tion has been adopted. All new natives are given light work during their first week or two underground so as to become accustomed to the strenuous underground environment. Only after completing this period of acclimatisation is the new native allowed to undertake normal underground work. Experience, however, has taught us that the period of acclimatisation required varies in different individuals. Accordingly on two of the hottest mines of the Rand a procedure has been evolved for testing all new natives in specially erected heat chambers to determine beforehand the period of acclimatisation required by individual natives. This testing process also protects new natives by stimulating their acclimatisation properties.

The subject of underground atmospheric environment is too large to attempt to give any more than the brief outline above. Suffice it to say that the practicability of deeper mining on the Rand depends on the control of underground atmospheric environment. We are already rapidly approaching the limit of deep mining under present conditions. The problem is, therefore, of extreme importance to the industry and is still awaiting satisfactory solution.

---

MEDICINE AMONG THE SOUTH EASTERN BANTU.

HILDA KUPER.

Area and People—

The South Eastern Bantu are a group of tribes and nations which have certain linguistic and cultural affinities and which include among others, the Zulu, Xosa, Thonga, Fingo and Swazi. These people inhabit the Eastern Province and Native territories of the Cape, the province of Natal and Zululand, and the East Coast as far as the Sabi on the North, and inland to Southern Rhodesia. The principal features of their medical knowledge, the categories of practitioners in the medical fraternity, and the general philosophy of life, the “weltanschaung” which determines their scientific outlook, is sufficiently similar in all these peoples to allow them to be discussed together. It must be remembered, however, that there are local and tribal differences which, especially in practical work, cannot be ignored. The concrete illustrations of general principles, except where otherwise stated, are drawn from my fieldwork as an anthropologist in Swaziland.

One of the aims in this paper is to stimulate medical research in problems with which the anthropologist without medical training is unable to deal. But in order for the European medical man to be of real assistance to the anthropologist, it is necessary that he does not approach his Native confreres, nor Native remedies, nor even Native ailments from the limited range of Western European medical standards. If he does, many things will appear ludicrous, and unworthy of investigation, things which, to the Native people, are intensely real, real enough to kill.

Native Theory—

The Natives have a theory of disease, of its cause, effect and method of treatment, which no European doctor, interested in Native welfare, can afford to ignore. But let us see from what principles they have arrived at their conclusions, how much is based on observation and experimentation and how much on magical beliefs and imagination.

The South Eastern Bantu have never made an anatomical study of a human corpse, but by careful observation of man and beast, and by the dissection of animals for food or medicines, the average Native, and the doctors in particular, have some conception of anatomy and physiology. Certain factors, however, differentiate the knowledge of the Native medical specialist, or inyanga, from that of his European colleague. His dissections, except for rare and nefarious purposes, are limited to the bodies of animals. Between men and animals, Natives recognise a difference in structure. Many Swazi say that every human being has a snake, inyoka, in his stomach, sisu, but this snake is absent in cattle. It is the snake which transforms the food which enters in through the mouth to the form which it takes as excreta. In cattle, ‘the grass goes out as it came in,’ and in chickens, one man carefully explained, there is a special sack of grit which serves as teeth to grind down the food, occasionally allowing whole mealies, beads, and other large objects to pass through. The snake in the human body grows with the development of the human being in whom it resides, but exactly how it first came into his body is not clear. Some say it is the nucleus of the child, and it is usually considered as the impilo, the life, which dies when the person himself dies.
There is no single theory of the change which a dead man undergoes before he becomes a ‘lidliti’ or ancestral spirit, which sometimes shows itself as a snake. The snake in the body of the living, and the snake of the ancestral spirit are not apparently connected.

In addition to the snake (one informant said there was more than one) there are also worms, manyoka, in the human body. When I appeared a little sceptical as to the necessity and inevitably of the snake and worms, I was asked what it was then that made the rumbling noise when a person had taken medicine. The fact that many Swazi, especially women, suffer from worms, and that they see these worms, is taken as proof of their permanent residence in the body.

Apart from the distinction being drawn between men and cattle, there are inevitable anatomical distinctions drawn between the sexes. Some of these distinctions, made from careful observation, are correct, others, especially as far as the internal structure is concerned, are erroneous. For example, some Swazi consider that a woman has more ribs, tibambo, than a man for they regard the upper bone of her pelvis as part of her ribs, lubambo twampetweane.

Surgery is scarcely acknowledged by the Natives as a means of curing, and they look on operations with fear and suspicion. Some doctors, however, have considerable skill in mending bones, and putting them in splints, luhlaka. When Mzululeke Ndwandwe was a young boy, a charge of shot blew away most of his heel and part of his foot. The European doctor said the limb had to be amputated, but as permission could not be obtained from his parents who were in another locality, the men in charge of him refused, and took him to an inyanga (Native specialist). Today, he walks on both his legs, and all one notices is a slight limp.

Native and European approach the organs of the body from different aspects. The Native considers that certain parts of the animal which he uses for food or for medicine have specific psychological attributes which can be transferred to man even by the act of eating. Certain portions of meat are allotted to those groups in the society to which they are considered most suitable. For example, the impundu, a part of the liver, is allowed only to the old men for, it is believed that, if the young men eat it they will become self willed and disobey their elders.

In man, certain organs are believed to be particularly sensitive to outside influence. Even before the news of the death of a parent reaches a child, the child ‘will feel it in his head,’ his head will not take nicely.’ The stomach is also a sympathetic locality for psychic communications—if a brother, sister, or very close friend dies, you ‘feel it by the stomach,’ you will not want to eat, and even when food is actually in your mouth you will not be able to swallow it.

Space will not allow me to deal in any detail with Native theories of procreation, respiration, digestion, but a brief description of their ideas connected with blood will give some insight into their approach and knowledge of physiological processes. Ingati, blood runs throughout the body. Blood and strength are closely connected. A healthy person in his prime has blood ‘cinile,’ taut; in a child or sick person, the blood is weak and ‘like water,’ in cold weather the blood dries up, in an old person ‘blood becomes finished.’

Medicines are frequently taken to make right, lungisa, the blood. Boys or girls who have had sex relations before maturity are said to ‘spoil their blood,’ it becomes evident on their faces, their faces ‘do not shine.’ A child in the womb grows with the menstrual blood of the woman, hence it is always said that a child has the maternal blood in his veins, though certain of its characteristics may resemble the father. The tie between mother and child is strong not only because she carries it in her stomach, and later looks after the child, but because she has nourished it with her blood. Blood is the channel, of life, leading to the heart which is the centre of strength. A mechanically-minded doctor explained that ‘heart is the battery.’ Food goes into the stomach, and the iimoya, the spirit, of the food reaches the heart like steam. If the heart doesn’t like the food it vomits it. The stomach has nothing to do with it. If you poison a person, the steam becomes very hot, it makes the heart burn, and the steam kills the blood. Blood changes according to time of life and to mood. Special medicines are used to make the blood bright and shiny; if your blood is right, people will love you. People take medicines internally and wash in special preparations all for the purpose of improving their blood. Swazi doctors inoculate by making incisions at the
joints and then rubbing the medicines into the blood.

Since there is no 'school of medicine' there is a good deal of individual speculation and variation in the work of doctors. They are ignorant of the nervous system, have a unique theory of the action of food, and of air on the blood, and a very vague understanding of procreation. One man will tell you that the secret of life is in the snake of the stomach, another will say it is in the umoya, breath or spirit. Even the same doctor will frequently contradict himself, but the inconsistencies are inevitable with the present inadequate knowledge of anatomy and the magico-religious outlook, yet much of the work done is based on sound common sense and observation.

Since life and the development of life is largely a mystery, disease and death are often regarded as alien to the body but not to the spirit and spirit world. The boundary between this world, the world of the dead, and the world of magic is in certain situations non-existent. When a man faints, the Swazi say he is dead, and when he recovers from his faint, they say he 'nearly always' sneezes, and that with the sneeze his spirit, umoya, returns to his body.

Like most people, the South Eastern Bantu do not believe that a man 'dies dead.' When the last breath or spirit has passed out, the sidumbu, corpse, remains but the spirit does not die, it becomes one of the dead, the emaditi, and in this capacity, as we shall see, it is able to exercise a powerful influence on the living.

**Diagnosis of Disease**—

With this approach to the human being, it follows that diagnosis and treatment of disease must be based on standards different from those of the Western scientist.

(1) By far the smallest percentage of diseases are attributed to natural causes. These diseases include colds, fever, leprosy, occasional constipation, cuts, gall trouble, certain well known sores and skin eruptions and European introduced sicknesses, such as phthisis and syphilis. But if any patient suffering from one of these complaints develops abnormal symptoms, if, for example, a man with a cold gets pneumonia, or if a cut becomes septic, there is a change in diagnosis.

(2) It might then be diagnosed as a punishment by the spirits of the dead, sent to their descendants or relations on earth for neglecting to do them honour, or for breaking the laws of respect, or for destroying family and social solidarity. The ancestral cult of the Bantu dictates that the dead must not be forgotten and when beer is brewed or a beast is slain, it is right to set aside a portion for the ancestors who, in turn, keep a watchful eye on the interests of their family on earth. Among the Swazi the ancestors are never believed to send death but merely sickness 'as a reminder.' If the ancestors see that their descendants are 'spoiling the village,' ruining the family reputation by constant quarrels, they feel it necessary to administer a rebuke. If they do not do so it is believed that wizards, batsakatsi, will seize this opportunity of family weakness to attack the members with death and destruction. The ancestors will send sickness either to one of the disputants or to his child, or to any other relation. A spirit who is not a relation can out of malignancy send sickness to a man on earth, but this is rare. With the increase in Christianity and the gradual decline of the ancestral cult, less diseases are being attributed to the spirits of dead relatives.

(3) It occasionally happens that illness is attributed to the breach of a tabu. For example, formerly it was tabu, tila, among the Swazi to partake of the new season's food before the King and his mother had performed the luma ritual at the main national ceremony, the incwala. One who broke this law would 'feel it in his stomach.' Again, if a girl or boy, on the first day of puberty, ate food without first being strengthened, or if a widow ate soon after the death of her husband before the doctor had treated her, they were supposed to fall ill. Many of these beliefs are losing their hold on the people.

(4) But there is one main reason for sickness and death which is at least as strong as ever, and that is witchcraft. It would be well worth the while of any doctor, who was going to work among the Natives, to become acquainted with their theory of the wizards, batsakatsi, those dreaded and powerful beings of the 'other world' lenye live, and for him to examine the factual as well as the psychological side of witchcraft. For poisoning does exist, and deaths by alleged 'witchcraft at a distance' do occur. Because of the importance of witchcraft in the natives' attitude to disease it is necessary to say a few more words about it.
HANDEL HOUSE BRANCH

Central News Agency, Ltd.
Eloff Street, Johannesburg.

We carry a Large Stock of all the latest Medical Books

BOOKSELLERS TO THE UNIVERSITY

P.O. Box 1161 Phone: 22-6747
Witchcraft, *ukuloya,* or *ukutsakatsa,* is distinct from *ukwelapha,* to cure, and the man who sends witchcraft, the *umstaktsi,* the wizard, must not be confused with the *inyanga,* medical specialist, who diagnoses disease, and who uses his skill to cure and heal. Though both doctors and wizards work with medicines, the former usually work in the open, in the interest of the public, while the latter fly in the darkness often clothed in invisible magic, and lead a mysterious life in their evil secret society. The medicines of the doctor, are spoken of as *mutsi,* trees or drugs for curing, the material ingredients of the wizard are labelled *butsi,* poison. Among the Swazi there are numerous means whereby wizards can inflict death or injury. They can obtain poisons from a doctor, who by being an accomplice, also becomes a wizard, or through special injections and initiation into the society of the wizards, they may themselves obtain possession of dark powers which will enable them to steal the life of a person and leave just the shadow, or which will make it possible for them to send disease and death in incurable and horrible ways. Envy, malice, greed, hatred and vengeance are the recognised motives behind wizards' actions. The wizards are not restricted by the laws of time or space, they can play with lightning, they can burn their victim with the rays of the sun, and they are not the less real because the European usually treats their existence with scorn and places their traditional enemies, the doctor diviners, behind prison bars.

**Treatment**—

Let us examine the way in which the different diseases whose causes we have already described, are treated. Everybody has a number of household remedies. Every mother knows certain plants which are useful as an enema for her children. Every Swazi baby, until about 7 months old, has a daily enema made from the leaves of the mcafutane, matunga or other tree used for this purpose. Other plants are well known cures for colds or boils, and most of the diseases which are attributed to natural causes are treated first with household remedies.

For any more serious disease, however, a specialist, *inyanga,* is always consulted. Specialists are of two types, the herbalist, *inyanga yemitsi* or doctor of drugs, and the diviner, most commonly known as *inyanga yokufengula,* or *insamtsi.* Within each of these two categories are numerous subdivisions. A herbalist may only know how to deal with children's diseases or he may have medicines for any specialised disease, or for ensuring a village and its inhabitants against lightning, or he may have a very wide and varied knowledge. Certain herbalists are also diviners, and there are very few diviners without a few drugs at their disposal. But the basic division between herbalist and diviner which exists in Native thought, is made on the technique which they employ in any given situation and on the nature of their training with which we will deal later.

If a man falls ill and they do not know what is the matter with him, his brother or other near relative—very often it is not the patient himself—first goes to a diviner to discover the cause. If it is a woman, her husband usually goes for her. The consultant greets the doctor with the formula 'I salute the head,' the head being accepted as the seat of the diviner's powers. The diviner usually does not reply straightaway; eventually, he goes with the consultant to a place where they will not be overheard. The doctor bites off pieces of bark of twigs with attributed medical power, and then he begins to grunt as his divining spirits assume possessions of his body. When he is ready, he says 'Shaya' (strike) and the consultant replies in a high pitched voice 'siyavumā' (we agree). The doctor continues 'kukhona umknba' (there is an unusual occurence). The consultant flicks his fingers and says 'Siyavuma.' Perhaps he has come to consult the doctor about his wife's illness. The consultation runs as follows:

Dr.—It is a man.
Patient—We agree. (Automatic, unenthusiastic response).

Dr.—It is a woman.
Patient—We agree. (Excited, spontaneous reaction).

Dr.—She is ill.
Patient—We agree. (Affirmative, spontaneous response).

Gradually, by this method of elimination and deduction, the doctor diviner will get from the consultant the reason for his visit, the condition of the patient and the reason which is suspected for the illness. Though many enquirers are fully conscious that it is they themselves who supply the information and diagnosis by the varying degree of vehemence of the responses, this type of diviner, *inyanga*
yokubula, is very frequently consulted. It is said that formerly the replies were always given in a monotone and that the doctor had to rely entirely on the spirits for the secrets. To-day, they say there are many impostors who have never been inspired by their ancestors. Natives whom I have watched consulting the inyanga yokubula find a strong, emotional satisfaction through directly participating in the act and this is probably one of the reasons why it is so popular.

Other diviners require no assistance from the consultants; some look into magic pools, others into crystals, some possess ‘talking calabashes,’ others work with ventriloquism alone.

If the diviner diagnoses the ancestral spirits to be the cause of illness he will tell the consultants why the ancestors were angered and how to appease them for sending (often vicarious) punishment. A case of this nature occurred to one Pukwane Inkosi. He took ill, and his family sent to divine the reason. It appears that Mamulelo, younger brother of Pukwane, had been beating some of the children at home without reason. Pukwane reproached him and Mamulelo took up his stick and wanted to fight him instead of listening and paying him due respect. Pukwane then fell ill. The diviner said ‘Inhlitiyo yakhe iyamgulisa’ (His heart has made him ill), the ancestors, he explained, were angry with Mamulelo for breaking up the family and this was a lesson to him. Mamulelo went to the cattle kraal and appealed to the ancestors (zvajokotela emadlotini). He explained ‘I did not mean to make my brother sick. I don’t know why I wanted to strike him since I had no evil against him, though perhaps the spirits say the evil is in our hearts.’ No medicines were administered and Pukwane recovered, he said ‘now I feel I can get better.’

Very often the only treatment, when the ancestors are angry, is to kill a beast or brew some beer as an offering, speak to them and apologise for neglecting them or for disturbing the harmonious relations, as the case may be. Some of the offering is put into the ritual hut, the main hut of the village, and left over night for the ancestors and the rest can be eaten. The ancestors’ portion will be eaten the following day.

If the divination points to the necessity of medicines as well, the diviner will either give some himself or will send the consultant to a particular herbalist renowned for his specialised knowledge of the disease. The herbalist does not treat a patient from a distance and if the patient is able to get about, it quite often happens, in Swaziland at any rate, that he goes and stays at the doctor’s village so as to have constant treatment.

Medicines are administered in various ways. Enemas and medicines to vomit are very common. Kubunyisa, to give a Turkish bath, or rather a smoke bath, is a usual part of treatment. A common procedure is for the doctor to put his medicines into a potsherd and roast them while the patient, and very often the rest of his or her family, inhale the smoke through long reeds. The ashes of the medicine are then ground up and mixed with chyme and other portions of an animal (usually a goat). A little blood is often taken from the ear the tip of which is snipped off and bits are cut from the internal organs.

Let me quote to you the treatment given by one doctor for madness, buhlanye. A woman, LaMaseko, was suffering from intutzuane which seemed to me like epilepsy. Her whole body was scarred with burns for she would have fits and had twice fallen into the fire. The doctor, whom we will call X, admitted to me that this disease was incurable ‘since it was her nature’ (ukutala) but she characteristically enough explained to me that she had been bewitched. However, the doctor said that in addition to intutzuane, she had a second disease contracted later in life, buhlanye, or madness. This he said he could cure. The husband of the woman paid him £1 as inkanyiso (fee to make bright the contents of his medicine bag). The doctor when first called gave the patient some medicines which made her sleep, because he found her ‘very wild.’ I have myself seen a sleeping draught used by a doctor but unfortunately I was unable to get a sample. A few days later the doctor ordered a black goat to be brought to him, and the main work took place. It is typical of many treatments and for that reason will be described in fairly great detail.

The scene was the yard of the main hut of the village. The treatment was sanctioned by its publicity, though it was considered ill-bred of anyone to drop in and watch the treatment out of curiosity. The doctor sat with his bags beside him and his assistant—nearly all doctors have assistants—helped him grind
and prepare the medicines in front of the patient and her husband. The doctor unrolled his first bag, and as he did so he started a running commentary on the bark, roots and stones which came tumbling out. He explained how the ingredients were useless in isolation, but had power when there was 'connection.' The stones included asbestos and mica; among the bones was the head of a barbel which he had bought in Durban. Slowly and with great self-confidence he took one medicine after another and scraped the small pieces on to a grinding stone while his assistant ground them into a fine powder. The black goat was then fetched, the throat was slit and the doctor caught the blood in a wooden dish. Pie cut off a little of the right ear, tip of the tongue and tail which he threw with other small pieces of skin, bone and a feather into a broken potsherd.

When it was ready, X sent his patient to fetch a pot of water. He demanded and received implicit obedience from his patient 'for if she refuses, she will spoil the effect of the medicine.' Into the water he stirred various ground medicines which frothed whitely and with this he told her to wash her whole body. While she was doing so in her hut, he continued to make more medicines. He added pieces of the liver and part of the contents of the intestine into the potsherd and put it on the fire. By the time the patient returned, the ingredients were giving off a pungent smoke. All the other wives (except one who belonged to the Zionist Church which will not use medicines) were called in and their husband gave them long hollow reeds. The patient was then told to go and inhale the smoke through the reed. She inhaled with the reed in her mouth and coughed violently. The husband went and did the same, and one by one the other members of the family followed suit. A young baby had some of the smoke puffed in its face till he too coughed. This inhaling was done sporadically by every one present, only the patient continued without a rest. This inhaling was to 'keep the disease away from themselves,' and 'also to help the patient.' The coughing 'stimulates the strength of those present, it goes into your blood like smoking a cigarette.'

When the meat was thoroughly roasted, the doctor gave a piece of the liver to the patient who took two bites, spat it out and then ate and swallowed some. The same performance took place with the intestines. With the burnt medicines that were left in the potsherd the doctor mixed small scrapings of 'all the animals which attack and which have strength,' such as buffalo and rhino. He kept some of the burnt medicines separate and to these he added the chyme of the goat, more medicines and set it all to boil. When boiling, everybody present had to \textit{capa}. This is a special way of taking medicine. The patient begins. She puts in the three fingers of the right hand, licked off the medicines and spat them out. This she did twice, the third time she swallowed some. Everybody did likewise. When they had finished, some of the medicine which had been powdered at the beginning of the day's treatment, was dropped on the back of the hand, first of the patient and then of all the others. This made them sneeze violently. Even the baby was made to sneeze. 'You spat,' the doctor explained, 'to drive away the evil, you sneezed to make the blood open for the medicine to enter freely.' In ordinary life, as well as in medical treatment, spitting is connected in certain situations with the driving off of evil, and sneezing with health and the return of life to the body after a faint.

The meat of the goat was then divided, the doctor receiving the one half and the skin, the husband taking the other half. Before he left he gave to the patient some more medicine to \textit{capa} at sunset. The doctoring which started at 11 a.m. was finished after 4 p.m.

That day and on many another I was impressed by the psychological effect of the treatment, the way in which the doctor obtained the confidence of his patient, and of any onlookers. Everything was done with solemnity and assurance, there was no rush, no bustle. He spoke to be obeyed, and one felt that he had complete control of the disease as well as of the audience. As he displayed his array of roots and bones, he told how efficacious they had proved on similar occasions and the myths of success which he so skilfully spun around his previous achievements acted like a spell on his eager listeners.

Some doctors first demonstrate their ability by a few 'miracles' such as balancing a spear on a stick, or producing stones or worms from some part of the anatomy, but these sleights of hand are not very good credentials and the Natives are far more influenced by watching a doctor at work and seeing the effects of his
ALLEN & HANBURYS
(AFRICA), LTD.
(Incorporated in England)

Phone: 22—1939
ST. PATRICK’S MANSIONS, 32 PLEIN STREET,
(opposite Technical College)

Established in 1715 A.D.

A St. Bart’s Hospital Table

MAKERS OF
SURGICAL INSTRUMENTS
HOSPITAL EQUIPMENT
ARTIFICIAL LIMBS
BELTS, Etc.
medicines or by hearing of actual cases in which he proved his skill.

There is an undoubted knowledge possessed by many of the doctors not only of psychology but also of the medicinal effects of certain plants; for example, the Zulu have found that the male fern (Felix mas) is valuable for tapeworm, 

*umondo* (Chlorocodon whitei Hook) for abdominal disorders and indigestion, and the Swazi *usikhataza* (Hedidea amatywobica) as an enema for children with coryza or cough, and have sometimes treated fever successfully with *incathafane* (Kaempferia). They know many of the plants which are poisonous, and wilful poisoning undoubtedly occurs. *Inhlangunyembe* is one of the most virulent poisons. There are two species of this plant, Acekanthere venenata and Acekanthere spectabilis. They are used together by unscrupulous poisoners, though a mild preparation of the roots is given to dogs to cure them of distemper and also to make them keen of scent and fleet of foot in the hunt. The Xosa, according to my informant, use this for curing snake bite and the Bushmen for poisoning their arrows. Sometimes the name of the plant gives the clue to its function. For example *inhlangunyembe* is derived from *hlungu* (root of the word *buhlungu*, pain) and *nyembe*, malicious; *umvusankunzi* (*vusu*, wake; *inkunzi*, a bull) is used to cure impotence in men. The real effect of Native herbs require expert analysis, but even analysis of the ingredients in isolation is not sufficient, they must be mixed together by the Native doctors in the same proportions in which he himself administers them to patients.

Witchcraft cannot always be cured by medicines alone—it is usually also necessary to discover the witch. The declaration by one doctor that a man is a wizard is never accepted as final without confirmation by other doctors. It is interesting to notice that the nearer a disease is to oneself, the more likely one is to blame witchcraft. If a very old man becomes ill, the mass of the people are satisfied that he is succumbing to the ravages of age, but he himself and occasionally his near relatives, vehemently declare that he is bewitched. Divination is the only type of postmortem practised among the Natives. If a person died and his or her family suspected witchcraft, they would consult a diviner in private. If he confirmed their suspicion, they would go to the Chief of their district and demand an *umhlalilo*, a supernatural post mortem, carried on without the presence of the body. The chief always agreed to the holding of an *umhlalilo* for he too was afraid of harbouring a wizard. He would then notify the King and obtain his permission. He would send a squad of soldiers and would suggest which doctors should be consulted. The doctors on these occasions danced themselves into a frenzy, while sometimes the audience clapped and gave the chorus *siyavuma*, but very often the doctors discovered a victim by the help of the spirits alone. He was then killed or driven away and the soldiers reported the details of the case to the King. The *umhlalilo* has been prohibited by European law, and it is not necessary to discuss the ethics or efficacy of the European approach here. The Natives, however, say that nowadays more people die through witchcraft than died in the olden days by warfare; and with the abolition of the *umhlalilo* the old type of diviner is slowly disappearing, though he still carries on in isolated areas far from the administrative eye.

**Doctor’s Training.**

Let us examine the training which the different types of doctor receive, what qualification they require before they are allowed to practice. We have already mentioned that there are two main types of specialist—the diviner and the herbalist.

Today there are so many types of divination that the average Native cannot but be confused. I will deal mainly with the diviner of the old school. He is often spoken of as *umuntu lobobokile census*, a person whose head has a hole in it, an expression which is also used of any intelligent person.

From the beginning ancestral spirits have possessed certain of their earthly descendants, and gave them wisdom to foretell the future, to discover the cause of disease, misfortune, death, and gave them the power too to show the way to security, health and prosperity. Possession to the Native is not a metaphysical concept of the spirit world, it is a demonstrable proof of the reality of that world. It is an observable type of behaviour, and it is...
accompanied by a specific theory. Possession is a link on the one hand with religion and on the other with disease. The possessed suffers both mental and physical disturbances and if the former conform to valued social norms the disease is ritualised and the possessed is elevated to the rank of doctor diviner, prophet; if on the other hand the physical effects predominate, or the dogma is declared antisocial, there are pitted against the possessed all the available curative and purgative forces, scientific and magico-religious.

Diviners form a separate and significant group in the tribal organisation and to enter the fraternity a definite initiation is essential. The initial symptoms for all classes of diviner seems to be alike. A man or woman who was apparently robust and healthy falls ill. There is often no visible symptom of disease. From Junod's cases among the Thonga, from examples found in Callaway's texts and from my own observations among the Swazi it appears that in many cases the first symptoms of possession result from a distinct mental crisis. One Native had a terrible struggle with a leopard and thereafter showed the warning signs. A woman was terrified by a voice calling in a dream, it was the spirit which later revealed itself as a chief long dead. A girl who was a Christian had relations with a 'heathen' boy, and this seemed to prey on her mind. She was the only Christian in an unconverted village. Later she became possessed.

The possessed becomes delicate, and fastidious about his food, he eats little and complains of pains in various parts of his body, his arms, his shoulders, his head. His brain is constantly active so that at night he cannot sleep. He is tormented by vivid dreams—of snakes encircling his body while he is bathing in a pool, of crossing a river in flood, of being killed in battle. He becomes 'a house of dreams.' Great significance is attached to dreams which according to the interpretation given by a diviner are either good or bad omens. Ancestral spirits sometimes make their requests known through dreams, the evil intentions of wizards are sometimes revealed by a voice in a dream.

By this time the patient is very ill, for it is not immediately evident that he is about to be a diviner, and many other treatments may be resorted to before there at length comes the doctor who diagnoses the disease correctly.

If the possessing spirit is recognised as of benefit to the community, the period of training and developing takes one or more years of trial and hardship. During this time the possessed speaks hardly at all and very rarely leaves the hut in the daytime. He is usually in the charge of an already fully fledged diviner who trains him in the mysteries of the profession. Sometimes he roams about the country-side gathering roots and herbs which were pointed out to him in dreams and thus he accumulates a stock of medicines. Gradually the spirit within him makes itself felt. The patient yawns, moves about nervously, sneezes and takes snuff continually. In addition to this and/or other physical manifestations such as slight convulsions, the shedding of tears, he usually composes a song. He will suddenly rush out in the middle of the night and dance about singing his own composition. All the village is disturbed during his training and whenever he sings, all the men and women should run out and join in the refrain, beating their hands in unison. During one of these attacks the possessed speaks the name of the spirit or spirits who are possessing him.

It may be that in a dream he will be directed to the inyanga who will give him his final training. On his return they say he has developed anew (utwasile, ukutzvasa, the word used for the first appearance of the new moon). At last he announces his powers by performing some impressive and, to the uninitiated, appropriately supernatural feat. One initiate rushed to a pool and came out with snakes twined round his body. If the people are doubtful whether he is a real diviner or merely a madman, luhlanye, they will often put him to a test. They will hide various articles during one of his absences and on his return he must find them. Having succeeded his powers are recognised.

Thus we see that the professional diviner does not obtain his position through birth but by a long and arduous individual initiation. However, certain families are famous for their diviners, and the reason for this must be counted for by the European medical reason.
to be quite normal—they often speak in a low muttering voice, sometimes they have peculiar eyes, and are usually prone to go off into day dreams.

In addition to the old fashioned diviner there is an increasing number of people who are becoming possessed by spirits other than those of their ancestors, or even of the spirits of the dead of their own people. Possession by foreign spirits is on the increase throughout the S.E. Bantu. Certain types of possession are associated with witchcraft, e.g., mafefenyane, lihabea, others with the avenging spirits of enemies killed in battle, e.g., Emadawwe, Bagadze; others with some of the white man's religions, e.g. Zionism.

Cases of possession are dealt with with little success by the European doctors, and there is the danger that they adopt the view 'Oh, it is a typical native disease, let us leave it to their witch-doctor to cure!' They do not regard these diseases as symptoms of the times, (symptoms as significant as syphilis, Christian Science, or 'Zionism') which cannot be lightly dismissed by the psychologist, sociologist or pathologist.

The scope of, my paper does not allow me to devote more time to spirit possession, and we will have to turn to the more mundane training of the herbalist. In Native opinion his standing is lower than that of the diviner since his training is easier and his intimacy with the powerful world of the dead is slighter. The Swazi consider that pain and suffering awaken knowledge and that the dead have the knowledge of two worlds. At the present time the herbalist is on the increase, while the traditional diviner is fast disappearing.

Herbalists are usually particularly intelligent men, eager both for fame and wealth. They are usually 'the men of the world' in their community, for they travel widely, if really interested in their profession, in their attempt to increase their pharmacopoeia.

Knowledge of a few remedies is hereditary in certain families, and this is a proudly guarded prerogative. The son or other relative who is chosen to learn the secrets must found acceptable to the ancestors whose knowledge he is going to inherit, and a libation is often made to obtain their favourable notice. The boy—only in exceptional cases a girl trained to be a herbalist—usually starts at a very early age to act as the lihlaka, disciple, of the teacher, and accompanies him on all his journeys learning the different ingredients, and gradually in this way he too becomes known in the country. When he is at last allowed to start on his own, he calls on the spirits of his fathers and throughout his career he turns to them for support.

A boy not of a medical family can approach a recognised doctor and on payment of a fee he is usually accepted as an apprentice, though the doctor usually also says he must obtain the approval of his ancestors first to find if the boy is acceptable to them. The boy relies both on his own and on his master's ancestral spirits (emadlozi). Even at the present time most men consider it necessary to have some supernatural support. Converts to Christianity often pray to Unkulunkulu, God, for, as one informant explained, 'No man can rely entirely on his medicines. Can he create a person with his medicines alone? No. Then how can he cure him with medicines alone?'

Today not many herbalists are prepared to undergo lengthy training. These upstarts (amahumusho, the word used for court interpreters who 'give nothing from themselves but just repeat, often falsely, the words of others) are opportunists who realise that Western civilisation has increased the demand for medicines and for magical methods of coping with new situations. The Natives condemn them as deceivers, who shark (kugweta) the money (gwegwa is the word applied to recruiters) and do not mind if the patient dies. These are the people who are most willing to sell actual poisons.

No doctor works for nothing, but standing and reputation as well as money are incentive to skill. The best doctors are called in by the King and his mother, and a common boast to impress a potential patient is 'The King always consults me, you ask him.'

The doctor who treats a patient usually demands before he starts work a fee, inkanyiso yetiilahla (to make bright the medicines) or imvula' sikwama (opener of the bag). A real money grabber asks for these two separately. This opening fee is anything from 5/- to £5. Originally Natives say there was no large fee as inkanyiso, it consisted of just a few beads. During the treatment which is often very lengthy, the doctor is fed frequently with beer and meat, and the skin and half of the meat of a special animal used in the treatment is his property. A doctor only gets his full fee if the patient is cured. He is then
In optical scientific instruments one name towers above all others—the name of Carl Zeiss. From the simple instrument required by the student to the elaborate machines for the research laboratory, Zeiss leads in precision and accuracy. Our showrooms feature the most comprehensive display of instruments in Africa. Come and see them.

Microscopes, Micro Projection Apparatus, Micro Photographic Apparatus, Episcopes, Epidiascopes, Microtomes, Refractometers, Interferometers, Spectroscopes, Spectographs, Operating Theatre Lamp "Pantophos"

S.A. Zeiss Agents:
B. OWEN JONES, LTD.
Commercial Exchange Buildings,
83 Main Street ~ Johannesburg
Phone 33-3843 P.O. Box 2933
entitled to a beast, formerly it was often a hoe. Once he has received this he cannot charge for any further medical services which he may be called on to render his patient, and he often treats his patient’s whole family free of charge for some time. It is worth noting that payment was not as high formerly as it is at present and that today a poor man is often very hard put to find his doctor’s fees.

Though one can say there is no school of medicine among these people, there are a great number of ingredients known by most doctors and used for the same purpose by all. One of the most illuminating experiments is to get together 3 or 4 doctors from different areas and ask them to open their bags and compare their medicines.

There are various classes of medicine distinguished by a generic name, often according to the use for which it is intended and not dependent on the genus to which it may scientifically belong. Eniakando, for example, is mainly shining stones the virtue of which is to obtain ascendancy over other people and to circumvent their attempt at supremacy. Lipambo is a general mixture of plants used to pambaka, turn away evil, and so on. Doctors may have different names for the same plants and still use them for the same purpose, and again certain doctors have ‘technical names’ which they use among themselves, while they call the plants by their ‘popular’ names in discussions with the layman.

Medicines, as you have already gathered, are used for misfortunes reaching beyond the range of disease according to our definition of the word. The Native medical specialist may be called in to cure persistent dreams, to prescribe love potions, to defend a hut from lightning or to keep away witches.

But the fact which one must constantly remember is that the majority of doctors and of patients have faith in powers of their medical knowledge. Two doctors who were called by me last year to describe their medicines asked on what sick person they were to demonstrate their work, since ‘to talk was not to see and I might disbelieve words.’

Women in the Profession—

Very few women are herbalists but many are diviners and the reasons for this are to be found in the social structure of Bantu society. The average woman has been trained from childhood to an ideal of domesticity, and the average woman is too busy with her house-keeping and her children to spend time learning medicines. Moreover the independent wandering throughout the country which is necessary both in order to administer treatment and to learn additional medicines is more in keeping with the life of a man than of a woman. A man relies on a woman to do his cooking, but a woman fares hardly if she is away all day. The number of doctors who have learnt medicines without the assistance of their ancestors is increasing, as we saw, but these doctors are looked upon with suspicion and public opinion is even harsher against women than against men who want to take up the medical profession without a supernatural sanction. Very occasionally a man who has no sons will teach his work to a daughter, but then her position will be sanctioned by the family tradition. Women become diviners however against the normal will, they believe they are called by forces greater than themselves, by spirits more potent than the men of the everyday world. Women diviners enjoy a good deal of prestige through this supernatural power and are both eager and loth to accept the responsibilities which divination entails. There seems to be some evidence to show that women are more susceptible than men to certain influences, such as Christianity and possession, but the explanation must be sought in the social conditioning rather than in any innate mental differences between the sexes.

The European Influence—

Let me close this paper with a few notes on the influence of European medicines and medicine men on Native society. Gradually European patent medicines are creeping into the stock in trade of the tinyanga. Permanganate, epsom salts and calomel are favourite common remedies, arsenic has been used to poison an enemy, Duikwel drek (made by Lennons L.t.d.) is in almost every doctor’s bag. The Natives realise that introduced diseases, such as phthisis and venereal disease are more efficaciously dealt with by European than Native doctors. There are, however, certain tinyanga who claim to have remedies for syphilis and their alleged cures are worth obtaining and analysing.

Gradually the people are becoming more reconciled to operations. Hospitals are gaining the confidence of many, especially women and the number of in-patients annually increases. There is, however, a lack of European medical
work among the Natives. In the whole of Swaziland, for example, with a Bantu population of over 122,000, a European population of about 3,000 and a coloured population of some 1,000 there are only 7 doctors, 4 of them mission doctors. It is therefore little wonder that the old beliefs are dying hard, and that the intention of the Administration to stop the traditional diviners from practising before it has provided any adequate substitute, is suspect and condemned by the mass of the Bantu.

---

THE HISTORY OF BILHARZIA IN SOUTH AFRICA.

J. B. BAYNASH.

It is an astounding fact that in Egypt, ten million out of the fifteen million inhabitants are infected with Bilharzial disease. It is known that Bilharzia existed there since the ancient times. Its presence in the Nile Valley as early as 1,250—1,000 B.C. was definitely proved in 1910 by Sir A. Ruffer's discovery of ova in the kidney of a mummy of the twentieth dynasty, and so also does the ancient Egyptian papyrus of Ebers and Brugsch bear testimony as to its antiquity in that country. Can these facts have any connection with the presence of bilharzial disease in South Africa?

Just recently, Dr. Elsdon-Dew, from a study of the blood grouping among the Bantu, enunciated the view that these people came from the ancient Egyptian stock and it is interesting to recall the words of Allen of Pietermaritzburg, written in 1888. "It is very probable that in ancient Egypt the presence of Bilharzia in the waters of the Nile suggested the adoption of the operation (circumcision), and that the Jews, who have faithfully preserved it, adopted the custom and carried it with them when they left Egypt, and that gradually the cause of its origin became forgotten, and it advanced from being a sanitary precaution to a religious rite. In other parts of Africa, where the fluke exists, circumcision has been or is practised, at present in our own neighbourhood among the Basutos, and at one time, almost within living memory, amongst the Zulus. If these and other people of the Abantu race really did migrate to the south, from the Valley of the Nile or among the hills of N.E. Africa, it is at least likely that it originated as a protection against this fluke. And it will have to be practised again, if the Europeans, or indeed any race is to maintain its normal vigour in the infested countries."

From a consideration of the geographical incidence it is seen, that the part of South Africa infested with Bilharzia corresponds to the area which the early Dutch settlers found inhabited by the Bantu. Although most text books state that bilharzia is present all over the coastal belt of the Cape Province, this is not correct. No case contracted west of Knysna has been recorded in the literature.

It would appear, therefore, that Bilharzial disease is no newcomer to South Africa, and that unlike some other diseases, now rife in the land, the settlement of the white man was in no way connected with its introduction into the country.

It was in 1851 that Theodor Bilharz revealed his discovery of the relationship of a bisexual distome to the symptoms of haematuria and dysentery so prevalent in Egypt at that time. He called the worm the "distome haematobium" and to this the generic name of "Schistosoma" or "Bilharzia" is now applied. He found ova with lateral spines and others with terminal spines.

In 1864, John Harley read a paper to the Medical Chirurgical Society of London on "The Endemic Haematuria of the Cape of Good Hope." He showed that the condition was due to a species of Bilharzia which he called "Bilharzia capensis." In 1871, seven years later, however, he admitted that he believed the special species he had described from South Africa, was the same as that discovered by Bilharz, although, as he said, "In all my own cases, I can say positively that only one form of egg has existed, viz:— that with a terminal spine. I have never seen any egg with even a tendency to the formation of a side spine," whereas both Bilharz and Griesinger had described two forms of eggs, that with the terminal spine and that with the lateral spine.

In 1864, Mr. George Dunsterville, a surgeon in Port Elizabeth, gave a description of the Bilharzia as he found it in that Town. "It affects boys at the age of 3—4 years and is most prevalent between this age and 16. Two out of every three schoolboys are affected by it," so he wrote. In the same year, there