DIARY OF THE NYASA EXPEDITION.

1925 - 1926.

The necessity of having to keep very detailed notes on all geographical features during the whole period of the survey, i.e. until the middle of February 1926, when we embarked at the north end of Lake Nyasa for our long journey home, makes it superfluous to recount all that I saw and learned during this most interesting of all my many voyages. The "Daily Notes", together with my long official report, to which they form an appendix, will always remain the chief and most important record of these wanderings.

But the period covered by them is, I feel, one that has in quite an exceptional degree influenced my life in more than one way, so that the diary of my geographical experience must be supplemented by an outline, at least, of the more personal happenings.

In attempting to put these latter together in a readable form, I can fall back on numerous jottings in my note book, entered on the spur of the moment and thus retaining the original freshness of the first impressions. From the 19th February onwards, that is from the date when my official mission ceased and I commenced travelling homeward through Nyasa Land and Portuguese East Africa, the "Daily Notes" were discontinued. Such items of geographical observation, therefore, as offered themselves to me on this homeward journey through new countries will be embodied in the present diary.

I. THE RECONNAISSANCE SURVEY: 13th. JULY, 1925 - 18th, FEBRUARY, 1926.

15th JULY, 1925, NGERENGERE. For years I have worked to make this expedition possible. And at last I have been able to persuade the powers that be that it is essential, before anything definite can be decided with regard to railway extensions in this Territory. Eva, of course, is with me, and for Assistant I have chosen Norton who has proved useful for several years in the office and who seems to have the powerful physique required by anyone who has to traverse the bush with me on survey. I feel up to the task the magnitude of which I have fully realised. And I am departing tomorrow with the intention of running a Reconnaissance which, for width of scope, for due consideration of the geographical in addition to the purely technical element, and for the scientific analysis of the problems involved, is going to revolut[illegible] East African railway surveying. I am not going to s[illegible] fatigue of brain or body; and I want to come out of this as the recognized authority on all matters concerning railway surveys in this part of the world. In addition I promise myself a great deal of that infinite joy which the loving and close study of natural phenomena always has in store for me, and I am looking forward to the overcoming of many an obstacle in the course of a job which alone, now-a-days, covers the term "a man's job".

What preparation has been possible in the office has been made, my predecessors' work has been duly consulted and I am ready to enter on the long trail, every step of which will take me over ground quite unknown to me.

My dear old Wanyamwezi have followed my call to a man, 121 of them under Alimasi, Mashua, Mataruma and Simba (who now calls himself Kizehe) not to forget Akilitumbo, a bit shaky by now, but still full of go, greeted me on the early morning of the 14th, as I stepped from my coach which had brought us up to Ngerengere from Daressalaam during the night. With them, with their pluck, staying-power and cheerfulness I trust I shall overcome all obstacles of the road, and I cannot imagine a finer, more loyal and reliable lot of men than these old friends of mine, many of whom date back from the time when I led my first great survey to the sources of the Nile, and a few of whom have been with me as early as 1908.

When we stepped into the train at 8 p.m. on the 13th July, we knew that we were turning our backs on Daressalaam for a year and a half at least. And though the breaking up of our home gave us the usual pangs, we felt it less this time, because we were thinking of glorious adventure, of new lands, new joys ahead.....

The loads are distributed among the men, the instruments are checked, the aneroid corrections determined, and though the weather is sultry and overcast and the long expected and long overdue trade-wind has not yet started blowing, I am ready to dive into the wilderness, to leave behind for some delightful months the blisses of civilisation; all, except Norton's gramophone which I had not the heart to stop him from taking. But, after all, the bush is wide and he can pitch his tent far enough to avoid spoiling the great silence or the manyfold intimate voices of the wilds.

25th JULY, 1925. KISAKI. We left Ngerengere soon after 6 a.m. on the 16th, and following the easterm and southern foot of the Uluguru Mountains, arrived here on the 23rd. It only took a day or two to get the large caravan going, and by now everything is working as smoothly on the road and in camp as if we had been together for weeks. No straggling, no disorder, clean and beautiful camps in readiness every day under the charge of Mataruma who travels a day ahead and rouses the local inhabitants, quick pitching and breaking of camps, in short an ideal "safari" already at this early stage.

The first day out, after a long march of 7 hours we camped in hilly country which screened the main mountains. Our guide for the day, an old peasant, tall, sinewy and screwed, then suddenly decided that he would attach himself to us to go in search of his mother (he himself must be well over 50, so one can imagine what his mother will be like!) "somewhere near Mahenge" where she had been dragged by some raiders in the early nineties. So I let him come, and very useful and pleasant he has turned out to be.

The second day we camped on the Ruvu where it breaks from the mighty mountains, the blue-black wall of which, with the fine pyramids of Muiniholo and Mkambaku flanking the distant Lukwangule, standing out clear from the evening sky, and where lions visited us at night. Then came an ideal camp in the festooned fringing forest by the clear tumbling waters of Msonge stream, a complete change of weather with a fine S.E. trade blowing away the haze and cooling the air, and a delightful march to Mvuha. From a shady, though somewhat dusty, camp under mango trees we saw the beautiful pyramid of Mkambaku, its flank rent by a deep notch valley and the scar of a great slip smooth and shining above the tumbled mass of debris at its foot. Compared to this noblest mountain of all Uluguru, the somewhat higher Lukwangule plateau looks insignificant

with its straight outlines in the heart of the mountain-mass to which the eroding forces have not yet penetrated. In the evening we went some kilometres up the valley to catch a glimpse of meadows and crags high up above a foreground of luxurient vegetation which seamed the broad, stately mountain stream. I longed for a day or two to push exploration further into this lovely mountain land, but the railway man's task leads him along the foot of mountains and he must be glad if he is permitted an occasional glance to those peaceful regions which lie secure against civilisation's inrush.

There was a lot of buffalo spoor and the beasts come out of the hills every night to graze in the native gardens.

The next march, down the Mvuha river, led through beautiful scenery - verdure - fringed swamps with cloud-capped hills and mountains for a background - to Tulo, with constant change of morphological detail and most interesting geological discoveries. Game was plentiful. An other shady camp, an other glorious view in the evening of misty mountains and a purple sky, and at night a snorting hippo from the river only a few yards away came up on the bank and closely inspected Eva's tent.

We wanted meat badly for the men, but a few hours' stalking in the early morning was unsuccessful in the high grass though we sighted wilderbeast and giraffe and zebra in fair numbers. A herd of graceful Swala we came upon quite unexpectedly and though they were near enough for a shot, I had not got the heart to murder one. Through endless bush-steppe, under an overcast sky and without a breath of air we marched the last two long stages westward to Kisaki, following the flat country of the Mgeta plain and crossing every now and then a clear mountain stream; but the grass was still too high and the bush too green to give us many views of the great mountain mass which towered on our right; and of the ranges which close in the Mgeta depression in the south we saw even less. The last two hours were dreary beyond description, the erstwhile flourishing district looked dead or dying, the former large plantations had reverted to bush in which elephant, to judge by their plentiful spoor, reign now supreme.

Our camp, close by the river under some magnificent ficus trees, was an agreeable surprise and soon we had settled for a few days' rest. For here the difficulties of organisation commenced as I had to prepare for food and water for the next fortnight's tacheometric work through an uninhabited wilderness. With the aid of Akida Leo, one of the old school, I got what I wanted from the mountain tribes, many loads of rice and quite a large flock of goats, and my water-diggers ahead have reported favourably.

Mr. Crissold, one of our well-known elephant hunters came in last evening (he travels about with a portable piano, by the way!) and this morning he took us to some hot springs by the foot of the southern scarp where we disturbed a rhino in its "Carlsbad cure" and where, with the aid of my plate of false teeth, I successfully exorcised the devils who are supposed to be guarding the springs of hot water bubbling out from little craters on the top of miniature sinter-cones.

The former German boma with its fruit gardens is decaying rapidly, chocked by the encroaching vegetation, the village is deserted, the indian dukas closed. A pitiful scene of desolation as a result of a vanishing population.

8th AUGUST, 1925, HIPPO SWAMP NEAR MGUNDA.

I shall never forget these anxious two weeks of tacheometric work across the Ruvu-Ruaha divide through the Kuyu river to the Kikundi Pass. A maze of ridges and deep notch valleys burried under a beautifully green but painfully dense bush and forest, a perpetual worry whether my food supplies would last and where to get fresh ones if they did n o t last; hard going all the time, never less than 9 and often more than 12 hours in the field. The Wanyamwezi, though not with what t h e y would call full bellies, were splendid, but often harassed by herds of elephant in their strenuous working of cutting our traverses through that impenetrable jungle and across the steep-sided ridges between the deeply eroded streams. Hot, close weather nearly all the time and an occasional drizzle to make things more pleasant still. But as relieving elements the wonderful extremely wild scenery, a beautiful camp near the pass from where between clusters of bamboo and out of the permanent shade of mighty trees we looked upon the mighty lump of Mt. Malundu with its fine outlines, its forest-covered slopes and valley-rented flanks, and an ample supply of water at least where we camped, though the working parties had to go through many hours of thirst. Progress was extremely slow and this, at the very beginning of the long task before me, was of course worrying to a degree, especially as the first experience of real hard bush-work showed me that Norton would require a good deal of breaking in if he is ever to be anything like a surveyor. He is willing enough and a good walker as long as he has a path and a village at the end of it. But pathless cutting through the bush, with elephant and buffalo and leopard about, seems to upset him to such an extent that attention to terrain and instrument is suffering.

From the lower reaches of the Kuyu valley, and especially from its embouchure into the plain, where one stands at a good distance from southern Uluguru, we often obtained glorious views, especially when its towering masses shone brightly in the evening sun, the topmost peaks and ranges in rosy light, the middle slope in darkening purple shades and the foot just dying in that last bright brilliance of the evening flash before the quickly falling shadows of night.

One Sunday I climbed Malundu Mt. to take bearings and to gaze over enormous stretches of uninhabited wilderness to the great wall of the East African Scarp in the west, to the Ruaha plain in the dim south, to the pale blue mass of the Ulugurus in the N.E. Wonderful hours of solitude they were, of intelligent contemplation of Natures beauty, of hard wrestling with the secrets of her morphological history. Only a few of my most trusted native followers, and at the end a nasty mountain buffalo to disturb my work of peace.

But now the job over Kikundi Pass is done, we are once more on the forward march and though two days Still lie between us and the promised land of plenty at the foot of the Scarp, we have just got enough rations to take us there. Tonight we lie in the bush by the shore of a small swamp or lake from where hippos came snorting in full day-light. The small village a few kilometres higher up at the western foot of Malundu, the only one in this vast uninhabited wilderness, belongs to some much degenerated descendants of old Wanyamwezi settlers, a stupid lot and hard-pressed to eke out a miserable existence.

11th AUGUST, 1925, KIDODI. With plenty of food, at the very foot of the Scarp, a day of rest for the men was indicated, although for the first time our camp, under some miserable trees, surrounded by that horrible nuisance the pupu bean whose lovely coloured velvety fruit covers one's skin with tiny itching fragments of hair at the slightest touch, and quite close to the dusty main road from Kilosa to Mahenge, was far from pleasant.

For me, of course, such "rest-days" mean nothing of the sort, for quite apart from the necessary shauris with the akidas or chiefs regarding questions of population and the organisation of the forward march - which entails questions of food, guides, auxiliaries etc, - my "rest-days" are one long strain of mental effort to sift, analyse and summarise the hundreds, nay thousands of details gathered during the last few days, details which cover so many fields. But only by most painstaking work in preparing detailed notes, can I hope to keep my brain clear for the long marches that lie ahead where my thoughts and power of observation must not be burdened, for the time being, with the memory of what lies behind.

Eva, by now, is giving me most useful assistance with the stationary instruments and the construction of the daily pressure and temperature diagrams, and from the beginning she has taken upon herself that not always pleasant, yet most essential daily duty, the sick-parade at 5 p.m., where timely attendance to sore feet is one of the most important functions in a caravan like ours. And the men respond most willingly, having grasped that it is all to their good. Besides they love their "Mama" for whose sake they will do anything and who, on many a long march on this as well as on former occasions, has won not only their confidence, but that admiration which comes so naturally to our Wanyamwezi wherever they see pluck and perseverance in face of the fatigues and obstacles of the road.

Our two marches from Mgunda to Kidodi led first down the monotonous flat bush-steppe of the broad Mshindazi valley where the only thing to delight the eye were occasional patches of bright flowers, and then across the sandstone and shale ridges of the Mshindasi-Rukembe divide, on whose eastern outliers we camped. Elephants were trumpeting all round in the evening and their paths had been the only possible lines of advance when, during the afternoon, I had pushed a lonely reconnaissance down towards the main valley..

Last night I climbed with Eva to the top of Kidodi hill from where we had a grand view over the country traversed west of Kikundi Pass, over the hills far east under a soft brown haze of dust, across the wide fertile plain at our feet and up to the wild slopes and ridges of the great scarp at our back.

16th AUGUST, 1925, TUNDU. On the 13th I pushed northwards on a long and strenuous reconnaissance through the beautiful deep gorge of the Ruhembe; difficult ground but most interesting morphologically and geologically; and after weeks of luxuriant green bush slept once more surrounded by the barren steppe which stretched far north into the wide gap of the Wami plain, flanked by the central scarp close at hand and by the blue heights of Uluguru in the dim distance. On the 14th I returned and picked up the rest of

the party at this delightful camp where our tents stand between great rocks at the foot of a waterfall by which a fine mountain stream takes its final leap from a narrow valley into the plain. The temptation to penetrate into the mountain-land above us was irresistible and as I wanted distant bearings for my map and also wished to see how the mountain tribes live, I decided to recuperate for a day or two from the strenuous routine and to go for a climb.

Mt. Yunge, the highest rocky peak north of the Ruaha, was our goal. Poor Eva, not yet quite broken in for such a task, had to work hard once we had left the lower valley and had started traversing the shadeless and exceedingly steep slopes of its wide cirque, Slopes interrupted by rocky sills over which streamlets tumbled in thread-like falls, and surmounted by the higher ridges culminating in the great rocky dome of Yunge. But bravely she panted on, herwill unshaken, her superfluous tissue gradually thinning down into hard sinews and after a well deserved rest and a wonderful midday's meal in a shady nook at the lower edge of the mountain forest, we all reached camp betimes to enjoy basking in the gradually cooling afternoon's sun, drinking delicious water from a crystal mountain stream and breathing the bracing air. The camp stood right at the foot of Yunge's rocky walls, on a little meadow surrounded by stately forest trees. And what a view we had from there! How wonderful the play of colours, subdued most of them, so high were we above, yet bright enough, just bright enough, to distinguish varying tints. White rock and dark forest close by, then on either side the ridges dropping away from us, and fading from green into greyish brown the lower they became. Deep valleys between and both valleys and ridges running out into the smoky plain far, far below where the broad silver band of the Ruaha meandered into the darkening eastern horizon.

After a cold night an hour's stiff climbing brought us to the summit through a dense undergrowth of bracken and heather. Tearing clouds prevented an uninterrupted panorama, but between the ever shifting masses we got delightful pictures of the fascinating mountain-land around us, its deep gorges its vigorously dissected ridges, its wide pastures studded with native villages; to say nothing of the great rocky range soaring up from the great Ruaha gorge to form its southern wall.

At 9 a.m. we turned valley-wards, slowly we descended, picking flowers and chipping rocks, stopping where we liked in real holiday mood. At a little mission station halfway down we lunched with the hospitable though somewhat fanatic father - a Dutchman who rolled his frenchrs in wonderful fashion - and returned to camp and the heat of the plain in the early afternoon, with lungs full of mountain air and hearts full of joy,.

23rd, AUGUST, 1925, RUAHA EMBOUCHURE. A short march on the 17th took us to this place, geographically one of the most interesting in East Africa. For here the country's longest river, whose sources lie only a few kilometres north of Lake Nyasa, breaks from the scarp in an impassable gorge, winds its way a c r o s s, instead of down the wide plain in order to resume a tortuous course eastward. A great unsolved problem of morphology. We made a camp a kilometre or so away from the foot of the mountains, out on the sandy debris cone at the edge of the great stream, from where we had a fine view into the lower gorge and on to the rugged slopes which flank it. Tacheome-

trical work detained us for several days, during two of which I pushed into the uninhabited wilderness of the lower Msindasi-Ruhembe depression. What a fight it was against grass and thorn and pupu-bean. Even my Wanyamwezi kept silent for hours at a time, perhaps the surest sign this silence, that things were bad. Andthe uncertainty whether our guides - both old elephant hunters - would find the promised water, did not increase the joys of the first day. They d i d find it, but unfortunately it lay much out of the route which I ought to have followed to gain my goal and so I had to retrace my steps after one of the hardest fights I have ever experienced against the African bush. Still, I came back with most, if not all the information I had set out to gain, and in addition I have obtained the much more valuable certainty that my fellows will go a n y w h e r e as long as I lead them.

The steppe, with its towering mountain background, the broad river, the water-fowl, the sunsets and better still the sun-rises, it was all so wonderfully, so typically african, at that camp on the Ruaha. Punting down the river in a canoe - not easy at this time of low water - or scrambling up the rocky gorge, between precipitous cliffs, clothed in the golden yellow of autumnal bamboo, to pay a visit to a family of hippo who lived in a large deep quiet pool right at the foot of the foaming cascades of the lowest cataracts, playful things that would push out their tiny pink ears first, their ugly fleshy lips a few moments later, and finally their whole heads and as much of their monstrous bodies as they deemed advisable. For they did not know that we had come, Eva and I, to watch them merely in the grandeur of their environment and that nothing was further removed from our thoughts than gaining a cheap victory over them with deadly rifles. For that they had to wait till the "sportsmen" came a few days later, K.A.R. officers on transfer with a half-batallion of soldiers, who having marched in the opposite direction on our road, will probably increase my difficulties of obtaining sufficient food for my own men.

27th. AUGUST, 1925, LIKWAMBI. Three short stages of about 16 Kms. each took us along the foot of the Scarp to its south-easter corner. Short stages as far as distances go, but very, very long ones if one considers the infinite detail of the ground which my poor brain had to take in, to digest, to analyse. But the country is grand, in its combination of plain and mountain, or bush and forest, with its countless tumbling mountain streams, its villages and fields.

This morning I spent a few hours of rest on the hill which still carries the ruins of the old german heliograph-station, during which I sketched the panorama of the southern Scarp whilst waiting for the atmosphere to clear sufficiently for accurate bearings. From up there we also saw for the first time the mighty alluvial plain of the Kilombero, endless flat country, seamed by high mountains and beyond it in the south, the island-horst of the Mahenge hills. All new to me, as every step, every corner I turn on this wonderful "safari", but all so full of problems, of unanswered, unanswerable questions! For only a detailed topographical and geological survey, for which in these days of oportunism no money is forthcoming, could provide the detailed information on which to base the solutions of so many tectonic problems. I am daily more convinced as I trace my steps through this part of the old continent, that here lie many of the riddles of the earth's history.

From Norton I get practically no help, as not only has he no sense of topography whatever, but his bodily strength and staying power are far less than what his outward appearance had made me believe. It becomes daily more obvious that he is, as a lady put it in Daressalaam some time ago, suffering from "arrested development", poor boy; but it would be easier to put up with all these shortcomings and to keep on hoping for a gradual improvement if the remarkable quantities of food, chiefly meat and starch and eggs (for he hates fresh pawpaws, and is afraid to touch tinned fruit) that he devoures three times a day, did not make him smell so abominably from the mouth, that one has got to be constantly on the alert to keep to the lee of him. How, without the assistance that I had reckoned on, I am going to finish my task in time, is a worrying thought, but I cannot very well work more than 13-14 hours day after day, without interruption.

29th AUGUST, 1925, IFAKARA. Two short and easy marches during which my brain had time to rest a bit, so simple was the topography, brought us to this old trading settlement in the middle of the Kilombero plain, where a dense native population clusters round a number of indian dukes and a massively constructed R.C. mission station, of red brick and with a flat-topped tower. Surrounded by vast permanent swamps the place is reputed to be most unhealthy, but is of course a necessary settlement as here the great trade route to Mahenge crosses the mighty river and the water-routes from the fertile plain converge. The first march from Likwambi landed us at a waterless camp. So typically african! Here, on the very edge of the greatest inundation plain of the territory, I must send my men 3 kms. to the only miserable water-hole now in the dry season whilst a few weeks ago the road was possibly impassable through floods!

We are camping as usual far away from the recognised camping grounds which are infested with tick; we have chosen the old German cemetery, under huge shady mango-trees, where it is quite cool and where, thus far, we have noticed very little of the mosquitoes which must abound in this neighbourhood. I had all the Indians and crowds of native traders and peasants round me this morning and thrashed out with them the potentialities of their great plain. But though they are optimistic, I believe they, as well as the German and British enthusiasts who have written so much on the untold wealth of the Kilombero, are much mistaken. However, we shall see more of it anon. In the meantime I had some instructive insight into "old history". For Bilali, the old peasant who has come with us all the way from Lubungo, h a s discovered not only his mother, a wrinkled old hag of 70-80, but also his sister who had been dragged away by raiding Mafitis in about 1885. And I have engaged a guide, a tall hook-nosed specimen of an old elephant hunter, who has many yarns to tell of the "good old days" when ivory was produced by large packs of native hunters.

3rd SEPTEMBER, 1925, MAHENGE. This detour is quite a little holiday, for though it meant long hot marches, the fact that the route lies off the proposed railway line, relieved the mental strain of constant attention to the minutest details of topography. In the morning of the 30th

Then a monotonous march through uninhabited pori over the flat expanse of grey sun-baked clay or ankledeep sand, brought us to a miserable camp in sparse, shadeless savannah forest just on the southern edge of the great inundation area. The next stage, an exceptionally long one, mostly in, or on the slopes of, the Luri valley where an occasional blue-green paddy-field gave colour to the bleak scorched or burnt surroundings, ended on a little spur overlooking the little settlement of Fimbo;s. From here we had the first fine view of the Mahenge mountains though to speak of their "feingeschwungene Linien" as German travellers were wont to do, seemed to me exaggerated. The long march had finished Norton entirely and to make things worse he went and acted the martyr, the o n e thing which neither Eva nor I will understand and stand, and which succeeded in undermining even Eva's long-suffering sympathy. The third day started with long stretches through narrowing valleys where pleasant green once more relieved the eye, then followed markedly hilly ground to the foot of the Horst proper, with much interesting geology and more wrong topography on the official map, after that a steep and hot ascent along the marble cliff of the plateau, and finally the last few miles over the rolling upland where we shivered in the bracing mountain air, to the old Boma and its old garden among the grotesquely weathered limestone crags.
The Trevors received us hospitably and a roomy mud-hut with fires burning affords protection against the driving mists and the unaccustomed low temperature. The men are well-fed and content and I felt that two days of rest were the minimum after the exertions of the last 6 weeks. So we enjoyed the pleasant (though by no means "hochromantisch", as the Germans would have it) mountain scenery, strolled up one afternoon to Mbulu Hill high above the plateau, where from a bed of bracken one has a wide hazy view over grassy uplands, over the brownish-grey foothills, the wide plain and to the faint outlines of the mighty Scarp beyond; called one morning on the charming Swiss Benedictins of the Catholic mission, where in the company of a dear old monk, fat and beaming as if cut out of an ancient painting, we tasted excellent coffee and the nuns' brown bread and wild mountain honey; talked with them of the natives and of Switzerland, and also of the funny fact that throughout East Africa the roman missions consider lightning conductors if not safer than, yet an advisable helpmate to, Providence! And all the while Norton played his grammophone and nursed his little blisters and his heroic soul.

8th SEPTEMBER, 1925, IFAKARA. After a bitterly cold night we descended on the 4th from the cool green heights to the hot scorched foot-hills, we traced our steps back, sleeping the second night at the village of Sultan Kalimoto, where we had shady trees but many mosquitoes from the neighbouring paddy-fields and starting early on the 6th did the last 30 kms. in one stage, 24 of which b e f o r e breakfast. We lunched that day with the Swiss padres from whom I gathered much information. The following day was one of the most strenuous so far, a long reconnaissance march alone, with my mountain followers, Magazini, Kazimoto, Selimani and one or two others; through densely populated fore-land to the foot-hills (where I had to murder a beautiful zebra to get meat for the men) and then a steep scramble over the screes and rocky flanks of Litura Hill to a point of vantage from where I saw

the whole vast plain spread like a map below, where I drew, with 38½ C.G. in the shade, a panorama of the middle scarp, whilst a herd of 16 or 17 buffalo grazed and wallowed in a swamp a little further down at the foot of the hill. The sun was down when I reached camp, for I had lingered long in the cool shade by the Lumemo river, where it breaks from the hills and where I had dipped my head into its clear water before gulping down cup after cup of refreshing tea.

12th, SEPTEMBER, 1925, LONDO. On the 9th we left Ifakara to dive into the middle Kilombero with a caravan somewhat increased by a number of fair ladies whose hearts my Wanyamwezi had conquered. Although I know that sooner or later this female element will mean trouble, I let them come for the men have deserved every bit of pleasure, and everything that makes their hard work easier. Though the country in its flatness and with its dreary change from wide lobes of grass-steppe to endless miles of dried-up bush was far from attractive, our camps, under magnificent trees close by the edge of some of the larger tributaries, were delightful, and every afternoon I went to some dominating foot-hill to take bearings and to sketch. All this means, of course, hard going (over 37 kms. e.g. on the 10th.) and strenuous work through elephant jungle, through thorn and over scree-strewn slopes. But the views one gets amply repay for long hours of toil. A pity only that the days are so short and that long before one has drunk in half of its beauty the country fades into darkness and a long twisting path with all sorts of surprises from river swamp or beast still separates one from camp. The finest view I had from Nongwa ridge up the Ruipa valley, where the mighty scarp under a slightly clouded sky, with a straight upper edge and without prominent peaks, formed a wonderful frame to the green tangle of foot-hills and the immense flat plain. It is this variety of detail, this juxtaposition of every conceivable form of topography and vegetation which makes this part of East Africa so different from those uniform peneplains of which the bulk of its mass consists. And this variety affords also agreeable changes of the march: Long days through steppes alternate with excursions to the highest mountains where, in a few hours one is lifted into quite a different world. And on one such trip we shall embark tomorrow to study a possible alignment for a road down the scarp from the Iringa Plateau.

16th SEPTEMBER, 1925, MGETA VALLEY. We are back from our lofty heights, Eva and I, and sitting by the tumbling waters of the Mgeta stream right down in the depth of its gorge-like valley. On the 13th we had climbed the foot-hills, had lain in a sunny camp amidst fine mountain scenery, and had traced the morrow's path on the sunlit slopes of the main scarp. On the 14th we had first dipped down again into the Mgeta valley and then commenced the stiff climb to the Mgeta-Muhanga divide. This time Eva with limbs of steel and well-trained lungs came up with ease and we had a wonderful afternoon and evening in glorious sunshine far above the rolling mists on a solitary little grassy hill, with patches of the most gorgeous mountain forest around, with deep ravines and range upon range of wooded mountains on all sides.

And above all, we were a l o n e; Norton had preferred the camp in the valley and his gramophone (in spite of his fears of the "murderous" (sic!) Wahehe) to the purging climb per aspera ad astra, thank God. It was too wonderful, this mountain scenery, this loneliness this bracing atmosphere, and besides we had not quite reached the highest ridge, had not yet looked beyond it onto the rolling uplands of Uhehe. So we decided to grant ourselves an other day of bliss, during which after having set out in dense fog, we reached Kisawla, the highest point of the Kilombero-Ruaha divide, by many steep ups and downs through the loveliest of mountain sceneries. Beautiful forest alternates with meadows, sluggish senile plateau streams with tumbling water-falls, wide erosive cirques, surmounted by bold rocky eminences, with straight-lined stately ridges. Flowers galore and over all a deep blue sky, a proper mountain sky, and golden sun. And every now and then, down some wild valley-notch, a glimpse of the sweltering Kilombero plain, far below, a contrast which did much to increase our gratitude to an extremely kind fate which had brought us to stare at all these wonders of Nature at her best.

A second evening and night at our mountain camp, once more an opportunity for watching the creeping mists steal over the slopes as the bright sun-light lifted from them, slowly but steadily, once more those million stars which nowhere else one sees so clear as from some high point near the equator. We had a very carefully thought-out dinner that night with a drop of wine to celebrate (in advance) Eva's birthday, and then I crawled under my furs.

Today we took it very easy and came down slowly through the mountain forest, drinking in as much as we could of its beauty and pure crisp air before diving into the low-lands where our work lies. And gradually I conceive the tectonic details of this great fault-line that we have now followed for many hundred kilometres. I can trace its fault-steppes, its cycles; but I must wait till my map is completed before putting together my fragmentary conceptions into a reasonable whole.

23rd SEPTEMBER, 1925, KIHANZI. We have come to the end of the Great Scarp. This huge feature on the face of the earth, which for nearly six weeks has towered above us, has dictated our way, has inspired us with its everlasting, everchanging beauty, turns now sharply westward to be swallowed up in the great escarpment with its thousands of rivers and gorges which unite to form the Kilombero. And as if to emphasize once more its inborn nature, its characteristic as a line of "drop", it displays just at its last great bend its finest effort in the shape of the voluminous and tall Kihanzi Falls and in the deeply carved valley down which they shoot. Time did not permit of exploring the whole length of this steep valley, especially as the volume of tearing water made it out of the question to cross and recross the stream whenever the precipitous nature of the cliff on one side or the other made this necessary. So I only reached the lowest, much smaller falls.

From the Mgeta valley through which we marched for an hour on the 17th, with its Raphia palms and stately stream tumbling over a rocky bed, we climbed up to the little Mogo plateau, a pleasant land of banana groves. And from its eastern edge descended on steep and slippery path first through the gorge and then through

the more open valley of the Chombe to the friendly Italian padres who occupy a small mission station at its embouchure. They are doing a lot of medical work and are both thoroughly trained doctors. They also wear out their old military uniforms and looked more like elephant-hunters than priests. But it was a most agreeable change to talk to them. The constantly changing scenery and the cool air were exhilarating and more tectonic certainties were revealed. The next day was a long march for Nobton and myself 37 kms) most of it in drizzling rain and over slippery swampy ground of the Mgeta delta, and when we did reach camp at last at about 2 p.m. we had to entertain our missionary friends who had come over to the camp, only a few kilometres across the Mgeta, which Eva had established whilst we had been on a long northern detour to connect with our former route.

On the following day (the 19th) we were soaked to the skin in a 2½ hours' march during which we saw nothing of the scarp, but had to wade not less than 16 tossing and ice-cold mountain streams. Everyone arrived at camp, beautifully situated at the mouth of a rocky gorge with boulders and huge trees, in a pitiful state and the first thing for me to do was to bring Alimasi's three babies who, with their mother, have behaved marvellously throughout our long safari, to my fire and give them tea. Whether they got much comfort on my dripping wet knees is another question. However, as usual, the sum came out in the afternoon though not quite long enough to dry all our things. So we stopped next day to continue our drying efforts, and because the camp was really so beautiful. And in the afternoon I climbed a high peak above from where I obtained a vast and instructive view over the upper Kilombero and southwards along the main scarp, as also into the upper rock-flanked Kule gorge. Every morphological feature cries "Fault Scarp".

The next morning was again rainy so that we started late, but though wet, the march was fine along the very steep and little carved main scarp with its many silvery waterfalls, and it ended in a shady camp on the edge of the Chita swamps. Yesterday was another drizzly day rounding the foot of the beautiful rock pyramid of Mgongo, of which we did not see half enough owing to shifting clouds, then through the village of Makus, with its be-widowed harem and to a delightful camp at the foot of the Ngongo range, under beautiful brachystegias and with a good view southwards across the wide Kihanzi swamps.

30th SEPTEMBER, 1925, RUHUJE CROSSING. Here we are at last. The Kilombero, that "murderous" plain, has been traversed throughout its length without a single day of illness, if one excepts a chill from which I am just recovering and which, yesterday, for an hour or two looked as if it might develop into pneumonia. Not a single case of tick-fever among the men, of which I am mighty proud for it shows that discipline is excellent and the tents I chose for them of the right sort. Tomorrow we shall start into the quite unknown, into that mysterious Pitu valley which on the maps looks so simple but about which, even here at its very mouth, I cannot obtain any but the vaguest information. But what little I have gathered all points very distinctly towards great difficulties, so that the next few weeks will be anything but a joy-ride!

the march from the Kihanzi to the Ruhuje, through what I have called "the East African Punjab",i.e. the region where the five great head-waters of the Kilombero break from the mountains and are building up the wide alluvial plain with its swamps, its river arms its half-submerged villages of fishermen, a march which took us 6 days, led all the way through "senile" country. That meant comparative rest for the brain for the topography was simple and the continuous and monotonous Myombo savannah which covers it made in any case impossible to grasp more of it than the great outlines. I was thankful that the country is by no means as swampy as the existing very poor maps had led one to believe, that on the contrary, there are low ridges, very much denuded, which allow of a line to be taken practically all the way over dry ground. The only interruption in this monotony of low ridge and flat buga were the banana-groves of the Mpanga valley - first sighted from the ruins of the Sultans former "palace" which he has evacuated in order to get a little further away from the, probably trying, vicinity of a newly founded mission village. In them, close by the stately waters of the Mpanga River, we had a wonderfully cosy camp, so cosy indeed that we decided to rest a day and celebrate Eva's birthday there; especially as it was so much in contrast with the miserable, filthy camping ground we had had the night before by the stagnating Kitemera. A poor crippled boy came crawling to my tent and I shall never forget that happy smile on his little black face when I gave him an old shirt. I have other very pleasant remembrances of that Mpanga camp, where I conversed for long hours with Sultan Kiwanga, a real nobleman, keen, intelligent, one of the rare type that one would like to see more often entrusted with responsible positions. Next morning he took us to his new palace to introduce us to his "queen". A roomy well-built place on a hill-top with a fine view over the hilly foreground to the far distant scarp from which, even at this distance one could distinctly see the hugefoaming masses of the Kihanzi falls. The funnel-shaped embouchure of the Mpanga valley lay at our feet, then came the endless stretches of green swamp of the wide plain and beyond, in the East, under the oblique rays of the morning sun shooting out from menancing clouds, I spotted a whole country of mountains where the map merely shows two graceful form-lines! We also had fresh lettuces and beans, what a blessing.

We did not go far that day for a drizzle set in and I felt a bit shaky with my chill which had been brought about by the last two weeks of rainy weather; and altogether that morning I felt that I simply m u s t slow down, that I could not keep up the horrible working pace of the last 3 - 4 weeks.

On the 28th we reached the Mnyera River, after having skirted great papyrus swamps with large patches of open water where the scenery reminded me of the upper Lualaba. Under a fine old sycamore we camped and went up the river by canoe in the afternoon to establish connections with an old german survey. It is a fine river and beautiful bushes grow on its steep banks, spreading out broad branches over the water so that one travels under a continuous bower of green. We saw much water-fowl and a golden-green earth-swallow which builds its nests into the clayey banks.

Yesterday we crossed low hills into the Ruhuje valley on the northern shore of which we camped without shade as the canoes ordered several days ahead had not turned up. I was not myself, my chest pained and things

This morning, however, the canoes were ready the excuse being that owing to low water the men had difficulties to bring them up. And miserable small leaky things they were, too. But we lashed them together, two and two, into what our cheerful Wanyamwezi called "man-o-wari" and crossed to the other side where we got shade. the promised food also arrived and the auxiliaries to carry it, so that I have "hakiba" for at least 6 days; a guide, plus assistant, also turned up and promised to take us up the Pitu valley as far as it was populated. So I could sit down once more with an easy mind and write my summing up of the Kilombero plain with 35 C.G. in the shade! (The variation in 12 hours, today, had been full 20 degrees, from 14 at 5 a.m. to 34 at 5 p.m.). And now I am ready to plunge into the Pitu Valley and to lift the veil of mystery.

15th OCTOBER, 1925, RUFIJI-NYASA DIVIDE.

We have explored the Pitu Valley to its bitter end, have crossed the divide and are camping a few kilometres down on the Nyasa side by the tiny dribble over mossy sandstone of one of the Rutukira's headwaters. What a fortnight it has been! For me continuous hard work, day after day and more than once I thought my poor overstrained brain would give way. I had reached that stage where rest would have been of no avail, for any delay would have worried and strained me even more than progress, however slow. But my frame stood it, my constitution reacted every time and with Eva's soothing help I got through. What I regret now is that I have had far too little time to enjoy the wild beauty as such. My topographical work demanded every minute's attention and, although of course much of the beauty settled in me together with the topographical detail I missed those quiet hours of contemplation, of purely emotion-al intercourse with Nature, free from intellectual interruptions. The reason for this hurry was the scarcity of food. I simply d a r e d not go slower (the progress was alow enough in any case!) to say nothing of rest, for fear that the scanty population which lived far away on the heights, could not keep my 150 men for more than a day. So I had to keep moving, moving, moving and draw on a fresh village every night. Had it not been for Rupia, a wonderful fellow whom Longland had sent me, whom I met at the border of the Songea district and who seemed to know every headman for dozens of miles around, I really do not know how we would have got through. But this young askari would lie down at night by the lamp, would scribble one "barua" after the other, and sure enough next day a long string of women would descend from God knows where and would find our camp in the pathless wilderness. I cannot say that we gorged ourselves, but there was always just enough to go round; and though the food (mostly "ulezi") was not exactly to their liking and during the first few days proved difficult to digest after the days of rice and chicken in plenty of the upper Kilombero, my dear Wanyamwezi pulled through wonderfully. How they got our loads through those gorges, across the hundreds of gullies, along the countless miles of narrow elephant path (the only available) I do not know. But they did it, and in camp their laughter never ceased and they, the children of the dry savannah, had the time of their lives splashing and bathing in the shallow rivers where there was no longer any danger from crocs. As Eva put it, they were having a veritable "Badereise".

Eva was simply splendid; but then, I am so utterly spoilt that I never even dream of her n o t being splendid. She has long ago given up her chair for which these river-gorges with their elephant tracks had no room. She had to walk every step, to ford every stream just like I and everybody else. In addition she had to keep us fed and how she managed to give us any variety of food at all, I do not know (but it is time that our old cook got a word of praise for he, too, worked wonderfully, and so did his little dandy wife, a beauty from the coast who followed her old bear of a husband and kept him smiling). Arrived in camp Eva would immediately sit down and start on her dainty needle-work, embroidering frocks for the journey home. She must have suffered often on the rough road, for her boots were going fast and I have seen most horrible blisters on her feet. And often the marbles were long and hot, and she must have worried too, about me. And in spite of all, I never heard a single complaint from her, I never saw those sparkling eyes relax their encouraging smiles. The men simply worshipped her and in their clumsy way did everything to smooth her way, to help her up and down the slippers path in a manner that was often touching. So, considering the state of strain due to overwork that I was in and seeing how she with her cheerful pluck helped me on, it is no exaggeration to say that it was EVA who got us through the Pitu.

From her down to the cook's wife and Alimasi's tiny baby not one soul in that big crowd failed me during those tying days, except Norton. All he did was a few hours of computation in the afternoon, the rest of the day he was not only of no help but he was a drag. He lived in a perpetual funk, trembling for his miserable life, he even gave up playing the gramophone. But when, one morning at breakfast, in Eva's presence, he broke down in tears because he was going to die from "gangrene" (he had a toe a little swollen, owing to a neglected or rather over-treated jigger), I gave him such a telling off that he saw there was not the slightest hope for sympathy from me, and that improved matters a little. Inwardly I am sorry for him but outwardly I m u s t be frightful. It is the only way to push him on, and if I leave him to his hypochondria he might, one day, peg out from sheer funk.

The first march was easy and ended in a beautiful sycamore camp whose shade was very welcome for it was again a dreadfully hot day with the temperature in the shade at 3 p.m. 33 C.G, that of the ground in the sun 52 and that of the r u n n i n g water in the river 29. But in the evening we had the first thunderstorm (promptly with full-moon). This is a full month sooner than expected and two months sooner than hoped for. Shall we at least reach the lake before the rains set in?

The second night we slept at the first cataract; a bush-camp in uninhabited wilderness, burried in dry grass, shadeless, no view, but the river close by. And then the difficulties of march and survey began. The valley closed in and going became heavy. The devil only knows how the German party of 1911 came to the conclusions laid down in their report and map. Everything is wrong and misleading. But for two days, that is to the last small settlement at Nyamuhanga, there was at least a path of sorts. But at Nyamuhanga the quide calmly informed me that here the path had come to an end. Very well, I said produce a guide who will take us on w i t h o u t a path. Whereupon I developed a bad tummy. We camped on the sand of the high-water bed of the river, the only bit of level ground.

Having breakfasted on a spoon of castor-oil I dived the following morning into the deep gorge of the Pitu River which here literally bars progress even mfor porters. Ten or twelve of my best men were with me and we were guided by a youngster of about 13 years (or less) who had just come back from a long safari to Lindi and knew the gorge and lateral hills from former youthful rambles after wild honey. He was a stout little fellow and soon gained my admiration. Crossing and recrossing the foaming stream, jumping often from boulder to boulder in midstream as the shores were too steep to be traversed, we got somehow to the steepest middle portion of the gorge where cataracts between sheer rocks bid us stop. So we came back across the mountains, pitilessly steep and tiring. But I had seen what I wanted, I had got all my heigh-ts and bearings and I was satisfied that a line is possible. But what a line it will be! Where even the first reconnaissance wants "grim determination" one can just imagine what the detailed survey and construction will ask of the men employed on them. Government officials will not do it. Maxwells young R.E.s will likewise not do it; some of them may have the grit, but they will lack experience. For a long distance high up in the hills, we followed a distinct baboon-track, a new experience to me, and we got back to camp late in the afternoon dead tired

Following what we were now accustomed to term our dearest friends, the elephants, the whole caravan scrambled over a lateral high notch in the great mountain chain (a big chain which appears on no map) and reached the valley-gorge again just above the short cataract stretch, whereby I established my connection with the day before. Here it was, in a wonderful camp between huge boulders hard by the foaming waters, that Norton's poor soul gave way, and that Eva brought colour to the gloomy scenery of the mountain wilderness by spreading her gayly tinted evening frocks which had dropped into the river, over the stones.

The next march was short owing to Norton's incredibly effeminate behaviour (Eva will forgive the expression), but though I was furious at first about the delay when I found camp pitched only a few kilometres further up the valley, I soon realised that we had come to the end of the gorge; and later on I was overjoyed, for the usual afternoon's climb to a dominating height brought me into the contact zone between the archaic rock and the, probably, cretaceous sedimentary formation which opened up quite new vistas regarding the geological history of this region and of the great river itself. So everything has its good.

On the following day, the 8th October, I tried to force 15 kms, but it's no good. The mental strain of this most intricate topography is too great and I must go slowly if I want to produce my best. So we camped half-way, the third camp in the absolute wilderness, under the biggest fig tree I have ever seen. By now the perpetual steep sides of deep valleys had become most oppressive and I was longing for wide horizons, open country, divides and plateaus! The next short stage, still relying entirely on elephant tracks, brought us over horribly cut-up ground to a cramped camp in the now burnt and stunted bush by the side of the dwindling river in the ripples of whose water Venus was mirrored at night whilst she shone yellow from a sky tinted red with the reflection from the bush fires which now raged all round. That night I wrote: For 13-14 hours everyday every moment is filled with concentration on the great

problem and every muscle strained to help me to get at a correct solution. Shall I be justified to recommend so expensive a line to open up so very poor country? But the bamboo in its autumn tints, the hope to be out of it soon, to get to the "divide" at last, acted soothingly and every night I slept peacefully and sound.

It was the next day that brought us to the end of the Pitu valley, and I was proud, for everyone was safe and well, and every one cheerful, except Norton whom I ignore. A tough task has been done through careful organisation and relentless determination. We were camping at the Mamtete confluence only 1 hour from a village - an actual village. - and a hyena was yelling in the evening, a wellcome sign that we have left the uninhabited wilderness. A day of rest was indicated, after which we made straight for the divide now close at hand. But to reach it still required two hard days over the roughest ground, necessitating long walks and climbs through a maze of valleys and over countless ridges. And when after a great day's effort I reached camp on the 13th, full of joy because I had actually taken my first bearings to the divide itself, I found a runner with official mail, containing a reply from the Crown Agents about my lugged sleeper memorandum and the bitter news that Maxwell had given in without a further chance to fight the battle of science against ignorance and conservatism. I was not even asked to reply. However, there was also Maxwell's reconnaissance report, a somewhat amusing document which did a good deal to cheer me up.

Then, yesterday and today, came the final exploration of the great Rufiji-Nyasa Divide, covered by beautiful savannah forest, in all shades from the brightest green through yellow, orange, scarlet to purple. It was a wonderful day today in close study of the fascinating topography, ending in a glorious sunset, for months the first without a big mountain-wall in the west. And Norton too, now that we are "out of danger" was once more a good companion. All this combined to make me, if not forget, though at least ignore for the time being the shortsighted incompetence of those who try to run the Empire and to "play the game", the fundamentals of either they have never grasped. If they only knew what is really "a Man's job" they would be more careful and more grateful to those who d o the work.

Poor old Walters has died and I have lost a good, hard working, loyal clerk, the best Indian I have ever had to work with. ....

19th OCTOBER, 1925, RUTUKIRA-HANGA CONFLUENCE.

We have reached the Kanga, the Karroo and the end of the third division and are camping under shady trees in the high-water bed of the great sandy river by the famous motor road from Iringa to Songea. The descent down the Rutukira valley has taken us four days. Two picturesque bamboo camps in much flatter country where, after months, we actually got beef, long tedious marches along the meandering river, between the low spurs of a sandstone plateau; mists rising in the early morning, a cold damp atmosphere and then the orange-purple fireball over the low ridges. Down the ever-widening valley over weathered sandstone slopes, through swampy lateral tributaries and to a most delightful camp, yesterday, in the poplar-like fringing forest under a great cluster of Raphia palm, the latter being the only feature which spoilt the impression of an autumn day in Finland. The colouring of the Myombo on the hills is beautiful.

the flat easy topography of the valley reassuring and the only worry the absence of suitable building stone. A great erosive landscape, gentle, monotonous, wide, fascinating, and every now and then the rougher lines of an erosive cliff, white and brick-red, set in a frame of green. Already the great uninhabited mountain valleys lie far behind and once more I can breathe freer, can relax the perpetual strain of never-ending responsibilities, of ever-present problems of topography and food. And the blighters in Daressalaam! God bless them! What do t h e y know about a man's job with a man's soul in it, day and night and every minute? Those shopkeepers who think in L.s.d. utterly void of those great ideals which alone drive a man on to accomplish something worth accomplishing.

21st OCTOBER, 1925. I had hoped to celebrate today in ease and comfort at Songea, but the beastly motor-road is too sandy and long so that we camped some 11 Kms. north of the town overlooking a pleasant little vale from a grove of fine trees. It is 20 years today that I first landed in Daressalaam, twenty years of effort, work, often hard work - without any tangible results, as poor today, or poorer, in worldly goods than I was then. And yet - all my development is due to these twenty years of intimate contact with wild nature and this great safari, even if it too will be unsuccessful in the ordinary sense of the word, is a crowning episode in a period of my life which has produced a rich harvest of knowledge, a fair grasp of Nature's secrets, an embracing outlook on things of the Earth and Beyond. And is not the fact that I have H E R, my wife and companion, my "treue Gefaehrtin" (as Mama put it so nicely in one of her recent letters), worth a thousand times all the success of officeand business?

For the first time today since we left Ngerengere over three months ago, was I a bit way-worn. The sandy road and a good deal of bitterness, still the after-effect of the mail of a week ago, and which has to be fought down, are probably responsible for it. But I shall rest mind and muscles at Songea and get some vitamines, I hope, after the eternal meat and starch and beans. Not a blade of fresh green vegetable, not a single fruit for over a fortnight in this much praised land of Ungoni. The Granary, the wonder-land and wonder-people of the German writers, where are they? Myombo for ever and two miserable settlements in 50 kms. Is this land really worth developing with its drink-sodden idiots (of whom my guides of the last 10 days or so were remarkable specimens), and is this very costly railway justifiable?

26th OCTOBER, 1925. SONGEA. They were real rest days these 4½ at Songea. Vitamines galore, the necessary work easily spread out, and, chief of all, the company of our charming hosts, the Longlands with their two delightful children. A student of nature, a lover of the native, a fine and conscientious administrator, a careful geographer, what better man could I wish for a talk with and walk with through this fascinating landscape of Central Ungoni, with its wide views framed by rugged gneiss horsts, over the head valleys of the Rovuma and across a well populated open agricultural country?

We have so much in common with this little Longland family that we felt at home with them from the very beginning. And we spent a happy day with them climbing to the rock dome of Matogoro, from where we enjoyed an embracing view over a wonderful bit of Central Africa, from the vast steppe in the east to the distant Nyasa rand mountains and to the many-shaped ridges of the upper Rovuma basin.

30TH OCTOBER, 1925, RUTUKIRA RIVER. On Papa's 80th. birthday we started in a steady drizzle (after a thunder peal the night before) which lasted till after 9 a.m., sorry to leave the Longlands. In the afternoon the fine mountain ranges which surrounded us stood out brighter and more beautiful than ever in their bluish hues under great white cumuli. And the three next days, marching northwards across the carroo foreland of a great archaic ridge, brought us back into the Rutukira valley and to our work. From Sultan Usangira who, in his head-gear of swans down looked quite aristocratic and Zulu-like, I obtained at last a good specimen of the famous Wangoni wooden neck-rest (Msamiro). Shade is now becoming rare as the country is burnt and the karroo vegetation scant even in the best season; so that camps have to be squeezed somehow between the edge of the water and the few ever-green trees which follow the rivers in a very poor type of fringing forest. I am afraid the terms "unbearable", "puffed-up ape" and conceited beau" are pretty frequently exchanged between Eva and myself of late when talking of our dear companion. It seems such a pity that he is so utterly unfit for life in the bush.

At Songea where I had time to glance at a few back-numbers of the New Statesman (the first time on this expedition that I read anything not directly connected with my work) I found "sane thinking plus feeling" a very excellent translation for "sophrosyne".

1st NOVEMBER, 192, RUTUKIRA RIVER. Two days' lonely marching through the desolately burnt bush took me up to our Hanga camp and back, to establish connections. On the first day I marched for just over 8 hours and slept in a lonely camp under large trees just below the Hanga-Rutukira confluence with a fair eastern trade blowing still at 6 p.m. and the full moon rising over the wilderness. It was a hot, windy, burning day and I must confess to a certain amount of self-admiration and gratitude to Fate which allows me to stick all these fatigues as if I were 20 years younger, and gives me moral courage to cope with Yuma, my "pearl" whom, in a misguided moment I considered capable of filling Selimani's place during this expedition, for which the old fellow was no longer strong and fit enough. He is trying his best and is of robust health, but he i s most trying to one's nerves, packing and unpacking constantly as if he wanted to play Majong with my boots and socks. The pombe-sodden Wangoni guides, too, require a lot of "standing" and some of them I am afraid made frequent acquaintance with my stick today. I came back over hill and through dale, with the wind behind and the hot steppe in my face. I really ought to slow down a bit.

11th NOVEMBER, 1925, NGAKA-RUHUHU CONFLUENCE.

On the second we resumed at last our forward march down the Rutukira valley towards the Ruhuhu and in the afternoon sighted the great peak of Namtshweia for the first time, the beacon that, we knew, stood near our goal, the Lake. But we were still far from it especially as a lot of ground had to be investigated closely in an attempt to cut off the great northern bend of the Rutukira. For I saw that the existing man is entirely wrong, that the present drainage is full of weighty morphological problems and that, by following up certain theories which offered themselves regarding the history of that drainage, I would find a solution to the technical problem. To me, this point is of importance for it shows that the very considerable saving in length and cost of the line which I could at last effect during these last marches, are due entirely to scientific fundamentals; for had I looked at the situation from the technical point of view merely, it would never have struck me, as an engineer to leave the great valley which, prima facie, formed the only feasible solution.

Of course, as I marched on towards the Rutukira Ngaka divide I had to re-adjust and revise my conceptions continually and on more than one night had to lie down disappointed. But by zig-zaging backwards and forwards I finally succeeded not only in finding a very excellent short-cut, but, incidentally, obtained all the material to map a large so far quite un-known area correctly both with regard to its topography and its geological outlines.

On the 3rd we camped by the stagnating waters of the Mhimbasi where a practical joke of Eva's who had suggested that a certain kind of giant fly which inhabits the only available shade in the narrow fringing forest, was the spreader of elephantiasis, made Norton rush into slacks and a thick sweater at once although it was one of the hottest days we have had so far. And for days afterwards he kept stroking his legs and thighs to see if they were swelling. He gave up elephantiasis only when a bit of a sore throat led him to think that by swallowing he might infect his stomach and so, eventually, die from "ulcerated stomach"! I am n o t exaggerating and every word I have just put down is based on absolute fact. What c a n one do with such a fellow.

The 4th was a rest-day i.e. a day of writing and computing, and during breakfast we listened to the rattling noise of the great stiff Borassus fans in the morning wind.

The 5th, was a day of disaster owing to the, by now, only too common imbecility of the guides which led to 28 kms of strenuous marching as far as I was concerned and to a beautiful camp on a ridge - for once, after all these river camps of the last month - with a glorious view of the great massifs of west central Ungoni.

Then I left the party who descended straight down the precipitous slopes of the Ngaka valley and went "light on a long southern detour. Three loads and two instrument-men was all I took with me. For in order to cover distance I had to abandon the usual comforts of camp and my sleeping bag and the cook's small tent had to do. It was a disappointing march, topographically, for it brought me to the "snag" that I had feared all along. But when I lay down on the ground late in the evening under a threatening thunder-sky, I was determined to see

this matter through whatever it cost in time and effort. But I must hurry if I wish to reach the lake before the real wet weather will make surveying impossible.

Scenically the country is wonderful in this karroo-filled mountain-flanked Ruhuhu depression, the great "horsts" of rock in their lovely tints, Namtshweia's noble lines, the cut-up table land with its gorges, its winding streams, its clear water, its savannah-covered flat ridges and its glorious sunsets.... all so beautiful. And so little time to enjoy it all. But after I h a v e reached the Lake after four months of unprecedented toil and strain and stress, I A M going to take it a little easier and to enjoy more than thus far the glories of Central Africa.

A morning's march in drizzling rain on the 7th made me find my party snugly encamped under some fine trees on the middle Ngaka. And then followed two more days of hard going which, at last, spelled Victory. The feasible pass - I k n e w all along it was somewhere! - had been found, the great Rutukira bend cut off and 1/4 of a million pounds saved by scientific argument, helped by a bit of intuition and a good deal of grim determination. Only "Mummy's Pet" has succumbed to a period of doing nothing and in spotless white and silk socks broods in his tent over his imaginary ailings and uses up our precious stock of permanganate by gargling every 5 minutes.

In a week I hope to be on the Lake. And it is time, too, for these low karroo ridges and gorges are getting a bit hot and we have deserved a little mountain air after these endless weeks of narrow winding valleys.

Again and again I must return to the o n e point of outstanding importance: Eva's wonderful endurance and cheerful pluck in the face of all obstacles. She knows I m u s t expect from her the almost impossible if my great task is to be accomplished, and that knowledge is sufficient to make her perform the impossible. I say "impossible" for marching 20 - 30 kms. over the roughest ground, often pathless or, at best, on stony thorny game-paths, with a sore foot and rapidly decaying boots (the machela is of course quite out of the question) would be an impossibility for all but o n e woman in a hundred thousand. And that O N E I have. And not only does she march and endure all fatigues, but her splendid healthy body and her great calm soul let her e n j o y it all, and when I reach camp with my brain full of the day's problems, she has prepared comfort for me and her dear cheerful face, her sparkling eyes overcome the worst of her trials - my not always very smooth temper!

If I am the leading spirit of this expedition, if my experience of many years and my general knowledge have helped towards success, if a bit of determination to see us through a tight corner every now and then stand to my credit, S H E is the beacon that has really led me all these months, that great shining light ahead that has never failed me, Amen.

Thus have we reached the Ruhuhu at last, a fine broad tossing river in its rocky bed, fine if one could enjoy it for its own sake, in its mountain setting, without having to survey it. For the surveyor it is a nasty thing, much nastier than I had anticipated. But the weather is most threatening and we must hurry to reach the Lake. However, there is still a good bit of agony ahead of us.

18th NOVEMBER, 1925, MANDA BAY. It took us five days to come here, five days through some of the worst cut-up country it has ever been my privilege to see. Country which now, at the end of the dry season, brings out to perfection that striking contrast of the arid mountain parts of east and central Africa, great masses of life-spending water tossing down in rocky river beds and only a few yards away the dead valley-slopes scorched and barren.

A short march on the 12th, short as distance goes, but long hours spent in grasping the tortuous and most accentuated topography, landed us in the rocky wilderness of the middle Ruhuhu, by some cataracts, and the afternoon and evening were full of thunder. The previous night I had received a touching letter from that remarkable old saint, Archdeacon Johnson, who had implored me to spare his beloved flock by not buying food from them and offering me a few miserable bags of flour which he had at Manda, 5 days journey away; just enough, by the way, to feed half my men for a day. The mentality of some people is difficult to follow. However, we got through the sparsely inhabited Ruhuhu valley, with Rupias invaluable help, sufficiently well fed and w i t h o u t inflicting any hardship on the natives who not only came quite willingly from their villages higher up on the slopes but on several occasions forded the river in order to reach us.

The following day was the first really rainy morning which kept us in bed till after 7 and it looked as if the day was going to be a failure when we started in a drizzle at 9 a.m. But I had to get on for reasons of food. However, the march turned out one of the pleasantest of the whole trip. From a high ridge we sighted for the first time Dudy Peak, which overlooks Manda Bay, a sight in itself enough to spur us on to a final effort. It seemed quite near in the rain-cleared atmosphere and we could even see the cloud-capped scarp on the far western shore of the great Lake. The mighty twin-pyramid of Namtshweia we had now on our left and we looked across a mountain-framed hill-country which was gay with the many tints of spring, from brown and orange to the freshest, brightest green with an occasional spot of crimson foliage. White and grey clouds above, with here and there a patch of blue sky, and everything so fresh, so clear and clean after the last weeks of scorching. Spring, African spring, short-lived but, oh, how beautiful!

Then came another short march over steep hillsides and through deep ravines, under a threatening sky which let go a deluge just as we got to the narrow Sikonge rapids, where the rocks force the great stream into a narrow bed only about 8 metres wide. So we pitched camp on a rocky shelf and had fresh fish for dinner.

To make good for lost time the next march was an exceptionally long and strenuous one. It took us over most interesting ground, hugging the foot of the precipitous Namtshweia slopes with ever changing views over a beautiful country and into the foaming, yellow waters of the tossing Ruhuhu. And we camped once more in flat country, where the valley widens a bit at Gingama; it was so pleasant to sleep again in a bed which stood on the level!

On the 16th we passed through the last gorge where we shot at some crocs, into the widening funnel and on to the flat delta. Then came the crossing of the broad stately river, with a last glance back up its valley

to the great mountains which stood under a beautiful array of clouds, another hour across the bush of the delta with Dudy's pyramid as a beacon in the north and then, at noon, just four months after we had started, the goal was reached: from the deep white sand of Manda Point we looked upon the great blue water and its wonderful mountain frame.....

Soon afterwards we were comfortably installed in the old, somewhat tumbled-down German boma, from the verandah of which we had a magnificent view. There was food in plenty for the men, meat and fish and grain, so the joy was great and the splashing on the shore lasted till late at night.

The last two days were days of slacking, that is continuous work and letter writing, but without that ever-threatening arm that points forward, and therefore without strain - to me almost "dolce fa niente". A cruise in the Government whale boat across Amelia Bay taught us the suddenness with which winds spring up and change their direction. Altogether the weather was delightfully changing all the time, from dead calm to sudden gusts or steady winds, with distant thunderstorms and an occasional short shower of rain. All of which changes the aspect of land and water in an infinite variety of which one never tires and which delights the heart. Every now and then a cloud of brown smoke will rise from the blue surface of the water and drive across the lake before the wind. We thought at first it was a steamer approaching, but soon learned that the clouds consisted of tiny insects, millions upon millions of them, who breed in the water and fill the air for a short half hour on their wedding day.

19th NOVEMBER, 1925, MANDA BAY. At 9 this morning the cable was handed to me with the news of Papa's death. Could Fate not have waited a few months? Could it not have granted both of us to meet once more after all that I have seen of late and which he, like no-one else would have understood and enjoyed?.....

I have lost my father, but what is infinitely sadder I have lost a friend who has guided and appreciated me.....

21st NOVEMBER, 1925, UPANGWA. We are camping at 1500 m above sea-level- in the heart of southern Upangwa. We have left far below the sandstone hills which have given me so much work and worry. We are screened from the blue lake, after many a parting glance during the way up, by the great towering ridges of the southern Livingstone spurs. We have risen steadily for two days and are in an enchanting country, a country practically unknown and on which no one thus far has ever written. Noble hills rising to 2000 m shut in the pleasant valley in which we lie. The new grass is just sprouting after the first showers and the slopes are clad in the softest of velvety green, studded here and there with a purple cluster of budding acacias, or a white boulder, and all this green and purple and white spanned by a brilliantly blue mountain sky. A bracing air, in spite of the hot sun, wide vistas, easy walking and climbing. This is how I dream of Arcadia, such must be the classical scenery of the Peloponnesos.

But I am not yet sufficiently balanced to enjoy all this beauty as I could wish, though Nature, at her very best, is of course a soothing balm to my sore

heart. Dear old man, you would have been so glad to hear of my achievement, of Eva's plucky help. Too soon has Fate torn you from us. But you have deserved your rest after a life of thought, a life so well spent in the contemplation and understanding of Nature, which made tolerance one of your chief virtues. A life which I cannot do better than to try to imitate. You have died a pauper in worldly goods, but, oh, how rich in treasures of the mind.....

26th NOVEMBER, 1925. MILOW MISSION. The further we penetrate into this wonderful mountain land the more beautiful it becomes, in its spring garb with lovely flowers to gladden the eye. On the 23rd we were camping at the foot of Nyamadote whose rocky cliffs and couloirs remind one of the Dolomites in the rosy light of the sinking sun. From there a stiff climb of 3 hours brought us to the real highlands, by no means a plain or plateau, as usually described, but markedly less dissected than the long stretch of slope we had traversed on our way up from Manda. It is a glorious country of velvety downs with quite large patches of forest, covering a rounded knoll here or pushing a dark green tongue down a little glen there; with wide horizons, chains of hills, valleys and herds of cattle. And beyond the deep broad valley of the Luwana from where we came, one looks on to the great chain of bluffs behind from which rise the vapours of Nyasa in big towering cumuli or in creeping, sucking mists.

In the wind it is bitterly cold but when that dies down, as it does, thank God, every now and then, and when the sun pierces the clouds the atmosphere is most pleasant. Eva enjoys it all like a dear little school-girl, and surrounds herself with flowers. The first thing to do after our arrival was, of course, to call on Padre Lawrence in his idyllic red-brick mission station - a lasting monument of true German culture and "Gemuetlichkeit" - now somewhat neglected, I am afraid, and there we had strawberries and mulberries, fresh butter and altogether a most luxurious tea.

The Wapangwa who came in crowds to bring us food are stark naked, at least the women, except for a diminutive apron on their posterior and an occasional goat skin worn like an opera cloak down the back. They look filthy and certainly very little touched by 30 years of missionary effort!

We had two days of rest and note-writing, and all the time a bitter windy cold prevailed, so that I had the Government shelter walled in with grass and sacrificed one of our zinc-buckets which was turned into a brazier and stands in full glow at my feet. I cannot say that I enjoyed this rest, for I am suffering from a bad chill and the camp is on the worst and most exposed spot. Both days, soon after noon, thunderstorms came up from all directions, the temperature dropping rapidly and the sun disappeared. So my birthday today is not exactly pleasurable, although the few minutes of a stormy sun-set made up for most of the last two days' sufferings: Above the rugged coastal range a narrow strip of pale blue horizon was visible. Then followed torn rags of grey cloud, purple fringed for a few short moments - they, in their turn, merged into masses of leaden-grey mist and then, right up to the zenith, an orgy of sulphur from greyish to the purest, brightest yellow, a tossing, tearing, dancing sea of storm-clouds reaching high up into the still sun-

lit sky and every here and there, as through a shattered window, one looked out into a patch of the deep blue universe. Beneath this gorgeous display of wildest colour, the nearer hills stood forth in subdued shades of brown and dark green, but with their f o r m s most wonderfully plastic. And then to remind one that, after all, these northern looking highlands are right in the tropics, a sudden stop, a sudden darkening, the mad harmony of colour dying into an uniform misty grey.

27th NOVEMBER, 1925, LUKALAWA VALLEY. We have descended 600 metres - with many intermediate ups and downs of several hundred metres each - and are encamped in the comparative warmth and shelter of the Lukalawe valley, flanked by high ridges of pasture-covered mountains. The morning was bright and the climbing through this delightful mountain-land sheer pleasure. But the usual thunderstorm rolled up in the early afternoon and the evening is rainy in a mist-filled valley. I came across sad and ridiculous instances of the manner in which Roman and Anglican priests are fighting for the souls of a savage mountain tribe.

28th NOVEMBER, 1925. This was the finest march we have had so far, over the truly alpine meadows of the long and steep Mahanga Pass, rounding fresh-green slopes, skirting dark green forest in the deeply eroded gullies, a rocky cliff now and then, reminding one of the real Alps, murmuring mountain streams, european mountain flowers, altogether a land full of the richest charms. We just had time to dig ourselves into our bracken-camp (again nearly 2000 m high) before the now stereotype midday thundering began and the afternoon once more was blowy and chilly.

We have left Upangwa whose mountain ranges, much less forbidding when seen from the high plateau, are now finally overcome, to the great delight of my Wanyamwezi who have done marvels of endurance in an environment so new to them. But in spite of long trails on narrow paths up steep slopes only to drop down again a few hundred metres in face of a fresh dreary climb on the opposite side of the valley, in spite of damp and chill, and in spite of a far from opulent larder, they remain cheerful and well and not once have I had a single straggler. A poisoned hand was the only serious mishap and that occurred, fortunately, when we were at Milow where the nursing sister came in handy.

We are now in Ubena with its well-kept fields and much more gentle surface forms. Now at 9 p.m. the storms have calmed and the moon is shining through a light haze, turning ridges and valleys into phantastic forms.

29th NOVEMBER, 1925, SOUTH UBENA. It was a long but most beautiful march today through markedly wavy plateau land, with a few deep dips into intersecting valleys. Most of it lay over alpine meadows in full bloom where we picked nearly 90 different species of flowering plants without stepping from the path. Bright coloured Irises lillies and orchids, most delighted our eyes, but some of the less striking forms were perhaps even more beautiful on closer inspection. I sat in the bracken when at last, xf after 2 p.m. we had reached camp, and chewing the last crust of cheese which the kind padres af Manda had sent us, sorted

out the collected treasures in the warm sun-shine. We are encamped higher than ever today (2140m) on the edge of one of those many patches of sombre, lichen-covered mountain-bush which in this part of Ubena give the rolling country a park-like appearance. One is gradually becoming accustomed to the low temperature (15 C.G. at 5 p.m.) and the thunderstorms though raging around us did not seriously molest us today. The peculiar charm of these eastern slopes of the Livingstone mountains and of the high plateau into which they gradually merge, is their vastness. In Usambara, on Kilimanjaro and Meru one gets similar scenery, but locally so very much restricted, always bordering on something totally different. Whilst here one walks for days and days through the same kind of delightful mountain scenery changing in detail at every turn of the road but always similar when contemplated as a whole. What a maze of valleys and ridges, what a wealth of lovely forms, what pastoral beauty. And then these cbud-effects after and during the storms, and the peaceful rolling mists during the calm hours of the day. But however, delightful to travel through, this is n o t a country for permanent European settlement: it is too high, too cloudy and there is no guarantee that crops will ripen.

1st DECMBER, 1925, PANGIRE MISSION. We have recrossed yesterday morning the continental divide and after a night at Pangamahutu's "Court" have shifted camp today to the beautiful old mission station of Pangire (Jakobi). What a pity that these comfortable, substantial dwelling houses, outhouses and stables, snugly hidden in and protected from the bitter winds of the open plateau, by a forest of wattle and blue-gum, have been allowed to decay into what is now practically a heap of ruins. Has our great Empire r e a l l y not the few hundred pounds to spare which the proper maintenance of these scattered centres of German culture would cost? And are we entitled, in the face of this deterioration, visible in so many instances, - e.g. absence of scientific work, of meteorological stations, of continued encouragement of the natives of these highlands to grow wheat which under the Germans had become a staple food and which is now being sadly neglected - are we entitled, I ask, to state again and again that we are better colonizers than the Germans? This sort of talk may have been useful during the war when lies did not matter in any case, but it is about time we stopped it now and rather took to following in the footsteps of our predecessors.

Pangire lies on the edge of the wide highland peneplain of Ubena, a treeless, endless land of grass-covered earth-waves rolling away to the far horizons in three directions and breaking against the last dying ridges of the Livingstone Mts. in the west. It is a beautiful country, this plain as well as the mountain chains. But the more I see of it the more am I convinced that it seems hardly destined to offer suitable ground for white settlement. A Lord Delamere may, of course, be able to coin money out of grazing land by the toil of his hirelings, but that I do not call "settlement".

We have had drifting mists till noon yesterday and a rainy, thundery night, but the late afternoon with a bright blue sky, a wintery sun and a few great white cumuli sailing through space, are fine. A few of the once cosy rooms are still habitable if one picks out corners over which the dilapidated roof does not leak, and I have had two of the fire-places swept so that we are enjoying

4th DECEMBER, 1925, UPPER RUHUDJE RIVER. Two days solitary wanderings towards the upper Ruhuje - with Eva at Pangire in charge of the main party and Norton exploring the Rutukira-Ruhuhu Divide to the south - have taken me over the cut-up plateau of eastern Ubena and landed me in a lonely camp at a considerably lower altitude than that to which we had grown accustomed during the last two weeks. Here, after rains, storms and mists I have at last enjoyed a warm sunny afternoon and a glorious clear evening with only a row of huge cumulus-rockers to fringe the western sky and to mingle with a few great smoke-clouds rising from belated grass-fires. It is a treat to enjoy all this once more without having to shiver and to sit over a fire.

What a tremendously intersected plateau! Geographically, erosion approaching maturity, the ridges still flattish, but the density of the valleys almost at its maximum, and slope-erosion eating rapidly into the rounded divides. Emotionally, an awe-inspiring multitude of valleys, large, medium, small, with the intervening backs at a practically uniform level, hardly a bush, 4 or 5 trees in a hundred square kilometres, grass and bracken covering as far as the eye can gaze an endless vista of valley upon valley. I have looked upon the hot desert and have penetrated into the eternal wastes of ice, I have wandered for weeks at a time in the deadly monotony of the tropical savannah, I have spent many months at sea with nothing around me but the perpetual relentlessly repeating play of the waves - but never have I experienced that feeling of awe which overcame me today in the presence of these thousands of valleys. It is not their monotony, for each of them, though of course, following the same laws show the same fundamental features, has individuality and every turn of the path brings fresh detail of form and colour and shadow to gladden the eye. And yet, and yet... I can not express what it is, but there it is, all the same. The continuous attempt to fix as many of these valleys as possible in my field-book (to fix them all, even those only within a kilometre of my route, is out of the question) may have something to do with it. The mental strain and the physical effort may subconsciously have led to an emotional state approaching fear. Whatever be the cause, I look upon these valleys as on tormentors. And I do so even now, when I have no longer to survey them, when in the last rays of the sun I can peacefully contemplate the streaks of golden ridges separated by the evermore darkening streaks of the valleys. Nothing, perhaps, can give a better conception of the vastness of this cut-up peneplain than the following experience: at 10.17 my guide pointed out one of the few visible trees, apparently a giant standing on a ridge two hours away at the outside, as I thought (and as all my men thought!) The path to that tree followed a divide, that is, it was fairly straight and fairly level and there was only one major dip; we walked briskly in a cool atmosphere and yet it was 2.30 p.m. when we reached camp under that tree and the "giant" turned out to be a crippled thing not much more than a large bush!

5th DECMBER, 1925, UPPER RUHUJE RIVER. Today was probably the hardest day's going I have had on this expedition. The "objective" was to gain the bottom of the Ruhuje valley (only 7½ Kms. away) and in getting there I had to cope with nearly every difficulty imaginable.

I am looking upon the ups and downs of the route as something, by now, quite ordinary and therefore only mention them as one of the minor obstacles to progress. The "path" where it existed was so narrow and so dug into the hard tufts of grass and bracken that one perpetually kicked one's ankles. Where it did not exist - and that was the rule - one had often to throw oneself, this was the only possible way, step by step into a most disgustingly tough bracken-jungle. Parts of the route lay through a boggy valley the ice-cold water of which was perhaps the worst trial of the day. In addition one had to have one's rifle ready against buffalo who seemed to be everywhere and, finally, a pleasant change from icy wind blowing a fine drizzle through one's bones on the higher slopes, to a steamy tropical atmosphere in the deeper valleys, a change which took place every half hour, and which was so annoying that one hailed a short but real down-pour as a blessing, except that it happened just at breakfast time and extinguished the fire on which the kettle was boiling. And all these miseries were for nothing. For when, with grim determination I h a d reached the damned river after nearly four hours of toil I could see nothing beyond a vague scenery that told me that there was no room for a railway through t h i s valley, however, easy its upper reaches may have looked to His Excellency and his technical adviser from the soft cushions of a car! I wish they could have descended to the real Ruhuje in company of my imbecile guide. Nontheless here I am back in camp, fresh and fit and ready for new fatigues on the morrow.

6th DECMBER, 1925 I had seen enough of the Ruhuje yesterday for the purpose of my report and considering it unwise to waste more precious time and effort on this alternative for a line from the Kilombero, retraced my steps westward. The weather is getting worse and it looks as if hurrying into winter-quarters had now become inevitable. Yet I shirk the idea of having to pass by, at so very close a range, those geologically and morphologically so highly interesting regions of Gofia, Buanji and the Elton Plateau. But I can not afford to get myself and my men soaked twice a day, as we did this morning; not in these altitudes where drying takes so long, where the wind blows so bitterly and where a chill may have evil or fatal consequences.

The cut-up plateau under an uniformly grey sky looked more depressing than ever today and the heavy showers that rushed across it in narrowly defined strips with their thunder and ice-cold water were not designed for rejoicing. It was sheer bad luck that I got caught in two of them, neither of which was more than a couple of kilometres wide. The second came down with terrific force just as we were descending into and climbing out of one of the countless valleys, and the steep path was immediately converted into a tearing stream of chocolate coloured cascades. And yet, on turning a ridge hardly 50 m high, and dropping into the next valley, I found the same path not only dry, but had my wet boots covered with dust in a few minutes!

My Wanyamwezi remain cheerful, however, and take things as they come. Of course they grumble, they always do, but in the depth of their sturdy hearts, what matters sun and sweat today and rain and cold tomorrow as long as their bellies get filled at regular intervals? This latter problem is, by the way, becoming daily more

acute in this confounded country of Ubena which, I repeat, is too high and cloudy to provide ample food for a large native population, leave alone European settlers.

The other day in the Ruhuhu valley where we had ample supplies compared to the meagre diet we have to put up with here, I had that charming religious maniac, Archdeacon Johnson, interfering, or trying to interfere, with my commissariate organisation. But today I had my own back: Whilst breakfasting at Mafuta ya Ngombe's (which means Mr. "Beef-fat", a rather unhappy name with the nearest cattle 20 miles away) the local mission teacher, not one of the archdeacon's but an R.C. from Songea, saw fit to impress me with the singing of hymns by his pupils in the school-hut close by. Having just heard once more from the head-man the now sterectype information that he had not enough food for my men, I summoned the worthy teacher and his flock into my presence and gave them a little sermon on the text that God would prefer to see the kids taught agriculture, that he was probably as sick as myself of the abominable noise of hymns etc., etc.

11th DECEMBER, 1925, KIDUGALA MISSION. The last four days have been distincly rainy, though on the whole we were lucky and managed to get into camp every day before the afternoon showers and thunderstorms started. Our route was a zig-zag course through central and north-west Ubena, and I have now seen a good deal of that famous and much-praised country. I must confess that I consider all reports as grossly exaggerated. Of beauty and loveliness there is without doubt an abundance, but beauty and loveliness alone can not decide the suitability or otherwise for european settlement. That a few German mission families have apparently thriven well up here is not sufficient indication, because they lived in comfort and shelter and their problems, their economical basis are vastly different from those of the small settler-farmer.

It is true, things improve somewhat as one descends from the average height of Central Ubena (2000m) into the headwaters of the Mbarali (say to 1700-1800m) and Kidugala Mission is delightful, protected from the sweeping eastwinds, low enough to be bearable and facing the glorious Gofia scarp with its wonderful mountain beauty. But then, just here, the native population also becomes much denser so that there is probably no room for prospective settlers.

The Scotch Methodists who now occupy the former Berlin Mission Society's station, are charming people who shower hospitality on us in their cosy, self-contained home where, for the first time after 5 months of tent, we are enjoying the princely luxuries of soft beds, eider-downs and glass-windows, and where in the Rev. A.M. Anderson, I have found a protestant at last (the R.C.s have done it for years) who puts the "labora before the "ora" and who has very reasonable ideas on the all-important subject of native education. He has just returned from the first Educational Conference at Dar-essalaam and what I have seen of the papers read there, seems sound and encouraging. H.E. made a wonderful speech (he i s a wonderful man) and Dundas was most fascinating. I must see more of this.

The homely Scotch ladies are dears and it is a great pity that the shortage of food compels me to leave tomorrow, my party being far too large to rest more than two days at any place, leave alone Ubena, where the

12th DECEMBER, 1925, LIVINGSTONE MTS. We have gained height again and are camping at nearly 1900 m in broken country close to the foot of the geologically so interesting highest northern part of the Livingstone Mts. But the weather is appalling and in this perpetual damp and with the extreme scantiness of food supplies I simply dare not take my dear Wanyamwezi on any lengthy mountain excursion. Besides, whatever I could perform now would only be in the nature of a very rapid reconnaissance of the Gofia plateau and the Buanji cauldron, whereas intensive and extensive studies are required if one wishes to improve on Bornhardt's and Schölz's observations. And, chief of all, I must get under cover and make a start with map and report, if I am to finish in time to catch the Nyasa boat in mid-February. Much brain work lies ahead of me, and it will not be made easier by the silly rubbish with which the Menkins and the Joelsons feed the "man in the street", food that, helas, he imbibes only too readily because he w i l l not think for himself and because listening to experts is so much duller and so much more trying to the brain than assimilating the "arguments" which our wonderful press broadcasts wholesale. The latest numbers of "East Africa" and the "Daressalaam Times" contain leaders on the best alignment of the Nyasa railway, and I think I can see the sinister figure of Lord Delamere in the background. I wish one of these jew-boys had the guts to come and see for himself. It might kill him and thus purge the world of at least one of its perfectly useless, nay, more than that, most harmful "citizens. Curse them. ???

13th DECEMBER, 1925, LIVINGSTONE MTS. Higher again, camping at 2200 m with the rain clouds b e l o w us and the wonderfully green foliage of some forest-remnant around us. This foliage, the fat green carpet of grass, everything tells a tale of lack of sun-shine from which results a vegetation reminding one of an English park. The further west we go the grander becomes the scenery: deep narrow valleys separated by long expanses of rolling high-land, the southern edge of the Gofia mountains now close at hand, a fine sight in the evening with white mists creeping over it and just a faint wintery ray of parting sun-light across the slopes.

14th DECEMBER, 1925, LIVINGSTONE MTS. Two more steep ascents, separated as usual by dips into deeply eroded picturesque valley-notches, have brought us to 2360 m right into the heart of the northern Livingstonians. It is a glorious mountain land of grass-covered domes well-rounded and only just modelled by the mighty forces of erosion which penetrate backwards from the still distant scarp. With the exception of the northern sedimentary plateau which, however, no longer dominates the scenery today, there is nowhere a straight line; only graceful curves clad in velvety green and strewn with masses of flowers. The weather has remained kind and we are again above the rain and thunder-clouds, with a deep blue sky shining every now and then through the higher, harmless strata. In the sun this afternoon it was quite warm but immediately after sunset it cooled down rapidly and during dinner I was shivering as usual. But this cold does not seem to prevent mosquitoes, for we caught several, including anopheles

16th DECEMBER, 1925, TANDALA MISSION. Yesterday's was by far the finest march we have had. Every step forward increased the grandeur of the mountain scenery. It took us right through the heart of the great range, where we breakfasted at 2500m. We are still on one of the inland-chains with their now steepening but still rounded forms, where only an occasional forest-filled hollow in the green flank of a hill, and the deep valleys warn us that the descent of 2000m down to the base-level of the lake can not be far away. But from the lofty height of the chain one gazes on to the serrated peaks of the coastal ranges, some 20 - 30 kms. away, whose forms tell of violent erosive action. There is much beauty in this contrast. Warm sunshine, a blue sky with a few slowly sailing white cloudlets made everything look particularly bright. But as we descended rapidly into the many-armed depression which the Lumbiro and its countless tributaries have gnawed into the soft schists, ridge after ridge became suddenly enveloped in storm-clouds and a few minutes before we reached Tandala Mission, our goal, we were drenched to the skin with 3 or 4 thunderstorms around and above us.

However, we found good shelter with doors, glass-windows and a fire place, and the men too have a none too leaky roof to protect them. Apples, pears, peaches and mulberries galore, though not quite ripe, yet excellent when stewed, wheat and potatoes for the men, so that we soon regarded the wild weather outside with calm. But it is clear that the season for field-work is definitely over and that the sooner we reach Ntukuyu the better.

Tandala is the first telegraph station since we left Manda, and the native telegraphist had, of course, an annoying message waiting for me. It is funny, but one never approaches an outpostof civilisation in the heart of Africa without being immediately called back to the outside world with its complications. This time it was an idiotic order from Daressalaam to send Norton back at once, just at the time when, at last, he might be of some real use and help to me in connection with the plotting of my field-work. So I sent back a long message and the reply came today, saying he could remain till the end.

After a drizzly and foggy morning which confirms me in my scheme to give us all a rest-day, the sun came out in the early afternoon and showed us Tandala at its best. It is by far the best chosen sight for a mission station we have seen of late: Mountains, trees, meadows and valleys all in their right place - a picture in whatever direction one looks, except from the back of the house which stands on a slope. The gardens and orchards are extensive, but, like the houses, badly neglected although we have had a white telegraph official stationed here for years. It is an unspeakable pity to see all this real culture go to ruin for the lack of a few hundred pounds.

I wish I could stay here for a week or two and get on with map and report instead of sitting in Ntukuyu where, nolens volens, one has to fall in with the general and social routine of the station. But such dreams can not be realised in this part of Africa where a caravan like mine can nowhere be fed for more than a couple of days. It is even out of the question to stay here for an other single day. The natives simply could not supply more food, at least not without serious hardship. So once more, as so often before, the wanderers must leave a

18th DECEMBER, 1925, BULONGWA MISSION. What a march we had yesterday across the highest ranges of the Livingstone Mts., 23 Kms., 1000m drops and 1200m climbs. And the second half of it in rain with incredibly slippery roads in the ancient shale formation. I believe there was not a single porter who did not fall at least once and several of our loads were dropped a good many times and yet the only thing that was smashed was our last bottle of olives, the contents of which we promptly ate. The men were splendid, as usual, but the way in which Eva went through it all, without even nails in her last pair of serviceable boots, is beyond all praise. At the foot of the last long slippery descent, with a still long final climb ahead of us, she appeared smiling from out of the mists, and only when she landed, an hour later, at Bulongwa after what, to one insufficiently shod as she was, must have been an agonising climb of constant back-sliding, she was a bit tired - but still smiling and her dear eyes still sprakling. So I forgave her when she poured down my last drop of brandy and, not having anything better to do for the moment, sat down and wrote the following

ODE ON A WET DAY IN THE LIVINGSTONE MTS.

Of all the women in the world
The pluckiest is Eve,
Who climbed the Livingstonians
without a single heave!

Sure-footed and with sparkling eyes,
Down dale, up hill and mountain sides,
Down 1000 metres and again
1200 up with ease she strides.

She does not mind the slippery paths
As long as she admires
The bamboo jungle and the grass-
y slopes of lofty spires.

Nor does she care if she is wrapt
In furs or merely shoddy
As long as she can sneak a sip
Of her husband's warming toddy!

Luckily we found a clean empty Mission station, recently repaired by the forerunners of the former German occupants who have obtained permission to return to their old field of action, and in it blazing fires to dry ourselves. The men, too, are all under shelter. But it was nearly 3 p.m. when we sat down to a belated lunch.

The scenery between Tandala and Bulongwa increases in grandeur with every step westwards. The nearer one gets to the edge of the great scarp, the deeper become the valleys, the steeper the slopes, the more wonderful the wild forms resulting from most powerful erosion. We crossed a chain well over 2500 m high from here we looked down into a broiling abyss of cloud and mist and had the satisfaction to see a thunderstorm raging beneath us. Though by now the weather had turned so foul that no detail was visible beyond a few short glimpses into a dreadfully cut-up country, which seemed to slip away from under one's feet to Nyasa 2000 m below, this rain- and mist-filled mountain scenery was a change well worth seeing in spite

The house is so comfortable, food for the men, for once, plentiful and we were so wet that an other rest day was indicated. As usual, a bright sun started this "rest-day" (when tomorrow, probably, we shall be marching again in torrential rain), so we climbed a hill about 130 m above the sunny mission station which we left buried, on a ridge, in its gardens, orchards and forests of gum-trees, I sat out on this climb in the hope of catching a glimpse of the Lake. But what we actually did see was far, far more, it was a picture of overpowering beauty; A kind easterly wind had blown every cloud from the water on to the far Nyasa Land scarp in the South-West, so that a vast sheet of blue lay beneath us. Past spur upon spur of precipitous mountain-cliffs we could see right down to the Ruhuhu delta, we saw the whole northern end of "the Great Water" framed by the serrated ridges of its rocky walls, we saw the cloud-filled trough of Konde Land with just a glimpse of the western plateau, far beyond on the opposite side, and, best of all, for a short quarter of an hour we were allowed to admire the dark mass, the graceful volcanic outlines of Mr. Rungwe, rising high above the clouds and high above the scarp from whose bottom it was thrown up. It was an unforgettable view and all the more enjoyable as we could drink it in stretched comfortably on fragrant heather and basking once more in a really warm African sun, a treat we had been missing ever since we left Manda Bay four weeks ago.

In the evening the mission children, a large crowd of them, came to sing Christmas carols, and as they sang really well, and as their villages had, this time, supplied ample food, I not only forgave them but actually conducted, with my weather-worn old walking stick, when as a final effort they broke into "Ihr Kinderlein Kommet".

19th DECEMBER, 1925, LUMAKARIA RIVER. We are, surely, beloved by the weather-god who had arranged not only for the finest, but exactly for the most suitable weather to give us the scenery of the grand scarp-descent at its very best; A golden sun, after a bitterly cold but glorious dawn, to light up the thousands of knife-edge ridges and to cast their shadows into gully and ravine, and thus to render the wonderful details of the grandest erosive landscape on the earth as plastic to the eye as can be. A perfect blue sky above us and the far side of the mighty rift-trough - again one of the mightiest on the face of the earth - partly clothed in white and grey and yellow cumuli. Rungwe, dark and noble, rose high above the mists and the near scarp mountains stood out sharp and clear from an African firmament. The plain of Konde Land with its round crater lakes was just visible through a light haze and the northern part of the "Great Water" was a shining mirror, 25 Kms. away, in which, even from this distance, one could see the reflexion of the clouds.

It was a wonderful morning, one of those rare happenings in man's life which remain for ever planted in his soul- where they form the building-stones of that as yet ungraspable structure "Cosmic Life".....

We dropped over 1400 m and are camping under the fresh green foliage of the savannah by a mighty tearing and tossing mountain stream. And to the recollection of all the beauty seen is added that delightfully soothing feeling which comes to one with an accomplished task; that mixture of pride, tiredness, peace of mind which repays so well for all the toils and worries of the past.

I am glad that I have my 150 men safely across this mountain land without loss of limb or life. They are all fit, my brave Wanyamwezi and though they grumble, of course, at the renewed change of diet (this time from wheat and potatoes to bananas and milk), they are, at heart, perfectly satisfied and their bellies are filled with the fruit which, only three hours ago, they swore was uneatable. The dear fellows, to part from them in a few days will be a sad business. But, on the other hand, I feel that I require a little rest, that sitting at onme place for a few weeks will do me good although, of course it will not be an idle life; for I must get a move on with map and report.

What a sunset we had. The mighty facetted scarp-slopes in the full warm glow of the parting sun, with great spreading green trees at their foot to frame them, with just a golden cloud or two to form a background and with the noise of Lumakaria's tumbling waters to complete the harmony. Eva and I sat long on its boulder-strewn bank, listening to its song of force, gazing into its foaming whirlpools, till the play of the sun's last rays on peak and mountain-flank called us away to a more open place and to a spectacle more sublime than words can express.

What a day, what a glorious life, in spite of fatigues and toil, and from the depth of my heart I can say with Shakespeare's duke: "I would not change it". It was all so wonderful that even a blatant lie of Norton's, designed to screen his latest funk (of robbers this time, for a change) did not succeed in ruffling my equanimity. But I must confess that all would be more enjoyable without the constant company of an utter coward.

At Madahani, a now tumbled-down little mission place in glorious surroundings on the very brink of the precipitous scarp, 1800 m above the plain below, we saw a most wonderful series of native wall-paintings in the little chapel. In white and red and black the most interesting scenes of the Old and New Testament had been depicted in a most remarkable way by a Mkinga artist who must have had in his veins a good deal of the blood of those who decorated once their ancient cave-dwellings in South and North Africa. I was particularly taken with the artist's almost futuristic conception of the Creation and "tohuwabohu" from which, at the far end, emerged the elephant and leopard as the first results of the Creator's efforts. The Crucufixion, too is excellent (with one of the two sinners a white and the other a black man) and altogether this "picture-gallery" in Central Africa is well worth a series of skilful large-scale photographs and that soon, for as and where it stands, it can not possibly resist for long the tooth of time.

20th DECEMBER, 1925, WANGEMANNS HOEHE. We have entered volcanic ground and this afternoon I climbed two of Kieyo's foot-hills, one of which contained a beautiful blue crater lake. From Sutwe, the higher, I had a wonderful view up and down the mighty scarp in full sun-light, and far down to the great lake, far up into the gorges which are squeezed between the cliffs of the scarp itself and the flanks of the volcanic masses heaped up from the bottom of the trough. It was another glorious day, with much sun-shine and only a few light showers to cool our stiff ascent in the afternoon. And we were given much hospitality by Mrs. Brown (inspite of the Sabbath), although it was disappointing for me to have missed Dr. Brown whose medical views on a settlement of Ubena would

21st DECEMBER, 1925, MASOKO. Over the beautiful ground of the lower southern slopes of the Kieyo massif, round the southern spur of the fine Kapaka ridge we descended today into the valley of the Mbaka, a narrow stretch of alluvial ground between steep lateral slopes, where I actually perspired in the steamy atmosphere of its tropical jungle. Through delightfully green and shady, most luxurious savannah forest we then climbed up its western bank and finally stepped on to the wooded shore of the still, blue, little crater-lake of Masoko, by whose waters we found a snug cool camp. It is a beautiful spot and in the evening Rungwe stood quite clear, a most noble mountain, whose beckoning, I know, I shall not be able to resist.

We dined with the two lonely K.A.R. Officers who now occupy with their company the well-built former German military establishment which overlooks the forest-framed crater.

23rd DECEMBER, 1925, NTUKUYU. We have reached our goal. Yesterday, the last day of our long treck (just 23 weeks under canvas) started as a wet one. By 6.30 we were already soaked to the skin and the banana-groves of the natives through which most of our way lay in this densely populated country of upper Konde Land, were dripping with wet and distinctly dismal. For our breakfast we had to accept the somewhat smoky hospitality of a Wanyakyusa hut where we waited till the rain ceased, and though the sun did not come out, there was a stiff breeze blowing down from the hills which soon dried us. Thus we looked comparatively respectable as our long caravan, in long file, with safari-horn blowing and trunks and boxes being lustily beaten to the tune of "kabubi", slowly climbed the last long serpentines which lead to the Boma hidden in its pine and blue-gum forests on the very top of the great volcanic shield of Ntukuyu. Norton, whose courage has returned, at the sight of "civilisation", had donned his high-laced trench-boots (which, incidentally, gave him more blisters) and with his funny tip-toe step and his well-tailored tunic-shirt looked like a ballet-dancer!

We were warmly welcomed by a large crowd which had already assembled for the Christmas festivities, were given very comfortable, though somewhat earth-quake-shaken quarters in the Boma itself and immediately made ourselves at home for a prolonged stay. Did we not enjoy our substantial roof, our fire-place and our glass windows, when, in the afternoon it started pouring again, and when the evening settled down misty and chilly and nasty?

But though we have come to the end, though I have accomplished the greater part of my task, and ought to be rejoicing, I am sick at heart tonight, and bitter. Oh, how I wish I had the means to be independent for once and to tell Daressalaam exactly what I think. To have put my whole strength and, I may honestly say, my whole s o u l into this great problem for five solid months, without an hour's relaxation, merely to arrive at the end and to find a telegram from Raven saying "Manda Line now considered dead" and ordering me to wind up. It i s too much! They m u s t at least see my report before they succumb to Delamere's selfish schemes. So I have kicked in a three page priority wire trying to save the situation. It will come as a nice Christmas greeting for them; but I have little hope.

24th DECEMBER, 1925, NTUKUYU. The reply has arrived and I am "allowed"to complete my report. Norton is to go, which means that my plans and maps can not possibly be completed before my departure on leave in Mid-February. Damn the pack of short-sighted creatures in whose hands, during Maxwell's absence, the railway are placed. They are so utterly spineless. However, I am not taking any risks, and am making it quite clear to them that I am not going to take any responsibility for the shortcomings which their orders entail. The more I hear from Thompson of the famous Ntukuyu Conference which Lord Delamere had arranged here for a few months ago, the more do I become convinced that it is he who is behind it all. He has even received a wire, this un-crowned king of Kenia, this great Magnate, from the Colonial Office which shows that they too have veered round and are now interested chiefly in a "settlers" railway, i.e. in a Delamere-line! Very well, but in my hunble opinion, all the more reason that now that I a m here, I should be allowed to c o m p l e t e my task and to contribute to an elucidation of the alternative problem. But it seems that the Politicians do not want expert advice. For without such, it will be ever so much easier to talk in generalisations and avoid the real point at issue.

I had several long chats with Thompson who, quite contrary to my expectations, turned out to be a most reasonable, intelligent and keen man, not a Public School boy, thank God, and not a mandarine, and we are agreed on most points. Mrs. Thompson too, is charming.

Rungwe came out for a few minutes in the evening but since our arrival here we have not had one real ray of sun; fogs and mist are alternating with pouring rain.

1st JANUARY, 1926. NTUKUYU. What with paying off the bulk of my men, who left yesterday with Norton for Itigi, with making the necessary preparations for the drafting of my report, with a lot of social life, unavoidable during this holiday-season, and quite pleasant for a change, our first week at Ntukuyu passed very quickly.

The weather, on the whole, has been abominable and Ntukuyu seems to uphold its reputation of attracting every cloud it possibly can draw to its height. But on the few occasions when the weather permits one to enjoy the advantages of its situation, one can not but agree that the Germans chose a very fine spot. But even under a cloudy sky, with a faint wintery sun, the whole great mountain-framed trough is beautiful as it reveals in infinite variety every feature of its astounding topography. The immediate surroundings are somewhat too bare to my taste, but the station itself with its artificial forest groves, its masses of lovely flowers, its soft green lawns, forms a delightful oasis. And as it stands it will always remain a remarkable document of German culture and taste, as well as of a colonising spirit which one cannot but admire. With all their original blunders (and after all, they were only learning) one must admit that in many parts of their Colony the Germans have achieved wonders in a very short time.

I start the new year with the following epigram: "Duty, as I conceive it, is not blind loyalty to a cause, but intelligent and critical support!", and as I have attempted to concentrate much that has passed through my brain and soul during the last 6 months in a letter to

4th JANUARY, 1926. NTUKUWU. We took chance by its horns and in spite of permanently threatening weather made a dash for Mt. Rungwe on the 2nd and 3d. It was a great success, of which I have given a full account in my "Daily Notes". Eva climbed wonderfully, on her legs for eight hours on the second day, and every one of it of the hardest going.

But it w a s worth the effort. The view, fro 8 to 10 yesterday morning from the top, under a grey sky, with every feature perfectly clear, was overwhelming; by the wealth of detail as well as by the vastness afforded us through the fact that we were standing well above even the highest of the surrounding mountain chains. There they all lay: The great inland sea, a sheet of beaten silver, losing itself on the far southern horizon, and sunk deep into its setting of precipitous buttresses; the mighty furrowed scarp-scenery on two sides; the imposing Mporoto chain of volcanic origin and form in the north, overlooked by the rocky peak of Mt. Beya, the great volcanic landscape around us, gigantic cones where we stood, and an endless relief of smaller cones, dwindling more and more in size as they approach the plain of lower Konde Land, and beneath our feet, only a stone's throw away, the yawning abyss of the Atrio, a desert of rock and ashes from which rose the central cone in noble lines.

It was all so very beautiful, and now that I have seen it and shown it all to Eva, I can settle down in earnest to the greatest task my brain has ever had to tackle.

11th JANUARY, 1926, NTUKUYU. The dreaded letters have arrived and have torn me open again. But he died peacefully and without pain and that must be my only consolation...
.....

14th JANUARY, 1926, NTUKUYU. We have just had a pleasant two days at Rutenganio, another of the many confortable old German Mission stations, which is temporarily occupied by Count (or Mr. as he prefers to call himself) Karpoff and his family. They are charming Russian Emigres, he a mining expert and geologist who has done excellent work on the Karroo areas of the Zambezi and of northern Nyasa Land, and is now waiting for a new job after having unsuccessfully tried his luck at the Lupa River gold fields.

It is such a treat to converse once more with people of a wide general education, quite apart from the great scientific interest that his geological chats had for me in particular.

I used this opportunity for pushing into the terrific gorge of the middle Kivira valley, full of scenic beauty, but almost an impossibility for a railway. And still those idiots of the press speak of running a railway down this valley to the lake.

On the way back we called in at Ntukuyu Mission where we met Herr and Frau Pastor Gemiseus, he a typical German school-master, but very pleasant both of them. They have recently come back to re-commence the work of the Moravian Mission on which they had been engaged for many years in upper Konde Land. He took me through the large experimental gardens, now sadly neglected but not beyond repair, where I realised for the first time that a certain plant I had often come across in various parts of E.Africa was no other than Cardamon.

Of the eclipse of the sun (nearly 9/10 totality in these parts) we saw nothing as the sky was uniformly overcast and the weather so dull in itself that the additional darkening was hardly noticeable.

At Ntukuyu, one comes of course into touch with many a rum specimen from the gold fields, and occasionally with one of the few hard workers who have managed to carry on without losing money. The whole thing is, of course a pure "stunt" not worth a serious discussion, but to the student of human nature it affords many valuable side-lights. I also met various representatives of the small community of settlers who are experimenting with coffee and tea in various parts of the surrounding district, but I do not think that any of them, with the exception of Major Wells, will do any good.

31st JANUARY, 1926, NTUKUYU. at 3.30 p.m. today I set my signature to the 111th page of the manuscript of my report. And although it has still got to be polished and revised and typed, and a few of the appendices still await completion, I can say T H E W O R K I S D O N E, the strain is released and I can, once more look unencumbered into the world.

Will they like this report of mine, this child not only of my brain but also of my soul? I doubt it. But whether they like it or not, they must realise what a tremendous amount of honest work has gone into it. In any case it gives m y views on the great problem, and not as most reports concocted by mandarine, the views which those to whom they are addressed would like to hear. Only the other day I had a splendid example of this typically mandarinistic attitude. Wilson, the land surveyor, who at present is wasting his time setting out estates instead of being permitted to employ his talents on mapping the country, and who with O'Brien, the agricultural expert had been on the recent Land Reconnaissance, came up for lunch. We were talking, of course, about Ukinga and Ubena and he confessed that both he and O'Brien far from considering those highlands fit for "European" settlement, thought they might perhaps do for a "penal" settlement. Good, and I agree, but why the devil do they say in their report (or rather does O'Brion say in his report, that the highlands a r e suitable for white settlers?

Harold writes that he has failed in his matric The dear Boy, how very convenient, for to go on leave and to establish one's son and heir at the University in the same year would have been too much of a financial strain for poor Pa!

2nd FEBRUARY, 1926, RUNGWE MISSION STATION.

Having the report off my mind, and in order to obtain further material for the final drafting of the chapters on the Mporoto alternative, I thought it only fair that I should get a closer view of the Mporoto Mts. and although I am forbidden to do further field work, I took matters into my own hand and started today on a week's "excursion" (as I must not call it a reconnaissance) with the intention of having a very good general look round. The weather is playing the game and we are lording it tonight at the comfortable and beautifully situated Rungwe Mission, Eva my beacon, and I alone, this time. From between the fine old trees of the garden we saw the western slopes of Rungwe bathed in golden sun-

4th FEBRUARY, 1926, USAFWA. Yesterday we rounded the n.w. corner of the Rungwe massif, a fine mountain land with beautiful forest pushing broad tongues into the green flower-strewn pastures, then dipped slighly into the wilderness of the upper Kivira valley, where the great mountain stream saws its bed into the lava ridges, or winds between a multitude of little volcanic cones, and after a somewhat chilly night in the desolate upper reaches of the valley, we crossed the eastern Mporotos this morning. Unfortunately the typing of the report which I must get on with and which occupies me for several hours every afternoon and evening, did not permit us to visit the wonderful crater-lake on the northern slopes. This would have meant at least one more day (and two days without typing) and I simply have not got them to spare as I must catch the boat on the 19th. However, we saw enough beauty as it was on the forest-clad highest ridges and from our camp a little lower on the northern slopes we have a wonderful view: Over the half-hidden villages of the sturdy Wasafwa peasants, over their fields just now golden with ripening corn, over their pastures dotted with large herds of healthy cattle and sheep and goats, we are gazing into the hazy plain of the upper Ruaha, 1000 m below, and across to the solid scarp of Usangu. Large patches of the plain stood under water and it was interesting to compare the scenery up here, where the little tossing streams form the head-waters of the Great Ruaha, East Africa's longest river, with that hundreds of miles further east, where the same river breaks from the vast plateau land through its formidable gorge into the coastal strip of plain and hill; and with easy steps Eva now crosses the sources of the very river whose waters six months ago, she had navigated with more pluck than skill!

What we saw tonight was all so different from those steep, furrowed, precipitous slopes between which one has now been enclosed for weeks; and this change, this view once more of a wide plain merging into the horizon, is exhilarating, though it lacks the often overrated grandeur of more accentuated landscape. After all, every type of view has its good points and what the heart of the human wandered on this earth desires, probably, more than anything else, is c h a n g e.

5th FEBRUARY, 1926. BETWEEN UTENGULE & IGALE

We have been lucky once again, the rain breaking in torrents - a minute or two after we had reached the shelter of our tent. Typing the report after a 20 Kms. march and with the tent flapping and a shaky camp-table to work on, is not exactly a joy, but it must be done and Eva's patience in getting paper and carbons ready and in dictating from my manuscript, is a wonderful help.

The evening stood under the sign of Mt. Beya. We saw it along a gently rising fore-ground from a very pleasant camp in a little vale where clusters of large trees scattered over the soft green meadows give to the scenery that European aspect which the 1800 m altitude and the cool air, to say nothing of the grey sky, make one expect. Beya's great steep pyramid, rising a good 1800 m from the plain at its base, is of much nobler form than even Rungwe, the latter being rather lost, squeezed as it is between the high plateau scarps. And its main peak, being only a bit of the wall of a once mighty but now shattered crater does not get its chance.

But Beya, for a short hour after the rain-storms had cleared off, showed us what he can be at his best: A sun-lit pointed mass of emerald green first, with just a few furrows on its triangular slopes to give those lines of shadow without which there can be no symphony of light; a slowly darkening form soon afterwards, around which white sheets of cloud rose and sank in rapid succession, not veiling the mountain's head, then suddenly resting at its base, only to ascend again and circle round its neck in a flimsy scarf of vapour; and lastly, with light and clouds gone, a dark, but still nobly shaped block of rock, which drew its silhouette on a silver sky. And then the final wiping out of mountain and foreground, the inevitable fall of night.....

8th FEBRUARY, 1926, NTUKUYU. We returned today after three long hard but extraordinary beautiful marches, first up to Igale station where in Mrs. Richards' home we got a sniff of "society life" and much hospitality, then across the western Mporoto pass and through the finest African forests I have ever seen down by the wooded steep beautiful slopes of its upper cirque into the long, endlessly long, winding valley of the Karuwisi, and so to the Kivira where we had a rainy dirty camp last night. Today, whilst Eva made straight for Ntukuyu, I took a long hot detour to the middle Kivira and its natural bridge of lava, and back across many deep valleys and over many steep ridges through the dreadfully intersected grass-land of the western slopes of Ntukuyu hill.

It was a wonderful week this last, and I am glad I have done it. Not only has it greatly helped me in my grasp of most important points of the whole south-western railway problem, but I have enjoyed beauties of Nature which one does not often find in such constant variety, ever changing within a comparatively narrow compass.

14th FEBRUARY, 1926, NTUKUYU. The job is done, the report signed, sealed and sent off. Our last loads are packed and we are off tomorrow. They were strenuous these last two weeks, perhaps the most strenuous of the lot. But now it's all over and I am feeling just like a schoolboy out for his holiday.....

16th FEBRUARY, 1926. WELLS' ESTATE. A few short hours brought us here yesterday for lunch and we have had two restful days at Wells' estate just on the upper margin of the great savannah area which stretches between upper and lower Konde Land. The latest Daressalaam Times contained the Governor's speech at the Caledonian Dinner where he declared that the "Manda Line was as dead as a red herring". This is a most cheering end to seven months of toil and another proof that things of and in this world are decided n o t by the experts but by the politicians and the Delameres who pull the strings to suit their own miserable little ends although, of course their retenue, paid as well as gratuitous, sing their praise and swear it is all done for the sake of Empire.

However, a charming valley, a blue sky, a warm sun again after all these months of wintery chills, make one soon get over these nasty little stings of the Great and if Eva had only let me, I would have sent the following wire; Railways Daressalaam. Please add title page

with large red herring painted thereon to my report prior to forwarding same to Secretariat". So jolly did I feel all day after the first fury which soon evaporated into the warm sun!

The estate is really delightful and Wells who has an eye for garden-beauty has turned out a little paradise, where the natural is nicely blended with the artificial. The green forest, broken by large brown patches of most fertile soil where the young coffee and tea plants sprout; a rushing stream in the deep valley, a quiet pond, flowers in abundance, and from some ridge a wide view over scarp, volcanoes and lake. Here, indeed is a land for a few settlers of the right type. Here one can visualize a few contented country gentlemen leading a life of work and of reasonable, though limited and hard-earned comfort. And in this connection I must not forget the attractive figure of Wells' quiet partner, Col. Warner.

17th FEBRUARY, 1926, MANDEMERE's. We have done 40 Kms. to-day through the green savannah down into the alluvial flats of Lower Konde Land. Why did I succumb, at the very end of a perfectly arranged expedition, to Wells pressing his damned mechanical transport on us in the shape of two dreadful push-chairs? For one thing, I personally did not ride in mine for more than 6 or 8 kms., because I think this mode of transport too uncomfortable; but on the other hand it led, of course, to separation from the porters with the result that our routine organisation which had worked so well under the most trying conditions of ground, was entirely upset. Damn all kinds of mechanical transport in Africa. That we did not get a meal till 5 p.m. does not, perhaps matter so much. But my poor men were horribly scorched and I had to go back in the late afternoon more than 6 kms. to take water to the last stragglers. But the appreciation of the dear sturdy fellows amply compensated me for this extra-mileage.

Our camp is in one of those endless, long banana villages of the Wanyakyusa without a view, hot and dusty, and quite apart from the disorganisation this last long day of our long safari was undoubtedly the least attractive of the many, many marches.

18th FEBRUARY, 1926, MYAYA ANCHORAGE. It was only two hours to the shore of the Lake, and we reached the last camp early on a perfect day, a day hot but bright. The last shauries had to be settled, the certificates signed, the hundred and one little wishes of my companions attended to, and in the evening we sat on the sandy shore with the waves of the "Great Water" breaking at our feet and glanced for the last time around to all our mountain friends: Rungwe peeped out of his white veil, and the eastern scarp stood clear in the evening light, with a streak of smoke here and there rising from a deep ravine. What a beautiful land and, praised be the Lord, how well protected against the inroads of civilisation. And we? Tomorrow we shall steer straight out of this peaceful savage wilderness of Central Africa into the turmoil, the agonies, the ugliness and the beastly rush and haste of the 20th Century!