

THE CORNHILL MAGAZINE

APRIL

1926

EDITED BY
LEONARD HUXLEY



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LONDON
JOHN MURRAY
50^A Albemarle St. W.1

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APRIL 1926.

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LONDON
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50A Albemarle St., W1.

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THE TISSUE-CULTURE KING.*

BY JULIAN HUXLEY.

WE had been for three days engaged in crossing a swamp, not a swamp a few acres in extent, but a swamp the size of Yorkshire. We waded doggedly through mud and water over our knees, miles of it, with the great reeds shutting out all view and impeding every step. Heat, mosquitoes, flies, mud, reeds—and so on throughout the day, lucky if we found a camping place that raised itself a foot out of the steamy mess.

At last we were out on firm, dry ground, winding up a gentle slope that was dotted with big trees and patches of brush. Near the top we saw that the brush grew thicker; it loomed up before us like a fortification. This look of a rampart grew as we approached; it had the air of having been deliberately planted by men, and barred our path with a dense tangle of thorny branches. We did not wish to have to hack our way through the spiky barricade with axes if it were not necessary, so turned to the right along the front of the green wall. After three or four hundred yards there was a clearing which led into the bush—a broad clearing, and narrowing down to what seemed a regular passage or trackway. This made us alert and a little suspicious. However, I thought we had better make all the progress we could, and so ordered the caravan to turn into the opening, myself taking second place behind the guide and tracker in the front.

Suddenly the tracker stopped and, with a guttural exclamation, pointed to the ground ahead. I looked, and there was one of the great African toads, hopping with a certain ponderosity across the path. But it was not an ordinary toad: it had a second head growing vertically upwards from its shoulders. So far as I could judge, this second head was smaller and darker than the one occupying a head's rightful place. I had never seen anything like this before, and wanted to secure such a remarkable monstrosity for our collections; but as I moved forward, the creature took a couple of hops and was away into the shelter of the prickly scrub. I saw the glint of one of his supernumerary eyes for a moment, and then he was lost to view.

We pushed on, and I became more and more convinced that the gap we were following was artificial, a man-made path. I spoke

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to the tracker about it, and he agreed. We therefore gave orders to the porters to be very quiet, and went on slowly and with caution. After a little, a sound came to our ears, a droning sound, which we very soon set down as that of a human voice. The party was halted, and I crept forward with the guide. The bushes rapidly began to grow smaller, and suddenly with a twist of the path we came in sight of open sky before us. Peeping through the last screen of brush we looked down into a hollow and were immeasurably startled at what we saw there. The voice proceeded from an enormous negro man, the biggest man I had ever seen outside a circus, a man at least seven foot six or eight foot high. He was squatting, from time to time prostrating the forepart of his body and with outstretched arms touching the ground ; and the droning sound of his voice was due to his being obviously engaged in reciting some prayer or incantation. The object of his devotion was before him on the ground. It was a flat piece of glass held on a little carved ebony stand by a support at either end. It looked to me about the size and shape of a microscope slide, but I could not be sure of any details. By his side was a spear suitable for one of his stature, together with a painted basket with a lid.

My friend the guide looked surprised (and not altogether happy !) at the sight. I motioned to him to keep perfectly still so that we might find out a little more before coming to any decision.

After a minute or so, the giant bowed down in silence for a considerable time, then took up the ebony and glass object and placed it in the basket. Then to my utter amazement he put his hand in and drew out a two-headed toad like the first I had seen, but in a cage of woven grass ; placed it on the ground, and proceeded to more genuflections and ritual murmurings. But this was soon over, the toad too was replaced in the basket, and the giant, squatting on his hams, with his spear held vertically before him as an aid to balance, tranquilly regarded the landscape.

The tranquillity, however, did not last long. Beyond the hollow or dell lay an undulating country, the view over which was much obscured by clumps of bush. A sound in the middle distance attracted attention ; glimpses of colour moved through the scrub ; and a party of three or four dozen men was seen approaching. Most of them were as gigantic as our first acquaintance ; all marched in order, armed with great spears, and wearing coloured loin straps with a sort of sporran, it seemed, in front and scraps of

leopard-fur sewn to them. They were preceded by an intelligent-looking negro of ordinary stature armed with a mace or club. He was accompanied by two figures more extraordinary than the giants. They were under-sized, almost dwarfish, with huge heads, and enormously fat and brawny both in face and body. They wore bright yellow cloaks over their black shoulders, and their sporran-like adornments were much larger than those of the giants. In their hands they carried some sort of staff which looked more ceremonial than military.

At sight of them, our giant rose and stood stiffly by the side of his basket. I could now see that his dress was like that of the rest of the giants, and that the apparent sporran was a veritable cod-piece, made of a large yellow gourd and tasselled with goat-beards—a strange ornament!

The party approached, halted, and the intelligent-looking fellow spoke to our giant, who replied. Some order, apparently, was then given, a giant stepped out from the ranks towards ours, who picked up the basket, handed it stiffly to the new-comer, and fell into place in the little company.

We were clearly witnessing some regular routine of relieving guard, and I was racking my brains to think what the whole thing might signify—guards, giants, dwarfs, toads—when to my dismay I heard a very inadequately stifled exclamation at my shoulder.

It was one of those damned porters, a confounded fellow who always liked to show his independence (and incidentally his lack of sense). Bored with waiting, I suppose, he had self-importantly crept up to see what it was all about, and the sudden sight of the company of giants had been too much for his nerves.

I snatched at his arm and made a signal to lie quiet, but it was too late. The exclamation had been heard; the leader gave a quick command, and the thirty-odd giants had rushed up and out in two groups to surround us.

Violence and resistance was clearly out of the question. I might have killed four or five, but that would have been no good. With my heart in my mouth, but as much nonchalance and dignity as I could muster, I accordingly jumped up and threw out my empty hands, at the same time telling the tracker to keep still and not to shoot. A dozen spears seemed towering over me, but none were launched. The leader ran up the slope, gave a command and smiled at me. Two giants came up and put my hands through

their arms. The tracker and the porter were herded in front at the spear-point.

The other porters now discovered there was something amiss, and began to shout and run away, with half the spearmen after them. We three were gently but firmly marched down and across the hollow with half a dozen giants, the leader and the dwarfs.

I understood nothing of the language, and called to my tracker to try his hand with our captor. It turned out that there was some dialect of which both had a little understanding, but we could get very little out of the conversation save the fact that our lives were in no immediate danger, and that we were being taken to some superior authority.

For two days we were marched through pleasant park-like country, with villages at intervals showing signs of considerable prosperity. Every now and then some new monstrosity in the shape of a dwarf or an incredibly fat woman or a two-headed animal would be visible, until I thought I had stumbled on the original source of supply of all circus freaks.

The country at last began to slope gently down to a pleasant river-valley ; and presently it was clear that we were near some important settlement. It turned out to be a really large town for Africa, its mud walls of strangely impressive architectural form, with their heavy, slabby buttresses. More giants stood at intervals on these walls. Seeing us approach, they shouted, and a crowd poured out of the nearest gate. My God, what a crowd ! I was getting used to giants by this time, but here was a regular Barnum and Bailey show ; more semi-dwarfs ; others like them but more so—one could not tell whether the creatures were precociously mature children or horribly stunted adults ; others portentously fat, with arms like sooty legs of mutton, and rolls and volutes of fat crisping out of their steatopygous posteriors ; still others, real dwarfs of the Tom Thumb type ; others precociously senile and wizened ; others hateful and imbecile in looks. Of course, there were plenty of ordinary negroes too, but enough of the extraordinary to make one feel pretty queer. Soon after we got inside, I suddenly noted something else which made me feel queer—a telephone wire, with perfectly good insulators, running across the village from tree to tree. A telephone—in an undiscovered village in equatorial Africa ! I gave it up.

But another and equal surprise was in store for me. We had turned up a sort of avenue towards some central group of buildings

when I saw a figure pass across from one of these buildings to another—a figure which was unmistakably that of a white man. In the first place, it was wearing white ducks and sun helmet; in the second, it had a pale face. It was a very reassuring sight.

He turned at the sound of our cavalcade and stood looking a moment; then walked towards us.

‘ Halloo! ’ I shouted. ‘ Do you speak English? ’

‘ Yes,’ he answered, ‘ but keep quiet a moment,’ and began talking quickly to our leaders, who treated him with the greatest deference.

He dropped back to me and spoke rapidly: ‘ You are to be taken into the council hall to be examined by the king: but I will see to it that no harm comes to you. This is a forbidden land to strangers, and you must be prepared to have your party held up for a time. You will be sent down to see me in the temple buildings as soon as the formalities are over, and I’ll explain things. They want a bit of explaining,’ he added with a dry, self-satisfied laugh. ‘ By the way, my name is Hascombe, lately research worker at the Middlesex, now chief religious adviser to His Majesty King Mgobe.’ He laughed again and pushed ahead. He was an interesting figure—perhaps fifty or fifty-five years old, spare body, thin face, with a small brown beard specked with grey, and rather sunken, hazel eyes. As for his expression, I could not quite make it out; he looked cynical—tired and bored—but also as if he was interested in life. He said he had been a research worker—well, it was the look one sees on the faces of research workers who have got hold of a good thing. But he could not very well be doing research!

By this time we were at the entrance to the hall—a rather large circular building. Our giants formed up outside the door, with my men behind them, and only I and the leader and a couple of guards passed in.

I shall not trouble my readers with the examination: it was purely formal, and remarkable chiefly for the ritual and solemnity which characterised all the actions of the couple of dozen seated figures—fine-looking men in long robes—who were our examiners. My men were herded off to some compound. I was escorted down to a little hut, furnished with some attempt at European style, where I found Hascombe.

As soon as we were alone I was after him with my questions. ‘ Now you can tell me. Where are we? What is the meaning of all this circus business and this menagerie of monstrosities? ’

and how do you come here ? ' He cut me short. ' It's a long story, so let me save time by telling it my own way.'

I am not going to tell it as he told it : but will try to give a more connected account, the result of many later talks with him, and of my own observations.

Hascombe had been a medical student of great promise ; and after his degree had launched out into research. He had first started on parasitic protozoa, but had given that up in favour of tissue-culture ; from these had gone off to cancer research, and from that to a study of developmental physiology. Some time afterwards, however, one of the big Commissions on sleeping sickness had been organised, and Hascombe, restless and eager for travel, had pulled wires and, on the strength of his early training and general record, got himself appointed as one of the scientific staff. He was much impressed with the view that wild game acted as a reservoir for the *Trypanosoma gambiense*. When he learnt of the extensive migrations of game, he saw here an important possible means of spreading the disease, and asked leave to go up country to investigate the extent of the migrations and the degree in which the disease was spread by this means. When the Commission as a whole had finished its work, he was allowed to go off with two other white men and a company of porters to see what he could discover. One of the two whites was a laboratory technician, a sturdy and rather taciturn N.C.O. of science called Aggers ; the other, called Shardin, a medical missionary who was entrusted with the duty of carrying a whole load of medical stores to a mission station half-way across the continent, and, being a keen fellow, begged and secured leave to accompany the party as far as their roads lay together.

There is no object in telling of their experiences here. Suffice it that they lost their way and fell into the hands of this same tribe. That was fifteen years ago : and both of the other whites were now long dead—Aggers as the result of a wound inflicted when he was caught, after a couple of years, trying to escape ; and the missionary, after brooding ineffectually for a year or two longer, was carried off by fever—' and a good riddance too,' said Hascombe brutally ; ' his wretched conscience prevented him settling down here.'

On their capture, they had been conducted into the same council chamber in which we had been examined, and Hascombe (who had interested himself in a dilettante way in anthropology

as in most other subjects of scientific inquiry) was much impressed by what he described as the exceedingly religious atmosphere. Everything was done with an elaboration of ceremony ; the chief seemed more priest than king, and performed various rites at intervals during the proceedings, and priests were busy at some sort of altar or shrine the whole time.

Among other things, he noticed that one of their rites was connected with blood. First the chief and then the council-lion were in turn requisitioned for a drop of vital fluid pricked from their finger-tips, and the mixture, held in a little vessel, slowly evaporated over a flame.

Some of Hascombe's men spoke a dialect not unlike that of their captors, and one was acting as interpreter. Things did not look too favourable. The country was a 'holy place,' it seemed, and the tribe a 'holy race.' Other Africans who trespassed there, if not killed, were enslaved, but for the most part they let well alone, and did not trespass. White men they had heard of, but never seen till now, and the debate was what to do—to kill, or to let go, or to enslave. To let them go was contrary to all their principles : the holy place would be defiled if the news of it were spread abroad. To enslave them—yes ; but what were they good for ? and the Council seemed to feel an instinctive dislike and fear for these other-coloured creatures.

Hascombe had an idea. He turned to the interpreter. 'Say this : " You revere the Blood. So do we white men ; but we do more—we can render visible the blood's hidden nature and reality, and with permission I will show this great magic." ' Without waiting, however, for the permission, he beckoned to the bearer who carried his precious microscope, took it out of its case, set it up, drew a drop of blood from the tip of his finger with his knife, mounted it on a slide under a coverslip, and inserted it under the objective.

The interpreter had delivered his message, and the big-wigs were obviously interested. They whispered to each other. At length, ' Show us,' commanded the chief.

Hascombe demonstrated his preparation with greater interest than he had ever done to first-year medical students in the old days. He explained that the blood was composed of little people of various sorts, each with their own lives, and that to spy upon them thus gave us new powers over them.

The elders were more or less impressed. At any rate the sight

of these thousands of corpuscles where they could see nothing before made them think, made them realise that the white man had power which might make him a desirable servant.

They would not ask to have their own blood made visible, for fear that the sight would put them into the power of those who saw it. But they had blood drawn from a slave. Hascombe asked too for a bird, and was able to create a certain interest by showing how different were the little people of its blood.

'Tell them,' he said to the interpreter, 'that I have many other powers and magics which I will show them if they will give me time.'

The long and short of it was that he and his party were spared. he said he knew now what you felt like when the magistrate said, 'Remanded for a week.'

He had been attracted by one of the elder statesmen of the tribe—a tall, powerful-looking man of middle-age ; and was agreeably surprised when this man came round next day to see him. Hascombe later nicknamed him the Prince-Bishop, for his combination of the qualities of the statesman and the ecclesiastic : his real name was Bugala. He was as anxious to discover more about Hascombe's mysterious powers and resources as Hascombe was to learn what he could of the people into whose hands he had fallen, and they met almost every evening and talked far into the night.

Hascombe found his first impressions confirmed. The place was a theocracy, in which religion was paramount—the one driving force and regulator of society—and his busy mind kept revolving in the attempt to turn this discovery to his own safety and profit.

Bugala's inquiries were as little prompted as Hascombe's by a purely academic curiosity. Impressed himself by his glimpse through the microscope, and still more by the effect which it had had on the mind of his colleagues, he came to Hascombe anxious to find out whether by utilising the powers of the white man he could not secure his own advancement.

To cut a long story short, they at length struck a bargain. Bugala would see to it that no harm befell Hascombe. But Hascombe must put his resources and powers at the disposal of the Council ; and he, Bugala, would take good care to arrange matters so that he himself benefited. So far as Hascombe could make out, the black ecclesiastic imagined a radical change in the type of the national religion, a sort of reformation based on Hascombe's conjuring tricks ; and that he himself would emerge as the High Priest of this changed system.

Hascombe had a sense of humour, and it was tickled. It seemed pretty clear that they could not escape, at least for the present. That being so, why not take the opportunity of doing a little research work at state expense—an opportunity which, after all, he and his like were always clamouring for at home? His thoughts began to run away with him. He would find out all he could of the rites and superstitions of the tribe. He would, by the aid of his knowledge and his scientific skill, exalt the details of these rites, the expression of those superstitions, the whole physical side of their religiosity, on to a new level which should to them appear truly miraculous. He would thus foster the episcopal black's ambitions, and at the same time would treat himself to an orgy of endowed research on the grand scale.

It would not be worth my troubling to tell all the negotiations the false starts, the misunderstandings. In the end he secured what he wanted—the erection of a building which could be used as a laboratory; the enlistment of an unlimited supply of slaves for the lower, and priests for the higher duties of collecting and a laboratory assistance, and the promise that when the missionary stores had been exhausted they would do their best to secure others from the coast—a promise which was scrupulously kept, so that he never went short for lack of what money could buy.

He next applied himself diligently to a study of their religion and found that it was built round various main *motifs*. Of these perhaps, the central one was the belief in the divinity and tremendous importance of the Priest-King, diagrammatic enough to have rejoiced the heart of Sir James Frazer. The second was a form of ancestor-worship. The third was an animal cult, a cult in particular of the more grotesque species of the African fauna. The fourth was sex, *con variazioni*.

Hascombe reflected on these facts. Tissue culture; experimental embryology; endocrine treatment; artificial parthenogenesis—such were the thoughts that passed through his mind. He laughed and said to himself 'Well, I can but try; and it ought to be amusing.'

That was how it all started. Perhaps the best way of giving some idea of how it had developed will be for me to tell my own impressions when Hascombe took me round his laboratories in the next few days. One whole quarter of the town was devoted entirely to religion; it struck me as excessive, but Hascombe reminded me that Tibet spends one-fifth of its revenues on melted

butter to burn before its shrines. Facing on the main square was the chief temple, built impressively enough of solid mud, with palm-thatched colonnades surrounding it. On either side were rows and rows of low buildings—the apartments where dwelt the servants of the gods and administrators of the sacred rites. Behind, connected by a covered way of mud with the temple, were Hascombe's laboratories, some built of mud, others, under his later guidance, of wood. They were protected by a high wall, guarded night and day by patrols of giants, and were arranged in a series of quadrangles. Within one quadrangle was a pool which served as an aquarium; in another, aviaries and great hen-houses; in yet another, cages with various animals; in the fourth a little botanic garden. Behind were stables and farmyards with dozens of cattle and sheep, and a sort of hospital or experimental ward for human beings.

He took me into the nearest of the buildings. 'This,' he said, 'is known to the people as the Factory (it is difficult to give the exact sense of the word, but it literally means producing-place), the Factory of Kingship or Majesty, and the Well-spring of Ancestral Immortality.' I looked round, and saw platoons of buxom and shining African women, becomingly but unusually dressed in tight-fitting white dresses and white caps, and many of them wearing rubber gloves. Microscopes were much in evidence, as also various receptacles from which steam was emerging. A few feet at the back of the room were screened off by a wooden screen in which were placed a whole series of glass doors; and these doors opened into partitions each prominently labelled with a name in that unknown tongue, and each containing a number of objects apparently like the one I had seen taken out of the basket by the giant before we were captured. Pipes surrounded this chamber, and appeared to be distributing heat from a fire in one corner of the room.

'Factory of majesty!' I exclaimed. 'Well-spring of immortality! What the dickens do you mean, and what the dickens do you do here?'

'If you prefer a more prosaic name,' said Hascombe, 'or I should say a more prosaic-sounding, for the reality is no less romantic, I should call this the Institute of Religious Tissue-Culture.' As he spoke, my mind went back to the days of the war, when I happened to have been sent over to the United States on one of the innumerable technical missions which purported either to learn so much from or to impart so much to the Americans in 1917 and 1918. In New York I had been taken by a biological friend to

see the famous Rockefeller Institute, and at the word tissue-culture I saw again Alexis Carrel, dapper and alert, and troops of white-garbed American girls making cultures and subcultures, sterilising, examining things under microscopes, incubating and the rest of it. The tissue-culture section of the Hascombe Institute was, it is true, not so well equipped, but it had an even larger, if differently coloured, personnel.

The comparison tickled my fancy. However, I was soon pressing for explanations. Hascombe explained rapidly and with a good deal of gesticulation. It must have been a wonderful moment to be able to explain to a new-comer of his own race all his ideas and activities after so long a time.

‘As you probably know, Frazer’s “Golden Bough” introduced us to the idea of a sacred priest-king, and showed how widespread were the practices based on that idea in all primitive societies. The welfare of the tribe is regarded as inextricably bound up with that of the divine or sacred king, and extraordinary precautions are taken to preserve him from harm. In this kingdom, in the old days, the King was hardly allowed to set foot to the ground in case he should lose divinity; his cut hair and the parings of his nails were entrusted to one of the most important officials of state, whose duty it was to bury them, observing the strictest secrecy, in case some enemy should secure them and compass the King’s illness or death by using them in black magic rites, and the performance of this duty was the chief function of the holder of this particular office. If by evil chance any one of base blood trod on the King’s shadow, he paid the penalty with his life. Each year a slave was made mock-king for a week, enjoyed (if he so wished) the royal wives, and was decapitated at the close of his brief glory; and by this means it was supposed that the illnesses and misfortunes that had befallen or might befall the King were vicariously got rid of.

‘I first of all rigged up my apparatus, and with the aid of Aggers succeeded in getting quite good cultures, first of embryo chick tissues and later, by the aid of embryo extract, of various adult mammalian tissues. I then went to Bugala, and told him that I could increase the safety, if not of the King as an individual, at least of the life which was in him, and that I presumed that this would be equally satisfactory from a theological point of view. I pointed out to him that if he chose to introduce this innovation, and to be made guardian of the King’s subsidiary lives, he would be in a much more important position than the chamberlain or the

burier of the sacred nail-parings, and might eventually make the post the most influential in the realm.

‘ Eventually I was allowed (under threats of death if anything untoward occurred) to remove small portions of His Majesty’s subcutaneous connective tissue under a local anæsthetic. In the presence of the assembled nobility (priest-warrior-elders, in the same way that the chief was a priest-king) I put tiny fragments of this into ready-prepared culture medium, and showed it them under the microscope. The cultures were then put away in the incubator at 98°, under guard of half a dozen warriors, commanded by one of the nobles, and the guard relieved every eight hours. At the end of three days I was allowed to take the slides out and demonstrate them again, and to my joy they had all taken and showed abundant growth through the whole drop. I could see that they were impressed, and reeled off a magnificent speech, in which I pointed out that this growth constituted an actual increase in the quantity of the divine principle inherent in royalty ; and what was more, that I could and would proceed to increase it indefinitely. With that I cut each of my cultures into eight, and subcultured all the pieces. They were again put under guard, and again examined after three days. Not all of them had taken this time, and there were some murmurings and angry looks, on the ground that I had killed some of the King ; but I pointed out that the King was still the King, that his little wound had completely healed, and that any successful cultures represented so much extra sacredness and protection to the State. I must say that they were very reasonable, and had good theological acumen, for they at once took this point ; and I then pressed my advantage home.

‘ I pointed out to the Bishop, and he managed to persuade the rest without much difficulty, that one could now afford to disregard some of the older implications of the doctrines of kingship. The most important new idea which I was able to introduce may perhaps be summed up in the word *mass-production*. Our aim was to multiply the King’s tissues indefinitely, to ensure that some of their protecting power should reside everywhere in the country. Thus, by concentrating upon the idea of quantity, we could afford to remove some of the restrictions upon the King’s mode of life. This was of course agreeable to the King ; and it was agreeable to Bugala, who saw himself wielding undreamt-of power. One might have supposed that such an innovation would have met with great resistance simply on account of its being an innovation ; but I must

admit that these people compared very favourably with the average business man in England in their logical faculties and lack of prejudice. Granted certain premisses, then if you could show them that certain deductions which had previously escaped them could properly be deduced from these premisses, they would accept them and all their consequences.

‘Having thus got the principle settled, I had many debates with Bugala as to the best methods for carrying it out, for it was clear that somehow we must enlist the mass of the population in our scheme. Here was the opportunity for scientific advertising. But, unfortunately, the population could not read. However, this was a minor matter. War propaganda worked very well in more or less illiterate countries—why not here?’

Hascombe organised a series of lectures in the capital, at which he demonstrated his regal tissues to the multitude, who were bidden to the place by royal heralds. Bugala’s nephew, a clever young man, was chosen as spokesman, and an impressive platform was always supplied from the ranks of the nobles. The lecturer explained the principles, and pointed out how important it was for the community to become possessed of greater and greater stores of the sacred tissues. Unfortunately, however, the preparation was laborious and expensive, and it behoved them all to lend a hand in the great work. It had accordingly been arranged that to everyone subscribing a cow or buffalo, or its equivalent—three goats, three pigs, or three sheep—a portion of the royal anatomy should be given, handsomely mounted in an ebony holder. Subculturing would be done at certain hours and days, and at these times it would be obligatory to send the cultures for renewal. Details were given for the safe keeping of the slides. If through any negligence the tissue died, no renewal would be made. The subscription entitled the receiver to subculturing rights for a year, but was of course renewable. By this means not only would the totality of the King be much increased, to the benefit of all, but each culture-holder would possess an actual part of His Majesty, which would confer individual benefits upon the household, and they would have the infinite joy and privilege of seeing with their own eyes and aiding by their own efforts the multiplication of divinity.

Then there was another way in which they could serve their country, and that was by dedicating a daughter to the service of the State. These young women would be housed and fed by the

State, and taught the technique of the sacred culture. This would demand skill and patience, and, as a great excess of applicants over vacancies was anticipated, appointment would be by a rigid selection. Candidates would be selected according to general fitness and quickness, but would of course, in addition, be required to attain distinction in an examination on the principles of their national religion. They would be appointed for a probationary period of six months, at any time during which they could be sent home if they proved unsuitable. After this they would receive a permanent status, with the title of Sisters of the Sacred Tissue. From this, with age, experience, and merit, they could expect promotion to the rank of mothers, grandmothers, great-grandmothers, and grand ancestresses of the same. The merit and benefit they would receive from their close contact with the source of all benefits would overflow on to their families. Finally, if the plan worked in the capital, they would see whether it could not be applied to the out-lying districts.

The scheme worked like wildfire. Organised appeal, itself a novelty, reinforced the novelty of the idea: a novelty, to an intelligent people living under the dead hand of a rigid system of rules, is itself charming.

Pigs, goats, cattle, buffaloes, and negro maidens poured in. Next year the scheme was extended to the whole country, a peripatetic laboratory making the rounds weekly. Towards the close of the year, Hascombe had another bright idea. As is well known to ethnologists, many African tribes regard the liver as the master-organ of the body. If they could but obtain some strains of royal hepatic tissue, the potency of the appeal would be many times increased.

Bugala was called in and had a long talk with Hascombe, after which he went off to the King. He pointed out to him the advantages to the State which would accrue if the plan were carried out, and assured him that Hascombe guaranteed a painless and safe operation. The King at first hesitated, and then came down heavily in opposition to the project. However, Bugala was in a strong position. He pointed out that they now, under the care of his Department of State, possessed over twenty thousand fragments of the royal connective tissue, and that the collective effect of these could legitimately be regarded as equal to the effect of the King as an individual; further, that if he chose to say the word, an intensive multiplication of the fragments would be begun which would soon

put His Majesty altogether in the shade, and might indeed warrant them in deposing him as an unwarranted complexity and unnecessary expense. Furthermore, if His Majesty thought fit to press his opposition, Bugala would feel obliged to announce to the people that this further scheme of the white man for the safeguarding and prosperity of the nation was being checked by the King's pusillanimous shrinking from the slight sacrifice involved in undergoing the operation. When once the people grasped the meaning of this (and they were intelligent enough to do so pretty quickly), well—and Bugala shrugged his shoulders with a lapse into ominous silence. The King began to bluster and to threaten Bugala with arrest. But the statesman was prepared for this. He told the King that he had given orders that if he did not return safe within a certain time, the cultures and the instruments for making them were to be smashed ; and with them would be smashed the prosperity of the country.

In the end the King gave in. It was announced to the people that he was to sacrifice himself for the common good. Hascombe successfully performed a small laparotomy ; and a vigorous strain of hepatic cells was brought into culture.

The subscription price for this was fixed at double that for connective tissue. In spite of this increase the applications poured in. It was like the first Liberty Loan in the United States. Failure to subscribe, at least for connective tissue, was naturally regarded as unpatriotic and miserly, and public opinion brought its strongest pressure to bear on the defaulters.

By the close of the third year there was hardly a family in the country which did not possess at least one sacred culture. To be without one would have felt like being without one's trousers—or at least without one's hat—in Bond Street.

Thus did Bugala bring off what was in reality a *coup d'état*—at the same time effecting the reformation of the national religion, enthroning himself as the most important personage in the country, and entrenching applied science in general, and Hascombe in particular, firmly in the organisation of the State.

This, however, was not all. Encouraged by his success with the King, Hascombe very soon set out to capture the Ancestry-Worship branch of the religion as well.

A public proclamation was made pointing out how much more satisfactory it would be if worship could be made not merely to the charred bones of one's forbears, but to bits of them still actually

living and growing. Anyone who was desirous of profiting by the enterprise of Bugala's Department of State should therefore bring their older relatives to the laboratory at certain specified hours, and fragments would be painlessly extracted for culture.

This, too, proved very attractive to the average citizen. Occasionally, it is true, grandfathers or aged mothers when brought to the laboratory were in a state of indignation and protest. However, this did not matter, since, according to the law, once children were twenty-five years of age, they were not only assigned the duty of worshipping their ancestors, alive or dead, but were also given complete control over them, in order that all rites might be duly and properly performed to the greater safety and benefit of the commonweal.

Further, the ancestors soon found that the operation itself was trifling, and, what was more, that once accomplished, it had the most desirable results. For their descendants preferred to concentrate at once upon the culture which they would continue to worship after the old folks were gone, and so left their parents and grandparents much freer than before from the irksome restrictions which in all ages and climates have beset the officially holy.

Thus, by the hearth of almost every hut in the kingdom, instead of the old-fashioned 'family urns'—the rows of red pottery jars inscribed with symbolic black designs and each containing the partially incinerated bones of one or other of the family forbears—the new generation saw growing up a collection of family slides. Each would be taken out and reverently examined at the hour of prayer. 'Grandpapa is not growing well this week,' you would perhaps hear the young black *dévote* say; if so, the father of the family would pray and perform incantations over the speck of tissue; and if that failed, it would be taken back to the factory for rejuvenation. On the other hand, what rejoicing when a rhythm of activity stirred in the cultures! A spurt on the part of great-grandmother's tissues would bring her wrinkled old smile to mind again; and sometimes it would seem as if one particular generation were all stirred simultaneously by a pulse of growth, as if combining to try a return to the scenes of their life, or at least to bless their devout descendants.

To deal with the possibility of cultures dying out, Hascombe started a central storehouse, where duplicates of every strain were kept, and it was this repository of the national tissues which had attracted my attention at the back of the laboratory. No such

collection had ever existed before, he assured me. Not a necropolis, but a histopolis, if I may coin a word : not a cemetery, but a place of eternal growth. On the opportunities for scientific investigation which were thus provided he waxed eloquent—the relation between growth-potential of tissue and temperament of individual, of tissue-rhythms and erstwhile mood-recurrences ; but for all this I have no space.

That was enough for one day. Next day he took me into the second building. This was devoted to the manufacture of endocrine products—an African Armour's or Burroughs Wellcome's—and was called by the people the 'Factory of Ministers to the Shrines.'

'Here,' he said, 'you will not find much new. You know the work that was going on at home years ago—or at least I suppose you only know its results, in the shape of pluriglandular preparations, patent medicines with "glands" as their basis, and a popular literature that threatened to outdo the Freudians, and explain the actions of human beings entirely on the basis of glandular make-up, without reference to the mind at all.

'I had only to apply my knowledge in a comparatively simple manner and take advantage of the unrivalled human material which I had at my disposal. The first thing I did was to show Bugala how, with the aid of repeated injections of pre-pituitary, I could make an ordinary baby grow up into a giant. This pleased him, and he introduced the idea of a sacred bodyguard, like the Janissaries, only all of really gigantic stature, quite overshadowing Frederick's Grenadiers. That was, of course, a mere matter of routine, and you have seen the result.

'I did, however, extend knowledge in several directions—at least I extended the knowledge that existed when I was captured, for'—and he sighed—'I dare say the confounded biologists at home have, by now, done all I have and more. I took advantage of the fact that their religion holds in reverence all really monstrous and imbecile forms of human beings. That is, of course, a common phenomenon in many countries, where half-wits are supposed to be in some way inspired, and dwarfs the object of superstitious awe. I went to work and was able to create various new types at will. By employing a particular extract of adrenal cortex on male babies, I was able to produce children who would have been a match for the Infant Hercules, and, indeed, looked rather like a cross between what one imagines him to have been like and a brewer's

drayman. By injecting the same extract into adolescent girls I was able to provide them with the most copious moustaches, after which they found ready employment as prophetesses.

‘Turning my attention to the pineal, I was able to make children sexually mature at seven or eight—like the one you perhaps remember described in the “Knight of the Burning Pestle”—he presumably had a pineal tumour.

‘These were voted a great novelty, and there was quite a craze for them at one time ; but I won’t go into details.

‘Tampering with the post-pituitary gave me the most remarkable cases of obesity. This Bugala took advantage of, together with the passion of the men for fatness as a mark of beauty in their women, and I believe made quite a fortune by selling as concubines female slaves whom he had got me to treat in this way. Finally, by another pituitary treatment, I at last mastered the secret of true dwarfism, in which perfect proportions are retained.

‘Of these productions, the dwarfs are retained as acolytes in the temple ; a band of the obese young ladies form a sort of Society of Vestal Virgins, with various special religious duties, which, as the embodiment of the national ideal of beauty, they are supposed to discharge with peculiarly propitious effect ; and the giants, of course, as you have seen, form our Regular Army.

‘This laboratory is not very exciting—it mainly houses workers who are engaged in manufacturing the extracts from the glands of the animals slaughtered in the State slaughterhouse, where, by law, all killing must now be done.

‘The Obese Virgins have set me a problem which I confess I have not yet solved. Like all races who set great store by sexual enjoyment, these people have a correspondingly exaggerated reverence for virginity. It therefore occurred to me that if I could apply Jacques Loeb’s great discovery of artificial parthenogenesis to man, or, to be precise, to these young ladies, I should be able to grow a race of vestals, self-reproducing yet ever virgin, to whom in concentrated and sublimated form should attach that reverence of which I have just spoken. You see, I must always remember that it is no good proposing to Bugala any line of work if I cannot show in what way it will benefit the national religion ; so I always have to discover problems which will satisfy both of the rather different interests of Bugala and myself. I suppose State-aided research would have much the same difficulty in a really democratic State. It would not be enough that the researcher was interested ;

he would have to show immediate applications. Well this, as I say, has so far beaten me. I have taken the matter a step further than Loeb and Bataillon with their fatherless frogs, and have induced parthenogenetic development by various chemical agencies in the eggs of reptiles and birds ; but so far I have failed with mammals. However, I've not given up yet !'

Then we passed to the next laboratory, which was full of tanks, jars, bottles, cages, and boxes, and in them the most incredible assortment of animal monstrosities that could be dreamt of. ' This laboratory is the most amusing,' said Hascombe. ' Its official title is the " Home of the Living Fetishes." Here again I have simply taken a prevalent trait of the populace, and used it as a peg on which to hang research. I told you that they always had a fancy for the grotesque in animals, and used the most bizarre forms extensively in religious sculptures, and also, in the shape of little clay models and ivory statuettes, for fetishes.

' I thought I would see whether art could not improve upon nature, and set myself to recall my experimental embryology. You probably remember Driesch's very scholarly books on the subject. It often amuses me to think how he would have hated the way I built on his pioneer work—he afterwards went over into vitalism, you know, and became a professor of metaphysics, and would have disliked intensely any such materialistic evidences as this control I wield over the processes of life.

' I use only the simplest methods. I utilise the plasticity of the earliest stages to give me double-headed and cyclopean monsters. That was, of course, done years ago in newts by Spemann, and in fish by Stockard ; and I have merely applied the mass-production methods of Mr. Ford to their results. Then, when the plastic stage, after gastrulation, gives place to the chemical mosaic, I use excision and especially grafting. You've no idea what remarkable objects one can produce in this way. I remember being much impressed when a student with the achievement of some American or other who chopped moth chrysalids up and cemented the pieces together in various ways, a procedure which led to the hatching of all kinds of monsters. I took one of his results, in which he had made a tandem moth with four pairs of wings instead of two, and went on adding piece to piece until I got a sort of flying centipede—centiale or centipinne, I suppose one should call it. That was much admired. But my specialities are three-headed snakes, and frog and toads with an extra heaven-pointing head. The former are :

little difficult to make : you must first cause a *duplicitas anterior* in the earliest stages of development, and then graft the third head later. But there is a great demand for them, and they fetch a good price. The frogs are easier : I simply apply Harrison's methods to tadpoles half-way to hatching, and hardly ever have any difficulties.'

I asked him where the demand came from, and he explained that the old, dead fetishes had quite gone out of favour nowadays, and that only the products of this laboratory were supposed to have any real magical efficiency.

'I am just now engaged on the production of an amphibian fowl,' he continued, 'but you've no idea how unexpected difficulties have been cropping up. They almost all die at hatching. But I shall succeed. I picture them to myself when they are common—they will have such a pretty outline, and I think that one combining cock and hen would be interesting ; I wonder if it would be capable of self-fertilisation ?' And he fell for a few moments into a brown study.

Rousing himself, he showed me into the last of the four big buildings. Unlike the others, this contained no throng of diligent black workers, no evident signs, whether to eyes, ears, or nose, of biological research in progress, but was empty. It was a well-proportioned room draped with black hangings, and lit only from the top. In the centre were rows of ebony benches, and in front of them a glittering golden ball on a stand.

'This is where I am just beginning my work on reinforced telepathy,' he told me. 'Some day you must come and see what it's all about, for it really is interesting.'

You may imagine that I was pretty well flabbergasted by this catalogue of miracles pouring in upon my amateurish brain, which had mistaken the knowledge acquired in an elementary course of comparative anatomy (misnamed zoology in the University calendar) for an acquaintance with modern biology. Every day I managed to get a talk with Hascombe, and gradually the talks became recognised events of our daily routine, looked forward to certainly by me, and, I think, also by him. One day I asked him whether he had given up all hope of escaping and of a return to civilisation. He showed a queer hesitation in replying. Eventually he said, 'To tell you the truth, my dear Jones, I have really hardly thought of it these last few years. It seemed so impossible at first that I deliberately put the idea of it out of my head and turned with more and more energy, and I might almost say fury,

to my work. Now you bring it all up again, and upon my soul, if I am to be truthful, I am not quite sure whether I want to escape or not.'

'Not *want* to!' I exclaimed. 'Surely you can't mean that.'

'I am not so sure,' rejoined Hascombe. 'What I most want to do, I think, is to get ahead with this work of mine. Why, man, you don't realise what a chance I've got!—unlimited resources, unlimited time, unlimited labour and experimental subjects, and it is all growing so fast—I can see every kind of possibility looming ahead'—and he broke off into a silence.

However, although I was interested enough in his past achievements, I did not feel willing to sacrifice my future to his perverted intellectual ambitions, and to sit quiet merely in order to contemplate his further triumphs. I kept returning to the subject, leading up to it in various ways, and soon I could see that I had succeeded in inoculating him. One day I would point out that his success would die with him, and that not only would an unapplauded be an empty triumph, but that he had no *right* (for the devil can quote scripture for his purpose) to deprive the European world of the knowledge and power he had gained. At other times I tactfully pumped him about his past, and led him to talk about his boyhood, and his friends and family. I had hopes of some sentimental attachment, but he had apparently met with a disappointment in love, and was very stony about women. However, memories of English scenery, particularly the Dorset heaths, where he was bred, and the Westmorland lakes and mountains, where he returned again and again to walk and climb as a young man, did assuredly soften him.

One could almost see the conflict going on within. At times the passion for knowledge and for control of nature, hypertrophied by long indulgence, would reign undisputed, but at others he would be affected with a lassitude quite foreign to his ordinary nature, in which, as occasional sayings betrayed, his reviving desires for England and civilised companions and the background of European ideas were tugging against every impulse by which his African existence was ruled, till the two forces neutralised each other.

The experiments which most excited his imagination and his greed for achievement were those which he was conducting into mass telepathy. He had received his medical training at a time when abnormal psychology was still very unfashionable in England, but had luckily been thrown in contact with a young doctor who was a

keen student of hypnotism, and through him he had eventually been introduced to some of the great pioneers, like Bramwell and Wingfield, who were just beginning, in spite of opposition, to make the profession sit up and take notice of the phenomena they were producing. As a result, he had become a passable hypnotist himself, with a fair knowledge of the literature both of medical psychology and of so-called Psychical Research.

In the early days of his captivity he had soon become interested in the sacred dances which took place every month, on nights of full moon, and were regarded as important propitiations of the celestial powers in the same way that animal worship and sacrifice were for the propitiation of the jungle divinities. The dancers all belonged to a special sect, whose young men were assiduously trained in the performances. After a series of exciting and exhausting figures, symbolising various activities of the chase, of war, and of love, the leader, generally a man in the later prime of life, would lead his band to a ceremonial bench, shaped like the crescent moon, with ebony frame, and the seat itself of ivory, on which they sat, converging upon him as he stood in the centre. He then began to make passes at them ; and what impressed Hascombe was this, that so practised were they in their mutual relation that a few seconds sufficed for them to fall back in deep hypnosis against the ebony rail. It recalled, he said, the most startling cases of collective hypnosis recorded by a few of the French scientists. The leader then passed from one horn of the bench to the other, whispering a brief sentence into each ear, which the sleepers received without losing their complete immobility. He then, according to im-memorial rite, approached the Priest-King, and, after having exclaimed aloud, 'Lord of Majesty, command what thou wilt for thy dancers to perform in the service of the Moon Goddess and for propitiation,' the King would thereupon command some action which had previously been kept secret. He was supposed to think of it on the spur of the moment, but as a matter of fact he had actually decided on it beforehand with the aid of his Council, for the Royal Office being hereditary, and the Royal Family inbred and kept from active participation in any but ceremonial affairs, he was (if the truth must be told) not particularly intelligent. The command was often to fetch some object and deposit it at the moon-shrine ; or it might be to fight the enemies of the State ; or to run to the forest and fetch moonwort, the moon's sacred flower ; or (and this was what the company most liked) to be some animal,

or bird, or fish. Whatever the command, the hypnotised men would obey it, for the leader's whispered words had been an order to hear only what the King said, and to carry it out; and the strangest scenes would be witnessed as they walked or ran, completely oblivious of all who were in their path, in search of the gourds or sheep they had been called on to procure, or lunged in a symbolic and rigid way at an invisible enemy, or threw themselves on all fours and roared as lions, or galloped as zebras, or danced as cranes. The command executed, they stood like stocks or stones, unheeding of the outer world, until their leader, running from one to the other, touched each with a finger and shouted 'Wake.' They woke, and limp, but conscious of having been the vessels of the unknown spirit, danced back to their special hut or club-house.

This ready susceptibility to hypnotic suggestion struck Hascombe, and he obtained permission from Bugala to study and test the performers more closely. He soon established that the people were, as a race, extremely prone to dissociation, and could be made to lapse into what would ordinarily be called a state of deep hypnosis with very great ease, but a hypnosis in which the subconscious, though completely cut off from the waking self, comprised portions of the personality not retained in the hypnotic or somnambulistic selves of Europeans. Like most of those who have fluttered round the psychological candle, he had been intrigued with the notion of telepathy; and now, with this ready supply of hypnotic subjects under his hands, thought that he would begin some real investigation of the subject. By means of some simple physical phenomena such as the inducing of a blister by suggestion, and especially by post-hypnotic suggestion, which, curiously enough, was not known to the natives, he impressed Bugala with the possibilities of the work, and was allowed a free hand.

By dint of picking his subjects and paying special regard to physiological condition, he was soon able to demonstrate to his complete satisfaction the existence of telepathy, by making suggestions to one hypnotised man who transferred them without physical intermediation to another at the other end of the laboratory. Later, he had started to use mass-suggestion; by having two or three subjects at equal distances before him, he could transfer suggestions simultaneously to them all. But—and this was the present culmination and chief interest of his work—he found that when he thus simultaneously made a suggestion to several subjects at once the resultant telepathic effect was much stronger

than if he had done it to one at a time. The hypnotised minds could be made to reinforce each other.

One evening, just after the night had been drawn down like a blind across the face of the evening, and the glowing stars had come out in the velvety sky, above the multifarious buzzing and howling and rustling of the nocturnal African world, he began to expatiate upon the problem. 'I'm after the super-consciousness,' he said, 'the super-consciousness which shall have the same relation to our individual minds as our own consciousness has to the mental processes of our individual brain-cells. Have you ever reflected' —he leant forward and tapped my knee—'what an amazing fact is the unity of consciousness? Here are we, descended from cell-colonies, and they from still more remote separate single-celled ancestors: here is the cerebral cortex, the seat of our consciousness, composed of several hundred million separate cells, with the functional gaps between them still persisting as an essential part of the machinery in the form of synapses: and yet our consciousness is in all ordinary states and at all ordinary times a single, unitary thing. Presumably, if there is anything in the theory of evolution, the working of each one of those nerve cells is accompanied by something which one would call consciousness or at least the same kind of thing as consciousness, and yet we are not aware of the fact, so far below the threshold of our mental intensity do these dim pre-mental processes lie; our consciousness is clearly not merely the sum of all the millions of little consciousnesses, but a single something on a new level of complexity.

'I take it,' he went on, 'that what we call consciousness has been attained, in the course of evolution, by providing arrangements whereby thousands of brain cells are set vibrating (or whatever it may be) simultaneously, and in such a way that their activities all reinforce each other instead of being dissipated in random contradiction. The same thing, of course, happens in the electric organs of the famous torpedo fish, in which the feeble and, indeed, negligible electric discharges which accompany all muscular activity have been, in these transformed muscles, made to happen simultaneously and in a mutually reinforcing manner, so that the shock is of real value to the animal and highly unpleasant to its enemies or to you or me.

'Now, I ask myself, if this mutual reinforcing of the sub-mental processes of nerve cells can be made to give rise to the relatively violent and unitary processes of our consciousness, why should not

a number of our individual consciousnesses be capable of being welded together in some simultaneity of action to generate a super-consciousness as unitary as ours, and infinitely richer in powers and intensity? What is more, I have not only got my theoretical views to back me: these reinforcements of telepathic effect when several minds are simultaneously excited seem to admit of no other explanation.'

I must confess that I got almost as interested and excited as Hascombe himself over the possibilities thus opened up, and spent a great deal of my time helping to plan or execute or discuss new experiments. It certainly seemed as if he were right in principle. If we could ensure that all the subjects were in practically the same state, psychological and physiological, extraordinary reinforcing effects were observed. At first, however, the attainment of this similarity of condition was very difficult, and our results were correspondingly erratic. Gradually, however, we discovered that it was possible to tune hypnotic subjects to the same pitch, if I may use the metaphor, and then the fun really began. The tuning up of the orchestra before the start was, especially at first, a long business, for we had to tune each one separately to the pitch of some man we had chosen as standard. Later, however, we were able to introduce many short cuts in our procedure, and began to get results.

First of all we found that, with increasing reinforcement, we could get telepathy from our 'orchestra' effectively conducted to a single hypnotised subject at greater and greater distances, until finally it was possible to transmit commands from the capital to the farthest part of the national boundary, a distance of nearly a hundred miles. It was really a very remarkable spectacle to see a man, who had been completely quiescent ever since he had been hypnotised some hours before, suddenly get up without any visible stimulus and begin carrying out some ridiculous action in response to the telepathic command which we knew was being issued fifty or eighty miles away.

We next found that it was not necessary for the subject to be in hypnosis for the telepathic command to be received. Almost everybody, but especially those of an equable temperament, who did not think too much, and especially did not think too much about themselves, could thus be influenced. Most extraordinary of all, however, were perhaps the effects which we first of all christened 'near effects,' since their transmission to a distance was not found possible until some time later. If, after Hascombe had suggested

some simple command to a large group of hypnotised subjects, he or I went right up to or among them, we would experience the most extraordinary sensation, as of some superhuman personality repeating the command over and over again in a menacing and overwhelming way ; and, whereas with one part of our personalities we would feel that we must carry out the command, with another we felt, if I may say so, as if we were only a part of the command, or rather part of something much bigger than ourselves which was commanding, and towards which we seemed to have no other duty than that of helping it in the task of issuing this command.

This, Hascombe claimed, was the first beginnings of the super-consciousness, and proceeded to test his assumption in various ways.

Bugala, of course, had to be considered. We sent him reports of progress as time went on, and he was present at many of our experiments. What we stressed for his benefit was not the possibility of establishing a personality of a new order, but the advantages to orthodox religion, and to himself in particular, which could be made to spring from telepathic transmission and its reinforcement. Hascombe, with the Tibetan prayer-wheel at the back of his mind, suggested that when the method was perfected they would be able to induce a partial hypnotic condition in the whole population at a given moment, and then transmit a prayer to them. This would ensure that the daily prayer, for instance, was really said by the whole population, and, what is more, simultaneously, which would undoubtedly enhance its efficacy to a considerable degree. It would make it possible in times of calamity or in preparation for battle to keep the whole praying force of the nation at work for long spells together ; furthermore, they would not feel the effort or strain and, indeed, would not in their conscious selves even remember, when the current was switched off, that they had been praying at all, although, of course, the influence would persist in their subconscious, and might through it influence their conscious life.

Bugala, to do him justice, was deeply interested, and brought to a consideration of the problem the acumen of the ambitious politician as well as the gravity of the statesman—although it must be admitted that love of country was not his only motive, but that he was largely driven by that consuming desire for personal power that will always bring a number of otherwise very unsuitable figures to the front rank of political life.

He saw himself, through the aid of this new mental machinery,

planting ideas at will in the brain-cases of his people : and, best of all, those ideas would never have to run the gauntlet of consciousness, with its army of inspectors and detectives and examiners, would never have to march up the front doorsteps and pass the scrutiny of the butler, but would slip in unobserved at the unguarded back entrance ; and, just because their presence was not suspected, would exert all the greater effect on the gentry inhabiting the front rooms of consciousness.

He saw himself willing an order ; and the whole population rousing itself out of trance to execute it. He dreamt dreams before which those of the proprietor of a newspaper syndicate, even those of a director of propaganda in war-time, would be pale and timid.

Naturally, he wished to receive personal instruction in the methods himself ; and, equally naturally, it was difficult to refuse him. We did our best to keep him from becoming too expert, or God knows what tricks he might not have been up to. But we had to allow him to be present at many of our trials, and to become proficient in the elements of inducing hypnosis and in particular the special type which was of service for telepathic communication.

I must say that I often felt a little uneasy about the possibilities that lurked in this new-won knowledge of his. I did not know how expert he might prove, nor what he might choose to do if one day he decided to override Hascombe's wishes and start experimenting on his own. But Hascombe only laughed when I talked to him. 'What can he do,' he said, 'even if he does take the bit between his teeth ? This is a small and limited country, and he has small and limited ideas. He can't plunge the world into war, nor will he want to do anything which will upset our own little home here. If his ideas rise above suggesting that every householder shall bring him a hen or a pig, and shall then forget all about it, call me a nigger.'

However, I confess that I was not happy about the whole matter ; and this, combined with my constant longing to get away from the place, led me to cast about again for means of escape. One day it occurred to me that this very method on which we were so busily employed, and about which I had such gloomy presentiments, might itself be made the key to unlock our prison.

I resolved to get Hascombe thoroughly worked up before I told him of my notion ; for I knew that if I broached it without any preparation, he would pooh-pooh it and it would be difficult for him ever to see it later in a favourable light. So I began harping again

on the extraordinary value of his work to humanity, and pointing out how all his knowledge would die with him if he did not manage to get back to Europe. He saw the force of this, for he knew that while all the rest of what he had done in Africa was nothing but the application of what had already been discovered, now he had hit on something at once new and fundamental.

At length one day, instead of my having to begin, he brought up the subject himself. 'You talk of getting back to England—but how are we to take the first step of escaping from this miserable negro Holy Land? They would never let me go voluntarily; and if we tried to escape they would be after us, and we should never have a chance. The very giants I have myself created would be our chief obstacle.'

This was my opportunity; and I laid my cards on the table. 'My dear Hascombe,' I said, 'you underrate your powers. Haven't you thought of what you can do by means of telepathy and mass-suggestion? What is there to prevent you saying to Bugala that your experiments are nearly crowned with success, but that for certain tests you must have a much greater number of subjects at your disposal? You can then get a battery of a hundred or even two hundred men, and after you have tuned them, the reinforcement will be so great that you will have at your disposal a mental force big enough to affect the whole population without the least difficulty. Then—'

'Then,' said Hascombe—'yes; now I begin to see what you are driving at—Then we can—' But I interrupted him.

'Please let me finish what I was going to say, Hascombe'—and I continued in as even and scientific a tone as I could command. 'Then, of course, one fine day we shall start an experiment, we shall raise the potential of our mind-battery to the highest possible level, and we shall send out through it a general hypnotic influence. The whole country, men, women, and children, will sink into stupor. I should not be surprised if some of the animals became hypnotised—however, that is neither here nor there, though doubtless of great scientific interest. We should then give our experimental squad the suggestion to broadcast "Sleep for a week." The telepathic message would be relayed to each of the thousands of minds waiting receptively for it, and would take root in them. Not only that, but some of the general population would be tuned to the same pitch as our subjects, and from them additional reinforcement would be obtained, so that it might very well be that the intensity of the

reinforced effect might bring still others up or down to the same pitch, in which case the whole nation would become a single super-consciousness, conscious only of the one thought, "sleep," which we had thrown into it to reverberate from mind to mind across the country.'

The reader will perhaps ask how we ourselves expected to escape from the clutches of the super-consciousness we had created. This, of course, I should have explained before, but I am not used to writing, and do not always remember to put things in in their right places. Well, we found in the first place that those who were conscious that the suggestions were being made, and especially those who themselves made the suggestions, were more or less immune to the effects produced, and could make themselves more so by conscious resistance. Even so, the reinforced collective consciousness was sometimes exceedingly strong, and did influence even the operators themselves. However, we discovered that metal was relatively impervious to the telepathic effect, and had prepared for ourselves a sort of tin pulpit, behind which we could stand while conducting experiments. This, combined with caps of metal foil, reduced the effects on ourselves to an infinitesimal amount. We did not inform Bugala of this property of metal, because we wished him to be as much in our power as possible.

Hascombe was silent. At length he spoke, and it was characteristic of him that he still put scientific interest in the foreground, and still kept his sense of humour. 'I like the idea,' he said. 'I like to think of inventing a new process and then demonstrating its efficiency by using it for the most crucial test possible; and I like to think that if I ever do reach England again and do get my scientific recognition, my discovery will have given me the means of escape.'

From that moment we worked assiduously to perfect the details of our method, and our plans for escape. I will not bother the reader with details. Suffice it then that, after about five months' more work, everything seemed propitious. We had provisions packed away, and compasses. I had been allowed to keep my rifle, on promise that I would never discharge it, and this, too, was ready. It was nearly the time of full moon, when we could travel by night as well as by day. We had made friends with some of the men who went on the trading expeditions to the coast, and had got from them all the information we could about the route, without arousing their suspicions.

At last the night arrived. We assembled our men as if for an ordinary practice, and, after hypnosis had been induced, started to tune them. At this moment Bugala came in, unannounced. This was what we had been afraid of ; but there had been no means of preventing it, as he naturally had a perfect right to come in and see what we, who were after all only his slaves, were doing. 'What shall we do ?' I whispered to Hascombe, in English. 'Go right ahead and be damned to it,' was his answer ; 'we can put him to sleep with the rest of them.'

We welcomed him in and gave him a seat as near as possible to the tightly packed ranks of the performers, on the ground that he would be better able to see what was going on.

At length the preparations were finished. Hascombe, his eyes shifting apprehensively to Bugala, went into the pulpit and said, 'Attention to the words which are to be suggested.' There was a slight stiffening of the bodies. 'Sleep !' said Hascombe. '*Sleep is the command : command to all men and all women in this land to sleep unbrokenly for twice seven days and nights.*' Bugala leapt up with an exclamation of surprise ; but the induction had already begun. We with our metal coverings were partially immune. But Bugala was struck by the full force of the mental current. He sank back on to his chair, helpless. We busied ourselves with our preparation. From time to time we looked at Bugala. For a few minutes his extraordinary will partly resisted the suggestion. Although he could not move, his eyes were open and he was watching us with a look of impotent anger. But at length, as the reinforcement grew from the outlying districts, he succumbed, and his eyes closed.

We lost no time in making our escape. Although we were, of course, pretty heavily laden, we managed to make good progress. What is more, we knew that we had to make good progress. The effects of our command could not last for ever. With time the organism's purely physiological desires, hunger before all, would gradually gather strength. When they became stronger than our telepathic induction, the people would wake up. No more than a man can be forced by hypnotic suggestion to do anything of which he sincerely and wholeheartedly disapproves, could this command of ours, however strongly reinforced, permanently dominate over more primitive impulses. We reckoned, however, that the intensity we had induced was so great that the natural man would be hard put to it to wake up ! We felt pretty certain of a four

days' sleep, hoped for six, and would not have been too surprised at the fortnight we had asked for. But we could not risk taking more than three days in getting beyond the frontier.

That was a fantastic journey through the silent country ! The people were sitting about like the attendants at Madame Tussaud's—those mysterious figures of which one was never certain (unless one poked them or asked them a question—and then almost invariably found one's tentative opinion had been wrong !) whether they were of wax or of flesh. Women sat asleep by their milk-pails, the cow by this time far away. Fat-bellied naked children slept at their games. The houses, if one peeped in, were full of sleepers sleeping upright round their food, or fixed in some devotional act, recalling to me Wordsworth's famous 'party in a parlour.' Very odd, too, were bands of sleeping men caught while hunting.

Most interesting was the effect on animals. At first sight, most animals seemed not to have come under the influence at all ; but we were inclined to think that there had been really a little damping-down of their general activity. On the other hand, one species was most definitely affected—the domestic dog. I suppose it was because the dog does have some kind of rapport, however primitive, with man—because he is really domesticated, a human appanage—that, with scarcely a single exception, every dog we saw was dozing or, at least, sitting very quiet, and none roused themselves to bark at our passage.

So we went on, feeling queerer and queerer as we passed even more of the living black statues, scarcely believing in this morphean state into which we had plunged a nation. At length the frontier was reached. There, with an extreme elation, we passed an immobile and gigantic frontier guard. I felt like a schoolboy, and put a three-headed snake, which I found in his holy basket, into my kit for a souvenir. I tied his hands behind his back and put his basket over his head—a childish practical joke of which I afterwards felt rather ashamed, as well as a stupidity which I later realised would help to give our route to possible pursuers.

A few miles farther we sat down, had a good solid meal and a doze, and took stock of our belongings. Our kit was rather heavy, and we decided to jettison (and carefully conceal) some superfluous weight, in the shape of some of our food, some of our specimens, and our metal headgear, or mind-protectors. Apparently the effect of the command was beginning to wear a little thin, for it

now, and at this distance, produced in us only the slightest drowsiness, which it was easy to conquer by conscious effort.

By nightfall on the third day we had left the eastern boundary of the country twenty or thirty miles behind us. After a rest and a meal we were again on our feet, swinging steadily down the gentle slope of a park-like country that spread for miles ahead, when Hascombe suddenly stopped and turned his head to look back.

‘What’s the matter?’ I said. ‘Have you seen a lion?’ His reply was completely unexpected.

‘No. I was just wondering whether really I ought not to go back again.’

‘Go back again!’ I cried. ‘What in the name of God Almighty do you want to do that for, and *now*? ’

‘It suddenly struck me that I ought to,’ he said, ‘about five minutes ago. And really, when one comes to think of it, I don’t suppose I shall ever get such a chance of research again. What’s more, this is a dangerous journey to the coast, and I don’t expect we shall get through alive.’

I was thoroughly upset and put out, and told him so—hadn’t we thrashed all these things out before starting?—and was this the time to begin a discussion when we had taken our decisive step? However, nothing seemed to make any impression on him. He just stood there, repeating that he felt he must go back.

And then suddenly, for a few moments I felt I must go back too. It was like that old friend of our boyhood, the Voice of Conscience—a something that is part of ourselves and yet in antagonism with another part, insistently urging its point of view and making us feel extremely uncomfortable at this partial splitting of our mental organism.

‘Yes, to be sure, we ought to go back,’ I felt and thought with fervour. But then, suddenly checking myself as the thought came under the play of reason, ‘*Why* should we go back?’ All sorts of reasons were proffered, as it were by unseen hands reaching up out of the hidden parts of me. We ought to go on with the great work; I ought not to desert Hascombe, who was set on return; we should probably be killed by lions or snakes or savages if we persisted on our journey; nobody would believe us if we got home . . . *e via correndo*. But, as luck would have it, my rational self happened to be fairly alert at the moment. For one thing, it did not seem to find the reasons altogether sufficient; and then it came to me, or to that part of me, that none of these

reasons had ever seemed to have any cogency before. Why should they now ? and yet they did. 'I really *ought* to get back,' I still kept on feeling, in just the same sort of way in which I had felt I *ought* to go out on an errand for my mother when the errand happened to take me past the house where I might perhaps catch a glimpse of the object of my first calf-love.

And then I realised what had happened. Somebody had woken up—Bugala—yes, it must be Bugala, because he alone would know what was afoot ; and he alone would be able to do what was now being done ; and he had wiped out the suggestion we had given to the super-consciousness, and in its place put in another. I could see him thinking it out, the cunning devil (one must give him credit for brains !), and hear him, after making his passes, whisper in prescribed form his new suggestion : 'Will to return !'

'Return !—Return !' would have vibrated in the two hundred minds before him ; from them the message flashed to all the entranced population, until the whole super-consciousness was now but one will to return instead of as before one desire of sleep. It spread its waves through the ether, but would have no influence on tribes around, who were not used to thinking the same thoughts, and were not tuned to the same resonance. But we, Hascombe and I, and Hascombe much more than I, were part of the community ; and we were receiving in our subconscious selves this broadcast message.

'Return !' For most of the inhabitants the command would have no meaning, for they would have been caught at home by the hypnotic trance. Doubtless some young men out on the hills, or truant children, or girls run off in secret to meet their lovers, were even now returning, stiffly and in somnambulistic trance, to their homes. But it was only for them that the command of the super-consciousness had any meaning—and for us.

It had come into our subconscious, and thence insidiously affected our conscious emotions and will, and, they once affected, in stepped rationalisation, that process so easy to detect and laugh at in others, so difficult to detect and discount in ourselves, and provided us with dozens of good reasons for doing what we wanted, a hundred excuses constructed by servile logic to serve the needs of emotion, the master.

I am putting it in a long and tedious way, discursively ; at the moment I simply *saw* what had happened and all its implications in a flash. I told Hascombe—I showed him it *must* be so—that nothing else would account for the sudden change ; I begged and implored

him to use his reason as master and not as servant, to stick to his decision and to come on. How I regretted that, in our desire to discard all useless weight, we had not taken our metal telepathy-proof head-coverings !

But Hascombe would not, or could not, see my point. I suppose he was much more imbued with all the feelings and spirit of the country, and so more susceptible. Then, of course, he had never been so set on escape as I was ; and perhaps his constant practice in inducing hypnosis and mass-telepathy in his men had automatically tuned him to their pitch. However that may have been, he was immovable. He must go back ; he knew it ; he saw it clearly ; it was his sacred duty ; and much other similar rubbish.

All this time the suggestion was attacking me too, and I had to do my best to resist it. It was at times very strong ; and finally I felt that if I did not put more distance between me and that unisonic battery of will, I should succumb as well as he.

‘Hascombe,’ I said, ‘I am going on. For God’s sake, come along with me. This is the last chance.’ And I took my rifle, shouldered my pack, and set off. He was shaken, I saw, and came a few steps after me. But finally he turned, and, after sitting irresolute a few moments, made off, in spite of my frequent pauses and shouts to him to follow, in the direction we had come.

I can assure you that it was with a gloomy soul that I continued my solitary way. I shall not bore you with my adventures, which would seem tame after the rest of my story, although at the time they loomed big enough and unpleasant enough to justify most of my forebodings. Suffice it to say that at last I got to a white outpost, weak with fatigue and poor food and fever, and after at one time being driven nearly crazy with fear at an encounter with driver ants.

I kept very quiet about my adventures, only giving out that our expedition had lost its way and that most of my men had run away or been killed by the local tribes. After a bad bout of blackwater, and much kindness at the hands of my hosts, I reached Mombasa, and so took ship to England. But I was a broken man. The fever had entered into my blood and liver and bones, and a profound gloom had invaded my mind at the thought of Hascombe and the way he had been caught in his own net.

I never knew what happened to him. Bugala was not simply the primitive barbarian who would have killed him in rage at his trick and his attempted escape. If it had suited his book, he would have

kept him to achieve new wonders for the glory of the black god and his dummy priest-king, and for the advancement and increase of power of their servant Bugala. But quite likely Hascombe was killed. As I say, I never have found out, and I do not suppose that I am likely to find out now.

You may ask why I did not talk about the place and try to organise a rescue expedition; or why I did not bring Hascombe's discoveries, or, at least, the discovery of mass-telepathy and reinforcement of mental intensity, before some scientific body like the Royal Society or the Metapsychical Institute. I can only repeat that I was a broken man. I did not expect to be believed; I was not at all sure that I could repeat our results, even on the same human material, much less with men of another race and another type of mental structure; and I dreaded ridicule.

However, I am an oldish man now, and, what is more, old for my years. The war which was to end war and the peace which seems designed to end peace have both left profound impressions on my mind, and taught it a number of disagreeable facts, and it is largely because my African experiences seem to me to have a bearing on one of these facts that I have at last brought myself to write and publish my story, in the hopes that the startling clothes which the fact wears in its African setting may arrest people's attention and induce them to pay more attention to it as it slips past their nose almost unnoticed in the drab garments of familiarity.

You must forgive, gentle reader—I believe that it is the correct way to address you—my sermonical turn. I cannot help it: I am an old man, and old men like sermonising, and if I don't get my story off my chest in my own way I shall never get it off at all. The fact I mean, is, that it is the merest cant and twaddle to go on repeating as most of our press and people continue to do, that increase of scientific knowledge and power is in itself a good thing.

Increase of knowledge is a good thing to those who love knowledge for its own sake. That I grant: but, fortunately or unfortunately, they are not a large number of men. Increase of knowledge is mere caviare to the general. It means nothing whatever to Tom, Dick, or Harry—until it is turned into control and power.

And what I am maintaining (one would have thought an obvious thesis enough!) is that power is only good or bad according to the way in which it is applied.

Here is where I launch Dr. Hascombe on the British public. Hascombe attained to an unsurpassed degree of power in a num-

of the applications of biology. But to what end did all this power serve? Partly to gratify his own will to power—a perfectly good end, of course, provided he did not let it interfere with other people's lives and affairs. But apart from this, merely to perpetuate and enhance the importance of a barbaric and grotesque set of superstitions and beliefs, and to fasten the yoke of a false religion and its ambitious priest more firmly upon the shoulders of an unoffending and hard-working people. I know it is not the fashion nowadays to talk of religions as true or false. But I had an old-fashioned evangelical upbringing, and, in any case, if one cannot speak of true or false in this connection, I think all will admit that one may justly apply the terms truer or falser: and this religion was certainly less true than a good many others.

I don't suppose my moralising will have done any good, and I am aware that others have drawn the same moral before. But I do feel a relief at having written out my story for the great British Public, and I do commend to them the obvious moral, and ask them to think what they propose doing with the power which is gradually being accumulated for them by the labours of those who labour, not because they like power, but because they happen to want to find out the truth about the way things work.