The Uganda Journal

THE ORGAN OF THE UGANDA LITERARY
AND SCIENTIFIC SOCIETY

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NOTES.

THE UGANDA LITERARY AND SCIENTIFIC SOCIETY.

NOTICE.

There are no restrictions as to membership of the Uganda Literary and Scientific Society. Membership is open to all races and to Institutions and Clubs. No entrance fee is imposed. The annual subscription, which is payable in advance on 1st July of each year, is Shs. 10 for single members and Shs. 15 for double members. The double membership is introduced for the convenience of families and entitles two members of a family to all the rights and privileges of a full member except that they receive only one copy of the Journal. Members have the right to attend and vote at all meetings and to bring one visitor (not being a resident of the place) to lectures, and will receive one copy of each number of the Journal. Additional copies of the Journal may be obtained from the Hon. Secretary and Treasurer, price Shs. 2/50 per copy. All subscriptions and contributions to the Journal should be addressed to the Hon. Secretary and Treasurer, P.O., Kampala. No guarantee is given to return any MSS. submitted. Articles submitted should be typed on one side of the sheet only and should not contain matter likely to cause political or religious controversy. Those submitted by Government Officials must comply with Colonial Office Regulations; they should either be submitted *u.f.s.* the Head of Department concerned or addressed to the Editor, who will submit them to the Head o Department.

THE UGANDA LITERARY AND SCIENTIFIC SOCIETY.

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EDITORIAL.

The first number of the *Uganda Journal* has been received with an approval which is gratifying to the promoters. Since its publication the membership of the Society has risen from 172 to 269. The demand for extra copies has been such that the original edition of 400 is almost sold out, and it has been deemed expedient to order a reprint. This result is certainly satisfactory, but to make the future of the Society and the *Journal* secure it is necessary to have at least 300 members, and it is therefore incumbent upon all members to recruit new ones.

Naturally there has been some criticism, but apart from a few constructive suggestions there has been little of any moment. The arrangement of the table of contents caused a curious optical illusion that gave the impression that the *Journal* contained the contributions of but a few persons, each of whom had written several articles or notes. Actually there were fifteen items contributed by eleven persons. The illusion gave the sceptics their opportunity of suggesting that the first number was a mere flash in the pan, the result of the repeated efforts of a few people, and that there could not possibly be enough material to keep the *Journal* going. The answer to these folk lies in their own hands, and it is hoped that if ever the *Journal* does lack material they will come to the rescue by contributing interesting matter. Actually over 40 people have already offered to write for the *Journal*, and doubtless the number will grow as time goes on. Other criticisms were that the type was too small, that the ink used in the illustrations was of an unsuitable colour, that the *Journal* was too large, that the *Journal* was too small, and finally that there were no advertisements to provide some really interesting reading matter. All these points have received attention, but it has not been found possible to take any steps to satisfy the critics, at any rate for this number. A useful suggestion has been made that "separates" of each article should be made available. As an experiment ten "separates" of each article and note in this number will be printed. Application should be made to the Editor, who will be able to supply them at approximately the cost of printing.

In this number we have been fortunate to secure several contributions of unusual interest. We are able to publish in full the admirable paper read to the Society by Sir Albert Cook as his Presidential Address on 22nd February. Two of our contributors are not Uganda residents, but have been recent visitors making scientific investigations. The article by that grand old historian, Om. Ham Mukasa, will, it is hoped, be the forerunner of many other contributions by Africans. It is published in its Luganda original with an English translation. The former is not only for the benefit of African readers but for those members of the Society interested in philology.

The Editor of *Sudan Notes and Records* has requested that we should exchange the *Uganda Journal* for that admirable periodical. We have gladly acceded to this request and a review of the 1933 issues will be found at the end of this number. Those members who wish to read *Sudan Notes and Records* may obtain the 1933 issues on loan from the Editor of the *Uganda Journal*. The necessary postage stamps, 20 cents per copy, should be sent when applying, and the periodical should not be kept for more than one week.

In January a General Meeting of the Society was held at which several important matters were discussed. These included the question of the future printing of the *Journal*, the advisability of allowing advertisements in the *Journal*, the possibility of holding an "Arts and Crafts" Exhibition, and the allowing of a special institutional subscription to the Society by Missions and other similar bodies. The minutes of the meeting with some explanatory notes will be found at the end of this number.

Suitable arrangements have now been made for future numbers to be printed by private enterprise in Kampala. The Society owes a debt of gratitude to the Government in allowing the first volume of the *Journal* to be printed by the Government Press, and to the Government Printer for doing the work so well. Although the July number will be printed elsewhere, the present form of the *Journal* will be maintained. Future numbers will, however, be smaller, as for the first year's subscription members have only received two numbers of the *Journal* while in future they will receive four numbers. Members are reminded that their subscriptions expire on 30th June next and those who wish to continue to receive the *Journal* and have not filled in a banker's order should do so.

The Journey to Uganda in 1896

and Kampala during the Closing Years of Last Century.

By Sir Albert R. Cook, kt., c.m.g., o.b.e., m.d.

If it be at all true that the interest of a country may be gauged by the amount of literature written about it, then the Protectorate of Uganda must rank very high among our African dependencies. The romance of its discovery, its delayed appearance in the geography and history of that great continent, the political and even religious struggles which convulsed its evolution in its earlier days, and let me add the remarkable response made by its peoples to Christianity and civilization, all mark it out as possessing exceptional interest and explain the way it has been "written up."

Add to this the fact that its exploration is so recent, and that many of the prime movers in its acquirement by the British Empire are still alive, and we have another excellent reason for wishing to hear about its early days.

Uganda is no isolated unit in the midst of a vast continent; its discovery, acquisition, development and government are inextricably mixed up with the remarkable opening up of the once so-called "Dark Continent" during the later half of the last century. The neck and neck race for its possession, between the English and Germans in 1890, the sluggish indifference of the Liberal Government before and after that date, the heroic efforts of Lugard, the tragic murder of Bishop Hannington, the amazing tenacity and courage of the early administrators and their subordinates, and the delightful object lesson of how a great African dependency can be governed not by a selfish exploitation of its riches by the sovereign state which governs it, but as a trusteeship for the indigenous inhabitants, rivetted the attention of the civilized world on it.

Speke discovered Uganda in 1862 and later in the same year found the Nile issuing from Lake Victoria at the Ripon Falls, on its long 3,300 miles journey to the Mediterranean, thus solving the age-long problem of the source of that great river. Stanley in 1875 confirmed and completed his explorations by circumnavigating the Lake and sending home the famous letter to the "Daily Telegraph," which having survived the murder of Linant de Bellefonds by the Bari, was found by a search party from General Gordon, then Governor of the Equatorial Province of the Egyptian Sudan, and forwarded on. Its publication directly produced the sending forth of the first missionary party by the Church Missionary Society consisting of eight members, of whom two—Lieutenant Shergold Smith and the Rev. C. T. Wilson—reached Uganda on

June 30, 1875. Two years later the Roman Catholics followed suit. The epic events that followed, including the martyrdom of many of the early converts, the murder of Hannington, and the religious wars that followed, are too well known to need more than a cursory reference to them, and form a classic of Missions. In 1890 Lugard, happily still with us, was sent out by the Imperial British East African Co., to administer Uganda, and his book "The Rise of our East African Empire" in its two fascinating volumes shows what tremendous difficulties he had to contend with and how admirably he faced and overcame them.

On his leaving in 1892, Captain (as he was then) Macdonald took over the Administration assisted by Captain Williams, (Lugard's second in command) till Sir Gerald Portal arrived in 1893 and on April 1st of that year, the Union Jack was hoisted in Lugard's little fort at Old Kampala, replacing the flag of the Imperial British East Africa Co. In November of that year Colonel Henry Colville of the Grenadier Guards took over, and on June 19th, 1894, Uganda was declared a British Protectorate.

In May, 1895, Berkeley arrived as Commissioner, and a formal Protectorate was proclaimed over Bunyoro, Busoga, Nandi and Kavirondo.

Of the early pioneers, I had been present in the Senate House at Cambridge as an undergraduate of Trinity College when Stanley received an honorary degree after his rescue of Emin Pasha, and have met the Rev. C. T. Wilson, the first missionary in Uganda, and Pearson, one of the party who went up the Nile under General Gordon's auspices. My own connection with the Protectorate began in the autumn of 1896 when as one of a party of twelve missionaries sent out by the Church Missionary Society for Uganda we left the Albert Docks in the P. and O. "Khedive," transhipped at Aden, and steaming through the end of the monsoon in the small British India boat "Canara," of only 1,000 tons, after a very uncomfortable and rough voyage dropped anchor in the old harbour of Mombasa on October 1st, 1896.

Nothing more strikingly marks the onward sweep, I had almost said "rush," of civilization in Central Africa, than the fact that our journey from London to Kampala which took us six months in 1896 can now be done in six days by air.

The difficulties then were formidable in three directions of which the first was by much the worst. They were transport, the menace to health, and the hostility, latent or patent, of tribes on the route.

The length of the old caravan track was about 850 miles from Mombasa to Kampala and by the time we essayed it the worst terrors had been removed. In spite of the famed Sclater Road, the precursor of the modern motor roads, a good deal of the way was unfit for wheeled traffic. That meant that all our goods had to be carried on men's heads. The Government regulations wisely prohibited a load of more than 60 lbs. weight—wisely because the native porter had to carry, in addition, his own mat, blanket, cloth and cooking pot, his invaluable short stick and knife, and his share of *posho*. The latter was a further difficulty. Food could only be bought at a few stations along the

route. Beyond the coast fringe there were only four points where food could be purchased up to Mumia's. The result was that careful organization was necessary before the start of a caravan, for subsidiary caravans had to be sent on many weeks before the start to store food at the various Government stations. The porter had to carry his supply of food for a week or ten days, usually about 15 lbs. of dried *mahindi* or Indian corn, and the temptation was for him to over-eat the first few days and starve the last.

Our caravan consisted of twelve missionaries, nine men (seven of whom were Cambridge men) and three ladies, and a fine old caravan leader (Dr. E. J. Baxter) who had come out as a missionary of the Church Missionary Society in 1877, and whose station was at Mamboya, now in Tanganyika Territory, long before that part of the world became German East Africa. As skilful with his rifle as he was patient with the men, quite unmoved by misfortunes, and resourceful in difficulties he was admirable at his job. He retired in 1912 and is still living in California. We were carrying with us a supply of books in Luganda in answer to the insistent demands of the natives there and medical supplies for the Hospital we had been commissioned to open.

Such a party needed at the least 500 porters and although the pay was good, thirty rupees a month, they were remarkably shy in coming forward. A certain amount had to be paid in advance and in all caravans there were scrimshankers who took the cash and deserted at night on the first opportunity. Once across the Taro desert, however, desertions became harder. Enrolment proceeded slowly, and in the event we had to wait nearly two months before we could leave the coast.

Towards the end of October the rains burst in all their fury; it was an unusually wet season, as many as four inches of rain often falling in twenty-four hours.

The result was that in low-lying places the route was impracticable and caravans were hung up unable to proceed. Finally we had to be content with 200 porters and 46 brown donkeys. Eight white Muscat donkeys were purchased for riding purposes. We had to pass through the fly belt and the practical caravan leader put the donkeys into loose trousers and jackets made of *amerikani* cloth which, to some extent, protected them from bites but caused them to exhibit the most ridiculous appearance. Each member of the party was limited to fifteen loads, of which two were taken up by a tent and poles, five were chop boxes for our three months march, and four or five consisted of camp furniture, bedding, pots and pans and bath, leaving only two or three for kit. The rest of the stuff we sent round by the South or German route and it was two years before some of it reached its destination.

On November 28th, 1896, our caravan started. The railway had just been begun and by the courtesy of the Chief Engineer we took our seats on planks placed across the trucks of a construction train and were pushed by an engine for seven-and-a-half miles, when our luxurious travelling came to an end and we had an hour's march into Mazeras, our first camp. It was interesting shortly after the train had rumbled across the temporary bridge at Makupa's Ferry, to notice sticking up at the side of the track the end rails of the original narrow

gauge railway of the Imperial British East Africa Co., that was intended to run from Mombasa to Uganda, but, alas! never reached more than a mile or two from the Coast. It was only a two-foot gauge and would have been quite useless. Sir Frederick Jackson in his book, "Early Days in East Africa" gives an amusing account of how he went in a complete train on this railway—for two miles—when it was derailed, and he adds drily "not from excessive speed for we were going only at five miles an hour." We waited three days at Mazeras for our position here became almost desperate. Twenty men deserted and six were too ill to take on. Thus we were reduced to 174 porters and 23 *askaris* and the donkeys. Sick men could not be left by the road side to die, for much of the march lay through quite uninhabited country, and every man unable to walk needed four to carry him. However nothing ruffled our caravan leader and leaving another fifty loads out of our already very reduced stores we made a short march to Mwachi on December 1st; four days later we entered the Taro desert but here the late heavy rains helped us. Ordinarily caravans crossed it carrying water in two forced marches of twenty miles each but we were able to camp twice by pools of rain water. As the doctor of the party I went down to inspect the pool and found a collection of muddy water, covered by a green scum, about sixteen feet across, a water-hole in the act of drying up so to speak. As I gazed thoughtfully at it a small turtle emerged, wagged its tail and disappeared again. Also the donkeys of the caravan were watered there and churned up the edges. However, proud of my elementary—very elementary—knowledge, I had several pails of the muddy fluid carried up to my tent and proceeded to stir up some alum in the water, and I must say the praises of the missionaries standing round were very gratifying as they saw the mud swiftly subside to the bottom. We poured off the supernatant clear fluid, our boys boiled it, and at last came the psychological moment when they raised the brimming cups of tea to their thirsty lips, but alas! instead of grateful thanks what seemed more like curses—good and hearty—issued as they quickly ejected the mouthfuls, for it seemed I had added in my zeal too much alum and a very nauseating draught resulted! However I learnt my lesson.

Once across the Taro, things began to cheer up. Each day we were steadily rising and the early hours were cool. The routine was much the same daily. Dr. Baxter's horn roused the camp at 4-30 a.m. and soon all was bustle and confusion. The cooks prepared breakfast, partaken of while the tents were being taken down, and then we started before sunrise, at the head of the long caravan, with the wild life of the country heard more than seen in the twilight till the growing light revealed them scampering away on all sides. There were no game reserves in those days, not even on the Athi plains, and a gun licence cost only one rupee, and as food was constantly required for the porters there was every incentive to kill.

Always the sun rising behind us, always the flaming sunset in front, we were marching steadily west. The length of the march depended on the places where water could be found; sometimes, though rarely, only seven or eight miles, occasionally twenty miles or more, and once thirty. The courage of the ladies was extraordinary; they bore the hardships and dangers, and the fatigues

of the way with as fine a courage and endurance as any of the men. Two of them, Lady Cook and Miss Bird, are in Kampala to-day, and two more, Miss Furley and Miss Pilgrim, who came up with Bishop Tucker the preceding year, are still in Uganda.

The first Government station was Ndi where we rested two days to re-organize our caravan. The Collector, a Mr. Godfrey, was most hospitable; alas! he died a few months later from blackwater fever. Just before the Tsavo we had our only adventure with a lion, though we were warned to pitch the tents close together at several of the camps as these brutes were known to be in the vicinity. It must be remembered that this was a year before the thrilling experiences recorded by Colonel Patterson in his book, "The Man-eaters of Tsavo." The camp had been pitched near the edge of a bit of forest and the porters told to keep up good fires. However, at 3-15 a.m. I was woken up by a frightful shindy and going out of my tent found the camp illuminated by a huge central fire in front of which was sitting a very scared porter. It appears that he had gone to sleep in his little tent on the outskirts of the camp and had allowed the fire to die down. A prowling lion had seen his opportunity and put in his great paw to hook him out as a periwinkle is hooked out of its shell by a pin. Fortunately for himself the man was lying curled up at the far end and the lion miscalculated the distance, its claws only just reaching the man's head. He woke up with a yell and his comrades rushed up with fire brands and drove the beast away, but a line of crimson down the centre of his black scalp showed how terribly narrow his escape had been.

From the rocks over Kenani camp we got our first view of Kilimanjaro, the snow on Kibo and Mawenzi being quite distinct though seventy-five miles away. From there on we got wonderful views of that giant among mountains.

On December 19th we reached Kibwezi and revelled in the beautiful garden of the Scotch Mission with its store of fresh vegetables and its industrial work. Dr. Wilson, its head, was most hospitable but in spite of the beauty of the scene and a somewhat dense surrounding population, it was not successful from a missionary point of view and Dr. Wilson dying of blackwater fever, the mission was removed to Kikuyu. At one time Dr. Moffat and George Wilson, of Uganda fame, were connected with this Mission.

Just beyond Kibwezi we had an exceptionally beautiful view of Kilimanjaro. To quote from my diary, I wrote on December 22nd: "Just as we got off at day break on turning our eyes south-east we saw a wonderful sight. Through a rift in the towering clouds which covered the sky in that quarter there suddenly appeared a great glittering mass—Kibo—one of the twin peaks of the mountain, reflecting the beams of the rising sun and flashing them back in truly regal splendour. All that we saw, some four or five thousand feet, was above the snow-line which on the Equator is in the neighbourhood of 15,000 ft. and for the first time we realized what a mass of snow and ice crowned the summit. It looked so pure, so unutterably lovely that one's thoughts instinctively turned to the vision of the Heavenly Jerusalem, that Holy City descending out of heaven as a bride prepared for her husband. Cut

off below and above by clouds it seemed to float in mid-air exquisitely sharp-cut and defined. It reminded me of the picture we saw in the Academy this year of Mansoul beleaguered by the hosts of Hell.''

Sickness among the porters troubled us not a little at this time. One case is impressed on my memory—a sick *askari* whom I passed on the march, groaning by the road side. His temperature was 104° and he was trying to walk with a load. We put him on a donkey, and gave him brandy, etc., but he soon fell off and so we arranged a litter for some days, as I found he had pneumonia, till we could leave him at a station. Wonderful to relate he recovered. The food was very bad, the *posho* consisting of Indian corn (*mahindi*) not fresh or ground but hard old grain requiring hours of boiling to make it soft. In vain we used to go round saying ''*pika sana*'' (boil it thoroughly). Tired, worn out men would not do this, and in their hunger they would take it very imperfectly cooked. Then bowel complaints were set up and all too soon dysentery supervened. Those sick with fever should have milk, beef tea, etc., and we gave them what we could, but our own stores were woefully short. At Nzawi we found a small African Inland Mission station with a Mr. and Mrs. Allen, working among the Wakamba. They were in desperate straits, continually suffering from fever, their quinine having run out, and the man suffering from a distressing malady but one curable by operation. We replenished their stock of quinine, and with Miss Timpson's aid (she was the first qualified nursing sister in the country) operated on the man and left him comfortable. Nine months later he wrote a long letter to me expressing his gratitude but saying that their Mission had been almost wiped out by blackwater fever. Another hand added a postscript ''Since writing the above our dear brother has succumbed to blackwater fever.'' Such was often the lot of the isolated workers in those days. But I must not linger on these incidents. At Machakos we met John Ainsworth and his newly married bride and paid a visit to the Stuart Watts at Ngaleni, with their beautiful orchards and flourishing farm and healthy looking children—precursors of the many settlers who have since made their homes in Kenya.

At Nairobi we camped by the Nairobi River but there was not a single building where the present town stands, only long waving grass and the *banda* of a solitary Transport Officer of the Government. We had to stay ten days at Fort Smith, as the *posho* stored for our men at the Ravine Station had been taken by caravans coming down country, themselves in dire need, and we had to replace it. By this time only twenty of our pack donkeys were fit for future service and the white riding donkeys were reduced to two. We were able to purchase some Masai donkeys and left on January 16th, enjoying the next day the marvellous view over the Rift Valley from the top of the Kikuyu escarpment. We passed the spot where only twelve months before, under great provocation, the Masai had massacred a caravan of 1,100 men and where Dick, the trader, had perished in trying to avenge them. Two of us broke away from the caravan and ascended Longonot, finding it true, as he said, that at one point one could sit on the rim of the cup-like crater and dangle a leg each side. At Naivasha we met Major Eric Smith and Captain Wilson, and further on Mr. Berkeley the Commissioner and Consul General of

Uganda and Mr. F. J. Jackson (afterwards Sir Frederick Jackson) on their way down to the Coast. Few people now realize that at that time the Eastern border of the Uganda Protectorate ran along the Kedong Valley and so Naivasha and Nakuru were in Uganda, but a glance at the maps in Sir Harry Johnston's books will confirm this. The change, handing over the old Eastern Province of Uganda to what is now Kenya, was not made till 1902. As we approached the Ravine Station we found the tribes hostile and had to take it in turns to keep watch and ward at night and see that the *askaris* were on the alert, a tiring job after a long march during the day. At the Eldama Ravine we found Dr. Macpherson, Vialle and Captain Bagnall. The latter provided us with an escort through the treacherous Kamasia country. Our highest camp on the Mau plateau was 9,050 feet and from it we descended by easy slopes to Mumia's, the great trade emporium of Kavirondo in those days. Here our caravan split up—the three ladies and six of the men going to Port Victoria, close to the present Mjanji, where they embarked in the tiny little steam launch, the "Ruwenzori", which was owned two-thirds by Boustead, Ridley & Co., and one-third by the Church Missionary Society. At best it would only hold forty loads, and the large party grossly overloaded it. The three of us who walked through Kavirondo, South Busoga and East Uganda had a better time of it and brought our long three months' journey to an end on February 19th by a last march of twenty-four miles. Through God's goodness we had only lost two of our porters in spite of much illness.

II. LIFE IN KAMPALA, 1897—1899.

At the beginning of 1897 there were but few Government Officials at Entebbe or Kampala. Major Ternan (still alive and now a Brigadier-General) was Acting Commissioner and resided at Entebbe with Smith, the Treasurer, and Pordage in charge of the Public Works Department. George Wilson, ("*Tayari*" as he was called) lived on Nakasero on a site close to the house of the present Police Commissioner, while below him were representatives of the trading companies—Muxworthy (who died of blackwater fever) in charge of Boustead, Ridley & Co's Store, and I think a man called Brown in charge of Smith Mackenzie & Co. Of the present buildings in Kampala not one was in existence. A footpath ran through long grass where Kampala now stands. All our houses were made of reeds, dried elephant grass, stripped and polished, with the roof of thatch and the floor of stamped mud, cow-dunged once a week to keep down jiggers, etc. The frame work of the houses was made of palmpoles and the life of the better built ones was limited to about five years. They were cool, economical, and pleasant to live in, but harboured rats and were liable to be totally destroyed by fire, either being struck by lightning or set alight by over zealous boys trying to burn out *ensanafu*, the fierce biting soldier ants. Once ignited they blazed furiously owing to the dried grass in the walls and thatch and but little could be saved.

The health of Europeans was poor. Ross had not yet worked out his mosquito theory of malaria and though we used nets it was only to reduce the annoyance of the bites.

Living was distinctly poor and very expensive. It is true goat's meat and occasionally beef could be procured, and milk and butter, but the great lack was bread. English flour was Shs. 3 per pound and at that price prohibitive. The native flour was ground very coarsely and full of grit so that it brought on stomach trouble. For three years after our arrival we had to do without bread, using roasted bananas or hard biscuits as a substitute but the latter were too dear for everyday consumption. Sugar too was in the same category and we quickly dropped that out of our menus. Soap was very expensive, and I remember thinking I had got a bargain when I bought three bars of common yellow washing soap for a guinea! Lamps were a difficulty. Most of us used the Army and Navy "Empress" lamp which by an ingenious clockwork mechanism does without a glass chimney by utilizing a powerful current of air. The usual four gallon *debbe* of kerosene cost £4 sterling, and on the long journey up from the coast, though it was cased in wood, the crafty carrier with an ingenuity worthy of a better cause would hammer a long nail through the thin wooden casing and thereby reaped two advantages, a grateful spray of oil diffusing over his bare back and his load mysteriously, but very satisfactorily, decreasing in weight. We circumvented him by ordering bar soap to be packed round the tin.

Sundried bricks began to be used for building in 1897 and as soon as the railway drew near enough corrugated iron sheeting replaced thatch.

III. EARLY HOSPITAL WORK.

Owing to scarcity of equipment and the heavy price of drugs we had to improvise a good deal. The first operations were done on a camp bedstead, the instruments sterilized in our cooking saucepans, and laid out in vegetable dishes filled with antiseptics. We soon, however, constructed tables, cupboards, etc.

The first Hospital, opened in May, 1897, consisted of two blocks, with six beds in each, one for men and one for women. The walls were made of elephant grass, with thatched roofs, and mud floors. The bedsteads were manufactured from palmpoles, the bedding was of bark cloth and the mattresses of plantain fibre.

The second Hospital, a much bigger one, was opened by Sir Harry Johnston, Her Majesty Queen Victoria's Special Commissioner, in 1900, and showed a big advance. The architect was Mr. Borup, still happily with us, and it was a graceful wattle and daub structure with two lofty towers. Unhappily the roof had to be of thatch, and in November, 1902, it was struck by lightning and totally destroyed. It contained some forty beds. By the time the third hospital was built rail head had reached the Lake and we could build with European materials.

Miss Timpson, who later became Mrs. Cook, presided over the nursing arrangements of the Hospital and trained first native boys and then natives girls as ward attendants.

We introduced the natives to the advantages of anæsthetics and antiseptics and the resources of modern surgery. We also started vaccinations to protect from small-pox and these at once became most popular with the natives. The

introduction of vaccination was somewhat dramatic. On September 3rd, 1896 as I was stepping into the train which took us to the Docks, an elder brother, a doctor at Hampstead, gave me a couple of tubes of human lymph, saying "You may find these useful in Central Africa." I slipped the little wooden case into my pocket and forgot all about it during the six months' journey. Three months after arrival a Chief came to me (as a matter of fact it was Ham Mukasa the former Sekibobo) and said: " '*Sebo*,' have you any '*dagala*' (medicine) for small-pox? An epidemic is approaching the Capital."—In civilized countries this fell disease has lost its menace. Thanks to the sterling common sense of our parents, we have all been vaccinated in infancy (at least I hope so!) and revaccinated in youth. But out here when small-pox strikes a country it sweeps through it like some destroying pestilence. Many die, many become blind or deaf or terribly pock-marked for life.

So when Ham spoke I thought of my tubes of vaccine and went to look for them. I found them all right, and remember holding them up to the light and wondering if, after nine months, the little amber-coloured drops of fluid retained any potency. However I vaccinated some boys and sent them away with strict injunctions to turn up in a week. I did not know my African boy then. Of course they failed to turn up and there the matter would have ended, had not my wife happened a few days later to notice one of the said boys with an obvious vaccination mark playing about in the native market. So she collared him with no uncertain hand and brought him up to our primitive dispensary and then and there with somewhat trembling fingers—consider the issues at stake—I sucked up the precious droplets in capillary tubes and with them vaccinated some people I really could keep under observation. A week later, from them I inoculated a dozen (arm to arm vaccination), a week later 30, then 50, 100, and at last, with my helpers, over 800 in one day. They almost stormed the Dispensary in their anxiety to be done. There were no "conscientious objectors" in Uganda!

IV. THE SUDANESE MUTINY.

On our arrival the Kabaka Mwanga was still on the throne but hints of trouble began to rise. It is true that he and his leading chiefs attended the festivities in honour of Queen Victoria's Diamond Jubilee but shortly after that he fled by night from the Lubiri and raised the standard of revolt in Buddu with the amiable intention of wiping the Europeans out of the country. He did not succeed in doing that but he did a good deal of damage. We got the wounded from the ensuing battles in our hospital.

But worse things were in store, for in the autumn of 1897 an event occurred which was within an ace of destroying, temporarily at least, British rule in Uganda.

It happened in this way: Major Macdonald had been ordered to take a strong expedition into the former Equatorial Provinces of the Egyptian Sudan and thus forestall or at any rate checkmate Major Marchand who was known to be advancing towards the same goal from the French colony on the Upper Congo. The British expedition was to consist of ten European officers, an

escort of fifty Sikhs and three hundred Sudanese with seven Maxims. The three companies of Sudanese were to be taken from Uganda and were to join the expedition at the Eldama Ravine where the road from Uganda descends into the Rift Valley. The main expedition left the Coast in detachments during the middle of 1897. The call for a Sudanese escort reached Uganda at an unlucky time. The three efficient companies of Sudanese had been overworked by the expeditions to Kamasia and Buddu and on their return from the latter place they were ordered to start at once on a prolonged journey (the expedition was under sealed orders) to an unknown destination. Their pay was months in arrear and worst of all they were forbidden to take their women with them. These latter besides cooking their food usually acted as their porters.

Their Commandant, Major Ternan, who was proceeding home took them as far as the Ravine where they struck north to join Macdonald's party. Two days later they deserted in a body and returned to the Eldama Ravine to complain to Mr. Jackson, then Acting Commissioner. The late Professor Gregory in his book "The Foundation of British East Africa" gives an excellent connected account of the beginnings of the trouble. He wrote "So far the act was a matter of insubordination and not of mutiny. When the first of the Sudanese reached Eldama they were ordered to lay down their arms and go into the Fort. They refused to do anything until the rest of their party had arrived. Captain Kirkpatrick threatened to fire upon them if they persisted in disobedience. The reply was that he might fire. The Maxim gun was brought out against the protests of Lieutenant Fielding who, though junior in rank to Captain Kirkpatrick, was senior in East African service and in experience of the Sudanese. His protests were disregarded, and the Maxim was trained upon the Sudanese and Kirkpatrick gave the order to open fire. The gun, according to the official account, jammed. According to the unofficial account, it did not fire from a cause which reflects little discredit on the mechanism of the gun and much credit on the men behind it."

As Kirkpatrick could not shoot down the Sudanese with the Maxim, he ordered the garrison to use their rifles. They could not disobey but they took care to fire high and no blood was shed. But the Sudanese were outraged by this reward for their years of loyal service and fled from the fort. Next day they were interviewed by Mr. Jackson. The tone of his report suggests that he believed the men's story and sympathized with their grievances. He had no option, however, but to order the men to return to Macdonald and they absolutely refused. After a short delay they marched to Fort Nandi, eighty miles to the west, over-powered Captain Bagnall who was in charge and ignorant of what had been happening, and looted the fort, getting some 80,000 rounds of ammunition.

At Kampala the first news of the mutiny reached us on October 7th, 1897, in the shape of a rumour that there had been severe fighting at the Ravine, and that the 300 Sudanese troops were marching back here. It must be remembered that there were no telegraphs or telephones in those days. All communications were by runners. The eight ladies of our Mission were all brought in to the Capital and we could only wait.

Quoting partly from my journal and partly from a letter of mine, written at the time, and published (unknown to me) in "The Times" of December 20th, 1897, I find I wrote on October 23rd: "About three weeks ago 300 Sudanese soldiers who had been sent from the Kampala garrison, mutinied at the Ravine and looted a large store of the Government Agents. As you know all the Government forts in Uganda are manned by Sudanese—perhaps 1,800 in all. After revolting they determined to march back to Mengo (Kampala), raise the standard of revolt, kill the Europeans, and start a Sudanese Kingdom here." They looted Nandi and marched on to Mumia's. Here, Tomkins though he had only heard native reports, had fully grasped the situation, and promptly disarmed all his garrison, armed the few Swahilis he could get, and prepared to fight. He cut down all the bushes around, and when the mutineers appeared he so bluffed them that they failed to attack. Passing on through Busoga they killed various natives and looted their cattle, finally appearing before the Fort at Luba's. Meanwhile rumours of what was going on were brought to us and Major Thruston, the Commandant, started off at once to meet the mutineers.

Though repeatedly warned he declared he was perfectly confident as to the loyalty of his men, and being a splendid Arabic scholar no doubt thought he could persuade them to reasonable courses. He crossed over to Luba's and admitted thirty of the mutineers to a conference. But they persuaded the rest of the garrison to join them and seized Major Thruston and the civil officer, Wilson, and tied them up. They then occupied the Fort. Of course the great danger was a general rising of the Sudanese throughout Uganda and a massacre of the Europeans. The news came through to us at midnight on October 18th and seemed to get worse every hour. Seventy men had been chosen out of the Kampala garrison and after swearing allegiance on the Koran were despatched in the Government steam launch with a Maxim, to guard the crossing of the Nile, under Scott the engineer. They arrived after the rebels had seized the Fort, and in spite of the spirited protests of the Baganda with him who suspected a trap Scott insisted on steaming up to the usual landing place, and on seeing the Union Jack floating above the Fort shouted to the two sentries who came down to meet him, if all was well. They respectfully answered that it was, so he walked ashore only to be immediately seized, whereupon his seventy men immediately went over to the enemy with their Maxim. They now numbered over nine hundred well-armed and disciplined men, with two Maxims, and merely waited for canoes to be ferried over the Lake as it narrows into the Nile. We also heard that Weatherhead, our missionary at Bukalaba four miles from the Fort had been seized, but that happily turned out to be untrue.

The next day at 7 a.m. all the men in the Capital were summoned down to meet the Deputy Acting Commissioner, George Wilson, at Lugard's old Fort, which alas! was a fort no longer, but only a collection of three or four thatched houses, for some busy-body thinking Lugard's pallisade and ditch no longer necessary had some years before taken down the one and filled up the other.

I shall never forget the scene. There was not one military officer among us. The only officer left in the country, Captain Moloney, had hurried off with eighty Sudanese, whose loyalty was more than doubtful, to guard the Nile crossing.

We were about a dozen all told—a few Government civilian officers, three or four traders and I think three missionaries. Rifles and ammunition were served out and we prepared to meet events. I remember seeing one man trying nervously to fit together the parts of a Maxim but it frankly puzzled him. George Wilson, nicknamed "*Tayari*," was admirable. Arguing that if any of us went down the hill to the 300 Sudanese and tried to disarm them, it would be the signal for an immediate attack, he sent for their officers and was perfectly frank. "You can overwhelm us," he said, "though we shall fight to the last, but remember that Queen Victoria has a long arm and in two or three months there will be a terrible reckoning for you to pay." The Sudanese officers warmly professed their loyalty and went off and disarmed their men. Just as the surrendered arms were being secured, a scribbled pencil note came in from Captain Moloney saying: "For God's sake, disarm the Kampala garrison. I am a prisoner in the hands of my men who have mutinied and are marching on the Capital." Wilson immediately sent out the officers of the disarmed troops who persuaded Moloney's men that it was to their own interest to submit. They gave up their arms when only eight miles from the Capital—Kisalosalo.

On October 20th, Wilson decided to go with two or three thousand loyal Baganda and all the Europeans he could get and fight the mutineers between the Nile and Kampala. He asked for help from the Mission and my dear friend Pilkington and myself volunteered, the former for interpreting and I for medical work. As there were no such things as non-combatants we were of course armed.

Arrangements had been made for sending the ladies of the Mission to one of the islands but the loyal natives pointed out that they would get rushed and speared on the way, as the many Mohammedans and disloyal natives would think the game was up and that we were giving up Uganda. So to their great delight they were allowed to stay and did such yeoman service in looking after the wounded, that the grateful Home Government later sent them each a medal and ribbon with a bar, an unusual distinction for women at that time.

Meanwhile Pilkington and I started for the Fort on the afternoon of October 20th only to find plans had fallen through. Wilson, quite rightly, had listened to the expostulations of his officers that as head of the Government he could not leave the Capital, and of the other ten, for one reason or another, none could start then, though Wilson promised to send Captain Moloney after us within forty-eight hours, as soon as he could get ready the Hotchkiss three-pounder—the only piece of artillery the Protectorate owned. So we marched away, two lay missionaries, at the head of Her Majesty's Forces consisting of 3,000 Baganda. How we enjoyed it all! The strong probability that we should meet nine hundred disciplined troops before we reached the Nile did not worry us in the least. It was late that day so we camped only seven miles out, the watch-fires of our brave but totally undisciplined forces reddening the sky. The next day we marched thirty-one miles. Early the next day, October 22nd, we met a runner carrying aloft a letter in the usual cleft stick. It bore the ominous inscription "To any white man" and was from Major Macdonald saying that they had had a great fight with the rebels on October 19th, that Lieutenant Fielding was killed and Jackson dangerously wounded, that

Major Thruston, Wilson and Scott had been murdered by the mutineers, that he had many wounded and his only doctor also was wounded, and worst of all that he had only six boxes of ammunition left and must retreat if attacked again.

We pressed eagerly on and reached the Lake at Lugumba's from which we could see the Fort occupied by the rebels. By sunset we could only obtain one small canoe, so we filled that up with ammunition and sent it over to Macdonald, judging that to be his sorest need. Next morning a fleet of canoes had collected and we went over with our native allies. The crossing at Lugumba's is about five miles and making a detour round the Fort we reached Macdonald's *boma* and received the warmest of welcomes and handed over our charges.

The next fortnight was very busy. Dr. Macpherson, whose efforts, wounded as he was, were beyond all praise, was more than grateful for my help. I was speedily initiated into the mysteries of military surgery. The operating room was my tent, the operating table a ground sheet. I had to make up antiseptic lotions from the water in rock pools and to impress any one I could find to act as anæsthetist.

It was most instructive to see the bravery of the Baganda. Armed only with their muzzle-loading guns they attacked the Sudanese outposts and drove them in to the fort, pursuing them till themselves driven back by the mutineers opening fire with the Maxims.

One native came to me and showed me what was obviously a bullet imbedded in his knee and asked me to remove it. As there was no recent wound I asked when he got it. "Oh", he said, "when fighting the Mohammedans four years ago." Asked why he wanted it out he said he could not kneel down properly or aim correctly. I thought that was a very soldier-like answer and so extracted the bullet for him. But I am blest if he did not want to cram it down his gun and fire it at his new enemies! On one occasion the officers were so struck with the bravery of the Baganda that they lined up and gave them a rousing cheer as they returned from a skirmish.

There remains but little more to tell about the Mutiny. The skill and bravery of that fine Christian soldier and gentleman, Major (afterwards General) Macdonald are known to all. He lost his own brother in one of the fights the same day that our devoted fellow-missionary Pilkington was killed. Slowly the Government forces gained the upper hand. Reinforcements from Machakos, and later on from India, arrived and Uganda was saved. But it was in those dark days that we won the affections as well as the respect of the people. They realized that hospitals and dispensaries were meant to help them and when Sir Harry Johnston opened our new and much enlarged hospital in 1900 they flocked to it eagerly.

I have dealt in this account with only a small period of time, 1896 to 1899, and there are quite a number of people in Kampala to-day who can remember well the events which I have described. I cannot close without saying that if I had my life's choice over again I would still choose the vocation of a medical missionary. To attempt to heal the suffering body is much, to carry the water of salvation to thirsty souls is more, but to combine the two is the grandest life work a man can have.

Katwe.

By E. J. Wayland.

The salt lake of Katwe is in Busongora and, as most readers of this Journal are aware, lies in the floor of the Western Rift Valley to the south-east of Ruwenzori, and on the west or Toro side of the Kasinga channel, which is the effluent of the relatively small reservoir of Lake George and flows into the great Lake Edward. From the latter, Katwe is only about 800 yards distant, and on account of the mosquitoes which swarm near the margin of the larger sheet of water the locality is unhealthy.

The area is flat, thickly grassed, lightly bushed, hot and unusually dry, for it misses much of the rain that falls on Ruwenzori and on the Ankole country east of the Buhwezhu scarp.

Katwe is astonishing. Owing to the gradual rise of the ground toward its rim one comes suddenly upon the immense cauldron-like hole in which the lake lies; then one sees, almost at a glance, that its level is much below that of Lake Edward, (1) and that its waters are red; indeed, from certain points of view, sanguinary.

There are times on a clear morning when Katwe is attractive, for its pink and blue reflections have a strange compelling beauty of their own; but sun-drenched and shadowless at mid-day the place is unlovely, stifling and malodorous; and when the long shadows of late afternoon display the cauldron in hard relief, and yet again, and more emphatically, when its alarming form is slowly unveiled by the vague light of a rising moon, Katwe seems an eerie spot befitting sinister performances—a fiend-made meeting place, you might suppose, for the Devil and

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(1) It is a curious fact that according to a map made by the Uganda-Congo Boundary Commission (1906—1908) the level of Katwe is 74 feet above that of Lake Edward. My approximate levelling showed Katwe to be lower than Edward by 95 feet. Levels taken by a Railway Reconnaissance party declared Katwe to be 7·70 feet above Edward. My figure was sufficiently confirmed, however, when engineers of the Uganda Public Works Department, starting from a bench mark near the Government Salt Boma, determined the altitude-difference between Katwe and Edward as 94·13 feet, the first mentioned lake being lower.

PROVISIONAL GEOLOGICAL MAP OF PARTS OF TORO AND ANKOLE, UGANDA.

29°30′ 30° 30′ 31°

1°00′N 30′ 0° 0°30′

LAKE ALBERT 2028′

R. Semliki

Buranga

R. Muzizi

RUSEKERE

NJARA

FORT PORTAL

L. Kyekora

TORO

KYATWA

ISUNGA

16784

RUWENZORI RANGE

Mpanga

Katonga R.

ANKOLE

BELGIAN CONGO

KARIMI

L. GEORGE 3015′?

L. Kikorongo

L. Kasenyi

L. Chambuga

L. Nyamunuka

L. Dwamsihizi

Kazinga Ch.

L. Chinona

L. Kararo

L. Masecha

L. Ragusa

L. Kanera

L. Katwe

Kachwamba

LAKE EDWARD 3000′

Lavas, tuffs & agglomerates ... TERTIARY TO RECENT

Kaiso beds

Kisegi beds

Lubaba quartzites

Post K–A granites

Granites and associated rocks of undetermined age ... G

K–A. System & Bunyoro Series

Schists of doubtful age

Toro quartzites

Basement Complex (schists, gneisses, crystalline quartzites and limestones

Rift Valley faults

5 10 15 20 25 30 35 MILES.

Geological Survey of Uganda. 1934.

E.N.B.

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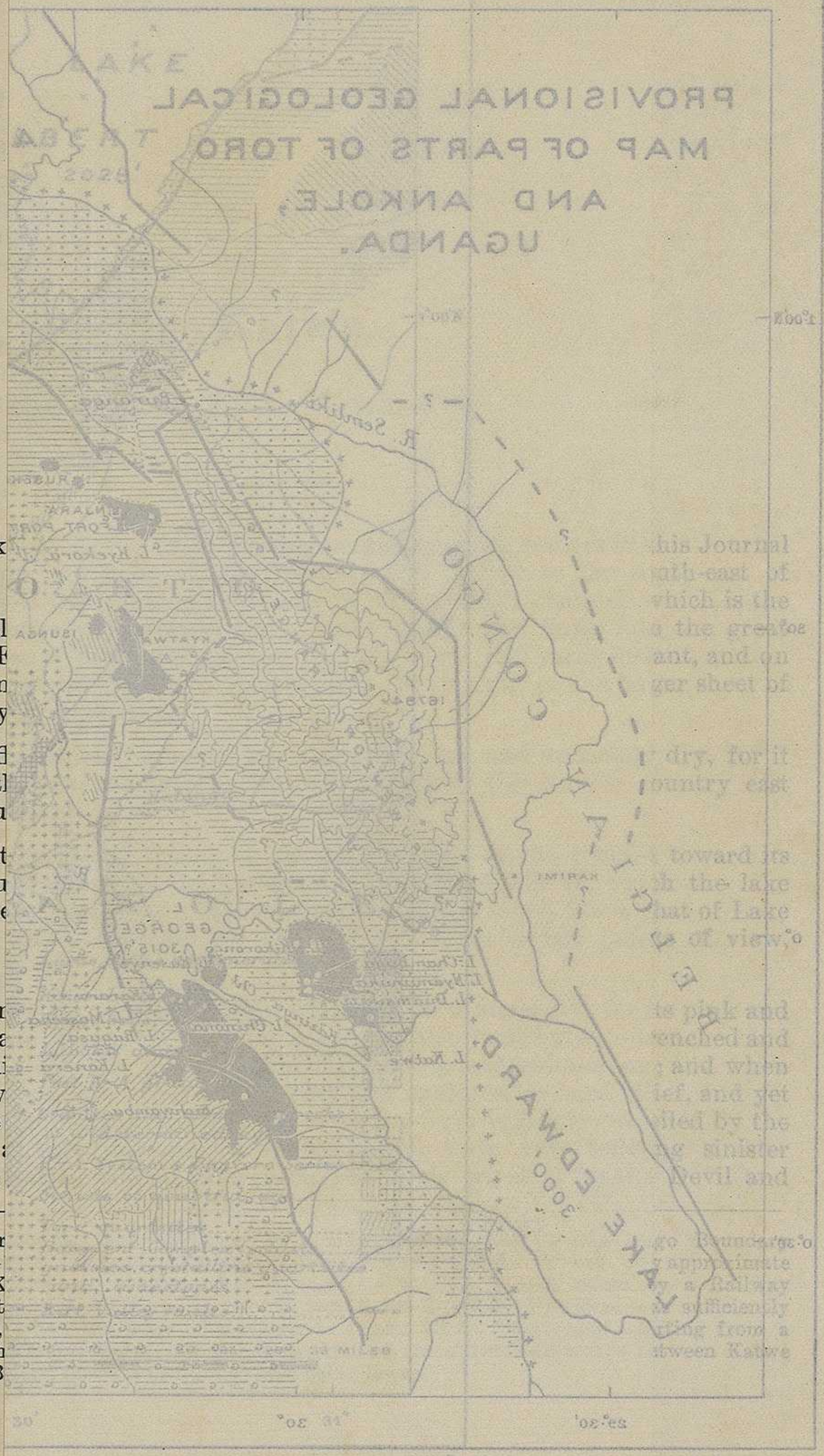

FIG. 1. The Western end of Lake Katwe (on a clear day Ruwenzori would be seen in the background).

[*Photo. by E. J. Wayland*]

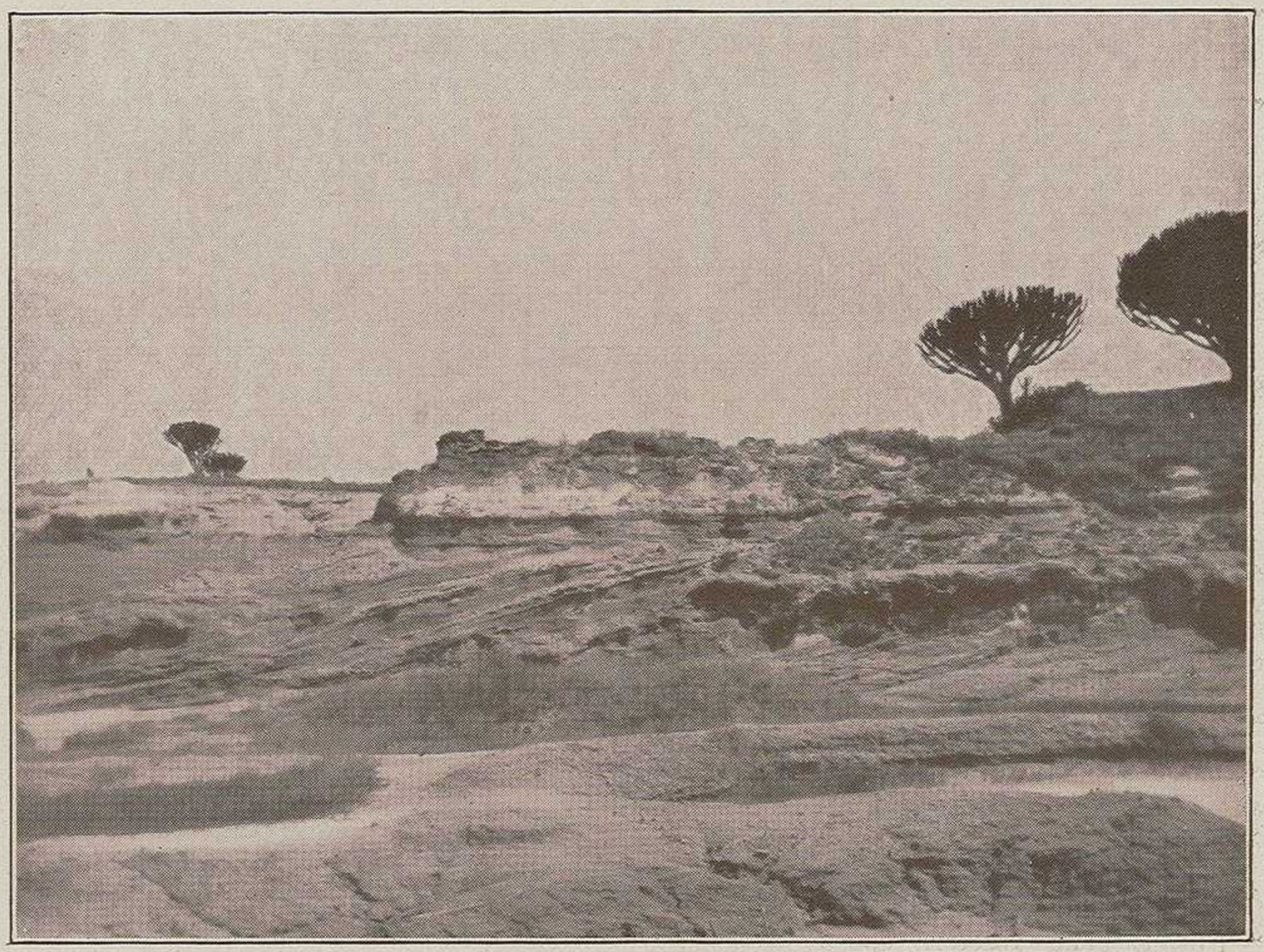

FIG. 2. Current-bedded sediments (sub-aqueous volcanic tuffs) in the vicinity of long extinct hot springs in the Katwe crater.

[*Photo. by E. J. Wayland*]

his friends. But if this bloody-watered pit is not the work of His Satanic Highness (and in these sophisticated days we dare not think it so) neither is its creepy influence completely out of keeping with its past association with Plutonic mysteries.

H. M. Stanley (2), wrong for once, regarded Katwe as a relic of a vastly larger lake of which George and Edward are but remnants. That such a lake existed in the distant days of early Stone Age man there is the clearest proof, but of that great sheet of water (Lake Obweruka I shall call it (3)) Katwe is not a relic ; nor is it an ordinary pond. Neither, for the matter of that, is it unique. There are several others of its kind, and there have been more in Busongora.

Approaching close to Katwe by the usual route from Fort Portal, or from Mbarara, one comes upon a large, round, dry depression immediately north of the road. This, too, was once a lake. (4) The saline clays that now compose its floor lie high above the red waters of its nearby neighbour, to which, by some twist of circumstance, it has lost its name. Thirty years ago this now generally dry lake was known as Katwe, (5) but the present generation of salt-getters call it Munyanyungi.

Roughly north-east of Lake Katwe and to the south of parallel N. 0° 2′, which coincides with the axis of the long western arm of Lake George, are other saline lakes as will be seen by reference to the accompanying geological map. They, too, are situated in circular depressions ; those of Chambuga, Nyamunuka and Duamsikizi are cauldron-like, after the manner of Katwe, while Kasenyi and Kikorongo occupy saucer-like hollows. (6)

In the main there are two ways in which such depressions may be formed, (*a*) by impact from above, as for example is the case with the meteorite craters of Henbury in central Australia and of Wabar in Arabia, and (*b*) by explosive volcanic action. The latter is by far the more common mode of origin and provides, beyond question, the explanation of these saline crater lakes of Busongora. They are not lava vents, in the ordinary acceptation of the term, for no igneous flows have issued from their throats. They are explosion craters from which lumps of rock, torn off from their parent masses at depth, were hurled out over the surface (ejected blocks) together with balls of hot lava (bombs). The former are common, the latter rare, and in some cases almost if not completely wanting. The study of these ejectamenta has yielded some highly interesting results to which reference will be made again in this article.

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(2) "In Darkest Africa," 1890, Vol. II, p. 315.

(3) It is convenient to have a name for this one-time vast lake. The choice of names is unlimited. I have selected Obweruka, the name by which the Southern Bakonjo called Ruwenzori (or at any rate the snow peaks) when Sir H. Johnston first visited them. From Ruwenzori the old lake must have obtained some of its supplies during the days of the Great Ice Age.

(4) It is stiil a marsh or shallow lake during the rains.

(5) Stanley remarks that the name Katwe is rightly applied to the smaller of the two lakes, while the larger (the present Katwe) was known as Mkiyo.

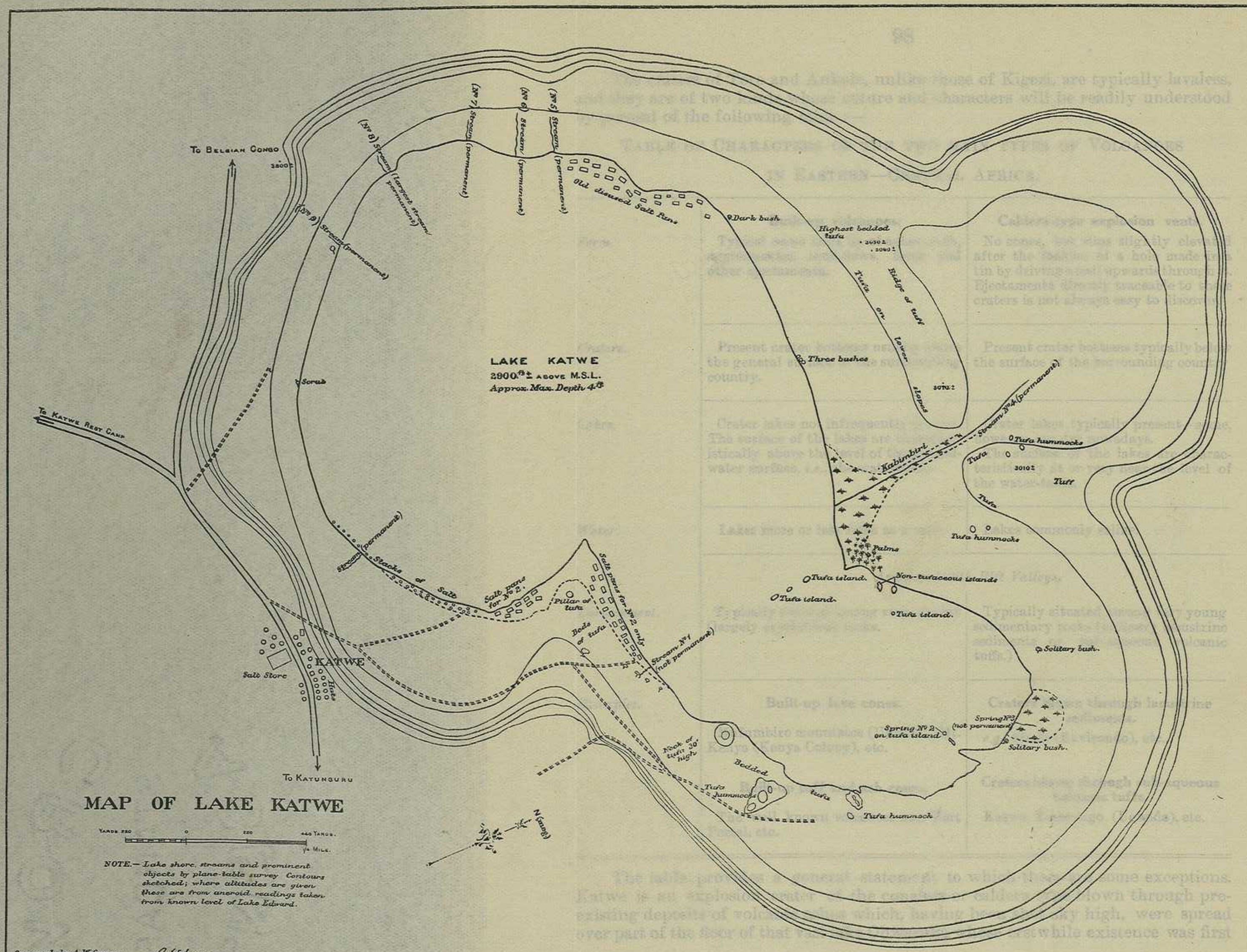
(6) It is interesting to note that Scott-Elliot on p. 127 of his book "A Naturalist in Mid-Africa," 1896, says of two crater lakes between Kikorongo and Katwe (Chambura and Nyamunuka ?): "In both of these the levels seemed to me to be lower than that of the Nyanza."

The craters of Toro and Ankole, unlike those of Kigezi, are typically lavaless, and they are of two kinds whose nature and characters will be readily understood by perusal of the following table :—

TABLE OF CHARACTERS OF THE TWO MAIN TYPES OF VOLCANOES IN EASTERN—CENTRAL AFRICA.

	Built-up volcanoes.	**Caldera-type explosion vents.**
Form.	Typical cones built up of ashes, tuffs, agglomerates, mud-flows, lavas and other ejectamenta.	No cones, but rims slightly elevated after the fashion of a hole made in a tin by driving a nail upwards through it. Ejectamenta directly traceable to these craters is not always easy to discover.
Craters.	Present crater bottoms usually above the general surface of the surrounding country.	Present crater bottoms typically below the surface of the surrounding country
Lakes.	Crater lakes not infrequently present. The surface of the lakes are characteristically above the level of the ground-water surface, *i.e.*, the water-table.	Crater lakes typically present—some, however, are dry nowadays. The surface of the lakes are characteristically at or very near the level of the water-table.
Water.	Lakes more or less fresh as a rule.	Lakes commonly saline.
	Associated with Rift Valleys.	
Environment.	Typically situated among very ancient (largely crystalline) rocks.	Typically situated among very young sedimentary rocks (ordinary lacustrine sediments or sub-aqueous volcanic tuffs.)
Examples.	**Built-up lava cones.** Mufumbiro mountains (Uganda), Mt. Kenya (Kenya Colony), etc.	**Craters blown through lacustrine sediments.** *e.g.*, Simbi (Kavirondo), etc.
	Built-up tuff and ash cones. The well known volcanoes near Fort Portal, etc.	**Craters blown through sub-aqueous volcanic tuffs.** Katwe, Kikorongo (Uganda), etc.

The table provides a general statement to which there are some exceptions. Katwe is an explosion crater of the coneless or caldera type blown through pre-existing deposits of volcanic ashes which, having been shot sky high, were spread over part of the floor of that vast lake Obweruka whose erstwhile existence was first



MAP OF LAKE KATWE

YARDS 220 0 220 440 YARDS.
¼ MILE.

NOTE.— Lake shore, streams and prominent objects by plane-table survey. Contours sketched; where altitudes are given these are from aneroid readings taken from known level of Lake Edward.

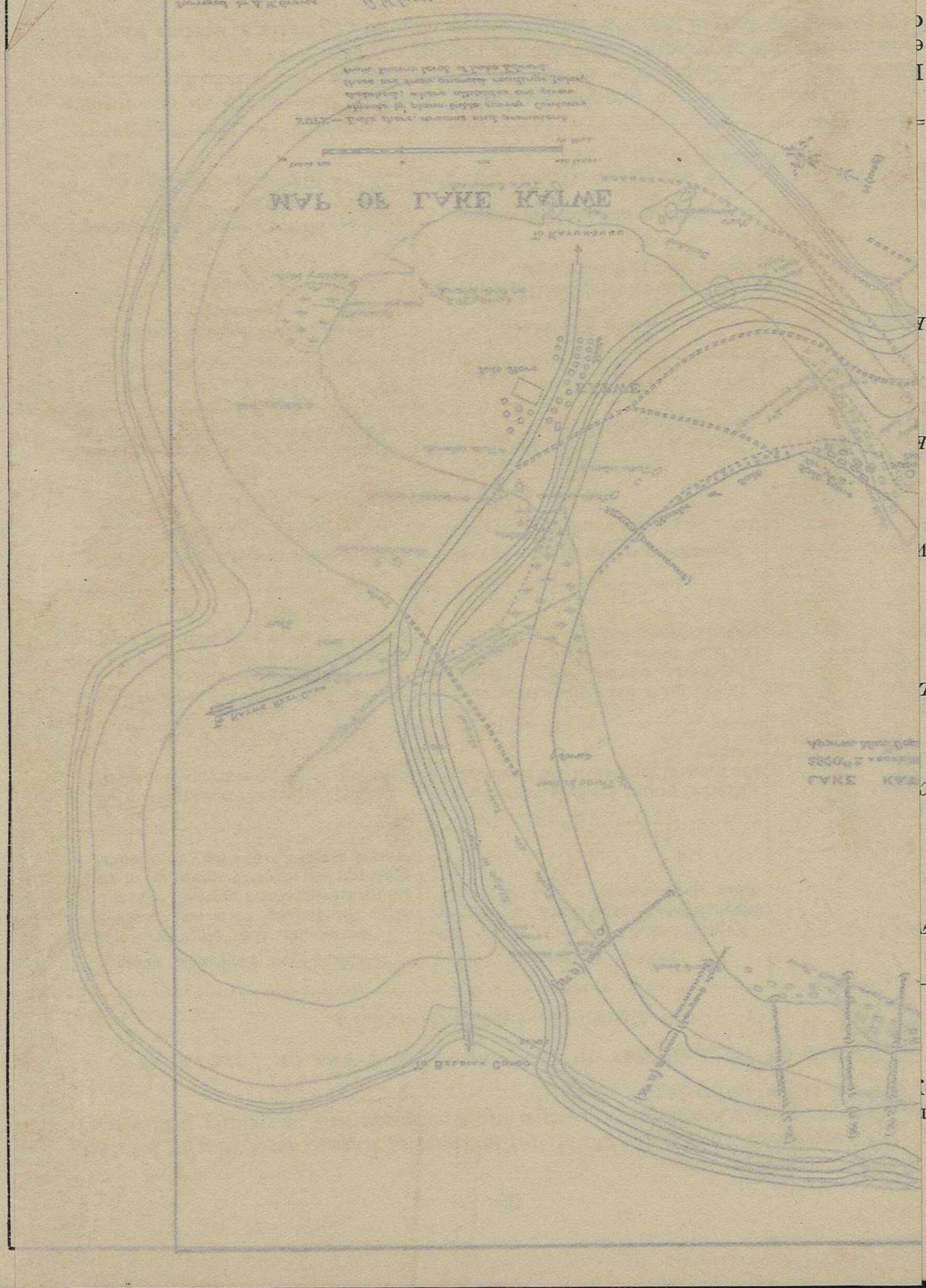
Surveyed by A. W. Groves in April 1930.

A. W. Groves. 26. V. 30.

E. N. Brohier, Draughtsman.

Geological Survey of Uganda
E. J. Wayland, Director.

MAP OF LAKE KATWE



recognised, as we have seen, by Stanley. The strikingly layered character of these interbedded deposits [7] (tuffs as they are called), together with their thickness, is indicative of a lengthy period of intermittent unrest whose close was marked, or whose relatively feeble recrudescence was signalled by subterranean explosions which drilled great holes (like that of Katwe) through the water-laid ash deposits above. But this was after Obweruka had dwindled, as the clean-cut sides of the craters clearly testify. Some if not all of these disturbing events were witnessed by early man, for the ashes accumulated during the second half of the first Pluvial period, and in 1923 I first recovered primitive stone tools from deposits of this age further north.[8] These explosion craters came into being much later than the bedded tuffs, and echo of their activity may possibly be found in the folk tales of the Native peoples.

The Bakonjo of Ruwenzori tell that the Bachwezi, a legendary race of wizards, rose from the craters of Toro and returned thereto after a short and vigorous regime. This tradition may perhaps recall a misinterpreted and not easily forgotten time-coincidence of volcanic disturbances and the unwelcome arrival of a conquering horde—the ancestors, it may be, of the present Bahima. That the latest subterranean outbursts in Toro are within reach of race memory seems to be indicated by a well varnished narrative of the exploits of a certain Muganda general.

Stanley, writing in 1875, [9] records the doings of one, Magassa, an ambitious and crafty individual, who flourished in the reign and under the aegis of Mutesa. The former, it seems, having "eaten up" the lands of the Pokino, and later those of Namujurilwa, was ordered to "eat up" the country of Busongora. Among the difficulties of his successful campaign were those arising out of the nature of the country itself, for the plain of Busongora, it was claimed, was covered "with salt and alkali, which intemperately eaten causes many deaths; and in the valleys spring up mudsprings, and from the summit of conical hills strange fire and smoke issue, and now and then the very earth utters a rumbling sound and begins to shake." This information was provided by Magassa himself after the Baganda invasion of Busongora in 1873; and a youth who accompanied Magassa told a similar story. [10] Writing of Busongora in June, 1889, however, Stanley says [11] "The wide expanses of flats with efflorescing natron, teeming with hot springs and muddy geysers turned out to be pure exaggerations of an imaginative boy." I venture to think, however, that the statements are more significant than that. Perhaps Stanley would have thought so too had he realised the volcanic nature of the country and the fact that Katwe is a crater, which, remarkably enough, he failed to do.

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(7) This sub-aqueous volcanic material is interbedded with normal lacustrine deposits; locally, however, it is dominant or even quite exclusive. This subaqueous series, with or without volcanic material, is known as the Kaiso Beds (*see* Geological Map).

(8) Geological Survey Files (unpublished.)

(9) "Through the Darkest Continent," 1878, Vol. I, p. 391.

(10) *Ibid* p. 427.

(11) "In Darkest Africa," 1890, Vol. II, p. 310.

Magassa's vivid description consistently depicts a dying phase of volcanicity, and the mention of mud volcanoes is particularly interesting as none are known in the area to-day. They are expressions of a transient and seldom-seen phenomenon, and as a concept they are not in the least likely to be no more than a product of a rather vivid Native imagination. With Stanley, I reject the statements of Magassa and the youth. I do not believe they witnessed the natural wonders they described, but I think it very probable that Magassa, for purposes of emphasising his own prowess, and of exaggerating before Mutesa the difficulties of the task he (Magassa) had performed, incorporated into the story of his adventures a tradition then current in the conquered territory. If that indeed is the true explanation, then the comparative lateness of volcanicity in Busongora is well attested.

For the soundest reasons these craters cannot be regarded as geologically ancient. They must post-date the second half of the first Pluvial period because they pierce deposits of that age. The first Pluvial was followed by another after a long interval of dry climate, and was itself interrupted by an oscillation to less moist conditions. Following upon the second Pluvial were additional though less severe climatic changes.

The volcanoes exhibit a degree of freshness that forbids one to suppose them to have suffered from the ravages which the denuding power of such climatic onslaughts would inflict upon the relatively unresisting beds in which the craters lie ; and so far as we can at present tell the second Pluvial passed away some 6,000 years B.C. It will thus be realised that Katwe is not likely to be more, and is very likely to be considerably less, than 10,000 years old.

The accompanying map of Katwe and its immediate surroundings was made by Dr. A. W. Groves, late of the Geological Survey of Uganda. It shows at a glance that the Katwe depression is a trinity of craters [12] and that its depth is about 300 feet. A remarkable and significant feature is the persistent shallowness of the water, and its rare major fluctuations are of special interest. The Lake is very seldom much more than 4 feet deep at the centre, and seldom much less. Its annual rise and fall appears to total about a foot. Few places in the Protectorate can boast higher temperatures than the bottom of the Katwe crater in the dry season.[13] There the evaporation ratio must be decidedly high, and the fact that the lake does not dry up during the long droughts gives one seriously to think. It is true that some springs enter the lake, but as I have shown elsewhere,[14] it would appear most probable that evaporation is sufficiently high to remove all, and more than all, the water that enters the crater as rain, run off or as springs from above and below ; but if this were not the case one would still expect a decided fall of level during the rainless months.

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(12) Hope, Faith and Charity I should like to call them. Hope is the one that is dry, but which, I believe and hope, could be made to yield abundant salt from below. Faith is the smaller of the two containing water. It yields the evidence upon which the interpretation of the structure of the craters is based and leads to faith in the real bigness of the supplies. Charity is the largest of the craters. It provides most of the salt, and from its side issues a spring (No. 8) of the most potable water in the district.

(13) A. F. R. Wollaston remarked ("From Ruwenzori to the Congo," 1908, p. 117) : "Katwe has the reputation of being the hottest place in Uganda, which I can well believe."

(14) "Notes on Lake Katwe," 1931. (An unpublished Report of the Geological Survey).

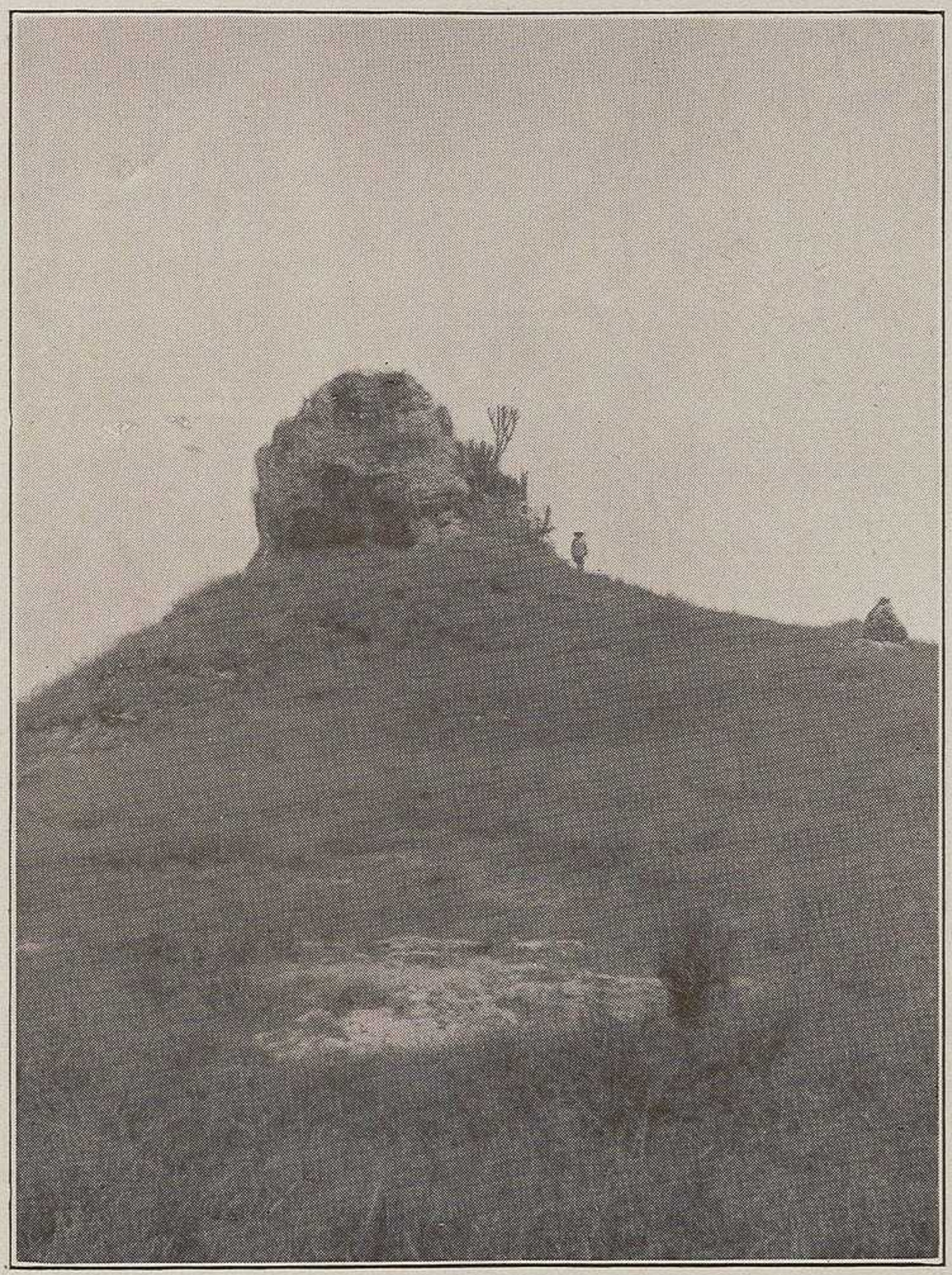

FIG. 3. A neck of carbonate of lime (calcareous tufa), south side of Katwe crater—*see map*.

[*Photo. by E. J. Wayland*]

FIG. 4. Slabs of No. 3 salt showing ripple marks.
[*Photo. by E. J. Wayland*]

There is, too, another, and I think diagnostic point. From such evidence as can be gathered, as well as from logical expectation, there is reason to believe that the level of Lake Edward has fluctuated, as those of the other greater equatorial lakes Albert, Victoria, Tanganyika and Nyassa have done, more or less with sunspot cycles. On first enquiry Katwe would seem to have behaved similarly, but close analysis of the available facts searched out of the works of Stanley, Sir William Garstin, The Duke of Mecklenburg and Dr. C. E. P. Brooks, and from rainfall records and first-hand information supplied by natives and Europeans (15) leads to the conclusion that fluctuations of the level of Lake Katwe are very closely associated with rainfall and very little, if at all, with sunspot cycles, and that in relation to seasonal climatic oscillations the level-changes of Katwe lake, although responsive, display a lag.

In addition to its salinity, of which a word will be said later, Lake Katwe has several peculiarities :—

(*a*) Its level is nearly 100 feet below Lake Edward which is only about 800 yards away.

(*b*) Its visible feeders, both from above and below, are insufficient to account for its presence in an area characterised as its environs are, by low rainfall and high evaporation.

(*c*) So shallow a lake should respond very obviously to differences in amount of evaporation, and one would expect it to be, like its near neighbour Munyanyangi, a lake or marsh in the wet season only. But the Katwe puddle (one might almost think of it as that) has never been known completely to dry up.

(*d*) In spite of the fact that it is not much more than waist-deep in the middle, and gradually fades out to no depth at the periphery—a mere film of water—its annual fluctuations are astonishingly slight. On one occasion, however, (1929) it has been known to decrease its depth by about three-quarters of its normal amount, and on another occasion (1917) it has about doubled its depth. Both of these fluctuations can be shown to be associated with unusual conditions of rainfall.

(*e*) Apart from these rare occurrences and the slight annual oscillations, to the best of our knowledge the general level of the lake has not materially altered for at least 55 years, and perhaps not for more than double that period. Its stability indeed is one of its outstanding features.

(*f*) Another appears to be that while its want of response to changes of evaporation (such as those accompanying sunspot cycles) is notable, it is clearly affected by oscillations in the rainfall.

It would appear then that in essential characters Katwe differs fundamentally from Edward ; and that the one thing the former cannot be is just a pool of water in a hole. The clue to the real nature of the lake is provided by three facts : (*a*) its ready, though neither very marked nor immediate response to rainfall, (*b*) its want of response to a highly important climatic factor which, unlike rain, cannot penetrate deeply ; I refer, of course, to evaporation ; and (*c*) the comparative insignificance of its normal annual oscillations.

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(15) *loc. cit.*

To my mind these facts considered in relation to the environment of Katwe can point but one conclusion ; namely, that the surface of the Lake is that of the water table (*i.e.*, the saturation level of ground waters). To this it may be objected that the seasonal rise and fall of the ground water should be more than a few inches ; but experimental evidence does not support that view. (16)

This conclusion as to the nature of the lake solves the problem of its existence. In fact it may be said that Katwe is not a lake at all (in the sense that a lake is a hollow in which water collects directly by gravity) but a bit of the water-table exposed by reason of the depth of the crater—in other words Katwe is a gigantic natural well, drilled not from above but from below by volcanic forces.

From the economic point of view the salinity of the lake is its interesting feature, and it is no less important in the consideration of the lake's origin and the source, quality and quantity of the available Katwe salt supplies.

Besides common salt (sodium chloride), soda (sodium carbonate) and Glauber's salt (sodium sulphate) occur in conspicuous amounts, and a proportion of potassium chloride and/or sulphate and carbonate is present in the water. In addition to these dissolved substances there is a three-inch layer of "salt" containing them all in varying proportions covering the bottom of the lake.

Apart from the three-inch bottom layer, which is constantly being replaced by Nature as it is being removed by man, there are upwards of 400,000 tons of saline material in solution, and assuming that the lake has been worked for no more than 60 years, (17) and that, despite probabilities to the contrary, the annual output has not exceeded that averaged for the period 1923—1929 inclusive (*i.e.*, 1,173·3 tons) then the sum-total of salt, thus calculated, is over 470,000 tons. Whence came this supply ?

The springs that feed into the lake are non-saline and small, and all of them save one (No. 8) issuing from the crater sides dry up during the rainless season, and as Groves has shown (18) the tuffs composing the crater walls contain no more than "mere traces of soluble chlorides." Mere traces, however, can lead to large concentrations. The great rivers that debouch into the sea are not noticeably saline, but their contributions during geological time have so accumulated that the total quantity of salt at present contained in the oceans is equivalent to four and a half million cubic miles of rock-salt, or about fourteen and a half times the bulk of the entire continent of Europe above high-water mark. (19)

There is another possible but small source of supply which may be considered : that is atmospheric chlorine derived from distant seas. This can be represented only by an extremely small quantity which could hardly account for

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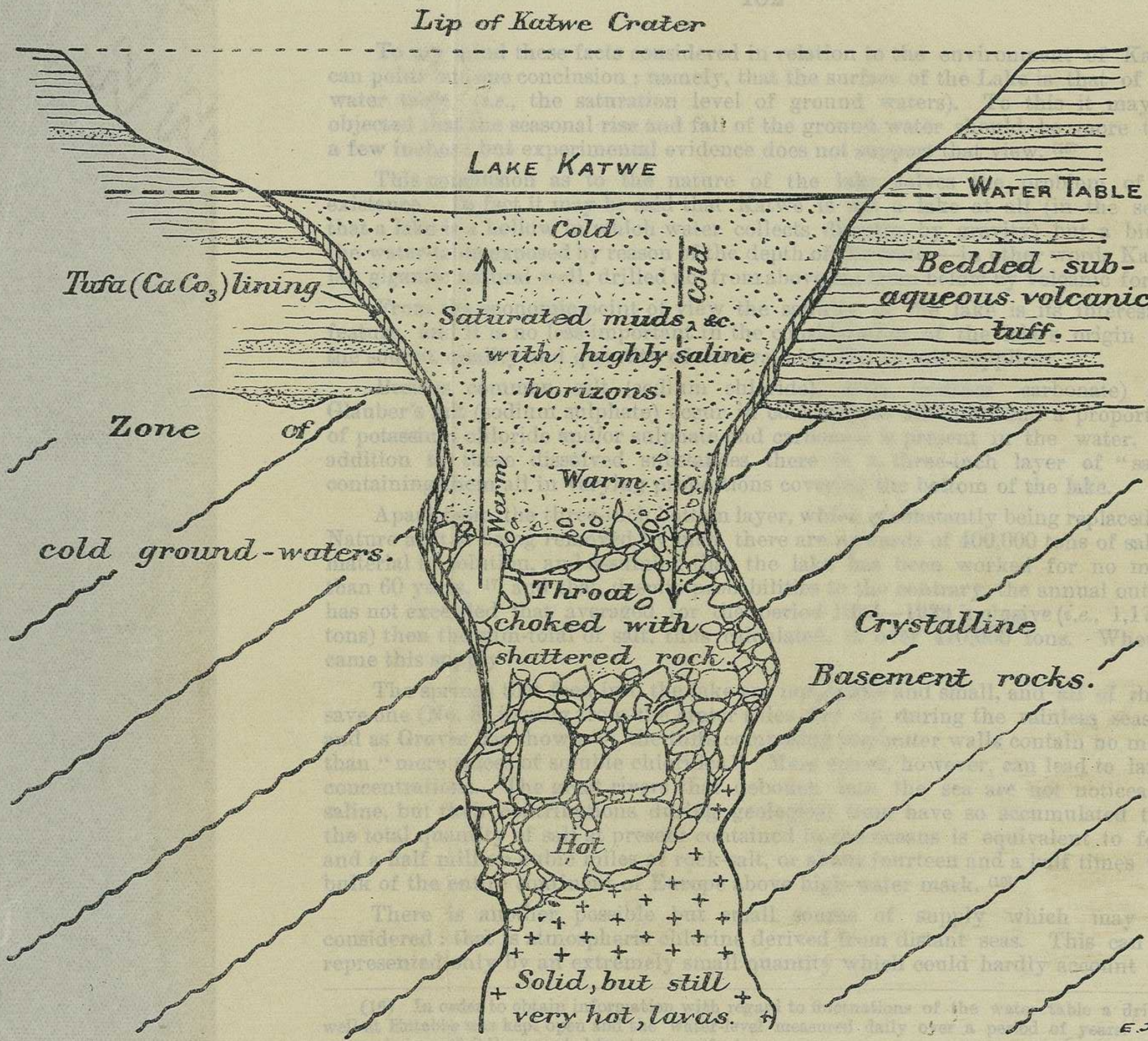
(16) In order to obtain information with regard to fluctuations of the water table a drilled well at Entebbe was kept open and the water-level measured daily over a period of years. The seasonal rise and fall amounted to about one foot.

(17) There is very good reason for believing that it has been worked for at least that period (Stanley, H. M., "Through the Dark Continent," pp. 311, 439 and 473).

(18) "Report on the Nature, Origin and Available Supply of the Salt of Lakes Katwe and Kasenyi, with Notes on Lake Kikorongo and an appendix on the Petrology of the Volcanic Bombs of the District," Geological Survey (unpublished).

(19) Encyl. Brit. 11th. Ed. Vol. XXIV, 1911, p. 87.



HYPOTHETICAL SECTION OF THE KATWE CRATER & VOLCANIC THROAT

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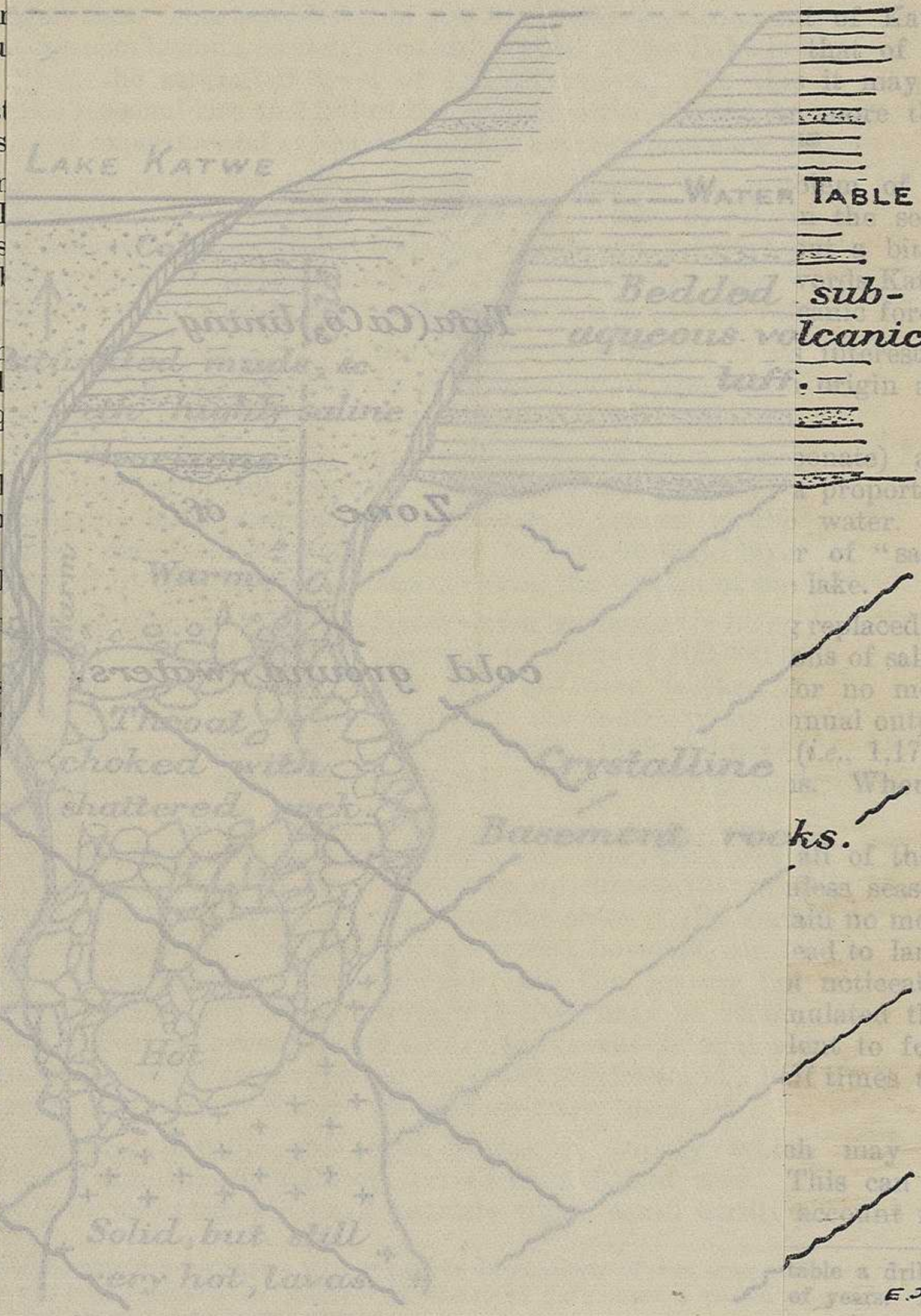

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an ounce or so of salt per acre per annum. But let us assume it to be as much as three lbs. and so that the contributions of the tuffs, carried by run-off during rains and by springs, may be included let us double that amount, thus making it six lbs. per acre each year. At that rate (almost certainly an excessive one), and assuming that all the salt reaches the lake, it would take nearly 120,000 years for all the salt already taken from the lake, plus that remaining in solution (and still neglecting the three-inch bottom deposit) to accumulate. We have already seen that the Katwe crater is not likely to be older than 10,000 years, wherefrom it would appear that considerably more than 430,000 tons of salts are unaccounted for by visible sources of supply. In addition to this, a case has been made out to show that the salinity of Katwe is increasing, and that Katwe is not the only salt lake in Busongora that exhibits this peculiarity. (20) Be this as it may, there can be little doubt that a very small proportion of the saline content of Katwe finds its way into the crater from above, thus we are left with no alternative but to accept a subterranean origin for the main salt supplies of the lake. But the salt itself has still to be accounted for.

Igneous activity has gone on under the site of Katwe and other parts of Busongora for a very long time, and there are calcium carbonate (carbonate of lime), or tufa, stacks in the crater which were built up by one-time hot springs which dropped the less soluble constituents of their dissolved load on cooling (Fig. 3).

This same substance occurs locally in the subaqueous ash beds and lacustrine sediments of the old lake Obweruka through which the crater was blown (Kaiso beds), and in those places the continuity of the normally flat bedding of the deposits is disturbed, the bedding is inclined, and has been so from the first, as a result of small currents locally engendered by the rising waters of hot springs that deposited the carbonate, but the beds in these places are not as a rule noticeably saline (Fig. 2). The clue to the origin of the salt is provided by the volcanic bombs referred to earlier in this article. They show that the molten mass from which they were derived was alkaline, and that easily decomposed sodium-bearing minerals (such as nepheline, a silicate of sodium, aluminium and potassium) are present at depth.

It is well known that during a late phase of volcanicity gases and solutions capable of strong decomposing action, and thereby of forming large quantites of soluble chlorides, sulphates and some other substances, rise from below surfacewards. The work of these active salt-producing agents would be particularly effective in the throat of a volcanic vent like that which must underlie Katwe where, by reason of the shattered nature of the materials choking the passage, surface areas available for interaction are in the aggregate large. During such a time of active chemical interchange this zone of shattered rock-filling would be saturated with scalding solutions and overlain by successively cooler waters till the surface of the lake was reached. In these circumstances convection currents must arise in consequence of the temperature gradient so that hot salt-charged water rises from below, cooling as it rises, to be replaced by relatively cold water from above which, as it descends and gathers heat, slows, stops, then starts an upward journey carrying, in its turn, soluble substances which

(20) Groves, A. W., *loc. cit.*

will be deposited in the crater above by cooling and evaporation. A circulatory system such as this can only exist in the presence of abundant water, and the surface of Katwe, we have found, is also that of the subterranean saturation zone. The conditions then for this kind of lacustrine concentration are particularly favourable.

In addition to common salt a number of other soluble substances will be brought up and thrown out of solution during ascent in the inverse order of their solubility as successively cooler zones are reached. Carbonate of lime, for example, will be discarded fairly early. So long as depth temperatures remain very high it will reach the ground commonly by way of boiling springs, and these will deposit their loads of lime-salts on experiencing cooling effects at the surface. In this way the tufa stacks and other calcareous accumulations already referred to have been built up. As depth temperatures die down with the passage of time calcium carbonate will be thrown out of solution at successively lower levels, and the vigorously boiling springs of earlier days will be converted into warm seeps which reach the surface by means of conduits lined with tufa ; for heated waters rising by convection up the throat of the crater to cooler zones will deposit their less soluble loads largely along the sides of their channels where the hot solutions are chilled by contact with the cold ground-waters. Thus, it seems to me, a volcanic vent, such as that of Katwe, must for a considerable depth seal off its content more or less completely from the ground waters which surround it, thereby conserving within its walls the salts that are carried by convection so usefully to surface, and sealing off the brine that would contaminate the waters of a well should one be put down outside the crater (*see* Hypothetical Section.)

Three grades of salt, numbered in their order of purity, are recognised at Katwe. No. 1 salt separates out in crystals on the surface of the water, No. 2 is formed by evaporation in "pans" purposefully dug in the mud beside the lake, and No. 3 is the three-inch accumulation on the bottom already referred to.

The methods employed in collecting the salt have been described by several writers, and the following details serve to complete the picture. No. 1 salt may form in relatively small quantities at any time except during rains. Its formation is largely dependent on wind. At the time of my visit, January, 1931, No. 1 salt was making its appearance in the south-west end of the lake, towards which a fairly strong wind was blowing (Fig. 5). The little cubes of salt, it was found, grow along two crystallographic axes (those in the plane of the water surface) much more rapidly than along the third axis (normal to the plane of the water surface). Platy aggregations, one crystal thick, rapidly form until they cover an area roughly equal to that represented by one's open hand ; they are then in a very delicate state of buoyancy-equilibrium, and the slightest touch, a tiny wavelet or any other disturbance of the water will upset them so that they collapse to the bottom to add to the No. 3 deposit. No attempt is made by the natives to secure these relatively small supplies of material before they drop to the bottom. They are not skimmed off the top ; indeed, I am told that the skimming one hears of is never resorted to.

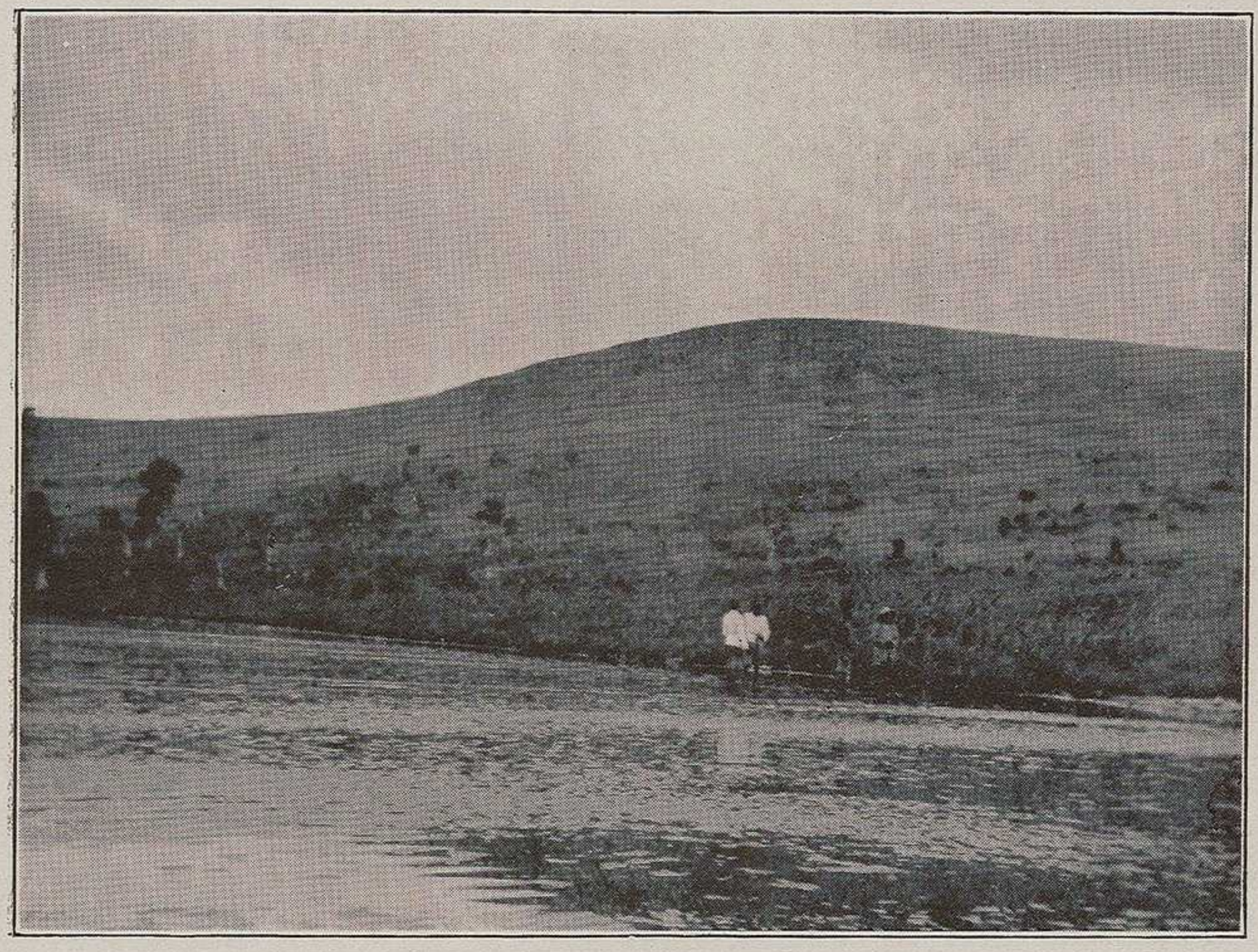

FIG. 5. No. 1 salt forming on the surface of Katwe lake.
[*Photo. by E. J. Wayland*]

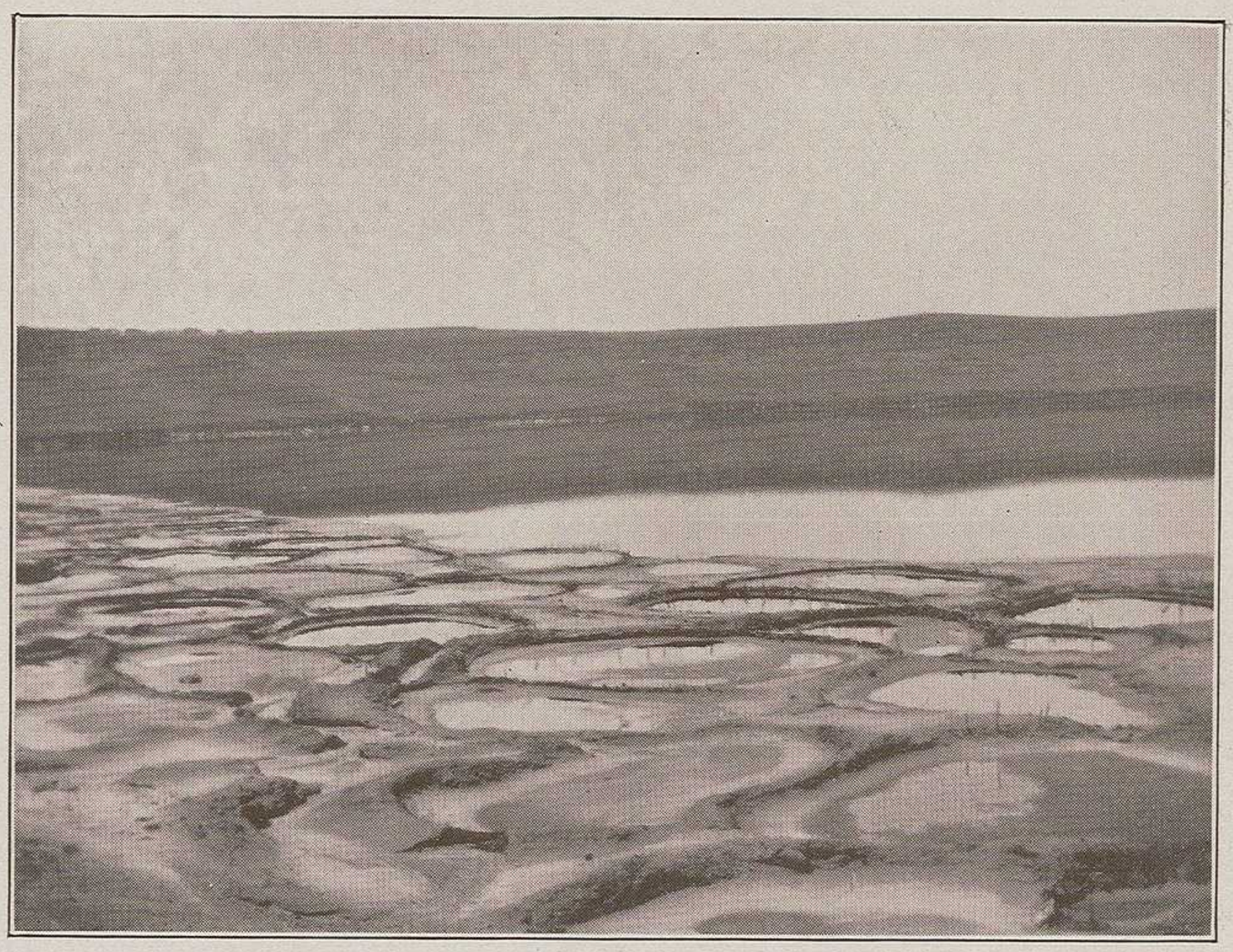

FIG. 6. Pans for the production of No. 2 salt. [*Photo. by E. J. Wayland*]

No. 1 salt is collected only when conditions for its formation and collection are most favourable. This is at the end of the dry season, generally in March, when a strong wind blows from the west and drives nearly all of the No. 1 salt to the eastern shore where it forms as a belt five or six yards in width. Here the salt-getters scrape it up on to the shore by means of pieces of wood. The natives state that when No. 1 is forming one man can scrape up as much as 2,000 lbs. of salt per day.

As described by several writers, No. 2 salt is obtained in pans (Fig. 6). It can be secured in three or four days ; but by waiting five days, I am told, more than 1,000 lbs. of salt can be recovered from a single pan of about twenty feet diameter. (21) But in order to obtain so much it is necessary to assist the natural process. Salt very soon forms a kind of scum on the surface of the water ; when this appears it is necessary to dip water from the pan and throw it on top of the scum which then sinks and fresh scum is formed and is similarly treated ; and so on till the water dries up.

No. 3 salt is broken into slabs, by means of pointed poles, while still on the bottom of the lake, the slabs thus obtained are loaded each on to a little raft of which there is a series strung together. They are then pulled ashore.

The surface of the No. 3 salt is often beautifully ripple-marked like fine sand on the floor of a shallow sea (Fig. 4).

Compared with salt extracted from the ocean, that of Katwe has some peculiarities. For one thing, when fairly pure it commonly displays a delicate blush on account of the water in which it crystallised. Many salt-lakes are pink or red, but the pigment is not of mineral origin. Samples of the Katwe water submitted for determination of the colouring agent were shown by Mr. E. C. Haddon, Analytical Chemist to the Medical Department, to owe their hue to a coloured protein of bacterial origin. Bacteria cannot live in the brine of the lake but they are washed in, it would seem, dead or alive during rains, there to accumulate and to remain for centuries in pickle—and in the pink, so to speak.

Katwe salt is never quite pure, and the No. 3 variety is a mixed company withal, among whose members are soda, Glauber's salt, an unexpectedly high percentage of a potassium compound and more than a little mud. These habitues of the three-inch layer are frequently more or less separately stratified, and Mr. W. C. Simmons of the Geological Survey has shown that the deposition of any one of the three main solutes, the chloride (salt) the carbonate (soda) or the sulphate (Glauber's salt), may tend to be dominant at different hours of the day in response to changing conditions of atmospheric temperature and pressure ; but because common salt is in great excess over other dissolved substances, it represents by far the major part of crystalline material thrown out of solution. Analyses made by Dr. Groves in the Geological Survey laboratory in Entebbe show that the potassium content of total solids dissolved in the waters of the lake is 8·45%. This is decidedly high, but it is in keeping with the interesting and geologically significant fact that the volcanic rocks of the Western Rift (in Uganda) are potassic while those of the Eastern Rift (in Kenya) are sodic, and it

(21) I am not prepared to say that these figures are reliable.

leads one to consider the possibility of extracting potash in a form suitable for fertilising purposes. Experiments conducted to this end at the Imperial Institute have shown that it is possible to concentrate the potash by solution and recrystallisation of the salt, but it is not possible by this means to decrease at the same time the percentage of carbonate ; the resulting product therefore is unsuited to plant assimilation.(22)

The interest of Katwe is not confined to the history of the crater and the origin of its salt. Professor Arthur Holmes has shown, by study of ejected blocks and bombs, that in all probability Katwe and other explosion craters in Busongora overlie kimberlite pipes (23), and it is from such pipes that diamonds are obtained in South Africa and Tanganyika Territory. In this connection it is interesting to note that a Katwe-type crater lake, known as the Salt Pan, exists near Pretoria in the Transvaal, and an attempt has been made of late to show that it is a meteorite crater. (24) The case is based largely on negative evidence, the absence of bombs being a major point, but as I have indicated bombs are not common at Katwe, whose volcanic origin is beyond question, and it is not unlikely that among those collected therefrom are some that were derived not from the vent but from the pre-existing tuffs through which the crater is blown ; moreover at Simbi, in Southern Kavirondo (*see* table on p. 4), there is a saline crater lake resembling Katwe in all its essential features, and affording, so far as I know, no volcanic bombs whatever.

In the company of some distinguished South African geologists I have on two occasions visited the Salt Pan, and I am of opinion that it is an explosion crater—a distant outlier, so to say, of the East African volcanic field, one of whose characteristics is the occurrence of a form of volcano excellently typified by Katwe.

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(22) Ann. Rept., Imp. Inst., 1932, p. 42, and official correspondence.

(23) Holmes, A., and Harwood, H. F., " Petrology of the Volcanic Fields East and South East of Ruwenzori, Uganda," Q. J. G. S., Vol. LXXXVIII, part 2, 1932.

(24) Rohleder, H. P. T., "The Steinheim Basin and The Pretoria Salt Pan." *Geol. Mag.*, Nov., 1933.

The British Museum (Natural History) Expedition to the Birunga Volcanoes,

1933-34.

By R. Akroyd, F.R.G.S.

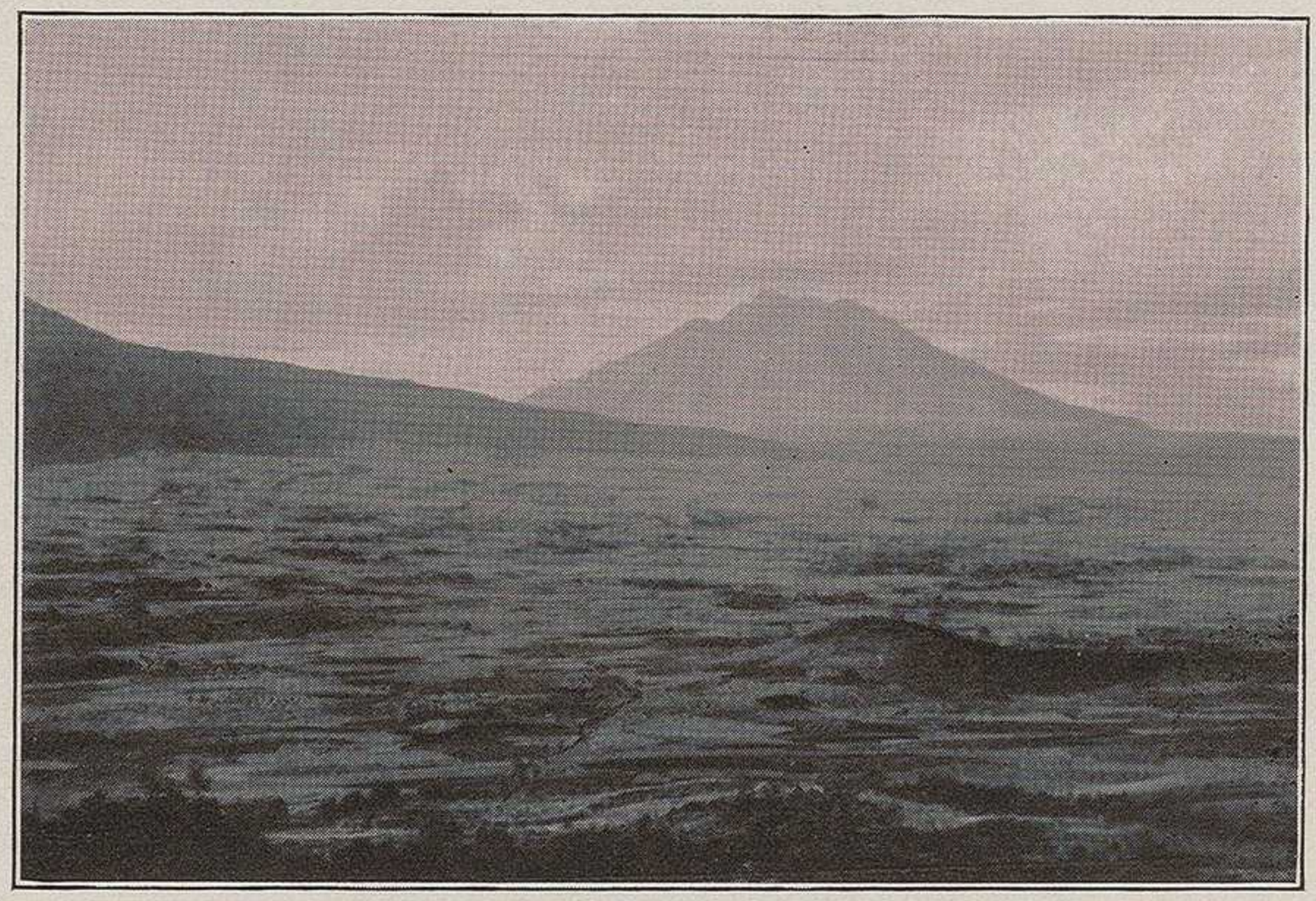
The gorilla case with its natural surroundings in the British Museum (Natural History) at South Kensington had been in abeyance for some years. In May of last year I made an offer to the Directors to undertake an expedition to collect the required material in S.W. Uganda. All the expedition's equipment and stores were sent on ahead and I sailed from Marseilles on October 28th, 1933, arriving at Kampala on November 19th to start organising the expedition. As this was the first botanical expedition I had undertaken, I had to collect as much information as possible before setting out; some of this was kindly given to me by the Forest and Agricultural Departments at Entebbe. I arrived at Kabale on November 25th and spent three days with Mr. F. H. Rogers, the District Commissioner there, who was most helpful throughout the time I was in his District, discussing routes and the country I was going to work in.

One of the first important items I had to decide on was the size of the boxes required for packing the specimens, and also that of the presses to dry the plants, all of which had to be made at Kabale. This was a matter of conjecture, which luckily turned out to be correct. The size of the presses was 3 ft. by 2 ft. These held comfortably any large plants, ferns and leaves I collected. I also took 200 lbs. of old newspapers, to be used as drying material for the collection. The expedition consisting of forty-two porters started off from Kabale on November 28th, the first march being a short one to Lake Bunyoni which is 200 ft. in altitude above Kabale. We crossed the Lake in dugouts and on arrival at Bufundi Rest House found Capt. and Mrs. Pitman who were returning from a tour in the gorilla country and they kindly gave me some valuable information about the conditions there. The Birunga or Bufumbiro mountains, as they are sometimes called, are a chain of volcanoes running from East to West, the Northern slopes of the first three, Muhavura, Mgahinga and Sabinio, being in Uganda; the Belgian boundary line runs over their summits. The remainder are in Belgian Territory, Mt. Mekino being alone visible from Mabungo; there are also two active ones, of which the glow can be seen on a cloudy night. The slopes of all these volcanoes are, up to a certain altitude, covered with dense bamboo forest which then gives way to the alpine zone right up to the craters. It is here that the gorilla are to be found. Though abundant and more or less

stationary in the Belgian Congo over the border, they are here mostly migratory, probably owing to being more frequently disturbed by the natives cutting bamboo for charcoal.

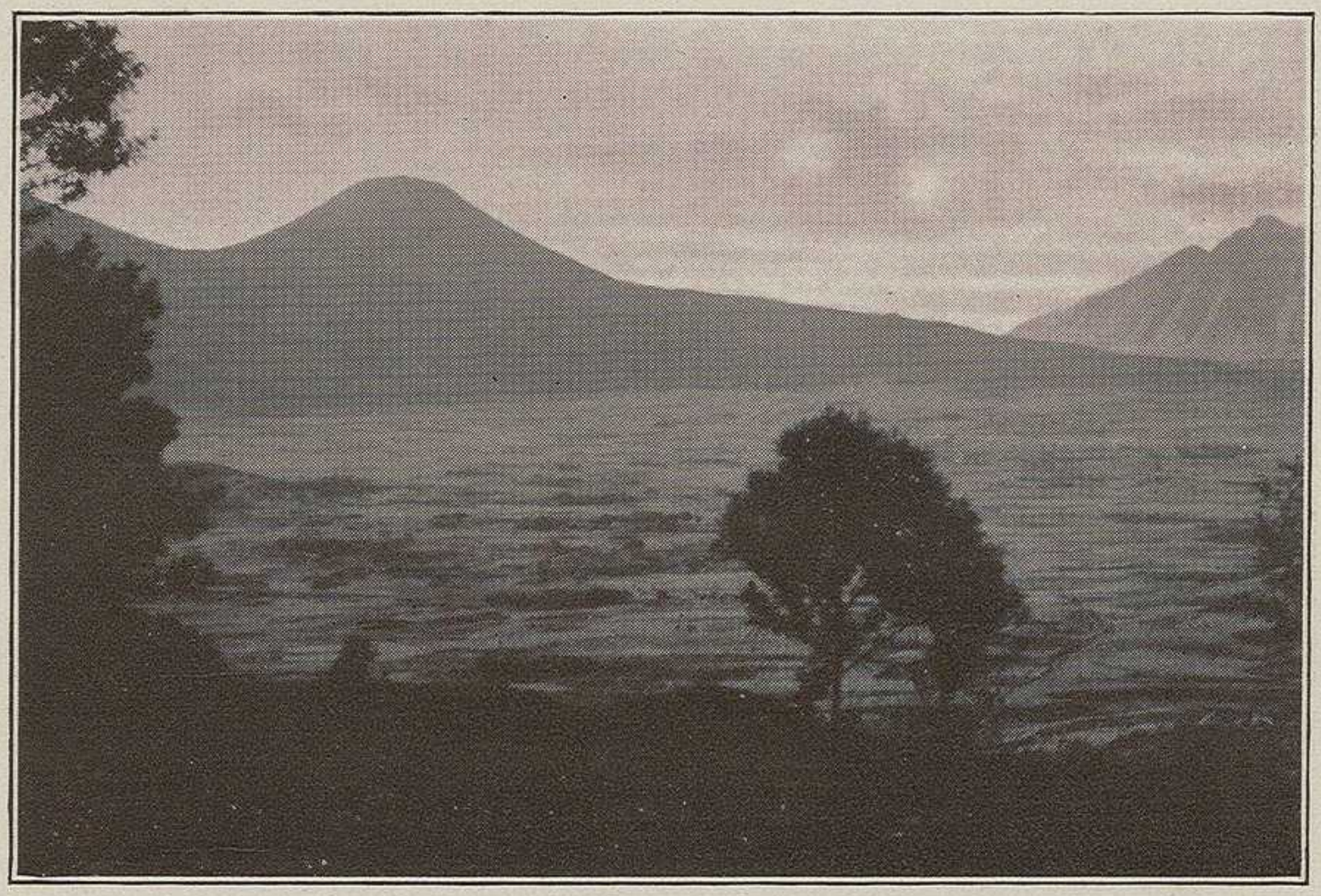
I left Bufundi Rest Camp on November 30th and arrived at Behungi Rest Camp (8,214 ft.) after 3½ hours march, an ascent of 2,000 ft. Here I had a good view of the volcanoes from East to West with the lava plain down below, and also found plenty of strawberries. The following day I continued with a descent of 2,000 to Nyakabande and from there to Gisoro and thence to Mabungo Rest Camp (6,800 ft.) which was to be my future base camp, a march of four hours. Mabungo is a useful base for any collecting expedition, the vegetable supply there is particularly good, also the strawberries again, and it is within easy reach of the volcanoes, Mt. Sabinio the furthest being only 4½ hours march. Porters here are easily obtained and their food supply arrived regularly every day while I was in my high camps in the mountains. I started off on my first expedition to Mt. Mgahinga, the middle one of the three volcanoes, on December 4th, with 27 porters ; a gradual ascent from the plain, not difficult, brought us up to the saddle between Muhavura and Mgahinga, where I pitched my first high camp at 10,000. Grass huts were made for the porters, and any who remained with me received a blanket. The weather was very cold at this time and heavy rain came on occasionally and often lasted more than two hours and on one or two occasions during the first two expeditions to the mountains my camp fire was put out. I had as guides three Batwa, half pigmies. These people live on the slopes of the mountains in the bamboo forests, are good hunters, and know the habits of the gorilla ; one of them used to keep the whole camp amused by his imitations of that animal. The following day I made my first ascent to the crater and for the first thousand feet we had to cut our way through dense bamboo to the heather zone where the travelling became easier. We reached the top in 4½ hours. On my way up I saw a gorilla's nest of recent occupation with wild violets growing in a bank close by. The giant lobelias, senecios and giant heather which grows over 25 ft. high, were most interesting and wonderful, the first I had ever seen. It was here my work lay. The composition of the working party I usually took out was as follows :—Three Batwa ; then myself with rifle followed by two men carrying cameras ; then eight porters carrying gunny bags (in which to put the specimens) with an axe, saw and pangas. The time spent in the high camp was three or four days and rather depended on the weather, as the bulk of the material I had to collect dried easier at the Rest Camp where there was more sun and it could he put under cover as soon as the rain started. For this purpose I always left one responsible boy and two porters at the Rest Camp to watch the drying and take over anything I sent down from the mountains. The giant lobelias gave me most anxiety, as being very succulent they had to be split in two. The following method was used which dried them in ten days : they were placed on a sheet of corrugated iron, held up by wooden struts ; a long trench was made underneath and a fire lit ; sacks were placed over the lobelias ; this made them steam and so dried them. Great care has to be taken that the heat of the fire is not too great. The drying period would have been shorter but for interruptions by rain. Amongst the other things I had to collect were sections of large and small trees and their bark. All of these had to be numbered so as to fit together when set up.

Batwa Half Pigmy Guide.



Mt. Sabinio (11,990 feet) and cultivated lava plain (taken 4½ hours from base camp).

Mt. Sabinio (11,990 feet) from Camp at 8,500 feet.



Mt. Mgahinga (11,400 feet) and lava plain (taken 3½ hours from base camp).

The lava plain is densely populated and cultivated ; the soil is very rich but has first to be cleared of the small and large volcanic rocks which strew it. The water supply is underground, as all the streams from the volcanoes disappear on reaching the plain.

After Christmas, which I spent at Kabale as the guest of Mr. F. H. Rogers, I made a final expedition to the volcanoes to finish up. The bulk of the collection had by this time been dried and was packed up in mats and boxes and sent in to Kabale. On January 5th, 1934, I started off for the Kayonza Forest, three days' march north of Mabungo, crossing Lake Mutanda for the purpose of collecting tree ferns and a section of a very large tree. The area of this forest is approximately 150 square miles and there are only two regular trails through it, one of which, if not used frequently, has to be kept cut. This area, which is not well known, contains a collection of impenetrable hill forests some of which go up to 7,900 ft. Gorillas are found here too but their number is uncertain. They live under different conditions to those on the volcanoes, building their nests in the trees about ten to twenty feet from the ground ; they are probably a different race, perhaps allied to those in the Ituri Forest. It was here that I got my only glimpse of a gorilla family ; camped high up in a valley west of the Kashasha River I saw them one early morning a long way off across the valley on a slope partly covered with fern. Spending 2½ hours cutting our way up the hill we arrived within a few yards of them, but on hearing our approach they made off. I found lumps of white stuff, quite warm, on the ground which they had just left ; no doubt they had ejected what they had been chewing before they went off. This finished a most interesting expedition and I returned to Kabale to spend three days in packing up my collection and then left for Kampala, where I arrived on January 26th.

R. A.

Ethnological Notes on the Karimojong.

By Captain E. M. Persse, m.c. (*District Officer, Uganda*).

These notes were recorded in 1929 whilst I was in charge of the District of Karamoja. They do not profess to cover as much ground as Wayland's valuable "Preliminary Studies of the Tribes of Karamoja" (*J.R.A.I.*, Vol. LXI, 1931) published in 1931, and which I was therefore unable to consult at the time. Fortunately, however, there has been no overlapping as these notes refer to the Karimojong proper who were only briefly mentioned in his treatise on the neighbouring tribes. Like him, I suffered from the difficulties consequent upon shortness of residence and interpretation through the medium of an alien tongue.

The Karimojong are one of the tribes inhabiting the more southerly portion of the district known officially as Karamoja, which is situated in the most north-easterly corner of Uganda, bordered on the north by the Sudan and on the east by the North Turkana District of Kenya Colony. The origin of the word Karamoja is uncertain and its adoption is possibly due to the influence of the early Swahili traders and ivory poachers who were probably the first aliens to enter the District, with the exception of the Abyssinians who used to claim suzerainty over both this and the neighbouring District of Turkana.

The following customs are not necessarily invariable nor do they pretend to depict the mode of life of the younger generation. For convenience the word "dowry" is used to denote the property paid for a wife.

Marriage.—The system is polygynous, the number of wives being limited solely by financial circumstances. Marriage is not permitted between relations no matter how remote the degree of consanguinity.

Although there are no elaborate initiation ceremonies, such as those attending the rite of circumcision amongst the Bagishu, no boy may marry until he has been admitted by the elders to the status of manhood. Prior to this the boy must pluck out the pubic hair. His father then gives him a bull which the boy kills and shares with his male relations and friends, smearing himself all over with the dung from the entrails and presenting his mother with the head, neck, hump, stomach and ribs. His hair is cut by an adult male friend, who adds the clippings to his own chignon, leaving a tuft (*auput*) at the back, to which a short string is tied. When the hair grows again he moulds it into two buns, one on top of the head and the other at the back, with coloured clay (obtainable from Mt. Moruasagar in Turkana) worked into patterns. Into the bun at the back are inserted metal eyelets (*nikugwaleta*) from front to back in which, by permission of the elders, he may wear ostrich feathers. It is usual for several youths to be presented at the same time for the approval of the elders. They are then regarded as having reached marriageable age.

When a youth has attained manhood his father instructs him to seek for himself a wife. He may already have a lover but if the father does not regard her with favour another girl has to be found. Normally, however, no compulsion is brought to bear upon either party to a marriage. Sexual connection is quite a usual preliminary to actual marriage and cases are few in which the dowry is paid for a girl before this has taken place. It is not uncommon for a youth to have many lovers openly but public opinion forbids a girl to have more than one. Formerly if a girl of many lovers became pregnant she had to name all her lovers, each one of whom was liable to pay for his indiscretion, but the one to obtain her hand in marriage was her principal lover even though he might not have been the actual father of the child.

When the youth has found the girl of his choice he informs his father and asks him to pay the dowry. The father sets off with the mother and other relations in the morning to the home of the girl's father, a stockaded kraal. This journey must not be undertaken at the period of new moon. When they arrive they must enter through the cattle enclosure. The girl's father, having been forewarned of the date of arrival, is supported by his relations and spreads cattle hides for his guests in the courtyard (*etem*) and produces quantities of sorghum beer and milk. Before drinking starts, the boy's father, having previously ascertained that the girl is willing, stands up and makes a formal request for the girl in marriage to his son. The amount of the dowry is then discussed and animated bargaining takes place until the matter is settled.

On the conclusion of the party the guests go home accompanied by the prospective bride who is led by the arms by the boy's father and mother. On arrival there the mother dips a handful of grass into a calabash of water and sprinkles the girl with it. She then takes the girl into her own apartments, lights a fire and hands her over to the care of the other girls of the kraal. Food is sent in to them and the girl may not leave the hut except to relieve nature.

In the morning the girl's father and relations come for payment of the dowry. The bridegroom dresses up in a leopard skin and wears a zebra tail sticking out on the upper part of his left arm and bells fastened below his knees. He also sticks a long white ostrich feather in the back chignon together with a large bunch of black ostrich plumes. He then follows his father into the cattle enclosure and stands behind him. The stock constituting the dowry is driven past and the father strikes each one as it passes with a stick at the same time naming the prospective recipient according to the arrangement already made.

The bride's father then heads a procession back to his kraal accompanied by the relations of both parties dancing and singing, the dowry bringing up the rear. The bride is left behind at her new home. The dance continues outside the hut of the bride's mother and during the course of it she gets hides spread and all sit down whilst she lights a pipe which is handed round and puffed by all in turn, starting with the elders. When the dance is over the guests return home and the bridegroom removes the leopard skin and white ostrich feather. He must not sleep that night with his bride.

In the morning his mother takes a calabash of cooking butter to the door of the bride's apartment and calls her out. She then puts a necklet and belt of *emuriya*

grass on the bride and smears the butter all over her except the legs. After this she removes all the girl's ornaments and skins and dresses her in the garb of a young married woman. This consists of a goat skin hung down behind from the waist, hairy side outwards, and a calf skin slung from the shoulders and reaching to the knees. The fit of this goat skin is of great importance and it must be well-shaped and have gussets let in at the sides so as to swing correctly when the wearer walks or dances, otherwise it will bring great shame upon her amongst her fellows.

The bride also wears bracelets of copper and iron wire, a large necklet of loose rings of the same material and earrings of copper and aluminium wire. No beads may now be worn. These ornaments are presented by the bridegroom's mother who may, however, collect them from others as a wedding present to the bride.

After being dressed, the bride and about three other girls go and cut a load of firewood each and give it to the bridegroom's mother.

That night the bridegroom sleeps with his bride and the marriage is consummated. They continue to live in that same hut until a child is born, after which the husband builds a separate hut for his wife.

The distribution of the dowry, before it was limited by the Government, varied considerably and it would be unsafe even to hypothesize an actual distribution. The principles underlying the payment of dowry and the proportions payable to the various beneficiaries have been dealt with exhaustively by ethnologists.

BIRTH.—When a woman is about to give birth her female relations come to assist. She takes up a kneeling position whilst one woman kneels behind her grasping her firmly round the chest and another holds her by the shoulders. All present exhort her to give birth. The acting midwife crouches in front and receives the baby which is washed at once with cold water.

The umbilical cord is tied with fibre and cut near the body and left to come away of its own accord, The remainder is buried in the cattle enclosure. If the baby is a boy the cord is cut with the arrow used for bleeding cattle (*emal*). If a girl, it is cut with a knife.

If the mother is unable to suckle her baby at first she is given gruel prepared from eleusine millet flour to hasten the flow of milk and meanwhile the baby is given goat's milk from a small gourd shaped like a feeding-bottle.

The day the baby has been born the mother and helpers partake of food consisting of a mixture of *choroko* (a small pea or bean), sorghum flour, marrow (*akaide*) and the seeds of a small gourd (*nkolil*) ground up, also meat and blood from a bull calf and heifer calf. The men also share this but are not allowed to enter the hut. The food must all be eaten there and then. None may be taken away and no sick person or one afflicted with sores may partake of it, otherwise the child would contract the same complaint.

That day also the husband sends in to his wife the skin of a Grant's gazelle which is tied by the forelegs round her neck and by the hind legs round her waist in such a way as to cover her breasts. He may not enter her hut for about twenty days nor resume cohabitation for about a month, but some days after the birth he may peer into the hut to enquire after their health.

When the mother is able to go out about her duties a ram is killed and the skin prepared to tie on her back to carry the child. The headman of the village gets the tongue, a shoulder and ribs. The women and children finish the rest. A bull or barren cow is also killed for a feast for the villagers and a few months later a beer party is given.

It is considered lucky for a woman to bear twins, but if both grow up either the father or mother will sicken and die.

Children receive the names of their grandparents' generation. Thus the eldest child receives the name of its grandfather, the second child its grandmother's name, the third is named after a great-uncle and so on. They may also be given other names by the midwives according to conditions prevailing at birth, *e.g.*, one of my informants who was born at night when everybody was lying down was named "*Lopero*" to signify that fact. Such names are often tentatively conferred upon the infant when being suckled and acceptance or refusal is shown by sucking contentedly or crying (*cf.* Driberg, *The Lango*, page 148).

DEATH.—When a man, woman or child dies the corpse is buried in the goats' enclosure in a worthless hide. If a friendless pauper, the body is cast out into the bush for the hyenas to devour.

When a husband dies the widow shaves her head and removes all her wifely ornaments and apparel and wears an old hide. After a few days she kills the leading bull of her husband's herd, the wearer of the bell, the meat of which is eaten by the relations. After about six months she kills two or three wethers which are cut up together with the skins and are known as *apunyeth*. The widow remains in the kraal but the relations take their portions and eat them away from the kraal. She may then resume her former clothing and ornaments.

After about a year or less from the death of the husband his principal brother brings a sheep which he kills at the door of her hut. He and she then smear each other with the dung of its entrails. That evening he enters her hut and she passes into his possession. Failing such a brother she passes to the son of a co-wife.

The property of the husband is vested in the guardianship of the eldest son who distributes it to the other sons as they grow up and move to their own kraals. The stock is divided according to the previous ownership, thus when a wife has had definite cows to milk during her husband's lifetime, those and their progeny belong to her family.

When a wife dies the widower shaves off the top chignon and removes all the clay from the hinder chignon which he cuts. He also removes his bracelets. The adult male children shave the top chignon and the adult female children shave their heads as do all the young children. The widower mourns alone for some five days after which he kills a sheep away from the kraal and shares it with the relations. Further ceremonies are similar to the foregoing and after the period of mourning he may divide the ornaments, etc., of the deceased.

When a child dies all the other children shave their heads and the mother removes a few of her necklets which she resumes after a few months.

DIVORCE.—In case of incompatibility, if a divorce is agreed upon, the wife goes down on her hands and knees before her husband and he pours cold water over her back. She returns to her father who repays the dowry. When this has been done the husband returns a bull to the father which he kills and of which all the relations partake, even the husband. When the bull is killed the father and his people smear the woman with the dung of the entrails so that all people may know she is a free woman. If she has not borne a child she resumes the style of dress of an unmarried girl, consisting usually of a goat-skin covering the buttocks and reaching from the waist to the back of the knees and a pad of cowries covering the pubes. If she has borne a child she wears the dress of a married woman and may wear any ornaments she pleases. A divorced woman is free to marry again.

ADULTERY.—As has already been indicated, sexual intercourse between the unmarried was not discountenanced under old Karimojong custom, but any resultant pregnancy was only condoned upon payment of thirty goats to the father unless a dowry was paid. Adultery was, however, looked upon as a most serious offence rendering the adulterer liable to death at the hands of the aggrieved husband as a matter of tribal sanction.

It is not clear to what extent this prerogative was exercised, but it appears that it was not the inevitable penalty and that the offence could be expurgated by the confiscation of all the offender's stock. This appropriation could be extended to include any stock of which the offender might become possessed in the future until the family honour had been satisfied. That it was regarded as a family affair rather than a strictly personal one appears probable from the fact that such stock was ordinarily divided up amongst its members.

RAIN-MAKING.—The difficulties of obtaining any exact and reliable data under this head will be readily appreciated by any who have endeavoured to penetrate the esoteric beliefs of a primitive tribe. One is liable to meet with a veil of concealment and evasion and to be fobbed off with inaccurate and lying information.

I was unable to discover whether there is a set ritual but I am inclined to believe that the recitative is to a certain extent extemporised on each occasion.

When rain is needed badly, two or three of the elders approach the medicine man (**Emurron*—distinct from *Ekhapalan*, a wizard) with a present of a calabash of milk and urge upon him the necessity for making rain. The rain-maker directs them to find a bull of such and such a colour, usually black, and names a day for the ceremony (*akirriket*).

The elders go away and summon the other elders to tell them the directions of the *Emurron*. Search is made for an animal of the requisite colour and when it is found the owner is asked to provide it, to which he, as a matter of course agrees, and it is fetched ready for the ceremony.

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* Some informants maintain that the senior Elder presides at the actual ceremony and that *Emurron* is only consulted as to a propitious date and other details. Some even assert that he names the day upon which rain will fall as the date for the ceremony.

On the day of the ceremony all the elders and men gather at the appointed spot. The elders sit in a large semicircle with the bull in the centre and the other men group themselves at the opening at which a fire is made. Grass is spread in front of each elder and near the bull.

A man is selected to kill the animal, which is done by spearing it in the right side. For this privilege he has to give the owner a heifer. The bull is cut up on the grass and taken away by the attendants to be roasted. The head, neck, stomach and liver is sent by the spearer to his kraal for the woman and the tongue is prepared for him by his wife. The roast meat is brought back and placed before the assembly but not yet distributed.

The *Emurron* then stands in the centre facing outwards, sticking his naked spear † upright in the ground, and intones a recitative on the following lines to which all respond :—

Recitative.	*Response.*
Kiera, E, e, akirru adwere paadoa ?	Ado.
Adoba ?	Ado.
Adoba ?	Ado.
E, e, Ngatuk paa emwoko ?	Emwoko.
Emwoko ?	Emwoko.
Emwoko ?	Emwoko.
E, e, Ngimomwa arupon paaruputwa ?	Aruput.
E, e, Arukum kalotunga aporori papora ?	Aporo.‡
E, e, neni karononi aporori papora ?	Aporo.‡
Listen. The rain will fall ?	It will fall.
It will fall ?	It will fall.
It will fall ?	It will fall.
The cattle will be filled ?	They will be filled.
They will be filled ?	They will be filled.
They will be filled ?	They will be filled.
The millet after being dried up will grow ?	It will grow.
Has not the sickness of people flown ?	It has flown.
Has not evil flown ?	It has flown.

The roast meat is then distributed by two attendants to the elders who eat it and give bits to the other men who eat them by the fire. The *Emurron* gets a hind leg to himself and cuts up the other hind leg for an extra distribution to the elders. All then disperse to their homes.

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† Spears are usually carried in times of peace with a leather sheath fastened round the edge.

‡ All throw their arms towards the west. The wind comes from the east and sweeps away to the west.

Ebifa ku Mulembe gwa Kabaka Mutesa

Byawandikibwa Om. Ham Mukasa.

KABAKA MUTESA NG'ASIKIRA KITAWE—KABAKA SUNA.

Bino by'ebyaliwo era ebimanyidwa abangiko abakyali abalamu naye ababirabako dala bawedewo okufa nga bakadiye nyo era abo byebalabako byenyini byebanyumyanga bulijo ne Kabaka yenyini nga abimanyi bulungi, era yabinyumyangako nyo olusi n'olusi nga ali n'Abamibe abaganzi n'abawerezabe abomu Lubirirwe kyebiva bibera ebyamazima dala. Era abamu ku bo bakyaliwo ne kakano era ebimu by'ebiri mu Kitabo kya Apolo Kagwa.

Kale·no kakano leka nsokere ku Kabaka Suna ng'ali kumpi okufa, Mutesa alyoke asikire kitawe Suna. Kabaka Suna yali Kabaka wangeri nzibu nyo; Kabaka oyo yali mukambwe era yali muzira mu ntalo, era yali mui·zi ng'ayagala nyo embwa ezii·ga. Ate yaberanga n'ekisa, mu bisera ebirala nga bwebogera ekyo kimanyidwa nyo nga abakambwe enyo olusi babera n'ekisa balyoke baleme okukyaibwa enyo abantu babwe ne Suna bweyali. Ekinabategeza bweyali ayagala enyo embwa kyekino:—Yalina embwaye erinya lyayo Senkungo, amakulu g'erinya eryo nti Okukaba kw'abangi. Awo embwa eyo bweyafa Kabaka yenyini yakaba olw'okugyagala enyo era yazikibwa nga bwebazika omuntu, ate Kabaka yalagira abantu bona okukabira embwaye Senkungo. Naye bwebakusanganga mu kubo nebakulaba nga tonakuwade mu maso okufanana nga akaba kulw'embwa ya Kabaka Senkungo nga okwatibwa oba ku·tibwa oba kutanzibwa kubanga onyomye ekiragiro kya Kabaka. Ekyo kyamazima dala bwekyali sikyakubusabusa.

Leka ndekere awo ebyogera enyo ku Kabaka Suna ndyoke njogere ebiri okumpi n'okufakwe, byebino:—Kabaka Suna byeyamala okulwawo enyo ku Bwakabaka ng'ensi emuwulide nyo mu kufugakwe era n'Amawanga amawangule nga gamuwulira nyo nyini awo nalyoka atuma omwamiwe omu ye Nakamali koja w'Omulangira ow'Embogo, namutuma ewa Kabaka we Buzongola Kaitaba okugenda okumulaba. Naye omwami oyo bweyatuka e Kiziba ewa Kabaka Kaitaba nasanyuka nyo nyini kubanga ensi eyo nungi okulaba n'amaso, era emere yayo ya matoke nga eye Buganda n'omwenge gwayo mungi nga ogw'Ebuganda, n'ente nyingi nyo buli kintu kyona nga eky'Ebuganda. Naye bweyali atusiza ekisera eky'okukomawo nalyoka asaba Kabaka Kaitaba nti

Mukama wange njagala ompe omukazi omulungi enyo gwendigenda naye e Buganda, kubanga ndabye abakazi abomu nsi yo eno nga balungi nyo okusinga ab'ewafe e Buganda. Awo Kabaka namudamu nti kale nakuwa, naye bweyamuwa omukazi namuwa gwatayagala afanana obulala nga tafanana nabali balabako bulijo abakyala abawereza Kabaka abaitibwa Enkologo, amakulu nti Abakyala abawereza Kabaka mu kisulokye, naye omwami oyo bweyagana okutwala omukazi oyo gwebamuwade olw'obutaba mulungi nga bali balabako bulijo, awo ne Kabaka nanakuwala kubanga omwami oli yayagala okuwebwa ku bawerezabe benyini atenga bana b'abamibe bebamusigira awo namugamba nti Genda nkuwade nte zoka ne mbuzi ebyo binakumala. Weraba. Awo omwami oyo nagenda n'obusungu kubanga Kabaka amumye ku bakazi bali abalungi enyo. Awo bweyatuka eri Kabaka we Buganda Suna namunyumiza ebifayo byona ebyamutwala mu nsi ya Kabaka Kaitaba, oba Kataba, ng'ensi bweri enungi mu ngeri zona, naye ekigambo ekyamunyiza teyakitegeza Kabaka Suna kubanga yatya okukyogerako nti mpo·zi Kabaka anategera olukwe lwangé lwensalide Kabaka Kaitaba owe Buzongola oba ekyamutwala. Olukwe olwo lweruno: Kwekulimba Kabaka Suna alyoke amusunguwaze ku Kabaka mune nti yegeza ku kitibwa kyange? Yayogera bwati:—"Sabasaja Kabaka gwe afuga Amawanga gona awatali akwegezako mu bigambo byona Sabasaja, ekigambo ekyanakuwaza enyo nyini nenjagala okukaba amaziga kwekulaba Kabaka Kaitaba nga akwegezako mu ngeri zona. Bweyawulira nga wazimba enyumba Batanda-bezala naye nagizimba. Ekyokubiri bweyawulira nga olina e·sanga lyosako ebigere naye nakola bwatyo n'okusingawo, era ye yaliteka ne mu muzigogwe ogwa Wankaki, gwe muzigo Wankaki ne mu nyumbaye ey'ekisulo. Ekyokusatu enyumbaye akasolya kayo enkata zako za bikomo. Ekyokuna akabendobendo k'enyumbaye ka butiti. Ekyokutano endeku anywera mu ·gi lya Nkobyokobyo. Yakusaba omwanawo Nasolo abere mukaziwe ng'agamba nti anti nange ndi Kabaka nga ye n'ebirala byona ebikolebwa wano byebakola n'ewuwe nga yegeza ku gwe. Kale·no Sabasaja Kabaka omuntu akola ebyo omulowoza otya songa Bakabaka bona abali wansi wo tewali akola ebyo? Nze ebyo byankabya amaziga, naye Salongo amakulu nti Kitawe wa bantu, gwe Kabaka Omukulu ani akwegezako? Nze Sabasaja oyo sagala abere Kabaka nga nawe oli ku Ng'oma eno afuga Bakabaka bona abetolode wano era oyo asanira kugoba ku Bwakabaka otekeko mulala."

Awo Kabaka bweyaulira ebyo byona nasunguwala naita Katikiro namala okutesako naye era n'abamibe abakulu bona nebagana Kabaka nti si kirungi okutabala mu kisera kino eky'akabi enyo waliwo kawali mungi nyo, waliwo enjala nyingi era nagana. Ate bweyategeza nyina Namasole naye namugana era teyakiriza, awo nebamala gakiriza natabala. Naye bweyatuka e Buzongola nebalwana ne Kaitaba nebamugoba nadukira ku kizinga era nebamulumbako naduka nagenda mu nsi endala. Awo Kabaka nakoma awo nga afiridwa abantu bangi nyo. Bafa mu ngeri zino:—Kawali ne njala n'Olutalo. Era abantu balyanga empitambi yabwe nga tebalaba mere, era ne Kabaka yenyini nalwala kawali nafira mu kubo ng'akomawo. Awo Katikiro we Kayira naleta omulambo gwa Kabaka Suna nagutusa mu Kibuga e Nabulagala. Kakano Kabaka Suna akomye.

MUTESA.

Awo Suna bweyamala okufa newabawo okulonda omusika mu banabe. Abami abamu bali bagala Omulangira mulala nabamu nga bagala mulala. Naye newabawo Omwami omu omugezi eyaja eri Katikiro ng'amujukiza Omulangira asanira era Kitabwe gweyalamira. Omwami oyo yajukiza Katikiro nga Kabaka Suna bweyayolesa Omulangira oyo mu ngeri enyingi okumwawula mu bane mu ngeri ezolesa okulama kwa Kabaka. Byona byebakola Abalangira ye Mukabya tebabimukola nga okutekebwa mu komera ye teyatekebwa mu komera, nga Abakungu okuvuma Abalangira ye teyavumibwa, n'ebirala byebakola Abalangira byebatamukola Mukabya. Awo Katikiro najukira bulungi byona nga naye abimanyi bulungi nalyoka yejusa nava ku lui lw'Abami bali abali bagala omulala aitibwa Kikulwe. Awo Katikiro Kaira bweyalaba nga byona byebogede ku Mulangira oyo byamazima nalyoka alagira okuita nyina nebamuleta, erinyalye ye Muganzirwaza Nakazi Omufumbiro wa Kabaka. Era mwanyina yali mwami mukulu erinyalye nga ye Mpirivuma. Naye Katikiro nategeza Muganzirwaza Nakazi Omufumbiro nti Omwanawo Mukabya yalondedwa okuba Kabaka wafe kyenvude nkuita, kale·no ·dayo byona onobiwulira enkya; era tewali kabi kona akanainza okuziiza omwanawo Mukabya okuba Kabaka wafe. Awo Muganzirwaza nadayo nga esanyu ligenda kumu·ta. Awo bwebwakya enkya nalagira Kasuju okuleta Abalangira mu Mbuga awo nebabaimiriza enyiriri nga biri awo bwebamala okuimirira Katikiro natekateka abasajabe abazira enyo abamanyi enyo okulwana nga bawerawo nga 500 (bitano) oba kusingawo nabakutira nti bwemulaba agezako okulwana oba okuwakana nti Mukabya tabere Kabaka oyo mufumita bufumisi kubanga oyo ye Mulangira Kitabwe gweyalamira newakubade nga Abami abamu bagala Kikulwe. Abami abo abali bagala Kikulwe bebano:—Nduga Mukwenda, Bakabulinde Sekibobo, Sebuko Muwemba, Nkedi Omuwambya, Se·tuba Luwekula, Seng'endo Kisubika era n'Omwami omu ku bo Nduga yeyali amaze okugenda eri Katikiro akirize okulonda omwana wa mwanyina Kikulwe ye Zawede. Naye okusoka Katikiro yali akiriza naye bwebamujukiza okulama kwa Kabaka nalyoka akyuka olwebyo byeyali yerabide byebamujukiza. Era omwami oyo Nduga Mukwenda teyategera nti omwana wa mwanyina anasubwa Obwakabaka wabula yalabira awo nkya nga balonda Mukabya era Nduga yagezako okujukiza Katikiro nti sebo Omulangira gwebaleta siyewuyo anti walonze mulala? Awo Katikiro namudamu nti Wewawo ekyo kibade kirungi okujukiza naye kino kirina ensonga eyamazima okulonda Mukabya, era kizibu okulonda omulala kubanga ono mulamire nga bwekimanyidwa mu lwatu. Naye Nduga bweyalaba abantu bona nga bamaze okubalaga Mukabya nti Omulangira ono Mukabya ye Kabaka wamwe owe Buganda era tewali anamuwakanyanga, awo nga Nduga ne bane basirika busirisi naye nga balina obusungu bungi nyo olw'okugana Omulangira wabwe gwebababade basubira. Awo nga Abami abo balyoka okwogera ebigambo bingi nyo ebibi ku Mulangira Mukabya. Bino by'ebigambo byebabuliranga abantu:—Nti Omulangira oyo mulwade nyo alina endwade ey'Olufuba, ate alina endwade ey'Olukonvuba mu mubiri gwe kyava alema okugeja nga Abalangira bane bwebali. Ate nti ekikulu talina nyina nti nyina Kabaka yamutunda n'Abalung'ana nti erinya lya nyina ye Gwolyoka. Era nebatekawo ku Gwolyoka olugambo nti yeyali nyina Kabaka Mukabya, ekyo si kyamazima songa Gwolyoka oyo omukazi

yaliwo yali mukyala bukyala yasunguwaza Kabaka namugabira Abawarabu so si kumutunda, Kabaka nga tatunda bantu wabula amasanga. Era ekitakoleka Kabaka tainza kutunda oba okugaba mukyalawe yena amaze okuzala omwana, ekyo tekikoleka mu Buganda era ekyo Kabaka akitya okugaba omukyala alina omwana nti obolyawo nasala amagezi n'abalabe bange nebamunonya nebamuleta nebajema nebangoba ku Bwakabaka bwange. Era ekirala nga Kabaka kyatya kweku·ta omukyala azala Omulangira wabula oku·ta Omulangira kyekyangu, ku Bakabaka be Buganda kubanga bakimanyi nti bwo·ta Omulangira nyina talina buinza bwa kujema oba amagezi amalala kubanga waliwo Kabaka eya·ta mukyalawe nga amaze okuzala Abalangira naye Abalangira abo olw'okunakuwalira nyabwe gweba·ta ate nabo neba·ta kitabwe. Oyo ye Kabaka Kyabagu. Awo okuva kwolwo Bakabaka ab'oluvanyuma nebakitya nyo okugyawo omukyala amaze okuzala abana oba omwana wabula okugyawo omwana we ekyo kyebakola kubanga omukazi tebamweralikirira nyo nga omwana we. Eyo y'ensonga emanyidwa ey'obutagyawo oba oku·ta omukyala azade omulangira wabula oku·ta Omulangira. Ate ekikulu ekirala Omulangira atalina nyina talya Bwakabka mu Buganda. Kiringa eky'omuzizo, abantu bamutya nyo nti ali·ta abantu bangi nga ajukira okufirwako nyina nti tewali anamukomangako nga abade asukiride okukola obubi. Ate nga yitawe tainza kumulamira kulya Bwakabka kubanga aitibwa Omulangira omunaku atalina nyina. Ezo z'ensonga enkulu ku Balangira be Buganda nga balya Obwakababaka ebyo byebakeberanga. Leka nkwolese byebakebera ku Balangira nga balondamu asanira okulya Obwakababaka babuzanga bino:—

I. Nti Omulangira abonyabonya emese n'obunyonyi obuto mu ngeri eno okugyamu emese amaso nga namu n'okugyamu obunyonyi amaso oba okubumenya ebiwawatiro buleme okubuka. Ebyo byakolebwanga abana abato bangi mu Buganda mu ngeri y'okuzanya naye bweyabanga Omulangira oba omwana w'Omwami nga tebamusima okusikira kitawe nga balowoza nti n'abantu alibakola bwatyo.

II. Omulangira atalina nyina nga tasimibwa kusikira Bwakabaka nga bwekyogedwako wagulu nga balowoza nti talemenga ku·ta bantu abalina banyabwe olwokubanga ye munaku. Awo kwebyo bwebatekangako ebirala ebitonotono ebibi ebitasanira Mulangira awo nga talya Bwakabaka. Kale·no Mutesa singa teyalina nyina teyandikirizibwa naye yalina nyina ye Muganzirwaza Nakazi Omufumbiro ate kitawe yeyamulamira ate kitawe yamuwa e·dembe dene nyo n'okwesima kunene okusinga Abalangira bona. Mukabya teyatekebwako mu komera nga Abalangira abalala ate Mutesa teyavumibwanga nga bwebavumanga Abalangira mu ngeri eno nti Bwemulirya Obwakababaka mutwokeranga ensenene ku mindi. Ekyo Kabaka yakikolanga okulagira abami okuvuma Abalangira awo Kabaka alyoke yesige Abami abo nti tebalina mukwano mu bana bange, naye okuvuma okwo Mutesa teyavumibwa kitawe yamwawulanga. Kale·no ekyo eky'obutabera na nyina mukitegere muleme okulowoza nti kyamazima, naye abalabe ba Mukabya bebabunya ekigambo nekifanana nga ekyaliwo songa tekyaliwo era kyebava basalirwa omusango olw'okwogera ekinene bwekityo abami abo neba·tibwa nga bongede okukola ekibi ekirala kubanga ba·ba Abalangira mu komera

nga bagala okujema awo nebakwatibwa nebaba·ta. Abami bangiko aba·tibwa wamu n'Abalangira neba·tibwa e Namugongo gyeba·tira Abakristayo mu mwaka 1885, kubanga ekifo ekyo Namugongo kya ·da nyo ·tambiro lya ·da.

Awo Kabaka Mukabya nabera Kabaka n'ensiye nebera bulungi. Naye oluvanyuma ng'amaze okulwawo ekisera emyaka ng'etano oba ena nga bwemumanyi engeri y'ekivubuka awo nasokereza mpola okukola ekyejo, ng'ayagala okugoberera kitawe mu mpisa ez'oku·ta abantu ab'obwerere mu busango obutonotono enyo mpo·zi nga kakano omusango ogusibya omuntu sabiti emu oba biri ng'oyo bamu·ta bu·si. Yagezako nyo oku·ta bangi mu ngeri embi etamulowozebwako. Awo mu mwaka 1859 newajawo Abawarabu abafuluma e Karagwe amanya gabwe gegano:—Abdulla bin Hassan ne Muhoya bin Saleh. Abo nebagezako okusomesa Kabaka e·dini ya Muhamadi n'abawereza be n'abami be banyikira nyo okusoma Ekitabo kya Baibuli yabwe Korani, oba Kurwano nebamuziizako nyo obuta·ta bantu ab'obwerere wabula okubabonereza n'okubasiba mu komera nga bamugamba nti mwe Bakabaka muli basigire ba Katonda temusanira ku·ta wabula okusiba busibi n'okutanza y'empisa enungi eya Bakabaka era Bakabaka ab'ekisa bebawangala emyaka emingi. Awo Kabaka neyewombekako kulwa basomesa abo ate mu mwaka 1861 Abazungu Speke ne Grant nebaja mu Buganda. Be Bazungu abasoka okulabika mu Buganda. Abazungu abo banyumya nyo ne Kabaka ebigambo bingi. Ekyamuziiza okwesiga Abazungu abo kubanga E·dini ya Muhamadi yamuingiramu nyo era yasoma nyo Ekitabo Korani. Okutegera nga yamuyingira nyo bweyamala okusoma e·dini eyo nalyoka alonda ku bawereza be nebagenda okuyigiriza Kabarega nebamutwalira n'omukeka ogw'okusalirangako n'ebendera emyufu ey'okuteka ku mulongoti ogusimbibwa awali Omuzigiti nawereza n'ebinika eneretanga ama·zi agasala n'engato z'Ekiisramu ezambalibwa n'ozivamu ng'otuse ku muzigiti ebyo byona byeyawereza Kabarega nga amutegeza akirize Katonda. Awo Kabarega bweyamala okubirabako byona n'okuwulira ababaka byebamubulira eby'okukiriza Katonda n'Omutume we Muhamadi eranga bamaze okwanjula byona awo Kabaka Kabarega nadamu nti Munange yebale bino byona eby'E·dini n'okuntegeza Katonda asinga bakatonda bona, kale·no byona mubizeyo mumugambe nti Tonakuwala ebintu bya Katonda wo bibyo mbikomezawo sibyagala era ne Katonda gwoyogerako simumanyi; nze nina bakatonda abange bensinza era abampa amagezi mu Bwakabaka bwange era abamponya mu ndwade zona. Kale mumulabanga. Awo nga ababaka badayo. Naye bwebabulira Kabaka Mutesa nagamba nti Muganda wange oyo alabye nyo taliva mu busiru bwe obw'ekisenzi, kale leka muleke, obanga tayagala bya Katonda musaside nyo. Ebyo biwede ebya Baisramu.

Awo Abazungu abo Speke ne Grant basanga Kabaka mu Kibuga ekiitibwa Banda-balogo, lwe lusozi lwolengera ebugwanjuba nga oimiride e Kireka era wewali ensalo za Mailo za Gavumenti ne Musalosalo Kisosonkole. Mu lusozi olwo ensalo mweyambukira ng'ova e Kireka ng'ogenda e Bugwanjuba ku lui lwa North, eyo ye Banda-balogo Kabaka Mutesa kweyali Bwana J. H. Speke kweyamusanga namusuliza mu kifo kya wansi era walako ku mu·ga wekiri, naye teyakisima bulungi olw'okubera ewala ne Kabaka songa Bwana J. H. Speke teyategera mpisa ze Buganda nti ye bamutya okubera okumpi ne Kabaka wabwe

olwokuba nga muntu mugenyi era ava mu nsi etemanyidwa, era ye muntu atafanana ng'Abadugavu nga bamulowoza mu ngeri endala olw'okulaba engeri yona gyalimu. Mweru nyo Abaganda gwebaita Namagoye era olulimi lwe terutegerekeka ate ebyambalo bye bya ngeri ndala. Ate yaleta emundu engeri za Fataki zeyawako Kabaka era emundu ezo zaitibwa erinya lyazo Speke ne kakano ziitibwa Speke. Bwolaba emundu ez'ebikoba ebibiri enyimpi ezo zeziitibwa Speke oba Makowa Speke. Naye emundu ezo Speke zeyawa Kabaka zawera nga 17 (kumi na musanvu) n'ebirala, engoye ne Bulangiti. Naye Kabaka yayagalanga Mr. J. H. Speke okujanga okumuigirizanga okukuba Sabawa, bulijo nga baleta ente eza sedume okuigirako okuteba era n'okui·ga enyonyi bombi, naye J. H. Speke natayagala nyo kufula nte muzanyo ogwa bulijo nagezako okuguleka. Yamubuzanga bingi byebino:—Ensi ze Bulaya nga bwezifanana mu kufuga abantu, mu kuzimba, mu bungi bw'abantu, empisa za Bakabaka Abalaya, Obufumbo bwa Bazungu nga abakazi bebakomako okufumbirwa oba bangi oba batono n'ebirala bingi byeyamubuzanga era nga amutegeza byona. Era ebyo byona si Kabaka yeka yeyabimubuzanga, ne Namasole yabimubuzanga nyo kubanga Namasole nyina Mutesa yali mugezi nyo nyini era yayagala nyo Speke. Yamuitanga olusi n'olusi nga ayagala okumubuza eby'amagezi Amazungu nga bwegali era yayagalanga nyo edagala ery'Ekizungu Mr. Speke lyeyamuwanga ery'omusuja nery'omutwe era yagezako okuganira dala edagala lya Baganda nga ayagala nyo eryo Mr. J. H. Speke lyeyamuwanga.

Era J. H. Speke yagamba Namasole nti Kabaka alinga atanjagala nyo kubanga yansuza wala nyo era mu kifo ekitali kirungi era ntegana nyo nga Kabaka anetaga okumuigiriza byayagala okuiga oba okukuba emundu n'ebirala. Awo namusubiza nti wewawo kyoyogede kyansonga, kale namugambako. Era yamugambako naye era nekitakolebwa bulungi olw'abami okumutya nga tebagala asemberere Kabaka kumpi nga bwemusose okuwulira. Naye Omwami J. H. Speke yalina ababaka ba Kabaka beyamutumiranga nga akyali mu nsi ye Karagwe ewa Kabaka Lumanyika era abamugoberera nga akyali mu kubo bebano:—Amanya gabwe—Namugundu ne Kasolo era ne Mr. J. H. Speke abo beyamutumiranga bulijo eri Kabaka okwogera byeyetaga era nabo nga tebasemberera Kabaka wabula okubulira abatukayo nebategeza Kabaka, naye abasaja abo Mr. J. H. Speke yabagalanga nyo newakubade nga tebalina magezi mangi nyo naye bamusanyusanga olw'egonjebwa lyabwe n'okwanguwa buli gyeyabatumanga eri Kabaka ne Namasole ne mu bami nga bamuwereza mangu nyo. Naye ebya Mr. J. H. Speke bikyali bingi ebirungi okuwulira byeyanyumyanga ne Kabaka era nebyeyanyumyanga ne Namasole nyina Kabaka naye kizibu okubimalayo mu mpapula zino kubanga kyamangu. Awo olugendo lwa Mr. J. H. Speke olw'okugenda ku Nyanja bwerwatuka nasaba Kabaka okumuwa omubaka anamulaga ekubo erigenda ku Nyanja Kiira Abazungu gyebaita Nile, awo Kabaka namuwa omubaka ye Sembuzi nebagenda naye e Bulondoganyi. Bwebava mu Kibuga baita wa Mulondo naye nagenda nga yewunya nyo okulima kwa Baganda bwekuli okunene olw'okulaba ebyalo nga bikwataganye okuva ku Kibuga okutuka e Bulondoganyi e Busagazi, ku Mbuga ya Mulondo. Kakati tekyamanyidwa wabula eriyo mu naku zino ekifo ekikulu kyebaita Nazigo ekya R. C. Mission Mill Hill. Mu kifo Busagazi ku mbuga ya Mulondo waliwo olugudo olunene

enyo olugenda e Busoga. Olwatuka mu lugudo olwo neyewunya nagamba Abami abaliwo nti Obungi bwa Baganda bendabye mu Buganda muno bufanana n'obungi bwa Bazungu abali mu ngudo z'ewafe era tewali mu bitundu ebye Buganda wendabye engudo ezijude abantu nga zino eze Bulondoganyi wabula ku Kibuga Banda. Mu kulaba obungi bwa bantu abo olwo yali yebagade embalasi nalyoka alengera mu maso ge n'enyuma nga tainza kulaba wansi ku taka wabula emitwe gy'abantu gyoka. Ate olugudo lwali lugolokofu nyo ate obuwanvu nga luweza Miles biri obugolokofu ate obugazi nga luweza Futi 60—50, 40—30, obugazi nga terwenkananka na. Kale·no obuterevu bw'olugudo olwo n'obugazi bwalwo kyeyava alaba obungi bw'abantu mu maso n'enyuma.

Awo nalyoka atuka ku Nyanja Kiira, Nile, nakebera kyeyajirira; nga abali naye tebategera kyakola, era mu byona byeyakeberanga ku Nyanja ama·zi n'amainja n'emiti n'ebimuli ne nyonyi n'ebiwuka, okutusa lweyamala omulimu gwe nakirira Kiira, Nile, bwa·ka ababaka nebadayo.

Naye J. H. Speke yagamba Namasole nga banyumya ebifa e Bulaya nti ndabye nga abamu muntya eranga abamu mwewunya kubanga ndi mweru era nga mumbuza nti ewamwe muli bangi. Wewawo leka mbategeze emyaka tegija kuitawo mingi nga temunalaba Bazungu abalala era abalija okusubulagana n'ensi eno nga bava mu Mawanga amangi aga Bazungu gemutamanyi. Endaba gyendabye ensi eno erimu bingi ebisanira okukolebwa Abazungu era olwo lwemulyekanya Abazungu bona eranga temukyabatya. Awo Namasole namubuza nti baliba bangi? Ewamwe muli bangi? Namudamu nti Bangi. Namasole nadamu nti Abalibawo baliraba.

Naye ekisera kyali kiisewo nga kya myaka 15 (kumi n'etano) kasoka Mr. J. H. Speke adayo Mr. H. M. Stanley nalyoka aja. Ye Muzungu owokubiri Kabaka nga ali Busabala ku Nyanja. Mr. H. M. Stanley oyo yafuluma mu nyanja Buvuma n'ekyombo kye. Era bamala kumulanga nti mu bizinga bye Buvuma eriyo Omuzungu alina n'ekyombo nebatumayo Mukasa Kipamira okumugoberera okutuka e Busabala Kabaka gyali mu mwaka 1875. Wano waliwo bingi, okugenda kwa Mukasa Kipamira nga bweyagoberera H. M. Stanley negyeyamusanga nebyeyanyumya naye nagobya ekyombo kye mu mwalo. Naye ekyombo bwekyamala okugoba Omuzungu navamu nebatumayo omuntu okumulaba n'okumukulisa enyanja. Awo abami nga bamaze okugenda eri Kabaka nebagamba Kabaka nti Sebo, tuliko kyetukugamba kyekino:—Omuzungu ono aze nga tetunaba kumutegera bimufako n'ensonga emulese, kyayagala ne kyatayagala tetukimanyi kyetuva twagala gwe osoke oleke okuvayo okumulamusa ogabe Katikiro yaba asoka okumulamusa. Bwetunamala okwogera naye nga tulabye aze lwa bulungi oba olwa bubi nolyoka obako kyokola. Awo Kabaka nakiriza okutesa kwa bami be naye abami tebalowoza nti Kabaka anakiriza ekigambo kyabwe kyebateseza kubanga Kabaka Mutesa teyalina mwoyo gutya mu ngeri nga ezo ku bantu abo abava mu nsi endala nga ayagala nyo okubakwana newakubade nga oyo yali Muzungu era omweru asana okutibwa ye teyamutya wabula abantu be. Era ye yayagala okusanyusa abami be obutabaswaza mu magezi gebamuwade songa ye amanyi kyakola. Awo nga abami bakola nga kyebateseza nga batekawo Katikiro okulamusa H. M. Stanley nga baimirira bona nga Katikiro avayo okukwata Mr. H. M. Stanley mu ngalo, nga Mr. H. M. Stanley

amala kulamusa Katikiro. Naye okulamusa bwekwagwa mu kisera ekyo kyenyini eky'okulamusaganya Mr. H. M. Stanley ne Katikiro, Mr. H. M. Stanley nabuza nti Mwena mbalabye naye sinaba kulaba Kabaka wamwe, alirudawa? Abami nebamudamu nti anti yewuyo gwolamusiza si mulala, awo Mr. H. M. Stanley nabagamba nti Neda Kabaka mumanyi nyo siyewuno. Nze mbade ndowoza nti Kabaka atumye ku bami be okunsisinkana balyoke bantuse gyali, nate ate mwe mugamba nti ono ye Kabaka? Awo amangu ago nebatumira Kabaka nti Sebo, Abazungu ba kitalo; agambye Katikiro nti si gwe Kabaka, Kabaka mumanyi bwafanana. Naye Sebo kinaba kitya? Awo Kabaka nadamu nti Abazungu ba mazima mumulete anamuse. Awo nga bamuleta nga banyumya nga bakwanaganira dala naye. Obulimba n'okuswala kwava eri bami tekwali kwa Kabaka. Awo Kabaka nga agamba Mr. H. M. Stanley okumutwala gyeyavanga okukika eri Kabaka n'okui·ga gonya ne Kabaka era n'okunyumya awali abakyala mu lukiko lwa bakyala. Nga agamba Mr. H. M. Stanley nti kale nkutwale mu maka gange omugenyi wange kubanga wano kiwumulo. Awo Mr. H. M. Stanley nagamba nti nze ndija jo, ntya omusana, fe Abazungu tetugutambuliramu, tuwumula mu kisera ekyo. Abamu nebagamba Kabaka nti Sebo, omugenyi omweru onomuyisa emanju? Kirungi adeyo ayite e·balama bamugusize ku Wankaki. Kabaka nadamu nti neda temutya, tewali kabi n'enyumanju anayitayo. Bweyamala okwogera bwatyo nga basirika nga Kabaka asitula kudayo mu Kibuga Rubaga. Mr. H. M. Stanley nategeza Kabaka nti nze naja nkya nga bukede bwetunasobola. Awo Kabaka namulekera anamukulembera okumutusa mu Kibuga awo ye Kabaka nagenda.

[*Byakwongerako.*]

Some Notes on the Reign of Mutesa.

Translator's Note.

In translating this article I have followed almost literally the wording of the Luganda with a view to showing any who may be interested in such matters how a Central African expresses himself. The similarity to the method of expression in the Old Testment will no doubt be apparent.

The article is written in the discursive or narrative style. It has almost certainly been dictated and taken down in the form which would be used by a story-teller speaking direct to an audience rather than that of a writer who intends his work to be read.

The writer's information is derived from native sources, mostly oral tradition, and not from the publications of Speke, Stanley and other contemporary Europeans.

A.H.C.

HOW MUTESA SUCCEEDED HIS FATHER SUNA.

This is what happened in Kabaka Suna's time as is known to a fair number who are still alive. Those who actually saw the events in question, however, are all dead, having reached an old age and the narrative refers to what they saw and what they discussed with the Kabaka himself and what he knew about well himself. Further, the stories are quite true because he used to discuss them from time to time with his favourite chiefs and his personal servants belonging to his Lubiri (the Royal Enclosure). There are some of these who are still alive to this day. Also some of the events are in Apolo Kagwa's (1) book.

Now let me first start with the time shortly before Kabaka Suna died to be succeeded by his son Mutesa. Kabaka Suna was a Kabaka of a very difficult type. He was a very cruel man ; he was brave in war, he was a hunter of wild animals and very fond of hunting dogs. At times, however, he was kind, so they say, and it is well known that cruel kings at times exercise kindness so that they shall not be hated by their subjects. Such was Suna. The following will show you how fond he was of dogs. He had a dog called Senkungo ; the name means the "lamentation of many." Now when this dog died the Kabaka himself wept out

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(1) Sir Apolo Kagwa, K.C.M.G., was Katikiro or Prime Minister to Mwanga, the present Kabaka's father, and also throughout the present reign until his retirement in 1926. He died in February, 1927. He wrote several historical works in Luganda. The book referred to is probably either "The Customs of the Baganda" or the "Kabakas of Buganda."

of his great love for it and it was buried as is a human being and he ordered all his subjects to mourn for his dog Senkungo. But were you found on the road and they saw you without sorrow depicted on your face as one mourning for Senkungo, the Kabaka's hound, you would have been seized or killed or fined for neglecting the Kabaka's order. This is a true fact concerning which I have no doubts as to its veracity.

Now let me cut short the story of Suna and speak of the events shortly before he died. Kabaka Suna, having reigned long and made his power felt in his country and also amongst the peoples whom he had conquered, sent a certain chief, Nakamali, uncle of the Prince of the Buffalo Clan, (2) to Kaitaba, the Kabaka of Buzongola, (3) to go and see him. Now when the chief arrived at Kiziba in Kabaka Kaitaba's land, he was overjoyed on account of the beauty of the country; and the food (matoke) and beer of the country were just as in Buganda. There was an abundance of cattle and everything was as in Buganda. Now when the time arrived to return he begged the Kabaka Kaitaba as follows: "My Lord, I wish you to give me a very beautiful woman to accompany me back to Buganda as I have seen that the women of your country are by far more beautiful than our women in Buganda." The Kabaka replied that he would give him what he asked, but when he gave him a woman he received one of different appearance such as he did not want, not like those ladies whom he had seen daily serving the Kabaka who were called *Enkologo*, meaning the Kabaka's hand-maidens who wait on him in his bed chamber. Now when the chief refused to take the woman who was offered to him, she not being beautiful like the others, whom he had seen daily, the Kabaka was angry with him because he wished to be given one of his own servants who were the daughters of chiefs given to him by their fathers. So he said to him: "Go, I give you cows and goats only, these are sufficient for you. Farewell." So the chief left in anger because the Kabaka refused to give him one of the very fair women. Now when he returned to Suna, the Kabaka of Buganda, he related to him all that had happened to him in the country of Kaitaba (or Kataba) and described how fair the country was in every way but he omitted to tell the Kabaka what had embittered him because he feared to speak of it less the Kabaka should understand the trap which he had prepared for Kabaka Kaitaba of Buzongola or the reasons why he had gone there. His scheme was as follows: to deceive Kabaka Suna in order that he might be angered with his compeer in that he was claiming to a greatness like unto his own. He spoke thus: "Your Highness who rules all races and who has no peer in any respect whatsoever, there is a matter which gives me much sorrow and causes me to wish to shed tears; it is to see that Kabaka Kaitaba claims to a similar greatness to your own in all respects. When he heard you were building your house *Batanda bezala*, "Kings beget Kings," he also built a similar one. Secondly, when he heard that you have an elephant's

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(2) *The Prince of the Buffalo Clan.* By Buganda custom a child belongs to the same clan as his father save with the "princes." In their case they follow their mothers' clans. This was no doubt originally a political move which made it possible for any of the clans to have the Kabaka as a member.

(3) *Buzongola*, a county now part of the Bukoba District of Tanganyika Territory.

tusk (4) as a foot stool, he did likewise and more so. Further, he placed his tusk in his main gateway, the gateway *Wankaki* (5) and also in the house wherein he sleeps. Thirdly, in his house the roof rings (rafters) are of coppers. Fourthly, the eaves of his house are decorated with beads. Fifthly, the drinking cup from which he drinks is a snipe's egg. He asked for your eldest daughter as his wife saying "Am I not of course also a Kabaka such as he and all things which are done here are done as with him," thus comparing himself with you. Now, Your Highness, what do you think of one who behaves thus, remembering that all kings are under you and there is no one else who acts in this manner. As for me this matter makes me weep tears but, Father of twins (meaning father of his people) you are the great Kabaka, who can compare with you? Your Highness, I do not wish this man to be a Kabaka like you, the holder of this Drum, (6) which rules all neighbouring kings; he should be driven from his kingdom and you should instal another in his place."

Now the Kabaka, when he heard all this, was angry and called his Katikiro (Prime Minister) and took council with him and all his great chiefs. But they disagreed with the Kabaka in that it was inadvisable to make war in that dangerous time as smallpox was prevalent and there was very much famine. He would not listen to them, however, and went to the Queen Mother and she, too, disagreed, but he would not accept her advice either, so they just had to agree and he made war. Now when they reached Buzongola they fought with Kaitaba and drove him out and he fled to an island but they attacked him there and he fled away into another country. The Kabaka then returned, having lost very many of his men. They died in these ways: smallpox, famine and the war. Further, the people ate their own excrements not being able to find food. The Kabaka himself also fell sick of smallpox and died on the way as he was returning. Then the Katikiro Kaira brought the corpse of Kabaka Suna and took it to the capital at Nabulagala. This is the end of the narrative as regards Suna.

MUTESA.

Now when Suna had died there was the question of appointing a successor from amongst his children. Some chiefs wanted one prince, some wanted another. Now there was one wise chief who came to the Katikiro and reminded him of one prince who was suitable who was the one formerly selected by their Father. He reminded the Katikiro how Kabaka Suna had displayed in many ways how he differentiated him from his brothers, ways which showed clearly what his choice was. Nothing which was done to the other princes was done to Mukabya, such as being placed in prison (he was not imprisoned); such as the great chiefs insulting the princes (he was not insulted): and all things which were done to the other princes were not done to Mukabya. The Katikiro remembered

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(4) *Elephant's tusk as a foot stool.* Formerly the Kabakas of Buganda used to have an elephant's tusk which was laid on the mat at their feet whenever they sat in state in public.

(5) *Wankaki.* This is the name of the main gateway or entrance through the reed fence which forms the Lubiri or royal enclosure.

(6) *The holder of this Drum, i.e.*, the holder of the office of Kabaka (okulya eng'oma—lit; to eat the drum, is an expression used for succeeding to the throne of Buganda).

all these matters well ; he knowing about them himself and he left the party of those chiefs who wished for another prince called Kikulwe. The Katikiro Kaira seeing that everything which was said about this prince (Mukabya) was true, ordered his mother to be called and they brought her, Muganzirwaza Nakazi (7) by name, the "Cook" of the Kabaka. Her brother was a great chief and his name was Mpirivuma. The Katikiro then informed Muganzirwaza Nakazi the Cook "Your son Mukabya has been chosen to be our Kabaka, wherefore I have summoned you, return home, you will hear all tomorrow ; there is no danger whatsoever which can prevent your son from being our Kabaka." Muganzirwaza then went home and joy was near to killing her. Now when day dawned he (the Katikiro) ordered Kasuju (8) to bring the princes to the open space before the Royal Enclosure and there they placed them in two lines and when they were stood thus the Katikiro got ready brave men of his who were skilled in battle, about 500 in number or more, and exhorted them that if they saw any one trying to fight or quarrel with Mukabya with a view to preventing him being Kabaka, they should spear him out of hand, as he was the prince their father had willed to succeed him notwithstanding the fact that some chiefs wanted Kikulwe. The chiefs who wanted Kikulwe were these : Nduga the Mukwenda(9), Bakabulindi the Sekibobo, Sebuko the Muwemba(10), Nkedi the Omuwambya, Setuba the Luwekula(11), Seng'endo the Kisubika. One of these chiefs, Nduga, was he who had gone to the Katikiro to persuade him to agree to his nephew Kikulwe (the son of his sister) ; the mother of Kikulwe being Zawede.

To start with, the Katikiro had agreed to him but afterwards changed his mind when they reminded him of the dying wish of the Kabaka which he had forgotten. This chief, Nduga the Mukwenda, did not know that his nephew would be passed over for the Kabakaship until he saw there next morning that they were choosing Mukabya and he tried to remind the Katikiro as follows : "Sir, the prince they have brought is the wrong one, did you not choose another ?" Then the Katikiro answered him "What you are reminding me about is correct but there is a true reason for selecting Mukabya ; further, it is impossible to choose another for this is he upon whom his father's choice fell as is publicly known." Now when Nduga saw that it was being pointed out to all that Mukabya was their Kabaka of Buganda and that no one was opposing him, he and his companions were filled with wrath and were angered exceedingly at the refusal of their prince whom they had hoped for. Further, these chiefs spoke many evil words about the prince Mukabya. This is what they informed the people : "This prince is sick, he has the sickness Bronchitis also he has a wasting disease in his body wherefore he is emaciated and not

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(7) *Muganzirwaza Nakazi the Cook.* The "Cook" was a title held by one of the Kabaka's wives.

(8) *Kasuju*—This is the title of the chief in charge of the county of Buganda called Busuju. Part of the duties of his office was formerly the charge of all the "balangira" or princes.

(9) *Mukwenda* and *Sekibobo* are the titles of the chiefs of the counties of Singo and Kyagwe.

(10) *Muwemba, Omuwambya* and *Kisubika* are titles of minor chieftainships ; some say that Sebuko was not Muwemba, but held the chieftainship of Musuna.

(11) *Luwekula* was formerly the Sabawali, a sub-chief under the Mukwenda ; owing, however, to the addition of further territory to Buganda the chiefdom has become a separate county called Buwekula and the Luwekula is now the chief in charge.

plump as are his companions the other princes. Further, and this is important, he has no mother as she was sold by the Kabaka to the Coast men (*i.e.*, Swahilis or Arabs), and her name was Gwolyoka.[12]" Also, they attached the rumour to Gwolyoka, which was false, that she was the mother of the Kabaka, whereas Gwolyoka, who was a real person, was just one of his wives who had angered the Kabaka and he had given her to Arabs and not sold her. A Kabaka does not sell people, only ivory. Further, what would never be done, would be for a Kabaka to sell or give away any of his wives who had borne him a child. This was never done in Buganda and a Kabaka would have feared to do such a thing, *i.e.*, to give away a wife who had a child, in case she should conspire with enemies and they should seek for him (*i.e.*, her son) and bring him forward and rebel and drive the Kabaka from his kingdom. Another thing a Kabaka feared to do was to kill a woman who had borne a prince. To kill a prince was a small matter to the Kabakas of Buganda because they knew that if you killed a prince his mother had no power to rebel or do anything else. But there once was a Kabaka who killed his wife who had borne princes and these princes in sorrow for their murdered mother in their turn killed their father. That was Kabaka Kyabagu.[13] Therefore, henceforward, the subsequent Kabakas were very frightened of sending away a wife who had borne a child, or children. On the other hand they might send away the child because the mother did not cause them anxiety in the same way as the child. This was the known reason for neither sending away or killing the mother of a prince, only princes were killed. A further important point was that a prince without a mother did not succeed to the Kingdom of Buganda. It was like a taboo. People would have feared him much in that he would kill many people remembering the death of his mother and because there would be no one to check him if he behaved too evilly. Again, his father would not have selected him to succeed him because a prince without a mother was called a miserable creature. These are the main points they looked out for princes in selecting a fitting person to inherit the Kabakaship. Let me show what they looked for in princes when they were choosing one fitting to succeed :—

I. They asked for a prince who was in the habit of torturing rats and little birds by gouging out their eyes or breaking the little birds' wings so that they could not fly. Such things used to be done by many of the small children in Buganda as if it were a game. But were it a prince or a chief's son they would not wish him to succeed his father thinking that he would treat his people likewise.

II. A prince without a mother was not acceptable as a successor as has been stated above, as it was thought he would not fail in his misery to kill those who had mothers and, when, in addition there were any other small objections, such a prince would not succeed.

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(12) *Gwolyoka.*—Great stress is laid on the falseness of the story that Gwolyoka was Mutesa's mother in view of Mr. Gray's statement to this effect on page 23 of the *Uganda Journal* of January, 1934, in his article on Mutesa.

(13) *Kabaka Kyabagu* was the 29th Kabaka of Buganda, the present Kabaka being the 38th.

Therefore (it will be seen) that if Mutesa [14] had no mother he would not have been accepted. He did have a mother, she was Muganzirwaza Nakazi the Cook and it was he who was chosen by his father who gave him great freedom and was more pleased with him than all the other princes. Mukabya was not imprisoned as were the other princes ; further, he was never insulted as was the custom to insult princes with such remarks as "If you inherit this kingdom you will burn us like a grasshopper placed alive in a pipe of burning tobacco." It used to be the custom of the Kabaka to instruct chiefs to insult the princes in order that he might rely on their not being in league with his children (to conspire against him). Mutesa was never treated thus ; the Kabaka made a difference in his case. Now you should understand well this matter of Mukabya not having a mother and do not think that it is true. It was the enemies of Mukabya who spread this rumour about so that it appeared to be true whereas it was not true. And that is the reason why they were convicted for speaking this great evil. Further, they were executed when they did further evil things. They stole the princes from out of their prison as they wished to rebel ; they were caught, however, and killed. A large number of chiefs were killed together with the princes and where they were killed was Namugongo where they slew the Christian Martyrs in 1885, this place Namugongo was an ancient place of execution.

Then Mukabya became king of his country and ruled well. But afterwards having completed a period of four or five years he commenced, as you know youths will, to behave maliciously, wishing to follow the murderous habits of his father, killing people for nothing and such small offences as would nowadays, perhaps, be met by a punishment of two or three weeks' imprisonment. In such cases he just killed people, and attempted to kill very many people in an unthinkably cruel manner. Now in the year 1859 some Arabs arrived from Karagwe named Abdulla bin Hassan and Muhoya bin Saleh. These tried to convert the Kabaka to Mohammedanism. His servants and chiefs applied themselves to a study of their holy book the Koran and obstructed him strongly in his attempts to slaughter people without cause, endeavouring to replace execution by punishment and imprisonment, exhorting him thus : "You Kings are God's representatives, you should not meet offences with death but rather with imprisonment and fines. That is the good custom of Kings and kind Kings are those whose lives last for many years." Then he stayed his hand on account of these teachers.

In 1861, the Europeans Speke [15] and Grant arrived in Buganda. They were the first Europeans to be seen in Buganda. They conversed with the Kabaka on many subjects. What, however, prevented him from trusting them was the fact that the Mahommedan religion had got a great hold on him and he had studied much the Koran. As a proof of the hold that it had on him, when he had studied this religion, he selected some of his servants and sent them to teach

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(14) *Mutesa*, *i.e.*, the Organiser or Wise Councillor, was the name by which Mukabya (the Groan maker) became known later on in his reign. The names are indicative of how his character changed.

(15) Speke arrived at Bandabalogo on February 19th, 1862.

Kabarega (16) and they took him a praying mat, a red flag to hoist on the flagstaff which is erected by a mosque, a kettle for carrying the water for prayer and some Mahommedan shoes of the kind which are removed when you enter a mosque and he told Kabarega to accept Allah.

Now when he had seen all these and heard what the messengers told him concerning the acceptance of God and his Prophet Mahomed and when they had displayed all the things before him the Kabaka Kabarega said: "My friends, I thank you for all these religious objects and for informing me about the God who is greater than all other gods, but return them all and say to him 'Be not angry, here are the articles belonging to your God, I return them to you, I do not want them, and the God of whom you speak, I know him not; I have my own gods whom I worship and who give me counsel in my Kingdom and who cure me of all ills. Give my compliments to your master.'" The messengers returned thus and when they informed the Kabaka, he said: "My relative, that one, will suffer, he will not give up his uncivilized foolishness; however, let us leave him, if he does not wish for God's religion, I am sorry for him indeed." Now that is the end of the narrative in regard to Mahommedanism.

The Europeans Speke and Grant found the Kabaka in his town Banda-balogo. It is the hill which you see to the west when you are standing on Kireka hill, where the Crown land and the Musalosalo (17) Kisosonkole's land adjoin. On this hill where the boundary crosses it when you leave Kireka going westwards and in a northerly direction that is Banda-balogo where Kabaka Mutesa used to be and Mr. J. H. Speke found him. The Kabaka gave him a place to live at down below and some distance away by the river but Mr. J. H. Speke did not like this being far away from the Kabaka, he not knowing the customs of Buganda wherefore they were afraid of a stranger from an unknown country being near the Kabaka; further, he being a man unlike the black peoples they considered him of a different type altogether, having regard to his whole circumstances. A very white man is what the Baganda call an *albino*; his language was not comprehensible and his clothes were of a different kind. He brought guns of the percussion cap variety which he gave to the Kabaka and this kind of gun was called a Speke and is so called to this day. When you see a short rifle with two brass bands such are called Speke guns or Makowa Speke. The guns which Speke gave the Kabaka amounted to seventeen and he also gave him other things, clothes and blankets. Now the Kabaka used to like Mr. J. H. Speke to come and teach him to shoot at a mark and bulls were brought every day for them to hunt (*i.e.*, shoot at)—and they both used to hunt birds. J. H. Speke, however, did not like at all turning this cattle business into a daily game and he tried to stop it. The Kabaka questioned him on many subjects such as what the countries of Europe were like in regard to their forms of government, buildings, populations, customs of the European Kings, European marriage, whether many or few women were married and many other matters. All these questions were answered and in all these matters it was not the Kabaka only who questioned him. The Queen Mother also questioned him

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(16) *Kabarega* was the Omukama or King of Bunyoro, the native state to the north of Buganda.

(17) *Musalosalo*, the title of a minor chieftainship in the county of Kyadondo.

searchingly, for the Namasole, Mutesa's mother, was very intelligent. She was very fond of Speke ; she used to send for him from time to time wishing to question him on subjects connected with the wisdom of Europeans. She also liked much the European medicines for fever and headache which Speke used to give her and attempted to refuse altogether Baganda medicines, preferring those of Mr. J. H. Speke.

Now Mr. J. H. Speke told the Queen Mother that the Kabaka seemed not to like him because he made him live far away in an unpleasant place giving him much trouble when the Kabaka sent for him to instruct him in matters which he wished to learn, or to shoot, etc. The Queen Mother promised that she would tell the Kabaka about it, as what he said was reasonable, but it was not carried out because of the fear the chiefs had of him, wherefore they did not desire him near the Kabaka as you have already heard. Now Mr. J. H. Speke had with him messengers of the Kabaka's who had been sent to him when he was still in the country of Karagwe at King Lumanyika's (Rumanika) and who had accompanied him while he was on the way. Their names were Namugundu and Kasolo. These where the people whom Mr. J. H. Speke used to send daily to the Kabaka to say what he wanted but they did not approach the Kabaka themselves but informed those who had access to the Kabaka who in their turn made things known to him. Mr. J. H. Speke was very fond of these men notwithstanding the fact that they were not very intelligent but they pleased him much on account of their affabillity and the celerity with which they went whenever he sent them to the Kabaka or Queen Mother or the chiefs and the speed with which they served him.

Now there are still many matters connected with Mr. J. H. Speke pleasant to hear, such as what he conversed about with the Kabaka and what he discussed with the Queen Mother, the Kabaka's mother, but it is difficult to deal with them all in this hurried article. Now when the time came for Mr. J. H. Speke to depart on his journey to the lake (*i.e.*, Nile) he prayed the Kabaka to give him a representative to show him the road to the lake Kiira which the Europeans call the Nile and the Kabaka gave him a representative called Sembuzi and they went to Bulondoganyi[18]. When they had left the capital they passed by Mulondo's and as he went he marvelled at the greatness of the cultivation of the Baganda and to see that the plantations adjoined each other all the way from the capital to Busagazi in Bulondoganyi, the headquarters of Mulondo. This place is not known now, but it is where nowadays the R.C. Mill Hill Mission have a station called Nazigo. From this place Busagazi, the headquarters of Mulondo, there was a very great road which went to Busoga. Now when on that road he marvelled and said to those present: "The masses of people I have seen in Buganda resemble the crowds to be seen on our roads in Europe but in the other parts of Buganda which I have visited there are no roads so crowded with people as these in Bulondoganyi except at the capital Banda." For so as to see the mass of the people, he had that day mounted a horse[19] and gazed out in front

(18) *Bulondoganyi* (now the southern part of the county of Bugerere) was formerly a separate, chieftainship under a chief whose title was Mulondo. It lies on the west bank of the Victoria Nile, the country of Busoga being on the east bank.

(19) The author of the article appears to be misinformed here. Speke had no horse. He left the coast with some mules but does not mention still having them when in Uganda.

and behind, not seeing the ground, only the heads of people. This road was very straight, it was two miles straight at a time and its width differed from 30 to 60 feet. It was on account of the flatness of the road and its width that he was able to see the crowds of people before and behind him.

He then reached the river Kiira (Nile) and saw what he had come for; those who were with him not knowing what he was doing in all his examinations of the river, its water, rocks, trees, flowers, birds and insects. When he had finished his work and followed the course of the Nile, the representatives then returned.

J. H. Speke said to the Queen Mother when discussing affairs in Europe: "I have seen that some are frightened of me and some are astonished at me because I am white. Further, you ask me if me if my race is numerous. Well, let me tell you that not many years will pass before you will see other Europeans coming to trade with this country coming from many different races of Europeans now unknown to you. From the appearance of this country as I have seen it it contains much for Europeans to do. When you notice many Europeans here you must fear them no longer." The Queen Mother then asked him: "Will they be many? Are you a numerous race in your country?" and he answered in the affirmative. The Queen Mother then answered him "Those who are here when they come will see for themselves."

A period of fifteen years had elapsed since Mr. J. H. Speke had left when Mr. H. M. Stanley (20) came. He was the second European to arrive and came when the Kabaka was staying at Busabala on the lake. This Mr. Stanley came by lake from Buvuma in his boat. The Kabaka had been informed that there was a European with a boat in the Buvuma islands and Mukasa Kipamira was sent to bring him to Busabala where the Kabaka was in the year 1875. It is too long a story to relate about Mukasa Kipamira's journey, how he followed Mr. H. M. Stanley and where he found him and what he discussed with him and how he guided his boat to the harbour. Now when the vessel came to land and the European disembarked a man was sent to greet him and compliment him on his journey across the lake. When the chiefs appeared before the Kabaka they said: "Sir, we have something to tell you. This European has come and we know nothing about him or why he has come, what he wants or does not want we do not know. We desire, therefore, that firstly you should not go and greet him but should send the Katikiro and let him greet him first. When we have spoken with him and seen whether he has come for good or evil, then you will act accordingly." The Kabaka then accepted their advice but the chiefs did not think he would listen to their counsel because he had no fear in matters of this nature concerning people from other countries as he wished to make friends with them. Although the arrival was a European and a white man, an object for awe, it was his chiefs who were afraid, not he. He agreed, therefore, to please his chiefs and so as not to appear to despise the advice they had given him, whereas he knew what attitude he would himself adopt. The chiefs then acted as they had planned and appointed the Katikiro to greet Mr. H. M. Stanley and they all stood while the Katikiro went to shake Mr. H. M. Stanley by the hand. When Mr. H. M. Stanley had greeted the Katikiro and immediately their salutations were finished,

(20) Stanley arrived at Busabala on April 5th, 1875, *i.e.*, 13 years after Speke.

Mr. H. M. Stanley said : " I see all of you, but I do not see your Kabaka, where is he ? " The chiefs then replied and said " Why, that is he whom you have just greeted." Mr. Stanley then said : " Certainly not, I know the Kabaka well. This is not he. I had in mind that the Kabaka had sent some of his chiefs to meet me and take me to him and now you say that this man is the Kabaka ! " They then sent at once to the Kabaka saying : " Sir, the Europeans are marvellous ; he says the Katikiro is not you and knows what the Kabaka is like. Sir, how can this be ? " The Kabaka then answered " The European is quite right ; bring him to me and let him greet me." So they brought him he and the Kabaka conferred together and became great friends. The lies and deception were the chiefs', not the Kabaka's. The Kabaka then gave orders for Mr. H. M. Stanley to be taken to his place of residence and he came from there to visit the Kabaka and to hunt crocodiles and to talk in the presence of the Kabaka's wives in the wives' council house.

Then the Kabaka said to him : " Where we are now is merely a place of recreation ; let me take you, my guest, to my home." Mr. H. M. Stanley then answered : " I will come tomorrow, I fear the heat of the sun ; we Europeans rest during such hours, we do not travel therein." Some then said to the Kabaka " Sir, will you take this white stranger by the back route, he should return and make a detour so that he will be made to emerge at Wankaki." The Kabaka : replied : " Certainly not, do not fear, there is no danger, he will travel by the back route." Having spoken thus, they were silent and the Kabaka started off to return to his town of Rubaga. Mr. H. M. Stanley informed him, however, that he would come as early as possible the following morning. The Kabaka then left him someone to guide him to the town of Rubaga and went off himself.

[*To be continued.*]

The Population Map of Uganda:

A Geographical Interpretation.

By S. J. K. Baker.

This short article is in the main based on a paper read before Section *E* of the British Association in September, 1930. The writer would not wish to claim finality for the conclusions that are reached herein, for he hopes in due course to make a thorough revision of the essay and at the same time considerably to enlarge its scope. Two considerations have prompted him to offer it for publication in its present tentative form. First, its methods and its essentially geographical mode of approach, perhaps new to many readers of the *Journal*, can be intensively applied to the study of the various smaller units which are to be found within the boundaries of the Protectorate; and a useful purpose will be served if the following pages in any way stimulate the prosecution of such local studies. Secondly, it is hoped that the publication of the article will evoke from members of the Society the criticisms and observations without which its effective revision can never take place. The writer will be grateful for any communications that may be addressed to him, either through the Editor or direct to the University of Liverpool.

The Uganda Protectorate, comprising with Kenya Colony and Tanganyika Territory a political unit within the major geographical region of East Africa, has much in common with its two neighbours. At the same time, its position is in many ways distinctive and two factors may be singled out as giving a characteristic orientation to its whole development. In the first place, its situation is purely interior, while each of its neighbours has a considerable frontage on the Indian Ocean. Secondly, comparatively low plateau (some 4,000 feet above sea level) forms the preponderant element in the relief of the country, and in this respect the contrast with Kenya, where the highland is the dominant element, is particularly strong. It is the operation of these two factors which in large measure explains the small numerical strength of the European population in Uganda: the 1931 census showed a total of 2,001. Whilst Kenya and Tanganyika Territory have received numbers of white settlers in recent times, Uganda, with a smaller area suitable for the purposes of settlement and that more remote from the coast, has attracted few European immigrants. The attention of this essay is thus confined to the native population of Uganda.

I. THE COUNTRY.

Uganda consists fundamentally of an uplifted peneplain in the Archæan schists, gneisses and granites which make up the Basement Complex of the African continent.(1) The crystalline rocks of this ground mass outcrop over

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(1) In more detail it is possible to distinguish three peneplains or flat erosion surfaces, of different ages.

large areas of the Protectorate, but they give way in places to patches of intrusive granite and, especially in Western Uganda, they are covered by the ancient sediments of the Karagwe-Ankole System. The rocks of the last-mentioned System, though younger than the members of the Complex, are yet of Archæan age. After a long period of quiescence, when the earliest of the peneplained surfaces was formed, there occurred in late Cretaceous or early Tertiary times the beginnings of the intermittent earth movements which culminated in the formation of the Western and Eastern Rift Valleys and of the highlands along their flanks. The outpourings of lava represented by the Mufumbiro and Toro volcanics in the west and by the Elgon group in the east occurred in association with the rifting movements. Meanwhile, a gentle down-warping of the intervening area produced the shallow depression which is now occupied in its central portion by Lake Victoria.

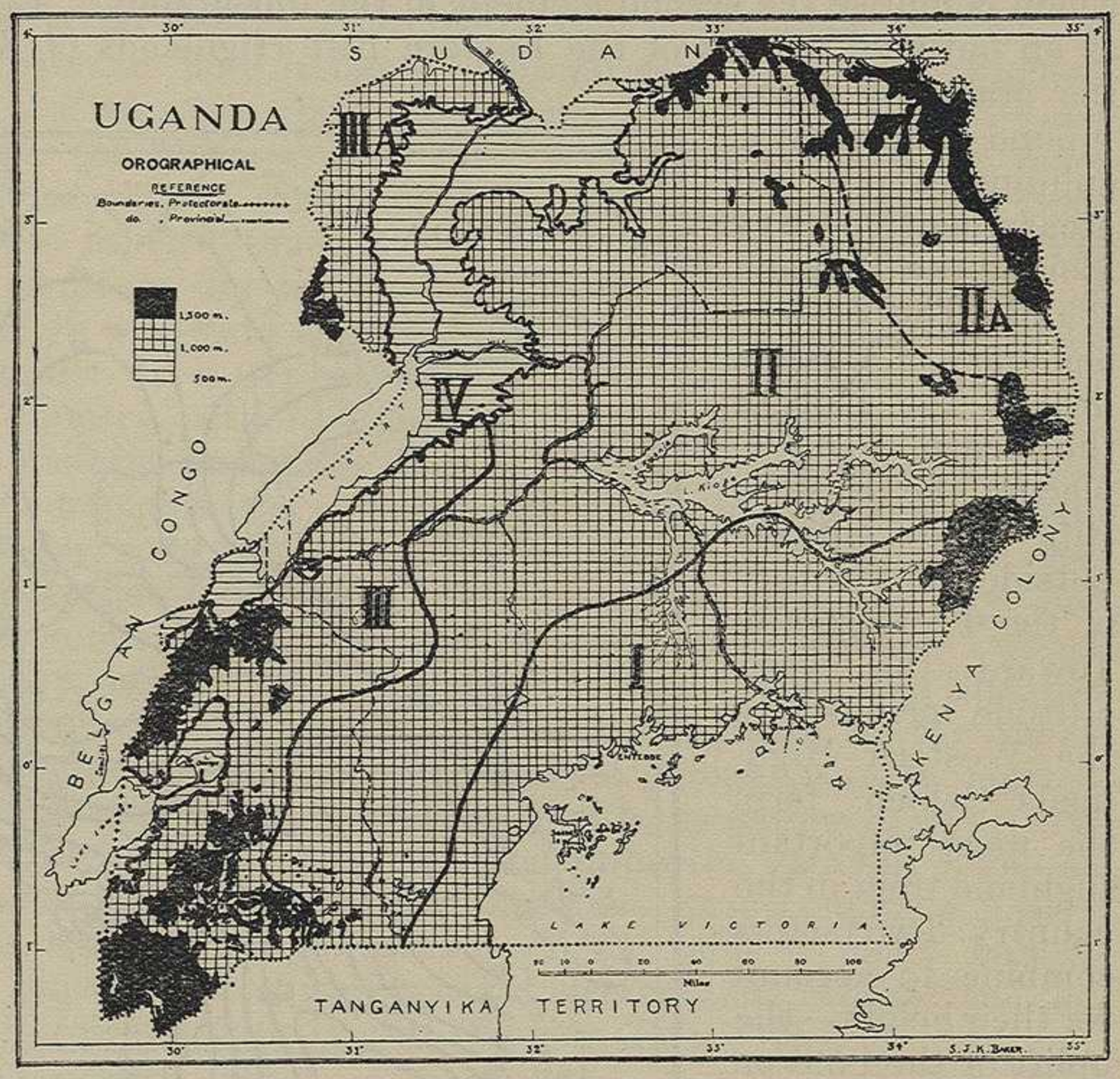


Figure 1. Uganda: Orographical.

The three elements in the topography are represented as follows :— Highland—black; Plateau—cross ruling; Lowland—horizontal ruling.

The heavy black lines provide a tentative demarcation of the main natural regions :—

I. The "Victorian" Plateau.
II. The Interior Plateau.
IIA. Karamoja.
III. The Western Highlands.
IIIA. The West Nile Highlands.
IV. The Western Rift Valley.

The topography of Uganda is in its broad outlines dependent upon this geological history, though it should be noticed in passing that the influence which the solid geology might exert on the details of the landscape is often masked by a thick covering of lateritic ironstone. Three elements in the topography are distinguished in Figure 1. The first of these is the plateau which lies at an average elevation of 4,000 feet in the shallow depression between the highland system of the Eastern and the Western Rift Valleys. The waters of

Lake Victoria have gathered in the south, while further north lies the papyrus-choked system of Lakes Kioga and Kwania; and together these cover much of the surface. The highest levels of the plateau occur in the south and west and north-eastwards it presents a lower-lying area covered with lake deposits of Quaternary age.

The plateau rises on its eastern and its western margins to the highlands which comprise the second element in the topography. Elgon may be considered as an outlying portion of the Eastern Rift Highlands of Kenya. Further north, the gradually rising ground of Karamoja culminates in an escarpment overlooking the Turkana Plains. The eastern boundary of Uganda lies at the foot of the scarp slope, placing the Eastern Rift Valley entirely outside the territory of the Protectorate. Toward the west, altitude increases to the Western Highlands which form the most important highland tract in the country. Two factors combine to account for their height—the uplift of the land on either side of the rift valley, which seems to have occurred as an integral part of the tectonic process, and the accumulation of lava from the accompanying volcanic activity. The escarpment overlooking the Western Rift Valley is on the whole clearly marked, though it is masked where the Mufumbiro volcanoes stretch right across the valley in the section between Lake Edward and Lake Kivu.

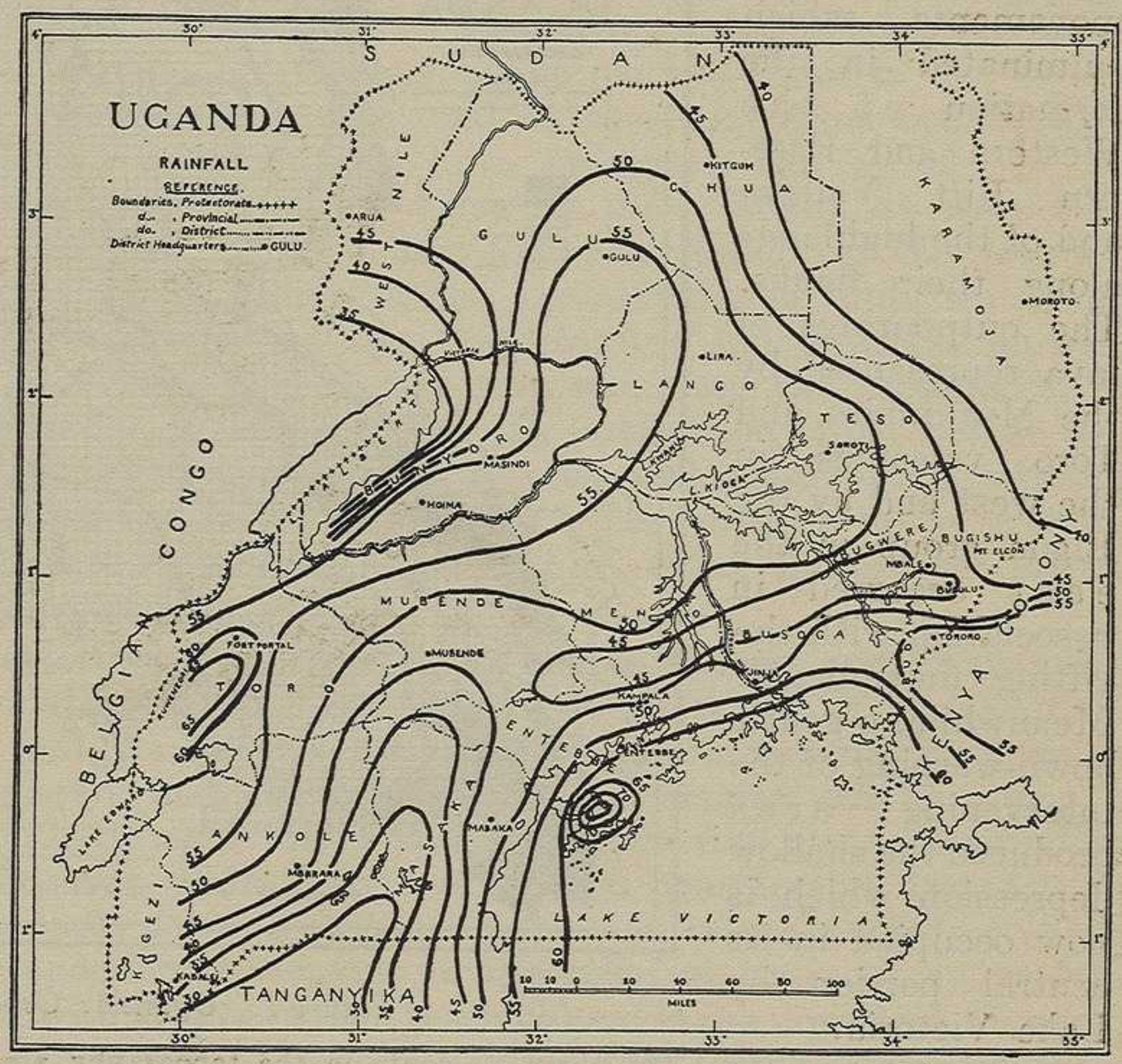


Figure 2. Uganda: Mean Annual Rainfall.

The isohyets, marked by the heavy black lines, have been taken from the map issued by the British East African Meteorological Service. The figures represent inches of rainfall.

The Lowland of the Western Rift Valley, comprising the third element in the topography, is represented by the depression of Lakes Edward and George in the south, by the Lake Albert depression in the centre, and further north by the wide plains on either side of the Albert Nile. In the last-named section

the valley loses its rift-like character; the lowland grades almost imperceptibly into the plateau on the east, and there is no continuous escarpment to the west on the side of the West Nile Highlands. In these Highlands Uganda stretches westwards to include a portion of the Congo slope of the Western Rift Highlands.

A brief account of the climate of Uganda may be built up around the description of the accompanying rainfall map (Figure 2). The country adjacent to Lake Victoria is well watered, for although its average total of 50″ is only moderate, there is no season of drought, and the relative humidity is always high. The temperature here is fairly high and very uniform throughout the year. At Entebbe, for example, the mean annual temperature is 70°F. and the mean range between the warmest and the "coolest" months is no more than 2°F. Much of the rainfall in this area is the product of evaporation from the lake surface and the rainfall tends to diminish with increasing distance from its shores. The resultant dry zone is well marked in the south-west of the Protectorate, though its westward extension is here limited by the proximity of the Western Highlands. It is represented in a much less intensive form by the narrow belt of country with less than 45″ which stretches from west to east between Lake Victoria and Lake Kioga. The presence of this latter lake system presumably explains the considerable break in the central part of Uganda between the dry zone of the south-west and that of the north-east which extends over the whole of northern Uganda. These areas are dry, not only in their low mean annual totals, but also in the sense that the rainfall everywhere lacks reliability, whilst the dry season becomes pronounced and the relative humidity is at times low. There is a natural increase in the range of temperature within such areas. The mean annual temperature is highest in the north; Nimule, for example, has a mean annual temperature of 81·7° and a mean maximum of 92·4°. In the Western Highlands the rainfall increases with altitude and the mean annual temperature becomes correspondingly lower; Fort Portal, as a type station, has a rainfall of 62″ and a mean annual temperature of 66·7°. Finally, there is a natural decrease in rainfall and an accompanying increase in temperature in the Western Rift Valley.

Mosquitoes and the various kinds of tsetse flies find suitable breeding conditions in the lowlands and over much of the plateau, but they are on the whole absent from the highlands. Malaria is still undermining the physique of the inhabitants, and although sleeping sickness is now under control, the shores of Lake Victoria and the lowlands of the Western Rift Valley constitute potential danger zones.

The discussion of the physical geography may be summarised by a brief survey of the main natural regions within Uganda (Figure 1). Each of these contains a distinctive landscape which tends to become less characteristic on its margins, so that the boundary line sometimes marks the centre of a transitional zone rather than the line of division between two precisely delimited regions. This is especially the case on the plateau, where the smoothness of the relief makes any decisive division impossible.

I.—*The "Victorian" Plateau*, if such an appellation is permissible, is distinguished from the rest of the plateau mainly on a basis of its climate and vegetation; but its limits are particularly difficult to define in the area beween

Lake Kioga and Mount Elgon. Characteristic is the scenery of Buganda, where flat-topped hills alternate with broad valleys. In their natural condition the hills supported a rich savanna vegetation, whilst the valleys were either choked with papyrus or covered by a rich tropical forest. Over wide areas the natural vegetation has disappeared, and its place has been taken by a "humanised" landscape in which the plantain "shamba" is a conspicuous feature.

II.—This region merges into the *Interior Plateau*, which shows a broad correspondence with the "dry zone" of the climatic section. With a smaller rainfall and higher mean maximum temperatures, except in the central portion, a drier type of savanna or an open grassland prevails. The region is much more suited to cattle than the "Victorian" Plateau, though for the most part it is not without its agricultural potentialities. The driest parts, such as the Karamoja District, support an acacia grassland of a very poor type capable of being used only for an extensive kind of pastoralism.

III.—*The Western Highlands* constitute a third natural region, including Kigezi, the western part of Ankole and Toro and, more doubtfully, the hills of central Bunyoro. Variety of topography and consequently of vegetation is characteristic, but the wide distribution of rich open grassland (the mountain grassland of Shantz) gives a fundamental unity to the region. Cultivated valleys and hill slopes enter into the landscape of the Western Highlands; the extensive grass-covered plateaux are its dominant feature. The highlands of the West Nile District may be considered as a topographical "outlier" of this region, whilst Elgon in the east belongs to the comparable Eastern Rift Highlands of Kenya.

IV.—The lake shores of the *Western Rift Valley* comprise a distinct natural region, which for various reasons presents only a slender basis for human settlement. The presence of the tsetse fly is one unfavourable factor in the situation. The lowland on either side of the Albert Nile is in some ways more allied to the Interior Plateau than to the remainder of the Rift Valley.

II. THE PEOPLE AND THEIR MEANS OF LIVELIHOOD.

Four racial strains have contributed in varying degree to the composition of the population now residing within Uganda. A pygmy, or perhaps a primitive negro strain, appears among certain fragmentary groups which have been driven into the remoter and less accessible parts of the Protectorate. Examples of such groups are to be found mainly on the extreme western outskirts, where their members gain a precarious living from hunting and the gathering of wild fruits, to which may be added a little primitive cultivation. It is said, though, that certain pygmy elements survive inside the Mabira Forest within forty miles of Kampala.[1] In view of their numerical weakness one may pass without delay from these primitive peoples to a consideration of the Bantu negro. The representatives of this strain, fundamental in the present population of Uganda, are now found mainly in the south and west of the country, where they form the bulk of the population on the plateau and the cultivating element in the

(1) *See* the article on "The Mabira Forest" by Captain C. R. S. Pitman in the first number of the *Uganda Journal*.

highlands. The Hamitic or Bahima strain was probably the next one to intrude into the area. Tradition links the Bahima with the Galla, bringing them from the north-east, and an analysis of their present-day distribution shows that they have penetrated south-westwards into Western Uganda and beyond what are now the Protectorate boundaries into Ruanda and Urundi. The Bahima element is strongest in Ankole, where the incoming herdsmen were able to take advantage of the abundant natural pasture in the highlands and on the adjacent plateaux. Here the invaders have remained quite distinct from the Bantu cultivators whom they brought into subjection. Further north, Toro and Bunyoro have a physical character less favourable to large-scale pastoralism, and the Bahima have been unable so completely to preserve their identity. The greatest degree of fusion between the two elements has taken place in Buganda—in the fertile region of the "Victorian" Plateau—where the Bahima, though remaining as a feudal aristocracy, have lost their pastoral mode of life and have tended to become absorbed in the mass of Bantu cultivators. There is much truth in the idea that the social progress of the Baganda and the historical development of their kingdom have arisen out of the fusion of these two different strains. The fourth racial element in the population of Uganda is Nilotic. The representatives of this type entered from the north-west at a comparatively recent date and they have penetrated south-eastwards at least as far as Kavirondoland. The Madi, the Acholi and the Lango are held to be Nilotic tribes. Their line of movement cut across the earlier one which brought the Bahima into Uganda and much intermixture between the two types must have taken place. They are to be compared with the Bahima in that they have a considerable amount

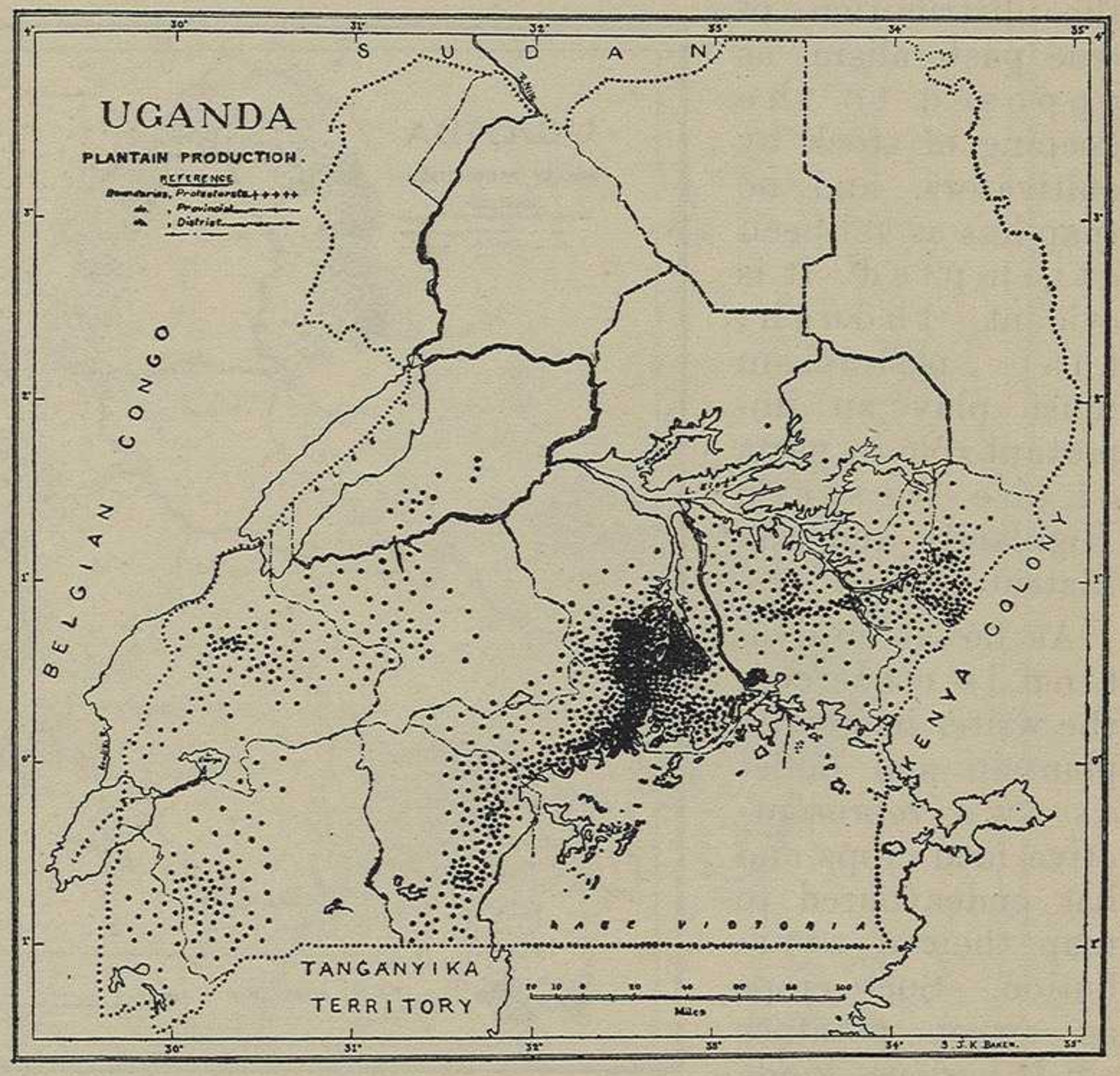


Figure 3. Uganda: Plantain Production.

One dot represents 500 acres under cultivation. The map was compiled from the District statistics given in the Blue Book for the year ended December 31st, 1928.

of Hamitic blood in their veins, and in that their traditional occupation seems to have been the keeping of cattle. The Nilotic tribes of Uganda, however, are known in addition to be careful cultivators of grain.

The people of Uganda rely upon either cultivation or the keeping of livestock to provide themselves with the basic means of subsistence, for hunting is practised only on a very restricted scale. Livestock—mainly cattle, sheep and goats in the case of Uganda—may be reared in two ways: under a system of nomadic pastoralism or in association with sedentary cultivation. It is difficult to map the distribution of true pastoralism, as opposed to the keeping of stock by cultivators, and no map has as yet been attempted. It is evident, though, that pastoralism must play an important rôle in parts of the Western Highlands and the Plateau.

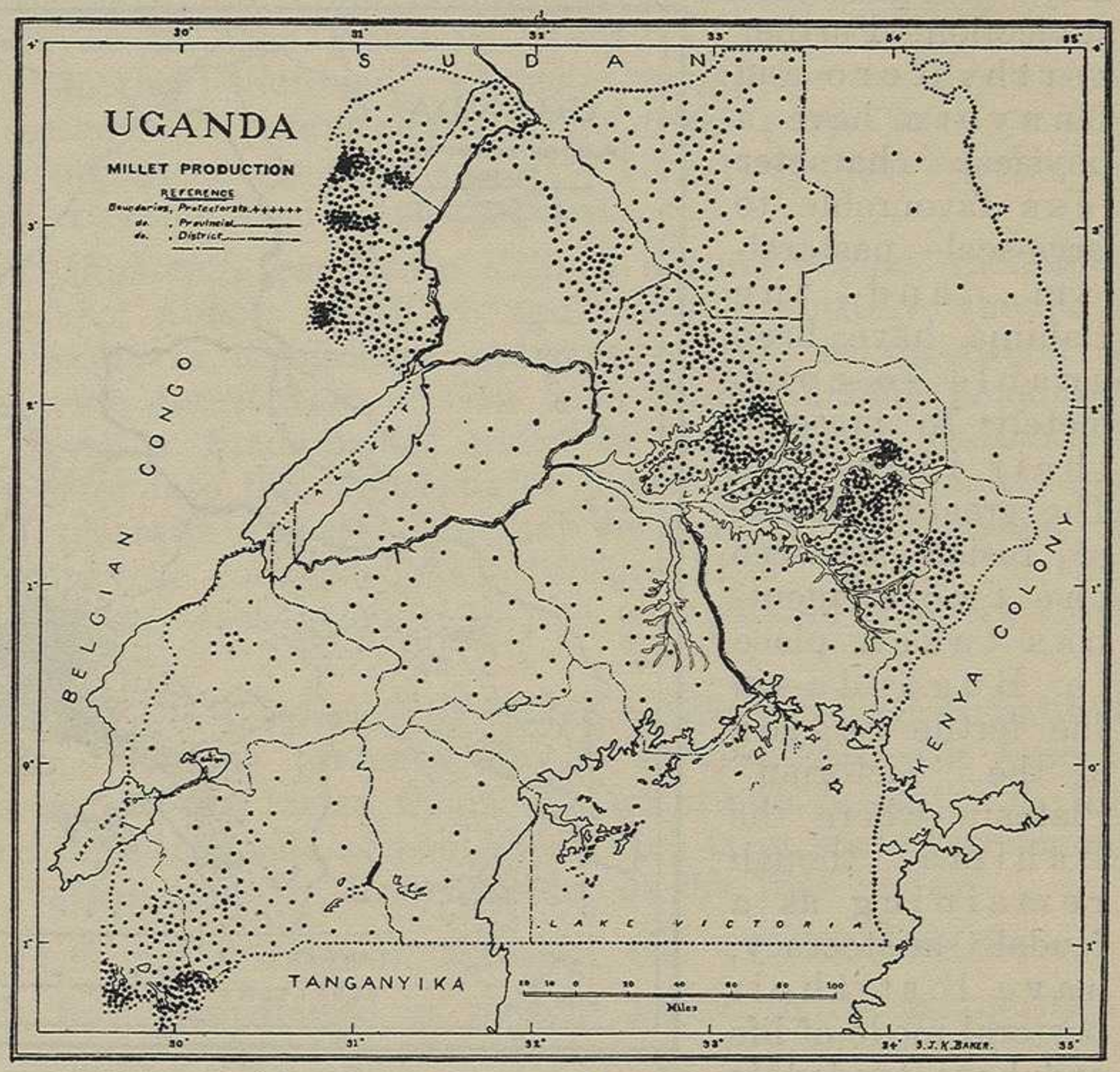


Figure 4. Uganda: Millet Production.

One dot represents 500 acres under cultivation. The map was compiled from the District statistics given in the Blue Book for the year ended December, 31st, 1928.

As far as cultivation is concerned, the writer has taken plantain and millet as two representative food crops and has endeavoured to map their distribution. Such crops as sweet potatoes and various kinds of beans seem to be ubiquitous, but plantain and millet have a well-marked regional distribution. The plantain emerges as the staple food crop among the Bantu of the "Victorian" Plateau, and its extraordinarily dense distribution in the Mengo District of Buganda Province is noteworthy (Figure 3). It is grown by Bantu cultivators on the slopes of Mount Elgon and to some extent in the Western Highlands.

Millet, on the other hand, though not absent from the "Victorian" Plateau and important in parts of the Western Highlands is essentially a staple crop of the Interior Plateau (Figure 4). Its importance in Teso and Lango deserves notice, whilst its reappearance west of the Nile is important in relation to the

Population Map. From the racial point of view, millet is largely grown by the Nilotic negroes and the related Teso, who in Uganda show themselves to be assiduous cultivators of grain as well as the keepers of much livestock. This proclivity towards the cultivation of millet would seem to represent not a traditional aptitude, but rather a natural response to the environmental conditions of the Interior Plateau.

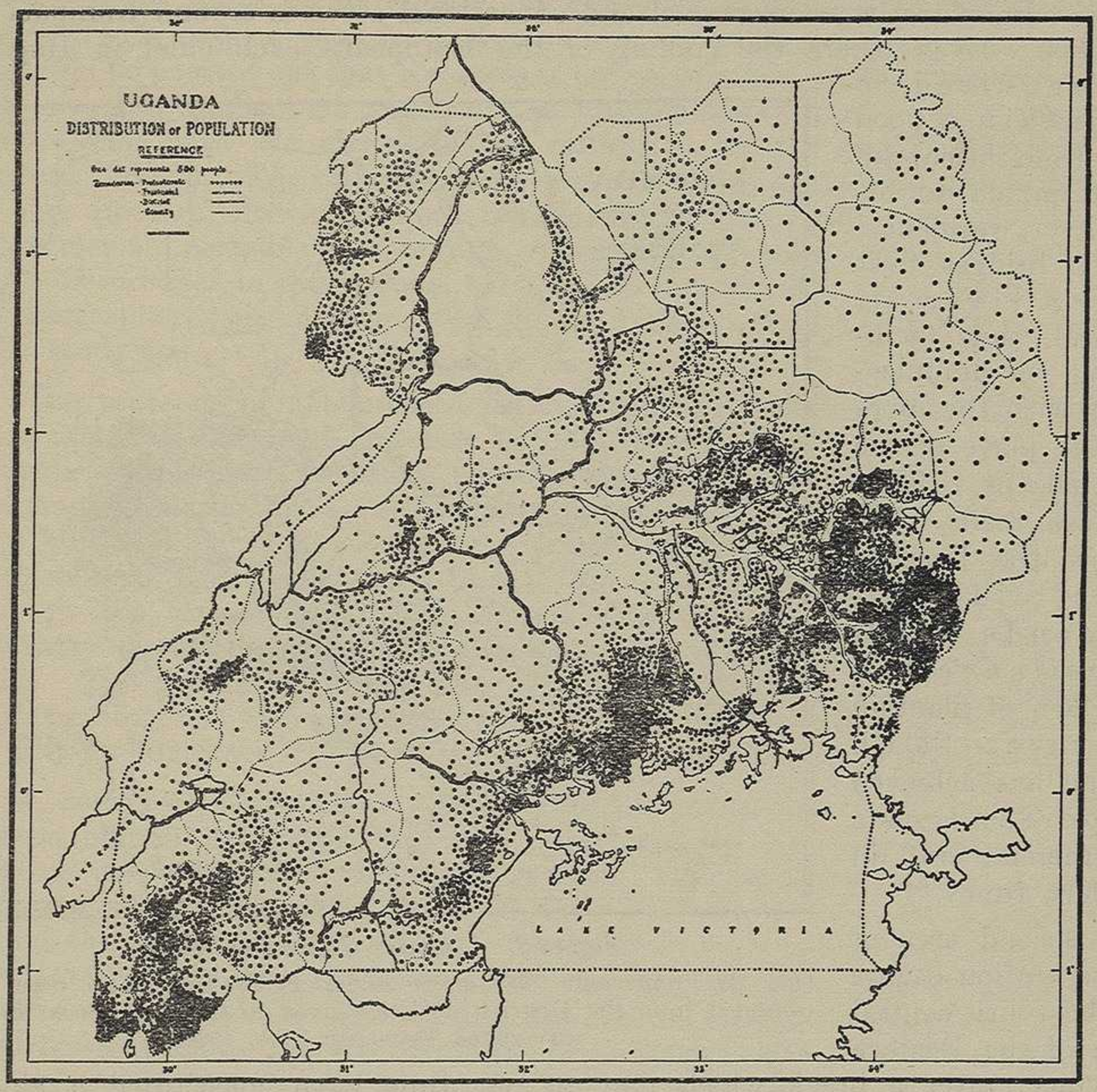


Figure 5. Uganda: Distribution of Population.

One dot represents 500 people. The statistics, furnished by the Survey Department, were based upon the 1921 census and the official estimates for the year 1926. (A map, based on the 1931 census figures, is in course of preparation.)

III. THE DISTRIBUTION OF POPULATION.

The distribution of population cannot be explained entirely in terms of adjustment to environmental conditions. Its evidently artificial character in some areas is due to the operation of non-geographical factors, a discussion of

which is beyond the scope of this paper. There is no doubt, though, that its salient features may be usefully discussed in relation to the physical geography of Uganda with a view to the evaluation of the geographical factor among the sum total of influences affecting the present distribution.

In the Province of Buganda there is a strong concentration of population in the vicinity of Lake Victoria, a fact which has its counterpart in the centralisation of the administrative, commercial and educational services around Kampala and Entebbe. Even before the coming of the Europeans each chief in Buganda was required to maintain a good road from the capital at Kampala to his country residence, with bridges over every river or swamp, thus facilitating communications with the more remote parts of the kingdom. The modern roads often follow the lines of these old tracks. Buganda is *par excellence* the region of plantain culture, though cotton has achieved importance as a commercial crop in modern times.

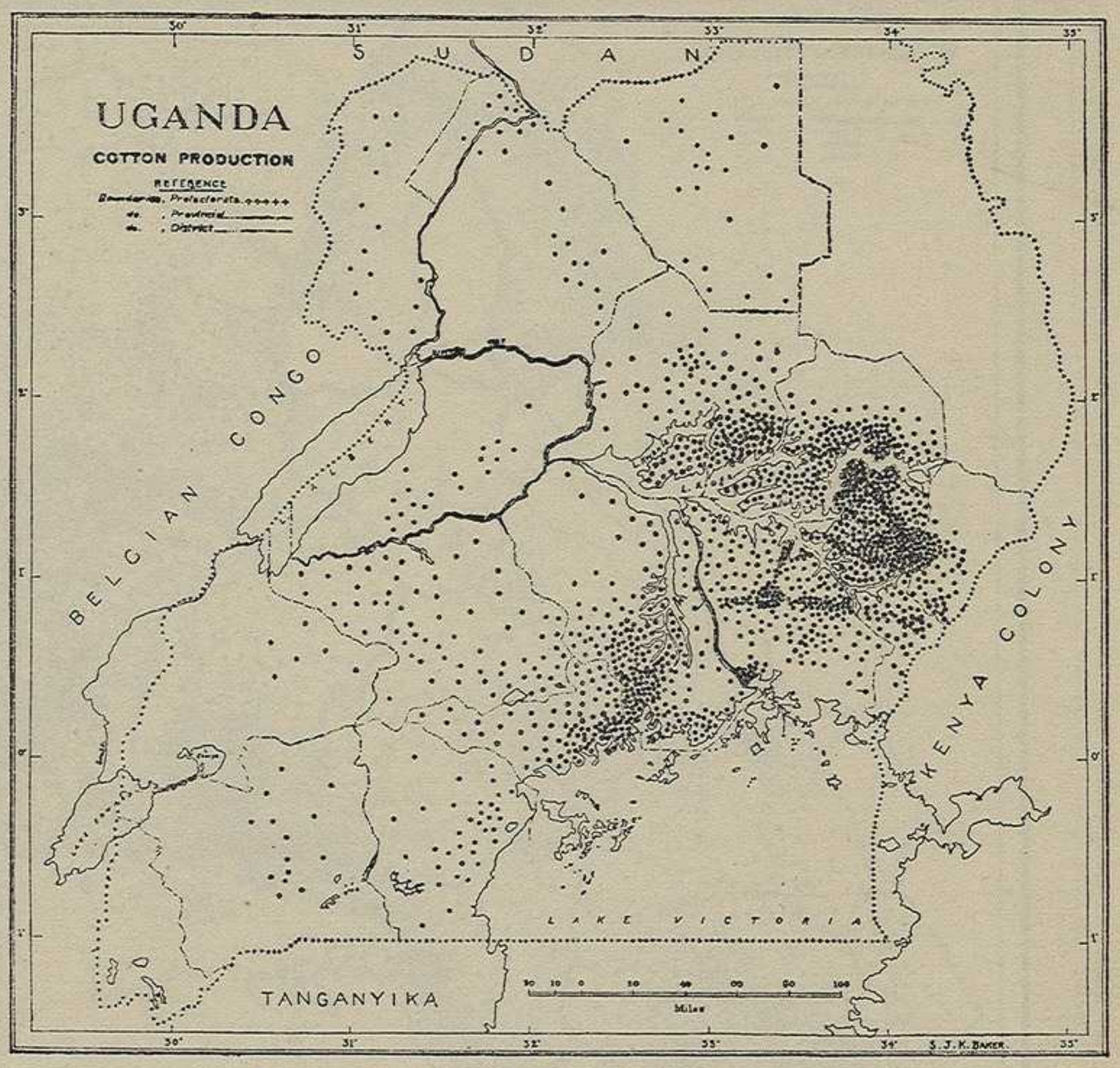


Figure 6. Uganda: Cotton Production.

One dot represents 500 acres under cultivation. The map was compiled from the District statistics given in the Blue Book for the year ended December 31st, 1928.

A second area of concentration occurs in the south central area of the Eastern Province, after a break which may at one time have constituted a kind of marcher zone between Buganda and Busoga. In the southern part of this area the plantain, if not the predominant food crop, is at least an important means of subsistence, while in the north the millet complex is definitely dominant. The abundant labour supply is one of the factors favourable to the success of large-scale cotton cultivation in the Eastern Province, and the both relative and absolute acreage under this crop, has increased rapidly in recent years (Figure 6). This fact of contemporary economic geography gives unity to an area which from the "Natural" point of view has a purely transitional character. The cultivation of cotton represents the active response made by the people of this

area to the stimulus of the new, world-wide environment into which they have been brought since the entry of European influences. This amazing economic development inevitably involves a challenge to the historical supremacy of the Kampala—Entebbe focus. As late as 1925, the Phelps-Stokes Commissioners were able to make the following statement in their report: "The Kingdom of Buganda is at present the centre of everything in the Protectorate and all the roads lead to Kampala its capital, so that it is impossible to get anywhere in Uganda with ease, except from Kampala or by roads radiating from that city. It should be pointed out that Kampala is not merely the centre of communications; it is also the intellectual centre of the whole Protectorate." They went on to predict that with the arrival of the railway a second centre would arise in Eastern Uganda. The railway has arrived, numerous roads have been constructed in the Eastern Province, new schools have been built and the predicted tendencies are certainly in operation. Kampala still retains much of its nodality, but a disturbance in the regional balance has undoubtedly taken place, providing the geographer with an illustration of the dynamic character of the facts which he is studying.

The presence of unpopulated districts in close proximity to these populous areas is to be explained in terms of health conditions. The sleeping sickness epidemic of the early twentieth century played havoc in the area east of Jinja. The tragic scale of this devastation is illustrated by a statement taken from the 1920 edition of the *Handbook of Uganda*: "Before the advent of sleeping sickness Saza Chief Nanyumba had 17,000 fighting men at his command. He has now 105 tax payers." The disease is now under control, though here as elsewhere along the lake shore the tsetse fly *Glossina Palpalis* is still to be found. The population of the Sese Islands was transferred to the mainland in the later stages of the same epidemic, but the work of reclamation has gone so far that by 1925 over 11,000 of the original inhabitants had been repatriated.

A zone by nature thinly occupied covers the greater part of the Interior Plateau and in it pastoral activities together with the cultivation of drought-resisting cereals assume an important rôle. Its continuity from south-west to north-east is interrupted by the north-westward extension of the populous zone around the shores of Lake Kioga. The presence of another tsetse fly, *Glossina Morsitans*, which brings disease to cattle, explains the total depopulation of certain areas in Southern Ankole; but if, as seems likely, the Veterinary Department scheme for the clearance of a considerable tract of country near Gayaza can in the near future be brought to a successful conclusion, at least one such area will again be available for cattle and their human owners. The sparse distribution of people in Buruli, especially on the south side of the Kafue River, would seem to be partly due to historical causes, for here lay the marcher zone between the rival kingdoms of Buganda and Bunyoro. Finally, beyond the populous districts of Lango and Teso, the whole of north-eastern Uganda is sparsely peopled by semi-nomadic tribes.

Population increases upon approach to the Western Highlands. Kigezi and Western Ankole have a dense distribution comparable with that across the boundary in Ruanda and Urundi. Toro and Bunyoro are less thickly populated,

but they show concentrations respectively around Fort Portal and Hoima. It is interesting to notice that a motorable road now runs right through the Western Highlands, providing the possibility of direct communication between Kabale and Fort Portal, whence a further road runs north-eastward to Hoima and Masindi. In the West Nile Highlands, beyond the valley of the Nile, there dwells a considerable population of Nilotic stock in whose rural economy the keeping of cattle and the cultivation of millet play a prominent part.

Such then is the relative distribution of population over the Uganda Protectorate. It undoubtedly represents an adjustment to environmental conditions, but it must not be considered as final, for human distributions are ever changing. Dramatic changes have taken place in the recent past and changes are occurring at the present day. Disease, both endemic and epidemic, is still rife among the population, and for some time past the death rate has been considerably in excess of the birth rate in the three districts of Mengo, Bugwere and Bunyoro. This unfortunate position is probably due to the insidious effects of syphilis. On the other hand, sleeping sickness is now under control and areas once ravaged by it are being repopulated; and if the present campaign against syphilis is successful, districts such as Bunyoro may be restored to their former populousness. Human effort in another direction—in the development of communications—is further modifying the detail of the relative distribution; the economic prosperity of the regions thus served by roads and railways always tends to attract an immigrant population. It is certain, too, that Uganda could support a much larger total population without necessarily prejudicing the existing standard of life among its native inhabitants: paradoxically enough, the greatest shortage of labour is in the most populous districts. The average density of population over the Protectorate (44 per square mile of land surface), though high in comparison with the figures for Kenya and Tanganyika Territory, is none the less low in relation to the natural resources of the country.

NOTES.

James Martin (Antonio Martini) 1857—1924.

By R. A. Snoxall.

Since writing the short note on James Martin which appeared in the first number of the *Journal* it has occurred to the writer that before all direct connection is lost with this truly remarkable man it would be in the interests of future inhabitants of the Protectorate if something rather fuller in the shape of first-hand anecdotes of his life were searched for and published. His loyalty, "infinite resource and sagacity," his uncanny perception of what would impress the native mind, his extraordinary ability in surmounting the handicap of his illiteracy, and his wonderful capacity of making friends, are all the attributes of a romantic character, remembered and discussed in the circles of those who knew him, but too apt to-day to be consigned to the dusty attic in Uganda history littered with quasi-fairy stories of burial grounds for elephants, encounters with the "Nandi Bear" and talks with our oldest inhabitants who remember as if it were yesterday their interviews with Kabaka Suna! But the stories of "Martini" are no more fairy stories than a description of the crossing by the Bugungu—Jinja ferry, nor the hunting of birds and game where now golf courses extend their close-cropped greenery, nor tales of hardship with a safari of porters between Entebbe and Kampala. We can forgive him for assuming the ægis of the Governor and sending the news before him that His Excellency was on his way to Ankole if we only consider the speed and efficiency of his work and justify him by results. What other officers—military or otherwise—have processed triumphally along a hostile front, as James Martin did along the Kagera front shod in carpet slippers and transported in a rickshaw?

The fullest information which has been vouchsafed to us in literary form occurs in Sir Frederick Jackson's *Early Days in East Africa* where he pays the warmest tribute to the capability and above all the loyalty of James Martin in the following words:—"On the afternoon that I called on the General (Lloyd Matthews, the Commander-in-Chief of the Zanzibar army) he introduced me to James Martin, and from that date to the day of his death in December, 1924, I doubt if anyone ever had a more devoted and loyal friend than I had in that little man."

Joseph Thompson, in his book *Through Masai Land* is equally emphatic in his praises. What could be more glowing than the tribute he pays when he says:—"To show how well we got on, I might mention the possibly unprecedented fact in African travelling, that we actually never once had an unpleasantness between us. I cannot speak too highly in Martin's praise, and if it were ever my lot to go back to Africa, I would seek for no better assistant."

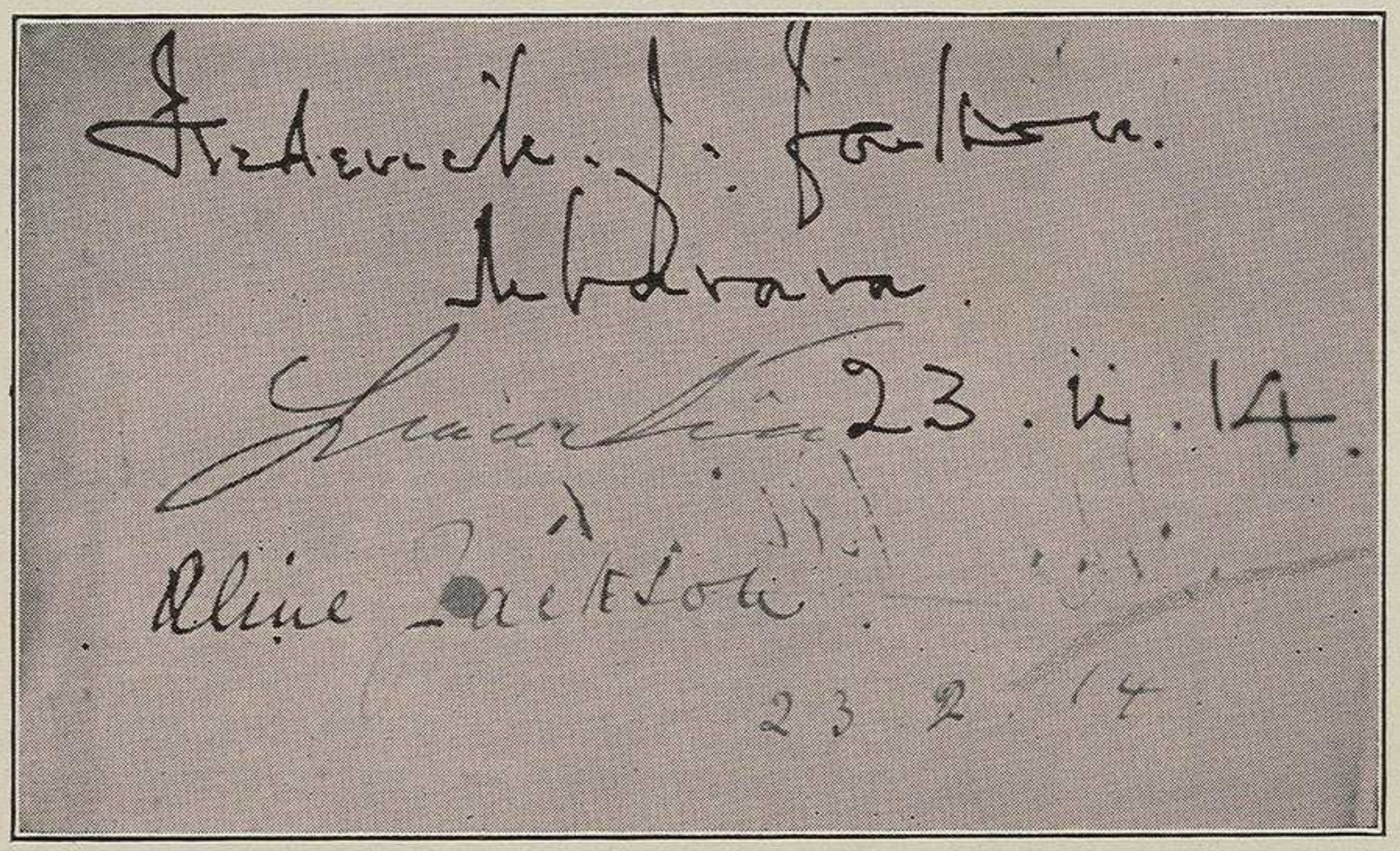
Warm tributes indeed are these from great-hearted pioneers in the days when *safari* difficulties were well nigh unbelievable. How doubly acceptable are these eulogies when they come from two such men! Of Sir Frederick Jackson, Lord Cranworth says, in his foreword to *Early Days in East Africa*, "Happy in his mass of friends, and even happy in his few enemies, for if you could be an enemy of *Bwana* Jackson, who would want you for a friend?" We should, I think, therefore, be correct in ascribing the success and popularity of James Martin primarily to his loyalty and resourcefulness.

But it is not with his early life in Africa that we shall deal in this article, since his adventures and achievements have been chronicled by abler pens than mine, but it is with the mass of anecdotes and with the information which we can glean first-hand from those who knew him that we are here mainly concerned. His illiteracy has now become a by-word in Uganda but although there is something pathetic in the subterfuges of Martin in his efforts to disguise this handicap his varied career and his holding of important positions during his life of 67 years are all the more remarkable and praiseworthy when we realise the immense difficulties which a man with such a handicap was forced to overcome.

He was, as Sir Frederick Jackson tells us, a Maltese by birth, born in 1857, and his baptismal name was "Antonio Martini." He was a sail-maker by trade and had been a wanderer in many parts of the world before he was eventually shipwrecked off Zanzibar in 1884 and his connection with East Africa began. There is something all the more humorous in the picture of this intelligence officer in his rickshaw subsequently touring the Kagera front in carpet slippers in the late war, if we compare the picture with that of the Colonel, second in command of the Troops of the Sultan of Zanzibar as Sir Frederick Jackson saw it. "He never claimed the rank of Colonel, though his high rank was proclaimed for him by a resplendent tunic literally plastered and stiff with braid and cord "gymnastics," as he was pleased to call them. The tunic, plus very wide bell-shaped trousers—worn also by the general and the whole force—and a large curved sword with ivory and inlaid gold handle, and, of course, a helmet with a very large gold badge in front, completed his full-dress parade outfit, when every Friday he attended the review of the troops in the square in front of the Sultan's palace. He always brought up the rear when they marched off after blazing away many thousands of rounds of blank cartridges."

This love of colour and display, his vivacity and gift of graphic story-telling were all the heritage of his southern character, and render more intelligible his persistency in concealing his inability to read or write, for such a disability would have appeared shameful to one with such a belief in his own powers. His gift of narrative must have been little short of wonderful from all the accounts one receives from those who formed his audiences, and Thompson's account of his suffering during his journey through Masai Land, graphic though it be, was mild compared with Martin's. Of such stories of danger and suffering, his account of his journey into the Suk country as the first collector of Poll Tax must have been one of the most enthralling. As it was given to me, it appears that although he by no means relished this pioneer expedition

James Martin.
(Antonio Martini).



The "signature," in between that of Sir Frederick and Lady Jackson.

[Both photographs are copies by Messrs. Wardle, Kampala, of originals in the possession of Mrs. H. Neilson.]

he eventually found his way as collector to the country of these hitherto untamed and untameable people. It appeared obvious to Martin from the very first that he was in an ugly position and that quite apart from the question of collecting tax he would be extremely lucky to get away unscathed from the circle of fierce warriors which surrounded his tent.

However, having admired some beautiful Somali ponies belonging to the Chief he settled down to make a bargain with him in which brandy was set against the ponies. The haggling, or whatever more probable form the bargaining took, was carried on almost throughout the night and in the morning the native Chief awoke with a feeling that possibly, "the lark was not on the thorn nor all right with the world." However, with a misguided belief in "the-hair-of-the-dog-that-bit-him" remedy he applied for and received a fresh supply of *dawa*. Eventually, when the Chief had been reduced to a state of benevolent impotence, Martin was enabled to get away with the ponies in lieu of Poll Tax, though whether he was ever issued with a "G.R.R." for them is not recorded.

The story of this bargaining for ponies reminds one of the other enterprises of James Martin in which, as Sir Frederick Jackson tells us, by a skilful introduction into Uganda of cheap ponies from Zanzibar and their exchange for ivory he made in six years between £12,000 and £15,000. Martin was evidently a firm believer in the dictum that "Trade follows the Flag," but to his amazement he found that his trade methods, which to him were justified by their success, did not meet with the approval of the British Government. Such a believer was he in the powerful agency of those above him, that these successful foraging safaris for ivory were sent out all over the district at intervals in the name of *Lambala*, Sir Frederick Jackson's native name! However, Sir Harry Johnston, by the greatest tact, removed him from temptation whilst appearing to offer him a promotion by announcing his intention of occupying the Sesse Islands and sending Martin to build a station there for him.

Some of the stories concerned with his illiteracy are worthy of record and their authenticity is vouched for by the fact that Sir Frederick Jackson has included them in his book. His generous and grand way of dealing with a circle of friends in the club for whom he wished to buy refreshment is truly remarkable. He would come up to the people, presenting a club chit block and saying, "You sign, I pay," by this method he secured all the orders and what remained for him to do was to pay, altering the last figure on the bill to one shilling more to include his own drink. It was certainly curious that although he understood figures he could not understand letters and his caravan book which contained an inventory of the amount of cloth, wire, beads, etc., "on charge," was full of a series of noughts and crosses, pot-hooks and hieroglyphics of his own invention which to him represented the contents of his store.

In connection with his power as District Commissioner in the light of his disability of illiteracy, the following anecdote is of interest and I cannot do better than retail it verbatim as recorded by Sir Frederick Jackson. Having explained that the event caused quite a little flutter in the Protectorate Department of the Foreign Office, Sir Frederick Jackson continues:—"One day,

when on leave, I received a note from Sir Clement Hill asking me to go and see him, and I did so. On arrival he told me that he had just received a paper from Uganda, an application by a Persian to become a British subject, and signed by some one whose name could not be found in the Staff List; and as they had to be very careful in such matters, they were in a bit of a quandary. I knew at once who the Magistrate was, but said nothing until Sir Clement rang a bell, and asked for the document which was brought in, if my memory serves me correctly, by a fair young man, now Lord Tyrell, Ambassador in Paris. There was no doubt as to the signature and my word was accepted, but I would have defied any expert in handwriting to have deciphered it correctly."

His popularity as District Commissioner, Entebbe, was enormous and afterwards on the occasions of his visits to Entebbe from the Mabira Forest, when he had become the Manager of the Company, he was invariably inundated with invitations to every meal in the day. The verbal invitations were easily dealt with, but written ones must have caused him a certain amount of embarrassment. One of his methods of dealing with these invitations was to take them into the house of a friend where he had been invited to a "Sundowner," there he would produce the note and ask the host to read it since he had not got his spectacles with him. Having heard the contents the same excuse was offered as inability to write a reply, and the good natured host was always made his "amanuensis."

However, after glancing at the signature in the photograph, one is certainly tempted to believe that James Martin was a better scribe than he was reputed to be, but it must be borne in mind that this was written during his later days in Uganda and after many lessons in signing his name from Sir Frederick Jackson who, however, admits his inability to coach him successfully in writing James Martin in full after his initiation as a Freemason.

Omwami Ham Mukasa might almost have been describing the photograph reprinted for this article, when he gave me the following description of James Martin's appearance:—

> "He was a short man, having a large stomach and short legs and wore breeches with leggings. His coat was not generally fastened owing to his large girth. In appearance and size he was something like the Reverend Canon Blackledge."

In 1906, the Mabira Forest Uganda Rubber Company, Limited, was started by Mr. Grant who had retired from the post of District Commissioner, Busoga, and after he had set the business going he left his friend Martin as Manager since he also had retired from Government service. There, with about 15 Goan Assistants and 2,000 native labourers, he remained as Manager until somewhere in 1915, and during his tenure of the post attempts were made to introduce the Para rubber of Brazil.

In 1912, he made a recruiting expedition for Bagishu labour, with Doctor Hunter in what was the first motor-car which had travelled between Jinja and Mbale. Although the passengers completed no more than 15 miles a day I am informed that the *safari* was accomplished in extreme comfort. At many

points on the journey the car was surrounded by crowds of natives, who even had to be prevented from crawling underneath it to look at the devils who, they thought, were harnessed by chains, and by an ingeniously stimulated rivalry, were induced to pull against each other and thus cause the wheels to revolve.

Mr. and Mrs. Walter Barnet and their very young son were also with Martin and Doctor Hunter on this *safari*, and although they walked from camp to camp, were seldom long behind the motor-car in arriving since a road had to be cleared in front of it in most places and primitive culverts employed over the swamps.

In 1899 he married a Miss de Souza, a Goan lady, in Zanzibar who bore him a daughter.* His leaves he spent principally in Portugal where he also sent his daughter for education and where he himself died in 1924. During his life his hospitality was lavish and particularly during the period he spent in the Mabira Forest his prodigality was such that he was never afterwards in affluence.

He had little or no idea of the value of money but his simple soul found a never failing delight in the bestowing of presents, and after his visits to Entebbe or Kampala he never returned home empty handed, but always remembered to take the most wonderful presents back to his wife and her sister Selima. Small wonder is it that his popularity caused the house in the forest to be always full of guests, and since the arrival of each distinguished guest was preceded by the building on of one or two extra rooms, the building underwent the most rapid alterations in its mushroom growth.

During the campaign in East Africa he was employed in any jobs in which his experience made him of use to the British Government and was for some time Intelligence Officer on the Kagera front and afterwards in charge of a tug on the Rufiji river. He was seen in Dar-es-Salaam in extremely poor circumstances eking out a livelihood by buying and selling chillies and after that he disappears from the East African Stage.

In the history of Uganda and East Africa there have been many more capable and many more worthy characters, but it is fitting that this remarkable, and romantic, and often ridiculous little man, should be remembered by us, his successors. In spite of his many faults and his at times morally warped ideas, if we with our greater advantages accomplish as much for the progress of East Africa as he succeeded in doing we may well rest satisfied that our lives have not been spent in vain.

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* Eldama, named after the Ravine, in which station she had been born. (This daughter married a Portuguese Government Official in 1922, and I am informed is in Lourenço Marques).

Note on Bismutotantalite (and some remarks on Bismuth).

By E. J. Wayland.

Bismutotantalite is not a euphonious term but it has the advantage of being self-explanatory—unlike *Ugandite* which at one time was suggested as a name for the mineral with which this note deals. Ugandite might be a pram-polish, a new brand of oilcloth or a temporary stopping for teeth, indeed it might be almost anything, although it certainly suggests some sort of association with this Protectorate, and bismutotantalite was discovered in Uganda and has never yet, so far as I know, been found anywhere else.

In brief, the history of the discovery is this: in June, 1928, a massive rock supposed to contain coal and collected at a spot rather less than 25 miles W.N.W. (approx.) from Kampala and about 35 miles N.W. from Entebbe, was brought to the Geological Survey office by an optimistic prospector whose hopes, unfortunately, were destined soon to be somewhat shattered—so was the office verandah, for the stalwart Native who conveyed the specimen on his head from the car to the laboratory suddenly succumbed in the unequal struggle with gravity and parted with his load at the door without delay or ceremony. The supposed coal was that complicated borosilicate *tourmaline*, now well-known to many people in Uganda on account of its occurrence in the tin fields, and resembled the mineral fuel only in being black. Its association, however, with a certain kind of mica and quartz suggested the occurrence of tin in the neighbourhood from which the specimen had come, and when preliminary tests later revealed the presence of a small quantity of that metal in the rock, some field assistance was given to the prospector who was advised to put down a trial hole in a spot at which, it was anticipated, a pegmatite (a very coarse grained vein-rock of the granite family) would be revealed near the surface; for on analogy with some occurrences elsewhere it was deemed not altogether unlikely that, if discovered, the pegmatite would prove of economic interest.

A pegmatite was struck at a depth of 8 feet and it was found to be metalliferous, but the ore it carried was not that of tin. It was decidedly heavy (specific gravity rather more than 8); moderately hard (H. $5\frac{1}{2}$ approx.); grey-black to pitch-black in colour, except for some yellowish to pinkish material running through it in very thin veinlets or coating it in places, and without cleavage, except for rough parting planes. It was a puzzling substance and none of us could name it at sight, though it suggested *tantalite* more than anything else. Such tests as could be applied, however, practically convinced us that we had a new mineral to deal with. When this discovery was made our laboratory was out of action, being in the hands of the Public Works Department; it possessed but three walls and half a roof and was full of dust, but Mr. W. C. Simmons, at that time Chemist and Petrologist to the Survey, concluded as a result of such investigations as he was able to make under trying and difficult circumstances that the new mineral was in all probability a tantalate of bismuth—a compound hitherto

unknown in Nature. A knowledge of its crystallography would have proved helpful and interesting, but this could not be obtained from the poor specimens then available. An attempt to discover by photographic methods whether the new mineral was perceptibly ratio-active or not gave a negative result. The same may be said of similar experiments carried out in the Geophysical Laboratory at Washington by Dr. C. N. Fenner, and by the chemists of the Imperial Institute in London ; but Professor Arthur Holmes, of Durham, informed me that a specimen submitted to him proved to contain ratio-active streaks.

The site of the discovery is Gamba Hill (32° 10′ E., 0° 30′ N.) in Busiro County, lying between the Kampala—Mubende and the Kampala—Hoima roads and to the north of the Mayanja river at the junction of Native-owned and European-owned lands, and just within the latter. Topographically the area lies within the limits of the well-developed Buganda peneplain or plateau, and the solid geology is greatly obscured by elephant-grass, surface soils and lateritic ironstone (murram). It is therefore not well-known, but in the vicinity of the find it consists essentially of some highly micaceous rocks (mica-schists), belonging apparently to the basement of Africa, intruded by dikes or veins containing a high percentage of silica, a few of which are packed with tourmaline (quartz-tourmaline and tourmaline-quartzrocks), but most of which are ordinary quartz dikes and normal pegmatites. That in which the bismuth mineral was found consists of quartz, felspar (often highly decomposed to china clay) and large buff-coloured flakes of mica which resemble leaves owing to the presence of parallel striations which impinge upon each other at an acute angle along a central line. *Amblygonite* (a fluophosphate of lithium and aluminium and the chief source of lithium compounds) also occurs, as well as a beautiful lilac lithium-bearing mica (*lepidolite*). The bismuth mineral is present in large misshapen crystals up to several pounds in weight, but its distribution is patchy and irregular. It is most probable that well-directed search would reveal additional lodes of this sort and the presence of other economic minerals in the neighbourhood is not unlikely. It might be mentioned in passing that colours of gold have been found in the alluvial deposits of the Mayanja river in this area.

Two complete chemical analyses were undertaken at the Imperial Institute by Mr. W. O. R. Wynn, while mineralogical observations were made on the same material by Mr. G. E. Howling. Another analysis was made by a commercial firm, and the average of the three shows the mineral to consist of rather more than 50% of bismuth oxide, and about 47% of tantalic and niobic oxides. This confirms Mr. Simmons' results, and shows the substance to be analogous to the antimony mineral *stibiotantalite.* For this reason the new mineral was named bismutotantalite. Its composition corresponds very closely with that required by the formula $Bi_2O_3.(TaNb)_2O_5$.

Measurements made by Dr. Spencer, Keeper of Minerals in the British Museum [1], show that bismutotantalite crystallises in the orthorhombic system, but a number of points need further investigation and the Mineral Department of the British Museum (Natural History) will welcome good crystals of the mineral for further study.

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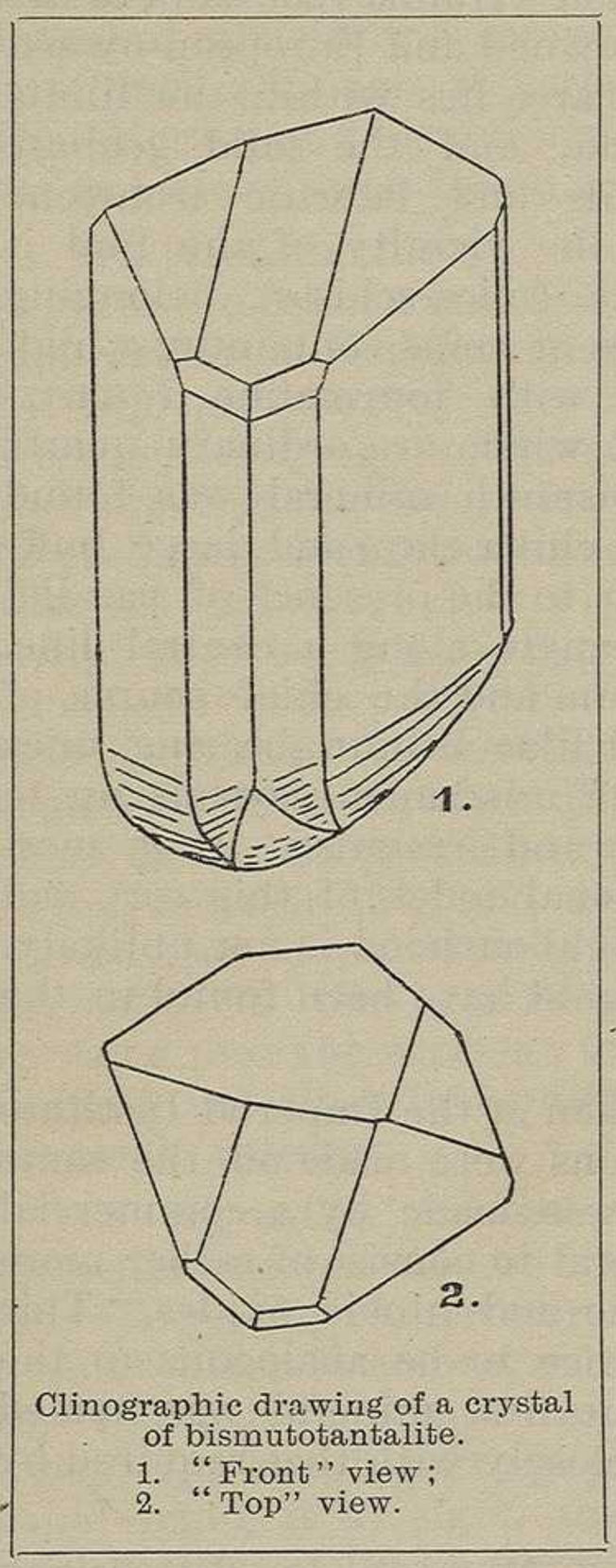
(1) Wayland, E. J., and Spencer, L. J., "Bismutotantalite, a New Mineral from Uganda," *Mineralogical Magazine.* December, 1929.

Commercially bismuth is one of the minor metals and its world production is normally a few hundred tons per annum. The chief producers are the United States, Bolivia and Spain ; other producers are Tasmania, Australia, Canada, Japan and Peru, and an attempt has been made recently to work bismuth in the Transvaal. Great Britain is not a producer, but London is the selling centre of much of the metal. The market is closely controlled.

Except in Bolivia and Spain, bismuth is produced as a by-product in the process of smelting other ores (chiefly lead-silver), but in 1929 a Peruvian company developed a process for the recovery of bismuth from their copper smelter fumes. To-day there are several patent recovery processes.



Clinographic drawing of a crystal of bismutotantalite.
1. "Front" view ;
2. "Top" view.

A number of minerals contain bismuth, but the chief ores of that metal are two : *native bismuth* (Bi) and the sulphide, *bismuthinite* (Bi_2S_3) sometimes called bismuth glance. At and near the surface of the ground these minerals are represented in the zone of weathering by the carbonate *bismutite* ($BiO.\ Bi(OH)_2.CO_3$) and the oxide *bismite* (Bi_2O_3).

Bismuth is sometimes associated with gold. Pebbles of native bismuth, a soft white metal which tarnishes readily, have been found in the auriferous alluvials of the Kigezi district, and in that area bismutite occurs. It probably represents the top, or cap, of a bismuth lode—bismutotantalite most likely ; and bismuth telluride and native bismuth have been shown by the Uganda Geological Survey to occur in some of the gold reefs of Kakamega.

Probably at least 75% of the bismuth that comes into the market is used in the manufacture of pharmaceutical chemicals, the remainder is utilised in low-melting alloys ; in "Sealalloy" for sealing glass joints ; for filling thin-walled tubing during bending and for facilitating the bending of other light sections particularly in aeroplane construction ; in non-shrinking "Matrix alloy" for holding together parts of composite dies ; for chucking small articles in machine shops, and in printing alloys. Research work by the Cerro de Pasco Copper Co., of Peru, in co-operation with the United States Bureau of Standards, has lately resulted in the production of extended bismuth wire of so small a diameter as 0·012 of an inch, and in twenty-foot lengths.

The price of bismuth which fell to Shs. 4/3 per pound has risen again.

Acholi Hunts.

By R. M. Bere.

It is remarkable in a country such as Uganda how very little interest is shown in the old native methods of hunting. The more so, perhaps, because with the diminution of game in many parts of the country and the introduction of laws to preserve the game, such hunting methods are dying out. It is hoped, therefore, that the following notes will perhaps stimulate interest.

Amongst the Acholi the big organised hunts take a definite sequence. The first to occur is the fire-hunt or *Lino*, which happens during the grass-burning season in December. The herd of game to be attacked is first located and found to be in a suitable place for the hunt which follows, which needs long, dry and unburnt grass. A ring is made round the herd at some distance from it and the grass is set on fire at different points until the game is entirely surrounded by a ring of flame. Wind and panic do the rest. Any animal which is lucky enough to break through the ring of fire is so maddened by pain and blinded by smoke that it falls an easy victim to the spearmen who are waiting beyond the flames. This is not a pleasant form of hunting and needs neither skill nor courage in the performance, and is the type of native institution best forgotten and discouraged.

The really big hunt is the *Dwar Arum* which takes place during the dry season when there is no grass. The number of hunters is unlimited and may run into thousands when the people from several parts of the country take part. The hunters are armed with spears, shields, and in some cases with bows and arrows. No nets are taken. The hunters approach from different quarters of a large area of country, gradually driving the game into a selected place where it finds itself surrounded. A shower of arrows and of light throwing-spears is sent in amongst the animals; all the surrounding hunters, in a line three deep, then get behind their shields and set up a great noise of shouting. The game stampedes and meets on all sides an armed wall of spears and shields and, if the hunters keep their places, very few animals escape. Great numbers are killed and a large supply of meat is laid in during a few such hunts held in the early part of the year.

The ordinary hunts with nets are held at the beginning of the rains but there is little peculiar in the *Dwar Obwo*.

During the early rains when the rivers are in flood the hunt called *Kirange* is held. The game is driven down to a river from both sides and is speared in the water.

Other hunts besides these are held, but *Lino* and *Dwar Arum* are the most important. During the rainy season and in the latter part of the year until the grass-burning there is little opportunity for organized hunting and only the

trappers *Oken* go out after the game. Their art is interesting and difficult as they always work alone. Several types of trap are used, according to the type of game hunted, of which the following are the most common :—

Okol.—A running noose attached to a log of wood. The animal's foot is caught by the noose and held tight by the weight of the log. Such nooses are set in the tracks of game going to and from water holes.

Tekke.—A circular foot trap with thorns sticking inwards to hold the animal's ankle. *Tekke* is usually fitted into the rope noose of *Okol.*

Bur.—A pit dug in the path of game and carefully concealed by grass, sticks, etc.

Tong Twok.—The well-known falling-spear trap to kill elephant which pass under the tree from which the spear is suspended. A cord stretched across the path at the level of the elephant's chest releases the spear when broken.

The majority of the other types are for catching smaller animals or birds only and are not necessarily in the province of the real trapper *Oken.*

Bird Migration.

By Captain C. R. S. Pitman (*Game Warden, Uganda*).

On the 14th February, 1934, about 12 miles due west of Mbarara, in the Ankole District of south-west Uganda, a white stork—*Ciconia c. ciconia*, while eating locusts, was killed by a dog. The District Commissioner of Ankole, Mr. F. Lukyn Williams, has very kindly supplied me with particulars of the inscription on a ring found on the bird's leg :—

Adresse	4954	P. S. Kovgaard Viborg
Europa	✳R	Danmark

On account of severe locust infestation in the south-western regions of Uganda, tens of thousands of white storks, evidently on northern passage, are tarrying in the Protectorate very much later than usual.

Normally, most of the migrant white storks have finished passing north by mid-February at the latest.

Probably what was part of the normal movement was witnessed on 28th and 29th January, 1934, when several thousands high up passed northerly in the middle of the day over the Nile where it leaves the Victoria Nyanza.

But, on the 8th March, in the locust-infested areas of the Ankole District miles of country, literally white with storks, were traversed.

An Approach to Linguistics.

By A.B.

A certain English professor of phonetics was once lecturing in France to French professors of English. He pointed out that the sentence "I have seen him" could be said in five different ways to mean five different things :—

1. The simple statement of a fact, descending the four notes of the scale.
2. With the emphasis on the "I."
3. With the emphasis on the "have"; and so on.

Each sentence thus conveyed an entirely different shade of meaning. He then asked his audience to translate the first simple statement of fact. This was done—"Je l'ai vu." The second was successfully translated "C'est bien moi qui l'ai vu" with an appropriate beating of the chest on the third word. The third also was adequately transposed to "Je l'ai bien vu." The fourth was met by the despairing cry "Oh! mais ca c'est me petite chose . . . . ." with appropriate gestures of despair.

This little history serves to show that almost any sentence in English owes its particular meaning to the tones of the voice used and further, that the French language lacks this particular characteristic, which may, perhaps, account for the gesticulations which Frenchmen use to emphasize what cannot be emphasized by vocal means.

What of African languages? To what extent are they "English" and to what extent "French" in this fundamental idea? How many of those who have passed a Higher Standard examination, for instance, in Luganda can correctly distinguish between "agenze" the statement and "agenze" the question in their conversation. It is certain that the majority would enunciate the first in the straight-down-the-scale fashion characteristic of the English statement, while they would give the second the "turn up" on the ultimate syllable characteristic of the English but not of the Ganda question. How many, too, would be able to translate correctly the five shades of meaning that can be given to "I have seen him" which the native would probably render "Namulabye," "mulabye," "mu laba," etc.

And yet this idea is fundamental and until Europeans and Natives can appreciate these shades of meaning in each other's languages their knowledge of them is not only incomplete but spurious. Moreover, if, as seems evident, this idea is fundamental, then it must come first in the study of the language and an inversion of the usual order of study is indicated. First, then, we should learn the sentence, then the word, and lastly—when it will no longer be necessary—the grammar.

CORRESPONDENCE.

Mutesa of Buganda.

[*To The Editor, "The Uganda Journal."*]

SIR,

In Mr. J. M. Gray's article on Mutesa of Buganda, he mentioned the holocaust of 1857, when the sixty-one rivals of Mutesa were rounded up and put to death. I believe that the place of their imprisonment was somewhere between the Gayaza and Jinja roads and is still visible, a circular fosse with an external embankment. The princes were supposed, according to the popular theory, to have been starved to death.

There is a similar earthwork at Katereke in the Gombolola of Sabagabo, Busiro, which is well worth a visit and ought to be preserved. It can be reached by a path which bears to the right from the Masaka road between mile 12 and 13, a few yards beyond the turning to Buloba. The enclosure is roughly circular, enclosing an area of about an acre. The fosse, which entirely encircles it except for two narrow entrances, at the present moment averages 16 feet in depth, being 14 feet wide at the base and 20 feet wide at the top. The corresponding mound on the outside is about 12 feet high. The distance round the top of the mound is approximately 350 yards. As this is said to be the site of the destruction of the 36 princes at the death of Mutesa, it must have been made in 1884, 50 years ago. It is difficult to estimate how much the fosse has filled up and the mound been reduced in this period, but, at any rate, the fosse must originally have been not less than 20 feet deep. It was, therefore, an earthwork of no small magnitude. As one visualises the work entailed in lifting basketful after basketful of earth a height of 35 feet after having excavated it with native hoes, one wonders wherein lay the reason for it. The same result could surely have been obtained with far less labour. Was it done to carry out some tradition? The princes were imprisoned for some time apparently, after which they were surrounded with firewood, shot (a merciful innovation), and burnt.

Yours, etc,

STEPHEN H. H. WRIGHT.

KING'S COLLEGE, BUDO,
19TH FEBRUARY, 1934.

A Dry Crossing of the Nile.

[*To the Editor, "The Uganda Journal."*]

SIR,

The dry crossing of the Nile, described by Mr. Wayland, would appear to be similar to that described by Sir Samuel Baker in his book *Albert Nyanza*. It will be remembered that he sailed up the Nile as far as Gondokoro in the early part of 1863. On his return journey to Khartoum in May, 1865, he found that his way was blocked by an extraordinary obstruction, which had

formed since his passage up the river. This obstruction is described in chapter XIX of his book, and it is worth while quoting here :—

"A few days after this incident we arrived at the junction of the Bahr el Gazel, and turning sharp to the East, we looked forward to arriving at the extraordinary obstruction that since our passage in 1863 had dammed the White Nile.

There was considerable danger in the descent of the river upon nearing this peculiar dam, as the stream plunged below it by a subterranean channel with a rush like a cataract. A large diahbiah laden with ivory had been carried beneath the dam on her descent from Gondokoro in the previous year, and had never been seen afterwards . . . .

. . . . At daybreak we manned the oars and floated down the rapid stream. In a few minutes we heard the rush of water, and we saw the dam stretching across the river before us . . . . As we approached the dam, I perceived the canal or ditch that had been cut by the crews of the vessels that had ascended the river ; it was about ten feet wide and would barely allow the passage of our diahbiah. This canal was already choked with masses of floating vegetation and natural rafts of reeds and mud that the river carried with it, the accumulation of which had originally formed the dam . . . .

. . . . Although the obstruction was annoying it was a most interesting object. The river had suddenly disappeared ; there was apparently an end to the White Nile. The dam was about three-quarters of a mile wide ; it was perfectly firm and was already overgrown with high reeds and grass, thus forming a continuation of the surrounding country. Many of the trader's people had died of plague at this spot during the delay of some weeks in cutting the canal ; the graves of these dead were upon the dam. The bottom of the canal that had been cut through the dam was perfectly firm, composed of sand, mud and interwoven with decaying vegetation. The river arrived with great force at the abrupt edge of the obstruction bringing with it all kinds of trash and large floating islands. None of these objects hitched against the edge, but the instant they struck they dived down and disappeared. It was in this manner that the vessel had been lost . . . . having missed the narrow entrance to the canal, she had struck the dam stem on ; the force of the current immediately turned her broadside against the obstruction ; the floating islands and masses of vegetation brought down by the river were heaped against her, and heeling over on her side she was sucked bodily under and carried beneath the dam ; her crew had time to save themselves by leaping upon the firm barrier that had wrecked their ship. The boatmen told me that dead hippopotami had been found on the other side, that had been carried under the dam and drowned.

Two days hard work from morning till night brought us through the canal and we once more found ourselves on the open Nile on the other side of the dam. The river was at this spot perfectly clean ; not a vestige of floating vegetation could be seen upon its waters ; in its subterranean passage it had passed through a natural sieve, leaving all foreign matter behind to add to the already stupendous bulk."

Baker does not mention the length of the obstruction, but its breadth would appear to have been about ten times greater than that described by Mr. Wayland. It was also probably longer since two days' hard work were needed to move the boat through a canal which, though apparently partly choked and too narrow to allow the use of oars, had been previously used for the passage of vessels.

Baker's dam was downstream from the Bahr el Gazel junction, that is to say, between four and five hundred miles down the river from that described by Mr. Wayland. The volume of the river must be greater here owing to the addition of the waters of the Bahr el Gazel.

In both cases the vegetation of the dam is similar to that of the surrounding country.

Mr. Wayland states that there were indications that elephant had used the dam to cross the river. If elephant, why not rhino? There are White Rhino in West Madi and Black Rhino on the East bank. Is there any evidence that either have crossed to the other bank ?

Yours, etc.,

J. P. BIRCH.

MASAKA,
7TH FEBRUARY, 1934.

"Kavirondo."

[*To The Editor, "The Uganda Journal."*]

SIR,

I should be glad to know if any of your readers can throw any light on the true origin of the word "Kavirondo."

An ingenious theory was propounded to be by an old native of Kavirondo, namely, that it derives from a term applied to them contemptuously by the early Swahili immigrants to describe their habit of resting in a kneeling position—"kaa kironde."

This sounded plausible but unfortunately a search in a Swahili dictionary failed to reveal any such word as "kironde"!

Yours faithfully,
E. M. PERSSE.

TORORO, BUDAMA,
22ND MARCH, 1934.

REVIEW.

Sudan Notes & Records, Vol. XVI. 1933. Parts I & II.

I.

Our contemporary, the *Sudan Notes and Records*, sets a high standard for publications of this sort and should be of special interest to many in Uganda. From it the promoters of the *Uganda Journal* derived much of their inspiration.

It is unfortunate that we in Uganda are so ignorant of and out of touch with our northern neighbour, for we have many problems in common, and both territories would profit by an interchange of views and experiences. Apart from a few officials in districts in our Northern Province and from those of us who have gone home by the Nile Route, the acquaintance of the majority of Uganda people with the Sudan is practically limited to brief and involuntary calls at Port Sudan.

In the last number of this *Journal*, Mr. J. M. Gray showed how the Kabaka Mutesa saved Uganda from Egyptian domination and the subsequent chaos of Mahdiism. With the re-conquest and general pacification of the Sudan, contact with the established government of the Uganda Protectorate was made, and there followed the triangular readjustment of political boundaries between Belgium, the Sudan and Uganda, which involved the loss to Uganda of Gondokoro and Nimule and the gain of that part of the Lado Enclave which we now know as the West Nile District and the West Madi area of Gulu. The conditions which at first made the administration of those areas bordering on Uganda military rather than civil, the outbreak of sleeping sickness with its consequent rigorous restrictions, and the lack of telegraphic and road communications have made the process of establishing contact a slow one, but each year undoubted progress is being made. There is now a readiness on the part of the authorities in the southern Sudan to turn to the south in order to benefit by the experience of the administration of other territories with a negroid population.

It would surprise many to know that even to-day the more extreme political parties in Egypt regard Sir Samuel Baker's annexation of Bunyoro for the Khedive as being still valid. In 1931, when the aerial survey of the Upper Nile led to considerable publicity regarding the proposed Lake Albert dam, a number of the Cairo newspapers declared that Lake Albert was as much Egyptian property as the Sudan and therefore there would be no need for negotiations with Uganda.

But apart from our common interest in the Nile waters we have a very real ethnographical connection. Not only does the Sudan—Uganda boundary cut through tribal areas such as the Acholi, Madi and Kakwa countries, but in the southern Sudan there are racial and linguistic groups similar to those found in parts of Uganda. Thus any information regarding these peoples must necessarily be of value to both countries. Moreover, our common interests do not stop here;

for medical problems, such as sleeping sickness ; agricultural problems, particularly those connected with cotton growing ; game problems ; and many others are similar to if not identical with those to be found in parts of this Protectorate.

II.

Unlike the quarterly *Uganda Journal*, the *Sudan Notes and Records* are usually published in two half-yearly parts. The 1933 Volume, Part I, contains :—

Articles.—

The Nuer, Tribe and Clan (Sections I—IV).—E. E. Evans-Pritchard.
David Reubeni, an early Visitor to Sennar.—S. Hillelson.
Notes on an Arab Stellar Calendar.—T. R. H. Owen.
Studies on the Nile Perch.—F. E. Kenchington.

Notes.—

A Fragment from Christian Nubia.
Pygmies on the Bahr-el-ghazel.—Rev. P. Crazzolara.

Reviews.—

At Home with the Savage.
Lyautey.
Pagan Tribes of the Nilotic Sudan.

Part II contains :—

Articles.—

The Baggara Tribes of Darfur.—G. D. Lampen.
The Bisharin.—G. E. R. Sandars.
The Red Sea Coast in 1540.—B. Kennedy-Cooke.
The Belands, Ndogo, etc.—Rev. Father Stephen Santandrea.
Bari Notes.—J. N. Richardson.

Notes.—

A Roman Coin.—A. J. Arkell.
Tebeldis.—E. G. Coryton.

III.

There are a few points from some of the articles which are of general interest. In the "Baggara Tribes of Darfur" there is a description of the hunting of elephant and giraffe on horseback which reminds one in some respects of the sport of bull-fighting as practised in Spain. Can it be that the latter is the degenerate offspring of this Arab form of hunting on horseback, introduced possibly through the Moors, and modified into a popular spectacle by contact with the remnants of European mediæval chivalry? The writer remarks : "I fear that no sporting spirit enters into their hunting. The main object is meat and money and to a much lesser degree the kudos which attaches to a successful hunter. Sports which involve a risk and bring no profit seem to them childish and foolhardy." If the above theory is correct the activating motives of the Arab hunters would seem to have descended almost intact to the professional bull-fighters of Spain.

The Baggara are a pastoral people of mixed Arab and negro stock and mainly lead a life of nomadic indolence; they are, however, a pleasant and kindly people and not lacking in the finer feelings. The writer says:—

"To their children they are always kind and I have never seen an Arab child struck by its parent. The father will take little notice of his child in public but this by no means reflects coldness of disposition. The mothers, in playing with their children, use rhymes not unlike those used in the nursery at home. For instance:

'Clap hands, bread and no gravy;
The horses graze here, and the cows here, and the sheep here, and the camels here, and the moth got caught in the rain and came in here,'

culminating in tickling under the armpits, is very reminisent of 'This little pig went to market.'"

Like all peasant people, the Baggara have their vices, of which one is excessive tea-drinking. They even form tea-drinking societies (*Baramka*) reminiscent of our undergraduate wine clubs, and with results which are similar though differently produced, for the writer remarks that they "become such slaves to tea-drinking that they suffer from headaches in the morning if they do not drink."

We all have a secret delight in hearing what others think of us and this passage is both interesting and amusing:—

"The old men's recreation is conversation. . . . . When you become more intimate with the people you hear a number of opinions of the English which can be pieced into a rather rough picture. *Ingilterra* is to nearly every Baggari a woman, not a country. Is this a relic of the tradition of the Great White Queen? Our women, of whom they see few up here, are an enigma to them. The respect paid by us to women is rather nauseating to a Baggari. They have the peculiar notion that every white woman carries a revolver; also, that at marriage, she is put in the scales and the dowry corresponds to her weight in gold. A few have the idea that we have no marriage, perhaps a natural enough notion to a fanatic sectary to whom all outside the law is an abomination. A peculiar belief which seems to be widely spread among the Fugara here is that the English have connection with the Arabs in their origins, surely a belief to delight all Anglo-Israelites.

The English are still commonly described and addressed as Turks, and even the more enlightened natives confuse us with Egyptians and believe we live in Egypt and that the Khawagas are our *Mandala* or freed slaves.

For genuine opinions of us I would cite the views of two men, a Habbani and a Rizeigi, whom I knew intimately. The Habbani rather reluctantly told me what seemed blameworthy to them in our conduct:—

(1) Our treatment of women, which seems to them weak, and even unpleasant, as when we eat with them or let them precede us.

(2) Our close-fitting small clothes. A ruler should wear ample clothes and appear imposing.

(3) Our failure to pray.

(4) That we do not recognise property in slaves, which is Bolshevism to them.

(5) That we do not remit sentences, which shows us lacking in mercy.

The Rizeigi said that we were *asbur*, *argal* and *asfi* (more patient, brave and pure) than the Arabs, but that we indulged in childishness such as games, which seem to the Arabs undignified and foolish, as is all exertion taken without fear of punishment or hope of reward."

There is a lot to be said for the objection to our scanty garb. Our wise men—Judges, Ecclesiastics and University Dons—still recognise the dignity and impressive effect of full and flowing robes, though our women, less wise, seem bent on discarding their ancient advantages in this respect.

IV.

Some of us who, *en route* to or from England, have called at Port Sudan have made the short trip from there to the ancient Arab town of Suakin, now largely superseded as a port by the modern Port Sudan. But even unenterprising people who have not made this trip will be interested in the article on "The Red Sea Coast in 1540," which describes one of those futile but picturesque naval expeditions which the Portuguese in the hey-day of their power in India were so fond of launching from Goa against their hereditary Arab and Turkish enemies on the African and Arabian coasts. On their way up the Red Sea to attack the Turkish fleet at Suez they sacked and burned Suakin and other towns after the pleasantly energetic but rather unnecessary fashion of those days, and in the account of the voyage written later by Don Juan de Castro, a Captain in the Fleet, there is a very full description of the Suakin of that time, which he states to have been then "one of the richest cities of the East." He does not seem to have conceived any inordinate liking for the inhabitants of the coast, on whom he pours out a torrent of cold invective, imputing to them a lack of all the usual and most of the unusual decencies and virtues of ordinary human beings. These people were possibly the ancestors of the modern curio-dealers and picture post-card sellers one meets in Red Sea ports at the present day. If so, one can have a great deal of sympathy with Don Juan's point of view.

V.

Adventuresses, though sometimes dangerous, are seldom uninteresting and the lady who was known as Kedeng, whose brief but hectic career is described in "Bari Notes" was no exception. Taking advantage of a sudden and unexpected recovery from a grave illness she blossomed forth as a *Bunit*, or witch-doctor, and quickly acquired considerable influence over the local chiefs. In the East, wealth always follows power and the lady equally rapidly accumulated large stores of the local currency—ivory. Her greed was the cause of her downfall for presently there appeared on the scene one Arabi Dafalla, whose respect for her pretended powers was as small as his desire for her stores of ivory was great. In the resultant clash between the magic wands of her followers and the rifles of his minions the result was not long in doubt. The lady was then put to the ordeal as a witch and it was proved to everyone's satisfaction, except Kedeng's, that even

black magic is not proof against being knocked over the head with a knobkerrie. So ended at the early age of twenty-five the brief but interesting career of the lady Kedeng.

The same article contains some notes on the town of Juba, familiar to Uganda people who affect the Air Mail as a means of travel. Apparently the local Bari tribesmen take little or no interest in the brand-new township of Juba, preferring to regard it as only another instance of the white man's eccentricity in dashing about Africa, dropping townships of bricks and mortar as he goes, only to abandon the site later on when he finds one more to his liking. The Bari, like most Africans, deprecate what they regard as our waste of energy in these matters and regard as superior their own eternal philosophy of extreme economy of effort. And what wise assessor of essential values in happiness shall dare off-hand to say that they are wrong ?

M.W.

VI.—Studies on the Nile Perch or Aigle (*Lates Nilotica*) at Sennar.

By F. E. Kenchington.

(Sudan Notes and Records—Vol. XVI. 1933, Part I).

Mr. Kenchington has provided an exceedingly informative, interesting and valuable contribution on the bionomics of the Nile "perch," a fish which is familiar to all who have more than a passing acquaintance with Lake Albert and the River Nile downstream of the Murchison Falls.

This carefully compiled record comes at an opportune moment for Uganda where, in recent years, the question of the possible "improvement" of certain waters by the introduction of the Nile perch has been much to the fore. In this connection attention can be conveniently drawn to a remark of the writer's on the first page of the article "These conjectures received .... a much too ready acceptance .... without proper enquiry into the basic facts of life history, habits and season of spawning .... "

A debt of gratitude is due to Mr. Kenchington for his endeavour to place on record so much basic fact instead of the usual jumble of conjecture.

A communication from a reader of this article suggests "there is either a picture or a verbal description of the prodigious leaps of these fish (*i.e.*, Nile perch) up the Ripon Falls."

Your reviewer would have felt highly privileged to have witnessed the amazing spectacle of the initial, super-prodigious leap up the Murchison Falls, which, on account of height and force, constitute an absolute barrier to the upward migration of fish.

The writer could have profitably detailed the African distribution of the *genus* instead of confining his remarks to the *species*, and should not have indulged in the generality "the great lakes of East Africa," an expression which requires considerable qualification.

Lates.—A fresh-water species occurring in the Nile, Senegal, Niger and Congo systems is absent from several of the more important East African lakes, such as Lakes George and Edward, the Victoria Nyanza, and Lake Nyasa. It is abundant in Lake Albert, Lake Rudolf and Lake Tanganyika, as well as in Lake Chad in the West.

The study of existing fish distribution suggests many entertaining geological problems, and the examination of lacustrine fossil deposits confirms that the range of *Lates* in the past was very much more extensive than at present.

An enumeration of events consequent on alternating pluvial periods and eras of desiccation is outside the scope of this review. But it is interesting to record the suggestion which has been made that in the past all the important rivers of Africa, the Nile, Congo, Niger, etc., which apparently had the same fish fauna, probably had a common origin in a great, central swamp on top of the Continent. In addition to the detail of weights from Sennar the following maximum records should be of interest, and presumably all refer to female fish :—

Lake No (Upper Nile)—exceeding 200 lbs. (Date ?).
Lake Rudolf—214 lbs. Length 6 ft. $2\frac{1}{2}$ inches (1931).
Lake Albert—$256\frac{1}{2}$ lbs. (1933).
Lake Tanganyika—exceeding 100 lbs. (Date ?).

As a result of expert investigations conducted in Lake Albert during 1928 it was discovered that the common *Lates* differed in certain essential characters from typical *niloticus*. This has been named *Lates albertianus*, for which a convenient popular name would be "Albert perch."

In addition, in the deeper waters of Lake Albert there are found numbers of a considerably smaller species of *Lates* which have been allotted the scientific name of *Lates macropthalmus*. Whether these new types are entitled to specific rank in preference to their being considered races (or sub-species) of *niloticus* is open to discussion. In this connection Mr. Kenchington's remarks in regard to the characteristics and coloration of Sennar specimens are particularly interesting, emphasized as they are by the opinion "The species, one would suggest, is in a most plastic condition of variability."

The Lunyoro name of both local species is *mputa* and it will be interesting to discover in which part of the Albert Nile typical *niloticus* replaces *albertianus*.

In the event of the construction at a not distant date of a dam across the Albert Nile in the neighbourhood of Pakwach, Uganda will be able to profit by the experiences at Sennar.

That the construction of a dam will attract anglers is a foregone conclusion, and the collection of reliable statistics as well as the effective control of rod-fishing must, in consequence, be arranged as soon as practicable.

To the beginner striving to develop and control fisheries of economic importance, but where little is known of the bionomics of the species concerned, particularly valuable are data in connection with periodical movements, spawning, growth and relative size of the sexes.

Questions in regard to the Uganda fishery for *Lates* suggest themselves in rapid succession such as "Is there a permanent concentration of *Lates* below the

Murchison Falls?"; "Lake Albert with its tendency to develop maximum recorded growth appears pre-eminently suitable to this species"; "Will an organised fishery on modern lines reveal fluctuating results according to season?"; "In an organised fishery will it be necessary to extend a special measure of protection to female fish, and how is this to be achieved"; and so on.

The carefully considered hypothesis that a combination of circumstances such as lack of flow, critical temperature, and low content of dissolved oxygen in water, determine and induce movement to more suitable localities, indicates very interesting avenues of research.

So far, practically nothing is known of the breeding habits of *Lates* in Lake Albert, and the notes in this connection in the expert's report on the results of the survey of this lake are mainly conjectural. Some points in Mr. Kenchington's article which form a basis for research in Lake Albert concern :—

(*a*) the maximum weight of the males ;
(*b*) the average relative weight of males to females ;
(*c*) the ova count per weight of ovary and per weight of parent.

In comparing the maximum Sennar male fish of 37 lbs., there are, unfortunately, few Lake Albert records as yet for reference, the largest male recorded by Dr. Worthington in the course of his survey being nearly 29 lbs.

In the Sennar records, the average weight of the female works out exactly fifty per cent. heavier than that of the male.

The ova count is illuminating, and the 256 lbs. fish previously mentioned when ready to spawn would carry practically 10,000,000 eggs.

Reverting to the question of the leaping capacity of the Nile perch, there are, as far as I am aware, no records of such a phenomenon even below the Murchison Falls where literally thousands of crocodiles consume quantities of large *Lates*, and where one would expect the *Lates* to show exceptional activity when endeavouring to elude their molestors.

This review is written not so much in a spirit of criticism as of genuine appreciation for an instructive and valuable document, and Mr. Kenchington, evidently an enthusiast, is to be congratulated on his achievement.

In conclusion it may be stressed that *Lates* problems in Uganda should be guided by the warning : "Without authenticated knowledge of breeding seasons and habits, any measures by engineering, or by regulations, so taken in ignorance, are quite as likely to be without any effect or to be harmful instead of working the desired benefit to the species, however praiseworthy the intention."

C.R.S.P.

VII.—The Nuer : Tribe and Clan.

By E. E. Evans-Pritchard.

(Sudan Notes and Records : Volume XVI, Part I).

This account of the Nuer tribe and clan (secs. i to iv) by Mr. Evans-Pritchard should prove of great interest to Uganda readers. It gives a detailed account of a complicated clan system which is in many ways comparable with the clan systems found amongst the Nilotic tribes of northern Uganda.

The arrangement of the article may possibly leave something to be desired : it is complicated and not too easy to read and somewhat unintelligible to any but

a highly-trained anthropologist, and the considerable amount of interesting information contained in the paper is concealed in a welter of technicalities and native nomenclature.

The Nuer are an interesting tribe and together with the Dinka, to whom as the writer remarks they are closely allied, and the Shilluk form the most northerly group of truly Nilotic peoples. Our own Nilotic tribes are far more nearly allied to the Shilluk with whom it is probable that they have a common eventual origin.

The Nuer are considered anthropologically as a race, consisting of several smaller isolated political units or tribes in much the same way as in Acholiland the Jo-payera and, for example, the Jo-paranga are actually separate tribes of the same race. A distinction such as this may be considered over-fine, but it is one which before the days of peaceful administration, when these tribes were always at war amongst themselves, was very real. Clans and tribes may at times have combined against a common enemy but normally this was so only in the case of those tribes connected by some common bond of kinship.

The several clans within each tribe are described, in some cases, in considerable detail but, for one without any intimate knowledge of the Nuer, criticism, even if possible, is difficult. Certain points of interest arise, however, and go even further to show the close connection between all the Nilotic races. Slight differences do exist but these are far less important than the similarities, which one cannot help noting throughout this paper. For example, the names of the tribes and clans amongst the Nuer are stated to be dependent on their place of residence, whereas amongst the Acholi a tribe or clan takes its name from a man—usually the first chief of the particular group—and keeps that name throughout its migrations.

There follows a rather complicated but nevertheless interesting account of clans and lineages. That the Nuer does not think in group abstractions called clans is stated on page 27, but later one learns that the clan is considered an exogamous unit for marriage purposes. The names of the clans are given, and the detailed account of the formation and structure of the clan makes it difficult to believe that the Nuer is not clan-conscious himself. Whilst keeping one's mind open to conviction on the point it is nevertheless difficult to credit that most of the Nilotic tribes have not a very clear conception of the true significance of the clan as a group, although, as Mr. Evans-Pritchard says, it may have no social cohesion. That a tribe is a localised, and a clan a diffused, group is undoubtedly true of all Nilotic peoples.

The continuation of this article in the next issue of the *Sudan Notes and Records* will be looked forward to with interest. It will contain sections on clan totemism, an extremely absorbing subject, and on the laws regulating the Nuer public life. One ventures to hope that the wealth of anthropological detail in this part which, however valuable it may be to purely scientific people, undoubtedly detracts considerably from the interest of the article to the ordinary reader, will be less obtrusive in the ensuing sections. But in any event they cannot fail to have great appeal to everybody in Uganda who is at all interested in our own Nilotics who are near neighbours and close kin to the Nuer tribe which dwells not far beyond our borders.

R.M.B.

NOTICES.

Minutes of a General Meeting held on Thursday, January 11th.

The following members were present :—

Mr. Priestley (in the Chair), Hon. A. H. Cox, Major Tremlett, M.B.E., Dr. Neilson, Dr. Wallace, Messrs. Bere, Clarke, Duckworth, Moses, Shackel, Spencer, Sykes, Twining, Wilson, Mrs. Neilson and Mrs. Wilson.

I. The Secretary read the minutes of the last meeting, which were agreed to.

II. A Committee consisting of Messrs. Twining, Duckworth and Bere, was appointed to inquire whether the *Journal* could be suitably printed by private enterprise in Kampala, having due regard to maintaining the standard of the first number and at a price within the means of the Society.

III. It was decided that a special subscription should be introduced, for the benefit of Missions and other institutions. The subscription shall be Shs. 20, for which the subscribing institution will receive two copies of the *Journal* and will be issued with four or more admission tickets for the Society's lectures. No special subscription shall be accepted without the sanction of a majority of the Committee. The Committee is empowered to increase the number of admission tickets to be issued on any one subscription. The subscription shall not entitle the institution to a vote as to the management of the Society.

IV. It was proposed by Dr. Wallace that a section of the Society should be formed devoted to the interests of photography and that a portfolio should be started on the lines of that run by the Kenya Photographic Society. After some discussion it was decided that Dr. Wallace should be appointed as a Committee of one, with powers to co-opt, to ascertain whether there is a sufficient number of persons interested to form and maintain such a section.

V. It was proposed by Mr. Twining and seconded by Major Tremlett that the Society should hold an Arts and Crafts Exhibition in 1934. The Meeting was divided on the question and it was held by some members that such an Exhibition was outside the scope of the Society, that the scheme was too ambitious, and that there were insufficient people interested. After discussion it was decided that a sub-committee composed of the Hon. A. H. Cox (Chairman), Mr. J. T. Clarke and Mr. R. M. Bere should be appointed to explore the possibility of holding an exhibition and to ascertain whether there are a sufficient number of persons willing to organize such an exhibition.

VI. Mr. Clarke raised the question of accepting advertisements for the *Journal*. It was explained by the Editor that at present the *Journal* is self-supporting without advertisements and that if the necessity for obtaining revenue from advertisements should arise the matter should be dealt with by the Committee.

The following notes will amplify the information contained in the Minutes : —

Minute II.—As has been intimated in the Editorial, satisfactory arrangements bave been made and the form and the standard of the *Journal* will be in no way affected.

It would be of great assistance to the Editor if members requiring extra copies would inform him before 1st of July so that a sufficiently large edition may be ordered to meet requirements.

Minute III.—Missions and other institutions who wish to take advantage of the special subscription should apply to the Secretary.

Minute V.—Members are notified that an Exhibition of Arts and Crafts, under the auspices of the Society, is being arranged to take place in November.

Exhibits will probably be grouped under the following heads :—

(1) Art (Painting and Drawing).
(2) Photographic.
(3) Handicrafts, European, Indian and Native.

Pamphlets containing full information will be circulated to members in the near future, but meanwhile your co-operation is sought in stimulating interest in the exhibition and endeavouring yourself to compete.

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