Inaugural address

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Henry H. Stanley

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INAUGURAL ADDRESS

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EDINBURGH, 3RD DECEMBER 1884,

By H. M. STANLEY.

LADIES AND GENTLEMEN,—Concerning the merits of a Geographical Society there are numbers of eminent men in your own city more qualified to speak than I. But since you care to hear my ideas upon the subject, with your very good leave let me ask you to join me in viewing geographical science as it affects Africa, from an African traveller's stand-point.

And first of all let us look well at the position whence we propose to take our view of geography. We know that London has a very powerful Geographical Society under Royal patronage. It is a matter of course that, as the metropolis of this British Empire, it should have a hall wherein all that appertains to the science should be diligently studied, and a body of men devoted to it. But it appears to me that London, large as it is, possesses no more intrinsic interest in the study than does Liverpool, Manchester, Glasgow, Edinburgh, Newcastle, Hull, Bristol, or Plymouth. The reasons why London should be interested in it are also applicable to every large seaport or manufacturing town in this kingdom. Their ships, or their products of loom and forge, are despatched to every point of this globe possessing a mart; and to an enterprising shipowner, or an enterprising manufacturer, if he wishes to know his business well, it is essential that he should know something of geography; and why should it not be a subject of interest to the merchant's clerk and book-keeper, or to the manufacturer's assistants, employés, clerks, and packers

—ay, even down to the smallest boy of the factory ; and to extend the question further, why should it not be studied by every resident, male or female, of this country ?

We are told that there are 35,000,000 of people in Great Britain and Ireland. Take the larger and lesser island, and the people that its area of cultivable soil is able to support cannot exceed 6,000,000. The remaining 29,000,000, or by this time 30,000,000, are consequently fed by what is imported from abroad.

What is abroad ? To give a geographical definition of this one word would require a portentously large volume ; but if you picture or delineate it on a map, the outlines of abroad could be sufficiently made known to you on a small sheet, whereon you would see, printed in large letters, Europe, Asia, Africa, America, and Australia, with the large oceans named Atlantic, Pacific, Indian, Antarctic, and Arctic, while, set apart and isolated from the large area of land, there would be a mere dot or dots, as it were, called the islands of Great Britain and Ireland, which, as you all know, have nearer relations with the other places marked on the outskirts of those continental configurations before you than any other small dot or dots found there. Those small island dots at the northern part of the Atlantic Ocean represent this United Kingdom with its millions of cunning workmen, its thousands of screaming locomotives darting across from shore to shore, its thousands of groaning factories, its never-dying hum and murmur of labour, and rush and rapid movement of earnest life. On such a small sheet how, for instance, without a microscope, could you discover the locality of this city of Edinburgh ? That local knowledge which you have of your city may be called geographical knowledge of an infinitesimal quantity. Supposing this knowledge be also extended to London, at once you realise the picture presented by Mayhew of the “strange incongruous chaos of the most astounding riches and prodigious poverty, of feverish ambition and apathetic despair, of the highest charity and the darkest crime, the great focus of human emotion, the scene of countless struggles, failures, and successes, where the very best and the very worst types of civilised society are found to prevail, where there are more houses and more houseless, more feasting and more starvation, more philanthropy and more stony-heartedness than in any other spot in the world !” To you who have been there, and know what London means, this picture seems nothing exaggerated.

To many a beginner in life, in this island of yours, London appears to be the place best suited to his ambition, because he has a dim perception that there he will find the best market for whatever merits he may be endowed with. He has heard of London from his fellows, his relatives, his friends ; he has read of London in books and journals, and the hope is inspired in him from the knowledge thus gained that there he may dispose of himself to the best advantage. As London, or, in fact, any great city, presents itself to the mind of the ambitious and well-meaning rustic, so the knowledge gained by the capitalist, the manu-

facturer, the shipper, the civil engineer, the mechanic, the miner, of abroad, or the world at large, is sought to be utilised, with the same view and purpose. There are great enterprises requiring the capitalist's assistance waiting to be accomplished, there are markets abroad for the manufacturer, there are ports requiring ships from the shipowner, there are countries to be surveyed by the civil engineer, bridges and railways to be constructed, there are forges elsewhere for the deft mechanic, mines of precious ore and coal for the miner, and there are large areas to be tilled by the agriculturist and farmer. Some kind of geographical knowledge is necessary before any of these hopes can be realised. To him or to those who possess it, the configurations on the world-chart appear as clearly defined as though they were the outlines of a man's real estate—the world is only a huge breeding-farm, and the various ports round about the shores are like so many stalls at a market-place—and the people therein are only so many vendors and buyers.

It was by some recognition of this fact that the study of geography had a practical value and benefit for the fathers of the modern English people; that those islet dots in the North Atlantic came to have intimate relationship with the world at large, and little Britain expanded into that mighty dominion over islands and continents known as Greater Britain; that your gallant youths and brave men forsook home and kindred, and sailed over the seas to found empires in Eastern Asia, republics in America, and colonies in the West Indies, Australia, and the Cape of Good Hope. Why should Captain John Smith, or the Pilgrim Fathers, or that bold boy, Robert Clive, have gone away from their warm hearths straight to their various destinations, had they not known somewhat of the lands they were bound for? And if those men in the olden time, with their modicum of geographical knowledge as to their destinations, produced such great results, why may we not expect that, by the diffusion of this knowledge of the yet unknown earth and its products among the masses of the people, the souls of other men may be stirred to strive for those advantages gained by the enterprising?

I am told that at No. 1 Savile Row, London, the Royal Geographical Society possesses charts rolled up and snugly stored away all in due order, enough to cover acres upon acres of ground if they were spread out; and their collection is monthly growing larger. But that great metropolis, great as it is, is but a small portion of Great Britain, and I should say that Liverpool, or Glasgow, or Birmingham, or Manchester, has as many business correspondents in various parts of the world as London has, and that if a Geographical Society is useful for London, a Geographical Society would be no less useful for any great seaport and manufacturing city in Great Britain. You will observe that I am speaking of a society of geography, not as an ornamental addition to a great city, but from an utilitarian point of view: I should wish it to be of real use and interest to you; otherwise I should admit that the Royal Society of Geography was sufficient for the United Kingdom, and that one museum of maps

and books relating to the topography, hydrography, geology, and ethnography of the countries of the world was quite enough. I should wish to disseminate this knowledge of geography among you and the people of other great cities in Britain, in order that any time you should feel a desire to extend your enterprises to foreign shores, you might, by reference to the maps and books of your local society, be able to know how to set about it—what hopes the country you had in mind offered to your enterprises, what difficulties you would have to encounter, and what rewards were in store for you. I should wish you to be able to follow the promoter of any mercantile enterprise intelligently, each with his own best judgment, not blindly or rashly, and to measure justly the value of the advantages he offers. It has been told to you before, doubtless, and it may be said again, that geographical knowledge clears the path for commercial enterprise, and commercial enterprise has been in most lands the beginning of civilisation. Cæsar was the first explorer in this limited kingdom, but geographical knowledge of Britain took longer time to be diffused among the people of Rome than that of Africa will take among the people of England and Scotland. For centuries after Cæsar's invasion and Agricola's circumnavigation of the island, the young patricians of Rome regarded with horror expatriation from their sunny land, amid the fogs and aguish colds of Britain, just as the patricians of Britain to-day would regard compulsory service under the equatorial sun of Africa.

For centuries, Marco Polo's dictum respecting a fertile and commercial region now occupied by French soldiers, and exploited by French merchants—I refer to Tonquin—was accepted as true until French and English explorers proved it to be the reverse. Said he—"The country is wild, and hard of access, full of great woods and mountains which it is impossible to pass, the air is so impure and unwholesome, and any foreigner attempting it would die for certain." How many places have been reported in a similar manner to have such impure air, and to be so unwholesome, until exact exploration proved the old stories to be no better than "old granny's fables" about the invisible bug-a-boos and hobgoblins which frightened our childhood. Take up any old map of Africa, and glance at the antique and grotesque creations of the Portuguese missionaries and travellers of the 15th and 16th centuries, and compare it with that of to-day, illustrated by the travels of nearly 800 explorers. It is only now that we begin to have a rational idea as to what Africa is, and whether commercial enterprise is in any way possible. Before, it lay a huge unshapely mass, grimly outfigured on all maps, with an exasperating mystery and blankness about it, here and there relieved by illustrations which might be either lions or cats, by elephants, and nameless antelopes. It had an enormous coast-line of some 11,000 miles in length, sadly deficient in harbours and navigable rivers; and from a spot not far removed from the Cape of Good Hope, from a wide branching head, there wound the Nile along a circuitous course of about 10,000 miles towards the Mediterranean. Very few in those old days ever reasoned that, if the

Nile rose in such close proximity to the Cape of Good Hope, its top-head must surely be in the very highest of high mountains. Yet there must have been some reasoning of the kind to account for the manner in which the "Mountains of the Moon" were so persistently adhered to in the maps of our youthful days. And, at any rate, it is strange that some De Soto or Speke did not strike across from Natal and launch a boat on its waters to float down past the towers and towns so plentifully disfiguring the old maps.

I am not a very old man, yet I remember very well that until late years my conception of the regions under the equator, and down to within the neighbourhood of Bechuana Land, was that a desert similar to that of the Libyan in colour and quality monopolised what I now know to be of matchless fertility.

Just think what the geographical knowledge of Africa that we possess to-day has cost in human life! Of those 800 explorers, who left comfortable bed and board to gain it for us, nearly two-thirds have perished from disease or by murder. From Mungo Park down to Livingstone no continent that we know of can show such strenuous endeavour and persistent effort to clear the mystery and let light in on the unknown. It is nearly ninety years ago since Mungo Park left the English factory of Pisania on the Gambia for the Niger. Ten years later he was drowned, while descending the Niger, in the rapids of Bussa, 500 miles from its mouth. Decade after decade witnessed the victims which the river demanded as the price of the knowledge of its course, until Richard Lander, with his brother John, floated from Bussa, down the Niger, to the sea.

The geographical knowledge thus dearly bought led the way to the commercial enterprise of Macgregor Laird, in 1832. Scheme after scheme followed, ending in disaster, owing to the general ignorance of how to live under those new climatic conditions, until now the National African Company has established itself on a solid basis, and the enterprise is rewarded by a remunerative profit.

Let us look at the Cape of Good Hope. Bartholomew Diaz, in 1486, was the first navigator who reached that distant point of Africa. He planted a cross at Algoa Bay on the 14th September of that year, just 398 years ago. One hundred and sixty-six years later the Dutch East India Company sent 100 colonists to found a settlement there. Seventy-two years later the colonists had reached the Great Fish River. In 1815, by the Treaty of Paris, this country was ceded to the British Government; and since then British authority, following fast after exploration and geographical knowledge, has extended to the twenty-eighth parallel, and—with the exception of the territory occupied by the Orange Free State—right across Africa. The value of the commercial intercourse with this region is now, in round numbers, £17,000,000 annually, though there are only about 300,000 whites in the 3,000,000 population which contributes to this trade.

But preceding this extension of commerce were the scientific, sporting, and missionary explorers. In reading their researches and travels, we are struck by the number of incidents attending each journey, and are filled with admiration and pity as we learn how they wagoned across great expanses of arid regions, with cattle dying by dozens from thirst, how disaster overtook them in the shape of onslaughts from savages and attacks from wild beasts, while timid Hottentots scurried away from every peril, and left the brave Anglo-Saxon hearts all alone in the danger; and yet, despite all their numberless mischances, they bring away, one after another, that little handful of geographical knowledge which is required before a step is advanced by the civilisation which is invited to follow them. And, after the considerate pause, we see it gather courage and press still further onward, to halt once more on the threshold of the unknown until the self-formed Intelligence Department has received exact information of the regions beyond from its exploring scouts, who have wandered far a-field with sextant and chronometer and prismatic compass.

When you have rounded the Cape you are directly on the route which Vasco de Gama took in his little ships when he led the way to India 387 years ago. While we mentally contemplate the length of wild sea-water that stretches from Cape St. Francis, in South Africa, to Cape Comorin, at the southern extremity of India, let us think of the prodigious commerce that has followed the geographical knowledge given us by the bold Portuguese navigator and his successors. With India, China, Australia, Japan, the Dutch East Indies, the East Coast of Africa, the Persian Gulf, Mauritius, Madagascar, and Natal, and the French possessions, United Europe had a trade, in 1882, of the value of nearly 450 millions of pounds sterling. The discovery of America by Columbus in like manner has caused a commerce to spring up during nearly a similar period, which, in 1882, was of the value of £600,000,000.

I have hitherto sought to excite your regard for geography by showing you as vividly as I can what the purpose of the study is, how it has been and is intimately connected with the growth of the British Empire and with the rapid increase in population and importance of your own city. The effect and result of the travels, researches, and explorations of a host of bygone travellers is visible to-day in every great centre of industry and commerce throughout the British Empire. Now, if you duly appreciate the summit of grandeur to which you have attained, and can thoroughly divine the cause and large effect of what has already been accomplished by a few lessons in rudimental geography, and desire to maintain that supremacy in devising and doing, you must now turn your attention to other fields, because your success has excited the envy of many nations, and they have become competitors for whatever gifts of fortune enterprise can win. The Americans are now manufacturing their own cottons, and India exports some £16,000,000 worth of cotton fabric every year, and every nation in Europe manufactures its own cottons, mainly, and this

process will go on each year until there will be very little left of the world for a market for your handiwork. Education of all peoples is growing and spreading, and with it development of handicraft skill. Lowell competes with Manchester, Pittsburg with Birmingham, the Delaware with the Clyde, New York with London and Liverpool, and in the course of a few decades there will be a hundred competitors in the market; therefore you must not lay the flattering unction to your souls, that, because you are unsurpassed to-day in your enterprise and skill, it will remain ever thus. With you, as well as with the rest, there must be progress, enlightenment, advance, or the day is not far distant when you will be outstripped. And whereas you owe so much to geographical knowledge, you must cherish that knowledge, and go on acquiring it; you must teach it to your youths, that when they arrive at manhood each may know that beyond these islands there lie vast regions where they also may carve out fortunes as their forefathers did in the olden time. You must extend it among the mature men, that they may be led to reflect, if in some little-known part of this world there may not lie as rich markets as any now so earnestly competed for. That this knowledge may be accessible, and easy to obtain with all the light necessary for a perfect comprehension of it, some of your thoughtful and lofty-minded men of Edinburgh have proposed to form a Geographical Society right in your very midst. I earnestly wish it the fullest success; and it is for this reason that I consented to show you some new markets in long-forgotten Africa, and to expatiate upon them with what knowledge I may possess.

If you look upon a map of Africa you will find that it is dotted around with names of sea-ports, and landing-places, and sea-shore villages thickly enough; that here and there—as in the neighbourhood of the Nile and the northern coast of Africa, and at Cape Colony—more or less advance has been made towards the great body and heart of the continent. Round about the coast-line measures about 15,000 English miles, and if we measured 200 miles direct inland all round as the average depth of the country thoroughly exploited by commercial men, we should find that an area of about 3,000,000 square English miles is already contributing its produce and stuffs in exchange for European manufactures. But as Africa altogether contains an area of nearly 13,000,000 square English miles, we have a balance of 10,000,000 square miles open for us, and yet undeveloped. About 2,000,000 square miles of this must be set aside as untillable, by which we have 8,000,000 left—an area nearly two and a half times larger than Europe. It would be impossible to state accurately the population of this area, but, after having travelled and explored across Africa over some thirty-two degrees of longitude, and up and down some ten degrees of latitude, I have estimated, after various efforts at reasonable exactitude, that the population may be at the average rate of twenty-two souls to every square mile, which would give us a total of 176,000,000. In some favourable localities the population much exceeds this, as in Uganda, Urundi, and in large portions of the Congo and Niger basins.

In the latter basin we find the native towns of Egga with 30,000 people, Sansanding about the same, Jenné with 10,000, Kano with 30,000, Yakoba with a population estimated at 150,000, and Birnie, in the Chad district, with 60,000. The Sokoto Empire is estimated to have a population of 13,000,000, which would give sixty souls to each square mile of its area. On the Congo we have clusters of villages extending along the banks from five to fifteen miles, as Bolobo, Lukolela, and Mangala; and in Irebu we have a small compact district, where the natives are so dense, that 100 to the square mile may be a fair estimate.

I should divide this 8,000,000 area and its population in this manner:—The Niger basin, with an area of 700,000 square miles, 23,000,000; the Nile basin, exclusive of Egypt, 900,000 square miles, with a population of 36,000,000; the Zambezi basin, 700,000 square miles in extent, with 10,500,000; the Congo basin, 1,300,000 square miles, with 39,600,000; and the basin of the Chad and Shari, 300,000 square miles, with 15,000,000. You have then a population of 50,000,000 to be divided over the remaining large area of 4,000,000, because this would embrace all the less favoured territories, the slopes of the mountain ranges, the wide but thinly-peopled territories of the Masai, the Kalahari desert, Fezzan and the Galla Land, and the western portion of Somali territory, the basins of the Juba and Limpopo.

Now the great river basins, the Niger and Chad-Shari, Nile, Zambezi, and Congo, are each accessible by widely different routes. The Niger and Chad-Shari market can best be reached by the delta of the Niger. A powerful company, called the National African, with a capital of £2,000,000, has been formed with the view of supplying this populous market. It is just thirty-two years since the commercial traffic—which only now begins to be remunerative—was properly started by Mr. Macgregor Laird. When we think of the prospects before it, its advance appears to be extremely slow. The natives are warlike and insolent, and seem inclined to dispute the advance of the trader. The middle-men, who thrive upon the commissions they collect during the passage of the goods from the hands of the original sellers to the ultimate buyers, argue that if the white men are allowed to trade freely with those above them their occupation will be gone. On such people the best argument would be the presence of a Government Official who could guarantee the payment of a small subsidy on the one hand—conditional upon free passage up and down the river—and on the other could show a small police force to punish the refractory. The result would be an immediate increase in the trade, and a steady advance into the populous interior, where, possibly, we might hear of some railway undertaking to Kuka on Lake Chad, and steam communication up the Shari. A railway, 300 miles in length, to reach a navigable river 500 miles in length and a lake 10,000 square miles in extent, for a trade with 15,000,000 of semi-civilised people, appears to me a very desirable project.

Then there is the Niger itself. A railway of 150 miles long, from a

point below Bussa to near Yauri, would give you 1000 miles of the Upper Niger, by which you could supply some 18,000,000 of people above Bussa, as far as Timbuktu, Yawaru, Jenné, Sansanding, and Sego, where the Niger is as broad as the Thames at Westminster. Or a railway, 300 miles long, from the head of navigation on the Rokel River, at the mouth of which Sierra Leone is situated, would take you to the Niger, and furnish you with a river navigation of 1000 miles. The great kingdoms of Waday, Bagirmi, Bornu, and Sokoto would become commercial tributaries to this country by these railway enterprises, which any half-a-dozen rich capitalists of Scotland could cause to be made. That some effort has not been made is probably due to your ignorance of the little-known geography of these regions, and to the indefinite and uncertain ideas which possess you generally respecting Western Africa. I fear also that the Government is a little to blame for its proneness to cast cold water upon such projects, fearing the increasing obligations that would be entailed by any sudden expansion of commercial thought and extension of enterprise of this kind. Where there is a will, however, there is always a way, and if your rich people take to such projects kindly, as in the olden time your forefathers amplified their businesses and built up this wide-spreading empire, the project I have indicated to you will seem but small compared to the rewards which always follow such high-spirited and broad-minded ventures.

That such a scheme is not impossible is proved by the fact that the French are actually building a railroad from the Senegal to Sego, to absorb a trade which should have been British. When it is completed they will have an opportunity to increase their trade to the extent of £30,000,000 annually. We may therefore, if you please, consider the major portion of the Nile Basin as closed to you, unless you may be prompted to run a race with the French. Though you are actually in possession of the lesser portion of the Nile Basin, I think you are as likely as not to lose some portion of the trade there, for the stout-hearted and persistent Germans have planted their standard, and propose to found a colony on its southern edge, and if their Government will subsidise this infant settlement judiciously, they can easily tap the upper portion of the Cross River, and the Binue, the main affluent of the Niger.

Let us glance at the Nile basin. You are happily situated just at this juncture to be able to take an intelligent and lively interest in the study of the basin. Though powerless to exert any influence, I fear, upon the policy of the Government, yet since your countrymen are there in such numbers, urged forward to the rescue of great Gordon, it is a curious question which we may well ask, whether all the vast expense now being incurred will be productive of interest to industrious cities like your own? I am not one of those who would wish to subjugate populous tribes and conquer regions solely for the sake of commerce, were it only that it is altogether unprofitable. Should the Government, while pursuing its own policy, indirectly promote commerce, then it would be a matter for

congratulation; or, in other words, should the Government see fit to retain Khartoum for high politic reasons, then undoubtedly such a course would indirectly promote commerce. But if it be argued that the Government ought to retain Khartoum because it would be advantageous to commerce, it does not follow that in the end it would be so. Commerce cannot thrive when based on unjustifiable violence.

But supposing that Egypt were permanently occupied and annexed to this Empire, it would be politic for Egypt's sake to retain Khartoum, and I should see no injustice in the step, because it is in reality a city in an upper province long ago annexed to Egypt. You might then be congratulated upon it, because it would thus be profitable to construct a railway from Suakim to Berber, by which you would gain easy access to a navigable river course over a thousand miles long to beyond Gondokoro, and some 500 miles up the Bahr-el-Ghazal and its branches, and some 200 miles to Senaar, altogether about 2000 miles. It is a populous basin, and its products are manifold and various, and altogether, as a commercial field, a most profitable one.

The third great basin we have to consider is the Zambezi basin. This river is the third largest stream in Africa, the largest that issues out of Africa on the east, and has a length of 1400 English miles. It is not so free of rapids as the other great African rivers; still, under a pushing government, it might be utilised to a great extent. Two or three long stretches of navigable water might be connected, and in this way a means of communication opened up to take one two-thirds of the way across Africa. But though explored by Livingstone in 1854, and again by Livingstone and Kirk in 1859, the Zambezi yet remains in its pristine state of undevelopment and inutility. An affluent of it, called the Shiré, taking its rise in Lake Nyassa, is interrupted by rapids at a distance of about 70 miles, and, after an impassable course of a similar length, flows uninterruptedly a course of 300 miles to the sea south of Kilimani. A Scottish philanthropist, Mr. Stevenson, appears to have taken this affluent into his own hands, and by admirable perseverance, aided by the Free Church of Scotland, has succeeded in inaugurating a commercial development, now prosecuted successfully, I am told, by the African Lakes Trading Company of Glasgow. From the Murchison Falls to the northern end of Lake Nyassa, a distance of 420 miles, a steamer called the *Ilala* runs periodically. A carriage road, 210 miles in length, has been lately made to connect this lake with Lake Tanganika, which will give an additional waterway 360 miles long.

In this growing and promising development in the Shiré and Nyassa region you see an authentic illustration of what follows geographical knowledge and exploration. It is twenty-five years since Livingstone and Kirk first ascended the Shiré, and discovered the Nyassa. That the development has been so tardy is owing entirely to the hostility of the Portuguese. It was only after the repeated and persistent efforts of the Free Church of Scotland and Mr. James Stevenson, of Glasgow, that a

commencement could be made. The Court and Government of this country were wearied with the diplomatic tactics of the Portuguese, who protested and wrote, and presented the usual folios of traditions, and the contents of elastic and perennial archives to defraud Livingstone of the honour of the discovery of Lake Nyassa, and retard, if not check outright, all progress and civilisation. In the end, however, the restrictions placed by them on the Lower Zambezi were removed, and now it is a free river as far as the Shiré. The Zambezi River, however, and its entire basin—though it is a thousand pities that such things should be—is no less an authentic illustration and evidence that no portion of Africa is susceptible of civilisation if it be barred by a hostile tariff.

Fourthly, and finally, we have to consider the Congo and its basin. Before we enter this broad domain, let us take an outside view of it, that we may consider its external aspect. And to do this properly, let us begin at the Cape, and take a mental view of its physical aspects, as we run north, along the west coast; and I may as well tell you in passing that the eastern coast is, so far as height is concerned, its counterpart. Beginning, then, at the Cape, we view a mountain mass called Table Mountain, of some 3500 feet, flanked by a massive feature called the Lion's Head and Rump. It continues in an irregular line against the sky, when seen from the sea; advancing at certain points into a mountainous cape or receding inland beyond view, to unite with a range called the Bokkeveld Range, then, dipping down into the Olifants River and rising again into the Karree Range, it runs northward, forming the southwestern ranges which bound the Orange River basin on that side. Along the sea-coast are uplands of 200 or 300 feet above the ocean, pierced by various unimportant streams. North of the Orange River we enter Great Namaqua Land, extending north to the Portuguese possessions with a waterless and sandy coast. A mountainous and apparently valueless territory, and with no good harbours, it rises at a considerable distance inland into a plateau, which has an elevation of 4000 feet above the sea, while some higher peaks attain an altitude of 7000 and 8800 feet. North of this land is that of Damara, extending to the Cunene River; all of it, from a distance, presents a most uninviting aspect—not even a tree to be seen from Cape Frio to a distance south of the Orange. A low terrace along the sea-board is backed by another slightly higher, and beyond the second a third rises into a mountain altitude.

From the Cunene River northward to the Congo this bareness of the coast is slightly improved, but there is nothing approaching to a forest; shrubs, isolated, unhealthy-looking trees, dot a long line of reddish-coloured land, of an average height of between 150 and 300 feet, rising inland into a lofty plateau wall, very irregular, deeply indented by gullies, ravines, and chasmic depressions. This line of rufous colour takes a bold sweep inland, and, running east about seventy miles, begins to rise to a height of about 500 feet. A mile farther north is a parallel line of similar altitude, and between these opposing lines lies the Congo, a deep and fast-flowing

river of a dark brown colour. The river's mouth is about seven miles wide, with a current of six knots in the centre, and a depth of 1312 feet. To your right, as you look up, you see Shark's Point; to your left, or north, you see the sandy spit, known as Banana Point, covered from end to end with long, low, white-washed magazines, and four or five white flagstaffs, each with a different flag, indicating the nationality of the traders who own the mass of long low buildings.

We have seen sufficient from the outside to suspect that Africa generally is a plateau continent of from 1000 to 4000 feet above the sea, with a sea-front all around, descending to the sea, either in successive terraces or suddenly (as in the neighbourhood of the Cape, or along the Red Sea), and rimmed in the main by an irregular mountain line, with a descent often rapid and deep seaward, and a gentler, easier, descending slope to the river-basins inland.

The river Congo has a course of 2900 miles from the Chibalé Range S.S.E. of Lake Tanganika, to Banana Point, on the south-west coast of Africa. Close to the twelfth parallel of S. latitude, across eighteen degrees of longitude, there runs an elevated ridge of from 6000 to 9000 feet high, at one part narrowed into a mountain range, at another expanded into a table-land. This is the dividing line between the Zambezi and Congo basins. Out of the furrows, recesses, and folds of its slopes issue the streams flowing in opposite directions—northward into the Congo, southward into the Zambezi. Near the parallel of 4° N. latitude you must look for the dividing line of the waters of the Bahr-el-Ghazal and Shari, which flow north, and of those which flow southward into the Congo. Draw a line north and south about the meridian of 16° E. longitude, from lat. 4° north to lat. 12° south, and a slightly diagonal line from 4° north to 12° south, running from the meridian of 30° east to 32° east, and within this vast, compact area you have the basin of the Congo. Its greatest length is a line drawn from south-east to north-west, 1400 miles, its greatest breadth 1200. The number of English square miles that this area contains is 1,300,000.

How comes such a short-course river as this to send down a volume of water such as no other river can excel, except it be the Amazon? Because it is a true equatorial river—like the South American stream. If you take a pair of dividers in hand to measure the length of the Congo on some chart of Africa, you will find its length to be 2100 miles. Apply the same mode of measurement to the Amazon, you will find it to be only 2300 miles from its source to the meeting of the salt and fresh waters; apply it to the Mississippi, reported to be 4400 miles long, and you will discover that from its issue into the Gulf of Mexico to the extreme source of the Missouri it is only 2400; and if the Nile, which is really the longest river in the world, be measured in the same manner, it will be found to have a length of only 3000 miles. Mere length of river does not imply largest volume; as, for instance, the Nile has a course of about 1500 miles through an almost rainless country, which does not supply a

single affluent, and its measured volume does not exceed 600,000 cubic feet per second. Three and a half Niles, or the Mississippi and the Nile together, would scarcely equal the Congo's tribute of water to the ocean.

From the folds of the Chibalé Mountain group, south of the Tanganika Lake, the Congo issues into the hollow of the table-land lying between the Tanganika and the eastern extremity of the Mushinga range, and, swollen by myriads of small streams into a great river, flows westward into an oval depression, where it forms a lake called Bangweolo, under the native name of Chambezi. At the western extremity of this lake, an arm of it, like an estuary, extends north. Thence the river issues under the name of Luapula, similar in width to the Thames at London; and for a hundred miles it continues its course northward till it empties into a lake called Mweru, covering a superficial area of 2100 square miles. Issuing from the northern shore of Mweru, the Luwa, as it is now called, enters a rent in the mountain fold of Southern Rua, and descends by a series of falls and rapids into a much lower level, whence, by the numerous accessions it receives—notably from a lacustrine river called the Lualaba—it flows a mighty stream north-north-west, every league of its course receiving tributaries from the east and west. From the right enter the Lofunzo, the Luindi, the Luigi, and the Luclama, which the mountain barrier that encloses on the western side the lake basin of the Tanganika sends westward; and through a gap in this barrier the Tanganika, that has collected over a hundred rivers in its capacious bosom, empties its surplus waters by the Luindi and the Lukuga, into the broad Lualaba. From the left the chain of lakelets—known as the Kowamba, Kahando, Abimbe, Ziwambo, and Kassali—after gathering from weeping forests and spongy areas, discharge their collected strength into the large and ample river.

Now that we understand the course of the Congo—or Lualaba—it is not difficult to understand the character of its basin, and the cause of the almost unrivalled amplitude of waters discharged by the Congo into the sea. On the south, the east, and the west, the three mountain walls, or barriers of table-land, discharge their numberless streams into a plain-like basin furrowed by the courses of five noble rivers running northward in nearly parallel lines with the Lualaba, draining a level 800 miles broad. After a course varying from 600 to 1100 miles they issue into the Congo in its transverse flow from east and west. Towards the north a table-land descends gradually into another level 600 miles broad, and 200 miles deep, furrowed by four rivers flowing southerly into the wide river. On the whole, then, we may compare it to a huge meat dish, nearly square, surrounded by a low, broad rim with corners rounded off. It is as though, in very ancient times—the days of great inland seas—this capacious and ample basin formed a great lake three times greater than the area of the Caspian Sea.

Since that period, some volcanic agency, it may be, cracked and sundered the hilly rim to the west, and the waters flowed through to the

Atlantic Ocean, and the even bottom of the lake was exposed, which we see now to be furrowed by the voluminous affluents—Kwa, Mbihé, Ikemba, Lulungu, Lubiranzi, Lumami, and Kamolondo—flowing from the south to the Congo as it flows westerly.

At Nyangwe, 1700 miles by river from the sea, and near 1300 miles from its source, the river is about a mile wide, with a volume of 230,000 cubic feet per second. But lower down it receives the Lowwa, the Biyere, the Lubiranzi, the Lulungu, and the Kwa, which alone swells this volume to a million cubic feet per second.

From Nyangwe it has a northerly course of four degrees of latitude ; when reaching the equator it deflects N.N.W. to above 2° N. One degree north of the equator—so numerous have been the streams and rivers shed by the western versant of its eastern mountain boundary—the Congo widens, disparts into ten or twelve channels, and from shore to shore of the main river it is as much as sixteen miles in its greatest breadth. With an average width of four or five miles it flows direct west for two degrees, then S.S.W. across two and a half degrees of longitude, when it gathers itself together, and in one united stream, gradually narrowing to a mile in width, in depth from fifty to two hundred feet, flows with a strong current, in the centre, of about five knots, until it expands again at Stanley Pool, which is eighteen geographical miles in length by fourteen miles greatest width. At the lower extremity of the Pool, 1147 feet above the sea, the navigability of the Congo ceases. It first precipitates itself with awful force down a five-mile slope, a succession of leaping waves, which from crest to crest might be about 300 feet apart : then by a series of mad rapids, separated by short stretches of swift but steady flows, for seventy-seven miles, all of it confined by the towering rock barriers of a deep cañon from 300 to 600 feet below the level of the opposing summits of the cleft land ; then for eighty-eight miles tolerably safe to navigation, followed by another sixty miles' rush of a distracted river, with roaring cataracts alternating with noisy rapids, through the deep, rocky heart of the grim and solemn-looking hills, until, finally, the last plunge has been made down the Yellala Falls. A few miles lower down it issues out of the sinuous and rocky gullet a navigable and useful river for 110 miles ; flows by factories and villages and townships, to be presently vexed by the churning screws of ocean steamers and panting tug-boats.

Seven years ago the character of this basin and utility of the river were made known for the first time. The geographical knowledge then acquired cost about £12,000 in English money, and the lives of 173 men. It was given to the world freely in about twelve numbers of the *Daily Telegraph* and the *New York Herald*, each costing about one penny, and afterwards in book form with maps and pictures illustrating the geography and life of the peoples. Then I came to you, and in this and similar cities I personally expounded to you the possibilities that might accrue were the prospects held out to you reflected upon intelligently. You rejected the notions, condemned them as altogether crude and unworthy

of acceptance by practical men. An Association, headed by the King of the Belgians, invited me to Brussels, and there I was eagerly accepted after many protracted discussions, and it was proposed to me to return to this region and show what I could do with it, and discover what further could be learned.

And this is what we have acquired of further information. From the mouth of the Congo a steamer drawing fifteen feet can steam up 110 miles, and opposite to this spot, on both sides of the river, we have built stations—that on the north or right bank being the principal. Hence we take a land journey of fifty-two miles, where we have constructed another station. We then take boats, and steam or row up eighty-eight miles to a point opposite which there are stations constructed on each side of the river. We now make a land journey of ninety-five miles, and reach a place lately built, called by us Leopoldville, whence we can steam up 1060 English miles. The large affluents enable us to steam a distance of 2000 miles more, and by a short road past Stanley Falls we could proceed further up the river 350 miles, and a portage of two miles would give us 650 miles. Another short portage, past the cataracts of one of the main affluents, would give us another navigable length of 1100 miles. Along the main river we have constructed thirteen stations in the most likely places and amid peaceful tribes, with whom we are on terms of familiar intercourse, and who have welcomed us as brothers. To us the river has become as familiar as the Mississippi is to its navigators. The banks and its peoples are well known. The great basin now lies mentally mapped out; it has lost its mystery, and, deprived of its power to awe, to us it is no longer a region of fable and myth. We can gauge its powers of productivity and its value, and we are disposed to attract the world to it by connecting the upper river with the lower river by a railway, over which commercial men may travel with their barter goods with ease and safety, which will quite obviate the necessity of looking at it as an inaccessible region and daunting those disposed to enterprise—provided, of course, that no insane jealousy thwart the project.

If you are wise you will not quarrel with us for entertaining such a project, nor look askance at it, but encourage and rather co-operate with us; for to you, as to others, it appears to me to be fruitful of advantages. We have no concern in it further than to see a region so long neglected brought within the fold of the civilised world. Our satisfaction will be in witnessing its growth and watching it mature into usefulness. Long have you and I gazed upon that white blank in the old maps; long have we wondered what it contained. And now we are satisfied that the region is of unexampled fertility, watered by mighty rivers, which have their perennial sources in deep, woody recesses on the flanks of the mountain barriers which ring the region round about. We know that wide plains, growing pasture fit for cattle, separate these rivers; and vast spaces, fit for thrifty and industrious colonists, promise rewards to those who seek them. The river-marges show wide belts of forest; in their deep

frondent shade clusters of villages lie nestled, and close by are the prolific gardens and fields, blessing the careless, happy people with a profuse abundance. Here and there, like islets in the rich expanse, rise the grove-clad hills with who knows what store of fossil gum on the surface, and useful minerals in their bosoms. And through all, in easy sinuosities, wind the native foot-wide paths, dipping into dell and dingle and lovely twilight, and anon rising from the cool shade of tropical umbrage into the glare and view of far-reaching plains, where you see on the verge of the horizon the smoke denoting the distant village.

Nor are spacious lakes wanting, with their broad expanses lightened by brightest sunshine, to diversify this extensive prospect of tropic land. Within its confines lie Tanganika, with 9300 square miles, Bangweolo with 8800 square miles, Mweru, Kasali, Leopold, Mantumba, Muta Nzige, and two or three others reported to exist, but not yet explored; a known area of lake waters approaching 30,000 square miles in extent—which may be increased to over 40,000 square miles after more definite knowledge of them has been obtained. Consider how these may in the coming years be rendered useful to the laden steamboat of commerce, and the swift screw-launch bearing to each shore of their waters the gospel of peaceful intercourse between vari-coloured peoples.

I dare say that by this time you have some notion how I should wish this newly-constituted Society to take up the study of Geography—not as a science to be relegated to your sedentary hours, but as a science brimful of interest to you as living men with warm sympathetic hearts, desirous of increasing your fellowship with humanity in general; as a science replete with lessons of practical wisdom; as a science which may best be called the admonitor to commerce; as a science wherein there is nothing barren or sterile to any man with eyes to see and ears to hear; as a science which points with commonest inductions to those fields wherein manly effort is needed, and those paths which commerce ought to follow; as a science which delimits the valuable heritages to which all the sons of Adam are born, and directs willing hearts to profitable labour. It is your duty as children of a foremost nation, nourished to ample grandeur by a wise, thoughtful, and earnest ancestry, to know the extent of those toil-won conquests achieved by your sires, and to know how to prepare the minds of your own descendants to wear their honours nobly, and, if possible, to add to them. If exploration adds a newer field, a larger extension to your knowledge of the surface of the earth, you should endeavour to devise and study of what further use it is to you and other nations. Avoid the cant of senility, and the babbling of confessed impotence which tells you that you have done enough, that you are by far too rich, that your estates are by far too many already; such talk belongs to a people smitten with paralysis and bedridden with old age. Wherever I look around me in this country I see no signs of that among you. I see you creating new machinery, and building new ships, and laying the foundations of new cities; there is weaving and mining, delving

and hammering, going on from morning till night in every corner of the kingdom. You are building new schools and moulding young heroes without pause, and prosperity and good fortune seem to have blessed you. Therefore gather yourselves together into Geographical Societies to impart the knowledge of the science more widely, that it may quicken energy and inspire enterprise. The study of Geography ought to lead to something higher than collecting maps and books of travel, and afterwards shelving them as of no further use. I should like to see the maps in men's hands to be studied as generals study them before planning campaigns. I should like to see the manufacturer or merchant study them with the view of planning commercial campaigns, the man of capital pondering over them like one who intends constructing a railroad across a country, or a military engineer designing defensive works.

Had your Government, some months ago, followed such advice as I have given you to-day, there had never been a treaty made to close the Congo basin, and you would never have needed me to tell you how monstrous the Portuguese claims were.

The Royal Geographical Society of London has long done excellent work, all will admit: as soon as an explorer has brought home, and submitted to it his budget of geographical facts, it has been forward to recognise their value without regard to his nationality; it has been a fit centre of effort to pierce the mystery of unknown Africa, and all that we know of the old continent may be attributed to its influence and continuous exertions to excite interest in geography. But at this stage of progress it is time that the study of geography should be taken up by the large cities which profit by it, in order that it should not only contribute to the natural thirst for knowledge, but that, like other studies, it should bear fruit.

SCOTLAND AND GEOGRAPHICAL WORK.

“Scottish energy and enterprise have sent Scotsmen to all countries of the world as pioneers of discovery, as founders of thriving colonies, as successful merchants and traders, and as useful missionaries and philanthropists.”

“Scotland has produced many world-famed scientific men, travellers, geographers, and cartographers.”

THESE sentences are quoted from the Prospectus of the Scottish Geographical Society. The statements are strong, even boastful, in their character. Can they be made good?

Their accuracy has not been called in question; but an inference has been drawn from them, in some quarters, directly the reverse of the con-