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Among the Machinga people

R. S. Hynde

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that, at an altitude of over 1000 feet, it can never exert epidemic virulence.

Summing up what we know respecting the heat, the cold, and the diurnal variation of temperature in the Tropics, we come to the conclusion that it is impossible for any European nation to become acclimatised *at once* in any Tropical region; but we think that if the attempt be made step by step, generation by generation, it is not improbable that northern Europeans may become acclimatised in, say, 100 years, in Tropical India or Africa; and that if representatives of a nation were to endeavour to proceed gradually from a Temperate to a Tropical country, they might, in five or six generations, acclimatise themselves either to the north or to the south within 30 degrees of their original habitat.

In conclusion, it must be admitted that the permanent residence of Europeans in Tropical climates must be first attempted in those regions possessing a definite altitude—an altitude which will give them considerably less heat, less moisture, and a greater immunity from endemic diseases than low-lying plains.

AMONG THE MACHINGA PEOPLE.

BY R. S. HYNDE.

DOMASI, one of the stations of the Established Church of Scotland Mission, in British Central Africa, lies on the northern slope of Mount Zomba, having on the west Mount Malosa (usually represented as forming one mountain with Mount Zomba), and with Lake Chirwa (Shirwa) about fourteen miles to the east. Its exact latitude is $15^{\circ} 18' 4''$ S., and its longitude $35^{\circ} 18' 7''$ E.

The station being, as I have said, situated on the northern slope of Zomba, with Malosa on the west, while a spur of Malosa looks down on it from the north, and having two small hills on the north-east, lies at the south end of a small valley. It takes its name from the river Domasi, which flows past it at a distance of about half a mile to the north-east. The Domasi is a mountain stream which takes its rise from two feeders, one on Malosa, the other on Zomba, and flows down the valley between the two mountains, cutting its way between the spur of Malosa and one of the small hills already mentioned. After a tortuous course it eventually discharges itself into Lake Chirwa. During the first half of its course it has a very steep gradient and a rocky bed, over which it flows with great rapidity. It falls very low in the dry season, but rises considerably in the wet season: hence the difficulty of bridging it. This rapid rise and fall is characteristic of all the streams of the Shiré Highlands.

Mount Zomba, as is well known, is about 7000 feet high, and Malosa is of equal height. There is nothing remarkable about either mountain unless it be the warm spring on the eastern side of Malosa, in which, however, the water is small in volume and of low temperature, and has no peculiar taste. Very different are the Morambala springs, which I

visited on my way up. They are three in number, and the water is too hot to hold the hand in. They have a strongly sulphurous smell. The summits of both Mount Zomba and Mount Malosa have an undulating outline, the former being from six to seven miles long, and Malosa of similar extent. Livingstone, who considered them as one mountain, guessed them to be about sixteen miles long. Their sides, where they have not been denuded by the natives, are covered with trees up to the base of the cliffs which surround them on all sides, giving them some similarity to Table Mountain at the Cape. The top is chiefly covered with short tufted grass and clumps of trees.

The Mlungusi stream, a tributary of the Likangala, which discharges itself into Lake Chirwa, rises in a marsh on the top of Zomba, which, in the rainy season, becomes a pool. Most of the streams of any magnitude that rise on Zomba and Malosa are perennial. The valley of the Domasi is largely used by the natives for growing Indian corn, which flourishes best at a high latitude, while most of the millet and all the rice are grown on the plain at the foot of the mountains.

The whole country, except where it has been cleared for gardens, is covered with wood, which may be forty to fifty years old. Large parts are occupied by the *Masuku* tree, which bears an edible fruit, a heavy crop appearing once in two years. The natives have till lately been living on the sides of the mountain (owing to fear of marauding tribes), and consequently the largest clearances are to be found there. Owing to more settled conditions, they are now gradually descending to the plain. As they do not manure their gardens, but plant a new plot every few years, they destroy a large number of trees. The wood is on the whole not large, generally from a foot to a foot and a half in diameter.

The grass on the plain is long and coarse, and reeds crop up wherever the ground is marshy. Here Indian corn and millet are grown in large quantities, and rice to a smaller extent. The country on the whole is fertile, as may be seen from the variety of products cultivated by the natives. They are—Indian corn, millet, rice, tobacco, cotton (of an inferior kind), sweet potatoes, a species of cucumber, water-melons, rubber, indigo (wild), pumpkins, yams, tomatoes, several varieties of beans, castor-oil plant, groundnuts, sem-sem, Indian hemp, bananas, papaya. The following have been introduced:—coffee (which fetches 112s. in the market), rubber, cinchona, sugar-cane, pine-apples, oranges, lemons, guavas, granadillas, pomegranates, Cape gooseberry, English potatoes, peas, and other European vegetables, all of which grow well. Of wild fruits found are the vine, fig, custard apple, and bramble, etc. Both the tobacco and the rice grown around Domasi are among the finest in the country. Tea has only lately been introduced, but appears to be doing well.

The year is divided into two seasons—a wet and a dry. The former lasts, roughly, five months, the latter seven. They are sometimes called respectively the hot and cold seasons. At Domasi the average temperature is about 80° F., and in the cold season about 70° F. The first rains usually fall in October. There is then a slight break till near the end of November. December, January, February, and March, are

usually very wet. April is the transition month from the wet to the dry season. From May till September it is usually very dry. The rainfall has not been measured at Domasi, owing to the want of a rain-gauge, but at Blantyre—fifty miles to the south-west—it has been recorded for some years. We hope to give at a future date a few of the results.

The tribe among whom we labour is a branch of the Ajawa or Yao race. The Yao or Ajawa may be described as a cross between a nomadic and an agricultural people. They consist of five branches:—the Makale branch, which is located to the north-east of Lake Nyasa; the Makata, who dwell about the middle of the east shore of the lake, at a place called Mwembe; the Masaninga, who reside under the chieftainship of Makanjila, towards the southern part of the eastern shore; the Machinga, now chiefly settled around Chikala Mountain, Malosa, and Zomba; and the Mangoche branch, who reside chiefly at Chirazulo and Soche, near Blantyre. They thus stretch under different names from near the lower Shiré to the sources of the Rovuma. Owing to their roving disposition small numbers of them are found in much more remote parts, and to the same cause must be ascribed the pretty fair uniformity of their language. The Yao spoken at Zomba is easily understood at Mataka's town, though there are a few variations. In the laws and customs slight differences are noticeable, but they are comparatively small. Physically they are rather tall and well made, and have an erect carriage, which is specially characteristic of the women. No doubt it is a result of the universal practice of carrying things on the head.

As a people they are inclined to be haughty and intractable, but this is largely the result of their intercourse with the coast and to the large number of black traders to be found among them. In the Shiré Highlands, where this influence is now almost *nil*, they are quite tractable, take readily to work, and are among our best scholars in the schools.

On the other hand, it was the Mataka Yaos who murdered the two Portuguese in 1890, and who destroyed all Mr. Johnston's (of the Universities' Mission) property some years previously. It was the Masaninga Yaos who in 1888 stripped and robbed H.M. Acting Consul, Mr. Buchanan, and this same Mr. Johnston; but then they are so much contaminated by black Arab traders that this is little to be wondered at. Livingstone, before they were so affected by Arab influence, was invariably well treated by them, especially by the predecessor of the present chief Mataka. So much has their intercourse with the coast increased of late that Swahili is freely spoken at their capitals on Lake Nyasa.

The population is scattered round the hills, Chikala (about fourteen miles north-east of Zomba), Malosa, and Zomba, in small villages composed chiefly of related families. Sometimes a village consists of only five or six houses, more commonly twelve or twenty, and rarely above thirty. The chief's village at Domasi consists of more than a hundred houses, but that is an exceptional case. These villages occur at intervals of a quarter or half a mile. The chief of course is paramount, and settles all cases of importance, his subordinates settle minor cases in their own districts, while each headman decides petty cases in his own village. The chief's council is composed of experienced men, who stay at his

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village and "wait at the council-yard," of the head-men of his neighbourhood, and, of course, the parties interested in each case.

The old chief, Malemya, used to be at the council-yard nearly every morning by six A.M. to hear cases, and usually sat till eleven or twelve o'clock. In the event of an important dispute the court-yard would be crowded, and, as each important speaker made his point, his associates or supporters would clap their hands in African fashion,¹ and one special man would chant, often not ceasing even during a speech, in a nasal tone rising to a higher key while the clapping was going on. After each side had urged its case the chief's own men would take up the argument, and either one of them or the chief himself would give the final decision.

It requires a man of no ordinary ability to arbitrate in such cases as are brought before the council, for frequently they are of many years' standing, and the judge, not having any books to refer to, must learn and keep before his mind the history and ramifications of the dispute. In fact the chief is usually a man pre-eminently gifted, both physically, mentally, and, according to their light, morally too.

It frequently happens, however, when the chief does not give an impartial decision, that the offended party, having no higher court to appeal to, decamps bag and baggage to another chief, and as a chief's power consists in the number of his subjects, the loss of a man is a serious matter.

Domestic slavery is in full force among them, but slaves are usually well treated lest they, too, should run away to a neighbouring chief. By doing so they would not necessarily become free, but they would change masters, possibly for the better. Slaves intended for sale are of course treated in the usual way. They are put into slave-sticks, or otherwise confined, and sold to the first passing caravan. As Livingstone foretold, however, legitimate trade and facilities for work would, by supplying native wants, soon put an end to the practice; and so it has turned out. Wherever the missionaries or the traders have firmly established themselves it has gradually languished, and in such districts will soon be a thing altogether of the past.

The special hardship of domestic slavery lies of course in the fact that, if the master or some of his friends should get into difficulties, the slave, his wife, or his children, may be used to pay the fine, or one or more slaves may be exchanged for goods at the option of the owner. Formerly, perhaps five years ago, no less than two hundred people were disposed of to passing caravans in one year, in the Domasi district, many of them domestic slaves; but now this traffic is extinct, and the slaves merely change hands to a small extent in the country itself. It is a frequent custom also to sell offenders who merit the punishment of death, rather than kill them.

As a rule domestic slaves are well treated, and in outward appearance cannot be distinguished from the freemen. The freemen, however, show the pride of class, and one man boasted to me that his family had so much, so to speak, blue blood in their veins that "even when they were drunk" they never cast at each other the epithet of "slave."

¹ By hollowing the hands and bringing them together longitudinally.

Descent is reckoned through the sister; hence the son does not inherit position or property, but the nephew, the son of the eldest sister. The tribe seems to be in the transition stage between the matriarchal and the patriarchal systems. Each person belongs to a clan, and is not allowed to marry into his own clan. Hence (to use Highland tribal names by way of illustration), if a Macgregor man marry a Stewart woman, the children are not Macgregors but Stewarts. Therefore, if a Macgregor is to succeed he must be the son of a sister of the late proprietor, for even although she marry a Campbell her children are Macgregors. Daughters, therefore, are a greater source of strength to a village than sons. The daughter never (in ordinary circumstances) leaves her mother's village. If a man wants to marry a woman, he sends a go-between to the girl's father to arrange matters. No payment is made. If the parents' consent is obtained, that is sufficient; the girl has often no voice in the matter. The fathers of the bride and bridegroom meet at the former's village, and a fowl is cooked and eaten, which act makes the contract legal. The bridegroom then builds a house *at the bride's village*, and, as soon as it is ready, without further ceremony they live together as husband and wife. Hence a man with five sons would not, unless his sons should marry slave-wives, have a single house added to his village, whereas if he had five daughters, under ordinary circumstances, the five men who married these daughters would each build a house at his village.

The chief duty of the son-in-law is to help to hoe his mother-in-law's garden. One end which (designedly or not I cannot say) is served by this plan is that the wife's relations see that she is well treated, and not, for instance, sold as a slave. It is quite evident that a man living at a distance might marry ten wives (polygamy is practised), and take them away to his distant home where he could quietly dispose of those he did not wish to keep. Slave-wives go to their husband's village.

So far as we have been able to find out there is no trace of marriage by capture, nor are wives sold, as is the case south of the Zambesi. The women have usually little choice, as they are often betrothed when quite young. If, by any chance, a grown-up girl should be free, she may have the opportunity of choosing a husband. Notwithstanding these facts women are in a very subordinate position, but are allowed a considerable amount of freedom. There is no marked trace of any *taboo* system, though there are indications which, on fuller investigation, might point in that direction. The division of each tribe into families or clans with distinctive names, and the prohibition against marriage between persons of the same clan, is analogous to the *totem* system.

In religion it is difficult to state their beliefs, not only because they are reticent on the subject, but also because of the haziness of their ideas. They worship the spirits of their ancestors, especially chiefs and headmen. For the people generally there are burial-grounds away in the bush, but chiefs and influential headmen are buried in the centre of the village, and on certain occasions offerings of flour and beer are placed on the graves, and sometimes the spirits are addressed in exactly the same way as the living persons would be.

The Yaos have also a belief in a God of a very undefined nature. As to a future state or a heaven, beyond the mere idea that the spirits of dead people still exist, they do not appear to have any belief. They consider sickness and death to be caused by witchcraft exercised by a living enemy of the person bewitched, and consequently they have a poison ordeal by which the guilt of accused persons may be proved, or their innocence declared. It consists of a draught into which a poisonous bark has been put. The accused drinks the decoction, and if it causes vomiting, as it sometimes does, the person is innocent; if no vomiting occurs, the person dies, and in many cases his body is burned. The trial takes place before the people, in some place in the bush, and a great deal of excitement usually prevails.

The Machinga branch of the Yao tribe do not kill wives or slaves on the death of a chief or person of note, though their neighbours, the Mangoche Yaos, formerly did, and several others of the surrounding tribes still observe the custom. At the death of the late chief, however, one of his wives had to go down into the grave "to receive her husband," which done she came up again. This of course points to a former custom by which burying a wife alive was probably part of the funeral ceremony.

In burying they double up the body, bending the legs at the thigh and again at the knee, so that the corpse is buried in a sitting posture, with the chin almost touching the knee—a favourite position of the native in life. Most of the personal effects of the deceased are buried with him, and before being put into the grave they are broken. The reason of this is not evident, and one can merely give a conjecture. One idea which readily occurs is the old one that things have spirits as well as men, so that, when the owner is dead, they too must be broken that their spirits may accompany the owner. As I have said, however, they have no happy hunting-ground, as in the case of the Red Indian, which would lend colour to this explanation.

The men fire off guns and the women wail from the time of death till the time of burial. The firing of guns is ostensibly to keep off evil spirits, but is also used as a mark of respect. They fire guns at a birth, at the return of a caravan, at a death and burial, on visiting a grave, at the installation of a chief or head-man, and at beer-drinkings. The bulk of the powder used by such tribes is burnt in this harmless way.

Their language has been reduced to writing; and a grammar, and by no means complete vocabulary, compiled by the Rev. A. Hetherwick, M.A., F.R.G.S., has been published by the British and Foreign Bible Society, while another has been published by the Rev. Chauncy Maples of the Universities' Mission. As a language it has more affinities with Swahili than with the Zambesi-Nyasa group, and its nearest relation is the language spoken by the Makonde, a small tribe lying between the Yao and the Swahili. The literature in Yao consists at present of the four Gospels, the Acts, Romans, and 1st and 2d Corinthians (British and Foreign Bible Society), translated by Mr. Hetherwick, and two school-books by myself (published by the Church of Scotland), incorporating many of the native stories. There is also a grammar and Yao-English

Primer by myself, for use in the Yao-speaking schools (published by the Church of Scotland). Besides these there was Bishop Steere's collections for a handbook of the Yao language, now superseded by Mr. Hetherwick's Grammar. They have a large number of folk-lore stories, which are very similar to the Swahili tales issued by Bishop Steere, but more primitive. A collection of them is at present being formed, which may aid in showing the wide prevalence and similarity of animal stories among the Bantu peoples.

The Yao people have a traditional code of laws which, so far as they go, are excellent. Wholesale stealing, murder, and adultery are all capital crimes, but, of course, when the injured person consents, they may be atoned for by pecuniary compensation. Marriage is made legal in the way described above, but divorce is not hard to obtain. Polygamy is allowed. Land occupied or marked off is considered the property of the person who so occupies or marks it off. The judges, as already mentioned, are the head-men, the final appeal being to the chief, and freedom to plead is allowed to every man.

The native is by no means necessarily a lazy person. The men occupy themselves in hoeing, planting, building (houses only last two or three years), hunting, fishing, journeying, trading, attending palavers, and, since Europeans have come into the country, working for pay. The women especially cannot be called lazy. They have all the cooking to do, which is a daily task, and includes pounding and grinding grain, fetching firewood and water; they also hoe and help to plant, and they work on European plantations for wages. Births, deaths, and native ceremonies take up much of the time of both men and women. They have initiation ceremonies for both boys and girls and young wives, which are of an immoral character. Circumcision is practised at the boys' initiation ceremony.

Such is a short account of the people among whom we live and labour. It is by no means complete according to our present knowledge, which is extending every day. At no distant date it will be comparatively easy to give a tolerably exhaustive account of native life, and thus fresh light will be shed upon the development of native tribes, which will help the comparative study of the development of the human race.

PROCEEDINGS OF THE ROYAL SCOTTISH GEOGRAPHICAL SOCIETY.

THE Annual Business Meeting was held in the Society's Hall, Edinburgh, on Tuesday afternoon, 10th November, at four o'clock. Mr. Ralph Richardson presided.

The following Resolutions were adopted :—

- 1st. On the motion of Principal Grant Ogilvie, "That His Grace the Duke of Argyll be re-elected President for the current Session; and that the Vice-Presidents of the Society be re-elected."
- 2d. On the motion of Principal Grant Ogilvie, "That the Honorary Office-Bearers of the Society be re-elected for the current Session."