

II. THE HOMEWARD JOURNEY.

19th FEBRUARY - 13th MAY, 1926.

19th FEBRUARY, 1926. After a terrific series of thunderstorms in the early morning which shook our tents for the last time, we embarked on the Nyasa Land Government Steamer "Gwendolin" at 10 a.m. and steered into the great grey water, with clouds wrapping up the mighty mountain scarps.

The parting from our faithful Wanyanwezi was sad and I felt my eyes starting to misbehave as I stood perched high on our baggage in the little whale-boat that took me on board and waved back to the men who crowded the shore and danced their farewell dance giving me a right royal send off. Shall we cross the wilds again together, I wonder, shall we share again the fatigues and joys of the road, shall we once more crack jokes in order to forget heat and dust or wet and cold? I fervently hope so.....

We reached KAPORO, only a few miles further south, soon after noon, where we lay for the rest of the day and the night taking in fuel. The Songwe river pushes out a low delta for eastwards and the coast, for a considerable depth, is flat. And then follow inland, step upon step, the wooded ranges of the scarp which here forms gently rising ground compared to the sheer drop on the opposite side.

The sunset was unforgettable: A patch of reed-covered shore, gold in the evening sun, then some bright green on the near hills, followed by two or three thick, blue-black bars representing the middle ridges, and above this, in faint hues, the higher steps of the western mountain border reaching into a crimson sky. And turning eastwards one could see the faceted slopes of the mighty scarp in the full evening sun stand out like a wall of pale green cut-glass, fringed near the rugged top by a string of cotton clouds. Rungwe, in the north, resembling Fujiyama more than ever, rose above a long streak of stratus into a cold sky of steel.

20th FEBRUARY, 1926. The little boat is so crowded that we men have to sleep on deck. But everything has its rewards, for had I had a cabin I would probably have missed one of the finest dawns I ever witnessed: A mighty storm-cloud pressing against the scarp, soaring up in huge torn sheets which break like gigantic billow waves in the upper layers, flamboyant from orange to chocolate brown, as they screen the rising sun, and shedding two curtains of rain - one above the other - purple rain (!) whilst a little to the right of this orgy of fire and vapour the morning star, unnaturally large and bright, smiles from a perfect sky on to the silver ripples of the great water below.

Through this fine spectacle we steered in a chilly morning breeze along the step-scarp of the western shore till we dropped anchor at 7 a.m. off KARONGO, a little sheltered harbour nestling in the reedy plain at the foot of flat-topped ranges which rise one above the other to the high plateau of N.E. Rhodesia. We left at 8 with Jessep the Post Master General of Nyasa Land on board, reached VUA-Bay, another fuelling place, at 10 and stopped there all day, mainly to take in a cargo of cotton.

place a few miles to the north. He has been running government boats for over 20 years and is responsible for one of the earliest charts of the lake. An interesting old man who has now retired to his small but conveniently arranged double-storied house, in which a bamboo ladder forms the only approach to the upper story. His hobby is boat-building and loafing on the water with his rod, not, perhaps, a very ambitious way of spending his pension, but somehow he seems to fit admirably into his narrow environment. He showed me some specimens of reddish ancient shales, very similar to those of the Livingstone mountains, which, he says, form the top of the Nyika Plateau. But Bailey in his geological survey of Nyasa Land does not mention this old formation.

The approaches from the upper Songwe to the coast at Vua look very rough ground, much more so than one would have expected from the map.

I walked back in the evening through the flat foreland where rank grass and park-bush, with umbrella acacia, doum palms and a few baobabs, forms a not very promising natural vegetation. But where the soil - much black clay - allows of it, there is a certain amount of native cultivation, groundnuts, maize and cotton, the latter being dealt with in a badly kept and somewhat neglected looking ginnyery. A recent outbreak of the boll worm has, however, resulted in a temporary set-back to this new crop which, for a time, looked as if it were going to turn out a good asset to northern Nyasa Land. There are three European estates in this neighbourhood, but I can not say that I am much impressed by this first settlement I have come across in much praised Nyasa Land. Everything looks untidy, everywhere signs of typical amateurishness, of the usual "muddling through", nowhere that well directed effort which in agriculture as in any other human enterprise is essential to success.

The wind changed from south to north in the late afternoon and the evening brought a drizzle and clouds of "Kungu" flies over the dinner table.

21st FEBRUARY, 1926. A dull morning with the western mountains in cloud and rain-storms all over the lake, brought out well the Ruhuhu depression with its low karroo plateau squeezed in between the towering archaic masses: Once more it becomes plain beyond the slightest doubt that through it lies the only approach to Lake Nyasa from the N. East.

We left Vua at 9 a.m. and reached Florence Bay soon after midday, under a clearer sky. The Karroo mountains, dominated by the flat-topped and step-sided mass of Mt. WALLER, drop straight into the bay, the flat foreland thus being reduced through DEEP BAY and the northern part of FLORENCE BAY until it disappears entirely at the foot of the red sandstone cliffs of Mt. Waller. All slopes are beautifully green with what looks like very luxuriant savannah forest, and the crowning cliff of greyish rock (probably limestone) gives a good finishing line between earth and cloud-filled sky. There are a number of small rocky islands off the shore, some of which are shining white like icebergs, to such an extent are they covered with the guano of countless water-fowl.

I had the good fortune of ten minutes conversation with old Dr. Law, the "Great Old Man" from Livingstone, whose vast mission buildings, hospitals and schools can be seen high up on the shelf. He is one of the men who have really contributed to the opening up of Africa and although he produces too many clerks and too few agriculturists, one must give him the admiration he deserves.

He is, naturally, enthusiastic about the people among whom he has worked for 50 years, and promises much agricultural produce for export, once his area has been opened up by a railway. He says wheat can be grown everywhere if the right sort is chosen, and that the Portuguese grow it successfully even down in the Zambezi valley. He looks upon the Manda line as the only possible one and calls the Mporoto idea "absurd". He also seems to be against the extension of the Shire line to the south end of the lake and thus inclines to the view - not, perhaps, very sound - that the whole of the Lake area should be drained by a railway from Daressalaam.

From 1.30 to 5 p.m. we rolled and pitched across the lake in a southerly swell and then anchored for the night in Manda Bay. The place will always remain in my mind connected with the great sadness of heart which overtook me there three months ago.... Today it is beautifully green, quite different from the scorched rocky hills which dominated the landscape in November. A black-blue storm sky frames the emerald foreground and the sunlit peaks of Mamtshwaya look down into the dark Ruhuhu defile.

Clements, the Nyasa Land Conservator of Forests joined the boat at Florence Bay and we have already had some chats about problems of mutual interest. I am sorry to learn that Dr. Dixey, the Government Geologist, from whom I expected much information, has just gone on leave.

22nd FEBRUARY, 1926.

We left Manda at 6 a.m. steering diagonally south. The mouth of the Ruhuhu is full of water but there is no trace of its silt in the lake water only about a kilometre off the shore. This confirms Bornhardt's observations and seems, therefore, to be the rule during the rainy season, whilst in the dry period the silt remains on and near the surface for a considerable distance from the mouth (comp. "Daily Notes" of 18/19 Nov. 1925). To the south of the Ruhuhu both sides of the lake show steep high mountain cliffs, i.e. the trough character is better developed in this region than elsewhere. The sky was dull and most of the mountaintops remained in cloud, so that except for a gorgeous sunrise there has been none of those great colour harmonies I love so much.

The lake is "smoking" at many places with vast Kungu clouds to some of which we got so close as to be able to distinguish clearly through the glasses the millions of tiny insects which form the "smoke". A native story attributes this phenomenon to an old hemp smoker who, having gone mad as the result of his vice, threw himself into the lake from where he is now condemned to emit these clouds of smoke throughout eternity.

We anchored at 2 p.m. in beautiful, golden-green little Nkata Bay (really a double bay, separated by a low ridge on which the Provincial Commissioner's residence is perched in a maze of green). The bay is surrounded on three sides by wooded hills and laps an untidy looking native village whose inhabitants seem to live mainly by fishing. But up and down the coast for a considerable distance one can see native settlements on a narrow strip on the lower slopes, between the myombo covered higher reaches and the lake shore, where the Togatoga cultivate mohogo and groundnuts in small patches and live in large, rather flat-roofed round huts scattered and hidden among huge boulders of rock.

It is all very picturesque but also most backward and I am very surprised to find this choked stagnation after 40 years of colonizing efforts, especially after one has seen what has been achieved in the by no means less accessible Ntukuyu area!

The rocks dipping into the bay are gneiss and mica schist and are intersected by many large veins of grey quartz. The Wamatengo Mts. opposite were clear in the evening, but as we are rather far away, not much of their detail could be studied.

I met the District Commissioner of Chintechi who also looks upon the Manda line as the only useful outlet not only for the produce from the narrow belt comprising central Nyasa Land, but also from the Fort Jameson area in N.E. Rhodesia. In fact he had just returned from a reconnaissance whose object it had been to find a road straight down from that area to Nkata Bay. The little port is undoubtedly one of the best on the lake, having deep water and excellent shelter. At present, besides the P.C., there is only an establishment of the African Lakes Corporation, but there is some talk of shifting the district head quarters from Chintechi to the Bay in the near future.

23rd FEBRUARY, 1926. A wall of the darkest black, with a flash of lightning every now and then to emphasize the sombreness of the scene, shut out the view lake-wards this morning. And within a short time it had rushed on us, had churned the quiet lead of the bay into rapidly advancing silver ripples first, and into tossing wavelets a moment later, had enveloped us into cold drifting rain and passed overhead as quickly as it had come. We left at 10 a.m., still under an overcast sky, but with bits of the eastern coast again visible.

It remained overcast all afternoon so that visibility was good from one of the granite hills of LIKOMA ISLAND in the evening. The east coast granite has lost much of its mountainous character in these latitudes: Well rounded wooded hills and a broad flat foreland form the northern part of Portuguese East Africa along Lake Nyasa, the scarp nature disappearing almost entirely. The question arises: Is the southern half of the Nyasa Rift much older than the northern half, or is the present morphology merely the result of recent rifting in lower and more maturely eroded pre-rift country?

The little island itself - the largest of a number of islands seaming the coast - is fascinating with its many hills, huge heaps of granite rubble all of them, with its many little bays and its (n o w) green foreshore studded with countless great green baobabs and with an almost continuous strip of squat large round huts of the Wanyasa population. The latter (4000-5000) are mostly refugees from the main land who have their work well cut out in cultivating the barren soil. Mohogo (Kasava) is the only crop that can be grown on the rocky granitic soil and even the boulder strewn steep highest slopes of the hills are under cultivation. For this purpose tiny "terraces", often only a few square decimetres in extent, are laboriously built up of less stony soil between two adjacent boulders, each such "terrace" affording room only for one or two mohogo plants. Under the circumstances it is not surprising to hear that a large number of the male population seek employment in the far distant mines of Rhodesia and the Transvaal, from where they send home quite considerable sums of cash, as the returns of the Mission savings bank testify.

In the midst of all this lies the episcopal establishment of the U.M.C.A. Mission, with its huge cathedral, its training college, library and the many dwellings of the large white mission staff. The bishop's house on a hill was destroyed by lightning in 1921, so that he has now been forced to rely less on Providence but more on the natural shelter afforded by a lower position more in the centre of his flock!

From the outside, especially now since the tops of both spiers have been removed (as they were getting dangerously dilapidated) the size of the famous old cathedral alone is striking. I say "old", meaning of course as things go in Africa! But the inside is really beautiful if one excludes from one's view the modern steel roof. The carvings of the choir and altars, all in soft grey soap-stone from the main land, is excellent work and the general architecture, in detail as well as taken as a whole, extremely good. One can not but admire - however much one revolts against the underlying principle - the strength of soul and faith which has conceived and executed with untiring perseverance this cathedral on a barren rocky island in the heart of what was then, darkest Africa. Herein, to me, lies the main "beauty of effort" and not in the fact, so widely and absurdly advertised, that all this was done by "native labour". For every structure in Africa is, of course, done by native labour, Government House at Daressalaam, as well as the great bridges of our railways, or the wonderful cable railway in the Usambara mountains, to mention only a few which, from the structural or ornamental point of view can easily vie with the Likoma Cathedral. What counts in these matters and calls for admiration, is the conception, the white man's supervision and guidance, and to my mind the greatness of achievement must be gauged by the quality of the driving power which induced and maintained the effort. And it is for this reason that I am struck with the Cathedral. For whilst in the case of the railways and of Government House the driving powers were commercial gain and glorification of Empire, the founding of this lonely Cathedral required Faith so blind as to be almost beyond the grasp of the average rational mind!

In the moon-light, the great mass of the main building on the right, the cloisters on the left, a few silver bushes and trees, the white road between and the silent granite kopjes for a background, the whole formed a picture of mediaeval charm, emphasized by the endless litanies, the faint odour of incense and the sight of a group of worshippers prostrate before one of the side altars, a scene of after-dinner prayers through which, nolens volens, we had just been put.

It was interesting and instructive to watch these ardent Anglo-Catholics "chez su". But the missionaries themselves (the bishop was, unfortunately, absent), 20 of whom sat down with us four guests round the huge dinner table, were quite human: Cheerful, well dressed, educated: powder puffs and the latest fashions, some of the ladies even smoking both before and after dinner, altogether a most amusing mixture of 1000 years.

24th. FEBRUARY, 1926.

On the main land I could see distinctly how the topography of the Mtengula Gap points towards an other approach to Lake Nyasa from the east. Through it a line from Fort Amelia or thereabouts, through Port E.A. would have to run. But though the topography looks comparatively easy from the distance, one must not forget that, if the very poor portuguese maps can be trusted, the summit of such a line (on the Nyasa-Luchulingo divide) would lie well above 1000 m. The best point along my route to see this well-marked broad gap in the coastal range was from Kotakota Hill in the evening, when the low sun brought out details comparatively well.

We left Likoma Island at 8 a.m. and reached KOTA-KOTA soon after 3 p.m. The lake is here fairly wide and our longitudinal course, the cloud banks over both shores, and the comparative lowness of the mountain ranges did not permit of much detailed observation.

Kotakota, of slave trading fame, and to this day showing Arabic traces in many of its 4000 inhabitants, is a Government and Mission station built on slightly rising ground above a large expanse of reed-covered swampy shore. I am told this is not a deltaic formation, but is old lake bottom now exposed owing to the sinking of the lake level. A few isolated groups of hills and the higher mountains a good distance inland mitigate to a certain extent the monotony of the golden-green luxuriance of these tropical flats, the whole reminding me very much of the scenery along the upper Congo-Lualaba.

We had sundowners with the Murphys (the Resident) at their double-storied house 2 kms. from the lake from where one obtains a commanding view over the southern end of Nyasa with its hilly shores. It is as well to remember that much of Nyasa Land is tropical low-land, a point one is liable to forget if one comes from the bracing highlands which grow up from the northern shores of the lake.

The rock hereabouts is gneiss.

Rice is the staple crop of the Kotakota area, but only a narrow coastal strip is populated and is separated from the hill tribes by a broad belt of uninhabited bush. Clements tells me that practically the whole "bush" country of Nyasa Land consists of savannah of the myombo and masuku type, rain forest being restricted to some small islands of high mountain lands. That of the Mlanje Plateau in the southeast corner of the Protectorate, carries an indigenous cypress (*Widdringtonia Whytei*).

25th, FEBRUARY, 1926. A long day's southward course brought us at 4 p.m. into pretty, hill-bound MONKEY BAY, a little to the south of CAPE McLEAR, in the southeastern arm of the lake. Here the mountains, both on the Nyasa Land and Portuguese side of the southern lake become again much higher and the trough character is immediately recognised once more, though throughout there is much flat foreland between the foot of the scarp and the edge of the water.

The Peninsula between the two branches of the lake is very mountainous, a fact one would not expect from the official 1 in 250,000 map (altogether a most disappointing effort). This peninsula seems to have subsided comparatively recently, Monkey Bay and similar bays in its neighbourhood being evidently "drowned valleys". This subsidence, however, has nothing to do with quite recent fluctuations of the lake level, records of which are plainly visible and have also been artificially marked from time to time, on some rocky slopes of the bay. The highest former waterline is about 4 m above the present level.

I have completed the careful perusal and annotation of the East African Commission's Report, a good and valuable document (in spite of several grave errors it contains) and one that one would wish to see a c t e d upon.

The day had been fine with an occasional shower over the distant shores; but at 10 p.m. a terrific tornado swept over our little bay (which looked so very sheltered) and made us prick up our ears.

26th FEBRUARY, 1926. The morning scenery on the quickly narrowing S.E. arm of Nyasa was remarkably fine: The green water surrounded by hilly shores which rise in the back-ground to serrated mountain chains; a cloudy sky, a nimbus sailing slowly over the hills here and there; mists rising from little valleys; altogether a beautiful interplay of land and vapour-laden atmosphere.

We reached the "BAR" at 9 a.m. and were glad to leave the Gwendolin's noise and discomforts. We transshipped on to the "Dove", the old paddle boat which has seen better days on the Shire, and puffed down a narrow winding alley of open water through the sud, all that now remains of the former Shire water way. It was steaming hot when we arrived at 11.30 at FORT JOHNSTON where, to my relief, I found that the government car which is to take us on to Zomba and Limbe, is not coming till tomorrow, so that we shall have at least a day's rest and comparative comfort.

At the Hotel run by a retired medical man and his wife, we were well housed and excellently fed, and drank beer once more after so many months!

At the present season, at least, Fort Johnston, built on the flat western shore of the Shire river with its stagnating water, seems to be entirely choked by rank vegetation, and to be inhabited mainly by mosquitoes; though Dr. Maborn tells me that during most of the year the climate is very pleasant. But, I repeat, now the town looks horribly neglected, dirty and moist, backward and dead. The Indian element is unpleasantly prominent and their dukas cover a whole quarter of the town.

With Dr. Lamborn I had a long chat on the Tsetse problem on which he has worked so much, mainly experimenting with a natural enemy of the tsetse, in the shape of an other fly which, by laying its eggs into the former pupae, destroys the same. He is in full agreement with me that an increasing population automatically drives the tsetse back and that decreasing population is invariably the cause for the fly's encroachment. As regards sleeping sickness he holds the somewhat advanced (and to my mind by no means satisfactorily proved) view that, wherever there is G. morsitans, there is a chance for an epidemic, and that many, if not all, morsitans areas are areas of endemic trypanosomiasis (sleeping sickness)! He sees the best means for fighting the fly is combating infant mortality, thereby increasing the population, and in pressing for close, instead of the present scattered settlement. This is, of course theoretically correct, but in a semi-arid country, close settlement, as I have explained elsewhere, will always remain more or less impossible owing to the insufficiency of domestic water supply.

ZOMBA, 27th FEBRUARY, 1926. After a rainy night we left at 8.30 in the morning in a comfortable Crossley touring car, with our baggage pitched high in an old Hup pulling a two-wheeled trailer. West of the Shire the bridges over the five largest rivers (all of them permanent structures (!), and some only recently built at great cost), had been washed away in the preceding week so that we had some fun and excitement in fording the swollen streams, which was only possible with the aid of large gangs of villagers. Thus we did not reach Zomba, only 40 miles from F. Johnston, till 2 p.m. and God only knows where our kit is. But apart from the streams themselves, which can be coped with by designing bridges wide enough to take floods, there remain 40-50 miles of low lying ground around Lake Pamalombe and across the wide flat Shire valley, which make construction of an all-weather road impossible. The "road" through out this area is simply hopeless, and it is sheer madness to talk of "motor transport". One can and does muddle through, that's all. As soon as, on the east side of the Shire (the long trestle bridge over which was fortunately not washed away) one enters, and climbs into the hilly granite country, the road becomes good, and on long stretches on the undulating shelf along the foot of the Zomba Plateau, the surface is even macadamized.

Lake PAMALOMBE, now in the height of the rainy season a vast swamp, filling the centre of the Nyasa-Shire trough, is obviously a cut off southern part of a formerly more extended Lake Nyasa. Its western shores over which the "motor road" runs, is densely populated and from the low-lying road one rarely sees more than the native villages spreading through the bush between the edge of the swamp in the east and the foot of a pronounced range of hills close by in the west. But occasionally the ground rises a little when one catches a glimpse across the vast expanse of reeds with a patch of open water here and there. The natural vegetation here as well as further south across the Shire valley is open bush and tree steppe with Doum and Baobab as dominating trees, the latter in all stages of growth. The Zomba highlands, on the other hand, are clad in pure, now beautifully green Brachystegia-Makulu savannah, practically uninhabited on the N.W. slopes; But the shelf, about 1000 m above sea level, which drops gently eastwards from the foot of the Zomba granite scarp, towards the low country around Lake Shirwa, is again well populated and "culture steppe" takes up large areas in a more park-like savannah vegetation. The view to distant Lake Shirwa and the scattered pyramids of a typical "Inselberg" region beyond the Portuguese border, as well as southeastwards to the imposing "horst" of the Mlanje massif, across the green rolling foreground, is most beautiful. And on the other side one has the sheer bluffs, now glittering with moisture, of the granite plateau above Zomba, a small Table Mountain, with its "tablecloth" and all!

The very scattered town of ZOMBA is really beautifully laid out: The houses of officialdom in their pretty gardens and park-like bosquets where cypress and blue-gum are nicely blended with the natural forest, are spread over the steeply rising plateau slopes; a tossing mountain stream every now and then to break the contours, a bracing atmosphere, a wide varied and wonderful view, all this makes one soon forget the somewhat suburban style of the bungalows and the omnipresence of the motor vehicle. And what strikes one more, perhaps, than anything else is the fact that all the prettiness and the many comforts of this little African "Simla" have been produced out of a rough mountain wilderness, 40 miles away from the railway terminus.

The Club is a fine place with a parquetted ball-room and spacious lounges.

Quite against expectations, we are most comfortably housed at Chapman's Boarding house, so that I declined Applin's, the Provincial Commissioner's, invitation to put us up.

ZOMBA, 28th FEBRUARY - 2nd March, 1926. The two days ~~ix~~ at Nyasa Land's capital were well spent in looking round and meeting interesting people. Dr. Dixey, unfortunately, is away on leave but everyone and chiefly Clements, were very helpful, so that I managed to get a c o m p l e t e set of his many very instructive and highly interesting bulletins and pamphlets, in addition to a lot of printed matter from the Agricultural and Forest Departments, and by the time I have studied them all, I shall know a good deal about the morphology, geology and vegetation of Nyasa Land.

In Applin we found a very cheerful and extremely nice gentleman of the old school of administrator. Needless to say Jackson had n o t advised him of our coming, as promised, but his name alone was good enough to guarantee us the friendliest of receptions. Tucker, an old travelling companion of ours, and now the Treasurer, was kind and helpful and we dined with Clements and the Jesseps. Just before leaving I had a short interview with the

Secretary, Mr. Rankin, on a purely inofficial basis which, however, gave me an opportunity for bringing home once more the vital point of Loss of Level, wherever developmental railways in Africa are concerned.

The most interesting man I met, however, was Pratt, the D.P.W. (and Milner, his Deputy). We agree entirely on Loss of Level and therefore condemn the "western" route of an extension northwards of the Shire Highlands Rly. via Blantyre. The Shire valley is the obvious geographically given route for such an extension and to incur a heavy loss of level and heavy capital outlay on construction, means simply pandering to the wishes of a few who have vested interests at Blantyre, and is, therefore, a criminal waste of public funds. But as, seemingly my own, so Pratt's expert advice is being ignored and the Politician, pulled by Capital, gets what he wants. From Pratt, who has seen the Governor after the latter's return from the recent Governors' Conference at Nairobi, I hear that Sir Donald Cameron's recent statements regarding the Manda line are based on my monthly reports to whom he is said to have referred in very flattering terms at the Conference!!! If that is so it means that my good honest name has been dragged into this purely political controversy in an unfair manner. For though it was of course my duty to point out even in my short monthly reports the difficulties along the Manda line, just as they revealed themselves to me on my onward march, I have again and again made it clear that all statements were of a preliminary nature and that my final report would have to be awaited. Furthermore, the most important issue, i.e. the comparison between the Manda Line and a northern alternative, was nowhere touched upon in these monthly reports, but it was quite clear from my long telegrams sent from Ntukuyu at the end of December that such a comparison would form a vital part of my final summing up. The fact, therefore, remains that all these statements, the whole sudden veering round to please Lord Delamere, took place long before my final report was in the hands of the authorities. They are, of course, at liberty to ignore my report, but it is sheer political machination to pick out just a few scrap sentences from my preliminary work, merely because they may be interpreted to back up sinister plans of land settlement. I also see in the papers that the mighty Lord, and an uncrowned King of Kenia has managed to get the joint E.A. Board (and probably the C.O. too) to change their views. But as regards the latest memorandum of the Board, it seems at least that there is some hope left of their taking my report into due consideration. That I shall be most unpopular, is, of course, a foregone conclusion. But if they want (expert advice) camouflaged to suit their own little games, they must chose an expert of different calibre. All they will ever get from me is a scientific analysis based on minute and careful observation of every conceivable factor, and to the best of my knowledge and long experience. If a Civil Servant must pander to vested interests, if his duty is blind loyalty (a wonderful word this), instead of intelligent and, if need arises, critical support of the administration for whom he is working, well then, I am not born to be one of them, and so much the better. But taken all round, I have still got enough optimistic faith to believe that Sir Donald will read my report and will think matters over once more in the light of the information which I have been able to set down in it.

We do lip service to the interests of the natives but in Kenia and, apparently, in Nyasa Land too, we have always given preference to the interests of the white settlers and it looks as if we were going to do the same in Tanganyika. What matters, as long as the "professed policy

is pro-native! I am not able to judge, knowing far too little of the countries concerned whether white settlement is not, after all, the correct solution in the case of Kenia and Nyasa Land. But this I do know, and know perhaps better than anybody else, that in Tanganyika with its vastly different geographical aspects large scale white settlement is wrong, wrong, wrong. This does not mean that there is not room for a few settlers of the right type in a very few and very restricted upland areas, but it means that ~~not~~ to sacrifice native development ~~and~~ to these few is geographically and therefore economically and morally wrong. I may be mistaken, but I have at least a right to insist that my views on this subject be carefully considered, especially after I have been entrusted with an official mission to shed more light on this problem.

It is obvious that all this greatly agitates my mind and that I have my hands full, so to speak, in preventing bitterness to become the better of me. In this effort I was greatly helped, and to a certain extent agreeably tickled, by the following two bits of news: First, at the Governor's Conference the Governor of T.T. was forced to promise that the Mwanza branch from Tabora, which I had always officially and inofficially preached against as unnecessary, would not carry any traffic which the Uganda Rly. can cope with (sic!). So I was right again, and the money spent and being spent on its construction is wasted. Secondly, the expensive expert who had been sent for from home to report on the possibilities of Daressalaam harbour has endorsed my views, that the port with very little expenditure, can be turned into a first class port, large enough for eventualities, views which I have mainly propounded against those of a few more or less delightful ex-naval officers, and which the Government might have had for nothing years ago, instead of having to pay a costly expert.

Though I do not think much of the exterior architecture of most of the officials houses in Zomba, I must say that they are excellently constructed and very suitably arranged inside. Especially the height of the rooms strikes me as very appropriate. The government furniture, too, is far above, in quantity as well as quality, that supplied to us in T.T. Altogether one might well sum up Zomba as a little official paradise.

Eva, the dearest girl, behaved wonderfully when she discovered, after our luggage had at last arrived 24 hours after us, that her trunk with all her new travelling cloths had been thrown into one of the many rivers and that practically every stitch had been spoilt beyond repair. Seldom have I felt so miserable in the knowledge that I have not the means to replace it all; but even had I had money to buy the most priceless creations, they would have been nothing compared to these things which she had made with her own hands and on which she had spent so many hours of loving and artistic work throughout our long trial. One must try and enter into the mind of a woman, to realise the really heroic effort she made, and made successfully, to overcome this horrid disappointment. But like everything requiring strength and pluck she managed alright, and in an incredibly short time her dear eyes sparkled again from underneath a rapidly drying film of tears.

The belated arrival of our luggage also prevented us from climbing to the summit of the Zomba plateau from where we would have had an embracing view. But the shoes we wore were quite unfit for the task.

2nd MARCH, 1926. This morning we motored from ZOMBA to LIMBE on a good metalled road through a most pleasant mountain land with steep-scarped "horsts" separated by undulating highlands, through large tobacco fields and passed artificial forests of blue gum.

Limbe is the highest point of the Shire Highland Rly., a few kilometres east of Blantyre, and is the administrative head quarters of that railway, and of the Central African and Transzambezia railways as well. Mr. Arnott, the G.M. was absent, but his deputy Mr. Duncan was extremely kind and gave me every possible assistance. The whole of the superintending staff, and, as a natural consequence nearly all the subordinate staff of the privately owned railway comes from one of the Indian private lines so that the methods are thoroughly indianised. I will leave it at that. Gamlin, the Engineer, is very much disgusted with the way in which the line was built by Paulings, though he considers the lugged sleeper better than the bolted one. From the engineering point of view he considers the Zambezi bridge, at least the present project on screw-piles with 26 openings of 155' each, an ill-conceived venture, and I feel inclined to agree with him, althemore so as the "solution" of the problem as shown on the plans of this bridge, has still got the approaches below the annual flood level!!!

Limbe is also the H.Q. of the Imperial Tobacco Company who have their large factories and a well laid out colony of bungalows for their staff. The famous Country Club is really worth seeing and will doubtlessly be the finest Club in Central Africa when the elaborate extensions, now nearing completion, and including excellent bath rooms etc., have been taken into use.

The hotel is quite fair for central african conditions, but the weather is showery and steamy, the low clouds not permitting one to see much of the fine mountain surroundings.

3rd MARCH, 1926. We spent most of the day at Blantyre, the scattered houses and shops of which form the commercial capital of the Protectorate. We went, of course, to see the famous gardens of the Scotch Mission, but found them not quite up to expectations. They looked somewhat neglected now during the season of torrential rains. But the church is a very fine piece of architecture, and though it cannot boast the wonderful carvings of the competing Cathedral at Likoma, from the outside at least, it easily deserves first rank. The roof, too, a fine piece of work with its wooden arches, is far more appropriate than the steel spider webs of Likoma. Mr. Anderson, our Missionary friend from the Livingstone Mts, who with his wife and her sister, two dear old scotch ladies, have been our travelling companions from Nwaya onwards, introduced me to Dr. Heatherick, the present head of the Mission, who, like Dr. Law, has spent almost 50 years in the country. He is, of course, all for the Zambesi bridge and for a connecting of most of Nyasa Land with Beira. Economically I think he is right, and I myself must confess that I have never looked upon more than the northern half of the Lake as an hinterland for a railway from Daressalaam. But I must repeat that now, after I have had a glimpse into the purely engineering difficulties of the bridge, the whole scheme seems to me still very far from realisation: "No rock bottom" at 200', screw piles suspended ^{below} in a shifting river bed to a depth of 140', both approaches/flood level, ~~xxxxxx~~ and the scheme worked out by a firm (Livesay, Henderson & Co.,) with no experience of similar work, all this points in the direction of a probable cost of nearer two than the estimated one million pounds!

While at Blantyre I had carefully avoided to meet the famous editor of the Blantyre Times, and I was therefore; disagreeably surprised and annoyed when I was disturbed in my afternoon tea at Limbe, by one of his vassals. As I was sitting with the ladies I could not very well kick him out, the only right thing, I suppose after my introductory explanation that my official position did not allow me to make any statements, had been unsuccessful to drive him away. I was, however, very much on my guard and all I did say was that the Manda line was feasible, that its summit lay at 900m and that of the Mporoto line at 1900-2000m, that the average cost would nowhere be less than £6500 per km, and that the Manda line led through better, though decidedly sparsely populated country. All this, of course, is nothing new as it is information already published in the E.A. Commission report. Still, I must say, I did not like the whole thing as I hate being dragged into these public controversies.

4th MARCH, 1926, LIMBE - PORT HERALD. As we were in an ordinary first class compartment the view was somewhat restricted from the train which, leaving Limbe at 7 a.m. took us down from the highlands into the broad plain of the Shire river. I had an opportunity of looking out from the back of the brake van, but availed myself of it only during the first part of the journey as this mode of studying line and country was rather uncomfortable. The descent is steep and winding, through a fine mountain scenery, much of which, however, was hidden in morning mists. Further down the line follows more or less the valley of the Ruo R. which comes from the Mlanje Plateau and forms several quite imposing falls in its middle, remarkably steep course. Savannah is the dominating type of vegetation until along the lower Ruo and in the Shire valley, bush-steppe with Baobab and doum palm takes its place, the river itself being lined by an evergreen forest-bush, evidently a fringing formation. The sudden change from tobacco to sisal which takes place at Luchenza at the foot of the steeper escarpment, is most striking, especially if one sees the two crops side by side.

The lower regions are now flooded to a great extent and the fine serrated ridges of the Makumbi and Chipero Mts, as well as the steep scarps of the distant Mlanje massif (much of which remained in cloud all day) formed a good back-ground to this plain of tropical inundation. The Central African Rly. (from Port Herald to the Zambezi (60.5 miles) being for the most part under water, and annually recurring happening, I understand (1) we had to leave the train at the former place and embark on the stern-wheeler "Empress" which, in ordinary seasons, merely effects the transshipping across the main course of the Zambezi from Chindio to Muraco. From 2 p.m. until the failing light forced us to anchor in mid-stream we went down the Shire, or rather, down its inundation area, for often the height of inundation permitted the captain to take a short-cut between two succeeding meanders, across the native plantations, between their half-drowned huts and past half-submerged telegraph poles. It was a most fascinating journey through this vast inundation area of the scarp-bound lower Shire valley, through the gold and green of the never ending reeds (there is no papyrus). The eastern mountains are much broken up, a series of veritable "dents", obviously built up of granite. Sunset was glorious, but the boat is hot and the food poor.

The Zambesi bridge problem becomes to me more and more complicated, the

5th MARCH, 1926, ZAMBESI CROSSING. After a cool night on deck (the cabins were impossibly stuffy) and a rosy dawn, we resumed our winding course down-stream. The main channel of the river gradually makes for the eastern scarp of the trough and just before reaching the foot of the hill slopes receives the Zuizui arm of the Zambezi which brings an inflow of dirty yellow-brown water. There is a large sisal estate on the eastern bank. From this point onwards the Shire flows in a well defined bed, 100 - 200 m wide, along the foot of the Morambala Mts., into which it erodes in several places.

Finally it joins the mighty Zambezi in the wide flood area of the latter, an imposing sight, all this brown water of the great african river, but a dreadful one to him who has to contemplate bridging the same. That Nyasa Land can not stand the strain of such an undertaking is perfectly clear, and it is even doubtful to me if the coal fields of Tete will be a sufficiently powerful attraction at least for some time to come, to justify the huge capital outlay. But even if that is the case, there still remain the almost insuperable engineering difficulties.

We steamed up the great river for a short distance to CHINDIO, and then across to MURACO, where we arrived at 1 p.m. and, having Mr. Duncan, on board, were fortunate enough to be given a special train which offered a chance of catching the B.I. boat at Beira and of thus avoiding a prolonged stay at that horrible port.

The Transzambezia Rly, opened with much ado in 1922, but owing to its low position much subject to wash-aways and by no means guaranteeing an all-weather access to Nyasa Land, first leads through flat country of the Zambezi valley, covered by bush-steppe, and in places more hygrophile tree formation (wherein the "gude-gude" tree of the Rufiji basin re-appears, but, like in the latter, no baobab). Sugar plantations and refineries are situated in this area. This flat ground rises very gradually southwards to the Zambezi-Pungwe divide, which is crossed at an altitude of about 1000m above sea level, the vegetation becoming denser, with many baobabs, and resembling much the type of coastal thorn-bush seen on the jurassic soil of the Ruvu-Ngerengere divide along the central rly. But long before we reached the summit of the line it had become dark so that of the remaining portion I saw nothing. I felt, however, that the descent to the flats of the Pungwe was rapid and the line not ~~xxx~~ at all maintained to even a moderate standard.

6th MARCH, 1926, BEIRA. The first thing we saw just before dawn, with a huge Venus shining from a bright sky, were the swampy low-lands round Beira, which we reached at about 5 a.m. To my great delight and relief we found the "Khandala" ready to sail in the afternoon, so that a costly waiting in this most appalling of all East African towns was spared us. The usual and unavoidable portuguese customs and lighterage annoyances and expense occupied me during most of the morning, but at 11 we were all safely installed in comfortable cabins in the bosom of civilisation.

8th MARCH, 1926. The passage was fairly hot and we had a good swell on in the Madagascar channel. The sea was full of long narrow parallel streaks of floating masses of sea-weeds. From Mahony who, with his wife, were the only passengers from Tanganyika, I heard that Kirby himself was sent by the Governor to examine the agricultural possibilities of the Kilombero Plain, and that, after his return, in February, he had not only reported most favourably.

that the problem was not so much whether or not a railway to the Kilombero should be built, but why such a line had not been constructed long ago! This shows first, that my preliminary report on the Kilombero was not written in vain as action was, evidently taken, and secondly, that on his return from the Governor's conference, Sir Donald will have the combined arguments of Kirby's and my own report to think about. What, on the other hand, it makes more difficult to understand than ever, is the fact, that after having sent Kirby to report, as advised by me, the results of this investigation were not awaited before surrendering so completely to the Delamere scheme.

Dixey's papers and reports on the morphology and geology of Nyasa Land are all of the utmost interest, but it is a pity that they are written in a bad school-boy style.

We arrived at LOURENCO MARQUES at 8 a.m. this morning, and after the usual fighting with insolent portuguese officials, managed to get the luggage on to the train and had time for a quiet lunch at the pleasant Cardoso Hotel, for whose shady rooms and excellent Italian cuisine I always make in order to escape the unpleasant atmosphere of this centre of portuguese insolence and indolence. Why, on earth, do we not equip a few battalions and push "our most gallant and ancient allies" into the sea, and take over this most promising stretch of East Africa? Incidentally, this would solve the problem of Nyasa Land's communications probably at a cost, only representing a fraction of that of the Zambezi bridge; For the outlet for southern Nyasa Land undoubtedly lies due east to Amelia Bay. And if battalions of soldiers are nowadays out of fashion, why not try a little bribe and buy the country from its present inefficient rulers?

Just now they have a little railway strike on affecting the few miserable miles between Lourenco Marques and the Union border, so that when we left on the mail train at 3 p.m. (of course in Union coaches), we had the exciting experience of travelling behind a mine-buffer truck which carried two of the strikers as hostages under a military guard of two whites (I beg your pardon, "greens") and 4 natives. All girder bridges were also permanently guarded.

The flat country carries a park-like vegetation and dense grass, but both trees and grass of this "low veld" are no longer tropical. Shortly before reaching the border, hill country, consisting of sandstone as far as I could make out, (probably karroo) was entered and the fine rocky embouchure of the Komasi River, which deposits huge masses of sand immediately below the "poort", was the last thing we saw. Of the beautiful gorges of the Crocodile R. and of the ascent to the plateau we did not catch a sight and it seems such a pity that all the finest mountain scenery of South Africa seem regularly to be traversed by night trains.

JOHANNESBURG, 11th MARCH, 1926. We arrived here at 8 a.m.

on the 9th., met by the Notts who carted us off to their little home on Observatory Ridge high above the noise and dust of the "City of Gold". The parting from Mazy (as Mrs. Thompson will for ever live in our memory) was sad; For she had been through three long and not always easy weeks such a dear and pleasant travelling companion, always full of common sense, always taking things cheerfully as they came and always full of fun. We delivered her safely into the lap of her methodist preacher relation and into the arms of her stern sister-in-law, poor thing!

A few hours after our arrival, malaria which I had already suspected the day before, broke out, forcing me to lie down. What an irony! Seven months of Central African jungle and swamp and not a single day ill or indisposed, and on the very first day that I set foot again into "civilised" lands - and that in famous Nyasa Land too, in the "Settlers' country" - I get infected. For according to the time interval I must have been bitten either at Fort Johnston or at Zomba. However, after a day and a half in bed I nipped the fever in the bud and am up again though, of course, somewhat shaky with quinine.

A letter from Garry told me - at last - what I had been longing to hear for months, that my dear parent parted in peace.....

There are also letters from the boys who are well and looking forward to our coming. It also appears that Harold, the steady fellow, did pass his matrick, all except latin; which taking into account his severe handicaps through having to change twice not only his school but his whole environment, including his language, is really more than one could reasonably expect. Why, on earth, latin should prevent him from taking up his agricultural studies at the University, is beyond my understanding, unless, of course, South African education is modelled on the mediaval english syllabus.

JOHANNESBURG, 17th MARCH, 1926. I have laid down my impressions of this town on my first visit in 1922, so need not repeat myself. But I must add that now too, in autumn, as before in mid-winter, I am delighted with the climate, with the glorious warm sunshine, the cool air, the generally blue sky and the vast horizon over the rolling sea of the high veld.

One afternoon we went north to see Nott's brother who is in charge of a school at the great Rand Dynamite Works, and coming back we travelled under an evening sky of delicate tints with the rocky crest of the Rand as the dominating feature and the brown masses of smoke creeping over it from the "Eldorado" beyond. An other day we spent on the high veld under the blue-green willows by the Klip River, with a great display of cloud - condensing to a black thunder-screen in the late afternoon - with healthy farmers' children playing and bathing around us and enjoying an everchanging play of truly African colours. On the way back the great slime dumps in the last rays of the sun, and immediately after, looked more than ever like gigantic icebergs.

I had a long talk and lunch with Professor Wellington who holds the newly created chair of Geography at the Rand University (a fine monumental group of buildings high up on one of the commanding ridges of the town) and who sees in the present day surface forms of the Rand, only geologically recently shorn of their age-long Karroo cover, distinct traces of pre-karoo topography, and glacial topography at that! He wanted me to lecture before the S.A. Geographical Society which time, of course, did not permit, and told me about the many troubles this young society is experiencing in a country where enormous distances hinder to a large extent the realisations of the aims of scientific societies. But to judge from some of the papers which have appeared in its Journal during the last 4 or 5 years, the Society is well worth the greatest effort to keep it going.

We heard the Sixtine Choir sing in a Music Hall at the end of a performance which was as good as the best one can get in London. And the papers report two interesting events: Only two days after we had travelled over the line, the Lourenco Marques mail train was actually interfered with by the strikers: and a few days after we had

passed through Beira, the place was swept by a terrific tornado which put the town under water, demolished much and interrupted communications and water and electric services for a considerable time.

Here too, the weather has changed and after a short hailstorm at 1 p.m. yesterday the sky remained grey and it was drizzling off and on, till it cleared this afternoon. So we went under a blue sky to the Zoo, where I found my old friend the Rhino less playful than on a former occasion. On the way back Nott showed us a glorious view in the evening sun over the northern slopes of the Rand, where the plutocrats dwell in garden suburbs hewn out of the solid rock and where one looks down a steep escarpment on to the rolling veld and sees it merge northward into the clear-cut ridges of the Magalies Bergen and others.

After some doubts with regard to a passage - i.e. a cheap passage, for expensive ones are available on all mail boats - I managed at last to book on the "Gaika". I also got my complimentary passes to East London from the ever obliging S.A. Rly. Administration, so that I have now got my tickets in my pocket as far as London, with the gratifying result that the whole journey from Beira to England for us both will only cost about £15 more than what I alone am entitled to.

18th MARCH, 1926, PRETORIA. As I had never been to Pretoria before, and as it will be our big boy's home for the next few years, it was obvious that we should pay a short visit there. So we set out this morning in the fast business train which does the 45 miles in 75 minutes. Pretoria is a charming glorified "doorp", lying between more or less bare ridges and hidden in its beautiful gardens where the temperate and tropical floras meet, represented by oak and palm. But rising above the level of the "doorp" are a remarkably large number of really fine and magnificent public buildings: some older ones in red brick and in the somewhat overloaded style of the last century, the remains of former Boer glory; and the new ones in sober grey sandstone, with clear-cut outlines, great and simple and beautiful. Union Building is architecturally perfect, both externally and internally; all the more, therefore, the pity that at the site where it stands high up above the town on a rather steep slope, one can nowhere obtain a full view of the front from the correct distance without a marked foreshortening which detracts much from the beauty of its noble lines. We were shown the Governor General's private office and the Council room where the Cabinet meets all simply but beautifully panelled and with columns of rich green granite which contrast well with the medium-tinted timber.

Government House, in the best Dutch style which has so many attractions for me, with its well trimmed old-world garden and its fine view down a rocky precipice and across a south african scenery of veld and kopjes at its best, is a real jewel. And the new museum where the most efficient south african geological survey has its home, is a building of which many a European capital might well be proud. The representative collection of south african rocks is most instructively displayed. In the stratigraphical section the Witwatersrand and Waterberg series absolutely confirmed my view that, petrographically, the formations studied by me recently in the Livingstone Mts. are, if not identical, yet very closely related to these s.african rocks. The Zoo is less well kept than its rival at Joh'burg its vegetation being too exuberant; yet the animals are mostly good specimens and representative. The old Hippo, a grand and vicious beast, beats the lot; a baby giraffe was well worth studying and an amorous camel was quite a sight.

The chief business of the day was, of course, the inspection of the University College and the hostel where Harold is soon to take up his agricultural studies. Everything turned out entirely satisfactory and an interview with Mr. Roberts, the Registrar, made it clear that there had been some mistake on the part of one of his assistants, and that Harold's failing in latin did not prevent him from joining the first term's course, even should he fail again now at Easter. So we arranged everything for his coming up on the 13th of April. The buildings and laboratories are very much up to date, the syllabus sounds very promising and with what our own agricultural authorities in Tanganyika have told me, this University seems the very place for our son to prepare for his career. I have given a lot of thought to the matter, and the more I think about it the more obvious it becomes to me that scientific agriculture is a career which possesses at the present time the best chances for useful employment and rapid promotion. For there can be no doubt that if the human race is to survive much more must be got out of the soil than is being done at present, and that means scientific farming. It further means that, the individual farmer of whatever race being, of necessity, an unscientific creature in the majority of cases, he must have guidance, either by employing scientists when he is farming on a large capitalistic scale, or by availing himself of the scientific staffs of Government agricultural departments, when he is farming on a small scale. Civilised Governments everywhere, but particularly in the new, almost purely agricultural countries, will have to direct their attention in an ever increasing measure towards agriculture, which means, of course, ever increasing scientifically trained staffs. Hence my decision to let Harold become an Agriculturist, and it looks as if the boy had entered into the spirit and is satisfied with the choice. And we must not forget that one of the founders of agricultural science was our grandfather Petzoldt! An other advantage of an agricultural career is to be found in the fact that it opens the whole world to the successful student as a Pretoria degree will ensure him employment in the colonial service and thus give him a job where he can combine his daily work with that love of exploration which, I hope, he has inherited from his father.....

The journey back from the sunny vale of Pretoria into a cloud-filled sky capping the Rand was rich in perpetually changing colour effects.

JOHANNESBURG, 21st MARCH, 1926. At last we got hold of our dear old friend Nicolopoulos who has just returned from one of his long journeys; he looks well and has remained the same cheerful and thruthful philosopher of life he has always been. And theologically he fully confirms my views on "original sin". It is most comforting to know that in him, as well as in Nott, our boy will have friends near by, should need arise for sound advice or help.

Last night we spent two interesting hours at the well equipped Union Govt. Observatory where we saw much through the 9" refractor, and watched the huge 26 $\frac{1}{2}$ " instrument (the largest in the southern hemisphere) at work. The library and the studies are wonderful and so is the photographic work; it simply makes one long for similar scientific work in equally delightful surroundings, as a change after the "practical" work with its inevitable hard rubbing to which most of us have to devote the best part of their all too short lives. But why was the observatory built so near the dust and tremors of the gold fields when the pure ridges of the high veld offer so many much more suitable sites? We heard the wireless time signals from Bordeaux!

This afternoon we drove for the last time over the sunny slopes and through the green dales where the plutocracy has settled and where the City of Gold shows its best side. And then we said au revoir to our good friends in whose hospitable house we have spent a most pleasant time, and whereby our daily intercourse with Nott and by listening to his daily annotations of the newspapers we have both had the benefit of a most potent tonic.

At the house of one of their acquaintances we saw a very fine collection of paintings of South African scenery by that remarkable painter Volschenk whose "dawn" is a master piéce.

KING WILLIAMS TOWN 25th MARCH, 1926. All day yesterday we journeyed over the high veld, somewhat monotonous but, to me at least, always fascinating. And the descent down the steep escarpment of the Stormbergen just at sunset made up for a hot rattling day in the train. It was once more one of these exquisite half hours when one is permitted to see South Africa at its best: The western sky, seen through the darkening gap of Cyphergat, a blaze of fire, the deep canons of the broken up fore-ground already in twilight and the bold precipitous heights in the east aglow in copper tints, as our train, sweeping round curve after curve, gradually dived from the clear fiery ether above into the shadows of night below.

After changing at the horrible hour of 4.30 a.m. a dreadful experience, only slightly relieved by a cup of so-called coffee served by a kindly old lady at Blaney Junction, we arrived here at 5.30. The boys, who had, of course, overslept, turned up a few minutes later at the hotel and two very pleasing specimens they are, tall, healthy, well-mannered, a real joy to perceive.

KING WILLIAMS TOWN, 28th MARCH, 1926. Although Harold is at large, awaiting the result of his second attempt to pass in latin, Frank had to await the end of his school term, so that we had to spend the best part of a week at this little country town, before being able to shift our head quarters into the Amatola Mts. Although confined to a small hotel room, time flew rapidly with the help of many hospitable people, with a really fine and useful public library where I devoted many an hour to furthering my knowledge of S.Africa, and with the frequent intercourse with the boys.

I can honestly say that my great experiment, for it was an experiment when I established them here three years ago, has been a success. Healthy they are and mentally fully alive, clean they are with bright sparkling eyes, and entirely unsophisticated; tall as men (H. 1.81 m, F. 1.62 m), strong as little bulls, and unspoilt as typical boys. In Harold there is just that little something which shows that he is on the threshold of manhood, care for his finger nails, for his wardrobe, an occasional attempt at shaving, but everything so natural so quite without that selfconsciousness which spoils so many public school boys, all the result, one must assume, of the free atmosphere of a new country with its vast horizons, its unchecked intercourse between all sorts of people and its bright blue sky. Our little one too has greatly improved, has learned to curb his hot blood and though I am still convinced that much trouble lies ahead of him, his fine, clean, strong eyes promise well. On the whole I think Mr. Sutton and Dale College deserve our full gratitude.

The weather which during the first part of our stay had been alternately drizzly and steamy, gave place to a bright bracing day on the 26th with a brilliant blue sky resting on the fine circle of mountain and hill which surrounds the little town. Thus we had a delightful setting to the Agricultural Show which is the event of the year for this unsophisticated crowd of provincials and for the farming community of the neighbourhood. There were some good horses and horsemanship, a beautiful though somewhat vicious Zebroid, and a pair of superb tall black mules, to say nothing of cattle, sheep and pigs of whose points I am not a judge.

And today was an other perfect day with bright sunshine from a glorious sky which we used for a drive to the Pierie Reservoir at the foot of the eastern Amatola Range. The road, as usual, was appalling, but the scenery through the winding valley of the Buffalo River, most enjoyable. Rounded ridges first, their flanks under corn or pasture, with a patch of thorn bush here and there. Farm houses and native villages, rural peace and beauty and the vegetation brilliantly green after the long awaited rains. And then the large artificial lake itself, between steep wooded slopes, the forest reaching up to the highest ridges and the rocky cliffs over which the water tumbles in tall thin threads to feed the great reservoir below. There is a trout hatchery and good fishing in the upper Buffalo R. and its tributaries, and the forest contains (Podocarpus(yellow wood).

PEFFERS KOP FARM, 29th MARCH, 1926.

All four of us left K.W.T. at two this afternoon for Alice and Peffers Kop Farm where Harold had arranged a holiday for us with some of his farming friends. It was nice and warm across the Buffalo-Kaiskama divide, open veld mostly, studded with thousands of round mud-huts of the many natives, and with an occasional strip of thorn veld here and there. From Alice we followed the valley of the Tyumie R., a right tributary of the Kaiskama, by car for 14 miles, reaching our destination, in a little side valley, high up on the grassy slopes, just at sunset. A fine mountain land, right in the heart of the Amatola Range, surrounds us: grassy slopes full with pastoral life, forested mountain sides, intersected by rocky "kraantzes" (as they call cliffe hereabouts) and furrowed by deeply eroded "kloofs" (gullies or ravines), the water of which falls over the Kraantzes in countless large and small falls. All this is crowned by several rock-capped peaks, of whom the Hog's Back is the most enticing, peaks which promise pleasant scrambles. Geographically our environment is a most beautiful and most instructive example of a desimentary landscape, raised high above sea level, to which it now drops in a typical erosive escarpment, mature in its lower, and approaching maturity in its middle reaches, whilst the head-waters are still in a youthful stage, pointing, as they do, to a still continuing pushing inland of the great escarpment.

The farm house is very comfortable, the beds excellent, and the people - the two Misses Knott and several guests - a cheery crowd.

The rising full moon seen above the rocky ridges from the stoop, with a few rags of silver-lined black clouds sailing slowly through space, was soothing, and though a terrific westerly gale started blowing early at night, we were soon sound asleep.

PEFFERSKOP FARM, 30th, MARCH, 1926.

The morning was still windy but bright and I went for a reconnoitering stroll among the Karroo rocks towards Peffers Kop neck, the ridge which joins the southern foot of the Lushington Range to Peffers Kop and which here forms the Kaiskama - Fish River (Tyunie-Kat R.) Divide. At 11, quite suddenly the wind veered round and blowing from the S.E. brought up a thunderstorm and the rest of the day was pouring rain and driving clouds which soon enveloped mountains and valleys alike. So I sat down and dived into the "Drought Report" of the Union Govt., a work of the greatest scientific value.

We were delighted to see both our boys firm in the saddle; and it was really a highly satisfying sight to watch Frank saddle his horse and with red cheeks and sparkling eyes gallop away to fetch the mail bag far down in the valley.

31st MARCH, 1926.

Although the rain has stopped and there is a faint wintery sun, the higher hills are still in cloud and the waterfalls over the cliffs have greatly increased in number and bulk. The air is more than bracing and my winter-clothes come in handy. We walked over the soaked meadows to the top of Peffers Kop from where one looks over the Tyunie valley and its tributaries, from their steep cirque-like headwaters at the foot of Hog's Back to the little town of Alice, and beyond across the low ridges towards the coast. The Elands Bergen and Lushington Range in the north, and the Winterbergen in the N.W. were hidden in cloud.

1st APRIL, 1926.

A glorious sun greeted us with just a patch of white mist creeping over Peffers Neck and pushing a faint, quickly dissolving tongue into the valley of our farm. The golden meadows in sunshine, the steeper slopes still in the shade, silver streaks of waterfalls all round and the thermometer standing at 11.5 C in the sun at 7.30 in the morning! It never rose above 16 in the shade and by 9 p.m. had returned to 12 degrees. Throughout the day shifting winds carrying films of cloud dominated, but the evening was perfectly clear, of that wonderful clearness which only South Africa can produce.

Frank gave more exhibitions of his horsemanship and one can not help comparing the pluck and skill of this child (he is only 13 today) with that of a town-bred boy, and to praise fate which has directed me to find in S.Africa the right atmosphere and environment for our boys. In their intercourse with their farmer friends too, they are just delightful, and one can notice in a hundred little ways how the attachment is a mutual one, and how genuinely glad these people are to have the kids during their holidays. The house is pre-empted by good will and good cheer, everyone pulls everybody else's leg, there is perpetual laughter and fun, in short the happiest of atmospheres.

2nd APRIL, 1926.

This was a wonderful day of sunshine, spent in an exhilarating scramble across the Geato-Lushington Range with Eva and the boys. The view from up there (about 1700 m above sea level) is vast and impressive: Northwards, between the bold slopes of a few only slightly higher, flat-topped mountains on to a fair extending high plateau; eastwards to the crags of Hog's back and into the forest-filled cirques at its foot; southwards over the endless expanse of low coastal hills which stretch away from the quickly dropping main escarpment, and are intersected by the deep winding valleys of the Keiskama and Great Fish Rivers; westwards, range upon range of sedimentary chains stand out under a most perfect blue sky.

It was splendid to roam over the turfy meadows, to stretch oneself in the hot sun and gaze up into the blue and to the focks around. Rolling green everywhere, with a heap of rock, a ledge of precipice now and then, murmuring slouts rushing to the edge of a kraantz to take the final leap into the abyss, and the lovely patches of *Helichrysum argyrophyllum*, whose brilliant yellow flowers over the silver grey foliage of large cushions everywhere and produce a wonderful contrast of colour. What a pity that this beautiful inhabitant of the higher mountains of the eastern Cape Province is, through its rapid spread, becoming a danger to sheep grazing and, as such, doomed to extermination sooner or later!

A short-cut down a precipitous cliff proved quite an adventure and brought out another display of Eva's pluck. For it was most difficult for her with ordinary unnailed shoes, and I breathed freer when I had my little flock all safely down at the bottom of the glen, where a little mountain stream danced over its rocky bed through fine forest.

Never before had I dreamed that in addition to its many other advantages S.A. possesses such glorious mountain lands where, in the warmest of sunshine, one can roam far and wide, and in a cool bracing air can move in constant and most intimate touch with nature. Never shall I regret to have put our boys into this sunny land: They are simply splendid, with health written all over their features, and with enough experience of the right sort gained to enable them to stand much firmer on their own feet than many a product of medieval home education, with its perpetual environment of fog and its horrid social clefts.

Here are a few temperatures taken at about 1600m altitude in a slight N.E. breeze between 13.30 and 14 h :

Air in sun.....	15.5 C.
Air in shade.....	14
Grass-covered ground in shade..	11
do. do. sun....	26
On sandstone rock in sun.....	26.5
In running water, in sun.....	15

5th APRIL, 1926. After two perfectly bright days with the fine mountain panorama to delight our eyes at every moment, we set out today under a somewhat stinging sun (24 C. at 8 a.m.) on a long motor tour to the famous Kat Berg Pass. We drove through the mountain land of the upper Kat R. catchment area, through the little town of Seymour with its whitewashed church and houses hidden under trees, passed Balfour, surrounded by the fertile lands of the Kat R. valley where it breaks from the grand and imposing chain of the Winterbergen, and then climbed a long way up along the famous old mail road towards the Kat Berg Pass. Leaving the most xerophile Karroo bush with its *Opuntia*, jointed cactus and thorny acacias, which covers much of the lower ridges, and crossing a narrow belt of pasture above it, one soon reaches the steeper slopes where patches of indigenous mountain forest (with *Podocarpus*) alternate with large areas of afforestation (pines, cypresses and wattle), until above this forest belt one emerges once more into the high veld. The view, everywhere, is grand and constantly changing as the road, ledged into precipitous cliffs or bridging steep forest-filled gullies, winds in and out, rising ever higher towards the rockcrowned peaks of these wonderful karroo mountains. Plenty of water everywhere, and many signs of earth and rock slips remind one of the difficulties the builders of this mountain road had to face. Above and around the sunny mountains below the gorge-like valley of the Kat, and backwards one looks far out onto the low hill country. The

sky was interrupted here and there by a feathery cloud and the change from the "icy" air of a wooded and wet "kloof" into the broiling sun of a bare and dry protruding ridge was both striking and pleasant. The company was in the cheeriest of moods, jolly, refreshing laughing youth who considered us, in spite of our "age, as of their own and induced me to yodel and sing and crawl on all fours. The return drive through the gradually fading light and under a crimson sky, past the dark silhouettes of the cold mountains was wonderful.

I am, of course, glad, I went, for I am sure that I have seen one of the very finest parts of S. Africa. And yet I ask myself, is it worth, this experience of beauty, if, for lack of time, it can only be gained at the price of the horrible shaking up of one's liver on 2 x 28 miles of an abominable road in a pestiferous motor car?

The geology, as everywhere in these parts, is simple: alternative shales and sandstones, capped by dolerite (called "ironstone" by the man in the street!), all in a practically undisturbed position, and all attacked, with of course varying results, by the erosive forces of water which tends to push the escarpment further and further north, and leaves an ever widening belt of mature topography in the south. There are also frequent doleritic intrusions in the lower strata.

The branch line of the railway from Fort Beaufort to Balfour is being extended to Seymour just now; a heavy alignment, developing on the slopes of quickly rising ground between the Kat R. valley and its tributary from Seymour, and one can not very well perceive how this line is possibly going to pay. It is, of course, one of the lines primarily built to alleviate the unemployment problem, but from what I understand, the poor white labour which was to benefit from this great rush of new construction all over the Union, had soon to be "diluted" by native gangs, owing to the inefficiency of the whites who thereby proved that they were "unemployables" rather than unemployed.

Seymour - Balfour is a tobacco growing district and the fields look well. They are, of course, restricted to the comparatively narrow strips of irrigable ground near the rivers where they lie surrounded by the most sterile karroo slopes.

7th APRIL, 1926. An entire change of weather prevented our Hog's Back tour, planned for today. Tearing clouds under a strong coastal wind kept most of the higher mountains enveloped nearly all day, and although I have, thus, missed the opportunity for setting foot on one of S. Africa's most fascinating mountains, I must not grumble, for the weather has really been very good to us and has allowed us to see so much beauty, that one must, out of gratitude, forgive it this little trick.

So I sat down and meditated on the great advent which Harold's departure to Pretoria and his commencement of academic life means to us all, and I boiled down my thoughts and hopes and feelings into a little sermon which, I fervently hope, will fall into good soil.

8th APRIL, 1926. Thunder and rain at night with the wind swinging round and blowing strong from the west this morning, mist-filled valleys and intermittent drizzle and rain; these were the weather conditions during most of the day. Later the wind became more changing, blowing at times as strong as a gale, with the clouds torn hither and thither and the mountain panorama, half hidden now, clearing again a little later, in ever new and changing ever fascinating tints and shades.

We have now spent some time right in the most densely populated native area of the Union (i.e. most densely, if one omits the Rand and a few other (highly industrialised areas, where, however, the native has become a city-dweller and therefore a different being), so that a few words on these "kaffirs" seem appropriate. On the whole, the agricultural natives living in their reserves, seem to have lost very little of their delightful savagery, and though even here, they don European costume on festive occasions, the bulk wear still their picturesque native garb and are apparently not, after all, far removed from our East and Central African natives as regards unsophisticated happy-go-lucky life. To see them, men and women, at their everyday occupations, to watch, especially, their children at play, one might just as well imagine oneself among some of the better looking tribes of East Africa. Here as there, of course, missionary education on what I consider wrong, i.e. too literary lines, is extending its unpleasant influence, and to pass crowds of dandified men and women, each carrying a book under his arm and wearing, probably because it is the fashion, cheap gold-rimmed spectacles, makes one sick at heart.

In one point, however, the native of Kaffraria, differs greatly from any of the Central African tribes: I am referring to his love of horses, of whom he keeps whenever he can at least one, and to whose breeding he devotes apparently much and successful effort. Nearly every grown up man one meets in the veld is mounted and many of them are well mounted. The native problem is, of course, a most serious one in a country so admirably suited for white settlers, and although one can well realise and understand the average white man's (and especially white farmer's) anti-native attitude, one can not help thinking that this virile race which is undoubtedly multiplying, if not at a terrific, yet at a very gratifying rate, should be protected against the inevitable clash by leading it into channels of education and improved efficiency where they can become really useful member of the State. That Mission education will not lead them there, but will, by further emphasizing the marked ill-will which prevails among whites towards the natives, only hinder that useful absorption, it does not take either much intelligence or much foresight to predict.

I have studied with the greatest interest the UNION OF S.A.'s DROUGHT INVESTIGATION COMMITTEES "FINAL REPORT" (U.C.49 - 1923), a work on which one can only bestow one befitting term, namely monumenta l! It rolls up before one a highly complicated subject by not only touching upon, but thoroughly entering into its many component details. It is couched in sober and modest, yet in places, inspiring language, clear, precise, to the point; and in its appendices it contains the considered statements of men who obviously know what they are talking about. Above all, it is pre-veded by a truly scientific spirit which recognizes not only that economic problems can not be solved without a scientific analysis of fundamentals, but is also fully aware of our present shortcomings with regard to our knowledge, and of the necessity to hasten up im-

provement in the direction of further and more detailed investigations. As Prof. Potts, the Botanist of Bloomington, puts it (pg.111): "I would urge that investigations be planned in a broad scientific spirit as experience has shown that a direct empirical attack on the economic problem is only very rarely successful and that even an extensive research confined to economic aspects of the problem has little chance of success. Hence....such researches today are being carried out by pure scientists in a spirit not impeded by utilitarian motives".

Two questions, however, remain:

- (1) Is there any reasonable hope that in our modern democracies, where that troublesome creature "the man in the street", i.e. generally the man, by education and training utterly incapable and incompetent to grasp the value of scientific research, has so much to say, public opinion can be created strong and courageous enough to lead to the voting of the funds necessary for purely scientific research work? And
- (2) Is it at all possible - a query which rises in my mind more and more frequently as I grow older and wiser - for any body of authoritative investigators to come to really valid conclusions, to approach the truth of the case, in an age when science has become so infinitely subdivided, that it is more often than not impossible to see the wood for trees? Does the ever extended specialisation with its tendency to concentrate the life work of even a first class brain on an infinitesimal small part of Science, not lead us into blind alleys where what we perceive at the end of our particular alley, makes us more or less unfit to grasp even, leave alone to coordinate, the treasures mined in other avenues of research?

If such coordination is still possible, it seems to me the task can only be achieved by clear brains who stand outside, and if one may say so, above these mining operations; who take what the authorities give them as final results of their respective branch or branchlet of science and who, using such results as building stones, and armed with the "absolute scientific spirit" for trowel and plumb-line, erect a solid building on whose stability and common herd can rely. That this is possible to a very large extent at least, this report, I believe, proves.

I have only one fault to find with it and that is that after having spent a large sum of money on the compilation of the report, the Committee (or was it the Government Printer?) did not see its way to waving the £800 which its admirable printing cost the State, and thus to issue the report gratuitous and wholesale (or at a nominal price of a shilling), instead of charging 12/6d. Not that this wonderful work is not worth 12/6d; To the student it is, indeed, worth a goldmine. But the ordinary farmer who ought to be the first to read, digest and act on it, simply will not pay such a sum. The result is that the many men including farmers, scientists and officials, whom for the last few weeks I have attempted to draw into conversation on the drought problem, did not even know of the report's existence!

That the main problems dealt with in this Report, namely soil erosion, veld deterioration and afforestation, are also of most vital importance to us in East and Central Africa goes without saying and for this reason as well as for its general geographical and geomorphological interest, it should necessarily form part of the reference library, however small, of every East African Geographer.

10th APRIL, 1926. We returned to King yesterday under a grey sky and with our mountain friends wrapt in cloud. And this morning our big boy left for Pretoria and the Varsity. How time flies! It seems only yesterday that he was a baby!

12th APRIL, 1926. If perhaps nothing to worry greatly about, Frank's marked hypochondria, of which we have again had a few choice specimens during the last fortnight, is to a certain extent disquieting. It is all the more remarkable as it occurs in a little fellow who, in all ordinary things, shows undoubtedly more than the average amount of pluck and courage. Only where disease is concerned, his pluck and common sense seem to fail him entirely and everywhere does he spot the signs of some dreaded disease. I spoke to Dr. Wall about it, and was reassured that this is quite a common thing with modern children and generally wears off in time.

But when the hour of parting came, the little man behaved like a plucky hero. For the first time in his life he is now all alone, without even his big brother to steer him. I had cause to "read the riot act" to him yesterday, so utterly disgraceful was his school report. I did it as gently as I could and seem to have been successful; at least, he is full of good intentions.

We left King, which now means so much to us, that sunny little town spread on the slopes of the Buffalo River, at 6 p.m. and only got to East London at 9. A dreadful local train, and then, in the otherwise quite comfortable Strand Hotel, a not very refreshing night of noise produced by every possible contrivance of metropolitan "civilisation", trams leading an easy first. A curse upon them and upon the mosquitoes which troubled us more than at any other spot on our long trip. The weather ever since we left the mountains kept changing, a typically fitful autumn.

13th APRIL, 1926. After a very hot and close morning when I amused myself by compiling statistics of the nerve-raking motor traffic past our hotel balcony (average 1 petrol-driven vehicle every 4 seconds!) we embarked at 3 p.m. and sailed at 10 p.m. on the "Gaika".

14th APRIL, 1926. At Port Elizabeth, where we lay most of the day, I admired the Settlers' Memorial, a fine tall red brick tower in the campanile style, and learned a good deal about the marvellous diversity of S. A., education (both european and native) at the Annual Educational Exhibition held in the roomy halls of the once busy feather exchange.

15th APRIL, 1926. From 4 a.m. to 2 p.m. we sailed slowly and with much blowing of the hooter, through dense fog (was it due to the mixing of the waters of the warm Madagascar and the cold antarctic currents?) and over the huge crests of a southerly swell which made the oily surface heave at regular intervals. In the afternoon the fog cleared gradually, the "windows" of blue sky first, and afterwards the impenetrable greyish black wall at our back giving rise to fine displays of colour. At 9 p.m. we passed Cape Agulhas under a canopy of bright stars and in a smooth sea.

16th APRIL, 1926. The morning broke misty and drizzly and the sea was quite churned up. Then thick fog came again bringing with it considerable delay along the rocky coast. How the navigating Officer ever got there at all,

I do not know, but soon after noon the light house first and then a giant crane at the entrance to the docks, looked out of the mists only $\frac{1}{2}$ mile away, and soon we had made fast along one of Cape Town's piers.

A telegram awaited us telling of Harold's successful passing in Latin.

The weather cleared quickly and in the evening-rays Table Mountain stood almost clear, its lower slopes clothed in fresh green, its cloud-capped cliffs bright and sharp, and the huge new grain elevator, a noble structure in dark concrete, fitting really remarkably well into a landscape in which the agony of civilisation must needs blend with the grandeur of nature.

We saw the Elliots, fresh from Daressalaam, who are travelling by the mail boat, and they told us of the death of Prentice and Mc. Gowan. These sudden "dribblings" out of men whom one has always looked upon as sound and in the prime of life, do remind one of the frailty of us all. The more reason to preach, and act upon, that favourite paradox of mine that "Life is too short to be hurried through".

I endeavoured to add some volumes to my collection of old African Travel Books, but found prices forbidding. Two volumes of Chapman's, with some of the pictures missing £4.10.0.

17th APRIL, 1926. The wonderful bay lay in bright sunlight, every detail clear cut. But the air was a bit too crisp to my taste. An azure sky rested on the old mountains of the continent as it gradually faded away when we steered north-west in the afternoon, and streaks of pale pink, high up in the sky, closed the day.

J.W. BEWS. PLANT FORMS and their EVOLUTION IN SOUTH AFRICA.
(1925).

It is a pity that the many interesting facts and far reaching conclusions or, rather, suggestions made by Professor Bews are not marshalled in a more lucid, more orderly manner. This renders the study of the book a somewhat trying task although, of course, once one has overcome the obstacles inherent in the general arrangement of the material, one can not but be convinced of its great value; a value enhanced by a very marked modesty of the author who never tires of preaching caution in accepting his arguments and deductions.

The main trend of thought is as follows: An evolutionary sequence of plant growth forms can be traced, at least in bold outlines, just as the evolution of flower-structure has been worked out more or less satisfactorily by the systematists. But while these two evolutionary classifications do not necessarily run parallel and neither of them can or does approach a linear sequence, the evidence from phylogeny seems to bear out the fundamental thesis that primitive types of growth form are most likely to occur at the present day in certain types of plant habitat which existed in cretaceous times and have remained relatively constant and uniform ever since (viz. moist tropical forest, stream banks and swamps, seashore and (?) mountain habitats).. Other habitats are more recent and the growth forms of their plants therefore derivative.

The sequence is roughly this: Sparingly branched hygrophilous trees, reduction in size leading to scrub, increase of xerophytian, open grassland (derivative after the origin of the grasses which is still a dark problem), succulence, annual type of flowering plants.

These hypothesis, primarily based on the little we know of the geological and climatic history since the rise of the angiosperms, are well supported by phylogeny and by

the facts of present day distribution and migration, and it is in a country like S.A. with its continuous and uninterrupted record for a vast period of time and its almost complete series of gradations of climatic regions and highly diversified topography, that the "whole fascinating story" can be read most easily.

An other interesting and, to me quite new point of view is that, whilst ecological evolution of growth forms is toward the xerophytic, plant succession is towards the mesophytic, i.e. ecological evolution has reversed the order of plant succession. This leads to what, at first and to the lay mind, might look like a paradox: namely "that in the drier subtropical areas the mesophytic climax forms can only be established after the way has been prepared for them by more Xerophytic, i.e. by derivative types". (pgs. 134/5).

Talking of grass fires (pg. 130) an official Forestry Dept., Report is quoted according to which such fires are, in some instances, traceable to boulders rolling down a rocky slope, and, by striking other rocks, setting fire to grass or dry bush by friction.

The book is full of suggestive ideas which might well be put to the test in phyto-geographical studies in East Africa.

18th APRIL, 1926. The morning broke grey and misty, though the air was, luckily distinctly warmer. For a long time I watched 8 - 10 albatros in their wonderful flight, their beautifully balanced wings quivering clear-cut against the grey sky, lit up now and then by a faint golden light, a straggling ray of the sun attempting to pierce the clouds.

Most of the day we went through alternating patches of mist and blue "sky windows", with a S.W. wind.

19th APRIL, 1926. The weather type of yesterday still dominated in the morning; but under a strong wind from the S.E. which is blowing faster than we travel and is raising high seas, the mists gave way to what must be called clearer weather, though it is still distinctly hazy.

20th APRIL, 1926. The S.E. continued all day, though not much faster than the ship, the haze became less and less until at last blue sky and warm sun reigned supreme over a dark blue sea. The albatros are still following us and this evening a little black land-bird, blown out, poor thing, fluttered cheerfully about our masts.

The ships company is gradually "feeling its feet" i.e. is making rapidly for that continuous rush of games, sports, dances wherewith to escape from their own dull indolent selves and which, incidentally, seems to be the very best (and probably only) plan to prevent a crowd of passengers tightly packed for weeks within a very limited space, from falling foul of each other. But to the few who happen to possess soul resources of their own, all this means flight from the noisy promenade deck and search for peace and shelter among the life-boats above.

It is years since I have read a novel, and it was my great good luck that when forced more or less against my will by the atmosphere on board, to turn to light reading, I picked up WELLS' "CHRISTINA ALBERTA'S FATHER". Wells has always been to me what I consider a readable novelist, i.e. one who does not idly waste one's time; and here he is at his best. A fine blending of sarcastic humour with that deep and penetrating insight into psychological questions

a sound modern philosophy of life and a brilliant style. The quintessence, very much the same conclusion at which France arrived after a long life of thought, is that in each of us there is a dualism, the individual and the social being, the former vanishing at the time of death, the latter forming the link with immortal and uniform Life. As usual, there is of course a certain side of our impossible social conditions laid bare, this time the shocking conditions of our lunatic asylums.

A splendid book.

21st APRIL, 1926. We have crossed Capricorn this morning and the albatros have at last left us. S.E. wind, veering a bit more S.S.E. still continues. Towards evening low clouds increased a little and the atmosphere is at last getting comfortably warm.

22nd APRIL, 1926. Prof. SCHWARZ, "THE KALAHARI OR THIRST LAND REDEMPTION (Cape Town 1919 or 20?)

My studies of the S.A. drought problem led me automatically to Prof. Schwarz' (the Rhodes Professor at Grahamstown) great scheme for reestablishing the Kalahari Lakes, and I managed to obtain a copy of his most interesting little book at Cape Town. On the face of it, one can not deny that the major trends of the professor's argument are sound:

- (1) Evaporation plays a more important part in the economy of a country than the rainfall (pg. 19).
- (2) Local irrigation schemes are insufficient and the aim should be to impound as much of the water of the country as possible and thereby to add to the permanent stock instead of letting vast quantities run to waste. Evaporation from large water surfaces keeps the air well supplied with moisture, so that barometric depressions would find the atmosphere more often at the point of saturation and rain would fall. Plentiful rains are cumulative in their effects just as droughts are cumulative (pg. 32).
- (3) Such a large sheet of water can be created by going to the place where it originally existed, i.e. to the Ngami Depression (pgs. 61/2.)
- (4) The great fundamental fact which explains the "desiccation" of Africa is the capture of the former meridional inland water systems (Proto-Niger, Proto-Congo, Proto-Nile north of the equator, and Proto-Orange, i.e. Loangwe - middle Zambezi to Wankie - Gwai Poort - Molopo - Orange R., south of the equator) by the smaller but more vigorously working coastal streams, whereby a large portion of the continent has been bereft of its natural supply of moisture (pgs. 65 and 70).
- (5) These captures are the consequence of recent geological happenings: Africa today is a great fault block which has risen recently with the result that a peneplain table-land drops to the coast in a narrow belt of still immature escarpments where head-stream erosion is in full swing. And it is well to remember that barriers raised by the crust movements of the Eocene period are definitely athwart an earlier topography - they have no relationship to the earth's topography in earlier periods (pgs. 66 and 71). Incidentally, though of course not concerned with the Kalahari Problem, Prof. Schwarz referring to the great rift faults between Abyssinia and the Zambezi, makes the following profound statement (which I myself have for long maintained and still consider daily more as the key to the understanding of East African topography); "that these rift faults are of such recent date that they cut across and interrupt the rivers the courses of which had already been determined, so that the ordinary laws of river development can not be applied" (pgs. 66 and 71).

- (6) The particular head-stream erosion which has led to the capture of the Proto-Orange system and the consequent development of the Kalahari desert, is that effected by the Zambesi, a coastal stream which captured the Loangwe to the N.E. of its entrance into the Ngami Depression (pg, 68).
- (7) In order to guarantee a sufficient supply of water for the proposed Kalahari Lakes, the Etosha Pan, in Ovambo Land, endangered by the rapid head-stream erosion of the Kunene River, must be re-established by damming up the flood waters of that river. The evaporation from this Etosha lake will then lead to increased precipitation in the Angola highlands and thus to regular flows of the Okavango and Chobe which, in their turn, after the Chobe has been dammed up just above its confluence with the Zambezi, will supply the water for the Kalahari Lakes. The latter will be drained s.W.wards along the course of the Proto-Orange. The Zambesi itself will not be required to contribute to the Ngami reservoirs; its head-waters will, however, participate in the higher rainfall over the Angola highlands.

The whole makes fascinating reading and especially the thoughtful survey of all the great african rivers, and the courageous attempt to read the history of their development forms a fine contribution to african morphology. But just because I very strongly incline to accept Schwarz' arguments and conclusions as more or less correct, I think it is a pity that he allows his imagination to run away with him on more than one occasion., and makes statements which by being, to say the least, very far fetched and difficult to prove, or even entirely wrong, must delay that gradual spread of acceptance which the scheme undoubtedly deserves. For if the student comes across wrong or misleading statements with regard to a particular area of which he happens to know something, he will naturally become suspicious of other parts of the argument which deal with areas unknown to him.

The mark seems to me to have been overshot in the following instances: "There was in fact a range of volcanic peaks rising to 20000' (in the Drakensberg, pg. 18) "There may have been, there probably was, but "in fact" is decidedly too strong, especially if one considers that this "in fact" is used to prove that the xerophytic present-day floras of the Karroo was evolved in the xerophytic environment of this pre-supposed mountain chain!

In tracing the course of his Proto-Congo, the intervening high ground of the Tibesti-Ennedi area is overcome by the simple statement that, although a recent expedition did not observe an outlet through the hills, such an outlet may exist. (pgs. 88-90). It may, of course, but again this "may" is hardly sufficient to base on it deductions of such far-reaching importance as a former mediterranean mouth for the Congo system!

The careful investigations of Vauters and Cornet into the history of the Congo basin although they, of course, lead to the same conclusion, i.e. that the present outlet is due to head-water erosion, show very good reason for repeated subsidence within the basin, and for repeated breaching of the coastal mountain wall.

The gravest misstatements, however, are in connection with Lake Tanganyika: On pgs. 54 & 93 it is said that originally Tanganyika drained into Kivu and thence to the Albertine Nile, that the Volcanoes north of Kivu cut off this connection and that "it may well be that the Arabs not long before Livingstone's time did actually see (sic!)

Tanganyika discharging northwards into the Nile". If the Professor had taken the trouble to go into altitude figures he would probably not have allowed such rubbish to go to the printers: For Tanganyika is 780 m, Kivu 1460 and Edward 920 m, and the Kironga volcanoes although, of course, they made Kivu contributory to the Tanganyika Congo system (though a good long time before the Arabs, I should say!) by cutting, geologically quite recently, the apex lake of the C.A. Rift off from the Nile system, they have nothing whatever to do with Tanganyika itself.

But this is not even the worst: For on pg. 134 one finds the appalling statement that in a few centuries (sic.) Tanganyika will be drained dry (sic.) by the Lukuga and its basin will present the same appearance as the Ngami depression does now". In his enthusiasm Prof. Schwarz seems to have overlooked the fact that the bottom of Tanganyika lies much below sea-level (in parts as much as 700 m), so that even if after several thousand centuries the whole Congo-Lukuga system (between 2-3000 kms. long.) should have become eroded down to sea level, there would still be a very large and deep Tanganyika!

However, except for psychological reasons, in the interest of which such misstatements should be corrected, they do not really affect the soundness of the professor's great idea and it is to be hoped that the scheme will soon be approached in greater detail. For what is wanted in the first instance, now that the great Idea has been born out of a great brain, is accurate levels, a detailed survey, without which nothing further can be said or done about it.

23d. APRIL, 1926. Two days of smooth running, through a lot of haze lying over a blue sea, and with a cooling wind astern, brought us to St. Helena just at sunset tonight. Screened by mist and by the glare of evening sky and water until we were almost upon it, the huge mass of rock appeared quite suddenly out of a golden sea; towering high above us and dropping from cloud-capped heights in bare cliffs and steep slopes to the foaming breakers which gnaw at its foot. It was a most impressing sight, altogether surpassing my expectations, this little island partly subdued by floating haze, partly pushing out well-cut silhouettes into the setting sun....

24th. APRIL, 1926. It is unfortunate and, I think, badly arranged by the shipping company, that we are not allowed time to visit Longwood and see something of the interior of the island of whose many attractions one has heard such a lot. But we had ample time to study through the glasses the details of its northern coast and of Jamestown nestling in its gorge-like valley, flanked by old fortifications from which a number of large old guns not very threatening, one feels - give one a glimpse of former history. Not a blade of grass on these steep, often precipitous slopes which, dipping seawards, show the alternate layers of lava and ashes in distinct stratification; underscored by huge wave-worn caves, fringed by steep scree-cones and high-heaped masses of rock and boulder; signs, all of them, of the rapid work of destruction carried on by the mighty ocean in its unceasing effort to wipe out the last remaining traces of "Atlantis".

The "natives", a mixed lot of coloured people with Chinese blood and many other strains from all over the world, sell very pretty things made of acacia and other seeds - really artistic and cheap. The main industry, however, is flax of which we are taking on a large cargo.

The island stood out clear from a blue sky and a supernaturally blue sea, in all its fascinating loneli-

near as we moved north at 11 a.m. In less than an hour it had faded away and become one with the vapours of the ocean.

27th APRIL, 1926, ASCENSION. Three uneventful days in rather warmish weather, though tempered by the S.E. Trade which constantly blew faster than we moved, brought us to the second of the small mid-atlantic islands. In spite of its barrenness, Ascension, as it rose from the morning sky, looked attractive. Round a central cone whose top was veiled by thin mist and where a scanty growth of trees was discernible are grouped a number of smaller cones, of a reddish brown colour and most regular in outline. And surrounding these, large lava flows reach down to the sea into which they dip gently, their present wave-eaten and caved heads standing only a few meters above the water. At a glance one realises that this volcanic island must be of much younger date than St. Helens: For though the central cone (the oldest) shows a number of valleys on its flanks, the surrounding cones are practically untouched as yet by the forces of erosion, and coastal erosion is still far distant from the core of the volcanic mass; in St. Helena it is at present attacking the crest of the outer cones. It may, of course, be that the reason for this very different stage of coastal erosion is to be found in a rapid sinking of St. Helena and a slow rising of Ascension. But the fact that the ash cones of the latter island are still quite untouched by stream erosion, can only be explained by greater youth of the volcanic structures.

Great shoals of a small flat black fish surrounded the boat, greedily devouring all offalls, but though they were black, with only a narrow silver dorsal bar, they displayed a wonderful variety of bright colours, green, orange, red, when lit by an oblique ray of light.

We took on board 11 giant live turtles who are most interesting to watch, and then steered north through a perfect blue sea and with a fair S.E. Trade following.

1st MAY, 1926. Doldrum weather with an occasional light shower and a full moon lighting fantastically shaped clusters of cloud, started in the afternoon of the 28th, and lasted through the 29th (when I crossed the equator for the 14th time in my life, at 10 a.m.). In the evening, unexpectedly soon, a N.W. wind sprang up and continued with increasing strength yesterday and is still blowing this morning (at about 8 degrees N.Lat.).

SIR. F. LUGARD "THE DUAL MANDATE IN TROPICAL AFRICA", 2nd edtn, 1923.

Although I had looked through this book on several occasions during the last four years, it required freedom from all other work to make an exhaustive study of it. The last week afforded that freedom.

In my opinion it is impossible to take exception to any part of Sir. Lugard's broad-minded policy, of which he gives so clear and comprehensive an account and which aims at the great ideal of fulfilling our dual mandate in tropical Africa, i.e. "our duty as trustees for the welfare of the native races and, simultaneously, our responsibility to civilisation for the adequate development of their resources" (pgs. 457, 391) by developing the latter, which are essential to civilisation, "through the agency of the natives under European guidance and not by direct European ownership of those tropical lands which are unsuited for European settlement" (pg. 506); and for the fulfilment of which Continuity of service, Decentralisation, and Coordination of effort are preached as the most essential conditions for efficiency.

If there is any shortcoming in this wonderful summing up of the life work and effort of a great administrative brain, it is to be found in the fact that, compared with the western portion of our African Empire, the eastern dependencies are less fully treated. This is all the more to be regretted as the settlers' highlands in Kenia and Nyasaland, as well as the large European estates inherited from the Germans in the tropical lowlands of T.T. create very serious obstacles to the realisation of Sir Lugard's (and for that matter, the Colonial Office's) policy.

The high price of the book too (sh. 42/-) does considerably handicap its usefulness and a cheap edition ought to be made available soon. For as a work of daily reference, as a veritable "Bible" for all employed in the work of tropical Africa, the "Dual Mandate" should lie on the desk of every Government Official, every merchant and missionary; it should be carried in every travelling library, however, small, and should be frequently consulted by politicians, officials industrialists and merchants at home.

It is obvious that in so bulky a volume which discusses every possible aspect of one of the greatest problems of modern civilisation, the "Man on the spot", who for many years has got through his work with open eyes and mind, should find points of disagreement in detail, however, enthusiastically and honestly he endorses the general main lines of thought. The most serious such divergence of opinion I must record with regard to the vital problem of land tenure: Whilst the author rightly emphasizes the point "that the growing recognition of the conception of individual ownership is due... in part to the introduction of European conceptions of land tenure" (pg. 285), and although he realises that wide-spread existence of "shifting cultivation" (pg.299), he seems to overlook the fact that - at least in the less advanced Bantu communities as we know them in East Africa - land is only considered property whilst and as long as it is tilled, i.e. that a peasant who clears a new piece of ground when his first plot has deteriorated, does not lay any further claim of possession with regard to the evacuated land which can, therefore, be, and usually is, taken up in later years by someone else.

And I also think that Sir F. does not sufficiently realise that most of the "available" land, of which on pg. 332 it is stated that in practice there is ample, is de facto useless over vast areas of East Africa, because either without permanent domestic water supply, or liable to be flooded during and for some time after the rainy season.

The second point where one must admit that the suggested solution is unsatisfactory, is with regard to the labour shortage in the East African areas of European settlement. If, as is suggested (pg.424), the European plantations can only be maintained by the importation of Asiatic labour, and they can, indeed, not be maintained otherwise in future, then, I believe, it would be much better to own up at once that the policy of attracting settlers has been a mistaken one and to take early counter measures, than to attempt correcting the first mistake by a second one infinitely worse. For the introduction of the overflow from the teeming millions of Asia into tropical Africa, would of course mean the eventual handing over of that continent to the mongolian race!

With regard to railways and communications I am delighted to find myself in full agreement with most of the author's views, but I think he errs (pg.464) when advocating the policy of "getting" the track through somehow and begin to earn receipts, as also when he attaches too much weight to standardisation (pg.471). And on pg.501

the statement that "you can not lay 100 miles of line in Africa but it pays in a few months" is, I maintain, dangerously misleading.

Mountain tribes are not, in my opinion, rightly judged, for in E.A. at least they form as a rule a highly advanced type; and the detrimental effect of overstocking by pastoral tribes to whom cattle is "dead" wealth, is not brought out sufficiently.

There is no mention of the important question of adequate and cheap shipping for the produce of tropical Africa, a question which, since the war, has become somewhat acute, at least in East Africa, and which one would have liked to be considered from the point of view of our duty towards the native producer!

This small list of divergent views covers, I think, all items which really matter. But there is one other point which ought not to go unchallenged for, though in no wise interfering with the wonderful edifice of the "Dual Mandate" policy, it may do a lot of harm by upsetting other thoughtful readers just as, I must confess, it has upset me and has left a bitter taste. I am referring to the repeated allegations of the superiority of the public school boy (pgs. 132, 139, 432ff.) which in their narrow-mindedness go so far as to infer that he represents the best that England can give and that everybody else is either a "bounder" (sic!), a "prig" or a "bookworm"! This is not the place to discuss the public school boy - that he is, at best, a produce of caste and a spreader of caste prejudice, and that, inspite of this, very fine men can and do emerge from these much overrated establishments - but one is justified in pointing out that much Empire work has been and is constantly being done most admirably by Scotch and Irish members of our race, who have not benefited from the advantages of a public school education and whose conceptions of "playing the game" and "seeing the other man's point of view" are carried beyond the limits of a very narrowly circumscribed caste.

In this connection one must be permitted to draw attention to a very grave infringement of the rules of fair play with regard to statements on German policy in her former African possessions. Even if one allows for the general atmosphere which still prevailed in 1921 when the 1st edition of this book was written, one will find it grossly unfair to quote the opinion of private German publicists (e.g. pg. 391, footnote) representing undoubtedly detestable principles, when by an easy reference to official German ordinances it would have become clear that their labour policy in E. Africa was as careful and considerate as ours; if not even more so; and that they paid their labour regularly and at rates exceeding by 50 - 100% those introduced by us soon after the establishment of Civil Government in T.T. The mistake they made in allowing European estates to grow up is one they shared with us in E.A. but they had, at least, the courage to own up that mistake by deciding (vide footnote pg. 345) "to alienate no more land to settlers in view of labour difficulties", whilst we, in Kenia, are to this day lacking pluck in the same direction.

Caste prejudice also seems to dictate the criticism, by the author, of the Labour Party, a criticism and fears which events, a year later, proved to have been entirely wrong and unfounded.

2nd MAY, 1926. Though we have still a northerly wind facing us the weather, off the Bathurst Coast, is somewhat misty this morning. Birds have come out and the rapid lowering of the temperature shows that we are in the North Atlantic current system. A remarkable churning of the sea, at noon yesterday, may probably have something to do with our passing through the Guinea current.

We were only about 5 miles off Cape Verde at sunset and Dakar stood out dimly from a hazy eastern horizon whilst the western sky, streaks of pale blue and rose-coloured bars of stratus, showed by its soft tints that we had left the tropical splendour of light and colour.

The inevitable is, of course, happening: The coal stoppage has started yesterday and a General Strike is threatened for tomorrow. It looks to me as if both sides were determined to fight, irrespective of the misery they will thereby inflict on the great majority of people who prefer an orderly and peaceful life.

3d MAY, 1926. This morning's radios sound a little more hopeful. The fact that the T.U.C. led by Thomas, has now taken charge of the negotiations is obviously a move towards peace and Thomas who has done so well in the late cabinet can, I believe, be trusted not to lose his temper and head.

The sea is green this morning over the continental shelf, the wind still N.E.N. and the weather accordingly bright and cheerful.

4th MAY, 1926. Yesterday afternoon's radio told us of the Government's breaking off of the negotiations, a foolish move as far as one can judge from here, and this morning's news that the G.S. has started. There was an obvious misprint in the radiogram which said that Joynson Hicks "wrongly condemned the T.U.C.'s action, meaning, of course, "strongly". But someone saw in this slip a probable and sinister sign that Bolsheviki were busy even at the Foreign Office and had intentionally corrupted the message!!! Had I not heard this with my own ears, I could not have thought such a mentality possible.

The N.E. Trade is still blowing strong, the sea is still green and the weather bright and cool. One of our large turtles, poor beast, is shedding its carapace plate after plate, one whole half of its back now exposing the raw flesh.

ZANE GREY, "TALES OF FISHING VIRGIN SEAS". All fishing, I suppose, is brutal and the larger the fish, the more elaborate the tackle that the genius of civilised man can devise, the more brutal it becomes when done for so-called sport. Compared to the agonies continued for hours to which these large fish were constantly subject by our "sportsmen" to give them "fair play", mind you, and the account of which forms the backbone of this book, the mere commercial butchery by professional fishermen who kill their catch in a few seconds (as described on pgs 191/2) is mild. The only mitigating circumstance for these survivors from a more savage stage of mankind, is the fact that out there on the storm-tossed waters of the Pacific, or along the surf of its tropical shores, they run at least a fair risk of being "punished" themselves, by shark or sun or gale.

Although, therefore, the substance of the story did in nowise appeal to me, I could not help reading every word of it. For it is written in a most excellent style and the text is strewn with many a beautifully worded description of sun-sets, of scenery, of fish-life, little gems of prose which only he can fully appreciate who, like myself,

has striven for years to give expression to many similarly beautiful visions of the splendour and harmony of colour.

I must quote a few instances out of a great number. This for the shore:

"Up the strand curled three shallow lines of surf, white-crested, green-hollowed, with low crashing roar, to break and spread up the beach" (pg. 20/1). Or this for clouds and sea and land: "Bold dark islands, hugely near and dimly farheaved up out of a sunset sea; and over them rolled mass on mass of amber and purple clouds, brightening to silver towards the west....the mosaic colouring, the rugged grandeur, the staggering solitude of the Galapagos Archipelago" (pg.50).

Or this sunset harmony (pg. 64); "A bank of purple cloud, level on the bottom, rounded and rifted above, hung in the west, with a background of pale yellow sky and a horizon of nameless hue (how wonderful this "nameless")...The sun, a blazing red ball, sank into the sea, giving a singular effect to unreality, of land water sky and fire failing to combine their elements. San Salvador, to the north, lay under a spread scroll of rosy cloud, clearly defined, dark and rugged, with its sentinels of monument rocks rising at each end." or again an other (pg.127): "And that brought us to sunset. Masses of broken clouds lent millions of surfaces to the golden rose and fire. The mountains were lost in lilac haze, the sea was pure gold, the west an indiscernible mosaic of vivid hues". And finally these for topography (pg. 174): "Palms lined the beach, The drab desert of cactus sloped up to bold ridges, and these stepped in turn (splendid expression!) to sharp-peaked ranges"; or "the waterfall which slipped out of a niche" (pg.16).

But enough. Besides these glimpses of Nature's wonders, every now and then the author shows that he has great depth of soul and great understanding of the mysteries of life and death, as when (pg. 25) he realises the "tremendous contending strife that goes on below the beautiful blue surface of the Pacific", or, speaking of fear, makes the beautiful statement (pg.93) that "Men of the open like sailors or mountaineers, are not immune to fear and react naturally to the instinct of self-preservation. But they are never terrorized in the presence of death".

On the scientific side I learned that two species are called by the common name of dolphin, one a mammal and one a true fish (pg.74). The latin name of the latter, "a golden creature", is coryphene. The mammal dolphin is a "smaller, slimmer, more graceful creature, lighter in colour" than its mammal brother, the porpoise. The porpoise and mammal dolphin also differ in their leap, "the latter having a spiral motion, whilst the porpoises make a forward dive on their regular leap" (pg.199).

The attempt to account for the tremendous power with which the marine Iguanas of the Galapagos cling so tenaciously to the cliffs, by explaining it as "an inheritance from the distant past when he did have great fierce enemies" (pgs.52/3) seems to be far-fetched and superfluous. For his habit of gluing himself to the cliff would, I think, not prevent any enemy from tearing his flesh which, after all, we must assume the enemy was after. The powerful claws seem rather to be an adaptation to enable the animal to withstand the shock and suction of the surf into which, where it lives, it must frequently be drawn.

The book is splendidly got up (printed in the U.S. for Hodder and Stoughton, 1925) and some of the 100 photos are most beautiful, all of them remarkably interesting. The all too short glimpse given of the Galapagos makes me long for Beebe's scientific volume "Galapagos, World's End".

5th MAY, 1926. This morning, though still blowing, the Trade seems less in strength and the water is decidedly blue again, but not of that beautiful ultramarine of the southern Atlantic. We passed Cape Blanco which remained invisible, yesterday at 11 a.m. and are now heading for the Canaries under a cloudless sky.

6th MAY, 1926. We anchored at Las Palmas from 4 - 10 a.m. so that there was not enough time to go on shore without rushing things. Neither, after what one has seen at Madeira and Teneriffe, both infinitely more beautiful, was the temptation to go very great. Gradually the central mountains of the island, a bare but little sculptured mass, became clear as the grey stratus clouds which had covered most of the sky in the early morning, vanished under the warming sun. This central massif seems to be separated from the coast by what looks like a large flat raised strand terrace on the slopes of which cluster the white and blue and red painted houses of Santa Cruz with the two black spires of its cathedral overlooking the roomy open bay. A few kilometres further north the port has been built on low ground which intervenes between the main island and an isolated group of low hills. This port was full of shipping though one does not quite see what the trade is. There are very few plantations visible on the slopes though there may, of course, be more cultivation in the valleys which are hidden by the raised beach. But if fruit is the staple produce, what have the many large sailing ships come for?

7th MAY, 1926. Still N.E. wind with a swell off the African coast, a blue sea, a few clouds and the varied noises of a fully packed ship, noises which, added to the depressingly stupid remarks about the political situation one hears constantly, proved a sore trial to my nerves last night. How one longs to throw some of the more objectionable representatives of "unctious righteousness" over-board!

On the other hand one is delighted to find such men as Professor W.M. MacMillan of the University of the Witwatersrand, with whom I had a long discussion on native policy, about which he has recently written "Are Whites being swamped?" (Rand Daily Mail of 11/11/25) and "The Dry Bones of Native Policy" (Cape Times, April 1926). The former shows that, pending further much more accurate figures, the "appalling" increase of the Bantu as worked out from the 1904 and 1921 census, is probably only apparent, and the professor's opinion is that, if there is any increase at all, it must be very small. This is interesting in the light of what I said 16 months ago in our Rly. Court Case when the opposing council pointed to S.A. to prove his assumption that the population of T.T. would be rapidly increasing.

The longer paper shows that S.A. possesses native labour which the leaders of the white policy do not seem to want and extreme scarcity of land (and bad land at that) available for native settlements, after the administrative blunders of the last half century. This, taken in conjunction with the existing state of affairs in E.C.A. where land is yet plentiful but men scarce, might point towards a solution of both our and the S.A. problem, by our using the superfluous Bantu population of S.A. to supplement our meagre forces for raising our dormant wealth, rather than having to draw on Asia as Lugard foreshadows. In any case this aspect deserves the scientific attention of men like MacMillan.

SIR HUBERT MURRAY, "PAPUA OF TODAY" (1925).

It was a very fortunate coincidence that I should find in an otherwise very poor ship's library, this book at a time when my thoughts were still busy with Lugard's great work. For in it, its author who has been responsible during the last 20 years for the Government of Papua, shows in a lucid manner and good style how his administration has attempted to solve for the great Pacific island the problems of civilisation's "Dual Mandate" in new countries inhabited by backward races. It is doubly interesting as Papua with its problem of capitalistic estates depending on native labour, resembles more closely than the West African conditions on which so much of Lugard's argument is based, those prevailing in our East African dependencies.

With the exception of chapters X and XI where under the heading of "Recent Exploration" one had hoped to get some connected information on the physical features of the country, but which, by being merely a chatty account of the travels of a few officials, prove disappointing, the book is a most valuable contribution to the great problem of Native Administration. Not only is it packed with good, sound common-sense, an excellent example of which one can look up on pgs. 284/5, where considerations of greater "happiness" of the natives before or after the arrival of the white man are ridiculed as irrelevant, whilst the mere fact that the white man has come and must stay as shown to lead to very distinct duties on his part - but on almost every page one finds most interesting thoughts which even in the rare instances where one feels inclined to disagree, open up new vistas for one's own line of thinking. I can only touch upon a few of them:

On pgs. 44ff. Sir H. does away with the silly notion of native "laziness" which he says - and I think rightly - is generally meant to infer that the native is not fully occupied in working for a white man (pg.46). And he deals similarly with the widely accepted half-truth that natives are liars, stupid and indifferent (pgs.47/8) by reminding us that "we expect too much from a people who have only recently emerged from barbarism and expect from them far more than we ever ask from a white man and far more than we are ever likely to get from anyone, black or white, in this world".

Equally good is the author's view on the "respect" which we consider due to us from the natives and which, at a time when the latter "all through the tropical world are beginning to find us out...can only be earned in one way, from black or white, and that is to deserve it" (pg.50).

It is made clear that in most tropical areas labour (or as I should prefer to call it, man-power) and not land is the limiting factor in agriculture (pg.105), a state of affairs which in Papua, and also in E. Africa, has actually led to the necessity for both the European population and their indentured labourers having to rely on imported food! (pg.157) i.e., in order to produce for export, part of the necessary man-power must be taken from those whose primary business it is to produce food for the inhabitants. This is, of course, the normal state in an industrial country, but in an agricultural one it is abnormal and unhealthy!

That for the development of tropical forests the business should be founded not on the timber, but on the minor forest products, such as tannins, alcohol, veneers, rubber, dyes etc., a view held and followed by Dr. Lane Poole, a well-known forestry expert, is one of the

One of the outstanding thoughts of the book is the emphatic assertion of the valuable help which the administration of natives can and must derive from the science of anthropology, always, of course, with the proviso that "science" comprises both observation and imagination. Indeed this subject (pgs. 219-125) makes most excellent reading. That the common argument of looking upon natives as "children" is wrong (or, as I should prefer to say, only half true), is a welcome statement and the alternative of studying him as a "peasant", an alternative which I have been anxious to follow for a considerable number of years, has much to recommend itself. (pg.231).

The terrific difficulty of "understanding" the native mind with all that this means to the responsible administrator, is most ably set forth in chapter XIII. Here also are we shown that the real problem is how to assist the native races to bridge the gulf which separates their cultural stage from our own civilisation, without injury to his mental, moral and material equilibrium. We are, by mere contact with them, depriving them of nearly all that gave interest to their lives, and it is suggested by the author as well as by Dr. Rivers "that this loss of interest forms probably the most potent reason to which native decadence is due" (pgs. 242/3). One can only agree. On the other hand one hesitates to accept the author's solution of the problem which finds that Christianity alone is capable of giving the people that interest in life which they have lost (pgs 248/9). Christianity which itself has, like our western civilisation, taken thousands of years to evolve, is altogether too complicated a structure to experiment with on the savage mind - all the more so at a time when other avenues are being explored which seem to offer to the human soul a more direct intercourse with the cosmic forces by which and through which we all, savages and saints alike, are and live and have our being.

It is pleasant to note that Germany's colonial efforts are dealt with (pgs. 212/4) in a fairer manner than by Lugard, and that the reaction, among British administrators, apparent during the last few years, against the high ideals of Lugard and Clifford, are plainly stated to exist; reactions which, under the mantle of lip-service to those ideals, seem to tend towards a decreased importance being once more paid to native interests (pg.213).

For some unknown reason Sir H. seems to believe in the mineral wealth of his colony, although he himself confesses that there are not sufficient indications to justify such optimism. Of the alluvial gold, scattered over a wide surface, he quotes the very apt remark that "there is plenty of gold in Papua, but there is too much of Papua mixed up with it" (pg.20).

The sanitary system on the deep pit principle reported (pg. 206) to have been in use from time immemorial among a tribe on the Alice River, is indeed "most extraordinary and almost incredible".

8th MAY, 1926. The sky is overcast, the water smooth and grey and the air cold. The strike is continuing and the first signs of closing down industries depending on coal and transport are being reported today. However, many gentlemen are tearing out diamond tie-pins and handing them to drivers who happen to be one of the directors' sons at the end of their journey, such idiotic facts, broad-casted all over the world, whilst the true state of affairs is hushed up in the official bulletins, do not, in my opinion, help to improve the situation. Neither does the regretful attitude to which I was treated last night, that if we could only find...

cities for sufficient play-grounds to teach the "mob" playing games, there would be no strikes! Does the Rev. gentleman, himself engaged in teaching the sons of wealthy Natal "to play the Game", really not perceive that he himself, in a national calamity, is doing anything but playing the game, by his utter neglect of even trying to understand the other man's point of view? Whatever our views, it is our duty today to get the Nation going again as early as possible, and in order to do this we must, all of us, look at the problem from both sides and realise that both sides have to forego some of their cherished ideals and prejudices, if peace is to be attained.

10th MAY, 1926. All day yesterday we sailed under a golden sky and through a blue sea, churned by a head-wind into high but short waves. We passed Finisterre at night and are now in the Bay. The sun still shines but to me the draughty air seems miserably cold and even Evacomplains of it. The wind is still a head-wind and the sea nothing worth speaking of. In the evening yesterday we passed close to a little whaler who had linked up with a whale and, what between the great waves catching her broad-side and the tugs and twists of her mighty prey, seemed to be having a rough time, with the water flooding her every few minutes and her little funnel often lying at 45 degrees.

11th MAY, 1926. Towards noon, yesterday, the sea in the ill-famed bay became as smooth as a duck pond and remained so till late at night when we ran into a threatening bank of dark cloud. But nothing happened, and an overcast sky, a slightly ruffled grey-green surface and a gentle wind still from the north, is all that greeted us this morning. The news of the day that, owing to the strike, we are ordered into Southampton instead of Tilbury, which is cheerful news if only because it shortens by a day the discomfort and noise on board, which is really getting unbearable now that, owing to the cold weather, the far too small lounges are overcrowded.

I can not say that I was greatly struck by ROSITA FORBES' latest effort "FROM RED SEA TO BLUE NILE". As she says in the beginning that the book is not one on Abyssinia I did not expect to learn anything of real importance on that country and its inhabitants. But to idle away a few hours in her cheerful gossipy company is, perhaps, not altogether a loss. And the book has made my mouth water for a land which promises so much from the morphological, historical and scenic point of view. The photograph of the young Empress revealed a charming dusky lady with whom one might almost fall in love at first sight. Every now and then one comes upon a passage which stands far above the general level of the book as, e.g. when she speaks of the "charm of the map" (pg.6) which "has the magic of anticipation without the toil and sweat of realisation". And the "view of hill and woodland like a crumpled cloth below us" (pg.49) is good. And so is the following (pg.240): "First the enchanted valley shed its garment of olives and wild roses and crumpled into a ridge...Then with sunshine scattering the clouds we came to a golden dish between the hills where reapers were hard at work, row after row of them". And what she has to say of slavery is well worth remembering, especially that "Ras Tafari's edict (freedom at death of master) yearly turns loose a number of ignorant people who without provision find the career of thief the only one open to them" (pg.90).

12th MAY, 1926. SOUTHAMPTON. The Bay remained calm and smooth throughout and we passed the Needles at 10 this morning in glorious sunshine. But as soon as we had entered the river, where a sea-plane gave us a fine performance of power and grace, a S.W. gale set in and soon it became bitterly cold as we dropped anchor in mid-stream to await further orders. Soon after midday we were finally allowed in and the first news that we heard, rumours only to be more correct, was that the General Strike had just been called off. So I decided not to avail ourselves of the dreadful char-a-bance which the Union Castle Line had sent from London to carry passengers and luggage, but preferred the comfort of the South Western Hotel to being squeezed and blown to shreds.

Whilst we had tea the loud-speaker in the hotel lounge broadcasted the Prime ministers statement that the Strike had officially ended. This was my first contact with that triumph of civilisation the broad-casting mania, and it was certainly as bad as I had expected.

In the evening Carry and Jack phoned and gave us the first news of Mama's nervous break-down.

13th MAY, 1926. WEST BRIDGFORD. There were some trains so that we managed to get here in 11 hours instead of the usual 4, and with a good deal of physical exercise in handling luggage (though at Waterloo a smart young student made a very efficient porter for which he pocketed a royal tip in aid of some hospital). Through strips of showers and belts of shy sunshine we crawled northwards, enjoying the green spring veil of the english countryside, and at 8 p.m. 10 months to the minute since we steamed out of Daressalaam Station, we stepped on to Nottingham platform and into the beaming presence of dear old Jack. The distances covered during this long voyage are set out below!

	Kms.	
Daressalaam-Ngerengere.....	150	(rail)
Reconnaissance Survey.....	2600	(march)
Lake Nyasa (Mwaya-Ft. Johnstone.....	700	(boat)
Ft. Johnstone-Blantyre.....	190	(car)
Blantyre-Beira.....	565	(rail and boat)
Beira-Lourenco Marques.....	874	(sea)
Lourenco Marques - Joh'burg.....	634	(rail)
Jo'burg -Pretoria-Jo'burg,,.....	145	(rail)
Jo'burg-King Williams Town.....	1078	(do)
K.W.T.-Alice-K.W.T.....	148	(do)
K.W.T. East London.....	68	(do)
Touring in South Africa.....	368	(car and march)
East London-Southampton.....	12408	(sea)
Southampton-Nottingham.....	322	(rail)
	<u>TOTAL:20250 KMS.</u>	or 12600 M.

Total Marching.....	2620 Kms.
do. Car.....	538
do. Railway.....	3008
do. Lake & River.....	802
do. Sea.....	13282 (7173 naut.miles)
<u>TOTAL.....</u>	<u>20250 KMS.</u>