

The Most Luxurious Train in the World



CONTENTS

**DAR ES SALAAM TO CAPE TOWN
ITINERARY & JOURNEY**

Pages 2 - 6	Itinerary Dar es Salaam – Cape Town
Pages 7 - 32	Journey Dar es Salaam – Cape Town





The Most Luxurious Train in the World

ITINERARY

THE DAR ES SALAAM TO CAPE TOWN ITINERARY

DAY 1	
12h00	Depart DAR-ES-SALAAM. Guests may freshen up in their suites before joining other guests in the midway Lounge car or the Observation carriage at the rear of the train.
13h00	Lunch will be served in the dining cars. Game viewing: During the mid-to-late afternoon, the train will pass through the Selous Game Reserve, the largest in Africa. Wild animals may be seen from both sides of the train for about 4 hours.
17h30	Near Kisaki station, in the late afternoon, some southern Masai may be seen with their characteristic clothes.
19h30	Dinner will be served in the dining cars.
01h21	Overnight Mlimba.
DAY 2	
07h00	Breakfast will be served in the dining cars until 10h00. A lecture will be given during the course of the morning: Please consult your Lecture Sheet for times and venue.
12h20	Arrive at Makambako.
13h00	Lunch will be served in the dining cars A lecture will be given during the course of the afternoon: Please consult your Lecture Sheet for times and venue.
19h30	Dinner is served in the dining cars.
20h20	Arrive in Mbeya. Depart 23h00 PLEASE RETARD WATCHES BY ONE HOUR BEFORE YOU RETIRE FOR THE EVENING. Please ensure that the train manager is in possession of your passports and completed forms

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THE DAR ES SALAAM TO CAPE TOWN ITINERARY

DAY 3	
06h00	Tanzanian Border formalities in TUNDUMA. Please ensure that the train manager is in possession of your passports and completed forms. PLEASE ENSURE WATCHES HAVE BEEN RETARDED BY ONE HOUR.
07h00	Breakfast will be served in the dining cars until 10h00.
13h00	Arrive in Nakonde for Zambian border formalities.
14h30	Lunch will be served in the dining cars. Disembark the train at Kasama for an afternoon excursion to Chisimba Falls. Please note that comfortable clothing and walking shoes, suntan lotion and hats are strongly recommended.
18h00	Depart Kasama.
19h30	Dinner will be served in the dining cars.
02h40	Overnight at Mununga.
DAY 4	
07h00	Breakfast served in the dining cars until 10h00. A lecture will be given during the course of the morning: Please consult your Lecture Sheet for times and venue.
13h00	Lunch served in the dining cars. A lecture will be given during the course of the afternoon: Please consult your Lecture Sheet for times and venue.
19h30	Dinner is served in the dining cars.
DAY 5	
07h00	Breakfast will be served in the dining cars until 10h00. Train stationary at Lusaka Station until 08h00. A lecture will be given during the course of the morning. Please consult your Lecture Sheet for times and venue.
10h00	The train passes through Kafue.
13h00	Lunch is served in the dining cars. A lecture will be given during the course of the afternoon. Please consult your Lecture Sheet for times and venue.
19h30	Dinner is served in the dining cars. <u>Victoria Falls</u> It would be a good idea if you familiarise yourself with the list of activities available at the Victoria Falls. A list of activities will be available in your itinerary pack in your suite. You may book these excursions yourself at the hotel OR beforehand on the train, through the on-board lecturer.

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DAY 6	
09h00	Arrive in Livingstone for Zambian border formalities.
10h00	Arrive at the Zimbabwe border for passport formalities.
	Please ensure that you have obtained your passport from the Train Manager.
12h00	<p>Arrival at Victoria Falls.</p> <p>Disembark from the train at Victoria Falls station with your overnight bag and assemble on the platform before walking down to the Victoria Falls Hotel to register. Your possessions will be safe in your suites. Please ensure that your passports are in your possession, as you will need them to change money or cross the border into Zambia.</p> <p>Lunch and dinner today and breakfast and lunch tomorrow are taken in either the Jungle Junction or the Stanley Room. These meals are included in the overall journey price. All alcoholic and non-alcoholic beverages consumed off the Train are for your own account. Any meals taken in other venues are also for your own account.</p>
16h00	Please be ready in the hotel foyer for the bus to take you to the Sunset Cruise on the Zambezi River. Please bring along warm clothing. Light snacks and drinks are included in your cruise.
19h30	Dinner will be available at the Jungle Junction buffet. Seating will be at tables reserved for Rovos Rail guests.

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DAY 7	
	<p>Day at leisure in the Victoria Falls.</p> <p>Activities at the Victoria Falls: The following activities are for your own account and may be arranged beforehand on the train or at the Victoria Falls Hotel.</p> <ol style="list-style-type: none"> 1) Tour of the Falls 2) Helicopter or Fixed-wing Flight over the Falls 3) Elephant Back Safaris 4) A Walk with the Lions 5) White-water Rafting & Bungi-jumping <p>Lunch today may be enjoyed in either the Jungle Junction or the Stanley Room. These meals are included in the overall journey price. All alcoholic and non-alcoholic beverages consumed off the Train are for your own account. Any meals taken in other venues are also for your own account.</p>
16h00	<p>Meet on the Station platform.</p> <p>Please hand your passport to the Train Manager for border formalities with Zimbabwe and South Africa.</p>
17h00 19h30	<p>Depart Victoria Falls. Dinner is served as we head towards Bulawayo.</p>
DAY 8	
07h00 08h00 11h20	<p>Breakfast will be served in the dining cars until 10h00. Bypass Bulawayo. Arrive at Plumtree for Zimbabwe border formalities. Continue to Tshesebe for Botswana border formalities.</p> <p>A lecture will be given during the course of the morning. Please consult your Lecture Sheet for times and venue.</p>
13h00 18h20 19h30	<p>Lunch is served in the dining cars. Arrive in Francistown. Depart 19h30. During dinner the Train Manager will inform you about the game lodge visit planned for the following two days.</p>
00h30	<p>Overnight at Mahalapye.</p>

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DAY 9	
	<p>Please pack a small overnight bag. Tog bags have been placed in your suite for your convenience for your two night stay at the game lodge. Comfortable clothes and shoes for hot days and cool evenings are essential. Sun tan lotion and hats are strongly recommended.</p> <p>It can get very cold during the game drives so please take along warm clothing. Your belongings will be safe inside your suites under the guard of the train staff.</p>
11h00	Upon arrival at Gabarone, Botswana guests are transferred by coach to Madikwe Game Reserve for a two night stay
	TAU Game Lodge. Please note Botswana/ South Africa border formalities will take place en route.
13h00	Lunch served at the lodge.
	<i>Please note that beverages, phone calls and laundry are for your own account. Bottled water and a limited wine selection will be available during lunch and dinner with the compliments of Rovos Rail.</i>
16h00	Meet for afternoon Game Drive.
20h00	Dinner at the lodge.
DAY 10	
06h00	Early morning game drive.
09h30	Breakfast at the lodge.
	Day at leisure.
13h00	Lunch at the lodge.
16h00	Afternoon game drive.
20h00	Dinner at the lodge.
DAY 11	
06h00	Early morning game drive.
09h30	Breakfast at the lodge.
11h00	Depart the lodge and transfer to the train at Zeerust, South Africa.
12h00	Depart for Pretoria.
13h00	Lunch is served in the dining cars.
19h30	Dinner will be served in the dining cars.
22h40	Overnight at Krugersdorp.

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DAY 12	
07h00	Breakfast is served in the dining cars until 10h00.
08h40	Arrive in Centurion where one or two of our Rovos locomotives will collect us for the leg into Capital Park.
10h00	Arrive at Capital Park Station, Pretoria
14h15	All passengers please disembark for your Pretoria City Tour and lunch. Enjoy a walking tour of Capital Park Station and Locomotive Sheds. (Weather permitting.)
15h00	Depart Pretoria for Cape Town.
19h30	Dinner is served in the dining cars.
00h46	Overnight at Kingswood.
DAY 13	
07h00	Breakfast is served in the dining cars until 09h45.
09h30	Ten minutes before arriving in Kimberley there is a shallow lake on the right hand side facing forward. On most occasions there are spectacular flocks of Flamingos (approx. 23 000).
09h45	Arrive in Kimberley. Guests disembark and proceed by coach for a tour of the city and the 'Big Hole 'and the Mine Museum.
12h30	Depart Kimberley.
13h00	Lunch is served in the dining cars.
19h30	Dinner will be served in the dining cars.
02h30	Overnight at Gemsbok.
DAY 14	
07h00	Breakfast will be served in the dining cars until 10h00.
08h00	There is an opportunity to disembark the Train at Whitehill siding and walk or jog the 5 kilometres into Matjiesfontein. The Train Manager or a member of staff will accompany you. Comfortable walking or running shoes are essential.
08h25	The train arrives at Matjiesfontein where you will have a chance to stroll through this historic settlement. Of special interest is the museum on the platform and a collection of historic cars and railway carriages to the right of the Hotel.
11h00	We depart Matjiesfontein passing through Tweedside and Touws River. At 12h00 we reach the first of four tunnels which take us through the Hex River Pass. The second tunnel is 13.5kms long so please be careful if you are walking through the train. If you are in your suite you may wish to turn on a light.
13h00	Lunch will be served as we pass through the Hex River Valley and the town of Worcester.
18h00	Arrival at Platform 24 Cape Town Station where our journey ends.

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DAR ES SALAAM TO CAPE TOWN THE JOURNEY

Dar es Salaam was founded in 1862 by the sultan of Zanzibar on the site of the village of Mzizima. It remained only a small port until the German East Africa Company established a station there in 1887. The starting point (1907) for the Central Line railroad, it served as the capital of German East Africa (1891–1916), Tanganyika (1961–64), and Tanzania (1964–74). In 1974 Dodoma was designated Tanzania's national capital. Pending completion of the transfer of official functions to Dodoma, however, Dar es Salaam remains the seat of most government administration.

Buildings in Dar es Salaam often reflect the city's colonial past and display a rich mix of architectural styles, incorporating Swahili, British, German, and Asian traditions. Post World War II modernization and expansion brought contemporary multi-story buildings, including a hospital complex, a technical institute, and a high court. Educational facilities include the University of Dar es Salaam (1961), several libraries and research institutes, and the National Museum. Dar es Salaam's natural, nearly landlocked harbour is the outlet for most of mainland Tanzania's agricultural and mineral exports and is also a transit port for the Congo River, whose navigable tributary, the Lualaba, can be reached by rail. The city is the terminus of a rail line west to Kigoma on Lake Tanganyika, north to Mwanza on Lake Victoria south to Zambia.

Dar-Es-Salaam is, in common with most African cities, more romantic to the imagination than to the senses. The road from the station, which is remote from the city centre, lies through a crowded sprawl of pavement stalls and shacks selling, inter alia, mosquito nets at a bargain prices. Tanzania is a stable African state, save for the refugee problems caused by Rwanda's genocide and the Congolese civil war. There has also been a rise in demand for greater autonomy for Zanzibar, possibly leading to separation and independence.

One hundred kilometres across the strait lies the coral island of Zanzibar, half Arab, and half African. Founded by the sultans of Muscat and Oman on the Persian Gulf (the Strait of Hormuz), in 1844 it became the permanent seat of the sultan. The great slave emporium until 1873, Livingstone stayed there, as did Stanley, Speke, and Burton etc. Proclaimed a British protectorate in 1890, it continued to fly the red flag of the sultan until a bloody revolution in January 1964, after which it became a Soviet satellite. In order to prevent the emergence of a second Cuba, President Nyerere of Tanganyika engineered a condominium whereby the name changed to Tanzania. The unique aspects of Zanzibar however, remain.

Known as German East Africa between 1890 and 1920, Tanzania then changed its name to Tanganyika, deriving the name from the lake and plateau of that name. Lake Tanganyika is the largest of the Rift Valley lakes. It is 769ms above sea level and stretches 720kms from north to south with an average breadth of 48 to 72kms. It touches Tanzania, Zambia, Zaire and Burundi. It is the second deepest freshwater lake in the world after Lake Baikal in Russia. Soundings of 972ms - the Height of Table Mountain - have been obtained. The temperature of the first 49ms is uniformly 25 Celsius. Of the 402 local species of animal life resident in the lake, 293 are unique to it. This is proof that it has been separated from Lake Malawi (which is

the second largest Rift Valley Lake and lies to the south-east) for many millions of years. Burton and Speke were the first white people to visit the lake in 1858, followed by Livingstone in 1869.

The Selous Game Reserve, the largest game park in Africa, is named after Frederick Courtney Selous, a naturalist, explorer and soldier of the nineteenth century who led Rhodes' pioneer column into Mashonaland in 1890. During the First World War in which German East Africa was a theatre of battle for four years, he was accidentally shot and buried in the park, which is now named after him.

It covers an area of about 54 600 square kilometres and bestrides a complex of rivers including the Kilombero, Ruaha, and Rufiji. Its vegetation is woodland, with patches of dense hardwood forest and some of the finest virgin bush left in Africa. The reserve, established in 1922, holds one of the largest remaining concentrations of big-tusked elephants and large-maned lions, as well as such other mammals as buffalo, leopard, rhinoceros, zebra, and various antelope. This virtually inaccessible reserve was opened to visitors in 1963 when hunting tracks were constructed. It was designated a UNESCO World Heritage Site in 1982 due to the diversity of its wildlife and undisturbed nature.

The railway line passes through typical African savannah. Great forests of Baobabs alternate with clumps of flat-topped thorn trees. In between, low bushes abound of many different varieties. As the line drops from the terrace to the coastal flatland, so it enters a belt of spectacular, dense, dark green jungle. Great gnarled creepers climb parasitically over tall matted trees in chaotic yet majestic beauty. The jungle is truly impenetrable. It should be recalled that until 1928 Dar-Es-Salaam had no road communication with the interior.

Low-lying mangrove swamps through the sandy coastal strip of palms and bananas interrupt the final twenty kilometres of the approach to Dar es Salaam. The heat and humidity increase and human settlements become more frequent.

Mbeya is the first large urban settlement encountered after leaving the border post towns of Nkonde and Tunduma. Following the 1905 gold rush, Mbeya was founded as a gold mining town in the 1920s and was administered by the British until 1961. The TAZARA railway later attracted farming migrants and small entrepreneurs to the area.

The area around Mbeya has been called the "Scotland of Africa" with good reason. It is situated at an altitude of 1 700ms and sprawls through a narrow highland valley surrounded by a bowl of high mountains.

The mountains are clad in heather and bracken but botanically they are more closely related to the Fynbos (fine bush) of South Africa's Western Cape Province than the Highlands of Scotland. The nearest mountain to Mbeya is Loleza Mountain which rises over the town. Mount Rungwe is the highest mountain in the wider Mbeya region and it dominates the skyline for several kilometres around. It is composed of ten or more dormant volcanic craters and domes. Rising above the small town of Tukuyu at 2 960ms Rungwe is southern Tanzania's highest peak, and is third in Tanzania after Mount Kilimanjaro and Mount Meru in the north. Mount Rungwe is surrounded by the catchments forest reserve that was gazetted in 1949. This forest reserve incorporates montane forest, upper montane forest and montane grassland with lesser amounts of bushland and heath at the upper elevations, found in low bushes along streams and at the edges of montane forest. The forest is home to a variety of significant forest flora and fauna, including the threatened Abbot's Duiker. The forest is regarded as important bird area with the most notable creatures being the Rungwe Buzh Viper and Colobus monkeys.

Also ecologically important are the Poroto Mountains south-east of Mbeya. In 2005, a completely new species of large monkey was discovered living in the southern highlands to the south-west of Mbeya. The Mbeya region has not yet been closely studied by scientists, and doubtless there are also many new species of plants to be discovered there, and perhaps even new animals.

Forests in the area, even in the reserves, continue to be encroached upon and degraded. However, there has also been extensive tree and forest planting, which ensures the local

firewood supply. There is a small illicit trade in orchid bulbs, which is thought to be endangering the survival of some species.

The landscape between the Zambian frontier and Mbeya is superb. The railway winds and twists slowly down the side of the escarpment from where views of the Rift Valley cutting its way southwards are revealed. Gradually the smudge of volcanic outcrops of the Mbeya range of mountains dominated by Mount Mbeya defines itself. Mbeya is heavily mineralised and gold is mined here. It is still high and cool. The Mbozi meteorite, the third largest in the world (25 tons), lies 64kms to the west.

The large bustling town of Kasama (1 332ms) is the capital and supply centre of the Northern Province. The Germans sacked Kasama in November 1918. Shortly afterwards, the great German guerrilla leader, General Von Lettow Vorbeck, first received word of the Armistice in Europe, after capturing a British despatch rider.

The countryside rises towards the frontier with Tanzania where it then drops towards the Great Rift Valley, one of the most interesting geological areas in the world. The gash of the Great Rift Valley zigzags 4 500kms southwards from Jordan, through the Red Sea, cutting through Ethiopia and the Danakil Depression. The valley then splits into western and eastern branches. The dry, volcanic eastern branch cuts through Kenya and Tanzania eventually disappearing into the southern Tanzanian plains. The western branch continues down to form the natural boundary for nine nations from the Sudan to Mozambique. This is where Africa's Great Lakes are situated of which Lakes Tanganyika and Malawi are the two largest.

A rift valley occurs when the Earth's crust bubbles up to breaking point. The crust thins and splits and a narrow sliver of rock slips downward. This sets up volcanic pressures and fresh lava flows form new crust in the centre of this slowly widening rift. This is termed 'sea-floor spreading' because it usually happens along the 74 000 kilometre Mid-Ocean Ridge that circles the Earth through all its oceans.

Although the African Rift is opening much slower than the undersea rifts - about one millimetre per year - it is easier and cheaper to observe. Geologists theorise that in 50 million years time or so the widening Rift will have broken off the north eastern bit of Africa to form a new island like Madagascar did when it broke off from the Kenya Embayment. With the new weight of water now pressing on the earth's crust, dense basaltic lava will extrude to form a new seafloor.

Mpika, once a major stopover for London to Cape Town flights, but now a small country town is an administrative centre and lies near Lwitikila Falls and Nachikufu Cave which features rock art from the Neolithic age. It is a major crossroad for the Great North Road with Lake Tanganyika to the north and the Tanzanian border to the east.

About 50 kilometres before **Serenje**, and approximately five kilometres from the furthest south eastern corner of the Shaba/Katanga pedicle, is the frontier with the DRC (ex-Zaire). About 100kms north of Serenje (1 585ms) is the place where David Livingstone gave his heart to Africa.

It was at Chitambo's kraal that the great Scotsman was found dead kneeling in prayer at the side of his camp bed in May 1873. His devoted servants buried his heart and then carried his embalmed body, disguised as trade goods, across 1 800kms of wildest Africa to the coast at Bagamoyo and Zanzibar. Hundreds of slaves came to pay their last respects to the man who did so much to expunge slavery for Africa. Finally, after the greatest funeral of the nineteenth century, he was laid to rest in Westminster Abbey under a stone, which reads: 'Brought by faithful hands over land and sea, here rests David Livingstone'.

The countryside, although high, is thick with Miomba woodland and Raffia palms. It is bushveld, not unlike the Kruger National Park and Botswana, but only more so. A constant interplay between open plain and closed bush takes place. Along the Chozi River, the dark green and red fronds of the Raffia palms shimmer in the light.

At the important station of Kapiri Mposhi control passes from Zambian Railways to that of the trans-national TAZARA railway: TANzanian ZAMBian Railway Authority. Two kilometres from 'Old' Kapiri Mposhi Station, is the 'New' Kapiri Mposhi Station, built by the Chinese and the terminus for the Tazara railway to Dar es Salaam 1 800kms away.

Most of the territory of **Zambia** forms part of the great plateau of south and east Africa and has an average elevation of about 1 220ms above sea level. The plateau displays a gently rolling and somewhat monotonous surface, relieved at intervals by hills, ranges of hills and small escarpments of resistant rock formations.

To the northeast, east and southeast the continuity of the surface is interrupted by a series of deep valleys characterised by abnormal conditions of topography and climate. Elsewhere the plateau surface extends unbroken across the boundaries of Zambia. The highest part of Zambia is in the northeast where "Namitawa", a peak on the Malawi border, reaches an elevation of 2 200ms. The plateau about Mbala (previously Abercorn) and parts of the watershed between the Chambezi and Luangwa rivers stand at over 1 524ms, as does a large portion of the Zambia-Zaire boundary. From these high points the plateau slopes southward to the Zambezi River, on the south boundary. The lowest part of the Territory is at the junction of the Luangwa and Zambezi rivers, about 314ms above sea level.

In the eastern part of the Territory are several trough valleys, part of the great African Rift System. The wide and relatively flat floors of these lie well below the general plateau level and are often bordered by prominent escarpments and invariably by rugged country. Approaching the rift valley, the plateau surface becomes progressively more and more dissected by streams tributary to the master stream of the trough. Many of these have cut back into the escarpments to form deep gorges. This can be clearly seen in the stretch after Chambeshi station leading to the border at Nakonde.

Several large areas of swamp and alluvium are present on the plateau. Of these the Bangweulu depression, visited by Livingstone in the northeast, is the largest. Farther east, the Chozi and Chambeshi rivers – crossed by the railway - occupy a well-marked swampy depression.

The Continental Divide, separating the drainage to the Atlantic and the Indian oceans, forms the Zambia-DRC (Democratic Republic of the Congo/ ex-Zaire) boundary as far as the south tip of the Katanga pedicle, where the DRC intrudes into Zambia. It then trends northeast to leave the country about halfway between Lakes Tanganyika and Malawi. The railway, in fact, follows this line very closely. In this comparatively short section of the divide are the sources of the Congo and the Zambezi rivers, two of the four largest rivers on the continent. The ultimate source of the Congo is on the Tanzania boundary, where the Chozi and Chambezi combine to flow southwest to the Bangweulu swamp, and thence northward by way of the Luapula, Lake Mweru and the Luvua to the Lualaba. Rising in north-western Zambia, the Zambezi, after a comparatively brief excursion into Angola, forms a large part of the south boundary. The Zambezi and its tributaries drain over 75% of this enormous country.

Kabwe, at an elevation of 1 182ms, is an important transportation and mining centre north of Lusaka on the Great North Road. Previously known as Broken Hill it was named after a mine in Australia to which its geology bears a resemblance. The Rhodesian Broken Hill Development Company (formed 1903) was instrumental in opening the region to foreign mining interests. After the mine was sunk for extraction of the high-grade zinc, vanadium, and lead ores the first railway in the country was built, extending north eastward from Victoria Falls. The need for power led to the opening in 1924 of one of Africa's early hydroelectric power stations, on

the Mulungushi River 51kms southeast. Kabwe is the headquarters of Zambia Railways. Maize (corn) and tobacco are cultivated in the surrounding area. . This is where 'Rhodesian Man' (*Homo sapiens rhodesiensis*), a primeval ancestor of modern man was discovered in the thirties, but whose significance has faded with the discovery of older skulls in Tanzania.

The railway system dates back to the pre-World War I German-built Central Railway Line, which bisects the country between Dar es Salaam, Kigoma, and the Tanga-to-Moshi railway. Today there is also a branch between these two lines, and another line connects Mwanza with Tabora on the Central Line.

In 1968, the People's Republic of China wished to erect a more concrete and permanent manifestation of its leadership of the Non-Aligned movement and solidarity with the Third World. The project selected for this testimonial was the TAZARA or UHURU or 'Freedom' railway line.

Landlocked Zambia was then surrounded by the Portuguese colonies of Angola and Mozambique and White Rhodesia to the south. The Vietnam War sustained an insatiable demand for Zambian copper and the TAZARA line would break Zambia's dependence on Portuguese-controlled Lobito and Beira and Durban and East London. So the great irony of African history presented itself: Cecil Rhodes' project was carried forward by Communist China under Mao Zhe Dong.

25 000 Chinese and 50 000 African workers toiled for five years to lay 310 000 tons of steel rails and to build 300 bridges and 23 tunnels. 147 stations were constructed over 1858 kilometres from Dar-Es-Salaam to Kapiri Mposhi. The price came to US\$230 million and, in 1975; the line was completed, ahead of schedule. At Kapiri it was connected to the old colonial line having the same Cape gauge of 3 foot 6 inches (1 067mm).

No sooner was the last bolt in place than the Portuguese Empire joined those of Babylon and Rome in history's distant memory. In 1975, the Americans fled from Saigon and Zambia's copper boom collapsed, never to rise again.

After South Africa started its long road to re-joining the World after 1990, the prospects of restoring links between South Africa and Tanzania waxed stronger. It was left to Rohan Vos to blow upon the dormant ember of Rhodes' dream and to re-ignite the heroic idea of an epic train journey tying Cape Town to Dar-Es-Salaam, the terminus of the Cape gauge. After being arrested at Dar-Es-Salaam airport for sixteen hours gradually, trust was established. Now the TAZARA railway can develop a tourist dimension, which had been singularly lacking since its inception.

To the northeast Lusaka lies on a limestone plateau 1 280ms above sea level. In the 1890s the area in which Lusaka is situated was taken over by the British South Africa Company from the local chiefs in the course of the formation of Northern Rhodesia, with control passing to the British Colonial Office in 1924. Lusaka became the capital of Northern Rhodesia in 1935. The city figured prominently in the movement for independence and was where the Federation of African Societies founded the Northern Rhodesian Congress in 1948. After the federation of Northern and Southern Rhodesia took place in 1953, Lusaka was a hub of the civil-disobedience movement (1960).

Lusaka is now the capital of Zambia, an independent state since 1964, and until 1991, ruled by Dr Kenneth Kaunda. Dr Kaunda, in common with Bismarck and Churchill, was profuse with tears on any sentimental public occasion. His countrymen, however, had more substantial grounds for tears than their ruler! Kaunda impoverished his country so, that Zambia, with 12 million people, vast reserves of copper and double the size of Zimbabwe, has one of the highest per capita foreign debts in the world. It also has one of the highest rates of

urbanisation in sub-Saharan Africa. The countryside of Zambia is empty of people - most squat around Lusaka and the Copperbelt.

The surrounding area consists mostly of flat grassland that supports ranches and farms. Termite mounds 3 to 6ms high are a regular feature of the landscape. Farming and stock rearing are the principal economic activities in the region, and products include corn, beef, hides, dairy products, and tobacco. The Nyanja and Soli are the major ethnic groups in the area, and there are minorities of Europeans and Asians.

Although basically reliant on its agricultural environs, and a major collecting point for maize (corn) and tobacco, Lusaka has a mixed economy that includes cement, textile, and shoe manufacture, and food processing. An international airport and the University of Zambia (founded 1965) are just outside the city, and the Munda Wanga Botanical Gardens are nearby. The city lies at the junction of the Great North Road (to Tanzania) and the Great East Road (to Malawi) and has rail connections to Livingstone, Ndola and Tanzania.

To the west lies Barotseland, which, until 1964, was governed by a king under a separate treaty signed with Queen Victoria. This provided a rich source of constitutional dispute and much unpleasantness when Britain withdrew. In common with the Kabaka of Buganda and the king of the Zulus, traditional African monarchies have generally made a poor transition to the modern age.

Kafue, in south-central Zambia, is about 40kms south of Lusaka. The town is located on the northern bank of the Kafue River, whose water is diverted northward by channel to Chilanga and Lusaka. The Kafue River Bridge consists of fifteen 31m spans. In 1927, this bridge was raised 1.5ms to bring it above flood level.

The Kafue River is navigable for 400kms upstream and a hydroelectric power station now harnesses the power of the water. The Kafue Flats teem with fish and its shallows are habitat to waterfowl. The town's industrial area, which gets its power supply from the Kafue hydroelectric scheme, houses an ammonium nitrate fertilizer plant, a textile mill, an iron and steel complex, a firm producing fibreglass fishing boats, a leather tannery, a pulp and paper mill, a copper-processing unit, a bag and sacking plant and an assembly and equipment repair plant. The Great North Road and a railway route pass through Kafue, linking it to Mazabuka and Lusaka.

The town of **Livingstone** in Zambia (907ms) has never recovered from the removal of the capital to Lusaka in 1935 (due to its central position) and the break-up of the Federation (1963). Before the age of aircraft, Livingstone was the principal entry point for Northern Rhodesia. Up until 1963, Livingstone was the place to stay when visiting the Falls. With UDI, international sanctions and the murder of Canadian tourists in 1974, Livingstone no longer provided a base for visitors, especially South Africans who made up the vast majority. After having suffered severe decline with the ebb of empire, post 1963, Livingstone has undergone a small renaissance since only 2000. The airport has been revamped; Sun International has built two sparkling new hotels from scratch – the Royal Livingstone and the Zambezi Sun. The multiplier effect on Livingstone has been great and the prestigious Rhodes-Livingstone Museum has finally undergone a refit. It houses an outstanding collection of artefacts associated with David Livingstone.

The little station of **Victoria Falls** (913m) was first reached by railway in June 1904. Old colonial buildings, bougainvillea and palm trees against the backdrop of the Victoria Falls Hotel form a charming oasis of soft sweetness after the rugged dryness of the landscape.

The Victoria Falls is one of Nature's great revelations on a par with the Grand Canyon, Mount Everest and an erupting volcano. It is believed that there have existed no less than seven different 'Victoria Falls' over the past two million years. These cascades correspond to the lower gorges of the Zambezi. The present falls is wearing from Devil's Cataract northwards, eroding the softer material behind the present basalt base of the falls. When eventually all the

soft matter has been removed, the Victoria Falls will move back, a fresh gorge will yawn and where the falls are now will become a new site for tourists.

Although just over a mile long (1.7km) the Falls are broken up by various small islands, including Livingstone Island. At their deepest, the Falls are 108ms deep at Rainbow Falls. Although the usual tour of the Victoria Falls National Park is recommended from the south or Zimbabwe-side of the Falls, the finest view along the gorge is to be had from the north side or Zambian-side.

David Livingstone is generally considered to be the first European to have seen the falls in 1855 during his first expedition from the Cape to Luanda (Angola), then back again via the Falls; along the Zambezi to Quelimane in Mozambique. A truly heroic journey! The greatness of Livingstone lies in his painstaking research and accurate observations. His book, *Missionary Travels and Researches in South Africa including a sketch of Sixteen Years Residence in the Interior of Africa* was published in 1857 and sold 70 000 copies. It probably did more to influence Western attitudes towards Africa than any book written before or since. Livingstone first approached the falls from upstream and landed on what is today called Livingstone Island. Let him tell the story:

'When about half a mile from the falls, I left the canoe by which we had come down thus far, and embarked in a lighter one, with men well acquainted with the rapids, who, by passing down the centre of the stream in the eddies and still places caused by many jutting rocks, brought me to an island situated in the middle of the river, and on the edge of the lip over which the water rolls. In coming hither, there was danger of being swept down by the streams which rushed along on each side of the island; but the river was now low, and we sailed where it is totally impossible to go when the water is high. But though we had reached the island, and were within a few yards of the spot, a view from which would solve the whole problem, I believe that no one could perceive where the vast body of water went; it seemed to lose itself in the earth, the opposite lip of the fissure into which it disappeared, being only 80 feet distant. At least I did not comprehend it until, creeping with awe to the verge, I peered down into a large rent which had been made from bank to bank of the broad Zambezi, and saw that a stream of a thousand yards broad, leaped down a hundred feet, and then became suddenly compressed into a space of fifteen or twenty yards.

The entire falls are simply a crack made in a hard basaltic rock . . . In looking down into the fissure on the right of the island, one sees nothing but a dense white cloud, which, at the time we visited the spot, had two bright rainbows on it . . . From this cloud rushed up a great jet of vapour exactly like steam, and it mounted 200 or 300 feet high; there condensing, it changed its hue to that of dark smoke, and came back in a constant shower, which soon wetted us to the skin. This shower falls chiefly on the opposite side of the fissure, and a few yards back from the lip, there stands a straight hedge of evergreen trees, whose leaves are always wet. From their roots a number of little rills run back into the gulf; but as they flow down the steep wall there, the column of vapour, in its ascent, licks them up clean off the rock, and away they mount again. They are constantly running down, but never reach the bottom.'

The Eiffellesque construction of the Victoria Falls Bridge was completed in 1905. An English civil engineer, Sir Ralph Freeman, designed the bridge at the instruction of Cecil John Rhodes, positioning it such that the train would be touched by the spray of the Falls. In its time it was the highest bridge in the world. Motor vehicles were not allowed onto the bridge until the law was changed in 1930.

The existence of **Hwange** rests upon the great coal reserves estimated at 3000 million tons, which lie beneath the surface. Hwange (746ms) sits on a 12-metre coal seam a mere 46ms below the surface. Rhodes gave orders that the railway line be diverted to pass through the coalfields, rather than continue straight to the Victoria Falls.

Hwange the largest of Zimbabwe National Parks covers an area of more than 14 000 square kilometres, the size of Wales in the United Kingdom. It was declared a Game Reserve in 1928 and through a careful management system over the years the small wildlife nucleus has grown

into large herds that now roam the game park. The National Park is estimated to have more than 40 000 elephants and is also home to a wide range of other species, one of the most rare being the wild dog (or painted hunting dog) that through the efforts of a dedicated team of experts are once again breeding and growing in big numbers. The magnificent Sable Antelope, Zebra, Eland, Kudu and Water buck, the bad tempered buffalo, and the tall gracious giraffe are just a few of the animals which are commonly seen on game-viewing drives.

Bulawayo (1 360m) was founded in about 1824 by a Zulu chieftain who broke away from Shaka, founder of the Zulu nation in Natal. After spending some years in the area of modern-day Pretoria, Mzilikazi fled before the approaching Boers to found Bulawayo, 'the place of killing' as capital of Matabeleland. A generation later, his son Lobengula granted a mineral concession to CJ Rudd, Cecil John Rhodes' partner in De Beers. On the basis of this document, Rhodes obtained a Royal Charter from Queen Victoria and in 1890, the British South Africa Company began the White invasion / colonisation of 'Charterland' later called Rhodesia and, subsequent to 1924, Northern Rhodesia (Zambia) and Southern Rhodesia (Zimbabwe).

Zimbabwe is named after the mysterious ruins of Great Zimbabwe, located near Masvingo (previously Fort Victoria) in the east of the country. The word Zimbabwe means 'place of stones' and is generic, not particular. These ruins are believed to date from about 800 AD but its origins are lost in mists of antiquity. It seems to have been suddenly deserted in about 1600 AD probably as a result of desertification and absence of firewood. The most probable theory is that this enormous complex of circular battlemented compounds was used as the base for the Mwena Mutapa (Monomotapa). Slaves captured in the interior were kept at Zimbabwe pending the change in the Indian Ocean trade winds or Monsoon, when they were marched smartly down to the port of Sofala (30kms south of modern-day Beira, Mozambique), placed in dhows and blown across to Ceylon, India, Arabia and Persia. They are the largest and most mysterious ruins in sub-Saharan Africa.

In 1953, Northern Rhodesia, Southern Rhodesia and Nyasaland (Malawi) joined together in the Federation of Rhodesia and Nyasaland under the British Crown. This was to be the high watermark of colonial achievement. Great investment in infrastructure, mining and manufacturing took place. By 1963 however, Harold Macmillan's 'winds of change' had blown through British Africa. African nationalism in the persons of Banda (Malawi) and Kaunda (Zambia) were determined to force political independence irrespective of the economic costs to their people. It is true to say that these two countries have never recovered the levels of economic prosperity which they enjoyed in the days of the Federation.

The British government refused to grant independence to Southern Rhodesia without majority rule. On 11 November 1965, Ian Smith proclaimed a Unilateral Declaration of Independence for Rhodesia. After a bloody guerrilla war fought by the Patriotic Front headed by Robert Mugabe, now President of Zimbabwe, and Joshua Nkomo, deputy-President, in which 30,000 people (98% Blacks) were killed, Rhodesia metamorphosed into the African-Socialist state of Zimbabwe on 18 April 1980.

Cecil John Rhodes is buried in the granite tomb of the Matobos, just outside Bulawayo. It was Rhodes who gave the instruction that the streets of Bulawayo be wide enough to allow an ox-wagon with its full complement of sixteen oxen to turn a complete circle. Bulawayo thus has the distinction of having the widest streets and the longest railway platforms in the world! The Cape-to-Cairo railway line reached the city in 1898, having come up from Cape via Mafikeng and Francistown and so skirting the Transvaal republic of President Paul Kruger.

Twice the size of Arizona, **Botswana** is in south-central Africa, bounded by Namibia, Zambia, Zimbabwe, and South Africa. The terrain is mostly an arid plateau (910 m high) with hills to the east and the Kalahari Desert in the south and west. In the northwest the Okavango (Cubango) River drains into the vast region of the Okavango Delta and Lake Ngami, thus forming a huge marshland. Rainfall varies from less than 23cm per year in the southwest to about 64 cm in the north. The climate is subtropical, but droughts are common.

The country's population is mainly Tswana, who speak a Bantu language and are divided into eight major groups. There are also small minorities of Kalanga, Basarwa, Kgalagadi, and other peoples. English is the official language, but Tswana is also widely spoken. About half the population is Christian and half adheres to traditional practices.

Cattle farming and the export of beef and other cattle products and subsistence farming are the chief agricultural activities. The country's water shortage and consequent lack of sufficient irrigation facilities have hampered agriculture, and only a small percentage of the land is under cultivation. Corn, sorghum, millet, and beans are the principal subsistence crops, and cotton, peanuts, and sunflowers are the main cash crops.

Mining has become the country's economic mainstay since independence. The only known minerals in the country at the time of independence were manganese and some gold and asbestos, but significant diamond, coal, nickel, and copper deposits have since been found, as well as salt and soda ash. Botswana's diamond mines collectively make up one of the largest diamond reserves in the world, with stones mined by the government and a South African mining concern. The revenue earned from diamonds has underwritten national health-care and educational programs, and now drives Botswana's economy. The vast coal deposits are also being worked. Deposits of antimony, sulphur, plutonium, and platinum have also been found.

Although Botswana's mineral wealth has made it one of the wealthiest nations of Southern Africa, high unemployment remains a problem. Development of the tourist industry has been based partly on the attraction of the country's game reserves, and financial services are an increasingly important sector of the economy.

Botswana, because of its landlocked position, remains heavily dependent on South Africa, which provides port facilities. Many Botswana's people work in the South Africa's mines, although their numbers have diminished. There are rail and road links with South Africa and Zimbabwe, its chief trade partners. Botswana is a member of the Southern African Development Community.

The San people (Bushmen) were the aboriginal inhabitants of what is now Botswana, but they constitute only a small portion of the population today. The Tswana supplanted the San, who remained as subjects. Beginning in the 1820s, the region was disrupted by the expansion of the Zulu and their offshoot, the Ndebele. However, Khama II, chief of the Ngwato (the largest Tswana nation), curbed the depredations of the Ndebele and established a fairly unified state.

A new threat arose in the late 19th century with the incursion of Boers (Afrikaners) from neighbouring Transvaal. After gold was discovered in the region in 1867, the Transvaal government sought to annex parts of Botswana. Although the British forbade annexation, the Boers continued to encroach on native lands during the 1870s and 80s. German colonial expansion in Namibia (formerly South West Africa) caused the British to re-examine their policies, and, urged on by Khama III they established a protectorate called Bechuanaland in 1884-85. The southern part of the area was incorporated into Cape Colony in 1895. Until 1961, Bechuanaland was administered by a resident commissioner at Mafikeng, in South Africa, who was responsible to the British high commissioner for South Africa.

Britain provided for the eventual transfer of Bechuanaland to the Union of South Africa; in succeeding years, however, South Africa's attempts at annexation were countered by British insistence that Bechuanaland's inhabitants first be consulted. The rise of the National party in South Africa in 1948 and its pursuit of apartheid turned British opinion against the incorporation of Bechuanaland into South Africa. Although Bechuanaland spawned no nationalist movement, Britain granted it internal self-government in 1965 and full independence as Botswana on September 30, 1966. Shortly after, Botswana became a member of the United Nations. Seretse Khama, grandson of Khama III, was elected the first president, and served until his death in 1980, when he was succeeded by Dr. Quett Ketumile Joni Masire.

In the period after independence, the country generally maintained close ties with its white-ruled neighbours and refused to let its territory harbour guerrilla operations against them. Prior to Zimbabwe's independence in 1980, however, Botswana became a refuge for guerrillas. In the years before a multiracial government was established in South Africa, Botswana was the target of South African reprisals.

Although Botswana is rich in diamonds, it has high unemployment and stratified socio-economic classes. In 1999 it suffered its first budget deficit in 16 years because of a slump in the international diamond market. Yet it remains one of the wealthiest as well as most stable countries on the continent.

After 17 years in power, President Ketumile Masire retired in 1997, and Festus Mogae, an Oxford-educated economist, became the new president. Mogae has won high marks from the international financial community for continuing to privatize Botswana's mining and industrial operations.

Although Botswana's economic outlook remains strong, the devastation that AIDS has caused threatens to destroy the country's future. In 2001, Botswana had the highest rate of HIV infection in the world (350 000 of its 1.6 million people). With the help of international donors, however, it launched an ambitious national campaign that provided free antiviral drugs to anyone who needed them, and by March 2004, Botswana's infection rate had dropped significantly. But with 37.5% of the population infected, the country remains on the brink of catastrophe. President Mogae won a second and final four-year term in October 2004.

After serving 10 years as deputy president, Ian Khama, the son of Botswana's first president, Seretse Khama, was inaugurated as president in April 2008. Festus Mogae stepped aside after 10 years in office.

Beyond Palapye the main road passes through stands of mopane woodland before reaching the eastern turn-off to the mining town of **Selebi-Phikwe** 88km southwest of Francistown.

Many visitors to Botswana in the past have missed this town, located just over 50km off the main road, but it has grown into the third-largest urban centre in Botswana. With the completion of the tarred road from the Martin's Drift border post, Selebi-Phikwe is now a convenient half-way stop-over between Johannesburg (via Ellisras) and Botswana's northern tourist attractions.

Originally there were two tiny places called Selebi and Phikwe, which straddled a large undiscovered deposit of copper and nickel in the area. When the mineral wealth of the area was discovered in the 1960s a mine and township was built in the woodland between the places with the combined name of Selebi-Phikwe.

The mining operations at Selebi-Phikwe have not been as successful as expected and the economy of the area has diversified into areas such as textiles, manufacturing and commerce. A power grid terminal was opened here in 1996 to carry electricity from South Africa through to Zimbabwe - the first stage of the Southern African Power Pool.

Selebi-Phikwe is one of Botswana's four mining towns - the others being Orapa, Jwaneng and most recently Sowa - Selebi-Phikwe was established in 1967 as part of the infrastructure for the BCL (Bamangwato Concessions Ltd) copper nickel mine. This was the country's first modern commercial mine.

With a population of almost 70 000, this centre owes its development primarily to the presence of the copper-nickel mine, which employs over 4 850 people, making it the single largest employer in the country.

Selebi-Phikwe is today an excellent example of a success story in the government's efforts to create employment opportunities as well as to diversify the economy by boosting the manufacturing sector. The town was chosen as a priority centre for regional industrial development and is a principal location for large-scale light manufacturing.

As one of the oldest towns in Botswana and site of southern Africa's first gold rush, **Francistown**, home to 92 500 people, is a typical frontier town, strategically placed as the gateway to the north, with all the main roads to Gaborone, Zimbabwe, Maun and Kazungula passing through it. It manages to maintain its character despite being Botswana's second-largest urban centre and "Capital of the North".

Evidence of human habitation goes back for 80 000 years. In the 1820s, the Ndebele stormed through before coming to rest near Bulawayo, bringing their influences and taxation to the Kalanga territory of north-eastern Botswana. The first European to visit Nyangabgwe (the nearest village to present-day Francistown) was missionary Robert Moffat. He was followed by Karl Mauch, who discovered gold along the Tati River in 1867, followed soon thereafter with more deposits in the Francistown area itself. Francistown was the site of southern Africa's first "gold-rush". The area, hailed as the Ophir of Africa, was rushed by prospectors and adventurers alike to stake their claim of fame and fortune, many coming from as far as Australia and America.

With the rapid influx of people, Daniel Francis - after who Francistown was named - organised the establishment of the town. Initially the town consisted of just one main street lined with bustling western-style saloons and supply stores running parallel to the "Cape to Cairo" railway line.

Many of these old shafts and dumps now litter the urban sprawl, most whose history has long been forgotten, along with the dreams of early pioneers. But the excitement of the times is preserved in the evocative names of some of the mines which remain; 'Phoenix', 'Bonanza', 'Jim's Luck', 'Lady Mary' and 'White Elephant' to name but a few. It is not only the mine names which tell a story, the main street in Francistown is still called 'Blue Jacket Street', and is dedicated to the memory of an old prospector, Sam Andersen. Sam was famous before arriving in Botswana as having been the first man to walk, with little more than his prospecting wheelbarrow, right across Australia's Western Desert. Yet he is immortalized in Francistown for the blue denim jacket that he always wore.

The gold in eastern Botswana is a complicated mix of narrow reefs, which made it very difficult for the early miners to extract and by the 1940 much of the small scale operations had ceased, leaving the larger mines, which now merely sustain their operations hoping for new finds and an improvement in the gold price.

Often described as Africa's fastest growing city, Botswana's capital **Gaborone** is a vibrant and colourful city, which lies in the flat valley between Kgale and Oodi hills, on the Notwane River in the south eastern corner of Botswana, 15km from the South African border post at Tlokweng.

In 1998 Gaborone had an estimated population of 192 000 inhabitants. As the capital city, Gaborone is the seat of government as well as the country's commercial and administrative heart. The city is named after Kgosi (Chief) Gaborone who led the Batlokwa tribe into the area in the 1880s. They settled in Tlokweng, the first urban area you reach when driving into the city from the South African border post 10km to the east. In the early 1890s a colonial fort was built in an area now known as The Village near Tlokweng, and its ruins can still be seen near the Village Cinema.

As plans developed for Bechuanaland's independence, the need to establish an administrative town within the boundaries of the country was recognized. Bechuanaland was the only territory in the world whose administrative centre, Mafikeng, lay outside its boundaries. Nine possible sites had been suggested: Mahalapye, Shashe, Francistown, Serowe, Artesia, Lobatse, Gaborone, Maun and a point within the Tuli Block.

Gaborone was chosen because of its strategic location, its proximity to the railway line and Pretoria, its already established administrative offices, its accessibility to most of the major

tribes, its non-association with any particular tribe, and, most importantly, its closeness to a major water source.

The original name of the city, Mahikeng, literally means "the place among rocks". The name refers to the volcanic rocks that provided temporary shelter to Stone Age humans while hunting animals drinking water in the Molopo River. This name was given to the area in 1852 by early BaRolong chiefs who had settled along the river, near the present day village of Rooigrond.

The frontier history of southern Africa was a brawling, boisterous, violent chapter in human history. **Mafikeng's** beginning was during a period of considerable frontier instability. The Rolong people who lived in the area were divided into two factions. Both sides recruited European mercenaries, and some wild individuals, known as freebooters, joined the fray. Rewards from local chiefs for services rendered consisted of farms and the result was the creation of a miniature republic named Goshen, with Rooigrond some 20kms from Mafikeng, as its capital.

There was considerable uproar. The British forces sent a force to occupy the area and the commander, Sir Charles Warren, annexed what became known as British Bechuanaland. An administrative area was established at the place known to the Tswana as Mafikeng (place of boulders). This was the foundation in 1885 of Mafikeng as it was known to Europeans until recent years.

The great glory of the town came with the outbreak of the South African War (a.k.a. Anglo-Boer War). Mafikeng was besieged by South African forces from 14 October 1899 until 17 May 1900.

Colonel R.S.S. Baden-Powell was the British Commander, and it was during the siege that he conceived the idea of the Boy Scouts. The small boys of Mafikeng were almost as tough as their fathers. To keep them usefully employed and out of mischief during the long months of the siege, the ingenious colonel gave them non combative tasks. They proved so useful at carrying out the town's essential services that the idea of the Boy Scouts movement became firmly established.

The siege of Mafikeng captivated the British public. It was not particularly violent. The South African/Boer forces completely outnumbered the defenders of the town but they were content to simply besiege Mafikeng, with an occasional shelling, and no attempt at a massed onslaught was made. There was seldom any fighting on Sundays and apart from monotony, short rations, shell dodging, sniping, periodic patrols, raid and minor clashes, the whole siege was a singularly civilised example of warfare, with polite notes exchanged between the opposing commanders on such matters as the status of non-combatants.

The relief of Mafikeng was a great delight to the British people. London enjoyed a wild night of celebration. So many odd little stories had reached the outside world about the siege – escapes and tragedies of individuals, tales of heroism and cowardice, and of the personalities of the besiegers and the besieged – that the siege will always be remembered and discussed.

In the modern town there are numerous mementoes of the siege. Cannon Koppie with its fort is maintained as a historical monument. Guns and cannons are preserved in several of the original buildings. Mafikeng has reverted to its original Tswana name of Mafikeng and forms parts of the sprawling urban complex that includes Mmabatho and Montsiwa.

Thirty one kilometres away is a vast sink hole in the dolomite. Known as Wondergat ('Wonderhole') it is nearly 100ms deep and 70ms wide at its widest point. It is filled with clear water and legends still linger of its use as a place of execution by Mzilikazi and his Ndebele raiders before they were driven across the Limpopo by the Voortrekkers.

The malaria free **Madikwe Game Reserve** situated against the Botswana border, 90 km north of Zeerust, just four hours' drive from both Johannesburg and Pretoria, is now a prime safari destination and one of South Africa's largest game reserves. Madikwe has the distinction of being one of the few game reserves in the world to be proclaimed purely on the grounds of being the most appropriate and sustainable land use for an area.

The reserve is run as a joint venture between the State, the private sector and local communities. The success of this approach has made Madikwe the role model for similar ventures being started up elsewhere in South Africa.

The reserve is divided into two main areas. The area north of the Molatedi Dam is fenced and stocked with all the historically indigenous wild animals including elephant, rhinoceros, lion, leopard and buffalo. As part of future developments for the park, the dam area will be fenced separately and stocked with smaller, non-dangerous animals thus allowing free movement of tourists and maximum utilisation of the dam.

Even before Madikwe had been officially proclaimed, work had begun to clear the many derelict farm buildings and structures, the hundreds of kilometres of old fencing and the many alien plants. Some of the buildings were spared and now serve as Park offices and workshops, while various outposts have been built to house game scouts and other reserve staff. Approximately 60 000 hectares of the reserve were enclosed in a perimeter fence, measuring 150 kilometres. This was later electrified to prevent the escape of elephants and the larger predators. Where possible, local business and labour have been used to demolish and clear unwanted structures, erect fences, construct roads and build dams and lodges. The reserve consists of vast plains of open woodlands and grasslands, dissected by the rugged Rant van Tweedepoort, and bordered in the south by the Dwarsberg Mountains. The area is dotted with huge rocky hills or inselbergs.

The largest ever translocation of game occurred when 10 000 animals of 27 species were moved to Madikwe in Operation Phoenix. These included the big five, other endangered species such as the Wild Dog and Cheetah. Madikwe is now home to 66 mammals and approximately 300 resident and migrant bird species.

Zeerust originated in 1864 when Casper Coetzee employed a builder, Walter Seymore, to build a church and fort on his farm. Coetzee died before the buildings were completed and the town that grew around them was named Coetzee's Rest, or Zeerust, in his memory. Mixed farming and mining of minerals like lead and chrome are the backbone of the economy in this bushveld town.

The town **Groot-Marico** (it means Big-Marico) is named after the Groot-Marico River, one of the few perennial rivers in this area. The name has got nothing to do with the size of the town, which is very small. Groot-Marico is well known for its beautiful African bushveld surroundings and the special kind of hospitality of its people.

The fertile valley of the Groot Marico River is densely cultivated with maize, citrus fruit and tobacco. This valley is the setting for many of the tales of Herman Charles Bosman, the South African author who evolved a unique style of Afrikaans-flavoured English in books such as Mafekeng Road.

The town of Groot Marico has an intriguing Wild West atmosphere. Many of the inhabitants are descended from the early Voortrekkers. Marble, slate and andalusite are mined in the area which is also famous for some remarkable dolomite caves containing animal fossils.

When you turn the key of your car in the morning, and it bursts into life, consider that if it were not for an obscure mineral called andalusite, this simple act would not be possible. In the world of minerals, andalusite is known as an alumino- silicate ($Al_2 SiO_5$), and is very similar to the other commercially-exploited minerals of sillimanite and kyanite. One of its uses is in the

manufacture of spark-plug ceramics. However, the steel your car is made of most probably, was manufactured in a furnace or ladle lined with andalusite refractory bricks. While South Africa is the world leader in the export of gold, ferrochrome and manganese, it is also the world's largest exporter of andalusite.

The **Magaliesberg** are among the oldest mountains in the world, almost 100 times older than Everest. They stretch for 120kms from Bronkhorstspruit Dam east of Pretoria to Rustenburg in the west and separate the highveld grasslands to the south from the bushveld savannah in the north, with its summit rising 1 852ms above sea level. Sheer quartzite cliffs face south, overlooking a wide valley and a smaller ridge similar in shape and structure to the Magaliesberg. Water runoff from the mountains has created deep gullies and wonderful kloofs, some more than 100ms deep, with perennial waterfalls of crystal clear water spilling from the heart of the mountain. These beautiful places are popular with climbers and hikers.

The Magaliesberg probably has the most intriguing and longest session of the history of mankind than anywhere else on earth. The caves at Sterkfontein, 25km south of the mountains, provided archaeologists with the most significant finds of early humans. Here is was that they discovered "Mrs Ples", 2.3 million years old. Another 4 million year old skeleton, Little Foot, lies deep within the caves, and has still to be excavated.

Many people have lived in the region over hundreds of thousands of years, leaving evidence of different lifestyles, cultures and technologies from primitive societies through to the Late Iron Age and beyond. The tribes of the descendants of the earliest proto-hominids had free reign in this tranquil valley, fished the clear streams and hunted the vast herds of animals that roamed the plains with tools made initially from stone and later forged from iron. While wild animals or early death from injury or disease may have threatened human life but people lived in harmony with nature, which flourished in abundance in the greater Magaliesberg area over the previous two million years of human development.

Modern Twana people talk about how their ancestors migrated here through Zambia and Botswana and settled in groups all over the highveld. A group of Kwena people moved into the Magaliesberg and the Kwena chief at the time, Modimosana, divided his chiefdom among his four sons, who called their groups Kwena Magopa, Kwena Maake, Kwena Matlahaku and Kwena Mmatau. The Kwena Mmatau, who were particularly successful, became the dominant group. By 1800 they had constructed stone walled villages all along the southern slopes straddling the mountain passes that early ivory traders used on their way to the Cape. These traders and other travellers called the mountains Cashan after Kgwashwane, the powerful chief of the Kwena Mmatau, and it remained with that name until about 1840.

Around 1822, Shaka, famous leader of the Zulu nation, sent his favourite captain, Mzilikazi to subdue the Sotho tribes in the area. After conquering the Sotho tribes, Mzilikazi decided to break away from Shaka and the Zulu tribe and create his own clan (khumalo, or elephant clan). Fearing an attack from Shaka, he fled and settled in these regions. Mzilikazi's impis left behind them a trail of destruction while consolidating the Matabele nation, with neighbouring tribes living in trees for fear of their lives.

In the early nineteenth century explorers like Robert Moffat, David Livingstone, and William Cornwallis Harris travelled in this part of Africa and made contact with some of the tribes that occupied the area. Some of these early explorers were scientists, others traders, missionaries or hunters, but no matter what their interests were they all found great rewards in the region.

After a number of Boer trek parties had been slaughtered by Mzilikazi's impis, the Boers, led by Hendrik Potgieter and Gert Maritz, warded off a series of attacks by the Matabeles and drove them north across the Limpopo River where Mzilikazi later established his kingdom of Bulawayo in Zimbabwe. The Boers settled in the valleys of the Magaliesberg and turned it into some of the most productive farmland in South Africa.

On the 1st of October 1899, war broke out between the two 'white' tribes, the British and the South African/Boer republics of Transvaal and Orange Free State. Within a year many lives were lost in the fighting in the Magaliesberg valleys, at Kommando Nek, Nooitgedacht and in many of the deep gorges and high ridges along the mountain side.

All over the area remnants of these clashes can be seen. Many forts and blockhouses were built at strategic points in the mountains and some can still be seen today, the most prominent being the fort overlooking Kommando Nek and the Hartebeespoort Dam built in early 1901.

The second South African War (a.k.a. the Anglo-Boer war) brought its own pressures to this area. The South Africans, who were very familiar with the mountains, used secret pathways to cross the mountains and launch guerrilla attacks on the British soldiers. Occupation of the Magaliesberg was of great importance to the South African and English forces, especially routes between Pretoria and Rustenburg that crossed the Magaliesberg Mountains through, Silkaatsnek and Kommandonek.

Great battles were fought and lives were lost at Buffelspoort, Nooitgedacht, and Olifantsnek. The mountains were a severe testing of military skills and the Magaliesberg war was dominated by South African leaders like De la Rey, De Wet, Beyers, Smuts and Kemp, who were experts in guerrilla leadership.

Although many of the farms lay in ruins after the war, the natural beauty of the Magaliesberg remained unscarred and breathtaking as it is today.

Citrus fruit, tobacco, vegetables and various sub-tropical fruits are grown on the slopes, and there are nurseries where flowers such as cyclamen are cultivated.

In the past elephants and other wild animals roamed the ridges. Today it is the home of the Cape Vultures. There are about 250 breeding pairs and these great birds can be seen circling in the thermals. Vultures are slow breeders, laying only one egg a year, and the mortality rate for the fledglings is high. Ornithologists climb to the rocky ledges to ring the chicks and ringed vultures have been found as far afield as the Etosha Pan, some 1 200kms away in Namibia.

The Witwatersrand gold reef was formed over hundreds of thousands of years, with its most northern reaches being discovered at Blaauwbank, a few kilometres from the present day village of Magaliesburg. This is where the first strike of the Witwatersrand system was made and in 1874 the Blaauwbank area was pegged out for formal gold mining activities. Here the first mining company near what is today Johannesburg was formed, and named the "Nil Desperandum Co-operative Quartz Company". The importance of this mine attracted miners to the present day Johannesburg Reef area and the discovery of rich, valuable veins of gold, creating the largest settlement of man in Sub-Saharan Africa.

Today you can view the early beginnings of gold mining activity at the 'still operational' Blaauwbank Gold Mine and Museum. A few minutes drive from the Magaliesberg village.

Extensive coverage of the history of Magaliesberg can be found in Vincent Carruther's excellent book on the region.

Irene is named after Irene Nellmapius, daughter of a Hungarian financier well known before the South African-Anglo War and is the centre of the South African film industry. Adjoining it is the Doornkloof Farm where General Jan Smuts had his home until his death in 1950. The Doornkloof homestead is a surprise to most visitors as it is a modest galvanised iron and wood house simply furnished with its original furnishings and many reminders of Smuts. Two of his motor cars are also on display. The ashes of Smuts and his wife, Isie, are scattered on the nearby Smuts Kopie.

During the rush to the Witwatersrand gold fields a Scot named John Jack, an itinerant trader, decided to try his hand at prospecting. He was passing the farm Elansdfontein when he made his decision and immediately began scraping around in the ground. He found traces of gold almost at his first attempt.

With his partner, August Simmer, Jack bought the farm – which at one time had been exchanged for an ox-wagon – and floated a mining company, Simmer and Jack. Both men made fortunes. The town that grew next to the mine was called **Germiston** by Jack, after the

farm near Glasgow where he was born. The original Elandsfontein homestead still stands near the city centre. The colossal dumps of waste rock from the mines have enclosed the city within great man-made mountains.

Germiston became a municipality in 1903 and a city in 1950. The Simmer and Jack mine closed in 1964 by which time it had produced 15 802 469 ounces of gold. Germiston today is a major industrial centre with over 2000 factories.

Early signs of man's first settlement along the banks of the Apies River, in whose two broad and well-sheltered valleys **Pretoria** is situated, go back at least 350 years. Both Sotho and Ndebele people have dwelt here and in 1825, Mzilikazi, the renegade Zulu chief who deserted Shaka with a number of followers established a stronghold on the banks of the Apies. The first European traders and the missionary Robert Moffat visited him there. Other Zulus also came to call and stories of his newfound prosperity soon spread. Shaka learnt of Mzilikazi's whereabouts and sent his armies to obtain retribution for his desertion. Mzilikazi warded off the attack but was forced to flee to the Marico district in the Western Transvaal.

In 1837 the Voortrekkers discovered the fertile valleys of the Apies River and set up a number of farms in the area. One of these early settlers was Andries Pretorius, a hero of the battle of Blood River, who established a farm in the valley at the confluence of the Apies and Crocodile rivers. Shortly after his death the Apies valley was chosen as the site for the capital of the newly created Boer republic, the Zuid-Afrikaansche Republiek (ZAR). Marthinus Pretorius, son of Andries, selected a site on the farm Elandspoort and on 16 November 1855 the new town was named Pretoria in honour of his father.

Pretoria grew up around Church Square, originally the market place and focal point of the Boer community. Several impressive buildings were built around the square such as the Palace of Justice and the old Raadsaal (parliament) of the ZAR. Today Pretoria is the administrative and diplomatic capital of South Africa. The most notable of the cities edifices is the Union Buildings; designed by Sir Herbert Baker and built on Meintjieskop, the hill that dominates the centre of Pretoria.

Built on a low hill outside the city is the monolithic Voortrekker Monument. Completed in 1949 to commemorate the Voortrekkers' pioneering spirit, it is seen by some as an important memorial to Afrikanerdom and by others as a reminder of apartheid. Its interior frieze is said to be the second longest in the world.

During October and November Pretoria seems to shimmer with a mauve haze of blossoming jacarandas. In 1888 a citizen of Pretoria, J. A. Celliers imported two *Jacaranda Mimosifolia* trees from Rio de Janeiro. He planted them in the garden of Myrtle Lodge, his home in the suburb of Sunnyside. They still stand in the garden of what is now Sunnyside School.

In 1898 James Clarke obtained a contract to grow trees for the government. He ordered seed from Australia and included in the selection was a packet of seeds of the same species Celliers had imported. Clarke planted the seeds in the State nurseries at Groenkloof where they flourished. Today about 70 000 of these beautiful trees line the streets of the city.

Rovos Rail has its private station situated in **Capital Park** in Pretoria. This was once the bustling hub of steam locomotion in the old Transvaal. Officially opened in 1943, Capital Park, with its locomotive sheds and marshalling yard played a vital roll in the rail network around Pretoria before falling into disuse. Now the home of Rovos Rail, it boasts a small railway museum in addition to its other comprehensive facilities and will, with the addition of semaphore signals and a footbridge, recreate the atmosphere of a fully-fledged railway system. The gracious colonial style railway station serves as the new departure or arrival point for all the train journeys.

Johannesburg is the largest city in sub-Saharan Africa. It is on the heights of the Witwatersrand, some 1828 metres above sea level, that the greatest goldfields in history were discovered before the turn of the century. Prior to 1886, maps of the area where Johannesburg now stands depicted only a series of bush-covered ridges from which flowed a few small streams. When gold was discovered on the Witwatersrand, a vibrant tent town grew rapidly into a frontier city and then into a dynamic commercial and financial centre, now the capital of the Gauteng region. Until recently, the region was known as the PWV, meaning Pretoria-Witwatersrand-Vereeniging.

Gauteng (pronounced with a guttural G) is the smallest and richest of the nine regions formed in terms of South Africa's Interim Constitution of 27th April 1994. The name is a Sotho tribal verbal corruption of the Afrikaans word 'goud' which means gold.

The gold bearing main reef was first struck by an itinerant prospector named George Harrison when he stumbled across an outcrop edging above the surface of the land. His 'Discoverers Claim' can be viewed in a park four kilometres west of the city centre where sandy quartz 'conglomerate' which trapped the fine gold dust around 2700 million years ago is still clearly visible. The gigantic forces of nature were once again responsible for producing the gold metal so precious to the South African economy today. Volcanic rock formed by the embryo earth in its first incarnation was scoured and eroded away over hundreds of millions of years by large bodies of water. Gold was released from the reluctant grip of the igneous rock and washed southwards to be held for an eternity in a series of fossilised beaches.

A great and enormously violent upheaval, perhaps associated with the break-up of the continents, faulted this deeply sedimented beach upwards, allowing it to subside again southwards through an angle of 35 degrees. Eons later, Man arrived to burrow into one of Nature's greatest wonders - an almost inexhaustible supply of gold - a lustrous, highly valued commodity tightly held in vast quantities by the major nations of the world. From their infancy in the early days of 1886, the Witwatersrand gold fields - stretching along a gentle 120km curve from Benoni to Krugersdorp - proved themselves unique. The amount of gold in the ore was and still remains low, but the total reservoir of gold-bearing ore appears to be limitless. These two factors have determined the profile of the gold mining industry in Africa - no single person can manage the industry, unlike the diamond industry which gave rise to great tycoons like Rhodes and Barnato - and only a mining house, consisting of several large shareholders, could raise the imposing capital needed to successfully mine and process the enormous quantities of ore from which small quantities of gold are finally extracted.

The mine dumps of Gauteng, many of which are disappearing as they are reprocessed using advanced technology to capture small quantities of gold which escaped in the less refined methods of past years, are testimony to the scale of mining operations carried out over the years. The deepest mines in the world, 4.7 kilometres below the surface of the earth, are found in South Africa. Mining houses usually control many mines in order to reduce financial risk and to benefit from economies of scale. The milling of the ore is only half the equation. The other half is the extraction of the ore in harsh conditions many kilometres underground, using cheap labour provided by great numbers of able-bodied men from throughout Southern Africa and specially Mozambique.

That is one of the ironies of the South African gold mining industry - opening a new mine, with all its high technology infrastructure and deep mining skills, costs billions of Rands. And yet relatively unskilled labour using specially developed, costly equipment is used to mine the ore. Yet despite their size, the mining houses act as the entrepreneurs, identifying new prospects, carrying out exhaustive feasibility studies and keeping the country's economy buoyant as they extract gold from the earth. Names like Anglo American, Anglo Vaal, JCI and Gold Fields dominate the Johannesburg Stock Exchange and perforce, the South African economy.

The harsh reality involved in squeezing gold from grudging ore is reflected in the lack of aesthetic presence in Johannesburg. In a city, which is barely over 100 years old, only four buildings predate 1900.

South Africa owes its state of development to gold. The 600 tons of precious metal produced every year by the mining houses has paved the way, directly or indirectly, for the industrialisation and modernisation of a traditional African society. Today, with a new and democratic government in place, South Africa has taken up its rightful role as the powerhouse of the African continent.

Kimberley is one of South Africa's best-kept secrets. Somewhat off the beaten track, towards the arid northwest of the country, it does not receive the high volume of tourist traffic, which its history and commercial importance would presume. The story of Kimberley is the story of diamonds. The romantic associations of diamonds, De Beers, Cecil John Rhodes and the Cape-to-Cairo railway are all centred on Kimberley. Although diamonds had been discovered near Hopetown in 1867, it was the discovery of a diamond 'pipe' where the Big Hole now yawns, in 1871, which triggered the Diamond Rush. Kimberley's first name was New Rush to distinguish it from the 'old' rush at Colesberg Kopje. The site of the Big Hole was, initially, a small hill, but that soon disappeared before the furious diggings of the diamond prospectors.

The prospectors staked out their claims and began digging. Some excavated quicker than others, cloudbursts during the summer thunderstorms washed down detritus from the higher claims into the lower ones. Once the hole was deep enough, water pooled in the base and it became necessary to pump it out. In the midst of this competitive chaos, emerged two men, wildly different in background, education and temperament, but with a similar vision. Barney Barnato and Cecil John Rhodes stamped themselves forcefully upon early Kimberley. Barnato controlled the Kimberley Central Mine, whose diamond pipe lies immediately east of the railway station, and Rhodes controlled the De Beers Mine, where the Big Hole is found. Both agreed that the supply of diamonds to the world market had to be controlled through the formation of a monopoly or cartel, but which one would buy out the other?

After intense negotiations, De Beers, with Rhodes as its Chairman, bought out Barnato's holdings in 1888 and promptly made Barnato a Life Governor of the new De Beers Consolidated Diamond Mines. The company, listed on the London and Johannesburg Stock Exchanges until September 2001, still dominates the world's supply of diamonds and the life of Kimberley.

Once De Beers took control of the diamond industry, Kimberley, from having been a thrusting town of young male prospectors, became a company town. It settled down to produce its own diamonds and later to sort and cut diamonds from all over the world. Today, the Harry Oppenheimer building is the throbbing nerve-centre of the diamond-sorting business. With the discovery of gold on the Witwatersrand in 1886 and the consolidation of the diamond industry by Rhodes and De Beers in 1888, the tide of wealth ebbed from Kimberley never to return. It remains a charming town, preserved unchanged over the years owing to the presence of De Beers.

De Beers Consolidated Diamond Mines still has its headquarters in Stockdale Street and every year, from New York, Zurich, Hong Kong, Amsterdam and elsewhere, the directors and shareholders of the world's oldest monopoly gather here in a quasi-rural setting for the Annual General Meeting.

The Boers besieged Kimberley, with Rhodes in it, during the South African War (Anglo-Boer War) (1899-1902). The British army under Lord Methuen attempted to relieve the town but suffered two serious reverses at the battles of Modder River (28 November 1899) and Magersfontein (11 December 1899). The Black Watch suffered terribly, exposed to the intense heat and unable to advance or retreat under withering Boer Mauser fire. Finally they broke and fled. Kimberley was only relieved two months later after the great cavalry dash across the Karoo led by Sir John French and Col. Douglas Haig.

At the beginning of the siege, the artillery defence of Kimberley consisted only of 7 pairs and 2.5 in RMLs. Nobody really knows who first mooted the idea of making a gun in Kimberley

which could outrange the Boer artillery, but credit is usually given to George Labram, an American engineer in the town. He had come to South Africa in 1893 to erect a new crusher plant for one of the Kimberley mines, staying on to become Chief Engineer to De Beers Consolidated Mines Ltd, the company owning all the Kimberley diamond mines and which was under the chairmanship of Cecil Rhodes. A good mechanical engineer with a fertile brain, Labram not only designed and made 'Long Cecil', for which he is perhaps best remembered, but during the first three weeks of the siege he designed and constructed a plant for the bulk refrigeration of perishable foodstuffs - essential with shade temperatures averaging about 31 degrees C. He had also installed an emergency fresh-water supply system, which became the town's sole supply (apart from one or two wells) for the whole siege, and had given much practical assistance and advice to the Royal Engineers in laying out controlled minefields around the town, and with the design and actual construction of the defences.

Then, as the garrison's artillery had expended nearly a third of its ammunition by the end of November, Labram turned part of De Beers' workshops over to making shells, charges, and fuses for the 2.5-inch guns. Prior to all this he had perfected a method (still in use) for the extraction of diamonds from the crushed rock of the mines. His greatest triumph perhaps was turning the workshops into a gun factory as well, never before having had anything to do with gun making. This gun was designed and constructed by engineers who had no previous experience of ordnance manufacture, without special plant or arrangements, and on designs adapted from descriptions found in a stray copy of an engineering journal.

Its construction, from the day that designs were fashioned, took 24 days and, on Friday, 19 January, 1900, the gun, nicknamed 'Long Cecil' in honour of Cecil Rhodes, was taken for testing and calibration to one of the three emplacements already prepared for it. Rhodes, who had taken a great interest in the gun and its manufacture, was present, along with a number of local dignitaries and senior officers of the garrison. He invited Lt-Col Chamier, as the senior Gunner, to fire the first round. The story goes that Chamier refused on the grounds that, as a member of the Royal Regiment, he was permitted to fire only such guns as had been officially approved by the War Office and that 'Long Cecil' definitely did not fall within this category! Rhodes, so the story continues, then told Chamier to remove himself to a safe distance and sent his pony and trap to fetch Mrs Pickering, wife of the Secretary to the De Beers Company. On her arrival, Rhodes handed her the end of the firing lanyard, inviting her to pull it. This she duly did, with some trepidation, and fired the first round from 'Long Cecil' - of this latter part of the story there is no doubt. The round landed and burst in the middle of a hitherto safe and quiet Boer laager at the Intermediate Pumping Station some 7200 metres away, causing considerable alarm and dismay according to Boer letters written at the time, some of which were later intercepted by the British.

'Long Cecil' fired 225 shells against the Boers at an average range of 5,000 yards. Its activity forced the Boers to send for a 'Long Tom'. Ironically, Mr Labram was killed by one of the first shells that this 'Long Tom' fired into Kimberley. 'Long Cecil' can still be seen in Kimberley, where it stands in memory of those who defended the town during the siege. It was placed on the Honoured Dead Siege Memorial where it stands to this day. In the Museum of Artillery in the Rotunda at Woolwich there is a good scale model of the gun, made; it is believed, by Mr Harry Beer who was one of the artisans employed in making the original gun during the siege. In terms of scale and size the Kimberley Mine Museum can lay claim to being one of the most impressive museums in South Africa. It encompasses the whole area of the Big Hole and utilises many of the original corrugated iron mine buildings used by the first miners. It tells the story of the diamond industry as no other. It should be remembered that before the discovery of diamonds in the Northern Cape in 1867, diamonds came, almost exclusively from India and Ceylon. Their source and origins were shrouded in mystery and legend being believed to be the congealed tears of a Hindu goddess. In that sense, the Kimberley mine Museum is of world-historic importance because it shows how the diamond industry was transformed mechanised and industrialised in the late 19th century. And together with diamonds went the men who found them, colourful, thrusting personalities who lived hard and played hard. The railway

coach commissioned for De Beers from the Pullman Company, Chicago, shows clearly the plush comfort and the well-stocked cellars with which the directors travelled.

The 'Big Hole' started off life as a small hill, was flattened, and is now an enormous hole from where millions of tons of diamondiferous 'blue-ground' Kimberlite ore has been removed. The diamonds were made about 53 million years ago, about 200 kilometres inside the earth, under conditions of unimaginable heat and pressure. Carbon was metamorphosed into diamond, the hardest substance known to Man. Literally thousands of claims were pegged as would-be miners from all corners of the world sought to make their fortunes. Millions of tons of ore were removed as the diggers continued their search hundreds of metres below ground level.

Typically, volcanic activity goes hand in hand with the increasing weight of water in a lake or sea. The floor of the Karoo Sea sagged under the weight of the water, broke the earth's crust and allowed magma to well up from the depths, creating a volcanic pipe or 'throat.' This process is still continuing in central Africa where volcanic activity of the Ruwenzori Mountains in Uganda is a function of the weight of water in the Rift Valley lakes.

Covering the south western reaches of South Africa's interior plateau is the Great Karoo, a high (1 220m) and dry region that takes its name from a Khoi word meaning 'land of great thirst'. Scientists use the name Karoo to describe the geological base for the interior plateau covering two-thirds of southern Africa. Between 150 and 250 million years ago vast sediments were laid down in a series of three distinct layers. The Dwyka Series, a layer about 900 metres thick consisting of rocks encased in a matrix of mudstone and moraine and believed to be debris of a previous ice age. After its deposition came a period of climatic change when much of the earth was covered in forests, thick swamps, huge lakes and densely vegetated wetlands. From this steamy world of mud, jungles and water the Ecca Series, a 3 000 metre thick layer of shale and sandstone, was formed. Locked into rocks of this series is a wealth of fossils ranging from small reptiles to huge tree stumps, some still upright.

Above this is the Beaufort Series, a layer of sedimentary deposition about 5 600 metres thick that created the face of the Karoo as we know it today. Over time igneous material from the centre of the earth forced its way through vertical and horizontal cracks in the Karoo's sedimentary depositions, forming dolerite dykes (vertical) and dolerite sills (horizontal). As the soft sedimentary rocks weathered away, the harder or more resistant dolerite dykes and sills remained forming the flat topped or 'table' mountains and bell-like buttes that characterise the Karoo.

The vast herds of Springbok of 150 years ago have been replaced by sheep, one of the few animals able to survive on the low-lying scrub that is the common vegetation of the Karoo. Springbok *Antidorcas Marsupialis* once migrated across the Karoo in herds of up to 40 000, a sight viewed by David Livingstone. He wrote at the time: "It is probable that, notwithstanding the continual destruction by firearms, they will continue long to hold their place." How wrong he was. Today, it is rare to see a Springbok in the wild beyond the confines of a game farm or reserve.

David Livingstone, the first serious observer to walk across the African continent from Luanda in the west to the mouth of the mighty Zambezi on the eastern seabed, was the first explorer to note this phenomenon. He drew an interesting cross-section of Africa in his first book "Missionary Travels and Adventures in South-eastern Africa."

Sheep farming has become the main economic activity of the area, often on large farms of many thousand of acres. The dryness of the land is deceptive as water is relatively plentiful deep underground. To bring water to the surface farmers use windmills and the turning sails and stark outlines of these structures have become synonymous with the Karoo skyline.

The small town of **De Aar**, the “vein”, takes its name from an underground watercourse. Among the town’s prominent citizens was authoress Olive Schreiner, who lived here from 1907 to 1913. De Aar is a major railway junction and the lines from the Western Cape, the Eastern Cape, Gauteng and Namibia meet here. The crack trains, such as the Blue Train, Trans Karoo and the Orange Express used to stop here to change crews.

Victoria West will be of particular interest to guests accustomed to the convenience and comfort of intercontinental air travel. Once a thriving centre, which acted as a refuelling stop for all Imperial Airways flights from London to Cape Town, the village has reverted to its original rural stature. In these days of supersonic air travel it is worth mentioning that the trip took all of ten days in the 1940’s with flying time limited to daylight hours and passengers and crew sleeping overnight at Victoria West.

When the railroad reached **Beaufort-West** in 1880 it became a marshalling yard and locomotive depot. Founded in 1818, the town was named after the fifth Duke of Beaufort, the father of the then Governor of the Cape, Lord Charles Somerset. The town was established at the foot of the Nuweveld Mountains on the banks of the Gamka River, which only flows after rain. The town became prosperous with the introduction of merino sheep. One of its early citizens, Sir John Charles Molteno, a wool trader and champion of responsible government and nicknamed the ‘Lion of Beaufort’ founded the first bank in 1854. He was to become the first Prime Minister of the Cape. Beaufort West is the largest town in the Karoo and became the first municipality in South Africa in 1837.

The Karoo, being both high and exceptionally dry, offered solace to Victorian sufferers of Tuberculosis (Consumption). An official of the Cape Government Railways, James Logan, arrived in **Matjiesfontein** in 1890 to recuperate from chest complaints. He found his transfer to the Karoo so beneficial he decided to settle in the area. He bought a farm, named it Tweedside, planted trees and wheat, built a fine house, sank boreholes and gradually acquired considerable land holdings. Major Buist, a descendant of Logan’s, still lives here. The Laird Logan set up a small refreshment hotel for the hungry and thirsty travellers of the Cape Government Railways (CGR).

The graceful old hotel is named after that much-maligned British imperialist, Lord Milner. Having undergone a long apprenticeship under Lord Cromer, the British ‘agent’ in Cairo, Milner was appointed High Commission for South Africa by the then British Colonial Secretary, Joe Chamberlain in 1898. It was he who insisted that Paul Kruger, President of the old Transvaal Republic, extend the franchise to include the ‘Uitlanders’ (the Afrikaans terms for foreigners) who were, after all, paying taxes and who had lived for 12 years in the Transvaal. Kruger flatly refused to share his Republic with others, an attitude which led to the declaration of the South African War (Anglo-Boer) in 1899. During the war (1899 – 1902) Matjiesfontein was the headquarters of the Cape Command and hosted 12 000 British troops. The hotel was used as a military hospital and its turret became a lookout. This authentic Victorian railway village stands perfectly preserved at Matjiesfontein, which legend has it, is occasionally visited by the ghost of a wounded British ‘Tommy’ of the Anglo-Boer war.

Matjiesfontein’s most famous resident was writer and feminist. Olive Schreiner. Her first novel ‘Story of an African Farm’, was set in the Karoo, and gained immediate international recognition. After spending time in Europe, she returned to find relief for her asthma. She loved Matjiesfontein, and lived in a small cottage where she kept up correspondence with a number of English friends including William Gladstone, George Bernard Shaw and Havelock Ellis.

Olive Schreiner’s advanced views on social justice and feminism were almost as controversial for her time as those of her friend Havelock Ellis. He shocked Victoria England with his encyclopaedic seven-volume work ‘Studies in the Psychology of Sex’. Olive’s correspondence with Ellis reveals the great delight she took in Matjiesfontein:

"Now I am going to put on my hat and go out for a walk over the Karoo. Such a sense of wild exhilaration comes over me when I walk over the Karoo ... "

"I love the Karoo. The effect of this scenery is to make me so silent and self-contained. And it is all so bare, the rocks and bushes, each bush standing separate from the others, alone by itself '.

When the railway line was built from Cape Town to the north, the first major staging post, locomotive depot and marshalling yard after Cape Town was built on the banks of the Touws River (' river of the pass ') at the summit of the Hex River Mountain pass.

From **De Doorns**, 477 metres above sea level in the Hex River Valley, the railway climbs up the face of the escarpment in sweeping curves which, if put together, would have taken a train through 16 complete circuits in 25 kilometres before it reached the top of the pass 959 metres above sea-level. In the early days only limited loads could be hauled up the pass and at least two steam locomotives were required. The difficulty of taking a railway through the barrier of folded coastal mountains of the Western Cape and up the escarpment of the central South African plateau, provided engineers with a problem. The engineer, who first solved it, Wells Hood, given the technical limitations of construction in the early days, did a magnificent job and the first railway pass carried traffic into the interior from 1876 until 1989.

A new pass, located by W H Evans, was opened in November 1989. It involves four tunnels, two of 0.8 kilometres each, one of 2.4 kilometres and one of 13.5 kilometres. There is a saving of 8 kilometres over the length of the old pass. A single line goes up the pass, but in the centre of the longest tunnel there is a crossing point where trains can pass each other.

The Hex River Mountains are the highest in the Western Cape. The tallest peak, the Matroosberg (2 250 metres), towers over the broad valley below where some 175 grape-producing farms produce most of South Africa's export grape harvest. Fine old Cape Dutch houses, quaint reminders of the Amsterdam townhouses of the early Dutch settlers, are dotted among the stitched patchwork of the vineyards. In winter, the beautiful mountains surrounding the valley are covered in snow.

Lying at the southern entrance to the Hex River Valley is Worcester, founded in 1818 and named after the Marquis of Worcester, brother of the governor, Lord Charles Somerset. The Worcester district accounts for a quarter of the national wine production with close to twenty wine co-operatives and several brandy distilleries. On the outskirts of Worcester lies the Karoo National Botanical Garden, which covers 115 hectares of the foothills of the Brandwag Mountains. This garden, opened in 1948, is devoted to the succulent plants of the Karoo, many of which bloom profusely in spring.

Huge granite outcrops, the largest of which is Paarl Rock dwarf the attractive town of **Paarl**. Founded in 1720 the 'pearl 'of the Berg River valley is built on both sides of a 10-kilometre street, shaded by oaks and jacarandas. Many of its beautiful historic monuments can be seen along the oak-shaded Main Street, and the 1787 Oude Pastorie (old parsonage), now housing a cultural museum and the Dutch Reformed Strooidakkerk (thatched church), completed in 1805, are among the more notable national monuments. The Gideon Malherbe House in Parsonage Lane was the home of Gideon Jozua Malherbe, one of the eight founders of the Genootskaap van Regte Afrikaners, which was formed in the house in 1875 and laid the foundation of the Afrikaans language. Amongst many of the owner's original possessions is the printing press on which Die Patriot, the first Afrikaans newspaper was printed. Nearby, on the southern slope of Paarl Mountain, stands the Afrikaans Language Monument.

Cape Town, internationally known for the majestic beauty of Table Mountain, is the 'Mother City 'of South Africa being the site of the first European landings and settlement in Southern Africa. The subtle interplay of sea and mountain, which characterises the Cape of Good Hope, moved intrepid explorer Sir Francis Drake to call it 'the fairest Cape in all the circumferences of the globe.'

It is here, beneath the 1,000 metre high sandstone face of Table Mountain, that Jan van Riebeeck dropped anchor on 6 April 1652. He established a refreshment station for the Dutch East India Company to replenish the ships en-route to and from the spice islands of the East Indies (Indonesia and Malaya). Before Van Riebeeck landed others had long lived in the blue shadow of the mountain. They were the Khoikoi pastoralists with flocks of fat-tailed sheep and the San Hunters who lived off game animals. These ancient remains of Mankind's Stone Age childhood were innocent onlookers who by 1713 had been all but decimated by the Great Smallpox Epidemic. After 1702 black tribes were encountered for the first time about 700kms east of Cape Town around the Great Fish River, by eastward migrating white farmers - a meeting of two divergent cultures the consequences of which are still unfolding today.

As the Pride of Africa glides gracefully into CAPE TOWN station, this is the moment to reflect upon your heroic journey halfway across Africa. Few have ever done it, and fewer by train. You have joined an elite club of railway travellers and have had an experience to savour.

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DISTANCE CHARTS

0	DAR ES SALAAM TANZANIA		0 kms	Total Travelled	Distances
76	Mzenga	●	76	Tanzania	976kms
60	Kiduna	●	136	Zambia	1 539kms
202	Kiberege	●	338	Zimbabwe	570kms
163	Mlimba	●	501	Botswana	635kms
156	Makambako	●	657	South Africa	2 022kms
197	Mbeya	●	854	Total	5 742kms
121	Tanzanian Border – Tunduma	●	975		
1	Zambian Border – Nakonde	●	976		
250	Kasama - Chisimba Falls	●	1226		
193	Mpika	●	1419		
170	Kanona	●	1589		
70	Serenje	●	1659		
199	Kapiri Mposhi	●	1858		
183	Lusaka	●	2041		
47	Kafue	●	2088		
417	Zambian Border – Livingstone	●	2505		
10	Zimbabwe Border - Victoria Falls	●	2515		
204	Dete	●	2719		
265	Bulawayo	●	2984		
101	Zimbabwe Border - Plumtree	●	3085		
94	Francistown	●	3179		
228	Mahalapye	●	3407		
193	Gaborone	●	3600		
110	Botswana Border - Rahkuna	●	3710		
10	South Africa Border - Ramatlabama	●	3720		
25	Mafikeng	●	3745		
50	Zeerust	●	3795		
38	Groot Marico	●	3833		
173	Krugersdorp	●	4006		
122	Capital Park, Pretoria	●	4128		
66	Germiston	●	4194		
206	Klerksdorp	●	4400		
306	Kimberley	●	4706		
234	De Aar	●	4940		
259	Beaufort West	●	5199		
229	Matjiesfontein	●	5428		
57	Touws River	●	5485		
82	Worcester	●	5567		
111	Dal Josafat	●	5678		
64	CAPE TOWN SOUTH AFRICA	●	5742 kms		

THE MAP



(Please note that depending upon railway capacity this journey could be routed northwards through Beitbridge and Zimbabwe)