Walmál, when these positions depend upon those of Límmu and the “ Habáhia,” is merely arguing in a circle; and scarcely even that, since, in his last map, Mr. McQueen has severed the connexion between Límmu and the “ Habáhia,” which connexion was the very foundation of his whole argument. As, however, M. d’Abbadie states the “ Ouelmál of Límmu ” to be a tributary of the *Abáí*, even this argument tells against, instead of for, the position which it was intended to prove.

The fact really is, that the idea of the separate existence of the “ Habáhia ” has arisen altogether from a misconception, as can be demonstrated with ease. Wáre states his native country, Límmu, to be on the banks of the Habáhia, in the vicinity of the districts of Wámber, Síbu, and Léka, and near to the desert country of A’ndak. ‡ Further, from the circumstance that in one of his war-songs Límmu is coupled with Hébantu (Ebantou), § it is evident that those two districts are inhabited by neighbouring tribes. Now, in the memoir ‘ On the Countries south of Abyssinia,’ contained in vol. XIII. of the ‘ Journal of the Royal Geographical Society,’ || and the accompanying map, the situations of Wámbera, Sibú, Léka, Hándak, and Hébantu are all correctly determined and laid down by me—the last district, indeed, from ocular observation. ¶ Consequently, the position of Wáre’s country,

* ‘ Bulletin,’ p. 10.

† “ Gíngiro he knew, as he had been sent there to stop some mines. It lay to the right of his early route, that is, to the east of Limmou.”—‘ Geographical Survey of Africa,’ p. 252.

‡ ‘ Bulletin,’ p. 8, sq.

§ Ibid. p. 25. “ Hebo, hebo, lola!
Hébantu-no lola.
Límmu mal’éga ?”

“ My lance, my lance! to battle, ho!
Hébantu has met the foe.
Why does Límmu tarry so ?”

|| P. 256. See also the ‘ Friend of the African,’ vol. i. p. 119.

¶ If further identification were necessary, we might adduce Wáre’s “ Dinigas” (p. 8),

Límmu, called Límmu-Sóbo* to distinguish it from the Límmu of Enárea, cannot possibly be doubtful. It is true that in that memoir the Habáhia of Wáre is considered to be the Dedhésa, and not the Abáï; † and I should still be inclined to maintain this opinion, ‡ were it not that M. d'Abbadie expressly asserts that the "Ouelmâl of Límmu" is a tributary of the Abáï, adding that that river is called Abbaya (Habáhia) by the Góngas§ — the very people whose former country is now occupied by the Galla tribes of A'muru, Hébantú, Límmu, &c., to which Wáre belonged. The only conclusion to be formed from the foregoing evidence, therefore, is that the "Habáhia" is the Abáï of Abessinia, Wáre being in error as to the direction of its course, than which nothing is more natural for a person of his limited means of information.

I may almost seem to have entered more into detail than was necessary on the subject of the "Habáhia;" but since this imaginary river has been adopted by so many writers of authority as the head either of the "Goschop" or of the Bahr el Abyad, I am satisfied that good service will have been done to geography, by the pains thus taken to expunge from our maps all traces of a river, which has in truth no real existence. ||

Before terminating our investigation of the tributaries of the Abáï on its left bank, we have yet to notice a river which holds a

as being the Dinkas, or Doukas (Dongas) inhabiting the country between the White and Blue Rivers.

* Have the names Sobo and Sobiche any connexion? † P. 256.

‡ In Shinasha I was told that the Dedhésa also bears the name of Abáï; and I find among my MS. notes a memorandum of a river *Walmâl*, said to run far to the west beyond Límmu; which would make it to be a tributary of the former river, and not of the latter. But the question is not very material, as in either case the position of Límmu, in the fork between the Dedhésa and Abáï, remains the same. From the camp at Mâbil, in Shinasha, I saw, just on the horizon, the peak of a high mountain in Hébantú, bearing S. 35° W. This, from its position, would seem to be, if not one of the peaks seen by M. Russeger from Mount Gewésh, at least a portion of the same lofty mountains observed by that traveller on the right bank of the Bahr el Azrek, or Dedhésa. From the same spot Límmu-Sobo was said to bear S. 55° W., beyond but adjoining to Hébantú, and consequently more towards the valley of the river.

§ "Le Abbay, dit fleuve Bleu en aval de sa jonction avec le Didesa, est appelé Abbaya par les Galla et Gongga, Abbawi par les Agaw." — "Nouvelles Annales des Voyages," 1845, vol. ii. p. 111. "Abbay est une abréviation du Abbaya de la langue Gongga." — "Bulletin," 3rd Series, vol. iii. p. 316.

|| Mr. Johnston, in his 'Travels in Southern Abyssinia,' vol. ii. p. 124, states that "there is a large river, of which every Galla speaks who comes from Límmoo, Jimma, and other districts in that [?] neighbourhood; and which flows south, say Mr. McQueen and Major Harris, whilst Dr. Beke denied its existence altogether, until his (Mr. J.'s) view were laid before the Geogr. phical Society." If, by this "large river," Mr. Johnston alludes to the "Habáhia," I of course continue to deny its existence, for the reasons above stated. Or if by it that gentleman means an hypothetical river, having the Gíbbe and Gódjeb for its head and the Dedhésa for its tail, as is shown in the Map accompanying his work, this is simply a reproduction of one of the main features of my Map of the 6th September, 1842, which further research has shown me reason to abandon. See, on the subject of this map, page 27, *sq.* of the present Essay.

The large river beyond Límmu (Enárea) and Djimma-Káka is the Gódjeb, which has no connexion whatever with the river beyond Límmu-Sóbo, namely, the Dedhésa.

prominent place in the maps of the Portuguese. I allude to the Malég, which is stated by Tellez* to have been crossed by Father Antony Fernandes on his journey to Enárea in 1613. To this brief notice of it our knowledge of the Malég is limited, except that in the maps of the Jesuits it is shown to be joined on its right bank by a river, apparently of some size, named the Anquer, *i. e.* A'nker.† It is important that we should endeavour to ascertain what this river Malég really is, and how far we are warranted in retaining it in its present position in our maps; and for this purpose it is necessary to consider the original description given by Tellez of Fernandes's journey, which appears to have been hitherto strangely misunderstood.

We are told‡ that, departing on the 15th of April, 1613, from Wambárrema (Ombrama), where the viceroy, Ras Sela Kristos, was encamped, Fernandes and his party travelled westwards for 2 or 3 days, through the country of the Gongas, to Shínasha (Sinassé), the principal place of that people.§ Here they had some difficulty in procuring an escort; and when at length they did obtain one, instead of being conducted southwards so as directly to reach the Abáí, they were taken 3 days' journey further west to a place called Minà, at the turn which that river makes northward towards Egypt, and in a line almost due W. from its source.|| The Abáí, which was here large and difficult to pass, was crossed with the help of rafts and men supported by gourds swimming before and behind. *On the following day* they entered the country of the "Cafres" subject to the Emperor of Abessinia. By these are evidently meant the *negroes*, or Shánkãlas, inhabiting the valley of the Abáí below A'gaumider,¶ whom Ras Sela Kristos had only that year rendered tributary.** *On the same day* the guide whom they had procured from Enárea to take them by a circuitous route ("per caminhos desviados"), in order that they might not fall into the hands of the marauding Shánkãlas, led them through the midst of a thick wood, very difficult to pass; whence, by a steep descent, they came to the Malég, a large river, *which they reached at night-fall*. *The next morning* they crossed the Malég at a ford; and when they had reached the opposite side, being no longer in danger from the Shánkãlas, they went on more tranquilly, and *soon* ("logo," which

* 'Historia de Ethiopia a Alta,' p. 314.

† In the more modern maps the name is erroneously written Anquet.

‡ Tellez, p. 313, *sq.*

§ Thus far westwards the road appears to be much the same as that taken by myself in 1842. See 'Journal R. G. S.,' vol. xiv. p. 37, *sq.*

|| "Em tres dias chegarã a o lugar, aonde haviam de passar o Nilo, o qual se chama Minã, e he ja na volta que elle faz pera o Norte, e pera o Egypto, quasi na frente de Leste a Oeste de sua fonte."—Tellez, p. 314.

¶ 'Journal R. G. S.,' vol. xiv. p. 9.

** See Paez, in Kircher's 'Œdipus Ægyptiacus,' Syntagma I., cap. vii. p. 59.

may indeed mean “*immediately*”) entered Enárea and began ascending a steep mountain to Gónea. Here they were received by the principal chief of that kingdom, and *from hence, in 6 days, going always to the S.*, they reached the court of the king of Enárea, tributary to the Emperor of Abessinia.

Bruce gives* an abstract of Tellez's text as regards Fernandes's route, adding, “The road and the places through which you pass are very distinctly set down in my map, and, I believe, without material error; it is the only place where the reader will find this route, which, till now, has never been published.” Nevertheless, that traveller appears to have much misunderstood the subject; for he says that Minà is the “*ordinary passage* into Bizámo on the way to Enárea;”† whereas Fernandes states that he did not go by the ordinary way, but was taken three days' journey further west into the country of the Shánkalas, and that then he had to go “*per caminhos desviados.*” Further, in his map Bruce places Gónea nearly 150 miles to the S. of Minà, and, consequently, almost *at the end* of the journey to Enárea. Fernandes's account shows, on the contrary, that it was *just at the beginning*, and that from thence he travelled *southwards for six days* before reaching the court.‡ The Malég itself, which by Bruce is made to take the place of the A'unker (Anquer) of the Jesuits' map, is placed by him at a distance of 50 miles from Minà; while their Malég becomes his Baħr el Abyađ, and Shínasha (Sinassé) is shown by him as being as much as 60 miles from Minà, and only 20 from Wambárrema (Ombrama).

The view which I take of the subject is altogether different. Fernandes, when he arrived at Shínasha, in the valley of the Abáï and close to the river, intended to cross there, that being the direct road to Enárea.§ But the Góngas would not, or perhaps could not, let him pass in that direction, so that he had to proceed much further—“three days' journey”—*westwards* to the country of the Shánkalas. Here he crossed the Abáï, just above the point where it is joined, on the opposite bank, by the Malég; and when on that opposite bank, being still within the deep valley of the Abáï, he had next to cross the neck of high land running out between the two rivers. This was done by ascending through the forest which lines the bank of the Abáï, and

* ‘Travels,’ vol. ii, p. 310, *sqq.*

† In my Itinerary in ‘Journal R. G. S.,’ vol. xiv. p. 39, I have erred in stating that the road by which I descended to the Abáï in Shínasha was the one taken by Fernandes: I had not then seen the original work of Tellez.

‡ “*De Goneá foram o Embayador, e o Padre á corte do Beneró, que assim se chamava o Xumo, ou Governador de Nareá, e chegaram lá em seys dias, hindo os primeyros por terras quasi despovoados por terem dado nellas os Gallas poucos dias d'antes, os mayns dias por terras boas, bem cultivadas, e de muyta gente.*”—p. 315.

§ ‘Journal R. G. S.,’ vol. xiv. p. 38, *sq.*

then again descending to the Malég. After crossing this latter river, a similar ascent had to be made up its opposite bank, *at the summit of which Fernandes reached Gónea*, situate, as I conceive, on the edge of the table-land, and being an *ámba*, or hill-fort, commanding the W. bank of the Malég, and in like manner overlooking the valley of the Abáï.* Thus far the nominal authority of the king of Enárea, though already broken by the irruptions of the Gallas, appears to have extended; and from hence a six days' journey, *always south*, brought the missionary and his party to the capital. †

It is unnecessary to pursue Fernandes's route further for the present. What has been introduced here is for the purpose of helping us in the identification of the Malég. The Father says, that Minà, at which place he crossed the Abáï, lay *almost due W.* from the source of that river, which would place that spot in near 11° N. lat.; and as the confluence of the Abáï with the Dedhésa lies in about that parallel, it might at first sight appear that the Malég is no other than the Dedhésa, or the direct stream of the Bahr el Azrek, under a different name. But, on the other hand, Fernandes, when in Shínasha, was already to the S. of 10° 30' N.; and as the direction of the Abáï there is *west-north-west*, it is hardly likely, even with his "3 days' journey further west" and his "caminhos desviados," that he should have gone back so far to the *north* as to strike the river in the eleventh parallel. It is, therefore, only reasonable to entertain the opinion, that the Malég is some *smaller* stream falling into the Abáï at some distance above, or south-eastward of that river's junction with the Dedhésa. It is true that Fernandes calls the Malég a "large" river, but this indefinite expression proves nothing as to

* My Itinerary affords several instances of *Ambas* similarly placed, such as Déï, in the fork of the A'dabai and Bérsena; Selalkúlla, between the Abáï and Djámma, &c.

† My own passage of the Abáï, on the way from Shóa to Gódjám (see 'Journal R. G. S.,' vol. xii. p. 250, *sqq.*), is in several particulars so strikingly illustrative of that of Fernandes from Gódjám to Enárea, that it is advisable to give a brief summary of it here. From Shóa I was sent by the king to Abba Moálle, the chief of the Múger Gallas, to be conducted across the Abáï. By that chief I was detained several days; and then, instead of my escort's taking me by the direct road westwards, which would have been through the country of the Djárso Gallas, and so across the Abáï *below* the junction of the river Djámma, I was made to turn to the north, and to cross first the Djámma and then the Abáï, *above the fork*. On this "circuitous route" I had first to descend to the Djámma through a thick wood, next to ascend to Selalkúlla, situate in the fork between the two rivers, and then to descend again to the Abáï, which river was passed with the aid of swimmers with gourds lashed to the small of the back, my luggage being carried over on a sort of small raft. In all these particulars the narratives of Fernandes and myself are identical, subject to the mere alteration of the names of the rivers and places. After crossing the second river, I had to reach the high table-land of Gódjám by an ascent, not so steep as that by which the missionary reached Gónea, and consequently so much the longer; after which my route lay for a continuance over the table-land of Gódjám, as his was for six days over a similar country, to which he gives the generic name of Enárea. As to the application of the name "Enárea," see page 57, *sq.* of this Essay.

its real size ; and, indeed, while he says that the Abáï had to be swum over, he admits that the Malég itself was crossed *at a ford*. But this could hardly have been the case had it been the Dedhésa, which is a river having deep water throughout the whole year ; since even the Yábús, which is only a tributary of it, is not fordable, but must be crossed by swimming or on rafts.* Besides which, had Fernandes really crossed so large a river as the Dedhésa, he would hardly have failed to mention his having *recrossed* it, which he must necessarily have done before entering Enárea.

There is yet another reason for questioning the identity of the Malég with the Dedhésa ; namely, that at the time when Abessinia was first visited by the Portuguese, the western arm of the Baħr el Azreħ was well known to them as the Takui (Tacuy),† such being the name which that river then bore among the Abessinians. If, therefore, the river crossed by Fernandes had been the Takui, he would assuredly have called it by that name, and not by that of “Malég.” That the two rivers should have got confounded with one another in our maps, arose doubtless from some misconception on the part, not of the Jesuit missionaries in Abessinia themselves, but of those of their Order in Europe who compiled the accounts of their travels ; and the clue to it is possibly furnished by the map of the upper course of the Abáï in Tellez’s work.‡ In this map is shown a small portion of the lower course of the “Tacuy,” joining the Abáï on its *left* bank, against which is placed the name “Rio Tacaze.” Now, supposing the designer of this map, who had the earlier Portuguese maps before him, to have written “Rio Tacaze” instead of “Rio Tacuy” by merely a clerical error, it would have been perfectly natural for another person copying this map, but not having access to the original documents and knowing nothing of the “Tacuy,” to imagine that the word “Tacaze” was not so much an error in the spelling of the name as a mistake in inserting the name itself against the wrong river, inasmuch as the “Tacaze” would have been well known to him as a tributary of the Abáï on its *right* and not on its left bank. He would consequently have felt himself warranted in striking the name out. The Takui would thus have been left in the map without a name ; and as the Malég is not shown in it at all (probably from its not being of sufficient importance), the next step in error would have been to place the name without a river against the river without a name.

The identification of the Malég with one of the smaller tributaries of the Abáï, most probably bearing in the present day a

* Cailliaud, vol. iii, p. 47.

† De Barros, ‘Asia,’ vol. iii, part i, p. 373, cited at length in page 29 of this Essay.

‡ “Figura de como o Nilo nasce e saye de Ethiopia,” at p 10.

Gállá designation—as the Takui does in its actual name of *Dedhésá*—must be left to the researches of future travellers.*

Having thus traced the *Abáí* throughout its entire course, and being again brought back to its confluence with the *Bahr el Azreḱ*, we have next to proceed to the consideration of this latter river. The facts which have been already adduced† with reference to M. Russeger's observation of the mountainous country on its right or eastern bank, are sufficient to prove, that, above the point where it is joined by the *Abáí*, the course of the *Bahr el Azreḱ* has the same general direction that it is known to take lower down; that is to say, from S. to N. And from the consideration of those facts, and from the information collected in *Abessinia* by M. d'Abbadie and myself respecting the *Dedhésá*, there can no longer exist any doubt as to that river's being the direct upper course of the *Bahr el Azreḱ*, or *Blue River*, the confluence with it of the *Abáí*, or *Hessénn*, taking place, as is already stated, in about 11° N. lat.

The course of the *Dedhésá* was first approximately laid down by myself. In connexion with the discovery of this river I may be allowed to enter into the following details. When in *Gódjam* in 1842, I obtained positive information of the existence of a river of large size joining the *Abáí* to the west of *Shínasha*, which river, from various considerations,‡ I was induced to regard not merely

* On the assumption that the name *Nile* is of Ethiopian origin, and ought consequently to be traceable in the native appellation of some one of the principal tributaries of that river, M. d'Abbadie attempts to derive that word from the name *Didesá* (*Dedhésá*). The steps of this etymological *tour de force* are as follows:—*Didesá*—*Didesá*—*Liles*—*Niles*—*Nilus*! See 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 109. But the fact appears to have been overlooked that "*Dedhésá*" is a *modern* name, like *Berésá*, *Wurgésá*, &c., and many others, which, since the *Galla* invasion, have superseded the original native names.

† See page 11, *sq.*

‡ One of these considerations, as is stated in my letter of the 6th September, 1842, was the evidence of Mr. English, already cited in page 10, *sq.*, as to the source of the *Bahr el Azreḱ*'s being situate far to the south of *Abessinia*. Another, as is also mentioned in that letter, was the assertion of Mr. McQueen, in p. 236 of his 'Geographical Survey of Africa' (which work I had with me in *Abessinia*), that Mr. English "most pointedly states, from a personal knowledge, and even ocular demonstration of the fact, that the *Bahr el Abiad* began (23rd *April*) to rise one month before the *Bahr el Azreḱ*;" it being repeated in the same page, that "the rise of the *Bahr el Abiad* at its junction with the *Blue river* commences in the month of *April*." This would make the flooding of the *Bahr el Azreḱ*, at the same spot, to commence some time in the month of *May*. But from my personal experience of three years,—in a tropical climate as good as three centuries,—the flooding of the *Abáí* does not begin in *Abessinia* till about the summer solstice (*June 21*). And as a month or perhaps more before that time the *Bahr el Azreḱ* was alleged to begin to rise at *Kharṭúm*, 500 miles lower down the stream, the only conclusion that could be drawn from the premises was, that the western arm of the *Bahr el Azreḱ* must have its source very much further to the south; and as the basin of this arm was thus made to extend so far to the south as to coincide with that of the *Gibbe* (*Zebeé*) and *Gódjeb*, there was no alternative but to regard all those rivers as belonging to one hydrographical system. Since my return to England, however, I have ascertained, from a reference to Mr. English's original work ('A Narrative of the Expedition to Don-

as the direct stream of the Bahr el Azrek, but as the recipient of all the waters of the countries to the S. of Gódjam as far as Enárea, Káffa, and Yángaro, and even further on. In accordance with this hypothesis I sketched a map of those countries, in which this river was laid down as forming the lower course of the Gódjeb (the connexion of which latter river *with the Nile, and not with the Indian Ocean*, I had then ascertained), and as having the Gíbbe, *the Dedhésa*, the Báro, and the Gába as its tributaries. This map was dated the 6th of September, 1842, as was likewise a letter addressed to the Rev. J. M. Trew, then Secretary to the African Civilization Society and now Archdeacon of the Bahamas, in which my reasons were given for its delineation in that form; and on the 19th of October the two, together with several other letters and maps, were despatched to Captain, now Major Sir William Cornwallis Harris, the British envoy in Shoa, for transmission to England. They reached his hands prior to the 11th of November following, on which day he wrote to me acknowledging their receipt; but they did not arrive in London till more than six months afterwards, namely, on the 13th of May, 1843.* By Mr. Stokes, Mr. Trew's successor as Secretary to the African Civilization Society, these documents were in part published in the 'Friend of the African' for June and July, 1843,† and then delivered over to Colonel Jackson, the Secretary of the Royal Geographical Society, Mr. McQueen having first been allowed,

gola, &c.'), that the time of the flooding of the Bahr el Abyad has been misstated by Mr. McQueen. The American traveller gives no date whatever of the Christian calendar; but he says (pp. 144, 146), "During our stay opposite Halfya [Halfáyah], the Nile, *on the night of the 23rd* [Sha'bán], rose suddenly about two feet. . . . This overflowing of the Nile was occasioned by the rise of the Bahur el Abiud, which, this year at least, commenced its augmentation nearly a month sooner than the Nile" (that is, the Bahr el Azrek). Now the 23rd Sha'bán, in the year 1236 of the Hidjrah, corresponds, not with the 23rd April, as asserted by Mr. McQueen, but with the 24th May, 1821; and this date is confirmed by M. Caillaud, who states expressly (vol. ii. p. 191) that the river at Halfáyah "rose eight centimètres *during the night of the 24th May*." Hence the flooding of the Bahr el Azrek would take place, not some time in May, but *towards the middle of June*; and consequently all my arguments, founded on the assumption of the rise of this river in Sennár one month earlier than the Abái in Abessinia, fall to the ground. And, in fact, Mr. English, in a subsequent part of his work (p. 165), states that the Bahr el Azrek "lost its transparency" on the 10th of Ramađán (= 11th June, 1821), and that "the day that presents the river troubled marks the commencement of its augmentation." This slight precedence of the flooding of the direct stream of the Bahr el Azrek before that of its Abessinian branch, is accounted for by the fact, that the first waters troubled are those of the Dedhésa, the sources of which river lie about two degrees to the south of the Abái.

* This is not stated with a view to impute to Sir William C. Harris any neglect in the transmission of my letters, but simply for the purpose of explaining how it happened, that the one in question had not been communicated to the Royal Geographical Society when I arrived in England, more than a twelvemonth after it was written. There doubtless existed a sufficient cause for the lapse of time which occurred between its receipt in Shoa and its arrival in London.

† Vol. i. p. 14, *sqq.*; and p. 27, *sqq.*

as a matter of favour, to inspect and take copies of them.* When my papers reached Colonel Jackson's hands, it was already too late in the season for him to make any use of them, so that they lay by till my own arrival in London in the month of October following. As, subsequently to the transmission of these documents, I had collected much additional information in Abessinia, I immediately began preparing a memoir, which was dated the 25rd of November, 1843, 'On the Countries South of Abessinia,' in which that subsequent information was incorporated, and which I requested might be substituted for the previous one of the 6th of September, 1842. This being permitted, the substituted communication was read before the Royal Geographical Society early in the next season, namely, on the 11th of December, 1843, and published, with a map, in the fourteenth volume of the Society's 'Journal.'

This explanation is due both to the Royal Geographical Society and to myself, on account of my previous letter and map of the 6th of September, 1842, which are still in the archives of the Society, having been brought to public notice by individuals through whose hands they passed before they came into the Society's possession—namely, by Sir William C. Harris in the 'Introduction' to the second edition of his 'Highlands of Æthiopia,'† and by Mr. McQueen in an article on African Geography in 'Blackwood's Magazine' for June 1844;‡ from both of whom my opinion that *the Gódjeb joins the Nile instead of flowing into the Indian Ocean* (as I was myself the first to imagine, but in error§), has met with express condemnation.

Returning to the consideration of the Dedhésa, it is remarkable that the existence of this western arm of the Blue River should have been recorded upwards of two centuries ago by de Barros;|| and yet, by some fatality, that writer's most accurate description of it should have been altogether disregarded. He says, "With

* 'Friend of the African,' vol. i., p. 27; and 'Blackwood's Magazine,' vol. lv. p. 739. Mr. McQueen is mistaken in saying that I "received some pecuniary assistance from the African Civilization Society," of which he was a member.

† "I have ascertained that the Gochob [Gódjeb] does not flow to the Nile, as it is made to do in a map which I have seen, constructed by one of the reviewer's greatest authorities."—vol. i. p. xxiv. The review here alluded to is one of Major Harris's work, in the 'Westminster Review' for March, 1844, vol. xli. pp. 183, *sqq.*, 619, *sqq.*

‡ "Amongst the maps there was one of the countries to the south of the Abay, including Enarea, Kaffa, and Gíngiro, constructed at and sent from Yaush in Gojam, September 6, 1842, together with some of the authorities on which it had been made. . . . The whole delineation, a copy of which I preserved, presented a mass so contrary to all other authorities, ancient and modern, that to rectify or reduce it to order was found impracticable, or where attempted only tended to lead into error."—vol. lv. p. 739.

§ See 'Information respecting the Countries S.W. of Shoa,' in 'Journal R. G. S.,' vol. xii. p. 87; and 'A Statement of Facts relative to the Transactions between the Writer and the late British Political Mission to the Court of Shoa,' p. 7.

|| 'Asia,' *decad.* iii. fol. 83, *Lisb.* 1628; vol. iii. part i. p. 370, *edit.* 1778–83.

respect to what we have learned concerning the territories of the Emperor of Ethiopia, the same lie between the streams of the rivers Nile, Astaboras, and Astapus, which Ptolemy describes in his fourth table of Africa. These rivers the natives call Tacuy [Takui], Abavy [Abáwi or Abái], and Tagazy [Tákkazie]; of which they regard the central one as the largest, and for this reason they give it the name it bears, which signifies ‘the father of rivers.’* It issues from the lake which Ptolemy calls Coloë and the natives Barcena” [Baħr Tsána]. And further on he says,† “The three rivers which water this country are not at their sources sufficiently large to irrigate the land of Egypt, but they are aided by the waters of other very considerable rivers. For the most eastern one, which is named Tagazy, receives seven streams; the second one, named Abavy, eight; and the Tacuy four, which have their rise in the mountains of Damut, Bizamo, and Sinaxy,‡ independently of others which join it before it arrives thus far.”

The only objection that might possibly be raised to this identification of the Takui with the Dedhésa or Baħr el Azreħ is, that by that river de Barros must be understood as referring to the *Baħr el Abyad*. But this objection has already been met by the learned d’Anville; not, indeed, with reference to the Takui, which river would appear not to have been known to him, but with respect to the “Malég” of the maps, which is, however, substantially the same thing. That distinguished geographer, in his ‘Dissertation sur les Sources du Nil, pour prouver qu’on ne les a pas encore découvertes,’ § pointedly notices the ignorance of the Abessinians with respect to all countries beyond their own immediate limits, as instanced in the conquest made, in the year 1613, by Ras Sela Kristos, of the neighbouring districts of Wámbera and Fazókl, which before that time were unknown to them. || Now, if in the year 1613, the valley of the Baħr el Azreħ itself was so utterly unknown to the Abessinians that it should be called by them the New World, it is not to be imagined that de Barros,

* But in another place (*ibid.*, p. 371) he says that the Abái was so called by the Abessinians, only because they had never seen the Takui, *i.e.* the pseudo-Nilus. See page 30, *note*.

† ‘Asia,’ vol. iii. part. i. p. 373.

‡ Pronounced “Sinashi.” In the Amhara and Gafat languages the country is called Shinasha; in Agáwi Tziñtzi; and by the natives themselves Sinicho.

§ “Les Abissins eux-mêmes paroissent ignorer ce qui s’éloigne de leurs limites. On lit, dans le P. Jérónimo Lobo, que Ras Sela Christos, général des troupes de Néguça Segued, voulant en 1615 [1613] porter la guerre dans les pays qui continént à l’Abissinie vers le couchant, étonné de leur vaste étendue, les désigna par le nom d’*Adis Alem*, qui signifie un nouveau Monde.”—‘Mémoires de l’Académie Royale des Inscriptions et Belles Lettres,’ vol. xxvi. (1759) p. 62, *sq.*

|| “Regnumque utpoté *incognitum* et ob vastitatem vocavit Ayzolam [Hadis Alem] id est novum mundum.” Paez, in Kircher’s ‘*Cædipus Ægyptiacus*,’ Syntagma I. cap. vii. p. 59.

whose information, derived from Abessinian sources, was of a much earlier date,* should refer to the far more distant Baħr el Abyaḍ under the name of Takui.† But there is even a more conclusive answer to such an objection. It is, that the position attributed by the Portuguese writer to the sources of the tributaries of the Takui, in the mountains of Dámot,‡ Bizámo, and Shínasha, fixes the precise locality of that river, determines the total want of connexion between it and the Baħr el Abyaḍ, and establishes its identity with the Dedhésa and with M. Russegger's upper course of the Baħr el Azrek, beyond the possibility of question.

In my memoir of the 13th of November, 1843, and the map accompanying it, are given various particulars respecting the Dedhésa, which have since been confirmed in a most striking manner by M. d'Abbadie, in a letter written from Góđjam, in April, 1844,§ after his return from Enára and Káffa. Of course, the details which M. d'Abbadie has it in his power to give must, in a great measure, supersede the previous information collected by me. Still, I may be allowed to observe that my map, which was composed from oral information obtained in Góđjam, is proved by that traveller to be substantially and in many cases minutely correct, so as to serve as an illustration scarcely less to his letter than to my own memoir. It is from M. d'Abbadie's letter that the following particulars respecting the upper course of the Dedhésa are extracted:—

Ascending the right bank of the Dedhésa, the Angar, a river of note in this portion of Africa, is first come to: it separates the Galla district of Horro from that of A'muru.¶ Above the Angar the Dedhésa is joined by the Wurgésa,¶¶ the Walmay,** and the Bókak;†† and still higher up, in the desert of Sédecho, by the Aëtu, and then by three other rivers, which carry to it the waters

* He died on the 20th October, 1570. See his *Life*, prefixed to the Lisbon edition (1778) of his 'Asia,' vol. i. p. lvii.

† In one passage de Barros says that the Abessinians call *the Nile* "Toavy;" but the context shows that this is merely a misprint for "Tacuy:"—" . . . as correntes do rio Nilo, que elles chamão Toavy [Tacuy], de que elles tem sómente noticia sem uso de suas aguas, por razão das grandes serranias de Damud, e Sinaxy se metterem entre elles, e elle. E daqui vem chamarem elles ao rio Abavy, pai das aguas, por não verem as do Nilo."—vol. iii. part i. p. 371.

‡ This is the ancient Damot, south of the Abáí, as shown in the maps of the Portuguese, and not the modern province of that name in the south-west of the peninsula of Góđjam.

§ 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 107, *sqq.*

¶ In my MS. notes I find recorded the river *Hángar*, as running between A'bole in Horro, and Túllo Kisto in A'muru. This is manifestly the A'nker (Anquer) of the maps of the Portuguese; and it affords a yet further proof of the identity of the Dedhésa with the Takui.

¶¶ M. Tutschek, in his 'Galla Dictionary,' (8vo. Munich, 1844) p. xiii., mentions a young Galla, named O'chu Aga, who came from "*Urgeza in Síbu.*" The position precisely corresponds.

** In my map Walmáa.

†† In my map Bókok.

of the kingdom of Géra. The head of the Dedhésa is situate in about 8° N. lat. and 75 miles to the W. of Sákka,* the capital of Enárea. It rises in a swampy meadow or sort of marsh, situate on the same plateau which gives rise to the rivers Báro, Gándji, Náso, and Gódjeb—all tributaries to the White River. Leaving on its left bank the kingdom of Gúma, from which it receives the Múllu, the Dedhésa first runs in a direction nearly E.; but on reaching the heights of Kóchau,† in the kingdom of Límму or Enárea, it turns round sharply to the N., separating that kingdom from the adjoining one of Gúma. Its course is here very winding, and in the dry season it is easily forded. Below Gúma it is joined on the left bank by the greater and lesser Sidan, the Chára, and the Dábana.‡

Thus far M. d'Abbadie. From information obtained by myself, there is a noted ford over the Dedhésa on the caravan-road to Túmhe, the country from which is brought to the market of Báso,§ in Gódjam, the *Koraríma* || (called by the Arab traders *Kheíl*,¶ the "Chéle" of Ruppell**), a sort of cardamom,†† which is exported from Maşówah to India in some quantity. The name of this ford is Mélka-Kwóya,‡‡ apparently the same, with a dialectic variation, as that of the Melka-Kúya over the Hhawásh, on the road between Tadjúrrah and Shoa. The country on the left bank of the Dedhésa, which comprises the districts of Búnno, Túmhe, and Djímma-Dábo (or Dápo), is, among the Gallas who frequent the market of Báso, usually designated by the generic name of Wallégga. It is inhabited by numerous independent Galla tribes, and stretches out westwards in vast grassy plains, which form the elephant-hunting grounds of the Gallas of Gúderu. §§ The ivory is brought by them for sale to Báso, from

* My position of the source is 7° 40' N. lat., and 40' W. of Sákka.

† "La hauteur de Kotchao." By this I understand the Abessinian expression *áfaf*, which means, not a mountain, but *the edge of the table-land*, over which the river precipitates itself into a deep ravine.

‡ In my MS. notes there are several routes in which the Dábana is mentioned, whence I conclude that it is a river of some magnitude.

§ See an account of this market in the 'Friend of the African' (1843), vol. i. p. 134, *sqq.*, p. 145, *sqq.*; vol. ii. p. 7, *sqq.*

|| 'Journal R. G. S.,' vol. xiii. p. 263.

¶ *Khil* of the Arabic lexicons. The word "*Khil*" is little used by the Arabs, and means, according to the Kámús, *Rue*, or rather *Peganum Harmalah*: it does not occur in Ibn Baiţár's 'Materia Medica.' Nothing, however, is more uncertain than the real value of Arab names of plants, and several different plants had doubtless the same name.—F. S. ** 'Reise in Abyssinien,' vol. i. p. 193.

†† The *Cardamomum majus* of Cordus. In Dr. Pereira's 'Materia Medica' (2nd edit.), p. 1026, it is figured as "Madagascar Cardamom;" the *Cardamomum maximum* of Matthioli, and the *Anomum angustifolium* of Sonnerat and Smith. At Báso I was informed that it is the produce of the districts beyond Túmhe, that is to say, to the south and west of that country. [See, on this subject, the 'Pharmaceutical Journal' of April and May, 1847, vol. vi. p. 466, *sqq.*, and p. 511, *sqq.*]

‡‡ *Mélka*, in the Galla language, means "ford."

§§ 'Journal R. G. S.,' vol. xiii. pp. 255, 268.

whence it is carried to Maşówah, and thence exported to India. In the lower portion of its course the Dedhésa flows through a desert tract called Hándak,* at a short distance to the west of Límmu-Sóbo, the country of M. Jomard's Galla, Wáre.†

M. d'Abbadie is inclined to the opinion that the Dedhésa is identical with the Túmat.‡ The same opinion was expressed by myself in my letter of the 6th September, 1842;§ but from what is stated in the preceding pages this opinion is manifestly untenable. Lower down, in about 10° 14' N. lat. according to M. Russegger,|| the Dedhésa, which has here acquired the name of the Baħr el Azrek, receives on its left bank the Yaħús, a river well known to us from the reports of the Europeans who have ascended the former in company with the troops of the Páshá of Egypt. The Yaħús is a considerable river, having much water throughout the year. It is not fordable, being crossed either by swimming or on rafts;¶ but, according to Russegger,** it is far from having the length attributed to it by Cailliaud. M. Russegger calls this stream the *Inbúss*. Among my MS. notes of information obtained in Gódjam, I find mention of a river in this direction called the *Dabús*. All these are evidently but different forms of the same name. Among the Shánkålas, or Bérta negroes, whose pronunciation is exceedingly thick and inarticulate,†† the native name would appear to commence with an indistinct nasal sound, common to many African languages—*N'bús*—from which has been made the Yaħús of the maps, but which M. Russegger would represent by *Inbúss*; while, from the ready permutation of the letters *n* and *d*, it takes the form of *Dabús* in the mouths of the Gallas, from some of whom I heard of it.

At about 60 or 70 miles below the “*N'bús*,” the Baħr el Azrek is joined by the Túmat, a river of much less importance

* Khandak means “a foss or dyke” in Arabic.—F. S.

† ‘Journal R. G. S.’, vol. xiii. p. 256.

‡ “Un homme de Sibou nous ayant assuré avoir vu la jonction du Abbaya avec le Didesa, nous croirions pouvoir identifier ce dernier avec le Tumat de M. Cailliaud.”—‘Nouvelles Annales des Voyages,’ 1845, vol. ii. p. 110. “Le Didesa paraît être le Tumat de M. Cailliaud, mais je n’ose encore l’affirmer.”—‘Bulletin,’ 3rd Series, vol. iii. p. 135.

§ That is to say, I imagined the Túmat to be the lower course of the western arm of the Baħr el Azrek. See ‘Blackwood’s Magazine,’ vol. lv. p. 739. In my Memoir of the 13th November, 1843, I looked upon the Yaħús as being the lower course of the Dedhésa, which was still an error, though but little removed from the truth, since the two rivers have a common channel for about 45 miles, before they are joined by the Abái. || ‘Reise, &c.’, vol. ii. part ii. p. 552. ¶ Cailliaud, vol. iii. p. 47.

** In a small pamphlet from which I made some extracts previously to my departure from England in 1840, but to which I have lost the reference. I apprehend it must be the ‘Wissenschaftliche Beobachtungen, &c.’, referred to by M. Jomard in his ‘Observations sur le Voyage au Darfour,’ p. 73. I have made inquiries after this pamphlet in Germany, but in vain.

†† See a Vocabulary of their language in the ‘Proceedings of the Philological Society,’ vol. ii. pp. 94 and 97, sqq.

than the former. When M. Cailliaud visited the *Túmat* in the beginning of January, 1842, he found it in great part dry, its bed meandering through an extensive plain.* He adds that it has water throughout the whole year; but on this point he disagrees with M. Weingartshofer,† an Austrian gentleman, formerly in the medical service of Ahmed Páshá, the late governor of Sennár, who informed me that the Egyptian troops call the *Yābús* a *bahr*, or *nahr*, that is to say, a river flowing in all seasons, while the *Túmat* is only a *khór*, or the valley of a winter brook.‡ And this is confirmed by Linant,§ as well as by Russegger, who says that in the dry season the *Túmat* has no water at Fázókl, its bed being sandy; but that in the country of Bérta, where it is rocky, the river has water at all times of the year. || M. Russegger adds that “the *Túmat* comes from the S., and has its origin in the innumerable mountain-torrents between Singe and Fázókl. Consequently, it has not half the length attributed to it by Cailliaud.” The error of the French traveller appears to arise from his considering the *Túmat* to be the lower course of the Malég of the maps.

As below the *Túmat* the *Bahr el Azreḡ*, or Blue River, is joined only by insignificant wádis or winter-torrents undeserving of mention, we are once more brought to its confluence at Khartúm with the *Bahr el Abyad*, or White River. Before entering upon the particular investigation of this latter river, it is proper that we should discuss the much-agitated question of the relative importance of the *Bahr el Abyad* and *Bahr el Azreḡ*, and of their respective right to be considered as the parent stream.

Whatever difference of opinion may heretofore have existed on this subject, the expeditions which have ascended the *Bahr el Abyad* by order of the Páshá of Egypt, must be considered as having set the matter finally at rest, so far at least as regards magnitude, by proving the immense superiority of this river over

* Vol. ii. p. 386.

† It is to this traveller that I am indebted for the information respecting the Páshá of Sennár's “Slave-Hunt” in 1843, published in the ‘Friend of the African,’ vol. i. p. 107, *sqq.*, and also for the account of the forced march of a slave caravan across the Nubian Desert, given in p. 120 of the same volume.

‡ “*Khor*, ein Regenstrom, ein Regenbach, Torrent.”—Russegger, vol. ii. part ii. p. 510. [According to the Arabian lexicographers, *bahr*, properly the sea, or a very large lake, such as the Caspian, is also used for a very large river, such as the Nile: *nahr* is the general term for river; and *khór* (properly *khaur*) means a valley between high mountains, the mouth of a river, and a bay or gulf of the sea: the latter is the sense in which it is commonly used by Arab writers. *Wádi* (in an abbreviated form, *wád*, sometimes pronounced *wéá*) signifies any narrow valley, and the bed of a torrent at some seasons dry.—F. S.]

§ ‘Journal R. G. S.,’ vol. ii. p. 185.

|| On the 5th January, 1838, M. Russegger encamped near Fázókl, in the dry bed of this river. By digging a foot deep in the sand water was found. See ‘Reise, &c.,’ vol. ii. part ii. p. 551, *sq.*

its better-known Abessinian branch. As, however, some persons may still entertain the opinion that the Baħr el Azreķ, though the smaller stream, ought to be regarded as properly the upper course of the river of Egypt, we will proceed to consider what real grounds there are for entertaining such an opinion.

Dr. Murray, the able and ingenious commentator and apologist of Bruce, at the same time that he admits that traveller to be in error in supposing the Baħr el Azreķ to be the Nile of the ancients, adduces arguments in excuse, if not in defence, of this error, which deserve to be reproduced. In a note on the remark in Bruce's MS. Journal that "the Nile is still at Halfaia [*i. e.* 9 miles below the junction] called El Azergue [Azreķ], not the Nile," Dr. Murray observes,* "The name of the Abyssinian branch extended to the united stream either insinuates that the colour of the Abay is still retained by the river, a circumstance which, considering the superior mass of the western waters, white with mud,† is not very probable; or that the river is still considered as a continuation of the Abyssinian branch, and consequently retains the name of its original. All the Arabs, from Fazuelo to the junction, know the river of Habbesh by the name Baħr el Azreķ. If they give this appellation to the river after it has joined a larger branch, it is plain they consider the larger branch as received into the smaller, not the smaller as received into it. It is the straight course which determines these unlettered savages. Many similar instances occur within our own island of rivers being called after the inferior branch, because they run straight on in its direction; while the greater torrents that rise in more elevated grounds are forgotten in the course of these, because they join them in an angular position. That the Baħr el Abiad deserves, from its importance, to be reckoned the principal source of the river of Egypt is not to be doubted; that Herodotus and Ptolemy, who led their translators, the Asiatic Arabs, considered it as such is evident; but the natives of Habbesh, Sennaar, and Atbara seem to dispute these facts so generally that Mr. Bruce may surely be excused in following their opinion."

This reasoning, ingenious as it is, is, nevertheless, without any real foundation. If the "straight course" and "the name Baħr el Azreķ" are to give an inferior branch a claim to the title of "the Nile," to the prejudice of the larger stream, then is *the Dedhësa* entitled to that distinction, since, as has been shown in a former part of this Essay,‡ it is that river and not the Abái, the river visited and described by the Portuguese Jesuits and after them by Bruce, which answers to these two conditions. But

* 'Life of Bruce,' (4to. edit.) p. 429.

† Is it not rather that the colour of the Baħr el Abyađ arises from the comparative absence of mud in its waters?

‡ Page 26, sqq.

without attempting to evade the question by a side argument like this, we will at once take higher ground, and show that Dr. Murray is mistaken as to the fact both of the Bahr el Azrek's being *generally recognised by the natives* as the parent stream, and also of its being the *direct* continuation of the Nile.

Our first authority is M. Russegger, who states as follows:—“Many travellers make a distinction between the *White Nile* and the *Blue Nile*, designations of which the natives know nothing. Independently of the Arabic names ‘Bahr el Azrek’ and ‘Bahr el Abyad’—the *Blue and White Rivers*—they apply the name of ‘the Nile,’ absolutely, to the *White River*, as being the more important of the two large streams, but never to the *Blue River*, which they regard merely as a stream of minor importance, like the Takkazie.”* And again:—“The principal arm of the Nile is the Bahr el Abyad, which is therefore very often called by the natives ‘the Nile,’ a name which they never use in speaking of the *Blue River*. They look upon the latter as altogether a subordinate stream. And this opinion is, in a manner, quite in accordance with nature; for, *whether as regards the direction of its course or its volume of water*, the Bahr el Abyad is a stream of considerably greater importance than the Bahr el Azrek.”†

Mr. English corroborates this opinion, and states further that by the natives of Sennar the Bahr el Azrek is called *Adit*, and that it “enters the Bahar el Abiud *nearly at right angles*; but such is the mass of the latter river that the Nile [*i. e.* the *Adit*] cannot mingle its waters with those of the Bahar el Abiud for many miles below their junction.” And again: “At the point of junction between the Bahar el Abiud and the *Adit*, the Bahar el Abiud is almost barred across by an island and a reef of rocks; this barrier checks its current, *otherwise it would probably almost arrest the current of the Adit*. It is, nevertheless, sufficiently strong to prevent the *Adit* from mingling with it immediately, although the current of the *Adit* is very strong, and enters the Bahar el Abiud *nearly at right angles*.”‡ On the other hand, M. Cailliaud, in speaking of the Bahr el Abyad above the junction, observes that,§ “for the first 2 leagues it appears to run about S. 45° W., forming a straight line with the Nile in the same direction.” And again:|| “The direction of the White River is almost S.W., and consequently, as I have already stated, *it runs in one line with the Nile N. of the Blue River*.”

That at the present day the natives of Abessinia regard their river, the Abáï, as the Nile, will be conceded; but they likewise

* ‘Reise, &c.,’ vol. ii. part i. p. 515.

† Ibid., vol. ii. part ii. p. 82.

‡ ‘Narrative of an Expedition to Dongola,’ p. 196.

§ ‘Voyage à Méroë, &c.,’ vol. ii. p. 198. || Ibid., vol. iii. p. 94.

believe it to be the Gihon of Genesis! But the ancient Axumites evidently thought differently, and if they knew the Abáí at all (which may be doubted), they looked on it only as a tributary of *their* river, the Tákkazie,* which latter was considered by them to be the upper course of the Nile.† This is proved by the second Adulitic Inscription of Cosmas Indicopleustes, in which the province of Sámien (Samen), immediately to the W. of the Tákkazie, is described as being “beyond the Nile.”‡ And, in fact, as we proceed up the river, we shall find that the native population dwelling on the banks of any branch on either side assert their own river to be the head of the main stream, simply because they are ignorant (as the Abessinians in particular are known to have always been §) of the existence of any larger river of which it is a tributary. || What we require is the testimony of the natives dwelling *between the two streams*, and thus possessing a knowledge

* *Tákkazie*, in the Gëëz or ancient Ethiopic language, is not a proper name, but an appellative signifying “river:” *e. g.* ጥኩዜ : ግዮን : *Tákkazie Gëyón*, the river Gihon, *i. e.* the Nile; ጥኩዜ : ጢግርስ : *Tákkazie Tiégrës*, the river Tigris. Thus the Tákkazie of Abessinia was *the* river, *κατ’ ἕξοχὴν*. (See Ludolf, ‘*Lexicon Æthiopicum*,’ *sub voc.* ጥኩዜ : and Dr. Murray’s *note*, in vol. iv. p. 340, of the second edition of Bruce’s ‘*Travels*.’) Accordingly, in the Ethiopic version of the Scriptures, the *river* (ጥኩዜ) whose waters were turned into blood by Moses (Exod. vii. 15–25) is called *Tákkazi*.

As to the meaning of the ጥኩዜ of the Hebrew text, see ‘*Origines Biblicæ*,’ vol. i. p. 280; and ‘*Asiatic Journal*,’ vol. xvii. (1835) p. 93, *sq.*

† The Emperor Lalibala is celebrated in Abessinian and Arabian history for a successful attempt which he is said to have made to turn the course of the Nile. On this subject Mr. Salt remarks (‘*Voyage to Abyssinia*,’ p. 473, *note*), “The ignorance of the times may have favoured the opinion of the possibility of such an undertaking, but in all probability the only source of a river over which Lalibala had a command was that of the Tacazze [*Tákkazie*], which takes its origin in Lasta.” Without expressing any opinion as to the practicability of the undertaking thus imputed to Lalibala, I may remark that, from what is above stated, it is manifest that the “Nile” of that monarch was the Tákkazie. It is even not improbable that it was the *eastern* arm of that river, now known as the Tselári.

‡ “After this I reduced Ava and Tíamo or Tziamo, Gambéla and the country round it, Zingabênê, Angabê, Tíama, and the A’thagai, Kálaa, and Semênê, a nation beyond the Nile—Σιμωνὶ ἕνεος πέραν τοῦ Νεῖλου—among mountains difficult of access and covered with snow; in all this region there is hail and frost, and snow so deep that the troops sunk up to their knees. I passed the RIVER [to attack these nations], and subdued them”—τὸν ποταμὸν διαβέει, ὑπὲρ αὐτῶν.—Cosmas, in Fabricius, ‘*Bibliotheca Græca*,’ lib. iii. c. 25, § 32: vol. ii., 1716, p. 606; and Vincent’s ‘*Commerce of the Ancients*,’ vol. ii. p. 541, *sq.* There can be no question as to the fact that *the Tákkazie* is here meant.

§ See page 29 of this Essay. M. d’Abbadie remarks, in a letter published in the ‘*Athenæum*,’ No. 918, of May 3rd, 1845, p. 542, “I admit that all Abyssines name the Abbay as the principal branch of the Nile, but this is from sheer ignorance, since they maintain, at the same time, that were the Abbay made to flow through Shawa [Shoa] into the basin of the Hawash, Egyptian harvests would perish by drought.”

|| Even when some of them had become acquainted with the existence of a larger arm, they would of course see no reason to alter their nomenclature. Thus, it is quite consistent that the people of Sennár should continue to call the river on which that town lies, the “Nile,” (English says they call it the *Adit*), though the *merchants* of that town know the Bahr el Abyad to be the much larger stream of the two. See Burckhardt, ‘*Travels in Nubia*,’ p. 350, *sq.*

of *both*; and upon this point M. Russegger's statement above cited is conclusive.

If, on the other hand, we appeal to the testimony of former ages, we shall arrive at precisely the same result. The opinions of the ancients on this interesting question have been so ably discussed by d'Anville, in his '*Mémoire sur le Nil*,'* that it would be a work of supererogation to make any further statement here. All, therefore, that is necessary is to refer to the work of that learned writer, with the remark that, as to him is due the merit of having first laid down the course of the Baħr el Abyaḍ, in a manner which subsequent positive information has shown to be substantially, indeed almost minutely accurate, so likewise has he that of having demonstrated that this river is the *Nile* of Ptolemy.

There is only one other point remaining to be adverted to, which is the fact, irrespective of all opinions, that the Baħr el Abyaḍ is by far the larger river. From the extracts from Bruce's MS. Journals, which were published by Dr. Murray, we have that traveller's testimony that the Baħr el Abyaḍ is of much greater magnitude than the rival stream:—"The Abiad river is three times as big as the Azreḵ (Nile)."† And M. Linant, who, in the year 1827, ascended the former river as far as Al-leis, records that "the Baħr-Abiad is undoubtedly the principal of the two rivers which form, by their junction, the Nile of Egypt. It discharges a greater volume of water than the Baħr-Azreḵ; and, although somewhat narrower immediately at the confluence than it is higher up, it is, even in this respect, equal to the Blue River. The colour of its waters is also that which characterizes the conjunct stream in the dry season."‡ The evidence of Cailliaud, English, and Russegger might likewise be adduced. But we stand in no need of individual testimony to prove what, in the present day, is an established and notorious fact. The recent explorations of M. d'Arnaud and his companions for 1000 miles above the point where the Baħr el Abyaḍ is joined by the Baħr el Azreḵ, have irrevocably determined that the former is by far the larger river. And it must be borne in mind, that, above 9° 30' N. lat., the stream which they thus navigated is only *one of three*; for, in about that parallel, two arms branch off from the main stream, the Sobát or Téfi to the E. and the Baħr el Ghazál or Keiláh to the W., each of which is nearly, if not quite, as large as the central stream ascended by the Egyptian expeditions. Compared with such a river as this, the Baħr el Azreḵ, even with its two arms, the Dedhésa and the Abáï, sinks into comparative insignificance.

Whether, then, we consider the relative magnitudes of the two

* '*Mémoires de l'Académie Royale des Inscriptions et Belles Lettres*,' vol. xxvi.

† '*Life of Bruce*,' p. 418.

‡ '*Journal R. G. S.*,' vol. ii. p. 185.

rivers, the direction of their respective courses, or the volume of their waters; whether we regard the opinions of the ancient geographers, or those of modern travellers, or of natives acquainted with *both* streams—for the evidence of such as only know one is, of course, inadmissible;—the result is the same. In all and each of these points of view, the Bahr el Abyad, or White River, is the principal stream, and the Bahr el Azrek, or Blue River, is the subordinate or tributary. In pursuing our course, therefore, as is now requisite, up the former river, we may rest assured that we are ascending *the Nile*.

As far as Al-leis, in $13^{\circ} 43'$ N. lat., the main stream was ascended by M. Linant, as already mentioned. For our knowledge of its course above that point we are indebted to the three expeditions undertaken by command of the Viceroy of Egypt, between the years 1839 and 1842. Without pretending to enter into the details of these expeditions, it will be sufficient to say that the first reached as far as about $6^{\circ} 30'$ N. lat.—at the time erroneously stated to be as high as $3^{\circ} 35'$ N. lat.*—the second to $4^{\circ} 42' 42''$ N. lat.† and $31^{\circ} 33'$ long. E. of Greenwich, and the third not quite so far. Of the second, which is thus seen to be the most important, the results have been partially made known by M. d'Arnaud, the scientific chief of the expedition, and pub-

* M. Werne says ('Blick in das Nil-Quellland,' p. 42; and 'Monatsberichte,' N. S., vol. ii. p. 16), "Die erste Expedition drang vor bis zum Lande der *Elliab* ($6^{\circ} 30'$ n. B.) am 27 Januar 1840. Ihre astronomischen Berechnungen sind falsch, wenn sie den $3^{\circ} 35'$ angaben."

† In consequence of doubts having been expressed by M. Russeger in his 'Wissenschaftliche Beobachtungen,' p. 66, as to the geographical results obtained by M. d'Arnaud and his party, whom he imagined to have been unprovided with instruments for making the necessary observations, M. Jomard has made a formal declaration on the subject in his 'Observations sur le Voyage au Darfour' (8vo. Paris, 1845), p. 73, *sqq.* He says, "The observations were made between the 19th November, 1840, and the 2nd February, 1841, and between the 5th February and the 1st June, being in number about eighty, between Kharfûm and the furthest point explored, and consisting of 39 on the voyage up the river (of which 28 were of latitude and 11 of longitude), and 43 on the return down. Those of longitude were by lunar distances and by the chronometer. The extreme point of the expedition, in $4^{\circ} 42' 42''$ N. lat., is at the furthest extremity of the island of Jeankar, between the village of Waleny on the right bank of the Bahr el Abyad, that of Alacone on the left bank, and the mountains of Belenia and Korek towards the south. I could give (he adds) the names of the other places of observation. The instruments with which the observers were provided consisted of a reflecting circle, a chronometer by Bréguet, sextants with artificial horizons (mirrors and mercury), besides magnetic compasses, thermometers, barometers, hygrometers, &c."

In a letter dated the 23rd January last, M. Jomard informs me further that he is now in possession of M. d'Arnaud's detailed map of the river, three metres (nearly 10 feet English) in length, and that he has lately received the whole of the original observations, which are in course of calculation. The journal of the voyage is in three volumes, filled with sketches and sections of the valley of the river, made almost daily; besides numerous barometrical and meteorological observations.

I have felt it my duty to add this note, in consequence of the doubts respecting the extreme point reached by M. d'Arnaud, which were expressed at the Meeting of the Royal Geographical Society when this Paper was read.—13th February, 1847.

lished in the 'Bulletin' of the Geographical Society of Paris,* and by M. Werne in a memoir printed in the 'Allgemeine Preussische Zeitung,'† and reprinted by Professor Ritter in his 'Blick in das Nil-Quellland.'‡

From these accounts, and from the map which accompanies that of M. d'Arnaud, we collect that from the junction of the Bahr el Azreḵ at Khartúm to about the 14th parallel of N. lat., the direction of the Bahr el Abyad is about W.S.W.; above that point it continues almost S. to about 11° N. lat.; thence its general direction is to the S. W.; till in about 9° 10' it becomes due W.

According to our system of investigation, we must here quit the main stream, in order to consider the tributaries which it receives on its right bank between the parallels of 11° and 9° N. They are three, named respectively in M. d'Arnaud's map Pipar, Djal, and Sobát (Saubat). The first two are marked in the map as branches of the Sobát, and as forming with that river at its confluence with the Nile a delta of upwards of 100 miles each way; and, in conformity with this, M. d'Arnaud states that the Sobát "a encore deux dérivations assez considérables plus au nord."§ Were it not for this, I should be inclined to regard these two rivers as having no connexion with the Sobát above, but as being separate streams of no very long course, and probably running only during the rainy season. The Sobát itself was ascended by the second expedition for upwards of 80 miles in a direction about E.S.E., and it is described as contributing to the Nile nearly a moiety of its waters.¶ It is called by the natives on its banks Télfí and 'Tá, and by the Arabs Bahr el Makádah, or the river of *Habesh*.¶

The most recent traveller in the countries south of Sennár is M. Castelli, who, in a letter from Dr. Perron of Cairo, dated the 3rd of September, 1845,** is stated to have penetrated, in com-

* Second Series, vol. xviii. p. 367, *sqq.*; vol. xix. p. 89, *sqq.*, and p. 445.

† No. 204, of 24th July, 1844.

‡ P. 42, *sqq.* See also 'Monatsberichte,' N.S., vol. ii. p. 16, *sqq.*

§ 'Bulletin,' vol. xix. p. 90.

¶ Ibid.

¶ Werne, in 'Blick in das Nil-Quellland,' p. 47. By Selím Binbáshí, the commander of the first expedition, this river is named Bahr el Sebót, or Sebát, and Chelfyh, Telky, or Telkhy ('Bulletin,' 2nd Series, vol. xviii. pp. 26, 171). This last

is evidently an error in writing ق for س; since not only M. Werne, but also M. Thibaut, who likewise accompanied the expedition, has Tel'i (Ibid., p. 382). M. Thibaut attributes further to the Sobát the names of Blue River and Kety, which latter designation is given by M. Werne to the main stream of the Bahr el Abyad. The officers of the first expedition describe the waters of the Sobát as of a reddish colour (rougeâtre), which however they go on to say is but little different from that of the White River itself (Ibid., p. 171).

As to the application of the terms "Makádah" and "Habesh," see the note in page 2 of the present Essay.

** 'Bulletin,' 3rd Series, vol. iv. p. 65, *sq.*; 'Nouvelles Annales des Voyages,' 1845, vol. iv. p. 138.

pany with a body of Egyptian troops, as far as "the Sobát, at near the point where the Pipar and Sobát present a bifurcation;" consequently to about 9° N. lat. and 33° E. long. Here "the Sobát was crossed and then recrossed; and on the further march, which was more directly towards the E., they had to cross the Sobát a good number of times, and likewise the Túmat." After a very winding road, the army reached Mount Dul, in about $8^{\circ} 35'$ N. lat., and about $35^{\circ} 10'$ E. long.; and from thence it returned to its point of departure.

It is to be regretted that the account of this journey hitherto furnished is so concise. Still, sufficient is stated to show that the "Sobát" which M. Castelli reached cannot be the upper course of "the river of Hábesb," which was ascended by M. d'Arnaud and his companions. For it is not to be conceived that the immense stream, which is described by the latter as "contributing to the Nile nearly a moiety of its waters," should have received no further notice from the former traveller than that it was "crossed a good number of times;" still less that a river which is stated to form a delta of 100 miles in extent, should have its source within another hundred miles of the apex of that delta: independently of which, we have (as will next be seen) evidence showing the position of the main stream in a totally different direction, namely, in the S.E. The reasonable conclusion is, that the Sobát of M. Castelli is some minor tributary of the Sobát or Téli of the Egyptian expedition, which, among the Dinkas, has given its name to its recipient. The sources of this tributary are manifestly in the vicinity of those of the Yábús and Túmat (which latter river that traveller in like manner repeatedly crossed), that is to say, but approximately only, in about $9^{\circ} 30'$ N. lat. and 34° E. long.

Of the upper course of the main stream of the Sobát or Téli, we are not furnished with any further particulars by the officers of the Egyptian expeditions. It is to other sources that we must look for this information. And first we are told by M. Russegger* that three days to the S. of Singe, which place that traveller afterwards found to be in $10^{\circ} 16'$ N. lat., is Fadassi on the left bank of the Yábús; and three days beyond that is Lerha, the residence of the Galla chief Werkholtello. In this same direction Cailliaud places Gambél and Dallalte, where there are copper-mines.† In my MS. notes ‡ I find it recorded, that to the W. of the Dábana, a principal tributary of the Dedhésa, there is a Galla district called *Gambél*, the chief of which is *Wakontále*,

* In the pamphlet already adverted to, in page 32. note.

† Vol. iii. p. 47.

‡ In my note-book I have a mass of information, collected from various Abessinians and Gallas in Gódjam and elsewhere, which, from its want of connexion, cannot readily be made available. But it may become so from time to time, as in the present instance with respect to the Galla chief Wakontále.

surnamed from his horse, Abba-Loko—"the rider of the Lizard (?)"—who some time since fought with the Arabs and conquered them. This chief is evidently the Werkholtello (according to the German orthography, Wercholtello) of Russegger; the position of whose residence, *Lerha in Gambél*, may, from a comparison of the data thus furnished by that traveller, Cailliaud, and myself, be determined with sufficient accuracy. Russegger goes on to say, that after three days' journey further S. from Lerha, over a level country, a large river occurs, which is called by the Arab slave-dealers who travel thither *Baḥr el Abyad*, or the White River. The sources of this river are said to be in the high land of the Gallas, and its course from E. to W. as far as the country of the Dinḡas, where it turns northwards and descends to Khartúm.*

Knowing as we do, that, to the S. of the junction of the Sobát with the direct stream of the Baḥr el Abyad, the latter river was ascended by the Egyptian expeditions to beyond the 5th parallel of N. lat., and that in no portion of their route above that junction did they pass to the east of the 32nd meridian E. of Greenwich, it is a mere truism to say that we shall not find the *Baḥr el Abyad* anywhere to the N. or E. of those limits: consequently, the river in 8° N. lat., and between 34° and 35° E. long., designated "Baḥr el Abyad" by M. Russegger's informants, can by no possibility be the river of that name which was ascended by MM. d'Arnaud and Werne.

Still, Russegger's information is too precise and too positive to be rejected, especially as the position of the residence of the Galla chief Wakontále, the last stage on the road to the river called Baḥr el Abyad, is, as it has been seen, determined from a totally independent source: in addition to which, my memoir of the 23rd November, 1843,† contains positive evidence of the existence, in the direction thus attributed to the "Baḥr el Abyad," of the *Báro*,—"a very large river," "much larger than the Abái,"—to which the Gallas of Gúderu are in the habit of proceeding in their military and elephant-hunting expeditions, "the distance gone by them being 14, others said 16 or 17 days on horseback." Now, 300 miles (15 days at 20 miles *per diem*) in a direction nearly W. from Gúderu, brings us to the "plaine couverte de hautes graminées et où paissent de nombreux troupeaux d'éléphants" of d'Arnaud's map, through which the *Sobát* has its course. Hence there can be no difficulty in identifying the Báro with the Sobát, Téli, Tá, Baḥr el Makádah, or

* See, to the same effect, Russegger's 'Reise, &c.,' vol. ii. part ii. p. 88. In the extract from M. Russegger's pamphlet, the distance from Lerha to the "Baḥr el Abyad" is stated to be only three days' journey: in his 'Travels' it is five.

† 'Journal R. G. S.,' vol. xiii. p. 268.

River of Hábesh, of the Egyptian expeditions, and with the “Baḥr el Abyád” of Russegger. A letter from M. d’Abbadie, dated A’dowa, the 14th of October, 1844, is precisely to the same effect : “*Le Saubat de M. d’Arnaud, est évidemment mon Baro, et ses Barry sont mes Souro, pasteurs qui confinent à Kafa.*”* In this latter particular, however, that traveller is in error. The country of the Behrs or Barry does not confine on Káffa, but is 300 miles distant from Bónga, the capital of that kingdom ; while, according to my informant Omar ibn Nedját, the country of Súro is only two days’ journey to the W. of Bónga.† It is to be remarked, in further confirmation of the identity of the Báro with the Sobát or Téli, that in the same way as, according to the information obtained by me, the valley of the Báro is “inhabited by Shánkalas or negroes, but beyond them to the W. are other tribes of Gallas speaking a different language, or at least a different dialect ;”‡ so, in M. d’Arnaud’s map, the “Pays des Diuḳa,” the well-known negro race dwelling between the Blue and White Rivers, is shown as extending southwards as far as the Sobát, while beyond that river to the W. begins the country of the Nuwérs (Nouerres), a people (according to M. Thibaut, who likewise accompanied the expedition) “whose complexion inclines towards *red*, and whose hair is not woolly ;” § that is to say, a race distinct from their *negro* neighbours, and apparently of cognate origin with the inhabitants of the Abessinian plateau. || It is true that in M. d’Arnaud’s table of the several tribes inhabiting the valley of the Baḥr el Abyád, the Nuwérs are classed with “the Dinkas and the several other tribes speaking nearly the same language ;” ¶ and M. Werne says, in like manner, that “the language of the Dinkas who inhabit the right bank of the Baḥr el Abyád, as far as the Sobát, extends, with *certain modifications*, as far up the former river as the country of the Chirs (Tshier).”*** But one of these “modifications” may possibly be, that the Nuwérs, whose origin, as a *red* race, is manifestly different from that of the Dinká *negroes*, have a language of their own distinct from that of their neighbours, though they may be familiar with the latter also, and may use it in their communications with strangers.

Though the Báro is thus shown to be a continuation of the

* ‘Nouvelles Annales des Voyages,’ 1845, vol. i. p. 263.

† ‘Journal R. G. S.’, vol. xiii. p. 268.

‡ Ibid.

§ “Par 8° latitude N. . . . commence le pays des Nouers . . . la couleur de leur peau tire sur le rouge ; les cheveux ne sont pas crépus.”—‘Bulletin,’ 2nd Series, vol. xviii. p. 382.

|| It would be important to ascertain whether the language of these red people, the Nuwérs, is cognate with that of the Gallas, or with that of the Góngas, the earlier inhabitants of the whole of the table-land from beyond Káffa to the Abáí. If the statement of my Gúderu informants is to be taken literally, the Nuwérs are a tribe of Gallas.

¶ ‘Bulletin,’ 2nd Series, vol. xix. pp. 91, 93.

*** ‘Blick in das Nil-Quellland,’ p. 48.

Sobát or Téli of M. d'Arnaud, it does not necessarily follow that it is *alone* the upper course of that river. By persons reaching its right bank from the N., like M. Russegger's Arab slave-dealers of Sennár and my Galla merchants and elephant-hunters of Gúderu, it would be regarded as the upper portion of the main stream, just as the Sobát of M. Castelli is considered as such by the Dinkas; since, in each case, their information does not extend beyond it. But, by persons acquainted with the countries and rivers lying further to the S. and E., the Báro is known to be a tributary of the Gódjeb; and as it will be shown that it is this latter river which is really the upper course or main stream of the Sobát or Téli, it will follow that the Báro, like the Sobát of the Dinkas, is only a branch of the principal stream on its right bank, whatever may be the correct name of that principal stream.

Of all the rivers of Eastern Africa, except the Nile itself, the *Gódjeb* is that which during the last few years has attracted the most attention. Before entering upon its particular consideration, it may, therefore, be not uninteresting to repeat briefly the steps by which a knowledge of this river has been acquired. As early as May, 1841, I sent home from Shoa certain particulars respecting the Gódjeb, which had been obtained by Dr. Krapf and myself from a slave of the king, named Dilbo. He described it as being about 3 miles across, and as flowing between Enárea and Káffa "to the country of the Arabs;"* by which expression he was understood by Dr. Krapf and myself to mean, that it reached the shores of the Indian Ocean frequented by the Arabs. I was till recently under the impression that this was the first occasion on which even *the name* of this river had been communicated to the civilized world; but on looking through the volumes of the 'Bulletin' of the Geographical Society of Paris, I find that as early as the 16th of August, 1839, M. Antoine d'Abbadie, in a memoir read before that Society, mentions his having been informed by a merchant of Dérita named Wárkie, whom he had met with at Masówah on his first visit to Abessinia, that "la rivière *Goudjoub* coule par Kaffa et Œnāryā dans l'Abbāy,"† but without stating any other particulars respecting it or directing any special notice to it.

In a very copious memoir communicated by Dr. Krapf to the Egyptian Society of Cairo in August, 1842, and published (in a translation) in the 'Monatsberichte' of the Geographical Society of Berlin,‡ many additional details obtained by him from Dilbo are given respecting the Gódjeb—called by him "Goshop," or "Gochob,"—and the neighbouring countries; and the same par-

* See 'Journal R. G. S.,' vol. xii. p. 57; and 'A Statement of Facts, &c.,' p. 7.

† 'Bulletin,' 2nd Series, vol. xii. p. 189. ‡ Part iv. (1842-3), p. 172, *sqq.*

ticalars, with little modification, are likewise inserted by Sir William C. Harris, in his ‘Highlands of Æthiopia;’* the river, which is called by him “*Gochob*,” after Dr. Krapf’s German pronunciation, being, in accordance with the views regarding Dilbo’s statement originally entertained by Dr. Krapf and myself, made to flow into the Indian Ocean.

On my arrival in Gódjam, I soon discovered, that, if Dilbo really knew the true course of the Gódjeb (which I much doubt), his “country of the Arabs” must mean, not the shores of the Indian Ocean, but Sennár; for, from information obtained from many persons, both Abessinians and Gallas, it was made certain that it joins the “Abáï.” This expression I have since found to be just as indefinite as the “Nile” and the “Baħr el Abyađ” of the Arabs of Sennár, but I was not then aware of that circumstance; and having at the same time positively ascertained the existence of the western branch of the Blue River, and being misled by Mr. McQueen’s statement in his ‘Geographical Survey of Africa’† as to the time of the latter river’s flooding in Sennár, I was induced to regard the Gódjeb as the upper course of this western branch, and so I laid it down in my map of the 6th September, 1842, of which mention has already been made.‡ Further information, however, soon convinced me that this, although an advance towards the truth, was not the truth itself; for, instead of the Gódjeb, with its tributaries the Gibbe, Báro, and Gaba, flowing, together with the Dedhésa, to the Abáï, the Dedhésa alone was found really to do so: and, accordingly, my map of the 23rd of November, 1843,§ showed this latter river to be the direct course from S. to N. of the Blue River.

The Gódjeb, on the other hand, in a most important map || drawn under the dictation of ‘Omar ibn Nedjât, a Mohammedan merchant of Dérita, was made to form a curve round Káffa and the adjacent countries, and to join “the Abá of Sennár.”¶ That such is really the case is expressly asserted, not only by M. d’Abbadie (as we shall next proceed to show), but likewise by

* Vol. iii. *passim*.

† P. 236. See the note in page 26 of the present Essay.

‡ See page 27.

§ See page 28.

|| The value of this map is such, that it is to be regretted it was not published in the Society’s ‘Journal’ at the same time as the memoir in which it is mentioned. It is, however, given herewith.

¶ ‘Journal R. G. S.’ vol. xiii. p. 267. In my note-book I find the following note written at Wogádj near Yejúbbi, on the 20th January, 1843:—“Hádji Mohammed Núr, a merchant trading to Enárea, informs me that the Gódjeb rises on this side (*i. e.* to the north) of Káffa, and runs southwards; then turning round far off to the west, it comes round again northwards, and joins the Abáï or Baħr el Azrek at Khartúm, being in fact the Baħr el Abyađ. He drew its course on the ground with his stick, as also that of the Baħr el Azrek, and spoke quite positively on the subject. He seems a very intelligent man, and has been to Egypt, Bombay, &c.” I had quite overlooked this note until within the last few days.—13th February, 1847.

M. Lefebvre, who states* on the authority of a merchant of Kaffa, named Irbo, that the Gódjeb is a mile in width when it arrives in the plain country of the Shánkalas or negroes *before falling into the White River*. And the same is further virtually confirmed by M. d'Arnaud's map of the Baħr el Abyad, contained in the 'Bulletin' of the Geographical Society of Paris for February, 1843,† in which the united stream of the Gódjeb and Shoabérri (Choa-Berry) is laid down as the continuation of the main stream of the Baħr el Abyad from the extreme point reached by the Egyptian expeditions. M. d'Arnaud's authority for this I infer to be M. Blondeel van Cuelebroek, the Belgian Consul-General in Egypt, and Mr. Bell, who were in Gódjam in 1842 and left that province just as I entered it; since he states ‡ that he received some information from those gentlemen respecting the Sidí mas, that is to say, the people of Káffa, in whose country the Gódjeb rises. The mistake in this map is making the river to run south-westwards instead of *north-westwards* to join the Baħr el Abyad.

When my memoir of the 23rd of November, 1843, was communicated to the Royal Geographical Society, Sir William Harris and Mr. McQueen were strongly advocating the course of the Gódjeb—by them called "*Gochob*"—to the Indian Ocean, and its identity with the Jubb or Gowín; § and I was assured, on what I considered to be unquestionable authority, that it was a positive fact that *the Jubb or "Gochob" had been navigated by Europeans upwards from the sea to near Enárea*. Under these circumstances, though I had every reason to credit the accuracy of 'Omar's statements, I could not fly in the face of what was so confidently asserted to be a *fact*; and therefore I had no alternative but to let the question remain till it should be capable of determination on further evidence. || The appearance of that evidence was not long delayed. In February, 1844, the Jubb or Gowín was ascended by Mr. Henry C. Arc Angelo, who has published a brief account of his expedition in the 'United Service Journal' for January and February, 1845. He says:—"The river *Juba* is not known to the natives by the name *Major Harris* has given

* 'Bulletin,' 3rd Series, vol. i. p. 54.

† Second Series, vol. xix. ‡ 'Bulletin,' vol. xviii. p. 379; vol. xix. p. 445.

§ As late as May 3rd, 1844 (see 'Blackwood's Magazine' for June, 1844, vol. lv. p. 735), Mr. McQueen affirmed that the "*Gochob* . . . is called *Jub* by the Arabians, *Gowend* or *Gowend* by the Somauli, *Yumbu* by the Souahilis, and *Danesa* by the Gallas"—"the *Dedhasa* (pronounced *Nassal*) being considered to be the same as *Daneza* or *Danesa*." (ibid., p. 734.) By this, it may be presumed, is meant not that "*Nassal*" is another name of the river, but that "*Dedhása*," if pronounced nasally, becomes "*Danesa*." However this may be, we must question the correctness of Mr. McQueen's map of the 15th March, 1844, published at the same time, in which three distinct and separate streams—the *Dedhása*, the upper course of the *Blue River*; the "*Góchob*" (i. e. *Gódjeb*), a tributary of the *White River*; and the *Jubb* or *Gowín* [i. e. the *Wábbi-Giwéyua*], which discharges itself into the *Indian Ocean*—are all laid down as parts of one and the same stream.

|| See on this subject 'Nouvelles Annales des Voyages,' 1846, vol. iii. p. 225, 299.

it, viz., 'Gochob;'^{*} it is called by them Gowín or Jub, and sometimes Gunarlee,† as they say it is the principal branch of the Gunarlee. *It may be set down as an incontrovertible fact, that no Europeans have been up the river 'Gochob' or Juba, for the purpose that Major Harris mentions, viz., traffic in slaves; or indeed for any other purposes, with the exception of myself, up to February, 1841.*"‡ Mr. Arc Angelo ascended the river about 220 or 240 miles, on a general bearing (as well as can be collected from his narrative, which is not so ample or definite as could have been desired) of about N.N.W.,§ so that the furthest point reached by him does not go beyond about 3° 20' N. lat. and 41° 20' E. long. At this point the traveller thus describes the river:—"The current after this became stronger every mile; there was, however, plenty of water, the river rather narrow. . . . Sometimes in the day the current would be so strong that it was impossible to get 300 yards in four hours. I imagine a very small steamer would do. Some considerable distance up there are several falls, one of which was said to be a very high one."|| So far therefore from the Gowín or Jubb having been ascended *as far as Enárea*, we find that its first explorer, Mr. Arc Angelo, when at his furthest point, was still nearly 400 miles distant from that country;¶ that the river was there scarcely navigable on account of the rapidity of the current; and that it soon ceased to be so altogether. And there can be little doubt that, like the Hawásh and the Wábbi (if it be not the Wábbi itself), the Gowín or Jubb has its rise on the *easternmost* limit of the mountain-chain of Eastern Africa, which, as its declivity on that side is much shorter and more rapid than towards the N. and W., cannot give rise to streams of such magnitude as those which have their origin and course on its western flank.**

This digression concerning the Gowín [Wábbi-Giwéyna] or

^{*} As opposed to this, it is stated by a London correspondent of M. Jomard, in a letter dated 16th November, 1844:—"I have in my hands a letter from a person . . . who has ascended the river Jub in a large canoe as far as 240 miles according to his reckoning; he says that this river is the same as that which is called Gochob by Major Harris."—"Bulletin," 3rd Series, vol. iii. p. 67.

† i. e. Ganáli, the Ganana of M. d'Abbadie in the 'Esquisse du pays de Sçoumâl,' in vol. xvii. of 'Bulletin de la Société de Géographie.'—F. S.

‡ P. 128.

§ This is about the direction attributed to it, from native information, in Lieutenant Christopher's map in vol. 14, part i. of the Society's 'Journal.'

|| P. 283.

¶ According to M. d'Abbadie ('Bulletin,' 3rd Series, vol. iv. p. 231), Sákká, the capital of Enárea, is in 8° 12' 30" N. lat. and 34° 18' 36" long. E. of Paris, or 36° 38' 58" E. of Greenwich.

** Further researches have completely confirmed the opinion here expressed. *Wábbi* is not a proper name, but an appellative signifying "river." M. d'Avezac, in his 'Essai sur la géographie du pays de Sçoumâl,' printed in vol. xvii. of the 'Bulletin de la Société de Géographie' (p. 109), justly surmised that such must be the case, inasmuch as the information respecting the various rivers called by that name collected by M. An-

Jubb was necessary, in order to remove from the consideration of the Gódjeb one of its main difficulties, namely, the opinion—first advanced (but soon recalled) by myself, and since so positively and repeatedly asserted by others—that it flows into the Indian Ocean.

We may now return to the investigation of the course of the Gódjeb as described by 'Omar ibn Nedját. In the first place it must be observed, that that intelligent native does not assert this river to be "the Abá of Sennár" itself—that is to say, the Baħr el Abyađ, or main stream of the Nile,—but says that it *joins* that river beyond Siéka, a country lying a week's journey to the west of Bónġa, the capital of Kaffa.* Now, if the course of the Góljeb be carried round Káffa to the E., S., and W.; be then made to turn to the N.W. at about 80 or 100 miles—"a week's journey"—to the W. of Bónġa (which city is placed by M. d'Abbadie in 7° 12' 30" N. lat. and 36° 4' long. E. of Greenwich); and be thence continued in the same direction, which is that of all the principal tributaries of the Nile which descend from the Abessinian table-land; we shall find that it, not less than the Báro (M. Russegger's "Baħr el Abyađ"), exactly coincides with the Sobát of M. d'Arnaud's map. And if, as has been stated and as will be more fully shown in the sequel, the Báro is a tributary of the Gódjeb, it will result that the latter river, and not the former, is the upper course of the Sobát or Téli of the Egyptian expeditions.

Within the last two years letters have been received from M. Antoine d'Abbadie, communicating the important intelligence of his having penetrated S. of Gódjam as far as Enárea and Káffa. Hitherto the only particulars of his journey imparted to the public, are contained in a few letters published in the 'Athenæum,' † the 'Bulletin' of the Geographical Society of Paris, ‡ the 'Nouvelles Annales des Voyages,' § and probably some other periodical pub-

toine d'Abbadie, on which information that Essay is based, could not well be applicable to a single stream. Hence, M. d'Abbadie's "Wébigi-weyna, c'est-à-dire le grand Wébi" (*ibid.*, p. 98), which name has to be read "Wábbi-Giwéyna," is simply *the river Gowín*, or Jubb, ascended by Mr. Arcangelo. M. Rochet d'Héricourt, in his 'Second Voyage au Royaume de Choa,' p. 274, mentions his having been informed that *the river (Wábbi) which falls into the Indian Ocean at Juba*—consequently the Wábbi-Giwéyna or Gowín—the pseudo-Gódjeb or "Gochob"—has its source in the Galla country of Korchássi, situate to the south of Lake Zuwái, that is to say near the edge of the table-land; and that it passes through a large lake there. He was further informed of the river (Wábbi) of Hárar; and being misled by the term "Wábbi," and supposing the two rivers to be but one, he in his map makes the former to go round to the north-east, before descending to the ocean, as if it were the head of the latter. But if the Wábbi of Hárar really joins the Wábbi-Giwéyna, it must be a separate branch of that river quite distinct from the branch which has its rise in Korchássi. It may, however, be a different river altogether, namely, the river Haines, of Lieut. Christopher ('Journal R. G. S.', vol. xiv. p. 96).—12th March, 1847.

* 'Journal R. G. S.', vol. xiii. p. 264. *sqq.* † No. 906, of March 8, 1845, p. 243.

‡ Third Series, vol. iii. pp. 52, *sqq.*, 311, *sqq.*

§ For 1845, vol. i. pp. 250, *sqq.*, 365, *sqq.*; vol. ii. p. 107, *sqq.*

lications. This journey has a claim to be regarded as one of the most important ever accomplished in Africa. It is therefore with the deepest interest that we look for full details respecting it, together with the map of the enterprising traveller's route, the sketch of which had been unfortunately left behind at Gondar, when he wrote from Maşówah at the close of 1844, announcing his return from those countries so imperfectly known.

M. d'Abbadie states that he crossed the Gódjeb within 30 miles of its source,* and he entirely confirms 'Omar's statement as to the spiral course which that river takes round Káffa to join the Nile.† But M. d'Abbadie goes further, and gives it as his decided opinion that *the Gódjeb is the Nile itself*. Every opinion on the subject of the geography of Eastern Africa, expressed by one who has travelled for so many years in that quarter of the globe, and who has manifested so much zeal and ability in the investigation of it, is entitled to respect. Still, if the subject be viewed in all its bearings, such an opinion will be found to be untenable. To disprove its correctness formally would only lead to needless repetition, since the arguments which it would be necessary to adduce, are to be found in their proper place in the course of the present investigation. Without pausing, therefore, to examine M. d'Abbadie's hypothesis in detail, but assuming that the identity of the Gódjeb with the Téli or Sobát, is, or at all events will be, sufficiently established in the course of these remarks, we shall proceed to the consideration of the tributaries of that river on its right bank.

The first of these is the small stream already mentioned, under the name of "Sobát," as having been reached and repeatedly crossed by M. Castelli, which has already received all the consideration of which it is susceptible.‡

The other tributaries of the Gódjeb on its right bank, enumerated by M. d'Abbadie in the order in which they join that river from below, are the Báro, the Birbir, the Kotáda in the country of Yámbo; the Oshko (Ochko) or Baço (Baqo), a noble stream which runs through Siéka (Seka), the country of the Mashango (Machango) negroes; the Kesho (Kecho) in Súro; the Abáwa, Gúma, Húgimo, Shácho (Chatcho), Bándja and Góra in Góbo,

* This source is placed by M. d'Abbadie ('Nouvelles Annales des Voyages,' 1845, vol. ii. p. 112) in about 7° 20' N. lat., and 1° 20' long. (estimated) W. of Sákka; consequently about 35° 20' E. of Greenwich. Its site is determined by the position, *inter alia*, of the bridge at Kángkati (Kankatti), two days' journey, or 30 miles, from its source, over which bridge that traveller crossed the river on his way from Sákka to Bóna. But, viewing the positions of those two towns, on the *direct* road between which I have always understood Kángkati to be, this latter place ought to be at least *sixty* miles from the source of the Gódjeb.

† See to the same effect the statement of Hádji Moḥammed Núr, in page 44, *note*.

‡ See page 39, *sq.*

and the Bitino in Kullo.* In another list furnished by the same traveller,† the Birbir is placed below the Báro, in which case it might possibly be identical with the Sobát of M. Castelli.

Respecting the Báro, M. d'Abbadie remarks:‡—"This river deserves special attention, since even in Wallégga it is already as large as the Abáí at the ford of A'muru,§ and the timid Ethiopians dare not cross it without sacrificing to the god of the river. . . . On credible testimony it is almost as large as the Gódjeb itself, where it joins the latter in the country of Yámbo." This information is entirely corroborative of that collected by myself respecting the Báro.¶ In one passage, in which the same traveller mentions the several names under which the Gódjeb passes before it merges in the Bañr el Abyad, he states that it is called Báro in the lower part of its course;¶ which must be understood as meaning below the confluence of the two streams. This is quite in accordance with the relation of the elephant-hunters of Gúderu, to which allusion has already been made.** And it is likewise another instance of the facility with which mistakes may arise in information respecting rivers obtained from natives. The Sidámas of Káffa call the common stream by the name of Gódjeb; but the Gallas of Gúderu know it—and probably also the Nile itself below the junction††—as the *Báro*; while among the Dinças, whose horizon would appear to be bounded by the Sobát, the name of this petty stream usurps the place of that of the common bed of those two noble rivers!

Confining ourselves for the present to the consideration of the Báro, we find the following rivers mentioned by M. d'Abbadie as joining it on its right bank, viz., the Botor, Sor, Wichi, Gúmaro, Kónhor (Konnor), Yúbbi, Búrie, Bouré, and Gába (Gábba).‡‡ Of these, the names of Búrie, Kónhor, Gúmaro, Sor, and Bótor are known to me, from my Galla itineraries, as those of *places* (which may derive their names from streams flowing by them, or *vice versâ*) lying to the north of the Báro; but the Gába alone was described to me as a river. On it there is a large market of the same name, and it runs at a short distance beyond Kúra, the residence of a principal chief of Wallégga, named Chalishóno. It has its head in the large forest in which the Gódjeb rises.

According to M. d'Abbadie, "the Báro, which the Sidámas

* 'Nouvelles Annales des Voyages,' 1845, vol. ii, p. 114.

† Ibid., vol. i. p. 365.

‡ Ibid., vol. ii. p. 114.

§ *i. e.* Mélka-A'bro, the ford in Shímasha on the road between Búrie and A'muru.

¶ See page 41, *sq.*

¶¶ 'Nouvelles Annales des Voyages,' vol. i. p. 365.

** Page 41.

†† Under this view of the case, the tradition of the Gallas that they came from Bar-gámo—*i. e.* from *beyond the Báro*—(see 'Journal R. G. S.,' vol. xiii. p. 269), might resolve itself into the fact that their original seat was *beyond the Nile*.

‡‡ 'Nouvelles Annales des Voyages,' vol. ii. p. 114.

call Bóta, has its source near to that of the Gódjeb,"* that is to say, "in the country of Gímira, Gámáro or Gámru, on the same plateau, and at a distance of about 3 days' journey (50 miles)."† On its left bank, according to the same traveller, its tributaries are the Gándji, "which has its source close to the spring from which the Gódjeb itself rises," the Siria and the Bonga. "This list," he adds, "would be much larger, were we to add the sub-tributaries of the Báro."

Of the other tributaries of the Gódjeb on its right bank named by M. d'Abbadie, no details are given by him except of the Oshko or Báko (Baço, also written Bago and Bako). The source of this river is stated to be in the centre of the great curve of the Gódjeb, at a day's journey from Bónga; and, in addition to the names above-mentioned, it is called Wosh (Woch) by the people of Gímira, and Wása by the Sidámas.‡ This diversity of name in the various countries through which it passes, proves the Báko to be a stream of considerable magnitude. In my native itineraries, I find mention made of the "Bákko," as being a large river beyond the Báro, as far as which the Galla country known under the comprehensive title of Wallégga extends; its valley, like that of the Báro itself, being an important hunting-ground for elephants and buffaloes. Besides calling the Báko a tributary of the Gódjeb, M. d'Abbadie states that it is the name by which the principal stream itself is known to the people of Wallégga,§ that is to say, the Gallas dwelling on its right bank. Here we have again another instance of the main stream's passing under the name of its tributary.

The close parallelism between the Bañr el Azrek, with its spiral head and its two principal tributaries on the right bank, the Dender and Ra'ad, running side by side in the same direction with it, and the Télfí or Gódjeb having the same form with similar tributaries, the Báko and Báro, is most striking; and it is a convincing proof that thus far S. the general characters of the mountain-chain of Eastern Africa remain unaltered: so that, seeing that towards the N. the Tákkázie partakes more or less of the same characters, we may be prepared to find some not dissimilar ones reproduced in the *Shoabéri* yet further to the south.

In order to complete the list of the tributaries of the Gódjeb on its right bank, it must be remarked, that, on a previous occasion, M. d'Abbadie makes mention of the Götsi|| "as a river flowing past Bónga, the capital of Káffa," which is described by him as "a very large stream, comparable with the Gódjeb, which it joins;"

* 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 114.

† Ibid., p. 112.

‡ Ibid., p. 115.

§ Ibid., p. 115.

|| 'Bulletin,' 2nd Series, vol. xix. p. 439.

but this name does not appear in that traveller's later lists drawn up after his return from Bónḡa. It may, however, be only another form of the name Gódjeb: 'Omar called the lower course of this river Gódje. And from a young man named Dódjamo, a native of Woráṭta, who was a long time a slave in Djímma-Káka and Enára, and came afterwards to Yáush, where I knew him as a Christian by the name of Wálda Mikael, I obtained the names and approximate courses of two rivers flowing through his native country, called Zígena and Wáto, which were stated by him to join the Gódjeb on its right bank. These rivers are shown in my map of the 23rd of November, 1843, and are probably identical with some of those enumerated by M. d'Abbadie.

The Gódjeb was described to me as rising in an immense forest extending between Wallégga, Gúma, Géra, and Káffa, through which the caravans going to the last-named country must pass. This forest is impervious to the rays of the sun, which is not visible to travellers for four or five successive days. In it and in its immediate vicinity are found the heads of the Báro, Gába, Gíbbe, and Dedhésa, as well as that of the Gódjeb; and at that part of the course of this latter river, where it is crossed on one of the caravan-routes between Gúma and Káffa, it is but a small brook.* The head of the Gódjeb is placed by M. d'Abbadie in about 7° 20' N. lat., and 1° 20' long. W. of Sákka; within 10 miles of latitude and 5 miles of longitude of the spot where it is laid down in my map of the 23rd of November, 1843. It was described to M. d'Abbadie as being at a place called Gandjès, between two high hills (*hautes collines*) called Boshi and Doshi (Bochi and Dochi), in the country of Gímiru, Gámáro, or Gámru.†

With reference to this latter point, that traveller remarks: † "Now, it is an historical fact, that, prior to the sixteenth century, the Arabs were in constant communication with Hárarge and Dáwáro. It was probably from this quarter that they obtained their information respecting the source of the White River; and seeing the two mountains of Gandjès, they may have called them the mountains of the Gámru (*Djabal el Qamr*). But the Arabic word *gamr*, or *qamr* [*Kámar*], signifies 'moon,' and hence has arisen the curious error of 'the Mountains of the Moon.'" We will not stop here to discuss the position of Gímira, which country is placed by 'Omar ibn Nedját to the S. of Káffa; whereas, according to M. d'Abbadie, it must be towards the N., in order that the source of the Gódjeb should be found within it. But we object altogether to his *derivation* of the name "Mountains of the Moon." If, as he states, the first mention of these mountains had been made by the

* 'Journal R. G. S.,' vol. xiii. p. 255.

† 'Nouvelles Annales des Voyages,' vol. ii. p. 112.

‡ *Ibid.*, p. 113.

Arabs, who obtained their knowledge of them prior to the *sixteenth* century from native sources, it will not be denied that they might have made the expression *the mountains of Gímira*, or *Gámru*, significant in their own language as *Djebel el Kámar* (جبل القمر).

But the fact is that the "Mountains of the Moon" were already known to Ptolemy in the commencement of the *second* century by the name of τὸ τῆς Σελήνης ὄρος.* If, then, as M. d'Abbadie contends, the expression "the mountains of Gímira" was first made significant by *the Arabs*, it would follow that the geographer of Alexandria derived his *Greek* name through the Arabic language, and his knowledge of the upper course of the Nile from the Arabs themselves. The correctness of this hypothesis will, of course, not be insisted on. If, on the other hand, it be admitted—and it is all but universally admitted—that the Arabian geographers acquired their first geographical notions respecting the interior of Africa from Ptolemy, including that of the upper course of the Nile and its origin in the "Mountains of the Moon," we can perfectly understand how the Greek name τὸ τῆς ΣΕΛΗΝΗΣ ὄρος should have been translated by them جبل القمر *Djebel el KA'MAR*, in the same way as it is rendered "Mountains of the Moon" in all European languages.

It is true that the Arabian writers have attached a different meaning to the word قمر, by reading it *Komr* as if pointed with a *damma*, instead of *Kámar* with a *fathá*; and they have given certain fanciful reasons for the name *Komr*, which are cited by De Sacy in his version of 'Abdu'-l Latíf's 'Description of Egypt.'† But, in the derivation of the names of places, it

* Lib. iv. cap. ix. p. 115 (edit. Bertii, p. 131).

† "On traduit ordinairement le nom de ces montagnes par *les monts de la Lune*, et j'ai suivi cet usage. Je ne sais si les Arabes ont pris originairement cette dénomination de Ptolémée, qui place les sources du Nil bien au-delà de l'équateur, dans les hautes montagnes de la Lune, σελήνης ὄρος. On peut croire qu'ils entendent effectivement aujourd'hui le mot قمر, nom qu'ils donnent à cette montagne, dans le sens de *la lune*,

en le prononçant *Kamar*, puisque Léon Africain^a dit du Nil: *Alcuni vogliono ch'ei nasca dai monti della Luna*. Je ne crois pas cependant que ç'ait été l'opinion des an-

ciens écrivains Arabes, qui prononcent ce mot قمر *Komr*. Maķirzi,^b qui détermine positivement cette prononciation, ainsi que l'auteur du *Kamous*, dit que dans la mer de Zanguebar il y a une grande île dont la longueur est de quatre mois de marche sur une largeur de vingt journées, et qui fait face à l'île de Ceylan; que parmi les diverses contrées que renferme cette île, il y en a une nommée *Komriyya* قمریة, d'où l'oiseau nommé *Komri* قمری prend son nom. Il ajoute que cette île se trouvant trop petite

^a Descr. dell' Africa, dans la collection de Ramusio, t. i. fol. 98, B.

^b Mau. Ar. de la Bibl. imp. n^o. 682, fol. 29, recto.

is a rule of sound etymology to consider, that, whenever a story is attached to a name for the purpose of accounting for its origin, the story, instead of having given rise to the name, has, on the contrary, sprung out of it through ignorance of its real import.* The simplest and most natural derivation of a name will generally be found to be the correct one, and we should doubtless be erring were we to look elsewhere than to the Greek of Ptolemy for a derivation of the Arabic name. The tales of the Arabian writers may be regarded merely as attempts to *explain* a word, of the origin and real meaning of which they had lost the knowledge.

The Greek derivation of the name being then admitted, we have this alternative as to its origin: either there is some country of which the native name bears a resemblance to the Greek word *Selene*, or else the "Mountains of the Moon" derive their title from some country of which the native name is in itself significant.†

That a country, whose native name is thus significant, does actually exist, and that the Nile has its rise in that country, will be shown in the sequel. For the present we must confine ourselves to the consideration of the Gódjeb and its tributaries.

Proceeding next down the left bank of that river, M. d'Abbadie

pour son immense population, plusieurs de ses habitants passèrent sur le continent, et qu'ils y formèrent divers établissemens sur les côtes au pied de la montagne qui prit

d'eux le nom qu'elle porte de montagne de *Komr*, جبل القمر. Aboulféda^c rejette positivement l'opinion de ceux qui prononcent *Kamar*, et qui dérivent ce nom de celui

de la lune. Comme le mot *Komr* est le pluriel de *قمر*, qui signifie *un objet d'une couleur verdâtre*, ou *d'un blanc sale*, suivant l'auteur du *Kamous*, il paraît que quelques écrivains ont cru que cette montagne tirait son nom de sa couleur. D'autres semblent avoir voulu réunir ces deux étymologies, en attribuant à cette montagne des couleurs qu'elle doit, suivant eux, aux diverses phases de la lune." — 'Relation de l'Égypte, par Abd-Allatif' (4to. Paris, 1810), p. 7, *sqq.*

* There would be no difficulty in citing numerous examples of this, but a single one may be given, as being perfectly analogous to the present case. Mr. W. J. Hamilton, in his 'Researches in Asia Minor,' vol. ii. p. 103, *sq.*, informs us that the name *Bálkiz*, attached to certain ruins, is supposed by the natives to be composed of the words *Bál*, "honey," and *Kiz*, "girl," and a tale is told, in consequence, about a beautiful *girl*, the daughter of a king, who was the loveliest of her time, and as sweet as *honey*. But, as Mr. Hamilton justly remarks, the word is nothing more than *bala* = *παλαιά*, "old," and *kiz* corrupted from *Κυζικός*—that is to say "Ancient Cyzicus!"

[*Bálkiz*, "honey-girl," cannot be confounded with *Balkís*, the queen of Sabá; though both are sounded nearly alike in Turkish, as the final *z* has the sound of *s*.—F. S.]

† In this latter case it might even be that the Arabs, from having communication with the inhabitants of that country, were led to translate the name directly, and not through the intervention of the Greek.

^c Büsching's *Magazin für die neue Hist. und Geog.*, t. iv. p. 175.

^d *Ibid.*

• Not. et Extr. des *Man.*, t. ii. p. 155.

enumerates* the Náso in Géra; the Búru in Djímma; the Kúsaro, called Gíbbe by the Gallas, which separates Gáro from Djímma-Káka; a second Gíbbe, which, rising in Síbu, skirts the eastern frontier of Yámma or Yángaro (Yangara), and joins the Borara; the Wálga and the Borara, which collect the waters of Gurágie; and others, the mention of which must be postponed till we have discussed the subject of the several rivers each of which bears the name of Gíbbe.

As it is justly remarked by M. d'Abbadie,† “the basins of the Blue and White Rivers, encroaching as they do on one another, form a very intricate hydrographical system; for the Gíbbe of Léka, rising in 9° N. lat., joins the White River [*i.e.* the Gódjeb] on its left bank in about the 7th parallel, while the Dedhésa, a tributary of the Blue River on its left bank, rises in the eighth parallel. The little kingdom of Enárea sends half of its waters to the Gíbbe and the other half to the Dedhésa.” This is literally in accordance with my map of the 23rd of November, 1843, in which the Gíbbe of Síbu or of Léka ‡ and the Dedhésa are laid down precisely as thus described.

The Gíbbe of Léka is further said by M. d'Abbadie to join the Borara, which, with the Wálga,§ collects the waters of Gurágie, and falls into the Gódjeb. This again is substantially in accordance with the statement of 'Omar ibn Nedjât, that “the Gódjeb and Gíbbe, after uniting in Dóko with another river from I'fat, the name of which he does not know, go round westwards;” || I'fat (E'fat) being the name by which Shoa is generally known among the Mohammedan traders, and Gurágie being regarded as a province of the latter kingdom. M. Lefebvre likewise heard of this river under the name of *Gíbbe*, as rising in the mountains of Agábdjai (Abeze-gaye ¶), a district adjoining Gurágie; only his informant appears to have confounded it with the Gíbbe of Léka, which is crossed on the caravan-route from Báso to Enárea.**

* ‘Nouvelles Annales des Voyages,’ 1845, vol. ii. p. 114.

† *Ibid.*, vol. i. p. 366.

‡ This Gíbbe has its rise in Síbu, and runs through Léka on its way south.

§ Whether the Wálga is a tributary to the Borara, or a separate affluent of the Gódjeb, is not clearly shown.

|| ‘Journal R. G. S.’ vol. xiii. p. 267.

¶ ‘Bulletin,’ 2nd Series, vol. xiii. p. 373.

** This traveller would seem to have received some not very intelligible information respecting the Gíbbe. In another place (‘Bulletin,’ 3rd Series, vol. i. p. 53, *sq.*) he says that this river, after passing between Kaffa and Djímma, runs through the countries of Nónno, Bitorène [*i.e.* “and Bótor” in Amharic], Amayane [*i.e.* “and Amáya”], Djándjaro, Agábdjayne [*i.e.* “and Agábdjai”], Ádiya, and Markò; and that then it goes to the south, and not westwards to join the Nile. But, from the now well known positions of all those countries (except “Markò”), it is impossible for any river running to the south to have its course through them *after* passing between Kaffa and Djímma. And further, as according to the statement of M. Lefebvre's informant Irbo, a native of Kaffa (*ibid.*), the Gódjeb, which river flows westwards to the Nile, is joined by another river *coming from the east*, it is manifest that no river, such as

So far, therefore, as concerns the Gíbbe of Léka and the river of Gurágie, whether the name of the latter be Borara or Gíbbe, all appears to be quite clear. But with respect to the Kúsaro-Gíbbe the case is different. This river is described by M. d'Abbadie as being totally distinct from the united stream of the other rivers of the same name, and as having its *separate* course to the Gódjeb between Gáro—which country, according to that traveller, is identical with the Bósham or Bósha of the Portuguese—and Djímma-Káka: in other words, it is made by him to run *from N. to S.* on the *W.* of Yágaro or Djándjaro, and to join the Gódjeb towards the *S.W.* of that country; while the Gíbbe of Léka and the Borara of Gurágie fall into the latter river on the opposite side of the same country.

That this is really M. d'Abbadie's meaning will be rendered manifest by what he says in a letter to the editor of the 'Athenæum,'* namely: "According to my informers, the country called Janjãro [Djándjaro] by the Gallas, and Yamma, or Yángara, by its inhabitants from the names of its two principal tribes, is bounded on the *E.* by the Gíbbe of Léka, which joins the Borara, an affluent of the White Nile [*i. e.* the Gódjeb]; on the west, by a small stream in a desert country east of Bósha, which is thus, like the Yamma, comprised in the fork of the two Gíbbes; for the second river of this name, identical with the Kúsaro of the Sidámas, joins the Gódjeb on the *W.* and *S.W.* of Bósha." And in another place he says, † "the Zébé is my Gíbbe or Kúsaro, an affluent of the Gódjeb or Uma;" of course alluding to the Zebéé of Fernandes. That Father, however, expressly tells us ‡ that the Zebéé was *twice* crossed by him; the first time to the *west* of Djándjaro (Gingiro) in the position of M. d'Abbadie's Kúsaro-Gíbbe, and the second time to the *east* of that country in the position of the Gíbbe of Léka; thus making what this traveller describes as two separate rivers to be but parts of one continuous stream.

In order to show more distinctly the discordance between the statements of the two travellers, it is necessary here to introduce an analysis of Fernandes's journey from Enárea to Kambwát (Cambate), on which he twice crossed the Zebéé as above mentioned. He says, namely,§ that after leaving the court of the

M. Lefebvre's alleged Gíbbe, could run *from north to south* through any of the countries mentioned by him, without having its progress southwards effectually stopped by the one or the other of those two rivers, and its waters carried to the Nile along with those of its recipient. And quite in accordance with this is the statement of my intelligent informant 'Omar ibn Nedjât, as to the fact of the union of the Gíbbe with the Gódjeb and with this other river from the east. See also his Map given herewith.

* No. 906, of March 8th, 1845, p. 243.

† 'Nouvelles Annales des Voyages,' 1845, vol. i. p. 263.

‡ Tellez, p. 318, sq.

§ Ibid., p. 317, sqq.

king of Enárea (which, as it lay almost due S. of the point where he crossed the Abáí at Minà, must have been far to the W. of Sákka, the present Galla capital), he and his party travelled eastwards one day, when they obtained an escort, and then *four long days'* journey further, always in the same direction, till they came to the eastern confines of Enárea. *A long, steep, and difficult descent into the valley of the Zebeé brought them to that river,* which is described as containing a greater body of water than the Abáí; as being, at the spot where they crossed it, confined between steep rocks; and as running with great violence and noise, most terrific to the travellers. But much more so was the bridge by which they had to cross the river, which was merely a beam of wood, long enough to reach across the stream from the one rock to the other. From the similarity of this passage of the Zebeé to that of the Abáí at the north-eastern extremity of the peninsula of Gódjam, where the two bridges are erected over it,* it is evident that where Fernandes crossed the former river it has just reached the bottom of its great fall, or rather succession of falls, from the general level of the table-land into the deep ravine common to all the principal rivers of Abessinia; since at this portion of its course it would admit of a bridge, such as is described by the traveller, but lower down, where the valley opens, the bed of the river would be much too wide for such a purpose. *Having thus crossed the Zebeé for the first time,* Fernandes and his party entered the small kingdom of Yángaro or Djándjaro—called by the Portuguese Gingiro †—within which country one day's journey brought them to the capital. After a stay of some time there, they proceeded on their journey eastwards, *taking with them people to assist them in again passing the Zebeé on their way to Kambwát (Cambate).‡* On the first day's journey *they came a second time to that river,* which was here much larger, and had to be crossed by means of a curious raft balanced on an inflated cowhide.

According to this narrative, the Zebée must necessarily form a curve round the N. of Yángaro, as it is usually shown to do in our maps; and that it really does so is expressly asserted by Tellez on the authority of Fernandes and others,§ and likewise by Abba

* See 'Journal R. G. S.,' vol. xiv. pp. 28, 46, 48.

† As to the various names by which this country is called, see page 19, *note*.

‡ Tellez, p. 319.

§ Porém porque todos esperam algũa noticia d'aquellas regioens, em que se entra de novo, e este Reyno de Gingiró tem algũas cousas muy estranhas, quero as aqui referir, da maneyra que as contou o Padre Antonio Fernandes, varám de grandissima verdade, com outras pessoas de credito, *que com seus olhos as viram.* O Rio Zebeé de que falamos no capitulo passado, *dá quasi hũa volta a todo este Reyno, deixando o feyto hũa como peninsula* (como se pôde ver no nosso mappa,) e d'ali encaminha sua corrente a desagoar pera a parte da costa de Melinde.—p. 320. And again: "He tambem outro rio muyto celebre chamado Zebeé, do qual dizem ser ainda mayor, e mays caudaloso

Gregorius, the intelligent Abessinian instructor of the learned Job Ludolf.* The latter states that the Zebeé rises in *Enárea*; but this is only a comprehensive designation of the entire country to the S. of the Abáí, as may be proved by numerous instances.† The Jesuit Missionary, on the other hand, describes the position of its source much more definitely. He says that it rises in the country of *Bósha* (Boxa) in the kingdom of *Enárea* (this name being used by him generically in the same way as it is by Gregorius); that it runs a few leagues to the W., then turns northwards, and goes round *Yángaro* (*Gíngiro*), of which it makes a sort of peninsula: and that it then turns southwards, and is said by some persons to be the same river as that which enters the ocean at *Mónbasah*.‡

The course of the Zebeé is here described so distinctly, that we can scarcely understand how Fernandes should, by any possibility, have been mistaken. And yet he must have been so, if the fact is that the *Kúsaro* or *Gíbbe* of *Bósha* flows from N. to S. on the western limit of that country and of *Yángaro*, as it is made to do by M. d'Abbadie, when he states that those two countries are "comprised in the fork of the two Gibbes," and that the *Kúsaro-Gíbbe* "joins the *Gódjeb* on the W. and S.W. of *Bósha*." Under these circumstances we are bound to defer to the authority of the Portuguese Missionary in preference to that of the French traveller; since the former states the result of his personal knowledge as an eye-witness, whereas the latter, though he resided several months in *Enárea* and went from that country further S. into *Káffa*, does not appear to have visited *Yángaro* and its river, the *Kúsaro-Gíbbe*.

The native information collected by myself is, besides, much

que o mesmo Nilo [Abáí], nasce em hua terra a quem chamam *Boxa* no Reyno de *Nareá*, que he o mays Austral, do qual faleremos a diante; começa o seu curso pera o Occidente, mas a poucas legoas vira pera o Norte, e vay dando volta ao Reyno de *Gíngiró*, fazendoo quasi peninsula, como o Nilo faz ao Reyno de *Gojam*; depoyz que se retira deste Reyno, toma su corrente pero o Sul, et dizem alguns que este he o que vay sahir em *Mombaça*."—p. 21, sq.

* "De fluminibus, quæ vicinum Oceanum intrant, Gregorius plura non narrat quàm supra retulimus *Zebæus* in *Enarea* ortus, et finitimum *Regnum Zedjero* instar *Nili*, in modum peninsulae ambiens, in meridiem decurrit, et juxta *Mombaçam* mari Indico misceri creditur."—'Historia Æthiopica,' lib. i. cap. 3.

† See especially Fernandes, in page 24 of the present Essay. M. Rochet d'Héricourt, when at *Túti* (*Touthé*), near the source of the *Hawásh*, thus expresses himself:—"Je m'étais tourné vers une chaîne de montagnes où commence le vaste plateau qui forme une des plus riches provinces de l'ancienne *Abyssinie*, et qui est aujourd'hui occupé par les *Gallars*, le plateau d'*Anaria*; j'en regardais les croupes bleuâtres qui courent de l'occident au midi."—"Second Voyage au Royaume de *Choa*," p. 190, sq. This is evidently not *Enárea* Proper, but only those portions of the *Galla* country to the W. and S.W. of *Shoa*, which are known in *Gódjam* by the names of *Miécha*, *Gandéberat*, *Chélea*, *Wóreb*, &c.—9th March, 1847.

‡ *Monbasah* (*Idrisi*).—F. S.

more in accordance with the statements of Fernandes and Gregorius, than with that of M. d'Abbadie. The general result of this information is, that (independently of the river of Gurágie) there are, in addition to the Gíbbe of Léka, *two* other streams of the same name, both of which run westwards to join the Gíbbe of Léka, as they are in a general way shown to do in my map of the 23rd November, 1843. The one of these rivers is within the modern kingdom of Enárea, and the other in the adjoining kingdom of Djímma-Káka, both of which kingdoms are portions of the country formerly included under the comprehensive name of Enárea. In order to avoid confusion, we shall designate the Enárea of the present day by the name of Enárea Proper.

With respect to the Gíbbe of Djímma, I have a very precise note of a conversation with Dódjamo, the native of Worátta already mentioned,* when he informed me that this river runs between Báddi and Káka in Djímma, *in the high plain country*, just as—only much larger than—the Yéda between Yejúbbi and Yáush,† the cattle of the two districts feeding on its banks. This description is only applicable to the *upper* course of the stream over the level table-land, before it begins to fall into the valley where it was crossed by Fernandes for the first time; and as Djímma-Káka lies to the south of Enárea Proper, this evidence is strongly corroborative of the fact that the Gíbbe of the former country—M. d'Abbadie's Kúsaro—runs from S. to N., and not in the opposite direction.

And as regards the Gíbbe of Enárea Proper, its head was described to me by several persons as being situate in the extensive forest to the W. of that kingdom, in which so many of the principal rivers of this portion of the table-land have their origin. Dódjamo further stated that its course lies between Sákka and Sáfá, formerly the capital of the late king Bófo, surnamed Abba Gómhol, and that *in its valley* are the coffee woods which supply the market of Sákka; these woods lying so close to that town, that the female slaves of the king go from thence to get in the crop, setting off in the morning and returning loaded in the evening.‡

It must be distinctly understood, that, for thus laying down *three* rivers of the name of Gíbbe (exclusively of the Borara of Gurágie, to which M. Lefebvre attributes the like name), we have the authority not merely of 'Omar ibn Nedjât and Dódjamo, but likewise of several other natives, as well as that of M. d'Abbadie

* Page 51.

† This comparison will be better appreciated, when it is explained that our conversation took place at Yáush.

‡ 'Journal R. G. S.,' vol. xiii. p. 257, *sq.*

himself, who states that "the Góbé (Gíbbe) has three sources, two of which are in Enárea."*

In my map of the 23rd November, 1843, following that of 'Omar ibn Nedjât too closely—for, from the rough way in which the latter map was drawn,† it makes no pretensions to strict accuracy—the Gíbbe of Enárea Proper and the Gíbbe of Djímma are both laid down as running throughout their respective courses from W. to E.; and they are further made to join the Gíbbe of Léka independently of each other, though close together. But, on a further consideration of the subject, and having especial regard to the narrative of Fernandes as well as to Dódjamo's information, I am induced to regard myself as having been in error in this particular; inasmuch as the river of Djímma-Káka should be laid down as running from S. to N. before taking its course from W. to E., and should be shown as being joined by the Gíbbe of Enárea Proper before uniting with the Gíbbe of Léka.‡ The probable result therefore, after weighing all the evidence, is that the Gíbbe of Enárea Proper rises in the west of that country, and runs eastwards between Sákka and Sáfá to join the Kúsaro or Gíbbe of Djímma. This latter river, however—being the Zebeé of Fernandes—rises in Bósha in the S. of Yángaro, and after a course of a few leagues towards the W., turns northwards, and runs over the level country between Káka and Báddi in Djímma: then, beginning to fall, as is the case with all the principal rivers of the Abessinian plateau, and being joined by the other stream of the same name from the W., it skirts Enárea Proper to the S.E. or E., in a valley commencing with a deep narrow fissure and gradually opening to the extent of several miles, towards the upper end of which valley Fernandes crossed it for the first time on his way eastwards into Yángaro; next, bending its course eastwards, it passes on to the N. of the latter country, where it unites with the Gíbbe of Léka coming from the N.W., and the Borara (Gibbe?) of Gurágie from the N.E. The river, being now vastly increased in size, continues onwards to the S., skirting Yángaro on the E., where it was crossed the second time by the Jesuit Missionary on his road further

* 'Bulletin,' 2nd Series, vol. xix. p. 439.

† See 'Journal R. G. S.,' vol. xiii. p. 255.

‡ According to information furnished to M. d'Abbadie on his first visit to Abessinia, "Enárea is situate at the confluence of two rivers, the Gibe and the Dibi."—'Bulletin,' 2nd Series, vol. xii. p. 190. The same traveller says, in a letter dated from Sakka itself, 16th Sept. 1845, "The houses of Sákka are scattered over the right bank of the Walmáï (Oulmay), quite a little stream, which falls into the Gíbbe, the second of that name, which joins the Gíbbe of Sibú. The river thus increased in size skirts Djándjaro, and unites first with the Borara coming from Agábdjai, and afterwards with the Gódjeb, which latter appears to take subsequently the name of Omo—called U'ma by the people of Woráta."—Ibid., 3rd Series, vol. iii. p. 56.

eastwards into Kambwát or Adíya,* the southernmost province of the ancient Ethiopian Empire.

That, at the place where the Zebeé was crossed the second time by Fernandes, it had already been joined by the Borara of Gurágie, must be inferred, not merely from its greatly increased size, but likewise from the fact that Fernandes makes no mention of his having crossed any other large river on his way further eastwards, which he must otherwise have done, as his road through Kambwát or Adíya took him into the immediate vicinity of Gurágie. This latter country lay, in fact, close upon his left hand as he continued his journey eastwards,† and he particularly mentions an attack made on him and his companions by a party of “five mounted *Gurá-Gués*, and other armed men on foot.”‡

Our subject does not require us to say anything further respecting the journey of Fernandes; but it may not be unimportant to remark that, after passing eastwards through Kambwát or Adíya, he came to a district called Alaba,§ governed by a Mohammedan named Alico; beyond which district, he says, he had to go through *Cafraria*: that is to say, the low country, the inhabitants of which, if not absolutely *negroes* (Cafres), are of much darker colour than the fair-complexioned natives of the table-land. Here then the Father had come to the *áffat*, or edge of the table-land, in nearly the 40th meridian of E. long., which meridian he must have struck in about the 8th parallel of N. lat.

Till very recently the course of the united stream of the Gíbbe or Zebeé beyond Yángaro had remained enveloped in doubt and uncertainty. The Portuguese concurred generally in the opinion that it ran to the Indian Ocean, though they were far from agreeing as to the position of its mouth. Some carried it to Mónbasah; others to Melindah; while, on the other hand, Alvarez informs us¶ that it was supposed to run *westwards* to the kingdom of Kongo.** Bruce, when in Abessinia, believed the Gíbbe or Zebeé

* Adíya or Hadéa^a is the earlier and more correct designation. *Kambwát* (Cambate) is the name of a Galla tribe, which has since formed a settlement in the south of Godjam. See ‘*Journal R. G. S.*,’ vol. xiv. p. 25.

† “A mam esquerda ficam aqui huns povos chamados *Gurá-Gués*, os quays povos reconhecem vassalagem ao Emperador.”—Tellez, p. 324. ‡ *Ibid.*

§ Murray, in ‘*Bruce’s Travels*,’ 2nd Edition, vol. iii. p. 7, mentions *Alamale* (Alaba?) conjointly with *Wedge* (*Wadj*, the *Ogge* of the Portuguese), as lying to the north (north-east?) of *Cambate* and *Hadea*. *Wadj* lies to the south of *Shoa*, and the Emperors of Abessinia resided in that province before they made *Gondar* their capital.

¶ ‘*Viaggio nella Ethiopia*,’ cap. cxxxiii.; in vol. i. p. 249, of Ramusio’s ‘*Navigazioni e Viaggi*.’

** “Non si sa particolarmente degli abitanti, dove si finisca di correre; ma si

^a The ‘*Hadiyah*’ of *Abú-l-fedá* (p. 160, Rinck, Macrizi, &c., p. 14), the *h* being only a slight aspirate. “It is to the south of *Wefát* (*Ifát* of the Abyssinians) or *Jiberah*.” (*Ibid.*) The adjective of the latter name is *Jiberati*, contracted into *Jiberti* by the modern Egyptians.—F. S.

to be the Baħr el Abyađ, which river, however, he understood to be the same as the Yabús of Fázókl—that is to say, the Malég of the Jesuits;* in this latter respect falling into the error of Delisle, which is pointed out by d'Anville.† But after his return to Europe, though he still continued to be mistaken in his identification of the Baħr el Abyađ with the Malég, as is substantially shown by his map, he expressly repudiates any connexion between the Zebeé and the Baħr el Abyađ, and maintains that the former is the same as the “Quilimancy,”‡ in which he merely falls back upon the early error of the Portuguese, as modified by Delisle.§ There can, however, be no longer any doubt as to the fact of its joining the Gódjeb, and through it the Nile.||

Instead of *Gibbe* Bruce writes *Kibbee*, and he derives this name, on the alleged authority of the Mohammedan merchants of Abessinia, from the Amharic ቅቤ : *Kébie*, “butter.”¶ But this is a mere fancy, like Abessinian derivations generally, of which so many examples are found in the ‘Journals’ of Dr. Krapf.** If the name is significant (as is most likely to be the case), it will assuredly be so, not in the *Amharic* language, which was never

presume che vada verso ponente, nel regno di *Manicongo*.”—*i. e.* the kingdom of the *King of Kongo*. See page 75.

* “The *Abiad* river is three times as big as the Nile [Baħr el Azrek]. *I always believe it to be the Kibbee of the Nureans or Galla, the Zebee of the Jesuits, the Yabous of the Fazuclans*, being the boundary of that province to the westward.”—‘Extract from MS. Notes,’ in Murray’s ‘Life of Bruce,’ p. 418, sq.

† “Le Baħr-el Abiad n’a point été inconnu à M. Delisle, et il est dénommé dans la carte que j’ai citée. Mais il ne m’a point paru, en dressant la carte de l’Afrique, qu’il me fût permis de confondre on d’identifier ce fleuve avec une rivière nommée Maleg, qui côtoie de fort près l’*Abawi de l’Abissinie*, et lui paroît très inférieure, selon la carte des Jésuites Portugais, sans laquelle on ne connoîtroit point le Rio Maleg.”—‘Mémoires de l’Académie Royale des Inscriptions et Belles Lettres’ (1759), vol. xxvi. p. 60.

‡ “The river Zebee or Kibbee surrounds a great part of the kingdom of Gungiro. *It has been mistaken for the river El Aice* [*i. e.* the Baħr el Abyađ], which runs into Egypt in a course parallel to the Nile [*i. e.* the Baħr el Azrek], but to the west of it.”—‘Travels,’ vol. ii. p. 318. And again—“*The Zebee is universally allowed by the merchants of this country, to be the head of the river Quilimancy*,” which, passing through such a tract of land from Narea to near Melinda, must have opened a very considerable communication with the inland country.”—*Ibid.*

§ See page 18, note.

|| M. Rochet d’Héricourt in his ‘Second Voyage au Royaume de Choa,’ p. 273, sq., speaks of a river Gibbe, which rises in Enarea to the S.W. of Shoa, in a mountain (mountainous country?) named Bottchia-Magna, runs from E. to W. between *Káffa* and *Kambwát*, and then turns northwards, in which direction it probably joins the Nile. Considering the vagueness of the expression “Enarea” (see page 57), it is not easy to determine whether this river in its upper course is the Gibbe of M. Lefebvre, or the Kúsaro-Gibbe, or Zebeé of Fernandes, which has its source in *Bósha*; but in its lower course it is manifestly identical with the Gódjeb, the recipient of both the one and the other of those two rivers.—9th March, 1847.

¶ “. . . . Zebee, as the Portuguese call it; but its true name is Kibbee, a name given it by the Mahometan merchants (the only travellers in this country) from its whiteness approaching to the colour of melted butter, which that word signifies.”—‘Travels,’ vol. ii. p. 317.

** This forced derivation of the name “Kibbee” may be adduced in support of the argument in page 52, sq.

spoken in the countries through which the Gíbbe flows, but in that of the natives themselves. Now, of these natives we possess historical evidence of only two distinct races, namely, the Góngas and the Gallas. The former are a people who, previously to the invasion of the Gallas, extended over the whole of the table-land S. of the Abáí, but who have gradually been driven from it by the intrusive race, so that at the present day they are confined to the valley of the latter river towards the N., and to the countries watered by the Gódjeb towards the S. In the time of Fernandes (A.D. 1613) the Góngas were still in possession of Enárea Proper, as well as of other portions of the table-land; and as the river which was then called Zebeé, now bears the name of Gíbbe, it is not unreasonable to regard the latter as a *Galla* designation which, since the time of Fernandes, has superseded the earlier native name, in the same way as within the same short period the Takui has become the Dedhésa. Assuming, then, Gíbbe to be a Galla name, we find in M. Tutschek's 'Galla Dictionary' * the word *gíbe* to mean a "lake," or "standing water," as contradistinguished from *galána*, a "river," or "running stream;" and as Gíbbe thus appears to be not a proper name, but an appellative, we have seemingly a reason for its being applied, as we find it to be, to several rivers. We will now see if any further explanation is to be derived from the earlier name *Zebeé*.

Of several of the languages and dialects spoken among the Góngas, vocabularies are given in the second volume of the 'Proceedings of the Philological Society;' † but, as far as these vocabularies extend, they throw no light upon the subject now under consideration. To the S., however, of the Góngas—or Sidámas, as they are usually called by the Gallas and, in imitation of them, by the Abessinians—comes another far more widely spreading race, respecting which Mr. Cooley observes, ‡ "that from the confines of the Hottentots in the south of the equator on the eastern coast, and to the Camaroons on the western, there is but one family of languages which may be appropriately called the Zingian languages. Notwithstanding the variety of dialects, each tribe can understand its neighbours. There is little reason to doubt that a native of Angola would be soon able to make himself understood in Zanzibar." Of these dialects, the Sawáhilí is spoken in Zanzibar and the vicinity, on the eastern coast of Africa; and

* P. 61.—*E. g.* "Galáni na fiád'e
Gíbén na gezíze."

"Away the river tore me,
And to the lake fast bore me."

Galla Song.

† Pp. 93–107. Ludolf, in his 'Hist. Æthiop.,' lib. i, cap. 15, gives one word of the Góngá language, *donzo*, as meaning "lord," or "master," which corresponds with the *dónjjo* (Góngá) and *dóno* (Káffa) of my vocabularies.

‡ 'Journal R. G. S.,' vol. xv. p. 193; and see Marsden, in Capt. Tuckey's 'Narrative of an Expedition to explore the River Zaire,' p. 389.

in this language *Ziwa*—in one of the cognate dialects *Zébé*—means “lake,”* in the same way as *Gíbe* does in the Galla.† In this word we have the derivation of the name of the well-known lake *Zuwái* (*Zuwaja*) in the S. of Shoa, which is thus seen to be not a proper name but an appellative, just as *Háik* (**ሀክ** *Háyëk*) is in Ethiopic. And hence we are led to the probable conclusion, that the name *Zebeé* is even of earlier date than the occupation by the *Góngas* or *Sidámas* of the countries watered by that river, and that this word, like *Zuwái* itself, is a relic of a people of cognate origin with the *Sawáhilís*, whose settlements once extended even thus far to the north of the equator. In the absence of all historical evidence, or of other corroborative facts, such a derivation can only be put forth as a reasonable surmise. The coincidence in signification of the two names *Zebeé* and *Gíbe*, is however too close to be well attributable to mere chance; and it is deserving of remark, that, below the confluence of the *Gibbe* with the *Gódjeb*, the united stream bears the name of *Úma* or *O'mo*, which name (as will next be shown) there is reason for believing to be significant in the languages of *Woráttá* and *Yángaro*—both of the *Gonga* family—and in like manner to mean “lake.” That a lake, or series of lakes or marshes, does actually exist along the bed of the *Gódjeb*, between the two countries of *Woráttá* and *Yángaro*, is a fact which cannot well be doubted; but I am not aware of the existence of anything of the sort along the courses of the rivers bearing the common appellation of *Gibbe*. Should, however, the fact be, that these various water-courses are not perennial streams like the *Abáí*, but stand in pools during the dry season like the *Máreb*, the name would then be satisfactorily accounted for; but upon this subject more information is required before any positive opinion can be expressed.

Having at length terminated our investigation of the several rivers bearing the name of *Gibbe*, it is necessary, before returning to *M. d'Abbadie's* enumeration of the other tributaries of the *Gódjeb* on its left bank, to consider the question of the existence of a lake or series of lakes or marshes along the course of the *Gódjeb*. On this point that traveller says—“*Le Godjab ne s'épanouit pas en lac dans Kafa;*”‡ but this is directly opposed to the evidence of several credible native witnesses, and likewise to the independent testimony of *M. d'Arnaud's* map, in which the *Gódjeb* is laid down as running through a lake in the S. of *Káffa*.§

* See ‘*Journal R.G.S.*’ vol. xv., p. 203.

† In the *Kafir* language of the Cape Colony, “a lake” is *Ik'ibi* (with the click on the *k*), written by the missionaries *icibi*. See *Ayliff's* ‘*Vocabulary of the Kafir Language*,’ 1846.

‡ ‘*Nouvelles Annales des Voyages*,’ 1845, vol. i. p. 263.

§ *M. Lefebvre's* informant *Irbo* in the like manner speaks quite positively as to the existence of such a lake, or rather of more than one such lake. He says (‘*Bulletin*,’

Dilbo, who first mentioned this lake, spoke as if it were the main stream of the Gódjeb itself, which he described as being as wide as from Angolálla to Chérkos (about 3 miles English), and as being crossed in boats capable of containing 50 or 60 persons.* The situation of this expanse of water, whether it be regarded as a lake or as the widened stream of the river, was understood from Dilbo's relation to be on the direct caravan-road between Enárea and Káffa. But subsequent information obtained in Góddjam shows that such is not the case, and that it lies further to the S., between Wolámo (or possibly the S. or S.E. portion of Yángaro) on the one hand, and Kúllo in the S. or S.E. of Woráttá on the other. An earlier statement of M. d'Abbadie himself may, indeed, be quoted to prove the existence of this lake. He says—"La plus grande rivière est le Godam [Godab, *i.e.* Góddjeb], puis vient l'Ouma—il peut y avoir quelque incertitude ici, car j'ai appris plus tard qu'en Ilmorma 'ouma' veut dire lac."† By "Ilmorma" is simply meant *Galla*.‡ It is, however, much to be questioned whether úma (ouma) means "lake" in that language. But it may well have that signification in some *other* of the native tongues, and probably in those of Yángaro and Woráttá, the countries between which this "U'ma" is situate; and under this view of the subject, the whole would become intelligible and consistent. To use M. d'Abbadie's words in his letter of April, 1844§—"Le fleuve lui-même qui nous occupe est le Godefo ou Godepo des Sidama, le Godjeb ou Godeb des Gallas, le Omo des Yamma et des Yangara, le Ouma des Dawaro,"|| which, as "uma means lake," might be thus explained:—Between Yángaro and Woráttá (M. d'Abbadie's Dáwaro) the Góddjeb becomes "úma," *i.e.* "a lake;" the fact being the same whether the word "úma" (or "ómo") be the proper name of the river in that portion of its course, or an appellative in the languages of the two countries between which it flows. It will be seen in my map of the 23rd of November, 1843, that the "lakes or marshes" are laid down at a short distance to the S.E. of the spot where the Góddjeb passes between Yángaro

3rd Series, vol. i. p. 54), that a river joins the Góddjeb from the east, forming at the junction a lake or basin, into which several small Galla rivers discharge themselves. And he adds, that at three days' journey from its source, the Góddjeb passes through another lake in the country of Sidáma (Káffa), which is never crossed by the natives without their first confessing themselves, on account of the frequent loss of life there.

* 'Journal R. G. S.,' vol. xii. p. 87.

† 'Bulletin,' 2nd Series, vol. xviii. p. 355.

‡ *Ilm'órma* (sons of *men*) is the native appellation of the people: *áfan órma* (the "mouth" of men) is that of their language. If, therefore, it were worth while to introduce a substitute for the well-known expression "Galla," the proper one would be *Orma* or *Orman* for the people and their language, and *Ormania* for their country. See

• Proceedings of the Philological Society,' vol. ii. p. 96.

§ 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 115.

|| The Dawaró of Makrísí (Rinck. pp. 11, 13) is probably this country.—F. S.

and Worátta, corresponding very closely with the relative position of the lake in M. d'Arnaud's map. According to Dilbo,* "beyond Kaffa, the Gódjeb is *joined* by the river O'mo, coming from the country of Doko." This was understood as meaning that the O'mo was a *separate* river, in the fork between which and the Gódjeb the kingdom of Káffa was situate. † But M. d'Abbadie's view of the case, as above interpreted, is apparently the correct one. ‡

In their first visit to Abessinia, both M. Antoine d'Abbadie and his brother, M. Arnauld d'Abbadie, made mention of "a great salt lake *near Kaffa*," the salt of which is taken for sale to Kaffa by the people of Worátta." § In Shoa as well as in Gódjam, I made particular inquiries as to the places from whence Enárea and Káffa are supplied with salt. In the former country, I was told from Tigre, by the way of Gondar and Gódjam; || and this I ascertained to be the fact from personal observation at Báso. But I there learned further, that but little of the Tigre rock-salt finds its way to Kaffa, that article being carried thither by the Sennár merchants by the way of Wallégga; and also that grain-salt (áshabo) is brought to Káffa *from the Indian Ocean* by the way of Góbo, *Worátta*, and Dóko. My informants were very precise and positive on this point, saying that the sea which is very near to Dóko, is also *that of the Banians*, with whom and with whose country (Hind) they are acquainted, from having traded with them in the ports of the Red Sea. ¶ From these particulars I should be inclined to regard this "great salt lake" of the French travellers as being the Indian Ocean, especially as the same word *bahr* means both "sea" and "lake," as well in the Amharic as in the Arabic language. But in a more recent communication,** M. Antoine d'Abbadie says—"I think I have before spoken to you of the lake beyond Kaffa; and as I had always been assured that its waters are not drunk, I imagined they must be salt. But it is not so: *the water is fresh*, †† but sacred." And he goes on to say that this lake is situate *in Dáwaro* (Worátta), that "it is half as large as lake Tsána, is called Chócha (Tchotcha), †† and stretches from E. to W., its banks being steep hills. *No considerable river*

* 'Journal R. G. S.,' vol. xii. p. 87.

† Dr. Krapf mentions "a large river called Uma," as flowing through Wolámo. See 'Journals of the Rev. Messrs. Isenberg and Krapf,' p. 257.

‡ This opinion has, in fact, been since adopted by M. d'Abbadie himself. See 'Bulletin,' 3rd Series, vol. iii. p. 56, cited in page 59, *note*.

§ 'Bulletin,' 2nd Series, vol. xii. p. 189.

|| 'Journal R. G. S.,' vol. xii. p. 87.

¶ *Ibid.*, vol. xiii. p. 264.

** 'Bulletin,' vol. xix. p. 438.

†† But in that case what becomes of the *salt of this lake*, which was said to be taken for sale to Káffa by the people of Worátta?

‡‡ 'Bulletin,' vol. xix. p. 438.

enters it, and none flow out of it." * This is, however, opposed to all the evidence already mentioned, and especially to that of Dó-djamo (a native of Woráttá), who assured me that the lake is a continuation of the Gódjeb, and that it is crossed in boats on the way from Kúllo to Woláítsa or Wolámo.

As regards the further tributaries of the Gódjeb on its left bank, M. d'Abbadie says, that after the Walga and Borara (which, as is already stated, collect the waters of Gurágie) come "the Sánná, which forms the southern frontier of Túfte, and the Wósho, of which the source is in Walámo [my Wolámo or Woláítsa], at the watershed between the basin of the Nile and that of lake Abbale. This lake is said to be 80 miles in length, and to contain several islands inhabited by the Aruro negroes." † In the existing state of our knowledge of these regions, it is not possible to say whether this lake is to be regarded as one of the series of collections of fresh water lying along the easternmost edge of the table-land of Eastern Africa, such as A'shangi, Háik, and Zuwái, or whether it is similar in character to lake Abhébbad, the recipient of the Hawásh, in the low desert country lying between the high land and the ocean. ‡

M. d'Abbadie remarks, in continuation, that "the country of the Dóko § (Dokko) must likewise furnish affluents, the sources of which may be presumed to lie as far S. as the 3rd or even the 2nd parallel of N. latitude; but the Dóko, whom we have questioned on the subject, assure us that none of their rivers are to be compared to the Gódjeb." How far the tributaries of the Gódjeb coming from the S.E. and S. really extend, there are at present no means of ascertaining. But the northern limits of the basin of the Shoabérri, of which river we have yet to speak, must prevent that of the Gódjeb from extending much further to the south than about the 5th parallel, unless, perhaps, in the case of some of its tributaries from the extreme edge of the table-land towards the S.E.

The French traveller, from whom we have so largely quoted, concludes by saying—"As to the tributaries of the Gódjeb on the left bank, below the point where its course takes a northerly direction, we may from theory be assured that they are not very nume-

* 'Bulletin,' 2nd Series, vol. xix. p. 441.

† 'Nouvelles Annales des Voyages,' 1845, vol. ii. p. 114.

‡ It may be the great lake mentioned by M. Rochet as situate in Korchássi, to the south of Lake Zuwái, through which the Wábbi of Juba—the Wábbi-Giwéyna or Gowín—is said to flow.—12th March, 1847.

§ *Doko* in the Galla language means "stupid," "ignorant." It is not improbable that this is the origin of the name of the rude savages, of whom, from Dilbo's report, such curious tales have been related. They are first mentioned by myself in 'Journal R. G. S.,' vol. xii. p. 87: see also vol. xiii. p. 265, *sq.* and the 'Literary Gazette,' of the 30th Dec., 1843, p. 851, *sq.*

rous." By this M. d'Abbadie alludes to the direct stream of the Baħr el Abyad above the 10th parallel, with which he supposes the Gódjeb to be identical, but erroneously. The fact is, however, that below the point where the Gódjeb is joined by the Gíbbe, nothing whatever is known respecting its tributaries on the left bank: but, from theory, there is no reason for imagining that they are less numerous than those of the Abáï on its left bank, the two rivers being in other respects very similar.

We have thus come once again to the Baħr el Abyad in about 9° 20' N. lat. and 31' E. long., where we had left it for the purpose of tracing the Sobát, Téffi, or Gódjeb to its source.

Following the progress of the Egyptian expedition, we now ascend the Nile in a direction almost due W., till, in about 29° E. long., we come to a lake measuring from 15 to 20 miles each way,* abounding in fish, and studded with islands. M. Werne states † that the name of this lake could not be ascertained, because its banks were lined with sedge and shallows; by which it may be presumed it is to be understood that the land was unapproachable so as to allow of communication with the natives. A subsequent traveller, M. Lafargue, who ascended the river in the beginning of 1845, says that this lake is called *No*: ‡ it is evidently the lake Kúra of the Arabian geographers—the Cuir or Cura of the maps.§ This lake is formed by the junction of two large rivers. The one which falls into it from the S., and up which the several expeditions proceeded, is considered as the main stream of the Baħr el Abyad or Nile: the other, coming from the W. or N.W., was, by several persons who had served under Mustafá Beg, called Baħr el Ghazál, and this name was subsequently confirmed by that officer himself on the return of the expedition to Khartúm. || M. d'Arnaud suggests that it is the Keiláh, or Misedád of Browne.¶

Above lake Kúra or No, the direction of the Baħr el Abyad for

* This is the size attributed to it in M. d'Arnaud's map; but M. Werne says (p. 48) —“Der See hat 18–20 Meilen *im Quadrat*,” which, if ordinary German miles are meant, would make it to be of considerably greater extent. But probably geographical miles, of 60 to the degree, are intended.

† P. 48.

‡ ‘Bulletin,’ 3rd Series, vol. iv. p. 160. Riley mentions that, according to Hadji Hamet, *Lake Chad* bears the name of *Nu*. Upon this, Reichard, who as early as 1802 opposed the views generally entertained in England respecting the “Niger,” and contended that the Djoliba of Park ran southwards into the Bight of Benin, precisely as the Kwára (Quorra) was found to do by Lander in 1831 (see ‘Bulletin,’ 3rd Series, vol. i. p. 196):—this learned geographer suggests that the word *Nu* may be an abbreviation of *Nuchul* [or Nuluch], the name given to the lake out of which the Nile [*i. e.* its great *western* arm] was considered to issue (see Mela, lib. iii. c. 9; edit. Gronovii, p. 312, *sq.*, and p. 866, *sq.*). Orosius, lib. i. c. 2, calls this lake *Nuhul*.

§ Cuir or Kuir is a false reading of Kúra كورى, the name given in Abú-lfedá, pp. 37, 163.—F. S.

|| Werne, p. 48.

¶ ‘Bulletin,’ 2nd Series, vol. xviii. p. 90.

the remaining distance through which it has been navigated, has a general bearing of about S. E. It is here called by the natives Kíti and Kírte; but in the country of Bari, Barry, or Bér (Behr), the extreme point attained, it is named Tubiri.* Along its entire course the river is without cataracts, but with occasional shallows, and it winds among marshes and swamps, which are, in part, the beds of watercourses joining the main stream on either side during the rains.† From the character of this country, it is manifest that the inclination of the bed of the stream must be insignificant. But in about 5° N. lat. the valley of the river begins to be confined between mountains, and its bed rises sensibly, so that at length the current attains a velocity of two miles an hour.‡ In 4° 42' 42" N. lat. and 31° 38' long. E. of Greenwich, a ridge of gneiss, running directly across the stream from E. to W., arrested the further progress of the second expedition, the one which reached the highest point.§

Respecting the river further up, the particulars furnished by M. d'Arnaud and M. Werne, from native information, differ materially. The former says,|| "When the waters are high the river is still navigable for at least some 30 leagues," to a point where "several branches unite, of which *the most considerable one comes from the E.*, and passes below a large country ('au bas d'un grand pays') named Berry, situate a fortnight's journey to the E. of the mountains of Bellénia;" which mountains are shown in that traveller's map as lying at a distance of 20 or 30 miles to the E. of the extreme point of the expedition. This branch of the Nile is, in the same map, named *Shoabéri* (Choa-Berry), and the Gódjeb is laid down as tributary to it. On the other hand, M. Werne informs us,¶ that, *in the country of Berri*, which lies 10 days to the E. of Bari, "there is no river, but the people obtain their water from wells." And he adds, that they were informed by Lakono, the reigning Matta (king) of Bari, that the river continues "a month's journey further south" before reaching the country of Anyán (Anjan), where it divides into four shallow brooks; but whether these come from the mountains or out of the earth he was unable to say.**

Notwithstanding the apparent discrepancy of these two relations, the accuracy of *both* may, subject to certain qualifications, be admitted, if we suppose that, in the case of M. d'Arnaud, that traveller was induced to consider the Shoabéri to be the *principal* arm by the particulars furnished to him in Egypt by Messrs.

* Werne, p. 49.

† Ibid., p. 48.

‡ Ibid., p. 49. These are apparently geographical miles, but they might possibly be usual German miles, each equal to four geographical.

§ Ibid. Is it not possible that the expedition had here got out of the main channel of the Nile, without being aware of having done so?

|| 'Bulletin, vol. xix., p. 95.

¶ P. 50.

** Ibid.

Blondeel and Bell respecting the Gódjeb, which river was described to them by their native informants as being the main stream of the *Bahr el Abyad*. This information must, however, be viewed in the same light as the various native reports already commented on, which are founded on the belief of the people inhabiting the banks of each successive branch of the Nile, that *their* river is the continuation of the principal stream. By this observation, it is not intended to express any doubt respecting the existence of a large eastern arm of the *Bahr el Abyad* above the furthest point reached by the expedition: the particulars subsequently furnished by M. d'Arnaud to M. Jomard—namely, that “almost all the natives concur in stating that the river continues in a S.E. direction for 50 or 100 miles, but afterwards turns to the E. and N.E.”*—do not allow this fact to be questioned. All that is contended for is, that the river thus described is neither the Gódjeb nor, in its upper portion at least, the direct stream of the Nile. As respects the former of these points, the real course of the Gódjeb is, it is apprehended, sufficiently established in these pages; and as to the latter, its correctness must be admitted unless we altogether discard M. Werne's information, which we certainly are not justified in doing. And, indeed, M. d'Arnaud himself was informed of a river which comes from the *south*, by the people of Comboh, a place distant a day and a-half's journey beyond the furthest point reached by the expedition.†

It appears, therefore, to result that the *Shoabérri* of M. d'Arnaud's map is *another* great arm of the Nile, having its course below and round, consequently *beyond*, the country of Berri; but not *in* it, since M. Werne expressly tells us the people of that country obtain their water from wells and not from a river. The distance at which it makes this circuit round Berri, namely 15 days' journey, may be estimated at from 180 to 200 miles to the E.; so that the course of the river will be carried to about the 35th meridian E. of Greenwich, and its source may be conjecturally placed somewhere between the fourth and fifth parallels of N. lat. Thus the *Shoabérri* will be seen to form a curve similar to that of the *Abá'i* and of the Gódjeb; while towards the Nile its lower course will have precisely the same bearing as those two rivers and the *Tákkazie*, namely from S.E. to N.W. Indeed, from the general fall of the western slope of the mountain-chain of Eastern Africa towards the valley of the Nile, this last condition is indispensable; for it may be regarded as physically impossible, that any river joining the main stream on its right bank, should have a course of 350 miles from N.E. to S.W., as

* 'Bulletin,' vol. xix. p. 444, *sq.*

† Jomard, 'Observations sur le Voyage au Darfour,' p. 31.

the Shoabéri is made to have in M. d'Arnaud's map, evidently from a desire to connect it with the Gódjeb.

As regards the direct stream of the Nile above the confluence of the Shoabéri—assuming the Tubiri to be that direct stream—our guide must be M. Werne, on whose authority, or rather on that of his informant, Lakono, we have to carry it a month's journey further to the south. If, now, the day's journey be roughly estimated at 12 geographical miles, this gives 360 geographical miles as the length of the river above $4^{\circ} 42' 42''$ N. lat. ; and this distance, measured in a direction due S., brings us to about $1^{\circ} 20'$ S. lat. and $31^{\circ} 40'$ E. long.* Here, in the country of Anyán, the river is said to divide into four shallow brooks ; and beyond this point our information, imperfect as it is, ceases altogether.†

Let us now see into what portion of Africa the head of the Nile has thus been brought.

In Mr. Cooley's valuable memoir on 'The Geography of N'yassi, or the Great Lake of Southern Africa'—the lake Zambéze ‡ of the Portuguese—published in the fifteenth volume of the Society's 'Journal,'§ public attention is again directed to the country of *Móno-Moézi*, which, as early as the end of the sixteenth century, was described by the Portuguese as an important empire in the interior of Africa. Since that period, however, as Mr. Cooley observes,|| "our acquaintance with it has not only not gone on increasing, but the very name has sunk into obscurity. The information which we at present possess respecting it is of but a vague and general character. The country seems to be an elevated plain, the ascent to which lies chiefly in the territories of the M'sagára and of the Wohaha ;"—similar, in its general character, to the ascent from the low country of the Adál or Danákil to the Abessinian plateau, of which this "elevated plain" is manifestly a continuation.

* It must be understood that this is a mere approximation.

† M. Lafargue, who ascended the Bahr el Abyad in 1845, says, that according to the report of the negro subjects of King Lakono, the *second* branch of the Nile which he ascended—the Bahr el Ghazál, or Keiláh, is regarded by him as the *first*—turns to the west at a distance of 6 days' journey from the extreme point reached by him. See 'Bulletin,' 3rd Series, vol. iv. p. 161. While M. d'Arnaud had his attention more particularly called to the Shoabéri, which joins the Nile from the east, M. Lafargue's inquiries would seem to have been especially directed to the tributaries on the western bank. This will not only account for the apparently conflicting testimony of the two travellers, but may also reconcile them both with M. Werne. The general conclusion to be arrived at from the whole is, that far to the south of 5° N. lat. the Nile is still a very large river, with considerable streams falling into it both from the east and from the west.

‡ This name is usually misprinted Zembere, Zembre, or Zambre. It is the lake *Maravi* of the maps.

§ Part ii. p. 185, *sqq.*

|| 'Journal R. G. S.,' vol. xv. p. 212.

The country of Mónico-Moézi appears to lie to the N. and N.E. of lake Zambéze; and, from a consideration of the positions of the adjoining districts, Mr. Cooley concludes that its northern limit may be "rudely fixed in the third or fourth parallel of S. lat. ;"* and in the map accompanying his Memoir it is laid down as extending from the 30th to the 35th meridian of E. long. But, in his 'Further Explanations in reference to the Geography of N'yassi,' contained in the succeeding Part of the Society's 'Journal,'† that gentleman, at the same time that he shows, from information subsequently obtained, the general correctness of his previous results, admits that he has "fallen short of the truth by about 150 miles" with regard to the position of certain points on which those of the central portion of his map mainly depend, the deficiency in distance being on a line bearing about N.W. This variation necessarily affects, though perhaps not to the whole extent, the position previously attributed to the N'yassi, or lake Zambéze, and consequently that of the country of Mónico-Moézi also; and hence the approximate northern limit of that country has probably to be advanced to within two degrees S. of the equator, while it may at the same time be necessary to move it westwards to within the 29th and 34th meridians of E. long. Now, this brings us precisely to the spot to which, on the authority of M. Werne, we have already carried the head of the Nile; so that it results that this river has its origin in the country of *Mónico-Moézi*. This is, however, only a reproduction of the long-discarded and almost-forgotten opinion of the Portuguese writers of the sixteenth and seventeenth centuries, who concur generally in stating that the Nile flows from lake Zambéze, *in the empire of Mónico-Moézi*, which country they further describe as lying immediately round the "Mountains of the Moon."

It is true that the river "Nile" which they thus make to flow from lake Zambéze is not the Bahr el Abyad, but the *Takui*,‡ the western arm of the Bahr el Azrek. But this is an error, the origin and progress of which may readily be traced; and its detection will serve to explain how it has happened, that, in the maps of Africa of the seventeenth century, the empire of Abessinia is stretched out so far to the S. and W. as to cover almost the whole of the interior of the African continent. The state of the case is briefly as follows:—

By Ptolemy we are informed§ that the river of Egypt is composed of three great arms, the Astaboras, the Astapus, and the Nilus. Of these the Astapus flows from lake Coloë, while the Nilus is formed of two rivers, having their sources in the

* 'Journal R. G. S.,' vol. xv. p. 213.

† Vol. xvi. p. 138, sq.

‡ De Barros, 'Asia,' vol. iii. part. ii. p. 373.

§ Lib. iv. cap. viii. p. 113 (edit. Bertii, p. 129).

“Mountains of the Moon,”* each of which rivers passes through a lake before uniting to form the Nilus. This statement of Ptolemy forms the groundwork on which the Portuguese engrafted the positive information obtained by them in their possessions on both shores of the continent and likewise in Abessinia. In the former they became acquainted with the great lake, called by them Zambéze, from which the Nile of Egypt was said to flow, and which lake they had no difficulty in identifying with the easternmost of Ptolemy’s two lakes. Of the other lake described by that geographer as lying far to the W. they appear to have had no knowledge. In Abessinia, on the other hand, they ascertained the existence of the Tákkazie and Abái, and became acquainted with the fact that the latter flows through lake Tsána; so that they readily identified those two rivers with the Astaboras and Astapus, and lake Tsána with the Coloë of Ptolemy. Thus far all was clear, and (as now appears) in accordance with the truth. Of the western arm of the Nilus of the Greek geographer they knew absolutely nothing; and of its eastern arm they appear only to have learned, in a general way, that it came from lake Zambéze. With its course as the Bahr el Abyad they were personally unacquainted, and from the Abessinians they were not likely to learn anything, owing to the ignorance of that people even of that river’s existence.† But they did learn in Abessinia that *the Bahr el Azrek* was, as it still is, considered by the natives to be the true Nile and the Gihon ‡ of Genesis, and that it is composed of *three* rivers, the Tákkazie, the Abái, and the Takui; and as they identified the two former with the Astaboras and Astapus, it was only natural that they should regard the remaining river, the Takui, as the Nilus. This identification having once been adopted, it followed as a necessary consequence that the Takui—the pseudo-Nilus—must have its origin in lake Zambéze; and that it does so is expressly asserted by de Barros.§ But the sources of the Takui are not less expressly described by the same writer|| as being situate in Shínasha, Dámot,¶ and Bizámo, all well-known provinces of Southern Abessinia; and as the Portuguese who visited that country prior to the commencement of the seventeenth century, appear not to have possessed the means of deter-

* Lib. iv., cap. ix. p. 115 (edit. Bertii, p. 131).

† In proof of this, see page 29, *sq.*

‡ It is called Sîhon (Sâihún) by Maḡrízî (Rinck., pp. 2, 36).—F. S.

§ “*E destes tres notaveis rios, que ao presente sabemos procederem deste lago, os quaes vem sahir ao mar tão remotos hum de outro; o que corre per mais terras he o Nilo, a que os Abezzyms da terra do Preste João chamam Taczy, no qual se mettem outros douts notaveis, a que Ptholemeu chama Astabora, e Astapus, e o naturaes Tacazy, e Abanli [Abahui=Abáwi, i.e. Abái].*”—‘Asia,’ vol. iii. part i. p. 373.

|| Ibid. See the passage cited in page 29.

¶ i. e. the ancient Damot, south of the Abai.

mining the latitude so as absolutely to fix the position of those distant provinces, there was no good reason why those provinces should not accompany the Takui, in its character of the Nile, southwards into the vicinity of lake Zambéze, the latitude of which was approximately known from the settlements in Kongo and Sofálah. The error, great as it was, did not, however, terminate here. Lake Tsána (Coloë), from which the Abáí, the central stream of Abessinia, issues, was known to be situate in or near to the province of Gódjám, which province was in like manner known to border on Shínasha, Dámot, and Bizámo; and as these latter provinces had been removed to the neighbourhood of lake Zambéze in company with the Takui, there was no alternative but to carry Gódjám, with the Abáí and lake Tsána, in like manner away to the S.; so that it resulted that this latter lake was made to usurp the place of the Zambéze, and to become Ptolemy's eastern lake.* In the beginning of the seventeenth century, the Portuguese Jesuits, by observing (if even roughly) the altitude of the pole in Abessinia, and likewise by tracing the curve of the Abáí round Gódjám, were enabled to correct this fundamental error in African geography, so far as the Abáí and lake Tsána are concerned. But they had, of course, no means of appreciating the mistake with respect to the Bahr el Abyad; and as by that time the southern provinces of Abessinia were overrun by the Gallas, the Jesuits would seem not even to have acquired any knowledge of the Takui or western arm of the Bahr el Azrek.† The confusion in the maps remaining thus inexplicable, the information of the early Portuguese, which is really most valuable if understood, has been tacitly allowed by later geographers to sink into oblivion. However, from the explorations and researches of the last few years, and principally from the positive information respecting the Bahr el Abyad obtained by the Egyptian expeditions up that river, a new era in the history of the basin of the Nile has now commenced, which pro-

* Thus Tellez says, in speaking of Lake Tsána, "Chamou Ptolomeu a esta alagoa, Coloe, Joam de Barros lhe chama Barcenà [Bahr Tsána], a respeyto parece de hũa ilha que està junto ao lugar por onde o Nilo saye. Os douttissimos Gerardo Mercator e Joam Jansonio nas suas famosas taboas da Abassia poem dous nomes a esta alagoa, e chamam Zambre [Zambeze] a parte que fica pera o Sul, e dizem Zaire a que olha pera o Norte. Porém o seu nome como ja dissemos he Bar Dambéa."—*Historia, &c.*, p. 14.

So, too, dos Santos says:—" . . . O rio Nilo, o qual nace no sertão desta Ethiopia da hum grande lago chamado Barzêna [Bahr Tsána] situado em doze graos da banda do Sul."—*Ethiopia Oriental*, Part. i. liv. iv. cap. xiii. fol. 104.

As a consequence of this confusion of lake Tsána with lake Zambéze, the Wábbi, and afterwards the Zebeé, was made to be the head of the Kilimáne. See on this subject page 17, *note*.

† Hence it arose that the Portuguese Jesuits, though they correctly considered the Abáí and Lake Tsána to be the Astapus and Coloë of Ptolemy, were yet guilty of the inconsistency of making the former river to be, at the same time, the Nilus of that geographer.

mises to be far more fruitful in results than any that have preceded it, not merely as regards our knowledge of the vast regions watered by that still mysterious river, but likewise, as it is fervently to be hoped, in the improvement of the millions of our fellow-creatures with whom those regions teem.

After what has been already stated, there scarcely remains room to doubt the fact that the head of the direct stream of the Bahr el Abyad, or Nile, is in the country of MÓno-Moézi; and such being the case, there is nothing unreasonable in the opinion maintained by the early Portuguese, that that river issues from Lake Zambéze, situate in that country. Indeed, that such is actually the case, is repeated at the present day by a native of Zanzibar, but born of MÓno-Moézi parents—one “of the *Manmoise* tribe,” as he is styled by Mr. McQueen, who communicated the information.* This individual, Lief ben Saied by name, states that “it is well known by all the people there that *the river which goes through Egypt takes its source and origin from the lake,*” † namely, Zambéze or N’yassi.‡

Another point to be noticed is Ptolemy’s well-known statement that the Nile rises from the “Mountains of the Moon.” These mountains, he says,§ stretch from E. to W. across the continent for a distance of 10 degrees of longitude, and at their eastern extremity is one of the two lakes from which the Nile issues, that is to say, the head of the great eastern arm of that river. And in describing the western shores of the Indian ocean, he says || that on a large bay or gulf in the coast of Africa, called “Barbaricus Sinus,” there dwells a nation of Anthropophagi, *the western part of whose country extends to the Mountains of the Moon.* Our actual knowledge of these regions may be insufficient to enable us to determine the precise position of the country of the Anthropophagi: but it may, in a general way, be asserted that it is that portion of the belt of low land extending along the coast of Zanzibar, which lies below the eastern flank of the table-land of MÓno-Moézi, in which lake Zambéze and the head of the Nile have already been placed.¶

* ‘Journal R. G. S.’ vol. xv. p. 371, *sq.*

† *Ibid.*, p. 373.

‡ If this information and that of the early Portuguese be correct, there is reason for believing that the Egyptian expedition, in the extreme portion of its voyage, had left the main channel of the Nile; and the Tubiri will be only another of its principal arms.

§ Lib. iv. cap. ix. p. 115 (edit. Bertii, p. 131).

|| *Ibid.*, cap. viii. p. 113 (edit. Bertii, p. 129).

¶ If the *Menuthias* of Ptolemy be not Madagascar, but the island of Zanzibar, as was contended by d’Anville (‘*Mémoires de l’Académie des Inscriptions et Belles Lettres*,’ vol. xxxv. 1770, p. 593, *sqq.*), and has lately been argued with much ability by M. de Froberville (‘*Bulletin*,’ 3rd Series, vol. i. p. 224, *sqq.*), it will follow that the position of the Barbaricus Sinus, and consequently that of the country of the Anthropophagi and of the “Mountains of the Moon,” may be determined with great precision.

It is likewise to be remarked, that, in a passage cited by De Sacy from Makrizi,* it is stated that *the mountains along the eastern coast of Africa*—opposite the great island (i. e. Madagascar) in the sea of Zingebár facing Ceylon [Silán],—are called جبل القمر; and if this statement is to be regarded, not as a mere variation and amplification of the earlier one of Ptolemy, that the country of the Anthropophagi reaches westwards to the "Mountains of the Moon," but as the assertion of a *fact*, of which the Arabian writer had acquired an independent knowledge (whatever fanciful derivation he may have chosen to give to the name جبل القمر), it affords a further confirmation of the results already arrived at from so many totally distinct and unconnected sources.

Thus, in the construction of this theory as to the position of the head of the Nile, all the materials, from whatever quarter collected, converge to the same point. The arch is formed, with the exception of the key-stone, and this is supplied by the signification of the expression "Móno-Moézi." This name is a compound word, of which the latter component alone is properly the name of the country, the former, *Móno* or *Máni*, signifying "king." † Hence we find Kongo spoken of by Alvarez as the kingdom of *Manicongo*, ‡ and the Portuguese settlements in Africa are styled the country of *Mani-Puto*; § and so the empire of *Móno-Muézi* is that of *the king* of Moézi. Now, in the languages extending over the whole of Southern Africa, and of which that of the country of *Móno-Moézi* itself is a principal dialect, the word *Moézi*, in various forms, means "the moon." || And as Ptolemy was told, and as the fact now appears to be, that the source of the Nile is in *the mountains*, or hill-country, of MOE'ZI, we are warranted in concluding that he merely translated that expression into τῆς ΣΕΛΗ'ΝΗΣ ὄρος,—*the mountains of THE MOON*. We may hope,

* 'Relation de l'Égypte,' par Abd-Allatif, p. 7. See the note in page 52 of the present Essay.

† Mr. Cooley says ('Journal R. G. S.,' vol. xv. p. 211)—"The name Moumoezi, or, as it might perhaps be better written, M'wana-M'wézi, is a political appellation, *M'wana* implying sovereignty. . . . From Congo across to Zanzibar this word takes the various forms of Mani, Muene, Muana, and Buana, which last signifies *master* in Sawáhili. The original meaning, however, of the word, which is always prefixed to the name of the land giving the title, is probably very different. The geographers of the seventeenth century took care to point out the fact that 'the empire of Monomoezi lies immediately round the Mountains of the Moon.' They would have been delighted had they known that Moézi signifies, in Sawahili and Mucaranga, the moon—in Bunda, riégi or moégi."

‡ See page 60, *sq.* of this Essay.

§ Pigafetta, in Purchas's 'Pilgrims,' vol. ii. p. 1007; and see p. 1009, *sq.*, where other similar instances are cited.

|| In Sawáhili and Mucaranga, *moézi*; in Bunda, *moégi* (Cooley, in 'Journal R. G. S.,' vol. xv., p. 211); in Monjou, *muéze* ("mooeize"—Salt's 'Voyage to Abyssinia,' Appendix, p. i.); in Kongo, *muézi* ("mooezy"—Marsden, in Tucker's 'Narrative,' &c., p. 389); and in Mozambique, *moise* ("moysé"—Ibid.).

therefore, to have at length found the key to the *arcanum magnum* of geography. And as it will thus result, that the source of the Nile is situate at a comparatively short distance from the sea-coast within the dominions of the Imám of Maskat, the friend and ally of the principal maritime powers of the world, there cannot exist any obstacle of moment in the way of setting at rest this great geographical problem, which for thirty centuries has riveted the attention of the civilized world, at the same time that it has baffled the attempts to solve it made by the most celebrated rulers of Egypt, from the Pharaohs down to Moḥammed 'Alí.

Having thus traced the Nile to its source, and considered all its tributaries on the right bank as far as they are known to us, it is proper that we should take a general survey of the country in which these streams take their rise, as the means of forming a correct idea of the physical configuration of that portion of the African continent which forms the eastern moiety of the basin of the Nile. *

Till very recently we were but imperfectly acquainted with the true character of the high table-land, in which the numerous head-streams of the great river which forms the subject of the present Essay have their origin. The existence, at a short distance from the sea-coast, of an elevated country, possessing, in consequence of its elevation, a mild and temperate climate, has indeed been well known since the time of the residence of the Portuguese in Abessinia from the fifteenth to the seventeenth century. That in this high country are more elevated spots, such as the mountains of Sámien in northern, and of Gódjam in southern Abessinia, where frost and snow exist, was likewise known to us from the same sources. But so limited and imperfect was the general view taken of this high land by the Portuguese, and so little had the accounts of subsequent travellers tended to extend that view, that only five and twenty years ago, when that able geographer, Professor Ritter, proceeded in his usual masterly way to generalise from their data, he was led to regard the Abessinian plateau as consisting of a *succession of terraces rising one above the other*, the lowest being towards the Red Sea, and the highest being in Enárea, where the line of separation between the waters flowing to the Nile and those of the rivers having their course to the Indian ocean was considered to exist. †

* The remarks which follow are taken, with some modifications, from a memoir read at Southampton on the 16th September last, before the Section of Geology and Physical Geography of the British Association for the Advancement of Science; an abstract of which memoir is printed in the 'Report of the British Association,' for 1846: 'Transactions of the Sections,' p. 70, *sqq.*

† 'Erdkunde,' Afrika, vol. i. p. 183.

Dr. Rüppell was the first to show the erroneous nature of the general view thus taken by his learned countryman.* From the section of the country between the shore of the Red Sea at Masówah and the first bridge over the Abai, which section is published in the 'Monatsberichte' of the Geographical Society of Berlin,† it is manifest that, so far from the high country rising in terraces as it recedes from the coast, its summit line is towards the coast itself, and that from thence the land falls gradually towards the interior. This view of the nature of the country is entirely corroborated by the N. and S. section, continuing that of Dr. Rüppell, from the upper bridge as far as the southern limit of the Abái in about 10° N. lat., and by the E. and W. section extending from 43° E. long. to near 36° E. long., contained in the fourteenth volume of the 'Journal of the Royal Geographical Society.' From these sections it appears that at Hálaí, on the summit of the ascent of Mount Taránta, at a distance of not more than 23 geographical miles from the Red Sea at Zúllah (Adule) near Masówah, the edge of the table-land has an absolute elevation of 8625 English feet; which gives a rise of as much as 1 in 16.15—equal to an angle of $3^{\circ} 33'$ —to the eastern slope of the table-land, or, as it may be more correctly called, the broad mountain-chain of Abessinia. On the other hand we find, that at Khartúm, at the junction of the Blue River with the Nile, in nearly the same latitude as Hálaí, and at a distance of about 380 geographical miles from that place, the elevation of the Nile above the ocean is 1525 feet.‡ The fall in that direction is therefore only 1 in 324; which gives rather more than $10\frac{1}{2}'$ of a degree as the angle of the western counter-slope towards the interior of the continent. Consequently, on a line along the 15th parallel of N. lat., the eastern slope of the Abessinian mountain-chain towards the sea, is to the western counter-slope towards the Nile, as 20 to 1.

This proportion may perhaps be rated somewhat too high, in consequence of its being estimated on a direct E. and W. line, whereas it ought rather to be calculated on a line in the general direction of the courses of the principal rivers, namely, from S.E. to N.W. It happens, however, that we possess the means of ascertaining the proportion in this direction likewise. Khartúm, the elevation of which city is 1525 feet as already stated, lies very nearly to the N.W. of Mélka-Kúyu, the ford over the Hawásh on the way from Tadjúrrah to Shoa, at which spot the absolute ele-

* 'Reise in Abyssinien,' vol. i. p. 304. And see Berghaus's 'Annalen,' 5th Series, vol. i. p. 56.

† Part ii.

‡ i. e. 1431 French feet. See Russegger, 'Reise in Europa, Asien, und Afrika,' vol. ii., part i. p. 544.

vation of that river is about 2200 feet. The height of the eastern edge of the table-land on the summit of the ascent of the Chákka mountains behind Ankóbar, the capital of Shoa—which spot is not very far removed from the direct line between the two extreme points—is about 9000 feet; and as this spot is 38 geographical miles from Mélka-Kúyu, it gives a rise of 1 in 38·83 to the eastern slope, equal to an angle of $1^{\circ} 41'$. On the other hand, the distance from the summit of the Chákka to Khartúm being about 530 miles, the fall of the counter-slope is 1 in 429, equal to an angle of $8'$. These calculations make, therefore, the proportion of the two slopes to be as 12·6 to 1.

It will be observed, that in the latter instance the eastern slope is taken, not from the level of the ocean, but from that of the Hawásh, which has an elevation of 2200 feet; that river being here the recipient of the waters of the eastern slope, in the same way as the Nile itself is the recipient of those of the western counter-slope. From the Hawásh to the sea is about 200 miles, which gives a fall of 1 in 550, equal to an angle of $6\frac{1}{4}'$ of a degree, for the dip eastwards of the low desert country between the Hawásh and the Indian Ocean, inhabited by the Beduin Dan-káli tribes.*

As regards the western part of the counter-slope of the Abesinian chain, it would seem that the fall of the land towards the Nile is there considerably more abrupt than it is on the eastern portion of that counter-slope, so that the surface of the table-land—the broad summit of the mountain-chain—itself approaches more to a level. But it is nevertheless certain that the latter is in no part absolutely horizontal, and that, in fact, the general dip westwards commences from the easternmost edge of the plateau.

As a whole, this table-land may be described as a succession of extensive undulating plains, declining very gradually towards the W. and N.W., and being intersected by numerous streams; which streams, after a short course on the level of the plateau, fall abruptly into deep-cut valleys, in which they soon reach a depression of from 3000 to 4000 feet below the general level of the table-land. The valleys of the larger streams are of considerable width: that of the Abáí, to the S. of the peninsula of Gódjam, is at least 25 miles from the extreme points where it breaks from the table-land on either side. And as the country within these valleys is exceedingly wild and irregular, possessing all the cha-

* In this country, at about 25 miles to the west of Tadjúrah, is situate the salt lake, Assal, which is remarkable for its great depression below the level of the ocean. This depression, which was first ascertained in 1840, was estimated by me at 760 feet ('Journal R. G. S.,' vol. xii. p. lxxi.) Since then it has been measured barometrically by Lieut. Christopher (*Ibid.*, vol. xii. p. 222), and M. Rochet d'Héricourt ('Second Voyage à Choa,' p. 316); the former of whom makes it to be 570 feet, and the latter 217·7 mètres, or 714 feet.

acters of a mountainous one, nothing is easier for a traveller, who has not first taken a comprehensive view of the entire region, and who, on crossing a river, finds himself shut up within a mass of broken country rising around him on all sides to a relative elevation of 3000 or 4000 feet, or even more, than to suppose that, in ascending this broken country on either side, he is crossing a mountain-chain; whereas, on reaching the summit, he has merely arrived upon the table-land. It is important to bear this in mind in the perusal of the works of travellers in Abessinia, many of whom, under the impression thus alluded to, place *mountains* where mountains, in the ordinary acceptation of the term, do not exist.

Besides the inequalities of surface occasioned by the deep valleys of the rivers, the uniformity of the table-land is further broken by *higher* mountain masses, which in some parts, as in Sámien, A'ngot, Gódjam, Miécha, Káffa, &c., attain an absolute elevation of from 11,000 to 15,000 feet. As far, however, as our present knowledge of them extends, these greater elevations do not form parts of any regular system, but appear to be distinct isolated masses, unconnected either with each other or with the general bearing of the entire plateau.

As already mentioned, the rivers of Abessinia, in the early part of their courses, flow over the level surface of the table-land, being little better than muddy brooks, which in the dry season are nearly without water, but which during the rains overflow their banks so as almost entirely to inundate the plain country. Where they begin to break from the level, which they do by fissures in the rocky surface, at first only a few yards in width but gradually opening to the extent of several miles, they at once form cataracts of 80 or 100 feet, and in some cases much more, in height, and then continue down a succession of falls and rapids, so as to descend several thousand feet in a course of a few miles. For example, the absolute elevation of the Abáï just above the cataract of *Tís Esát*, or the "Smoke of Fire," in the N.E. of the peninsula of Gódjam, is about 6000 feet; while at the "Broken Bridge," only 25 miles lower down the stream, it has already descended upwards of 2000 feet, or 80 feet per mile, its height there being 3852 feet; and in the next 80 miles of its course it falls nearly 1000 feet more.* So too, the Chácha and Berésa, two of the sources of the Djámma, a principal tributary of the Abáï, flow over the plain on either side of Angolálla, the Galla capital of Shoa, at an absolute elevation of about 8500 feet: at only 100 miles from thence, the Djámma joins the Abáï a few miles below the ford of the Dérra Gallas, on the way to Gódjam,

* See 'Journal R. G. S.,' vol. xii. p. 253; vol. xiv. pp. 28, *sq.*, 49, 66, *sq.*

where I found the elevation of the latter river to be 2936 feet, which gives a fall of about 5600 feet, or 56 feet per mile on the entire length of 100 miles.*

The fall of the tributaries of the Nile diminishes gradually as they flow north-westwards to join the main stream, which latter, skirting, as it does, the western flank of the high land, is the *sink* into which the Tákkázie, the Baħr el Azreġ, the Gódjeb Télfı or Sobát, the Shoabérri, and whatever other rivers there may be, are received; its current being sluggish, and (as would appear) almost stagnant in the upper part of its course, except during the floods. In the dry season its bed would indeed almost seem to consist of a succession of lakes and swamps, rather than to be the channel of a running stream.† At Khartúm, at the confluence of the Baħr el Azreġ, we have seen that the height of the bed of the Nile above the ocean is only 1525 feet, and it is

* Mr. McQueen, in his 'Geographical Memoir,' prefixed to Messrs. Isenberg and Krapf's 'Journals,' pp. [35] and [72], objects generally to the estimates of elevation of the beds of the rivers Abái and Tákkázie respectively, made by Dr. Ruppell and myself, as being opposed to those of Bruce. This latter traveller (vol. iii. p. 642) calculates the source of the Abái to be "more than two miles above the level of the sea," which, as two statute miles are equal to 10,560 feet, may be taken at 11,000 feet in round numbers. I estimated it by means of the hypsothermometer at 8770 feet, or probably a trifle more (see 'Nouvelles Annales des Voyages,' 1846, vol. iii. p. 224, *sq.*); and M. d'Abbadie by the same means made it to be 9206 feet (*ibid.*). Hence the true elevation of the source of the Abái may be stated, in round numbers, at 9000 feet, or 2000 feet lower than Bruce's estimate. Further, Mr. McQueen states that Bruce calculated the plain of Sennár (which is but little above the river) to be about 5000 feet above the level of the sea. M. Russeger ('Reise, &c.,' vol. ii. part i. p. 544) has however determined the elevation of the bed of the Nile at Khartúm, the present capital of Sennár, to be only 1431 French, equal to 1525 English feet, or about 3500 lower than Bruce made it to be. Thus it must be admitted that Bruce's estimates are erroneous, and that any arguments founded on them are consequently inconclusive. Upon a proper comparison of the several heights determined by Dr. Ruppell, M. Russeger, and myself, quite independently of each other and in different parts of the valleys of the Nile and its tributaries, it will be found that they are entirely consistent and confirmatory of one another. When Mr. McQueen expressed the opinion (*loc. cit.*) that "there are certainly neither cataracts nor rapids in the stream of the Abawi from its sources to the point where Dr. Beke first crossed it [between Shóa and Gódjiam, in about 10° 15' N. lat.], to account for 7340 feet [it should be only 6000 feet, namely 9000—3000, instead of 10,340—3000], the difference of elevation in the comparative short space of 250 miles," he was, of course, unaware of the fact that, between the two bridges, a distance of only *one-tenth* of that mentioned by him, the Abái falls upwards of 2000 feet. (See 'Journal R. G. S.,' vol. xiv. p. 49.) And if to this be added the rapid fall which the river is known to have between its source and Lake Tsána, we shall have no difficulty in accounting for the whole difference of 6000 feet in 250 miles. [Since this Paper was read I have seen M. Rochet d'Héricourt's 'Second Voyage au Royaume de Choa' (Svo. Paris, 1846), in pp. 316—332 of which work are given various elevations determined by him with the barometer, which are entirely confirmatory of the results arrived at by myself. The Chácha is found by him to have a difference of level of no less than 1294 mètres, or 4245 English feet, in the short distance of twelve leagues.—9th March, 1847.]

† May not Lake Zambeze or N'yassi be the continuation of this series of lakes? In this case it would be simply the upper course of the Nile. N'yassi, according to Mr. Cooley, means "the sea,"—that is to say, the *baħr* of the Arabs and Abessinians, which term is used to signify not only a sea or a lake, but also a *large river*.

far from improbable that even as high up as the fifth parallel of N. lat. its absolute elevation does not much exceed 2000 feet.

A remarkable peculiarity of most of the principal rivers thus joining the Nile is, that they have a spiral course; so that, after having formed a curve of greater or less extent—mostly, as would appear, round the isolated mountain masses—they return upon themselves at a comparatively short distance from their sources. As instances are to be mentioned the Máreb, the Béllegas, the Abáí, the Gibbe of Bósha (the Zebeé of Fernandes), the Gódjeb, and the Shoabéri; and as Ptolemy speaks * of the *snows* of the mountains of “Moézi,” it is far from improbable that the head stream of the Nile has a like spiral course round a lofty mountain mass, similar in character to the snow-topped mountains of Sámien and Káffa.

All the streams of the plateau or western counter-slope of the Abessinian chain are affluents of the Nile, and their easternmost branches take their rise at the extreme eastern edge of the table-land, which is the limit of the basin of the Nile, and the water-shed between its tributaries and the rivers flowing E. and S.E. towards the Indian Ocean. On the seaward side of this watershed, the declivity being much more abrupt and its extent much more limited, the rivers must necessarily be of secondary importance. Thus, proceeding from the N., we do not meet with a stream deserving of name until we come to the Hawásh, and even that river is, near Aussa, lost in lake Abhébbad before reaching the ocean.† The river Haines of Lieut. Christopher,‡ which is the next in succession, appears, in like manner, not to have sufficient power to reach the sea, at least not at all times of the year. Further to the S. we find the river Gowín [*i. e.* Wábbi-Giwéyna§], or Jubb, possessing a substantive character as an ocean stream; but this river, during the dry season, has at its mouth a depth of only two feet.¶ At a short distance to the S. of the equator is the Ózay, which river, though said to be of great extent, has very little water at the entrance.¶ Further S. the same law appears to prevail; as is exemplified in the Lufji or Kwávi (Quavi), the Livuma, and the Kwáma (Cuama) or Kilimáne (Quilimane), which rivers rise on the eastern edge of the elevated plain in which lake Zambéze or N’yassi is situate, and flow into the Indian Ocean. Here, however, the southern extremity of the basin of the Nile having been

* Lib. iv. cap. ix. p. 115 (edit. Bertii, p. 131).

† ‘Journal R. G. S.,’ vol. x. p. 580; vol. xiv. p. 69.

‡ ‘Journal R. G. S.,’ vol. xiv. p. 96.

§ See page 46, *note*.

¶ ‘Bulletin,’ 3rd Series, vol. ii. p. 121.

¶ ‘United Service Journal,’ 1845, part i., p. 127. Between Mónbasah and Zanzibar, Dr. Krapf found no rivers of any size. See ‘Bulletin,’ 3rd Series, vol. iii. p. 68.

passed, the larger streams of the counter-slope no longer join that river, but take their course westwards into the Atlantic, belonging in fact to a distinct hydrographical basin. Thus the recondite Jesuit, Father Athanasius Kircher, in his ‘Mundus Subterraneus,’* is quite right in substance, if not in form, in placing in “the Mountains of the Moon”—that is to say, in the mountains of *Moézi*—the great *hydrophylacium* of the continent of Africa—the central point of division between the waters flowing to the Mediterranean, to the Atlantic, and to the Indian Ocean.

It has already been observed that several lakes of some magnitude are situate along the axis of the mountain chain—namely, A’shangi, Háík, and Zuwáí.† And apparently lake Zambéze or N’yassi is subject to the same law.

This survey of the physical character of the plateau of Eastern Africa cannot be concluded without special attention being directed to a most important practical result which it affords. It is, that the eastern coast of that continent presents facilities for the exploration of the interior very superior to those possessed by the western coast. For, when the narrow belt of low land along the shores of the Indian Ocean—which, from its general dryness arising from the absence of large rivers, is far from unhealthy at most seasons of the year—is once passed and the eastern edge of the elevated tableland is attained, a climate is met with, which is not merely congenial to European constitutions, but is absolutely more healthy than that of most countries. I speak from the experience of upwards of two years passed on the high land under circumstances anything but favourable. Here—that is to say, on the edge of the elevated plateau, and not in the low desert country along the sea-coast—settlers might take up their permanent residence, without apprehensions as to the effects of the climate at any period of the year; while travellers might wait in safety, and even with advantage to their health, till suitable opportunities should present themselves for penetrating westwards into the interior; and in the event of their having to retrace their steps, they would only return upon a healthy and delightful country, where they might remain till the proper season should arrive for their journey down to the coast. On the other hand, the climate of the western coast, even far inland, is notoriously such, that few can long withstand its baleful influences; while a traveller is necessitated to press forwards, whatever may be the time of the year, whatever the condition of the country, whatever even his state of health. And should he, from sickness or any other unforeseen circumstance, be compelled to abandon his journey, he must do so with the painful knowledge, that the further he retrogrades the more unhealthy are the dis-

* Vol. i, p. 72, *sq.*

† Likewise Lake Abbale? See page 66.

tricts which he has to traverse, and the less likelihood there is of his ever reaching the coast, more fatal than all the rest.

[But while the eastern coast presents advantages of climate so much superior to those of the western coast, its physical conformation renders it impossible that it should possess any river of magnitude, which—as I fondly imagined might be the case with the Gódjeb, when I sent home from Shoa my first accounts of that river—“ may be found to afford another high road into the interior of Africa.”* In those instances in which rivers of this description have been supposed to exist, further information has demonstrated the futility of such suppositions. Thus, the pseudo-Kilimáne, or “ Kilimanci,” which was believed to enter the Indian Ocean near Meléndah, is shown to be a purely hypothetical river, having no real existence whatever;† while the Jubb or Gowín—the pseudo-Gódjeb or “ Gochob”—instead of coming from the north-west, far in the interior of Africa, is now found to be nothing but the Wabbi-Giwéyna, and to have its sources on the easternmost edge of the Abessinian plateau.‡]

It would now only remain for us to follow the course of the Nile downwards along its left or western bank; but upon this subject, from the absolute dearth of information, there is in truth but little to say.

In a letter from M. Gauttier d'Arc to M. Jomard,§ it is stated, on the authority of M. Thibaut, that in lat. 7° 43' N. the main stream, which at this point has its course from the E.S.E., receives three branches coming from the S.E., S.S.W., and S.W. These tributaries are said to be of no great importance, and to appear to proceed from the neighbouring marshes. In M. d'Arnaud's map they are represented merely by a small lake or pond (étang), and another is shown in about 7° N. lat. They will, however, require to be more closely examined before it can be positively asserted that they are not streams of some, perhaps even considerable, length. Thence continuing to descend the river, we come at length, in lat. 9° 20' N., to the great western arm noticed by M. d'Arnaud and his companions, to which they attribute the name of Bahr el Ghazál, supposing it to be the same as the Keiláh or Misselád. M. Jomard, in his ‘ Observations sur le Voyage au Darfour,’ recently published,|| has entered into an elaborate disquisition on the subject of this branch of the Nile, which he considers to be one of great magnitude, and perhaps equal to the direct stream ascended by the Egyptian expeditions.¶ Should this

* See ‘ A Statement of Facts, &c.,’ p. 7.

† See page 17, *note*.

‡ See page 46, *note*.

§ ‘ Bulletin,’ 2nd Series, vol. xviii. p. 382.

|| (8vo. Paris, 1845), p. 26, *sqq.*

¶ M. Lafargue entered the mouth of this river, which he describes as a magnificent stream, with a tolerably rapid current. ‘ Bulletin,’ 3rd Series, vol. iv. p. 160, *sq.*

prove to be the case (and indeed it would appear that *this yet unexplored river is Ptolemy's great western arm of the Nile*), a field for investigation is here opened, which is perhaps scarcely less extensive than that which has formed the subject of the present Essay.

My own personal explorations and researches having, however, been confined to the countries watered by the tributaries of the Nile on its right or eastern bank, I am not ashamed to avow that beyond that river westwards is to me almost a *terra incognita*. It is, therefore, a matter not less of prudence on my part to stay my inquiries here, than it is of justice to M. Jomard to acknowledge how much is due to the communications of so diligent an investigator of the course of the Nile.

St. Mildred's Court,
28th October, 1846.
