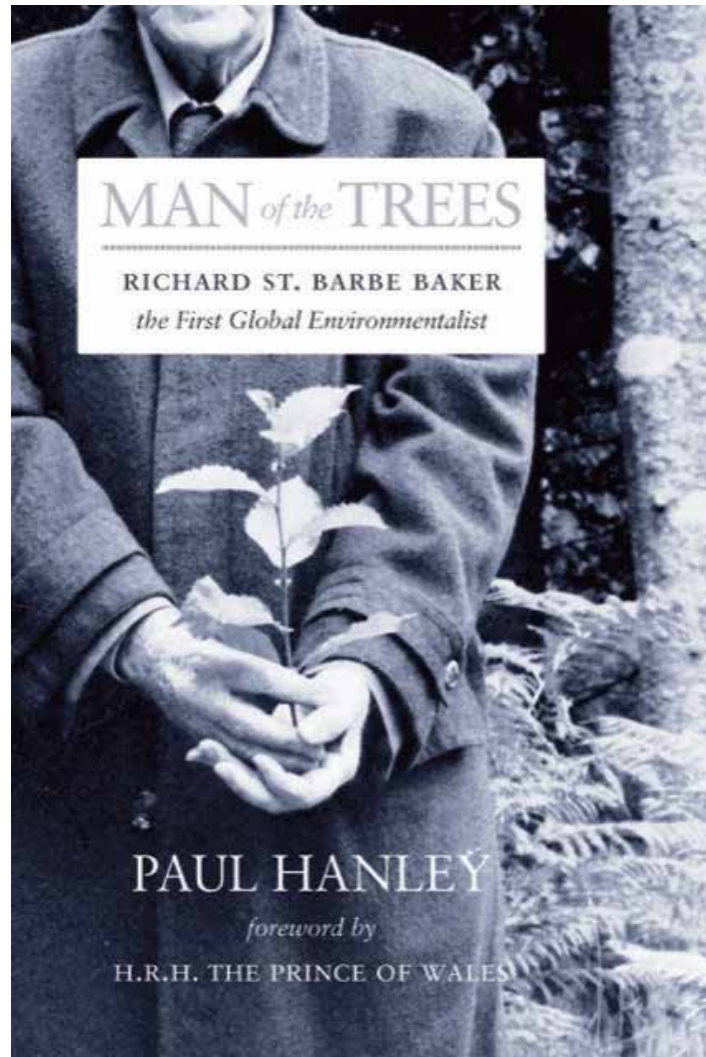


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Chapter 8: The Desert Shall Bloom

The Desert Shall Bloom

Stop on the fringe of the desert and light a cigarette: before you are ready to grind the butt under your shoe, the driving sand has advanced several feet beyond you. The Sahara is the largest desert in the world. It covers an area bigger than the United States of America and it is relentlessly advancing, year-by-year, month-by-month, hour-by-hour. It is a hungry pitiless monster threatening our very existence.

THE MOST INHOSPITABLE ROUTE

The team of four had more than four thousand miles ahead of them. Next to a polar expedition, this was the most bleak and inhospitable route in the world: at least polar travellers were assured of water. They would pass through Algeria and what was then French West Africa (now Niger), past Lake Chad and the northeast border of Nigeria into French Equatorial Africa, through the Belgian Congo into Uganda, Kenya, and on to their ultimate destination, Mount Kilimanjaro in Tanganyika. The trip would take the better part of four months. On actual travel days they would average one hundred miles a day, but there would be multiple layovers.

Before the journey had properly begun, however, the crew was reduced to three when Major Harrison was repatriated from Algiers due to illness. On top of that, their truck broke a half-shaft and temporarily lost a wheel. They had to settle down in Algiers to wait until spares were flown in.

Meanwhile, the team had an opportunity to inspect the forestry efforts of the French in Algeria. Their system of land restoration was adapted to accommodate social concerns and consisted of the use of terracing and, notably, banquettes running at right angles to slope and an intricate series of small canals to channel water during periods of rainfall. Horizontal lines of binding plants, such as thornless cactus, and the use of twenty-yard-wide green belts of tenacious vegetation were part of the system of defense against soil erosion. Fruit and nut trees were included in the green belts to provide food and income. The low parts of the watershed were given to grains sown in contour strips. Thus, people continued to inhabit the land and benefited from the restoration rather quickly given the rapid growth of plants in the North African climate. Here was proof that careful

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husbandry could reclaim the desert when political will is present.

As interesting and valuable as this Algerian layover was, the team was rapidly depleting its small allotment of French currency, needed to purchase gasoline. Through the intercession of Viscount Alexander they were able to replenish their money supply and on November 6 they were able to get underway again.

“We set out with a heavy load; in addition to cans of pineapple juice, soup powders, hard biscuits, fig preserves, lots of fresh citrus fruit, and dry tablets of Horlicks malted milk, we had taken on seven jerry-cans of petrol given to us by the Shell Company who were interested in our expedition. We were to be the first car to attempt the crossing at the opening of the season that year.” The authorities had closed the desert earlier that spring when several parties were lost. At Blida market, the little team of surveyors took on a supply of fruits and vegetables.

Sunglasses were a must when driving across the expanse of blinding sands. Early in the trip, Baker lost his while releasing tire pressure. This was a regular chore since the heat of the sun would cause the tires to explode if overinflated. On top of this, the pressure had to be adjusted according to the density of the sand. Even a pound of pressure could reduce the risk of sinking into the soft surface.

While the party wore hats of various kinds, Baker adopted the traditional Arab headgear after losing his pith helmet. The Arab gear protected against the glare and also the dust as it could be drawn over the nose and mouth.

As they entered the perfect air of the Atlas Mountains, they saw their last of running water for two thousand miles. On their descent, before them for the first time was the great Sahara. “There were badly eroded hills behind us to the north,” wrote Baker, “and in all the great expanse not a tree was to be seen. As we came down we had our first experience of sunset over the Sahara, it was an experience which for me recalled sunsets on the Saskatchewan prairies when life was new and romantic.”

At Djelfa, in Algeria, the railway and road ended. Here the real desert begins with its stony wastes and dried out riverbeds. The surface of the

Sahara, they soon realized, was quite varied. Contrary to the popular image of shifting sand dunes, only 15 percent of the desert is sand.

Once we were in the desert we were to understand why the authorities had not encouraged us. We were to come upon the wrecks of many second-hand cars....The abandoned cars were not the only sign of abandoned hope. For sometimes, by such a wreck, we would find a human shinbone, sticking out of an old boot...

The tracks were corrugated and they found that, given the weight of the vehicle, if they travelled fast the ride was smooth, saving the springs as well as their backs. Travel at night conserved fuel, so they took to driving fast, after dark.

One morning they arrived at Laghouat and entered as it was waking. “There we visited an Arab bake house and indulged in a sort of doughnut made in rings, freshly fried in oil, crisp and delicious.” They took on more petrol. Laghouat is in a sparsely populated area, but had a market and a mosque. It was a junction of the trans-desert trade “and there may be seen the dignified Arabs with their camels loaded with salt and other merchandise.”

The mornings could be cool, with an icy wind blowing. As they continued on their journey they came upon sparse vegetation checked by constant grazing. They passed old thorn trees tortured into fan-tastic shapes by grazing, but still alive. Soon they came to their first oasis and were astonished by its richness.

Never before had we seen such palms or dates, which are described by the Arabs as the “Fruit of the Gods”. They are larger in size than any shipped to England....One is enough for a meal, being 2.5 inches long, light brown in colour, perfectly dry, with no suspicion of stickiness. The flavour is delicious and there is an aromatic scent which heightens the enjoyment. The growing of dates is a skilled art and the propagator is known as a “fundi”, which implies skill. The male flower is taken to the female palm and scattered by hand to fertilize the female blossom. In the desert it is possible to leave the crop of several years on the palm, for they never fall off unless cut as the stems are very persistent and do not rot; neither is there a

*fall of the leaf. In the oasis the water from the natural springs is care- fully dispensed in the most primitive way by placing mud in the channels and stopping or turning on the water as required, thereby regulating the flow with precision. The continual sun, and the constant moisture regulated at will by the owners who turn on the water, produced this surprising luxuriance and richness of growth...It is always intriguing to speculate where such water comes from...here in the arid desert one suddenly encounters quantities of water, produced from ancient wells which lie along a line at regular intervals.*⁴

They rested briefly in the oasis town and ate a meal at a small cafe before setting off again across sand and pebble, checking their bearings against the stars, grateful of the guidance. They could not follow tracks, for the old tracks became treacherous with loose sand so deep that it could halt all progress. At El Golea they reported to the desert commandant and were astounded to find that their story of the peach pits had travelled before them in the French papers. Their host was anxious to try planting peaches in his irrigated gar- den. They traded potatoes, there a rare luxury, for dates and enjoyed a fine meal. Here, hundreds of miles from the nearest forest, they were shown huge fossilized tree stumps. They wondered how long ago these trees had grown, and what was the size of the forest?

MIRAGES AND FOSSILS

Travel was incredibly tense, due to ground conditions—either rough corrugated stone, which had to be traversed at high speed other- wise the vibrations would smash the springs and shake the vehicle to pieces, or dangerously soft sand.

At Forte Mirible, an outpost of the Camel Corps, they learned from the long-time residents that the desert was getting drier and treks for water—even camels must drink once a week—were growing longer. A number of the old wells were now marked dry.

They next came down from highlands to the Plateau of Tademait, where Baker reported “there was absolute flatness, a vast sea of pebbles and sandy grit, with here and there sparse vegetation which had come as the

result of recent rain, green patches in a dark brown interminable waste.”

Next was a region of hills worn by wind into a land of mirages. At first they saw, with wonder, a lagoon with African sailing boats, or *dhow*s, upon it. Then a palm-lined lake. Soon these fantastic scenes became commonplace and they ceased to wonder or attempt explanations.

Along some dry riverbeds they found real trees growing. Assuming that the water had gone underground and the roots were able to reach it, this suggested that underground waters could be utilized in reforestation efforts.

Now they came into lands of drifting sands and dunes. In the distance they saw another mirage, which turned out to be the real town of In Salah, located in central Algeria. As they traveled toward it, across constantly shifting, living sands, they realized it was in fact a calm day and only the slightest of winds was moving the land, endlessly.

In Salah was a large oasis, several thousand acres irrigated from one central well. Here they discovered more fossilized remains of great trees. The town consisted largely of buildings constructed of bricks made from violet and red sand. They settled into a grove of palms to pass the worst heat of midday and found themselves at the heart of this thriving and cosmopolitan town, a curiosity for the youth of the community.

Here was a place of agricultural plenty. All kinds of crops were grown. Hedges reinforced with thorn bushes surrounded the town, which kept out the shifting sands. But the insistent *sirocco*, the dry- ing, dust-laden wind of the Sahara, was inescapable. Baker observed:

As I looked at this extensive and fertile area with its throng of people and their donkeys passing by, I wondered if this was a remnant of a great fertile valley; and I conjured up the possibility of large-scale reclamation by tree planting, sufficient in area to create a micro-climate for more extensive food production, with shelterbelts to reduce the force of the winds and the drying sirocco.

On they went, into the black gorge of Arak. The air became sti- fling, the battle one of staying awake. They slept and woke to the sun shining on

the high cliffs about them, below were reeds and rushes growing out of a water hole. Unexpectedly, they found a well-arranged guesthouse, with water and a petrol pump to boot. But the tanks were empty; gas was to be conserved if they hoped to reach the next town, Tamanrasset.

They plunged on. The land became entirely black, unlike anything Baker had ever seen or imagined. The sun glinting off the wind-polished, blackened stones burned the eyes. His first thought was that it had been burned in an oil-fed fire. When they next stopped to deflate the tires, they turned over the stones to find them a natural colour—the sun had blackened only the tops. “Such is its fierceness,” noted Baker, “that it even causes the stone to change its pigment.”

As they continued, the land resembled a mining area of great pit mounds, all shimmering in the heat. Occasionally, they dropped into dry riverbeds, which became damp as they moved on, indicating some recent rains. The higher they rose into the Ahaggar Mountains, the moister the rivers became. The soft sand made the way difficult and at times they splashed through grass growing in water. Along the banks were old tamarisks, acacia, and other small trees and bushes.

Here too we saw birds and butterflies which we had not seen since before our first night in the desert. And then we saw a gazelle, unfrightened and tame, which gazed at us inquiringly. In the distance were others, grazing between thorn bushes, for in the plateau many rills descending from the higher mountains bring in water. All day long we travelled toward mountains of solid rock, and in the evening we rested at the well of Ekker which is under the shade of a great tamarisk tree.

There, the rest-house keeper explained to them how it was that he had precious sticks to sell for firewood: they came from along the dry riverbeds. Baker explored the land and found recognizable wood chips littering the ground. His innkeeper said that they could be found all around, but only little bits too small to use. “For us they were treasures, rewarding us for all the roughness of the journey; for us they were proof that in the heart of the Sahara, within living memory, the last forest had been cut down.”

A SOLITARY TREE

En route to Tamanrasset, they ascended to a large plateau; at 4,500 feet the numbers of grasses and other plants increased. In the middle of the plateau is the town, its streets lined with drooping tamarisks and Lombardy poplars. The town was irrigated, water being channelled from springs in the nearby mountains. These reached a height of nine thousand feet, where it might snow.

St. Barbe had a letter of introduction to a Mr. Claude Blangueron, director of the local schools. He had made a study of the local vegetation and had catalogued the trees and shrubs that still survived in the Ahaggar. Natural vegetation could develop here, if not for goats and camels grazing unchecked. Blangueron and his wife had a garden where the team was shown the full range of French salad greens with great pride. Gardening was part of the school curriculum. Along with the citrus, there were peaches fruiting. The gardeners were only too happy to try the variety of peaches that had been brought from England.

As the team studied the local vegetation, they were encouraged. This oasis was another place suited for tree nurseries and the development of extensive shelterbelts and microclimates, from which the 'green front' could be extended. They lost no time in organizing their new friends and pupils in the hope that they would establish a small school of 'biosylvics' in the heart of the desert. They had plenty of help in making the first nursery beds.

The next stage of the trip, to Agadez in central Niger, proved the hardest of the whole crossing: 560 miles, broken by one stop, the town of In Guezzam. At first the conditions were reasonably good. However, they could not apply the brakes or the car would dig into the soft sand, perhaps never to move again. When they had to stop they would turn off the engine and glide to a halt somewhere where the sands were hard packed.

We had been warned that over the area we were now about to tackle the quicksands were extensive. So we were up before dawn to make an early start before the intense heat loosened the texture of the sand.

The dry quicksands of the desert must not be confused with what we know of quicksands on a sea beach. The sand grains are infinitesimally small and cover the rocks to a great depth. At night in the cold they become more or less compact near the surface, but under the heat of the sun, as the grains expand, the surface becomes more fluffy and the resistance is reduced. Any object put on them will soon sink out of sight through their fine light grains. Ordinary car tires are useless and rolls of wire netting are carried and laid in front of a car. It is a laborious way of progressing and the person who has to unroll the coil of wire sinks ankle-deep into the sand. In this part of the desert one finds many wrecks of abandoned cars. The terrific heat adds to the discomfort of scraping sand away from sunken wheels, and bleeding fingernails are worn down to the quick by the sharp sand. If on top of all this you have engine trouble or the car is capsized, which is very easy, the traveller is in a desperate plight.

We had been warned! So I breathed a prayer and drove faster, determined to stop for nothing. At first we glided over smooth flat stretches of fairly hard sand always heading south. Though it was impossible to steer, the lightest touch of the wheel was sufficient to keep a general direction; if one attempted to do more, the car skidded dangerously. Fifty miles an hour was the best speed for this part.

Suddenly, without warning, we plunged into the quicksands and I had to grip the wheel and apply skidding tactics. After travelling at full speed on hard sand and then suddenly striking soft, the wheels turn suddenly, with the result that the car may somersault. Tyres will burst too, and that may be the end of man and machine. Luck was on our side and I gripped the wheel in time and made ever-widening curves, watching intently to diagnose the surface ahead so as to avoid calamity.

It was in the middle of this dangerous stretch that we sighted a solitary tree in the distance. It was incredible! Apart from the oasis we had not seen a tree for four hundred miles. I drove straight toward it over the quicksands, while our botanist filmed it through

the windscreen. We dared not stop to identify it. It was a thorn of sorts; when the film was developed we found we had a perfect record. How that tree got there and how it survives will never be known. The chances are one in a million that anyone will come upon it again.

The solitary tree became the symbol of Sahara reclamation.

Their vehicle proved to have remarkable staying power. Despite the heat, high speeds, and tough conditions, the engine never over-heated and during this stretch of the journey, they never once had to top up the radiator. On they went through rocks carved into weird shapes by the winds, over pebbles and more sand until they reached the isolated oasis of In Guezzam where huge tamarisks shaded the precious well. The rest-house keeper dictates his price for water, which sold at about half the price of gasoline. “We found it expedient to make friends with him and we each had a bath in a basin, which cost us nothing though our money vanished when we filled our petrol tank.”

They now crossed into what is now Niger, then French West Africa, into a land called Air Massif. The vegetation became more varied. There were herds of wild camels and an occasional gazelle, as well as various birds. The land had deteriorated rapidly from the day when travel writers spoke of its tropical vegetation, fertile valleys with good water, ostriches, lions, giraffes, and, near Agadez, monkeys and butterflies. The ostriches and giraffes were long gone, but the other animals were still plentiful.

In places they found fields of wild grasses that had grown through their full cycle to seeding in just three weeks after a rare rain. The fields, looking like they were covered in corn, made an extraordinary sight, but for the most part the sand continued.

They saw a great caravan of four hundred camels, the longest they had seen on their journey, and then the massive trunk of a fallen tree, larger than any they had seen for a thousand miles, a hundred miles from the nearest forest.

It was of great significance to find it here, particularly as it was still in a state of perfect preservation. It could not have been there

so very many years, possibly fifty or sixty, but much more likely to be less. The importance of this find lay in the suggestion that the forest had receded from this point within the century. Here was another link in our chain of evidence.

As they travelled on, the terrain became friendlier, the grass taller. The mud of a dried lake seemed suitable for food production. They stopped at Teguiadda, the first village in many miles, but the water was too salty to quench their thirst.

They began to see the tracks of many animals and soon cattle. There were streams of running water, the grass improved and they saw bushes—but still no trees. There were signs that there had been fires.

Here in the centre of the desert lived the Touareg people, the people of the veil, who had resisted the incursions of invaders for centuries, but had in time grown to accept outsiders. Baker found them to be a proud and distant people, somewhat intimidating, and the team made no friendships that passed the stage of a handshake, and that given slowly.

A number of stunted bushes were attempting to be trees. They saw an ostrich. There had been heavy rains and for the first and only time the car became stuck and shovels were required before the four-wheel drive could propel them out of the ruts.

Then they entered a new desert within the greater desert. There was some cultivation, but the fields were being buried by wind-blown sand. This new desert had once been a forest, slowly cleared as the farmers sought virgin land for cultivation. Having cut down the protecting trees they were in the last wedge of forest, completely surrounded by desert, cut off from habitable land and sources of food. They had no idea where to go next.

A GRAVEYARD OF DYING RACES

For hundreds of miles we had been passing through a graveyard of dying races. The solitary fallen tree we had recorded indicated the extent and speed at which the Saharan octopus had spread itself. It was hard to believe that when Livingstone was exploring Nyasaland, this area was

part of the great rainforests of Nigeria. In other areas flourishing farms had disappeared within the memory of man and later during this expedition I was to trudge through sand wastes which had been my forest haunts when I had been in Africa thirty years ago. Here one could actually see the process of degradation, from high forest through the stages of orchard-bush and savannah to drifting sand.

They were standing on land where humus built over millennia had been eliminated in a single season by clearing and burning. They wondered that the French, who had such a knack for land care in their own country, had failed so miserably in this colony. The Indigenous population was defeated. They had abandoned traditional activities, such as making pottery, and now refused to bear children doomed for starvation.

There is no difficulty in diagnosing the cause of the desert. It is certainly man made. It is happening before our eyes. More often than not, climatic influences over which man has no control is given as an explanation.

Yet it seemed people could not, or would not, realize the demarcation between human and climatic causes of desertification.

They were now in a new waterless area. They found a woman grinding millet and were offered goat's milk to drink. They repaid the gift with Horlicks malted milk tablets for the children.

The landscape changed again as they drew near Zinder, close to Nigeria. It became more park-like and the track gave way to a road. "The Sahara was behind us, but desert conditions were all around. So far we had come across no sort of barrier to stop its advance!"

At Zinder, a European-style settlement contrasted with the mud houses and narrow streets typical of Saharan towns. They had enough money for a good meal and a bath. Comfort at last! The local Shell agents treated them to a full tank of gas and provided an introduction to their associates in Kano, Nigeria, their next stop.

On they went, through desert or semi-arid waste to savannah and then thorn scrub. Suddenly, they reached watered country. In two hours, they

had passed from desert to rich farm- and forestland where groundnuts were the main crop, but here they were grown in amongst the trees in small patches.

Baker had seen this before:

At night their leaves would fold up like butterfly's wings at rest. When the hot air from the surrounding forest passes over the cooler patches of the groundnuts, it condenses, and in the morning there is a heavy dew equivalent to as much as a quarter of an inch of rain. As the sun rises the leaves of the groundnut plant opens out horizontally and again cover the ground with their shade, keeping it cool.

During the heavy rains, the topsoil eroded and washed into the surrounding forest, where it was held by the undergrowth and roots. Then, when new land was cleared, the good soil was reclaimed and the forest was allowed to regrow in the former clearing. This way a balance was maintained.

They found that the Nigerians' traditional sylvan agriculture was still in use. Nigeria was holding its own. In fact, when they arrived at the walled city of Kano on November 21, supplies of groundnuts were piling up, resulting in a bottleneck due to insufficient transportation.

Baker was pleased to return to Nigeria, where he had lived for five and a half years. He felt he had done his most effective work in developing a sustainable forestry system there, by advancing the use of secondary species. The lands then under his care were a great rain forest, impenetrable, with trees towering two hundred feet high, and six inches of rainfall a day feeding clear blue rivers whose sandy bottoms could easily be seen at a depth of twenty-five feet. Now, just two hundred miles to the north, was a desert so arid nothing grew.

AN INTERNATIONAL FOREST RESERVE

Baker proposed a plan to establish a three-hundred-mile international forest reserve and received support from the resident of Bornu Province,

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Nigeria. Baker believed that, if they could mark out a reserve in a way understood by the people and eliminate grazing, the indigenous forest would return. They had support from the British in Nigeria, but would also need that of the French colonials in order to form an adequate green front, centred at Lake Chad, where the British and French boundaries met.

Lake Chad was itself filling in with sand. Comparing modern maps with those of the last century, it appeared the lake had shrunk to one-eighth its former size in one hundred years, with the greatest shrinkage in the past forty years. The time when the great lake would disappear could easily be foreseen.

Looking for the best place to locate a shelterbelt to protect and reinforce the proposed forest reserve, the team travelled for two days, crossing several rivers by ferry before they arrived in Fort Lamy, now Ndjamená, the capital of Chad. One of these rivers was the Chari, nearly half a mile wide, deep, with a swift current. It was hard to believe Lake Chad was diminishing so rapidly with this amount of water flowing steadily into it. This observation supported Baker's assertion that the water in the lake was moving underground, as had other lakes in the Sahara.

Their first stop in French territory was with the procureur général at Fort Lamy and his chief forest official, who gave them a warm welcome. They too were anxious about the encroaching desert. Already, the arrival of desert refugees had swollen Chad's population, which was now eight times that of any other province of French East Africa. Thus, the French authorities were very receptive.

Baker and his team were visionaries, idealists. They believed a sound and reasonable idea would translate into action; the authorities would see the sense of it and move, while there was still moisture enough in the land and air to make the reclamation project feasible. In fact, it would be many decades before concerted efforts would be made to create the Great Green Wall first proposed by Baker in 1952.

The idea re-emerged in 2002, at a special summit of African leaders in Ndjamená—where St. Barbe had first proposed it to French officials—on the occasion of the World Day to Combat Desertification and Drought. It was approved by the Conference of Leaders and Heads of States of the

Community of Sahel-Saharan States held in Burkina Faso in 2005. By 2016, sixty-four years after first being proposed by Baker, about 15 percent of the planned 4,700-mile-long by 9-mile-wide green wall had been planted. That this was the realization of Baker's original vision was acknowledged in an article in *The Sunday Times* of London on July 20, 2014.

The article stated: "The idea was originally conceived by the British explorer Richard St Barbe Baker during his 25,000-mile expedition to the Sahara in the 1950s. Baker believed that tree-planting could reclaim the desert."⁶

SMALL FIELDS, TREE SURROUNDED

For the journey southeast, the team chose an unfrequented route for which there was no map and little information. It was at first semi-arid, but gradually becoming more fertile and treed as they entered what is now the Central African Republic.

Dotted along a five hundred mile track were happy little villages, all self-contained with their shambas for food. It was mild, primitive country, where men and women, unsophisticated children of nature, as yet untouched by European traders, had not yet discovered the need for dress of any kind.

At each village they stopped and the same pattern was repeated: first the headman would greet them, then the crowds would gather to gawk at the men and machine, then they would dole out Horlicks malted milk tables, being the nearest thing to candy that they had. Sometimes the people would dance for them.

Though there were no signs of vehicles passing, they had no difficulty negotiating the paths between villages—though they took many risks fording streams or crossing on flimsy bridges. In little clearings the people grew cassava, plantains, and pawpaw trees.

As they travelled from one community to the next, they were always expected. Having spent many years among other Bantu people and knowing something of their ways, Baker was not surprised. There were the drums, and, Baker speculated, maybe some form of telepathy lost to

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‘civilized’ culture. The welcome was always warm.

⁶ In fact, the first trip was about 6,300 miles as the crow flies. Baker’s second trip around the Sahara, visiting the leaders of every Sahara nation, involved some 25,000 miles of travel. It was their good fortune that their journey coincided with a time of festivity. Dances went on night and day.

The lilt of the drums still haunts me and recalled other happy scenes where with the barest necessities the indigenous peoples still contrived to live a full life without being caught in the intricate machine of what we call civilization. From the point of view of the earth, they are not very destructive; although they make clearings in the forest for their food, their implements are a small felling axe and a machete....They work their land on a conservative rotation, leaving the jungle tide to cover their old farms, to which they return after resting them for seven or eight years.

Those days were a wonderful relief. Is there something in our nature that is invariably touched by primitive simplicity or is it the release from the bondage of bureaucracy? It would be easy to draw an idyllic picture of these forest dwellers in what seemed to us to most happy surroundings. But even they have their own hard times, and should their crops fail they might be threatened with near starvation through being entirely dependent on what they produce. This is no criticism of their way of life and it is doubtful if the introduction of the so-called scientific methods of agriculture would assist them. An iron plough is a dangerous implement in Equatorial Africa because it loosens the earth to a considerable depth, allowing the soil to be washed away in the first torrential downpour. Their salvation lies in keeping to small fields, tree surrounded. So long as they only grow food for themselves they will be safe. It is only when they are tempted to clear extensive areas for the production of cash-crops such as cotton, that the balance of nature is threatened and, with it, their existence.

The team found ingenious and diversified local economies, unique almost to each village. Every one had a beekeeper, much to St. Barbe’s pleasure, but each had a unique design for his hives, some of bark and others grass. Each village had its own craft styles for beds, bags, and baskets, with

even the most utilitarian objects being ornamented.

“It was only when we approached the centres touched by trade from the outside world that the craftsmanship deteriorated and the article was degraded.”

Local markets, which marked the four-day week, were bountiful in food and crafts; they were run on the barter system, but the people were quite happy to take their money.

They saw a leopard, but no lions, for another thousand miles. Eventually, they “came out of this dream world to the first indication of approaching civilization, some bush schools and mission churches.” They were in great need of petrol, but the station was closed, since it was Sunday. Fortunately they met a contractor who filled them up. That night they slept in Bangassou. They were about to cross the River Bomu into the Belgian Congo, later Zaire, now Democratic Republic of the Congo.

CONGO

The forests were now thick and the trees met and embraced over their track. Monkeys tried to keep up with their progress, swinging from tree to tree, and often the team slowed down to help them out. Parrots called out, adding to the entertainment.

They were in a great forest of seemingly inexhaustible fertility, calling upon villagers and learning their forest ways. There was a diverse agriculture, cotton was being grown in tree-surrounded fields, and they saw women carrying huge baskets of the cotton they had gathered. The women had short plaited hair and wore cotton lengths wrapped around their waists when they worked, “one end of which they threw over their shoulders as they approached. They were a friendly people, greatly intrigued by the large blanket safety pins we gave them. We carried a lot of these for gifts.”

Gradually, cotton began to take over and the forest diminished, with a great deal of feverish burning and clearing going on. At Bondo, where they had money waiting, there was little high forest left and government ‘ginneries’ were preparing cotton for harvest. The local people were getting their first taste of cash farming and prices the year before had been

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good, meaning that clearing and planting had increased dramatically. Consumer goods had been ordered, especially bicycles and cloth.

The rush didn't last long. Prices had fallen to half the last year's rate. The farmers were mystified, knowing nothing of world price, supply, and demand. Already hooked, they had to take or leave the price dictated. The solution was to plant even more cotton; consequently, more forest fell to the field.

At Langais they met a forest officer who was trying his best to plant shelterbelts, and was even moving in advance of the clearing, establishing belts for wind and firebreaks. He was pleased indeed to meet a team of ecologists, appearing, as it seemed out of nowhere, to express delight in his efforts. He had thought he was fighting to save the country alone.

They now passed through an area of gold and uranium mining; as the area was used up, it was left desolate. Other areas were cleared for rubber plantations, but the growing of cotton was the greatest threat to the forest. The crop itself is very hard on the land. It was also a common practice to burn savannah to improve grazing; each time, more of the accumulated humus is lost. The government had enacted laws against this, but the people seemed willing to risk serious penalty in hope of immediate cash returns.

At Omi, they found forest plantations and, in places, fine shelter-belts. Here, in the excellent coffee plantations, shaded by larger native trees that created a fine microclimate and a permanent agriculture, was a living example of what they preached. In twenty-five years the owners had built a profitable industry and given much employment, proving the economic feasibility of what Baker had long advocated and offering a valuable example of what could be achieved on a far greater scale.

At a mission school they received the first news of Kenya and the Mau Mau rebellion that had broken out there. Baker was informed that all the loyal chiefs of the Kikuyu had been killed in the rebellion. "Not my friend Josiah," he exclaimed, instinctively feeling that they would meet again after a twenty-five-year separation. He wanted to rush to Kenya and try to play some part in settling the conflict as his friends were both native Africans and settlers, many being Men of the Trees.

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Through the years that had passed I had been in close contact, and nightly had travelled back in thought to those campfire gatherings when I got to know them so well. There were some who had left us, I knew, such as the old Paramount Chief Kinanjui who at my initiation into the Kiama had presented me with the wave of his arm with fifty thousand acres of farm and forest land.

But there were demands of this current journey that had to be met. They entered the last great tropical forest in Africa, Ituri, in the northeast corner of the Belgian Congo.

Through all this ran a wide road, cutting through the dense forest complex and enabling the traveller to view a cross section. It was a superb picture of tree growth in infinite variety; trees of a multitude of species rarely seen in mixture; a paradise for botanists and plant hunters. Orchids were there too, growing high up on the trunks of tall trees, hanging in festoons amid the shade of the leaves, among cheeky little parrots, chattering monkeys and rare butterflies. On each side, in light and shadow, tree boles standing free of the usual undergrowth and entangled lianas showed clean and clear at the side of the wide road, towering a hundred feet or more, a sight such as is seen nowhere else in the world. I was thrilled! I longed for this scene to go on forever.

That was not to be. They came into a burned out clearing and entered a large area of paw-paw plantations. The paw-paw is a small tree, with fruits growing up the narrow stalk like Brussels sprouts. There were also cotton farms and deserted farms that were rapidly invaded again by the forest.

Then, to their surprise, they found a sawmill and a carefully managed timber concession, worked by a European content to utilize the annual wood increment and not destroy the forest capital. He felled only trees of a certain girth that had reached maturity. There, in the forest, this entrepreneur had a school of apprentices making furniture.

He was a great source of information. They were tempted by an invitation to go on an expedition to pygmy territory. They had seen one troop of real pygmies; they had reddish yellow skin covered with light copper-yellow

hair and stood about fifty inches. According to Baker, “the true pygmy never deserts the forest, which he protects with the blowpipe or arrow. They make contact with the outside world through their half-brothers, the products of intermarriage with other tribes.” The expedition felt that they could not add this extra time to their trip, however and carried on.

Reluctantly we went on our way, secretly hoping that we might be lucky enough to encounter again the real little people. I would particularly have liked to have seen them in their home and learnt from them the secret of living without destroying that by which they had lived. Although regarded as uncivilized and wild, they set an example to the world by their way of living conservatively, without unnecessary demands; a fine healthy agile little people, leading a fine healthy life.

They saw no more pygmies. Instead, the forest gradually disappeared and the number of farms increased. They arrived at Beni, a modern town that Baker felt had all the ugly manifestations of Western civilization at its worst. They longed for the forest again as they drove south toward the Rwenzori Mountains, the Mountains of the Moon, before passing into Uganda.

KAMPALA

There was now plenty of wildlife: elephants, the largest pod of hippopotamuses that Baker had ever seen, and a herd of buffalo grazing along the road. Recalling the days when cloth was made out of tree bark, with no damage to the trees, Baker wrote:

It was nearly thirty years since I had been in Uganda. I was much looking forward to seeing the forests that I remembered, so it was a shock to find that whole area had been deforested in the process of cotton growing. The production of three hundred and forty bales of cotton a year is poor compensation for the valuable forest felled and burned to make cotton fields.

On meeting local forestry officials, however, Baker sensed that a new consciousness was developing, if only because the lands were clearly in decline. Plans had been made for proper management of the remaining

forests and there was an awareness of the threat of desertification to the north. The game department, which had initially existed to shoot elephants, was now being reconfigured to offer protection. Various efforts were being made to improve the environment, although emphasis was often placed on livestock and grazing. “Surely,” Baker argued, “the solution lies in turning to a silviculture and the production of food and fruit-bearing trees, rather than in risking the lowering of the water-table by deliberately recovering the grazing lands and semi-arid zones.”

At Kampala they stayed with a forestry friend and were pleased to find much of his nursery given over to indigenous trees, not only eucalyptus. Baker was concerned that most plantings used exotic species, mainly to provide a quick financial return or fuel. He had recommended it elsewhere, and in the past, but eucalyptus had one great drawback: it dried up the land. Baker now felt that it should be used mainly for planting in swamps. There were a good many suitable native species available that should be used instead.

On Christmas Eve we drove across the barrier into Kenya. The Christmas spirit was conspicuous by its absence. Goodwill and peace to mankind had become transformed to fear and terror. In a passing car a woman passenger was holding a rifle across her lap with the barrel pointing at my head. Police cars with searchlights patrolled the roads which were otherwise empty and dark.

They had entered Kenya just after the start of the Mau Mau revolution.

We went through the tragic town of Kakumaga, which had seen the gold rush that had brought so little profit but only dissatisfaction, both to African and settler alike. It was a scene of the betrayal of promises. The Kakumaga tribe, an agricultural and pastoral people, had been turned off their lands for gold mining. In accordance with old treaties, if land were taken for mining, they would be given the equivalent elsewhere. But an all-night session of Legislative Council had changed the law and no equivalent land was given. This was only a beginning of many later injustices, the accumulation of which had helped to bring about the tense situation which we now found.

It was around Christmas of 1952 when Baker said farewell to his travelling companions and went on alone. It felt to him like a homecoming. He discovered the whereabouts of his old gun bearer, Katootero, who was now a headman in the forest reserve. His friend, whom he had left thirty years ago with the words, “Farewell, I shall see you again,” was quite unsurprised to see him, as if he had been away only a short while.

“How did you know I was coming?” Baker exclaimed. “I saw you,” said Katootero. “Where?” said Baker. “In much sand,” was the reply. Baker set off to see what had become of Kenya since he had left it. He went to the important water catchment area of Elgon, which in his day had been virgin forest:

Upon it depended the fertility of extensive farmlands, now occupied by settlers. Now I looked over a landscape that for all time had been forest but which in so short a while had been replaced by coffee and wattle plantations and extensive wheat fields. I was soon to discover that this part of the country was an oasis by comparison with many areas which were suffering from steady desiccation.

Everywhere he heard the same complaint: “It’s drying up!” If the locals who had lived there all along were disturbed, Baker, with the perspective of time and distance, was shocked at what he saw. When he spoke to people about his journey, the drying of Africa, the assault of the Sahara, they were naturally alarmed, realizing that they were soon to be surrounded by desert. Even the wealthy coffee and sisal barons realized the danger. “When, however, I sought for an area of land in which to initiate experiments in biosylvics, nobody rushed to provide it.”

Baker found that his efforts as conservator of forests in Kenya had been forgotten. The contemporary forestry policy was to remove indigenous forests and replace them with monoculture plantations of exotic species that were often diseased or were having detrimental effects on land and soil.

I drove on through this unhappy country toward Mount Kenya. It was a relief to come to one of the rare remaining indigenous forests and over it hung the most vivid rainbow I have ever seen. It looked

as if my road went straight through the middle of the western arch, but it always kept ahead of me, seeming to move as I moved. At last it stood still and I drove right into a light shower of rain, and at that point the rainbow ended. I had come too to the end of the indigenous forest and had entered the eucalyptus world. It was the land where the rainbow ends.

Things had changed drastically for the Indigenous people. Driving along the road to Nairobi he was amazed to find that a group of Kikuyu he encountered on the road scattered and fled as his car approached them. Stopping, he called out in their own language; he asked them to come back, stepping out of the car so that they could see he was unarmed and telling them who he was, an old friend, the *Baba wa Miti*. They were amazed. He gave them a ride to Nairobi. That night a law was passed making it illegal to give a lift to a Kikuyu!

He stayed the night at Nanyuki and in the morning saw again the great peak, Karinyaga, Place of Whiteness. The mountain is over seventeen thousand feet high. At fifteen thousand feet there is a lake that freezes every night, making a good skating surface—directly on the equator. On the lower slopes of the mountain are fabulous lobelias, everlasting flowers taller than a man, scarlet lilies in profusion, and bamboos and trees of many kinds, a unique paradise of plant life. But now, as everywhere, the lower slopes were being eroded as tree cover was removed. Even where there was good rainfall, the land could be destroyed by water erosion if the ground cover was not carefully managed.

Almost everywhere he went the climate, both natural and political, had soured. At night he could hear gunshots and bodies falling to the ground; by day he saw people in police compounds, the forests gone, the land eroding. The best land was often given over to sisal, and as well managed as it was, you can't eat sisal. Nairobi had changed, surrounded now by shanties constructed of flattened tin cans, its centre filled with imposing banks and office towers. What a transformation in thirty years!

Here he ran into some of his old forest scouts, the original Men of the Trees, and was amazed that he was remembered and still called *Bwana wa miti*, Master of the Trees. He gave a talk on his findings to the local Rotary Club before heading off to Muguga, his old forestry station.

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His old friend Chief Josiah had become paramount chief, one of the few chiefs loyal to the government who had not been murdered. Yet he refused police protection. Together they examined the old forest station. The old *mugumo* tree, scene of the dance of the trees, was gone, as were most of the virgin forests. Eucalyptus and pines were being grown in seedbeds. Chemical fertilizers were the coming thing and used proudly. But Baker longed to see the fruits of his old experiments with mixed species of native trees.

The trees were there, all right, over a hundred feet high, and the natural forest floor was covered with thick humus, no chemical fertilizers needed.

“It was a perfect forest, well cared for, having been periodically thinned. No wonder Josiah was proud.” He offered Baker ten acres for his experiments in biosylvics and together they went over the land demarcating the boundaries. Alone, they spoke of the tensions of the moment, and St. Barbe spoke of protection, protection from the desert, the outer desert of land and the inner desert of the heart and mind; he spoke of trees against the desert, and the Tree of Life that grows within.

 Little of what Baker had worked for had survived here, except for this small forest.

Here among the lovely trees I had planted so long ago and that had grown so well, my idea seemed not so unrealizable. So with pleasure and gratitude I returned to the forestry station, conscious that here, at any rate, the tradition of mixed native woods I had started had been allowed to survive.

THE ‘TEMPLE OF PURE SCIENCE’

Much to his surprise, a multi-million dollar advanced research centre had been built by the East African Agricultural and Forestry Research Organization on land that had once been his, part of the plot given him by then Paramount Chief Kinanjui. The research centre had everything: laboratories, workshops, greenhouses, a complete herbarium and library, meteorological station, conference rooms, and a publishing department, as well as field plots and quarters for fifty people. It was the manifestation of Baker’s dream, the means of training a cadre to direct the battle against

the desert!

He rushed in to meet the director and share the vision, filled with enthusiasm and hope. But St. Barbe was in a “temple of pure science.” He didn’t fit in and received a cold welcome from its “high priests.”

Not one to beat around the bush, he had explained his ecological survey of the Sahara and his findings. He suggested that the research centre take on sixty-four students, two from each of the thirty-two countries along the green front against the desert. With this start the centre could be the command post of a vast ecological army.

They looked at him with pity. Their plans were to accept three ecologists, and after three years one might be able to begin an ecological survey. “We are pure scientists,” they said, and this refrain was repeated again and again as he met the centre’s department heads.

It sounded like a slogan; all they needed was a banner with a scientific heraldic device. I thought to myself “pure science be damned.” Here is a state of emergency, a state of war. The great Sahara desert is invading Africa along a two thousand mile front, at a rate of thirty miles a year in some places. It would mean another ninety miles before their three ecological students were ready to make a survey, and a hundred and eighty thousand square miles of fertile land lost to the desert. And then what?

They toured the station. He saw experiments on viruses that were damaging the groundnut industry—he had seen an area of five hundred miles with groundnuts in small fields, tree-surrounded, completely disease free. He read reports on cypress canker disease— which he knew caused little damage in properly managed forests of mixed species. He observed experiments on agricultural chemicals and fertilizers—he had travelled the world’s forests, growing for countless millennia, with trees older than human civilization, three hundred feet high and thirty across, produced with no need of fertilizers or pesticides of any kind.

So much of what I saw seemed to be obsolete, in view of the proven value of natural and ecological conditions. Today we are learning more and more that the best method of fighting disease is to provide

the conditions in which it does not occur. If the health of a plantation, whether it be farm or forest, is undermined by unnatural monoculture or uneven balance, nature hits back and provides the means of eliminating what she does not want...I had seen a great deal and I felt that these pure scientists had had enough of me. So I made my formal farewells, since formality seemed to be what they wanted, and left them. Although they had given me no encouragement for the Green Front against the desert, I still felt that here in this place lay the answer to the problem. It was the mode of my approach that had been wrong. These men were but carrying out the duties for which they had been briefed. I realized that my approach must be to a very different quarter.

All my old friends quickly heard of my return and wanted to see me. Next morning I gave them the only chance I could, owing to the local troubles; I went to the police lines behind the barbed wire, where a hundred and fifteen gathered from all parts of that location.

Many of them had been at the first dance of the trees; those distant days so full of song and dance, the beat of the drums and the joy of life. What a contrast to the barbed wire and terror! I had pictured a very different return from this. I had imagined that we would all have gathered once more under the sacred Mugumo tree, where so often we had met in the past and where, often far into the night, we had listened to tales of the 'golden age,' or danced by the light of a great circle or aromatic fires made from chips of the Mutarakwa trees.

It was difficult for me to recognize some of them. Anxiety had changed their happy carefree expressions and fear was wrinkling their once smooth brows. Many well-fed sleek bodies had shrunk. Some had become almost skeletons of their former selves.

Thauthau Thongo, the old captain of the dance, had become leader of the Kiama, the council of Kikuyu elders, which once served as a tribal parliament and court, but was now shorn of most of its power by the colonial government. He tried to recapture the good spirit of the old days, told some stories and evoked a few laughs, but it was obvious that the Paul Hanley, *Man of the Trees: Richard St. Barbe Baker, The First Global Conservationist*. University of Regina Press, 2018. <https://uofrpress.ca/Books/M/Man-of-the-Trees>
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situation here was desperate. Why was everyone so sad?

They told Baker they were starving, that their land had been taken away, and what was left was overworked and not enough to go round. Tens of thousands of people worked on settlers' farms, where they had their gardens for food. Recently they were being rounded up without warning, and without their possessions, and dumped in the Kikuyu reserve or put in detention. On the other side, the settlers were without labour and they could no longer produce food, making the situation that much worse.

The next day he met with the Kiama. He was welcomed back and given a new staff of office to replace the one lost during the bombing of London, with the words: “In the old days when children were

fighting among themselves, the senior elder of the Kiama came and placed the staff between them and immediately the children stopped fighting. We present this Matathi stick to you and ask you to use it to bring peace to our people.’ This was the first time the Kiama had ever asked me to do anything.”

Baker asked how the land shortage had come so quickly; what had become of the fifty thousand acres they had given him when he had been joined to the Kiama? He learned how it had been eaten away: so much for the research station, more for a veterinary station, some for lots for European housing at Ngong. It was all gone, stolen. The area might have supported 250,000 Kikuyu!

It should be remembered that three thousand white settlers own over ten million acres. This works out that each white landowner has over three thousand acres, whereas there are over six Africans to share one acre. I was astonished that this sort of thing could have been possible.

But what could he do? He saw the governor and explained everything that he had been told. He also explained the ecological situation, knowing that as grievous as was the injustice in land distribution, it would be even worse if the country were desertified. His recommendation was that the Kikuyu be given work in the fight against the desert and that the settlers should be enlisted to the same end. Instead of fighting each other, they

should fight a real enemy, the desert.

Baker imagined a Roosevelt-style ccc solution to the ecological, economic, and social problems of Kenya. There was little more Baker could do for his African friends than make polite suggestions.

AN UNUSUAL CONFERENCE

Before leaving Africa, he had an important engagement in Kampala. He had been entrusted by the Guardian of the Bahá'í faith, Shoghi Effendi, to act as host to the African delegates to the first International Teaching Conference. The conference, held February 12 to 18, 1953, launched a ten-year campaign that saw the spread of the Bahá'í faith throughout the world, including a tremendous expansion in Africa.

His job involved the use of his Humber to help with trips to the market and to deliver the African delegates to the conference in the morning and home to their dorms in the evening. He could hold about twenty at a time, but transporting all the delegates took several trips. When, one night, the Humber was stolen and the police could do little to help—it was the fifth stolen vehicle reported that night—the Bahá'ís repeated the prayer, “Is there any Remover of difficulties save God...” They soon received a call that the Humber was found, undamaged. It seemed their prayers had been answered. But then the phone rang again: the policeman who had been guarding the vehicle had been knocked out and thrown in a ditch. It was gone again.

They prayed again, but there were no more calls from the police. But in the morning the vehicle was sitting outside Baker's lodgings, none the worse for its adventure!

The conference was unusual. All around them the land was in turmoil and blood was flowing, the Africans turning on the white settlers in reaction against the injustices they had endured. Yet here, at the conference, black and white got on perfectly; they could be seen embracing, united in faith and respect.

Baker's efforts for the cause of God or the cause of trees were one and the same; each served the other. On his return to Kenya, Baker shared the Bahá'í message with its governor, and also with the governors of Uganda

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and Tanganyika, who were meeting in conference. To each he gave the book *Bahá'u'lláh and the New Era* and explained the contribution the Bahá'í cause could make to the administration of Africa. While they were together the governor of Kenya recalled their previous conversation about employment, land, and forests and said, "By the way Baker, your plan for employing detainees in forestry camps is coming off."

With this hope in his heart, he set off for England by plane, affording him an overview of the eastern Sahara, which he had not yet investigated in his ecological survey. From the air he retraced the steps of his journey home up the Nile thirty years earlier. The eastern Sahara was little different from the western, except of course for the Nile, but even that was no longer an intact barrier and in places the desert joined. The deterioration from the time of his first journey was evident; on the other hand, he identified many places, various oases and points along the Nile, that could serve as outposts in the coming battle against the desert.