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HERITAGE OF ZIMBABWE is the journal of The History Society of Zimbabwe. It replaces RHODESIANA which was the journal of The Rhodesiana Society which Society absorbed the National Historical Association and Heritage of the Nation, and later became the History Society of Zimbabwe.

# HERITAGE of <br> ZIMBABWE 

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Zimbabwe

## Edited by

## M. J. KIMBERLEY

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For about 20 years from 1956, the Society was able to finance the cost of printing its journal from its own resources consisting mainly of membership subscription and investment income. However, some 15 years ago it became necessary to sell advertisements in the journal to help finance the journal costs, and major Zimbabwean industrial, commercial, mining and financial companies rendered magnificent support in this regard.

With the astronomic inflation in Zimbabwe in the 1990s and the enormous rise in printing costs, the Society is again in trouble as our projected income for 1993 and 1994 just cannot finance a very substantial journal printing cost.

In order to achieve equilibrium and to ensure that the journal continues indefinitely the Society's National Executive Committee sought the support of leading Zimbabwean companies to become Benefactors and Sponsors. The response has been fantastic and the Society will remain eternally grateful to the following Zimbabwean companies for their magnanimous support in committing themselves to the Society's publishing efforts for a five-year period. Without this assistance you would not be reading this journal.

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## Foreword

This, the twelfth and the 1993 volume of our annual journal Heritage of Zimbubwe, is, as in the past, intended to offer at least something of interest to every one of our members and other readers in Zimbabwe and elsewhere in the world, but, as always, it is neither expected nor intended that every article will be of interest to every reader.

1993 is. of course. a very significant year for the Society as it was on 12th June 1953. no less than forty years ago, that we were formally constituted albeit under a different name. Silver, Golden and Diamond Anniversaries and, of course, Centenaries, are usually commemorated by major celebrations and activities. Forty years, though important, probably does not warrant extensive activity. However, the Society reflected on the past at one or two functions during the year. including a dinner attended by the members of the several Committees of the Society and their partners together with a few guests, a day or two before the actual anniversary. A little of the history and the achievements of the Society up to this point was given in a speech at the dinner which has been reproduced in this issue. For a more detailed history concerning the first 21 years readers are invited to purchase from the Society Rhodesiana No 30, June 1974 which contains a comprehensive paper on the subject by the late Alderman G. H. Tanser. Hopefully, one of our members will now volunteer to write the Sbciety's history from 1974 to 1993.

The major article in this issue is an enthralling history of the past eighty years of rock art studies in Zimbabwe by Peter Garlake. The author gives the reader a sound overview of the dramatis personae in the rock art story in this country from 1890 to 1970, indicating the contributions made by and the involvement of people such as J. Theodore Bent. Richard Nicklin Hall, Neville Jones, Lionel Cripps. Miles Burkitt, Leo Frobenius, Abbé Henri Breuil, Elizabeth Mannsfield Goodall and Cranmer Cooke.
M. J. Kimberley continues the chronological series on our High Court Judges with a biography of Sir Murray Bisset while new contributor, Alistair McKenzie, provides a short, well-illustrated paper on the surgical and anaesthetical work of the early Matabeleland Missionaries.

Regular contributors Robert Burrett and Peter Locke present substantial articles on the Lomagundi district and Anti-ambush Weapons made and used between 1975 and 1980, respectively.

Cormac Lloyd, son of one of the Society's founders way back in 1953, and co-author Benedicta Groves record aspects of the history of the Ayrshire district from 1909 to 1946, whilst Martin Tracey presents readers with the story of Handley Cross, his family's farm in the Chakari Area.

The Society visited Kariba in July 1991 under the auspices of the Mashonaland Branch and the talks given to participants over that weekend by Ian Shand, the late Bill Garrett, Bob Woollacott and George Woods, all of whom had or now have an involvement with Lake Kariba, are reproduced in this issue. In addition I have reproduced with the approval of the National Archives of Zimbabwe an excellent paper by J. W. H. Moore on the history of Kariba previously published by the National Archives, together with some historical photographs from their National photographic collection.

In response to a number of requests a contents list of the previous 11 volumes of Heritage of Zimbabwe is reproduced. It is hoped that a volunteer might now present himself or herself to prepare an index of those issues which could then be printed and sold to our members and other readers.

The Society was very pleased to publish in Heritage of Zimbabue No. 11, 1992, the article by C. R. D. Rudd entitled Royalty and Bulawayo. Readers will recall that the photograph which was reproduced on page 42 of that volume of the journal was sent to Sir Robert Fellowes. secretary to Her Majesty Queen Elizabeth II. for identification, and Her Majesty graciously
identified those shown in the photograph at the wedding of the Duke and Duchess of Gloucester and personally annotated the photograph. Robin Rudd sent a copy of Heritage of Zimbabwe No. 11 to Sir Robert Fellowes in April 1993 and the Society is thrilled to reproduce below his letter dated 19th May 1993. The Society remains eternally grateful to Her Majesty Queen Elizabeth II for her contribution to the production of Heritage of Zimbabwe No 11.

Finally, on behalf of the History Society of Zimbabwe, grateful thanks are once again expressed to the six plus twelve major Zimbabwean Companies which have so magnanimously agreed to be Benefactors and Sponsors, respectively, of the Society's publication efforts. Without their tangible financial contributions and support, Heritage of Zimbabwe could no longer appear on a regular annual basis due to galloping inflation in this region.

Our thanks are also recorded to our advertisers whose regular support is greatly appreciated and to Geddes Limited and Johnson and Johnson (Private) Limited for their cash donations towards the cost of this issue.

Michael Kimberley<br>Honorary Editor<br>Heritage of Zimbabwe



# Notes on New Contributors 

by Michael J. Kimberley

With the passing of Bill Garrett on 27th December, 1992, the civil engineering profession lost one of its outstanding members.

He was born in Bloemfontein on 1907. After schooling in Pietermaritzburg and later at Sherborne in England, he studied Civil Engineering at the University of Cape Town. He graduated in 1928, obtaining a gold medal and a scholarship covering two years work overseas.

There followed four years of varied experience gained during the difficult years of the depression: initially, with Consulting Engineers Sir Douglas Fox and Partners in London, then with Contractors involved in the St. Lawrence/Great Lakes Seaway in Canada, and, finally, supervising the reconstruction of the Old Garvel graving dock at Greenock in Scotland.

Having by then, qualified for membership of the British Institution of Civil Engineers, he returned to South Africa in 1932.

His career in South Africa was interrupted by the Second World War when he joined what was to become the South African Engineering Corps, and saw service as a Captain in the Tenth Field Company in the Western Desert. He was captured at Tobruk and eventually finished up in a prisoner of war camp at Modena in Northern Italy.

He escaped in September, 1943 and, in 37 days, walked 500 miles along the Appenine mountain range to the American lines near Naples. He was awarded an M.B.E. for his services to the Allied cause.

After repatriation and a period of convalescence, he returned to the Cementation Company, his employer before the war, and started a varied career encompassing both civil engineering and mining work, eventually being appointed Managing Director in 1957.

In the early 1950s, he was responsible for introducing the Coyne System of post-tensioned cables anchored into rock to ensure stability of the wall in the raising of the Steenbras Dam. Also applied to Mazoe - raised by Cementation of Rhodesia. Jointly with S. S. Morris, the Cape Town City Engineer, this formed the subject of a paper presented to the Institution of Civil Engineers in South Africa and London. Under his guidance, the same principle was successfully extended to stabilize the sides of deep excavations for large basements.

In 1956 he played a leading role in the construction of the diversion tunnel and coffer dam for the Kariba Dam Project. Italian, which he had learned years before as a prisoner of war at Modena, was to stand him in good stead in ensuring a smooth handover of the site to the main contractor, Impresit.

A year earlier, he had become involved in the construction of a concrete "plug" to control an underground inrush of water at the Number 2 Shaft of the Free State Geduld Mine. In 1957, together with Mr Campbell-Pitt, then Chief Mechanical Engineer of Goldfields, an experimental programme was started to refine the design parameters for such "plugs". This work led to a joint paper published by the S.A. Institute of Mining and Metallurgy in 1958, and subsequently to the establishment of a Chamber of Mines panel on research into underground "plugs". All this experimental information was consolidated in a paper by Garrett and Campbell-Pitt which was presented to the Seventh Commonwealth Mining congress held in South Africa in 1961.

This early work was to bear fruit in the saving of the West Driefontein Mine in the catastrophic flooding of 1968 . On this occasion he personally waded through waist deep water in the underground workings to survey and plan the series of "plugs" which were eventually to
control the flood. In recognition of this achievement he received a gold medal award from the South African Academy for Science and Art.

He retired in 1973 after a distinguished career during which his original thinking and creative solutions to engineering problems, together with his honesty and integrity, earned him a high reputation amongst his fellow engineers.

Mrs Benedicta Groves was born in Suffolk, England, educated at St Mary's Convent, Cambridge and at Wye College in the University of London, graduating B.Sc Horticulture in 1949. She taught general science at Southampton Grammar School from 1949 to 195I before emigrating to Rhodesia in 1951 to marry a farm manager. In 1983 she was awarded the South Ayrshire ICA Oscar.

Her interests include art and natural history, as well as local history and prehistory, especially of the Ayrshire district.

Alistair Graham McKenzie was born in Bulawayo in 1947 and lived there until the age of twenty two, attending Baines Junior School and then Christian Brothers College. On leaving school he commenced employment as an Income Tax Assessor in the Government and did National Service in the Army Corps of Signals.

He changed course in 1970 by commencing a Pharmacy Degree at Rhodes University and while there he represented the University in cross country and weight-lifting; he later became a keen marathon runner for Harare Athletic club. Having qualified, he worked as a Hospital Pharmacist for the Ministry of Health from 1974 to 1978, initially, in Salisbury, and then in several peripheral areas.

He changed course again in 1978 when he commenced medical studies in the University of Rhodesia. While a medical student he did relief Hospital Pharmacist work in University vacations partly in rural areas. He qualified MB, ChB in the University of Zimbabwe in 1982.

He married Carmel Pocket (of Pocket's Hill) in 1985 and having acquired a broad base of hospital experience in the Harare teaching hospitals, proceeded overseas in 1986 for further training in Anaesthetics at the Royal Infirmary of Edinburgh, and subsequently qualified F.R.C. Anaes.

He returned to Zimbabwe in 1990 and again took up employment with the Ministry of Health in its Harare teaching hospitals where he has been a Consultant Anaesthetist since January 1992.

Ian Shand was educated at the two leading Government schools in Zimbabwe, namely Prince Edward School (then known as the Boys' High School) from 1923 to 1927 and Plumtree School from 1928 to 1933. He then proceeded to the University of Cape Town where he graduated B.Sc, in civil engineering in 1937, and obtained a full blue for boxing and a half blue for hockey, commencing employment the following year in Johannesburg.

In 1940 shortly after the outbreak of the Second World War he joined the Royal Air Force, receiving his training at Belvedere and Cranborne and then at Hawarden in England.

He was posted to 74 (Tiger) Fighter Squadron and later to 145 Squadron, and saw action in the Middle East, Tunisia, Malta, Sicily and Italy, and after a spell in Egypt at a Fighter Gunnery School he became Commanding Officer of 237 (Rhodesia) Squadron in Corsica for the invasion of southern France. His distinguished service in the air in the fight against the Germans and the Italians resulted in the award of the D.S.O. and the D.F.C.

After demobilisation he returned to service with the Government in this country in its Irrigation Department and was actively involved in the hydrology of Lake Kariba, Lake Kyle and other major dams, and was awarded the M.B.E. for his service. He became Director of the

Department, renamed Water Development, in 1967 and served in that role until his retirement in 1972.

Ian is a man of many parts and his hobbies are comprehensive. He is very competent in facetting and silver work and taught facetting at St Giles Rehabilitation Centre for 11 years, even making the facetting machines to suit the particular disability of his pupils. He is a talented painter, a good photographer and woodworker and is now concentrating some of his energy on making video films.

Martin Tracey was born in Masvingo in 1922 and educated at Ruzawi School near Marondera and at Blundells in Devon, England. At the age of 17 he commenced work managing Newbiggin Farm, Chakari when the owner was recalled to the Royal Navy at the outbreak of the Second World War in 1939.

In 1942 he was called up and subsequently served in 51 Medium Regiment of the Royal Artillery in Italy and in Germany. After demobilisation and marriage in 1945 he returned to this country and began farming on Tawstock Farm (adjacent to his parents' farm Handley Cross) where he has now been for nearly 50 years, mainly growing crops but also involved with sheep, pigs and cattle.

His non commercial farming activities include the leading of a church service in English every Sunday in the small church on Handley Cross farm and a bible study class in Shona every week. He is also growing hardwoods suitable for joinery and cabinet making on parts of the farm which are not suitable for crops.

George Woods was born in Liverpool, England in 1948, emigrating to New Zealand with his parents in 1950 and returning to the United kingdom in 1955. He completed his primary and secondary education in 1963 and joined the Central Electricity Generating Board (CEGB) as a student Apprentice in 1964, obtaining the Ordinary and Higher National Diplomas in Mechanical Engineering, before being appointed Assistant Engineer at Bold Power Station in 1970. In 1973 he emigrated to Zambia joining Luanshya Mine as an Operations Engineer where he remained until 1977. He then joined the Electricity Supply Commission of Malawi as a System Control Engineer until 1980 when he was employed as Control Centre Engineer by the then Central African Power Corporation.

In 1982 he was promoted to Maintenance Engineer at Kariba South Power Station and, following the transfer of the Corporation's Generation and Transmission functions to the new Zimbabwe Electricity Supply Authority in 1987, he was promoted to Power Station Manager in 1989.

His hobbies include rebuilding of old motor cycles, fishing, tennis, table tennis and reading.
Robert (Bob) Woollacott was District Commissioner at Kariba from 1957 to 1960 during the years Kariba was built. In 1991 he participated in the History Society visit to Kariba and he and Ian Shand told members a little of the story behind the construction of the south access road from Makuti to Kariba. Regrettably, the signposts that helped pinpoint places of interest along the route have long since been removed, but the stories behind these created a good deal of interest. It was then that Bob undertook to write this story for a future issue of Heritage of Zimbabwe. Making contact with some of those who were involved took time and, undoubtedly, there will be some who can say:"No, it wasn't quite like that. I was there, so I know!" Bob says he would be happy to hear from anyone who can offer corrections, contradictions or in any way add to the story as he has told it.

WANTED FOR CASH: Rhodesiana Numbers 15 and 16 and Heritage of Zimbabwe No. 7. Contact A. Lind, 18 Alveston Avenue, P.O. Borrowdale. Telephone: 8876329 (H), 793121 (O)

For reasonably priced valuations of Zimbabweana, Rhodesiana and Africana individual books and collections please contact the Editor, Heritage of Zimbabwe, P.O. Box 8268, Causeway, Zimbabwe.

Books on all aspects of the history of Zimbabwe and neighbouring territories would be welcomed for review in future issues of Heritage of Zimbabwe. A review copy of any such book should be sent to the Editor, Heritage of Zimbabwe, P.O. Box 8268 , Causeway, Zimbabwe.

If you intend to make a new will or to amend an existing will please think about the History Society of Zimbabwe.

Individual biographies and family, company, Local Authority, Town and Club histories researched and written up for publication. Fees based on time actually spent, plus any necessary travelling costs. Inquiries to The Editor, Heritage of Zimbabwe, P.O. Box 8268, Causeway, Zimbabwe.

# The First Eighty Years of Rock Art Studies, 1890-1970 

by Peter S. Garlake

This study covers just over eighty years of rock art studies - from the time that Southern Rhodesia was established to the early 1970s. That was a turning point: of the two great authorities in the country, Elizabeth Goodall died in harness and Cran Cooke stopped active field work and writing about the paintings. At the same time, new work in South Africa was revolutionizing approaches to the paintings. ${ }^{\text {' }}$ Nothing would be the same again: all earlier interpretations became obsolete.

Much of the story told here reminds one of theatre, often a bizarre, hilarious and absurd comedy but sometimes also moving and with a moral message. The stage, stark and without the conventional restraints of European intellectual discourse, highlights eccentricity. The plot is strong, for it charts an encounter of the western mind with a vanished people, whose silent vestiges retain powers to intrigue, move and demand explanation. Tragedy enters when this is always attempted in inappropriate Western terms. The cast is small but extraordinarily rich in character. There are international superstars, like Leo Frobenius and Henri Breuil, blazing with more heat than light in the outer darkness far from their usual habitat in the learned societies of Europe: assuredness becomes obsession, authority turns to egomania or megalomania. In contrast, the person who manipulates the entire plot is the much less colourful Miles Burkitt. His influence is profound, if equally misguided and wrong-headed, for it denies the autonomy of the art and seeks to restrict and reduce it to the familiar formulae of European prehistory. This contrasts in turn with the independence, sound common-sense and impressive local knowledge of a local prehistorian, Neville Jones. Supporting roles are filled by disciples of the stars, Goodall and Cooke, spending much of their time, energy and enthusiasm in recording more and more material, but doing little to advance the plot. Cameo character parts include a Speaker of the Legislative Assembly and an elderly, fanatical and discredited leprologist. In the background is a large cast, devoted to the paintings for their own sake, motivated by no professional ambitions, unconcerned with theories and intellectual debates, paying no attention at all to what is taking place centre stage and going about the real business of exploration, discovery, tracing and recording. Meanwhile, a chorus of professional prehistorians, unable to cope methodologically with the material, moans plaintively in the wings but disdains to enter the arena.

## The first studies

In a nice touch, the drama opens the day before the country was claimed for the British crown, when paintings probably first came to the attention of foreign eyes. In September, 1890, the force occupying the country camped together for the last time the night before they hoisted the Union Jack on the site of Fort Salisbury on the banks of the Mukuvisi River. Very close to their camp site are the paintings of Glen Norah. They are not the clearest or most beautiful, but they are dense and mysterious. There is no record that any members of the force saw them then but an illustration of them was used as a chapter heading in the account of the column's progress by its guide. ${ }^{2}$ They soon became well known, the subject of a picture postcard, and their site such a popular picnic spot that it was reserved for this purpose by the Government.

The first published description of paintings in Rhodesia was by J. Theodore Bent, a traveller
with antiquarian inclinations brought out from England to examine the ruins of Great Zimbabwe within a few months of British occupation of the country. In 1891, on his way back to the east coast after his work, Bent was told of paintings near his camp at Mutoko: "I hurried thither and took some hasty sketches of them: all sorts of wild animals were wonderfully well executed; the figures of warriors with poised spears and quivers of arrows are, however grotesque. " ${ }^{3}$ Bent's distinction between the quality of the images of animals and people, like so many other dogmatic asser-tions about the paintings, thereafter runs unquestioned through most descriptions of the art. ${ }^{4}$

In 1899, the Rhodesian Scientific Association was established in Bulawayo, to concern itself primarily with the natural and human sciences. The first paper to be presented to it was a brief description of some rather insignificant paintings beside the Pioneer Road near its entrance into the country. ${ }^{5}$ Over the next 13 years, several more descriptions of paintings in Matabeleland appeared. They included the first sketched copies, the first photographs and the first colour plates of Zimbabwean paintings, all reproduced with a quality difficult to match today.

In 1902, a Museum was established in Bulawayo. By agreement with the funders, the Curators were to be geologists. Successive Curators found and described many more paintings. By 1905, the first Stone Age deposits beneath paintings had been trenched and tools recovered and described. ${ }^{6}$ In 1908, Silozwane, one of the largest painted caves in the Matopo Hills was located, photographed and described (see Pl. 7). ${ }^{7}$ Today visited by many tourists in the course of a day's drive through the Hills, Silozwane was then the goal of a collecting expedition by the Curator, which involved a long bicycle ride from the town by moonlight and a two-day walk with porters and guides.

Richard Nicklin Hall was the first Curator of Great Zimbabwe, the leading advocate of its immense and exotic antiquity, and its despoiler. After he had been internationally reviled for his work there and dismissed in the ensuing controversy, he became interested in rock paintings (Pl. 1). He first described paintings near his house outside Bulawayo. ${ }^{*}$ By 1912, he claimed to have a record of some 300 painted sites in the country." The month before his death in 1914, he completed a book on the paintings in Rhodesia. "It was never published and is a thin, derivative piece of work, as dogmatic and unscholarly and filled with grandiose but unsubstantiated claims as all his other work. At least in part, when it numbers the paintings Hall had seen, it is, on its own evidence, simply untrue. Still, Hall's pride was legitimate in the rapidity with which knowledge of paintings had grown in the very few years since the first was discovered, through the efforts of "enquirers - [who] all could be told on the fingers of two hands. . . Can any old established country in either hemisphere show such a splendid record?"

He described 27 painted sites in the Matopo Hills, most of them very small and omitting, for instance, the large painted cave of Silozwane, published six years before. Of the 20 sets of paintings described from the rest of the country, Hall had only seen two large caves, one of them near Great Zimbabwe. Hall's assertive tone is captured in his interpretation of the paintings of ovals which have intrigued and puzzled everyone (PI. 2). He had seen four of the nine he had been told of - of the many hundreds now known to exist. He was certain that they all represented the Victoria Falls; more than that, "so true to nature are certain of these representations that the actual point of view of the Bushman, the spot at which he received his impressions can be located to within a couple of score yards": the bank of the river at the foot of the gorge immediately below the Falls. The dark ovals represented the dark basalt face of the Falls at low water and the white paint that characteristically surrounds the ovals and forms a semicircular cap above them represented the falling water and the rising spray. Hall also focused on two other subjects which we now recognize are related: snakes with "hills" along their backs, sometimes peopled with animals and humans, and a "large quadruped" with "along its back... deep notches throughout its length" (Pl. 3)."

Hall was the first to assert, correctly, that the paintings were all of considerable age. He felt on "very sure ground" in claiming that the paintings belonged to a time before farming, for the artists painted in open, undefended or indefensible sites "without fear of molestation", and the paintings indicated no knowledge of the livestock, crafts or activities of farmers. His close examination of paintings with a magnifying glass enabled him to distinguish exactly how paintings were done: the painters first drew an outline of their subject with a very fine brush, then thickened the outline with a second layer of paint applied with a broader brush in "freehand sweeps" and finally filled it in with several washes laid horizontally and vertically with still thicker brushes. ${ }^{12}$

In 1912, Neville Jones, a young missionary of the London Missionary Society with some experience of geology and a long enthusiasm for archaeology, was posted to Hope Fountain Mission on the edge of the Matopo Hills, where he worked for the next 22 years. In 1917 he and a colleague from the Museum had discovered Bambata, another large painted cave in the Matopos and conducted there the first competent excavations of Stone Age or cave deposits in the country. ${ }^{13}$ This was, for Jones, the start of years of work devoted to establishing the Stone Age sequence of the country. By 1926 he had already published his Stone Age in Rhodesia. Serious, devoted, assured, authoritative and familiar with the advances in prehistory in South Africa and overseas, he became the country's first professional archaeologist when he retired from his missionary work in 1935 and was appointed Senior Assistant and later Keeper in charge of prehistory, ethnography and history in the Bulawayo Museum. Jones recognized that the paintings deserved responsible research. When, twenty years after Hall's death, his daughter persuaded A. J. H. Goodwin, Lecturer in archaeology at the University of Cape Town, to edit his book on the paintings for publication, this was opposed by Jones: "Think the position out carefully before you commit yourself to the production of a pre-scientific account of our paintings." ${ }^{14}$ Jones himself was so conscious of the methodological and conceptual problems and frustrations of studying the paintings that he was never persuaded to develop the same interest in them that he had for other aspects of prehistory.

Rock paintings were never considered of much interest or consequence by the Rhodesian public. A tiny number of early enthusiasts explored for paintings for their own personal satisfaction and without any outside support or encouragement. To some, the paintings were simply one of the many marvels of the veld. Others were attracted by their aesthetic beauty. Others were intrigued by the inexplicable events and objects that the artists had painted: others 'collected' paintings like small boys used to collect postage stamps. Most accepted that the painters must have been Bushmen, that they were probably also responsible for the stone tools found in so many caves and shelters and that they lived as hunters well before farming was introduced to the country. Almost everyone saw the paintings as simple records of the everyday life of these very simple and primitive folk, recorded admittedly with some skill but evidence of no coherent system of thought or belief. Consequently very few people indeed found any intellectual challenge in the art. It was in any case, extremely frustrating to anyone who wished to find any significance in it beyond a record of what the artists saw and did, because so little was known about the artists.

## Lionel Cripps

No one better exemplifies the strengths of such amateurs and the contributions that they could make to prehistory in an undeveloped country than Lionel Cripps (PI. 4). Born in 1863, he left school and England at 16, emigrated to South Africa and, at 27 , joined the Pioneer Column that occupied what was to be Southern Rhodesia. In the subsequent grant of land, he claimed the farm in the remote Vumba mountains on the eastern border of the country that was to be his home for the remaining sixty years of his life. Here he fell in love entirely, overwhelmingly and


Plate 1. Richard Hall's photograph of some of his
 tracings of rock paintings displayed in preparation for a lecture on rock art by him. The large painting is from Gulubahwe in the Matopo Hills.
(National Archives of Zimbabwe)

Plate 2. Hall's tracing of an oval design in the Mshelele Valley, Matopo Hills, interpreted by him as depicting the Victoria Falls.
(National Archives of Zinibabwe)

Plate 3. Hall's tracing of a "snake with hills along its back and wings behind its head" in the Mshelele Valley. This tracing, preserved with Hall's manuseript in the National Archives, must be the earliest surviving tracing of a painting in this country.
(National Archives of Zimbabwe)

for ever with his new country. With self-government in 1923, he was elected the first Speaker of the Legislative Assembly and remained in that position for 13 years. He became fascinated by almost every aspect of his adopted country and, for at least the last 16 years of his life, recorded it all in his diaries (Pl. 5). ${ }^{15}$ In painstaking watercolours, done from children's paintboxes, he recorded birds the cats killed, moths and butterflies that he found and painted before pressing them between the pages, ever-changing views of mountains, mists and clouds from his house, strange rock formations seen from the windows of the carriage on the train journeys to Salisbury, slugs, snails and fungi.

After leaving office at 72 , rock paintings became his dominant interest. His large range of friends and acquaintances told him of paintings on their farms or of which they had heard. He would visit and copy these and then explore the hills around and invariably find many more. On these trips, at night he slept as often as not in the open veld amongst the hills. Over the next six years he filled eleven large albums with tracings and copies of over 7000 individual images from over 900 sites. He was entirely unselective and copied every painting he could reach at every site he visited, including hundreds of very small sites. His copies lack precision and detail but are more objective than most and he invented or 'improved' little. Of his age in what he saw as propriety, he carefully covered the genitals of every figure he copied with hinged stamp paper. ${ }^{16}$

When a Monuments and Relics Commission was established in 1936, Cripps was appointed a Commissioner and served for the next ten years. This gave him the opportunity to visit many paintings new to him, to meet the authorities in prehistory and make contacts with others interested in the paintings. He was devoted to the work of the Commission. Only his work towards establishing a National Archives and preserving and publishing accounts of the early explorations of the country gave him greater pleasure.

His views on the paintings were open-minded and pragmatic. Controversy over who the artists were was resolved for him when he first saw Bushmen, at the Empire Exhibition in Johannesburg in 1936: "Went to the Exhibition and saw 40 Bushmen and women and children

All looked intelligent and I can well believe that these people were the artists." He noted that these Bushmen were taken to Cape Town after the exhibition until, in 1939, "it was arranged to allow them to roam and be preserved in a habitable portion of the Kalahari". ${ }^{17}$

Eventually, as he entered his eighties, Cripps circulated and published some of his views on the paintings. His interpretations of individual images were sometimes bizarre: he claimed that he had copied paintings showing horses, donkeys, sheep, riding oxen, the shields and weapons of South African Bantu-speaking groups, Zulu head-rings, Somali headdresses, men with pigtails wielding swords, eager slave-raiders beating their victims, boomerangs, guns, European and "Eastern visitors", but reference to the album in which he compiled a collection of his exotica shows that he was referring to quite ordinary illustrations of people, animals, activities and equipment, easily explained in terms of everyday Bushman experience. ${ }^{1 /}$

Cripps was the only person at the time who thought seriously about the artists' intentions. Starting from the premise that "primitive people are purposeful in a serious way and their undertakings are carried out in that spirit and not merely as a way of passing the time", he concluded that the paintings therefore "serve a serious purpose!" and were not done simply for "fun, sport or to satisfy an aesthetic longing"." There were no signs that paintings were used in magic and their value as a historical record was, for the artists, incidental. After decades of contrary theories, the most recent investigations of the art confirm these insights.

He counted the relative proportions of different images amongst his copies: the first attempt to use numerical analysis to reveal patterns in the art. From this, he established the relative frequencies of different colour superimpositions in the paintings and constructed a sequence from the regularities he observed. ${ }^{20}$ He summarized his interpretations of subjects in the same way: of the paintings in 919 sites, 269 showed dead people, 136 graves, 457 causes of death,

761 totems, and 681 mourners (only 5 showed domesticated animals). ${ }^{21}$ There thus seemed to be an emphasis on death, which was extended by paintings of people falling, being charged by animals, with heads hanging down, with limbs chopped off, and dancing and holding their heads in grief. ${ }^{22}$ Cripps concluded: "Most, if not all, of the paintings in the country of Southern Rhodesia are connected directly or indirectly with funerary ceremonies, it is likely [the Bushmen] would have wished to perpetuate the memory of their leaders and great men and brave men, especially the latter." ${ }^{23}$ Once again, Cripps had isolated and identified some of the most significant components of the paintings and come close to current interpretations of them: though the incomplete, fallen and recumbent figures, the "grieving" figures holding their heads and the dancers are now better explained as depicting trancing rather than death. The unselfconscious zest, energy and delight that Cripps brought to everything was given fully to the paintings. Cripps did not have the inclinations, ambitions, persistence, cast of mind, intellectual self-confidence or academic training to turn this into rigorous or coherent theoretical research. This may seem a loss but perhaps the sense of sheer enjoyment that was his and is the hallmark of the true amateur is even more important. If the paintings could mean so much to one man, one can hope they can do the same for many others, especially now that our understanding of the prehistory of the country and of the place of the paintings in it is or can be so much more sophisticated. They were always a large part of Cripps' physical and mental landscapes and so they can be for others who love the countryside like he did.

## Samuel Impey

Samuel Impey was a Cape Town doctor who had been Medical Superintendent of the lunatics, criminals and lepers incarcerated on the notorious Robben Island. He had been dismissed for insisting on the release of the lepers whom, he claimed, were all cured, against the evidence of his own inadequate medical records, his colleagues and the Leprosy Commission. ${ }^{24}$ In 1926, a book of his was published which sought to prove that the southern African paintings were not the work of Bushmen but done by the prehistoric people who had painted in the French and Spanish caves: "I have known Bushmen all my life . . . and knowing the Bushmen, I have always been unable to believe that people of such a low and degraded type of humanity could have painted the pictures attributed to them. I have no doubt that there may be a few gifted Bushmen, but it is a curiousa [sic] to say the least of it, that no one has ever met such a man." ${ }^{2.5}$ In the year his book was published, a panel of paintings was discovered by Dr. Williams, a local Government Medical Officer, on his farm, Allendale, about 50 miles from Great Zimbabwe. They seemed to show white people playing strange musical instruments. Impey was told of them and hastened up from Cape Town to visit them and, in an interpretation as reckless as his medical diagnoses, pronounced the paintings the work of ancient Egyptians. "The painter's intimate acquaintance with Egyptian life suggests an Egyptian or a Bushman from Egypt. Sabaeans must also be added to the list of probable painters . . I have never known Bushmen able to paint anything like it. . . . Reading up authorities on the subject of Egyptian manners and customs, I found that they corroborate this picture in every detail. One of the instruments was a harp. [Others show] a guitar ... two pipes ... tambourines and cymbals [and women] clapping hands." To judge from the women's postures and the details of their "wigs", "the painter must have been intimately acquainted with the manners of the time". "[The painting] depicts a period of 4500 years ago. ${ }^{216}$

Impey presented all this to a meeting of the South African Association for the Advancement of Science in Salisbury in July 1927 and was met with disbelief, mockery and ridicule. Prof. A. L. du Toit, "a geologist with a high reputation", suggested that they might equally represent "European girls in bathing suits with towels round the shoulders, one holding a mirror and doing her hair". The British archaeologist Miles Burkitt, took Impey to say that the scene
portrayed an ancient Egyptian "school of dancing or music or even deportment". Dorothea Bleek, the preeminent South African authority on the Bushmen and their paintings, "a quiet lady armed with a prodigious sheaf of tracings made havoc among these and many other theories [and] attempts to account for certain strange features of Bushman paintings ... by suggesting that they represent people of ancient civilized races. .. . Her paper was the climax to a discussion on the subject generally. It held an audience of experts and many listeners absorbed." Quite rightly, for she anticipated the results of today's interpretations more closely than anyone else: "There were standard characters and incidents in Bushman folklore which people knew at sight; drawings of dancers, ceremonies of sorcerers in ceremonial dress and people being metamorphosed into frogs, birds and animals accounted quite simply for even otherwise most inexplicable things in Bushman art. ${ }^{127}$ After the conference, Bleek went to Allendale and again pronounced the paintings to be the "work of different generations of Bushmen", the figures in question to represent men or boys, the objects they held too faded to identify though one was certainly a hunting bow and that there was "nothing to connect [the scene] with Egypt". ${ }^{2 x}$ Despite this, the controversy reached as far as The Illustrated London News, for the Egyptian identification lent obvious support to all those who believed that Great Zimbabwe had similar origins. ${ }^{29}$ The mare's nest of paintings of foreigners continued to be sought and found by many people.

## The British Association Conference and Miles Burkitt

In 1929, the British Association for the Advancement of Science was to meet in Johannesburg. It chose to focus on the prehistory of the region, probably as a response to recent exciting and controversial finds of fossil hominids. These included the skulls of the first australopithecines in the Transvaal, whose analysis and interpretation by Raymond Dart, the young Professor of Anatomy at the University of the Witwatersrand, was hotly and vainly disputed by the leading anatomists in Britain, and of what is now recognized as a neanderthal in what was then Broken Hill in Northern Rhodesia. The Association was also particularly determined to try to resolve the controversy over the origins of the stone ruins in Rhodesia.

The preparations for the conference led to more intense international collaboration and research and greater advances in prehistory in a very short time than Rhodesia or Zimbabwe were ever to experience again. In 1927 Miles Burkitt toured the region to advise how to develop methods of investigation for the study of the Stone Age and the paintings. He was one of the first lecturers in prehistory at the University of Cambridge and was considered at the time "one of the topmost archaeologists in Britain". He had also been "in almost at the beginning of the discovery of Palaeolithic art" in Europe for he had been the "first foreign pupil" and "first foreign disciple but also life-long friend" of the Abbé Henri Breuil: the greatest of the pioneers in the discovery, documenting and study of the cave paintings of Europe. ${ }^{30}$

Burkitt only paid brief visits to a small selection of paintings. He went to see Domboshawa, a popular resort and the only major paintings then within easy reach of Salisbury; Makumbe, not far beyond Domboshawa; and Nswatugi in the Matopos: all large caves covered in paintings. He also saw small sets of paintings on the outskirts of Salisbury at Glen Norah and a nearby granite quarry and those at Allendale, which he took upon himself to rename 'Impey's Cave'. ${ }^{11}$

Burkitt equated the study of Bushman paintings with the study of the prehistoric paintings in Europe and he saw both as purely archaeological problems. As in Europe, what was needed was to assign the paintings to the Stone Age cultures to which they belonged. "All the ... methods of investigation that have been employed in studying the [stone] industries can be used in the study of the art, and, as before, stratigraphy and typology are the most important." ${ }^{3} 2$ Through typology, different styles of painting could be defined. The assumption was that
paintings in the same style must have been done in the same period. Given the fortunate fact that many paintings were superimposed over others, creating a stratigraphy of successive paintings, the "laws of superposition" would enable a chronological sequence of styles to be established.

For Burkitt, the primary significance of the paintings was as chronological signposts, even though these might stand isolated in an incomprehensible cultural wilderness. This now seems a narrow and inappropriate aim. There is much more to the art than its date. Today even prehistorians value the paintings primarily for the insight they might give into the systems of thought and belief of the artists, something no other remains of the remote past can do as well. Although Burkitt recognized that "in Rhodesia several investigators were inclined to consider that the paintings had a rather deeper significance", he inclined to the South African view of their paintings as being "in the way of 'wall-papers'". To him, the art was no more than "the result of an innate artistic tendency in the people, and something intensely personal and, as it were, extra and not essentially necessary to the actual business of living. Further, it is difficult to see how outside circumstances can have had much modifying effect on its production. ${ }^{n 33}$ Burkitt thus eliminated all possibility of the insights the ant might bring to the perceptions and conceptions of the artists' society. In this he was followed unthinkingly by the recognized authorities on the paintings for over fifty years.

At Domboshawa, Burkitt illustrated the efficacy of his approach by identifying a chronological sequence based primarily on a consistent and restricted choice of colours that changed over time and correlated to some extent with choice of subject and style. "For reasons completely unknown and possibly merely capricious the peoples who drew in different styles at different periods seem to have preferred to use different colours. ${ }^{134}$ Using this neat, simple and workable system of colour-as-style-as-chronological marker, despite his very limited exposure to the paintings, Burkitt was bold enough to claim that the paintings of the whole country could be divided into "five ages" or "three broad periods".

Burkitt recognized that the art badly needed further investigation and persuaded the South African Prime Minister, J. B. M. Hertzog, to invite to the British Association Conference the Abbé Breuil himself, now the newly appointed Professor of Prehistory at the College de France, France's most prestigious teaching institution. Burkitt must also have had a hand in arranging for the investigation of Great Zimbabwe by Gertrude Caton-Thompson, a former student of his in Cambridge and a forceful personality, who had learnt in Egypt how to approach the problems of large settlement sites that lacked a clear historical context. Burkitt almost certainly also selected Leslie Armstrong to re-excavate the Stone Age deposits in Bambata Cave. Armstrong had spent several years excavating at Creswell Crags, the "classic cave site of Britain", where palaeolithic engravings of mammoth ivory had been found in 1875. He and Burkitt served together, as Secretary and Chairman, on the 'Committee for the Exploration of Caves in the Derbyshire District' for over 20 years.

Armstrong came to Rhodesia with his expectations of the country's prehistory formed by Burkitt and his experience of Derbyshire. He claimed that at Bambata, two distinct level containing tools made on flakes were intercalated amongst more substantial deposits of technologically more primitive, 'Mousterian' tools. He associated the flake tools with invasion of 'neanthropes' - the first true men and the first artists into a world peopled by subhuman neanderthals. This was what was then believed to have occurred in Europe and it was now shown to have occurred also in Africa. Armstrong also claimed that pigments of some colours were only found in particular 'neanthropic' layers and that the resulting stratified sequence of pigments matched the colour sequence of the paintings on the cave wall. ${ }^{35}$ If correct, this would not only indisputably confirm the validity of Burkitt's styles but also establish their precise chronological and cultural contexts.

As the only knowledgeable archaeologist in the country, Jones guided Burkitt on his tour. He had considerable reservations about Burkitt's approach to the paintings. His experience taught him that the past of southern Africa was very different from that of Europe. He recognized that disciplines beside prehistory had equally important contributions to make to the study of the rock art. He doubted whether styles were so easily distinguishable or definable and preferred to see change in the art in terms of at best broad general trends from "schematic" through "impressionistic" to "naturalistic". ${ }^{36}$ He doubted even more whether colour was an indicator of style. Common sense suggested it was inherently improbable, given that the pigments were all oxides of iron and all equally common and equally accessible at any period.

Doubting Armstrong's findings in particular, Jones returned to Bambata and excavated there once again in 1939. He was able to show that "the intercalation of two distinct layers . . . observed by Armstrong is to be explained by natural agency and has no cultural significance", that there was "no satisfying evidence of the presence of a Mousterian culture" and that changes in the pigments associated with the different deposits could not be correlated with the painting sequence. Jones found a piece of red pigment, the colour of the latest paintings, in the earliest deposits at Bambata. ${ }^{37}$ The Stone Age of Rhodesia followed a different course from that of Europe, European concepts of prehistory were inappropriate to Africa and Armstrong had been blinded to the implications of his own evidence by the strength of preconceptions formed in Derbyshire.

## Leo Frobenius

The 1929 conference also brought a team of German artists and excavators to southern Africa led by Leo Frobenius, President of the Frankfurt Institute for the Study of Culture Morphology and his country's most eminent ethnographer. He was refused permission to investigate Great Zimbabwe by the Rhodesian Government in favour of Caton-Thompson but, between January and May 1929, he and his team made over 400 copies of paintings in Rhodesia, particularly in the Wedza and Makoni Districts (Pls. 6-9).

Frobenius' approach to the paintings was entirely different from Burkitt's. He had not come to teach, help or advise but to accumulate a solid body of material that would demonstrate the influences of foreign "culture-complexes" on southern Africa's remote past. His imaginative range was enormous, his conclusions wide-ranging and the copies of paintings made by many of his team accurate, painstaking and still unsurpassed in scale as well as skill. Frobenius recognized several absolutely independent styles which corresponded clearly to different periods and independent creative forces and, once again, members of his team tried their hands at defining a chronological sequence of styles from the many superposition's of paintings at Makumbe. ${ }^{3 k}$ Frobenius concentrated his attention on one of these styles, defined by tall, static, monumental, male figures with stiff, mannered postures, wide shoulders and narrow waists. These he defined as the "classic" or, from the shape of their torsos, the "cuneiform" or "wedge" style. These paintings were, for Frobenius, quite distinct from the vivid "ethnographic" Bushman paintings of animals and of people engaged in the many activities of a hunting life but based primarily on "hyperborean shamanistic thinking" in which "everything can be reconstituted" and "transformed"." ${ }^{31}$

The wedge-shaped figures came from an artistic tradition in which artists with a "deep sensibility" and an "imaginative sense of life" followed a "canonically strict code" with a "prescribed vocabulary of forms". It was a "symbolic art . . . derived not from nature but from symbolical concepts . . . born in the life of the soul and of the emotions" and expressing "mystic sentiments" with a "spiritual tenor". "Concepts of the mind" and "very advanced speculation" produced "transliterations of phenomena of the interior life"." Discounting the flowery language, sixty years later many students of the art find a greater affinity with this aspect of Frobenius' approach than with any other writings on the art.


Plate 5. A page from Lionel Cripps' diary describing a visit to Great Zimbabwe and illustrating the location of the paintings on Allendale Farm.

(National Archives of Zimbabwe)

Plate 4. Lionel Cripps.

Some painted caves that Frobenius saw contained inhumations behind stone walls plastered with clay. These are now known to be recent burials of local Shona chiefs, but Frobenius presumed that they were contemporary with the rock paintings. He also assumed that the plastered walls had originally been covered in paintings similar to those on the cave walls around them. This was, to him, evidence of the "ritual basis" of this "mural art".

He thus conflated two different epochs of prehistory, separated by many centuries and with no cultural links between them, and collected and used current Shona myths to interpret the paintings. Shona folklore appeared to contain evidence of the sacrifice of divine kings, of maidens sacrificed to bring rain, of a moon cult and of a great empire, whose pale shadow Frobenius believed had survived in the empire of Mutapa, one of the successor states to Great Zimbabwe, whose capital the Portuguese visited and traded with from the start of the 16th century. ${ }^{41}$ For Frobenius, the most significant themes of the paintings matched these stories. Recumbent figures with attendants beside them were "pietas" of the deaths and burials of divine sacrificial kings. ${ }^{42}$ Other figures, associated with lines that seemed to represent rain or rivers, were young maidens sacrificed to bring rain. ${ }^{43}$ For Frobenius, all these elements pointed to the paintings, Great Zimbabwe, the Mutapa state and the Shona as all belonging to the single culture-complex of Erythraa, which also included the ancient civilizations of south-west Asia, Egypt and Crete.

Frobenius is the source of a great deal of subsequent nebulous, inflated mystification of the art by German writers but his work was entirely disregarded in southern Africa. This is largely, of course, because he wrote in German. But he also made a poor impression on archaeologists at the British Association Conference as "an inveterate publisher of superficialities, a chancer ... a charlatan . . . pandering to popular fancy and to certain Nationalist politicians", ${ }^{44}$ Controversy was further inflamed when it was revealed in the South African Parliament that Dr. D. F. Malan, Minister of Education in the Nationalist Government, had made an unauthorized grant of what


Plate 6. Leo Frobenius copying paintings in the Makoni district.
(Frobenius Instimue, Frankfirr am Main)
was then a very large sum of money, $£ 5000$, to Frobenius to further his work on the paintings and Erythraa. ${ }^{45}$ Malan hailed Frobenius as "a new Columbus" or "Copernicus" who had "shifted the centre of gravity" and "had shown the whole world that there is a culture, a whole world [in southern African prehistory] that we did not know of". The Opposition, led by Gen. J. C. Smuts, was outraged that the money had not gone to a South African. The Prime Minister, Hertzog, then accused Smuts and his supporters of "anti-German" bias claiming they would willingly support any English applicant. In Rhodesia, Frobenius generated his own myths and local settlers were convinced for years that he had looted a large amount of gold from the ruins of a zimbabwe that his team had excavated near Mutoko.

Frobenius' poor local reputation and his obvious mistakes in attributing the paintings to the forebears of the Shona were used to dismiss his much more important recognition of the art as a system of symbols which expounded fundamental beliefs. In any case, this also ran so clean contrary to all local preconceptions of the art, the artists and their society that it was both unbelievable and shocking: "His theories have not stood the test of criticism and one wonders how he could have made such remarks as . . . in Rhodesia we find a canonical strict code of art' and similar generalizations about the immensely varied art." ${ }^{46}$ But Frobenius in this at least has been proved correct.

## Abbé Henri Breuil

During his brief tour of Rhodesia after the conference in 1929, Breuil had time only to make "brief notes" on paintings "seen far too quickly" but at least he whetted his appetite for a future return. He only saw the paintings that Burkitt had also visited. Like Burkitt, his interest was in the sequence of styles and, also like Burkitt, he believed these were largely definable by the colours of pigments that the artists of different periods preferred. He recognized seven successive styles of painting at Makumbe and five at Bambata. However, he also noted figures whose "profiles resembled those of predynastic Egypt" at Domboshawa and, of course, the possible Egyptian figures at Allendale. ${ }^{47}$ These were later to become his only concern.

After the German occupation of France in 1940, Breuil took refuge in Lisbon until, in 1942, Smuts, now Prime Minister of South Africa and himself deeply interested in the remote past of southern Africa, brought him to South Africa. Breuil was appointed a Research Officer in the South African Bureau of Archaeology, the body whose establishment he had done much to promote. He spent much of the next three years studying paintings. In 1947 Breuil retired from the College de France and began regular annual visits back to southern Africa. At seventy, he had suddenly become an old man. He was no longer interested in paintings of "hideous little Bushman figures": they were outside the mainstream of human or artistic progress, too recent to be significant in world prehistory. He sought a subject more dramatic and worthy of him in his central position on the world stage and soon found it. Reminiscent of Frobenius, he claimed to recognize some paintings in which "so much attention is paid to form that the style might almost be described as academic. The perfection of some of the animal paintings . . . makes them far superior to Bushman animal paintings." "Often achieving real distinction, they show a general tendency to static 'academic' portrayal of human beings and animals" and clearly belonged to "an academic' art tradition that contrasts with the 'human art of action' . . of the Bushmen". They were "superior"t the work of Bushmen which were "usually full of life but small, anatomically weak and with a tendency towards diagrammatic art". "We are at last out of the rut of Bushman paintings which are only a few hundred years old." 48

A single painting in Namibia, 'The White Lady of the Brandberg', became his inspiration. The book in which he summed up his life's work was dedicated to her: "Wearing the costume of a Minoan bullfighter and carrying a flower, Isis and Diana in one. . . Eternally she walks there, young, beautiful and supple, almost aerian in poise. In ancient times all her own people
walked to contemplate her adored image and all went on walking for centuries, not only Men but the Oryxes, Springbuck, Ostriches, Giraffes, Elephants and Rhinoceroses swayed by her magic. In my turn, it was for her sake I walked. . . . Across deserts, we walked towards her . . captivated by her incomparable grace . . . I spoke of her to the world of the living, after having once more dreamed at her feet of the infinite mystery in the history of ancient migrations. To her . . . I have devoted several of the precious years which remain to me. There I learnt a kind of marvellous gospel which it now seems to me opportune to declare in this troubled world, that of the living importance of those splendours, useless in material life, and so essential to the life of the spirit.' ${ }^{49}$

The White Lady was, for Breuil, the most vivid evidence of a foreign presence in the southern art, perhaps the work of a "ship's company of . . . a mixed band of foreigners [who] in the course of their journeying . . . brought beliefs much as are found in Egypt and Crete, and an artistic gift probably inspired by these civilizations". Some of southern Africa's Stone Age art was not only part of Mediterranean civilization. "Did the folk [of this period] (which we relegate . . . to a very distant date) . . . cast the seeds from which the great Egyptian and Cretan arts developed? Perhaps a dream; perhaps the truth." ${ }^{53}$

Breuil's first studies to support his thesis took him to the Brandberg and Erongo mountains of Namibia. In the paintings around the White Lady, Breuil saw figures with Semitic profiles, aquiline noses, helmets, aigrettes, elaborate robes and exotic weapons. If such details were not convincing enough evidence of foreigners, Breuil's assistant, Mary Boyle, found fundamental characteristics in the paintings of sexual and racial equality, feminism and multiracialism, principles she believed alien to Africa. With the White Lady, "there are men of various races before and behind her, which seems to indicate an equality of status with men, recognized only by advanced civilizations such as those of Crete and Etruria". "More than one race is represented in the procession. Certainly no primitive, uncultured people would depict such ceremonies or give such a central position to a woman." ${ }^{51}$ After all the emotion and theorizing the White Lady has generated, it is sad to recognize, as almost everyone but Breuil and Boyle had recognized, that she is, after all, indubitably a man, carrying a bow and with his penis crossed by a spotted bar.

Breuil came back to Rhodesia in 1948 to look for further evidence of his alien civilizations. His work was cut abruptly short when Roger Summers, the archaeologist who now occupied Neville Jones' post and who accompanied him, decided that a short-lived general strike by African workers in Bulawayo made conditions there unsafe: "an unfortunate occurrence (social unrest) prevented me finishing my copies. . . . Mr. Summers, whose car we depended on, was forced to return to his family in Bulawayo at short notice, and we with him . . . this makes me furious. All I have is indifferent photographs." ${ }^{52}$ Breuil was however able to return and complete his studies two years later. Sadly, his ability even to see paintings was now in almost complete decline. This was not helped by his bizarre methods of copying, involving wiping the paintings with water and assistants holding almost opaque sheets of "very strong . . . sulphurated paper" over them, on which he drew pencil marks "so faint they are scarcely visible", to give the general size and relationships of the figures, lifting the paper at intervals to check what was underneath. "The second step is to redraw each figure by eye." ${ }^{53}$ The results are scarcely copies. They are extraordinarily inaccurate sketches, full of details that are misread, misunderstood or simply invented. They are the fantasies of someone obsessed, imagining all sorts of exotic elements, rather than attempts at accurate reproduction.

Many of the paintings that Breuil studied in the Masvingo District, including those at Allendale, do form a clearly definable, distinctive and circumscribed set of human figures painted mainly in white and ornamented in red. Their relationship to the Namibian paintings is also probably close. Most of the figures are of men but few carry the usual bow and arrows.


Breuil again assumed that they were illustrations of light-skinned, red-haired foreigners, that they were the work of the foreigners themselves and that their origins again lay in the civilizations of ancient Egypt and Crete. The absence of weapons was evidence that "the energies of these people were devoted to other things than hunting and war. . . The paintings, in fact, suggest that in general the authors were peaceful settlers, leading a cheerful and relatively comfortable existence . . . amusing themselves in common in various ways; in fact as I studied them, their sociable carefree attitudes recalled nothing as much as a party of picnickers, an image which supplied me with a familiar means of describing their civilization and art. . . . Should we, I wonder, attribute to their civilization the culture of the vine? .. Whatever the final destiny of the 'foreigners' in Rhodesia and South-West Africa, their derivation from Nilotic sources is evident in the paintings which they left behind, as much in the general character of the paintings as in the features and accoutrements which they portray. . . I use the word 'Nilotic' as implying neither exclusively Egyptian nor exclusively Cretan origins, but as signifying by many similarities a relationship with both civilizations which is as yet obscure." He contrasted his "Picnic Style" with a painting at Nswatugi in the Matopo Hills of "figures running at full speed: strangers probably, to the region which they are crossing rapidly instead of engaging in peaceful pursuits". ${ }^{54}$

These are extraordinarily naïve, obtuse and perverse conclusions: one can hardly stretch evidence or interpretation further than to see running figures as signifying rapid migrations. They are perhaps best disposed of by pointing out that they rest on two basic assumptions: that the artists used colour to represent the actual colours of people or animals, when it is clear that, throughout the art, colour had no descriptive value at all and that every species of animal and all humans could be painted in any of the full range of pigments used by the artists; and second, that the artists shared our own highly Eurocentric colour classifications, in which paler brown skins are arbitrarily codified as 'white' and darker brown skins as 'black'. Breuil's work in Rhodesia is a sad and cautionary tale of the results of fame, of decades of unchallenged authority leading to dogmatic assertions, derived from cursory examinations, inaccurate copying, complete lack of systematic comparative studies and the isolation of tendentiously selected items from their contexts. Breuil was, however, above all argument and simply dismissed or ignored local prehistorians who disputed his interpretations. ${ }^{59}$

## Elizabeth Mannsfeld Goodall

Perhaps the most significant result of Frobenius' visit to Rhodesia was that one of his artists met and fell in love with a local policeman. Elizabeth Mannsfeld was a German art teacher who became interested in ethnography and a research assistant to Frobenius in 1923. She accompanied him to southern Africa at the age of 37 . After cataloguing his collection of copies of paintings from the expedition, ${ }^{566}$ she returned to Rhodesia in 1931 to marry Leslie Goodall, who was her devoted support in all her future work. She gave the rest of her life to a study of the local paintings. Over forty years, especially during the years 1940-1943, she produced watercolour copies of about 500 paintings ranging from single images to complete records of large panels. She became Honorary Keeper of Rock Paintings at the Queen Victoria Memorial Museum in Salisbury in 1941, a post she held with short breaks until her death in 1971. She felt that the best way she could share her enthusiasm for the art was by making paintings widely accessible through copies. Her main concern was to reproduce their aesthetic qualities. She was happy to adjust compositions to strengthen their effect and to transpose the thick, dry, opaque pigments of the artists into the much more fluid and transparent medium of watercolour. Despite the primitive materials she had to use in tracing and the techniques these imposed on her, her copies succeed in capturing the character of the art in a different medium while retaining accuracy, precision and detail more successfully than any other copyist, copying system or photography.

(Frobenius Institute, Frankfurt am Main)

Plate 9. Agnes Schultz of the Frobenius Expedition copying paintings at Mshelele.

Her accuracy was never absolute - no copyists' ever is - but she very seldom entirely misread an image. Goodall remained primarily an artist and her response to the art was always essentially aesthetic, typified by her recurrent descriptions of paintings as "fresh", "impulsive", "lively", "impressive", "powerful", "touching", "moving", "vigorous" and "convincing". ${ }^{57}$

Goodall had no taste for the robust and often vituperative controversy of much of southern African prehistory where Frobenius' views were misunderstood, dismissed or entirely ignored. She always found difficulty in expressing herself in English and her few papers seem inarticulate, tentative and elliptical. To an academic, her work is almost entirely unsystematic and unanalytical. She developed no theoretical framework or specific research intentions. She remained throughout her life entirely loyal to Frobenius' ideas but did little to develop, expand or adjust them to the new material she was collecting. She continued to classify the art thematically in the categories Frobenius had established when she catalogued his copies. She followed his sequence of styles. Careful reading makes it clear that she also continued to adhere to Frobenius' conviction that important elements in the art were ancient and exotic. This is revealed in a passing mention, made without qualification and towards the end of her life, that the artists of the "finest early paintings . . . could have been ancestral to the present day Bushman but it is by no means proven". ${ }^{\text {Sk }}$ She never produced any evidence to back this belief: it can only have rested on the authority of Frobenius. Despite her loyalties, she did nothing to tease out the essence of Frobenius' most important contribution to the study of the art as the symbols of a coherent body of beliefs. In her own few attempts at interpretation, she drew not only from Frobenius but from an extraordinarily eclectic range on analogies, some developed to interpret the cave art of Europe, others from Classical mythology, and others from India.

## Cranmer K. Cooke

As a young man of 23, C. K. Cooke came from England to Rhodesia in 1929 to join the police force. This gave him the opportunity, on mounted patrols in rural areas, to examine many rock paintings and develop a growing enthusiasm for the art. ${ }^{59}$ Although without formal training in archaeology, he subsequently spent a great deal of his spare time in other archaeological fieldwork and excavation of Stone Age sites before he was appointed to the Historical Monuments Commission in 1951, its Honorary Secretary in 1952 and its full-time Director in 1962. Particularly between 1957 and 1969, he was a prolific writer on the prehistoric art of Rhodesia.

Cooke believed that the "art was practised throughout the Late Stone Age" and that "it is almost certain that all of the paintings must have been executed by people . . . belonging to the same general ethnic and cultural group". His writings leave no doubt that he believed that they were the work of Bushmen although at the end of his career and feeling under challenge by new work which used Bushman ethnography as a basis for radical reinterpretation, he retreated from this to suggest that the painters might have belonged "to some other group long extinct" and that it was "difficult to believe that there was any connection between these widely separated groups" and recent Bushmen. ${ }^{\text {(11 }}$

Cooke, himself an enthusiastic amateur painter and an acquaintance of the archetypal artist-as-Bohemian-genius, Augustus John, had a Romantic and very Eurocentric view of artists and transposed this to the Bushman artist as also "a person somewhat apart", an "experimenter", who "every now and then broke the fetters of convention and allowed free play to his imagination". "Much of art and artistic expression is not conscious thought but an impulse inherent in a comparatively small percentage of the human race. ... The whole of the realistic [Bushman] art appears to have been based on the simple principle that some people like to paint and have the ability to do so. . . . [It] was in the main 'art for art's sake', an endeavour by the artist to record scenes and events . . . but more often a scene of beauty remembered for its aesthetic qualities. . . . Most paintings were executed only for pleasure or as a record. . . . The subject matter of all the
realistic paintings because they were executed by people of a primitive hunter/gatherer society, is naturally of everyday scenes. . . The whole art . . . appears to be based on the simple principle of 'that is a buck' or 'that is a human', or even 'that is a lovely picture'." "I fully believe that most of our paintings are records of actual scenes and happenings." Indeed Cooke believed the imagery was so directly representational that the artists must have generally painted subjects in their sight as they painted, that "visual recording is more likely than even short memory paintings.... The painters only painted what they saw and did not in general draw animals from memory," ${ }^{11}$

Cooke, probably more than any other authority, was convinced that in Bushmen, perhaps even more than in other races, artistic skills were innate rather than learned and that their 'primitiveness' determined how they observed and worked. The basis of their paintings was so simple that they could be fully and immediately comprehended in their totality by anyone of any period or culture - only very few images remained "enigmatic". Cooke allowed for no principles, conventions or canon to the art, for no cultural resonances or allusions, for no elements of metaphor or symbol. The paintings provided a window into the past obscured by only the smallest shadows.

At first Cooke followed Burkitt in seeing the study of the paintings as requiring essentially the same methodology as the study of stone tools and in his first published works he sought once again to establish a sequence of styles but he tried to do this through more precise and carefully defined criteria based primarily on technique. ${ }^{62}$

In subsequent work he was most concerned with 'interpretation', which for him meant solely the correct identification of the objects and activities depicted. The paintings were particularly valuable as a record of different ethnic groups that had lived in Zimbabwe: "The Bushman can hide himself behind a blade of grass and must have observed Iron Age ceremonies while hidden and quite unseen." They also recorded important historical events: thus ten paintings in the Matopos of figures covered by blankets were debated as representing either a record of the first sight of a hitherto unknown practice of some "nomadic group of migrants", "strangers of another ethnic group who were travelling in the country in search of suitable living space, sleeping in the open" or a record of some unusual sickness and therefore possibly bubonic plague. Cooke went a long way towards adopting Breuil's theories of alien migrations. He accepted that not only white figures but all figures with white on them illustrated a single alien group. Some of these figures in the far north-east had enlarged buttocks and thighs, carried only sticks and were herding sheep. They were therefore all taken to represent the first intrusion of nomadic pastoralists - 'Hottentots' - from the north. The route of their migration was plotted from such paintings, across Rhodesia, through Namibia to the Cape. ${ }^{6.3}$ Though the argument was basically flawed, it reduced Breuil's fantasies to support the sort of migration theories that obsessed many prehistorians at the time.

While Director of the Monuments Commission, Cooke made particularly great personal efforts to maintain and expand the Archaeological Survey which sought to record all prehistoric sites in the country. In 1967 - as in 1938 - questionnaires were sent by the Commission to all Native Commissioners and white farmers, asking for details of any prehistoric remains in their areas or on their farms. The quality of the responses was inevitably extremely variable for it is difficult for anyone with only a limited knowledge of the art to assess the relative importance of sites they reported. Little of the information could be checked by Monuments staff. Records in the survey for some commercial farms are reasonably good; areas where an enthusiast for the art lived or worked are often recorded almost comprehensively and in some detail; on the other hand, practically no paintings are recorded in many communal lands except perhaps those in a few large caves, though neighbouring areas are full of paintings. It was in passing information to the Survey, that many amateurs of the art once again made important contributions to rock
art studies. Notable amongst them was H. P. Petie, who visited and recorded many sites over Mashonaland in the 1960 s, but his detailed copies and records all left the country with him about 1976. Corona Thornycroft has devoted many years to recording and copying paintings in the Wedza district. Both have published many notes on some of their finds in the Newsletter and Journal of the Prehistory Society.

Cooke summarized his years of work on the paintings in The Rock Art of Southern Africa in 1969. After that, though he remained involved in the prehistory of the country for another 20 years and more, he wrote little more on the paintings. With the exception of Thornycroft's continuing work copying and cataloguing paintings in the Marondera and Wedza Districts, several surveys of the paintings in the Matopo Hills and a survey of paintings on the Trelawney and Darwendale area by the Prehistory Society, studies of the art virtually ceased. ${ }^{64}$ Certainly there were no more published attempts at interpreting the paintings until comparatively recently.

With the transformation of Rhodesia to the independent state of Zimbabwe, the number of local and expatriate professional archaeologists working in the country increased more than tenfold. They were joined by numbers of anthropologists and ethnographers. The University of Zimbabwe established a Department of Archaeology and many graduates from it successfully completed further studies in the prehistory of the region at universities overseas. The National Gallery of Zimbabwe now also has researchers into the country's art. All this could be expected to result in real advances in interpretative studies of the rock art. Unlike South Africa, where advances in such studies now attract great interest and attention throughout the world, this has not happened in Zimbabwe yet. Every professional prehistorian at present seems a great deal more concerned with aspects of the country's more recent prehistory. Given the richness of our rock art and the labour spent in trying to understand it by many very different people and in their many different ways, over the long period covered by this paper, this seems a pity.

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# Our Sixth Judge - Sir Murray Bisset <br> by Michael J. Kimberley 

Murray Bisset was born in Port Elizabeth on 14 April 1876, the fifth son of Mr. James Bisset, M.I.C.E., a civil engineer by profession.

## Education

He was educated at Diocesan College, Rondebosch, which was at that time a University College and not merely an Anglican Church School for boys. There, having displayed from his earliest boyhood considerable promise as a cricketer, he distinguished himself by obtaining an exceptional reputation as a left hand bowler. In one memorable match against SACS, the South African College School, he took 14 wickets for 37 runs, and also took six wickets in an innings on four occasions in inter college matches. He was in the Ist XI for four years, captaining it in 1894 and 1895. Though not of robust build he also played in the I st Rugby XV in his last year, 1895.

He won the Ogilvie Prize for Latin in 1894 and graduated in Literature in 1895. Law studies followed and after qualifying in law he was admitted as an Advocate of the Supreme Court of the Cape of Good Hope on 1st August 1899.

In later years he served as a member of the Diocesan College Council.

## Practice as an Advocate

He practised at the Cape Bar for 25 years from August 1899 until leaving South Africa for Southern Rhodesia in December 1925. In one's early years at the Cape Bar briefs were not altogether plentiful and Bisset was able to find time, with Percival Frere Smith, to produce Bisset and Smith's Digest of South African Case Law to 1905, published by Juta and Company in three volumes, with annual Supplements thereafter, all of which were consolidated in 1921 under the Editorship of T. G. Duncan.

With his charming personality, his modesty and his dedication to hard work and careful preparation, he gradually built up an extensive practice and took silk on 6th July 1919. It was said that he was a subtle and persuasive cross examiner and that he possessed "an ease of manner and a choice of phrase rare individually and, in combination, often irresistible". By 1925, and some years before then, he had risen to the forefront of his profession of Advocate in the Cape, and he certainly became one of the outstanding personalities of the Cape Bar and, indeed of the Cape Peninsula

## Cricketer

After completing his studies he became even more prominent as a cricketer, captaining the Western Province Cricket Club for ten years and also, as wicketkeeper captaining South Africa in the test matches in Johannesburg and Cape Town in 1898/1899 against Lord Hawke's English team both won by England. He captained the South African team in England in 1901 though he personally did not play in the test matches, and also captained South Africal in the 5th test match in Cape Town against the MCC touring side of 1909/1910 captained by H. D. G. Leveson-Gower. His test match record was rather mediocre with 103 runs in 6 innings (twice not out) and a highest score of 25 and an average of 25.75 , with one caught and one stumped in the wicketkeeper role. Western Province, however, won the Currie Cup in 1892, 1894, 1897, 1898,1908 , and 1909 whilst he was in the side.

The famous P. F. Warner, who was a member of the English team in 1898/1899, wrote as follows in his book Cricket in Many Climes:
"Cape Town can boast of many good cricketers, chief among whom are Murray Bisset, Graham Rowe, and Middleton. The first is a very sound and stylish bat with a good deal of wrist work, but is perhaps just a little short of punishing power. He played many a good innings against us, but was often dismissed when apparently well set. He is, too, a capable wicketkeeper with a neat style, and a very admirable Captain - strong, tactful and full of resource - and understands the game thoroughly. He is quite young and is sure to improve immensely, and would make lots of runs on our English wickets."

Apart from being a first class player, he also served cricket and other sports in various capacities in South Africa before coming to Southern Rhodesia, for example, he was President and Founder of the Plumstead Sports Club, he was Chairman of the Western Province Sports Club, and President of the Western Province Cricket Union.

## War Service

Upon the outbreak of the Anglo-Boer War in 1900 he volunteered for service with the Western Province Rifles and fourteen years later he was among the first to offer his services, becoming a private in the Dukes for duty in South West Africa. The strenuousness of active service, however, proved too much for his mediocre health and he was compelled to return to civilian life not long after his attestation.


The Chief Justice of Southern Rhodesia and Acting Governor.
Photo taken while he was playing cricket in England
(National Archires of Zinhabwe)

## Marriage

In 1905 he married Gladys Difford, daughter of Mr. A. Difford, Traffic Manager of the Cape Government Railways, and they had one son.

## Politics

In 1915 he answered the call of politics and became the Member of Parliament for South Peninsula, representing the South African Party. He soon made his mark on the House of Assembly, and his eloquence and ease and clarity of speech won him the attention of the House whenever he participated in debate. By 1924 his health, coupled with the strain of his very busy practice at the Cape Bar, caused him to withdraw from Parliament and active politics.

## Judicial Appointment

Towards the end of 1925, at the age of 49, he accepted an offer to become Senior Judge of the High Court of Southern Rhodesia as from January 1926 in succession to Sir Clarkson Tredgold who had retired.

## A great loss to the Cape

Southern Rhodesia's gain was the Cape's loss stated F. R. in the South African Law Journal (Volume XLIV page 115):
"It is not too much to say that the news that Murray Bisset was going to Rhodesia as Senior Judge came as a blow to the Cape. He was known to have refused an Acting Judgeship some years before when politics and a growing reputation in the House claimed him. But, never robust, the Member for South Peninsula had had to give up politics, and everyone knew the day could not be distant when the Cape Bench would claim its own. But the Cape was forestalled."

A report at that time of a meeting of the Southern Civic Association held in Plumstead records Dr. W. A. Rail as saying that the Association's Chairman, Advocate Murray Bisset, was going to Rhodesia and it was hardly necessary for him to say how sorry they all were that he was going away: "Plumstead was losing its foremost citizen, and one who had always taken the deepest interest in its development. Mr. Bisset was a man whom they could ill afford to lose, but what was their loss was Rhodesia's gain."

That long established newspaper, The Cape Times, devoted a sub-leader on 29th December 1925 to the departure from the Cape of the extremely popular and very competent Murray Bisset:
"The departure of Mr. Bisset . . . is a loss to Cape Town and the Peninsula which we hope may be only temporary. Mr. Bisset's career has been made in Cape Town with whose life in very many of its aspects he has been most closely and honourably connected."
"As a cricketer his name is conspicuous in the records of South Africa's struggle for recognition among the countries that love the summer game and contest its laurels between each other, but in many other kinds of sport Mr. Bisset played a part almost as distinguished. Character counts and it is true to say of him that from his early manhood his exceptional fitness for command in games and for positions of authority upon their ruling bodies was recognized and acclaimed by the common opinion of his contemporaries."
"As a judge those qualities must give him, it would seem as generally conceded, personal prestige though nothing is more hazardous than to predict the success of any man upon his elevation to the judiciary. That prediction in Mr. Bisset's case would seem to be as safe as can ever be."
"Cape Town will watch his career in the north with affectionate pride. At the Bar he has won for himself wide esteem and unfaltering admiration. In politics he showed most exceptional promise, commanding the fickle attention of the House of Assembly whenever he spoke,
speaking never without knowledge, and always with that sense of individuality of conviction which is perhaps the main secret of success for the Parliamentary orator. Yet he had no love for notoriety, and gave his energies to politics far more through his sense of public duty than for any personal thrill that his political laurels could give him."
"In the very many ranks and walks of life all through the Cape Peninsula and far beyond it, numbers well feel that his departure for Southern Rhodesia is a loss of a friend who cannot be spared except at a wrenching price. They will wish him all success in his new life and will send after him their hopes that he will not be long before he comes back to the Union."

## Arrival in Salisbury

Mr and Mrs Bisset arrived in Salisbury on New Years Day 1926 and on 7th January 1926 in the High Court, Murray Bisset was formally welcomed on behalf of the legal profession, the oaths of office were administered, and he assumed office immediately.

In his speech of welcome, the Acting Attorney General, Robert McIlwaine observed:
"It is sometimes said that brilliant advocates do not always make first class judges, but we believe that Mr. Justice Bisset possesses all the necessary qualifications that go to ensuring success in his new and arduous post in quite an exceptional degree."

Attorney General's Staff, 1931


L-R: Back: W. G. Eris; F. C. Jarvis; Sir Victor Robinson Wisdom; F. L. Merrington; T. St. J. Grant; C. P. Forder.

Middle: Eric Smith (Chief Clerk); Sue Shand; J. Wood; Miss Berg; - ; Miss Shaw; R. A. Cox.
Front: F. G. Brooks (Master High Court); A. G. E. Speight (Solicitor Gen.); Justice R. I. McIIwaine; Justice Sir Murray Bisset, Sir (Maj.) Robert Hudson (Attorney Gen.); W. A. Devine (Sec. Justice); Capt. W. E. Thomas.
(Source: Mr. Brown, Attorney General's Department)

## Erratum (published in Volume 13) Heritage No. 12

On page 28 of Heritage of Zimbabwe No. 12, 1993, as an illustration for the article entitled Our Sixth Judge Sir Murray Bisset by your Honorary Editor we reproduced a group photograph of the Attorney General's Staff in 1931. The names of those in the group were written in pencil on the reverse of the photograph by the National Archives of Zimbabwe photographic section from whom the photograph was purchased. The writing was far from copperplate and the typesetter misread the first three names and your Honorary Editor failed to correct the error. Six of our readers were good enough to draw attention to the error.

The first three names in the back row should read E. W. G. Jarvis, who was appointed a judge of the High Court in 1964
F. C. Wisdom, who became Master of the High Court
V. E. Robinson who became Federal Attorney General in 1954 and was knighted in 1959.

The lady to the right of centre in the middle row, recorded as by the National Archives, has recently been identified as Mrs Kay Hartnell.
Still in need of identification is the gentleman in the middle of the back row.

## Acting Governor

Very soon after his arrival to assume office as Senior Judge, Bisset was called upon to act as Governor from February to September 1926 during the absence on leave in England of Sir John Chancellor. He also acted in this role from June to September 1928 immediately before the arrival of Sir Cecil Hunter Rodwell to assume office as Governor. In the same year Bisset became Sir Murray Bisset.

## Six Years as Judge

A sound lawyer, with his experience gained in the hard school of the Bar, he got through a substantial amount of trial, appeal and review work. Always courteous and always dignified, but also cautious and careful, complaints were made on occasion of his delay in coming to decisions and handing down judgements. It has been suggested that this was probably due to "his extreme care that every fact and circumstance should receive the fullest consideration before his judgement was given."

For most of 1926 Judge Bisset was acting as Governor and the Law Reports containing the reportable High Court cases for that year record that Judge Bisset gave judgement in two criminal appeals and one civil appeal, as well as six criminal reviews and quite an interesting case relating to a Will which was held to be invalid since it was written across two pages only one of which was signed and witnessed.

1927 was a busy year with 29 reported judgements including 9 criminal reviews, 5 criminal appeals, and one application for leave to appeal against a criminal conviction, as well as 3 matrimonial cases, an application for provisional sentence, a claim for unpaid wages, two company liquidation matters and a special case arising out of the winding up of an estate.

The civil cases are more interesting and in Taylor v Bulawayo Municipality (1927 SR 71) the applicant successfully applied for an interdict restraining the Municipality from trespassing upon his farm and from passing electric current along certain lines wrongfully erected on applicants farm by the Municipality and for an order directing the removal of the lines. The Municipality unsuccessfully relied on a provision entitling it to enter upon land for the purposes of the Act contained in a section relating to access to land for its water functions which was held not to apply to its electricity function.

In Lacombre v Leach (1927 SR 92) a building owner took possession of the house built for him and soon after paid the final instalment of the contract price, with knowledge of certain defects and bad work in the building, and thereafter claimed damages for the defective and faulty work. It was held on appeal that in spite of the payment of the final instalment of the contract price there was no such express or implied approval of the work as could debar the owner from claiming for bad work on the part of the contractor.

In Wells v Barclays Bank ( 1927 SR 132) it was held that where the bank improperly dishonours a customer's cheque and no actual damage is proved, the measure of damages may be assessed on the extent of the injury to the business or commercial credit of the customer. In the absence of actual damage the damages awarded should be temperate and such as would be reasonable compensation for any injury sustained. Three cheques ( $£ 4.3 .0, £ 12$ and $£ 3$ ) were erroneously dishonoured when the balance was $£ 140$ and the $£ 50$ previously paid by the bank for any damage sustained was held to be sufficient despite the claim for damages being for $£ 500$.

In 1928 Bisset acted as Governor for hall the year and ten cases reported in the Law Reports included 6 criminal reviews, a criminal appeal, an insolvency matter and a maintenance case. Homan v Stams Tribute Syndicate (1928 SR 23) was an action for damages for negligence for failure to take steps to divert surface water from flowing down the incline shaft to the main shaft of a mine which endangered and weakened the support of the shaft which afterwards collapsed.

The Court held that the defendants had breached their duty to exhibit reasonable care and all reasonable precautions to prevent damage and that the breach contributed materially if not entirely to the flooding of the mine which was the immediate cause of the flooding of the shaft.

1929 was again a relatively quiet year with Russell acting as Senior Judge from January to July, and Bisset presided in four criminal appeals, an insolvency matter, an immigration matter and three civil matters including Borcherd No. v The Rhodesia Chrome and Ashestos Company Limited (1929 SR 59) which is referred to below.

In 1930 there were 25 Bisset judgements reported in the Law Reports. 4 were criminal reviews and 6 were criminal appeals and one a criminal trial, with two matrimonial cases, one insolvency matter, one action for damages arising out of negligent driving, and three civil appeals. For the rest there were three cases involving a mining contract, mining claims, and a farm sale, and one involving the purchase and sale of a motor car warranted to be in sound mechanical condition and good running order with defects manifesting themselves shortly after the sale. In Blackwellv The Rhodesia Railways Limited (1930 SR 146) the Railways were held responsible for damage from a veld fire on a farm caused by a spark from a locomotive. The fire burned the veld and grazing as well as farm buildings, implements, stores and crops.

1931 was the year of Bisset's death and 13 judgements are reported in the Law Reports, with three insolvency matters, one hire purchase, one matrimonial, one late registration of birth, one licensing, one tax, one damages for wrongful dismissal matter, and one civil appeal as well as an interdict application.

In Mocke v Colonial Secretary (1931 SR 10) it was held that the discretion of the responsible Minister in relation to the approval or refusal of an application to layout a township was unfettered provided the discretion is exercised bona fide in the public interest and after fair enquiry, not capriciously nor for ulterior motives.

In Rex volley (1931 SR 22) the notorious Councillor Charles Olley (later an Alderman) successfully appealed against his conviction and sentence to a fine of $10 /-$ by a magistrate for contravening a parking by-law in that he had parked 24 minutes which was held to be more than was necessary for the purpose of taking up or setting down passengers. The appeal succeeded because it was held that the Council's resolution appointing certain Streets as parking areas for motor cars was ultra vires because it had been published in a newspaper rather than promulgated by publication in the Government Gazette. The law was subsequently amended to permit in certain circumstances publication in a newspaper of certain resolutions having the force of law.

Only one reported judgement of the Appellate Division of the Supreme Court of South Africa involves an appeal from a High Court of Southern Rhodesia judgement by Justice Bisset. The case was Borcherds v Rhodesia Chrome and Ashestos Company Limited (1930 AD 112) where the Appeal Court, in confirming Bisset's judgement, held that the duty payable on registration of mining claims is a transfer duty and is not payable on sales of mining claims in respect of which no transfer is taken.

## Chief Justice

With the coming into operation of the Administration of Justice Act, 1928, the designation Senior Judge was changed to Chief Justice and Sir Murray Bisset became the country's first Chief Justice.

## Sporting Interest

During his six years in Southern Rhodesia, he had the same deep interest in sport that had made him so popular in South Africa and he was always ready to draw upon his immense knowledge and experience for the benefit of those in control of sport in the Colony.

Death
Having been in poor health for several months, Sir Murray was admitted to Salisbury Hospital on 20 th October 1931 and he died at the young age of 55 , shortly after 7.00 p.m. on Saturday evening 24th October 1931 due to degeneration of the muscle of the heart. He was survived by his widow, Lady Gladys Bisset and their son.

He was accorded a state funeral and was buried in the section of Salisbury Cemetery a few days later after a service conducted by the Dean of Salisbury, the Very Reverend A. P. Hill.

The funeral cortège began its march from "Four Ways", the North Avenue residence of Sir Murray and Lady Gladys. It was a dull morning with overcast skies and the procession included representatives of practically every organization in the country, and the route to the cemetery was lined by a huge number of towns people.

The Service at the graveside was as simple as the ceremonial of a State occasion can ever permit, but was preceded by a 17 -gun salute by field pieces situated on the Salisbury Kopje.

## Tributes to Bisset the Man

We can learn most about Sir Murray Bisset as a man from the many tributes that came from not only Southern Rhodesia but from various parts of the world following his death. Messages of condolence came from their Majesties the King and Queen, the Secretary of State for the Dominions, the High Commissioners, the Governors of the several Colonies and Protectorates in central, east and southern Africa, the Mayor and Council of Cape Town, General Hertzog the Prime Minister of South Africa and a host of others.

The Prime Minister of Southern Rhodesia, Mr H. U. Moffat said:
"Of a modest and retiring disposition, it is no exaggeration to say that he was beloved by all who had to work with him or with whom he was brought into close contact."
"As Acting Governor, he filled that position with dignity and brought to its duties the great abilities of which he was possessed. Sir Murray had a high sense of duty and was always anxious to carry out to the full the obligations of his office."
"He gave the last six years of his life unstintingly to the service of Southern Rhodesia."
At a special sitting of the High Court attended by the majority of members of the Bench, Bar and Side Bar, tributes were paid on behalf of the Bench and the profession. Mr. Justice Mcllwaine said:
"I am very conscious of the inadequacy of any words of mine to describe fittingly the very high place he held in our affections, not only as a Judge but as a man. It has been my very good fortune to be associated with Sir Murray Bisset, and I can assure you that the time has been full of pleasure and profit to me - pleasure at being in close touch with a man of such sterling qualities, and profit from his inspiring example."
"To you whose duties have brought you into contact with Sir Murray, it will be superfluous to mention his never failing courtesy, kindness and consideration, and the unremitting care bestowed on his judicial work. I have had the opportunity of seeing those qualities displayed on the least public side of his duties, for example, on the somewhat tedious work of reviewing the decisions of other Courts."
"His alm was always not only to see that justice was done to the offenders but also to assist magistrates by helpful and sympathetic remarks."
"He was so human in his outlook on life that, in imagination, he could place himself in the position of the other man, even if the other man was a prisoner in the dock."
"We can all heartily endorse the numerous and well deserved tributes about his political, public and sporting life, but the greatest tributes were centred round his kindly, unassuming character. With an entire absence of pomp and ceremony, he filled his high office with dignity, and his innate dignity of character was reflected in all he did."
"He endeared himself to everyone, and in his passing, the country has lost a true friend, and his example will be an inspiration to those who follow."

The Attorney General, Major R. J. Hudson paid this tribute:
"We saw him as a man possessed of that singular charm and simplicity of manner which, without conscious effort, characterizes dignity. Coupled with that was his unfailing courtesy to those brought into contact with him. Just as off the Bench, he was the most approachable of men, so on the Bench, if I may say so, he was a most approachable judge. He made every practitioner in this Court feel at home."
"It has been said the judges have a great deal to do with the moulding of the practitioners who appear in the Courts, and that, in a marked degree, was true of the Late Sir Murray Bisset."
"During his all too short term of office, he has made an impression on the legal profession of this country which will last for generations to come. It will be of inestimable value not only to ourselves, but to Justice."
"Sir Murray came to us as an advocate of great legal attainment and wide experience. He had those qualities of mind and heart which go to the making of a great Judge. Those of us who knew him before he came here had a confident belief that he would make a success of his appointment, and we were more than justified in that belief."
"We who practised in this Court had visible evidence of that ideal which governed the whole of his life - the ideal of service. Only too often we have seen him carrying on in the hearing of a case when it was only too obvious, in the interest of his health, that he should give up. But it was characteristic of him that he should conquer his disability and give his whole attention to the case before him."

The President of the Law Society, Mr R. A. Letts, summed up his statement of condolence thus:
"Always courteous and willing to listen to any argument, he was a sound lawyer and his knowledge and experience of human nature made him a good judge of fact."

And the President of the Rhodesia Cricket Union, Mr A. G. Hay, had this to say:
"He was nature's perfect gentleman. A great sportsman in every way, whether in business or in cricket."

Finally, perhaps the Rhodesia Herald of Friday 30th October 1931 gave the best summary of Murray Bisset, the Man, with these words:
"Sir Murray was one of the most deeply respected figures in the higher official circles of the Colony. His simple, unaffected dignity, his charm of manner, and his keen interest in men and affairs, endeared him to all with whom he came in contact."

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# The Early Matabeleland Missionaries Pioneers of Surgery and Anaesthesia in Central Africa 

by Alistair G. McKenzie

In December 1859, thirty years before the Pioneer Column, the first mission station in Zimbabwe was established at Inyati, 60 km north-east of Bulawayo. The founders sent by the London Missionar'; Society, were John Smith Moffat, William Sykes and Thomas Morgan Thomas (see Table). The last named had had a short medical course.'

As early as 13 August 1861 Thomas treated Mzilikazi for gout and was established as "royal medical man" until the king's death in 1868.' Sadly Revd. Thomas lost his wife and baby in June 1862 - to fever (probably malaria).' Revd. J. S. Moffat departed (to Kuruman) in 1865.'

In April 1870, shortly after Lobengula had become King of the Ndebele, James Boden Thomson (London Missionary Society) arrived in Matabeleland. ${ }^{2}$ He and his wife worked a few months (until August) ${ }^{3}$ at Inyati, before proceeding to establish a second mission station at Hope Fountain, 16 km South of Bulawayo. Around this time there was a brief civil war ${ }^{4}$ between supporters of Lobengula and the Zwangendaba regiment led by Mbigo Masuku - the latter claimed that Nkulumane, Lobengula's half-brother, was the rightful heir.

A letter from Revd. W. Sykes to the London Missionary Society (dated 10 June 1870) describes how, on his return from the Chief to Inyati ( 9 June) he found Revd. Thomson tending

Staff of the Matabele Missions before $1890^{3.6}$

| INYATI |  |  | HOPE FOUNTAIN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrival | Deparime |  | Arrival | Departure |
| J. S Moffat | 26 Dec. 1859 | 8 Sep. 1865 (to Kuruman) | J. B. Thomson | Aug. 1879 | Jul. 1876 ( 10 Ujiji) |
| W. Sykes | 26 Dec. 1859 | $\begin{array}{r} 22 \text { Jul. } 1887 \\ \text { (died) } \end{array}$ | C. D. Helm | 2 Dec. 1875 | $\begin{array}{r} \text { Jan, } 1915 \\ \text { (died) } \end{array}$ |
| T. M. Thomas | 26 Dec. 1859 | $\begin{aligned} & \text { Jul. 1870\% } \\ & \text { (to England) } \end{aligned}$ | J. Cockin | $28 \text { May } 1878$ <br> (di | Jan. 1880 <br> 3 Feb. 1880 <br> Shoshong) |
| J. B. Thomson | $29 \text { Apr. } 1870$ | $\begin{array}{r} \text { Aug. } 1870 \\ \text { Hope Fountain) } \end{array}$ | D. Carnegie | $13 \text { Oct. } 1882$ | Oct. 1897 <br> Centenary) |
| W. A. Ellioll | Oct. 1877 | Mar. 1892 |  |  |  |
| Bowen Rees | 12 Mar .1888 | 1919 |  |  |  |

[^0]

John Smith Moffat (just before his marriage) (National Archives of Zimbabne)


William and
(the second) Mrs Sykes
(National Archives of Zimbaln+e)


Thomas Morgan Thomas (National Archives of Zimhabu'e)


Inyati Mission (circa 1862) (Nutional Archives of Zimbubre)


Grave of William Sykes at Inyati Mission (A. G. Mc K ('ルーic)
the wounded. Thomson had put up a temporary hospital for management of people with broken legs and sundry spear and bullet wounds. ${ }^{5 a}$
"Mr Thomson has arrived at just the right time with his medical and surgical skill. His previous hospital practice, combined with a taste for such work and an intense longing to be useful to the people, is of great value in the Mission. It would tend to their personal and family comfort, as well as to the comfort of the natives, if all students designed for the interior of Africa, would labour to improve the opportunities which are now afforded them for acquiring a little medical and surgical knowledge. Those of us who came here without any such knowledge have been obliged to acquire it by practice. We have had to perform such surgical operations at times as the thought of at home would have made us shudder."

The Hope Fountain site was granted by Lobengula, who became friendly with the Thomsons. It is noteworthy that Revd. Thomson introduced vaccination for smallpox. ${ }^{6}$ However, it seems that Lobengula declined to be vaccinated himself, because he was reported to die of smallpox many years later (1894).?

On 2 December 1875 Revd. Charles D. Helm and his wife joined the Thomsons at Hope Fountain. ${ }^{6}$ However the Thomsons departed in July 1876, leaving the Helms alone at the mission until 28 May 1878, ${ }^{3}$ when Revd. Joseph and Mrs Cockin arrived.

By this time the London Missionary Society endeavoured to always have two missionaries at each station and insisted on them "walking the hospitals for six months before leaving England in order to gain a little general experience, especially in midwifery". ${ }^{\circ}$ In September 1878, ${ }^{6}$ Mrs Cockin had a difficult labour at Hope Fountain. She was attended by Mrs Helm and Revd. Cockin, who decided to use instruments. Revd. Cockin commenced the chloroform anaesthetic, but fainted and Mrs Helm had to continue administration! ${ }^{\star}$ However, a healthy baby girl was delivered and named Josephine (later Zoe). ${ }^{3}$

Meantime Inyati Mission had lost Revd. T. M. Thomas (recalled to England July 1870), though he returned in 1875 to establish his own station at Shiloh, 40 km west of Inyati. Revd. William and the second Mrs Sykes were alone at Inyati for seven years until October 1877 when they were joined by Revd. William Allan Elliott. ${ }^{3}$ He was enthusiastic about medical work, usually visiting the villages around Inyati weekly; ${ }^{9,4}$ he also visited Shiloh and was noted by Charles Celt Thomas to have "high qualifications as a medical man"."

Around this time the administration of chloroform anaesthesia for surgery must have increased, judging from the following extract from a letter written by Revd. J. Cockin at Hope Fountain to Dr Mullens (London Missionary Society) in May 1879.\%
"Short as the time is which I have spent here I have been compelled to notice the greater respect in which the missionary is held as compared with a trader. Perhaps some of this is due to the fact that most of them consider us as "Big medicine". Mr Elliotts Magic Lantern, and my Electric machine, and I think above all to those who know of it, my chloroform are things which in spite of all our explanations, they cannot help regarding as part of the medicine given us by Umlimo wolwauhle the God of the sea to wit Her Gracious Majesty Queen Victoria."

Unfortunately chloroform was not always available, as recollected in "Thy Beginning" by the Helm's daughter, Mrs Jessie Lovemore. "A man came another day with an appallingly shattered arm. He had been out on one of their raids, and been shot six weeks previously. He'd returned with the impi, a six weeks' march. There was no chloroform available but Mr Selous and my father managed to amputate the remains, and it all healed up well."

The Revd. W. A. Elliott sent a long list of required medicines with an accompanying letter dated 8 January 1883 (Inyati) to Mr Whitehouse, London Missionary Society. ${ }^{56}$ Among the items he requested were Chloroform 1pt; Ether $80 z$.

The person at the London Missionary Society who vetted the list (in red ink) allowed chloroform - but apparently rejected ether.


James Boden Thomson (National Archives of Zinhabue)


Charles Daniel Helm (National Archives of Zimbalowe)


Mrs Elizabeth Helm (née Puttkamer)


Joseph Cockin
(National Archives of Zimbabuce)


Hope Fountain Mission (circa 1880)
(National Archives of Zimbabwe)


Grave of
Charles and Mrs Helm at Hope Fountain Mission
(A. G. MCKCH-ic)


Grave of David Carnegie at Hope Fountain Mission (A. G. Mc Ken-ic)

Around this time the Revd. C. D. Helm was apparently in demand for dental work. He had the following to say in a letter dated 4 May 1882 to Revd. R. Thompson, London Missionary Society. ${ }^{5 c}$
"As I am writing about surgical instruments may I renew my urgent request for a set of dental instruments. The instruments I have were given me by Mr Thomson. The set is imperfect and the instruments very much worn, and I have a great deal to do in the way of drawing teeth, patients often coming long distances to have a tooth pulled."

His request for the set of dentists' instruments was granted. ${ }^{5 / 1}$
While on a trip down country Revd. J. Cockin died at Shoshong in February 1880 - of blackwater fever. ${ }^{\text {. }}$ His successor at Hope Fountain was Revd. David Carnegie, who arrived there in October 1882. David Carnegie worked with Revd. Charles Helm for fifteen years. ${ }^{3}$

With increasing scope for their medical work the Matabeleland missionaries felt the need for further medical training. Thus in a letter to Mr R. Wardlaw Thompson (London Missionary Society) dated 9 February 1885, Revd. W. A. Elliott wrote the following comment. \%
"I wish the Directors would give me a little more medical training under such a man say as Dr Pye Smith. A few months with him would be of incalculable value to me with the experience I have already gained. In surgical study and in the diagnosis of disease I could profit more than when I had no practice. Is it any use applying to the Directors? a few months only!"

Dr Pye Smith must have been a good teacher for he is also mentioned in a letter to the London Missionary Society from David Carnegie, dated 13 July 1885. sc
"It would considerably strengthen our position in the land if one of these brethren were a thoroughly qualified medical man who could devote most of his time to the medical branch of our work. I have often wished I had had six years instead of six months under the care and guidance of Dr Pye Smith of Sheffield."

Around this time medical work at Hope Fountain was burgeoning, judging from a letter from D. Carnegie to R. Wardlaw Thompson dated 4 December 1886. ${ }^{\%}$
"My medical work deserves a special notice, as showing how much the people trust us and believe in our mode of treatment. During 1886 I have had over 700 cases, most of which have come to me at Hope fountain. The King has sent me a good many, and others have come from a distance of 50 miles to ask for medicine. All this coming into contact with the people must have a telling effect upon their minds. Amongst my patients was a rain-doctor whom the King sent to me. I was successful in curing him."

Four years later the Pioneer Column reached its destination, and within a few months the first Salisbury hospital was opened.

## Acknowledgements

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# Lomagundi Genesis ${ }^{1}$ 

by Rob S. Burrett

The Lomagundi District, now more correctly renamed Makonde, lies to the north-west of Harare centred on the modern towns of Chinhoyi and Banket. The area has a long history of settlement, but here I am concentrating on the formative years of the British South Africa Company (BSAC) Occupation from 1890 to 1900. The little that is known of the pre- 1890 period has been touched upon by Edwards using a limited source of material, and I am sure it would repay any researcher if this period were again investigated. ${ }^{2}$

Just prior to Occupation in 1890, the area was traversed by a number of European explorers. There were hunters such as George Wood and Frederick Courtney Selous; the Anglican Missionary Bishop Knight-Bruce of Bloemfontein; and several groups of prospectors, of whom Thomas Baines is the most important. ${ }^{3}$ Baines visited the area in 1869 and in 1870 , during which time he noted various "Ancient Workings" and an apparently thriving gold industry based on the alluvial deposits along the Angwa River. His favourable, somewhat exaggerated, impressions were recorded in his book The Gold Regions of South-Eastern Africa, a book which had a profound effect in attracting later Settlers to the area. ${ }^{4}$

With the disbandment of the Pioneer Corps in Fort Salisbury on 30th September 1890, many of the men dispersed to the three known "Goldfields" of Mashonaland: Hartley Hills; the Mazoe Valley; and along the Angwa River. These Angwa prospectors were, therefore, the first European "Settlers" in the Lomagundi Region. I place "Settlers" in inverted commas for they were a transient population which didn't remain in the area. Due to the extreme remoteness and prevalence of Blackwater Fever and Tsetse Fly, these "Settlers" could prospect in the area for only short periods in the winter, treating Salisbury as their home base. ${ }^{5}$ This shifting movement persisted for most of the period under consideration. ${ }^{6}$ It was only towards the turn of the Century that the area was permanently settled by more than a handful of individuals.

Although claimed as BSAC territory in 1890, like Manicaland, there was a question of prior Portuguese rights. Certainly the Portuguese had occupied the area as far back as the Seventeenth Century when they established a number of Trading Fairs along the Angwa River. These settlements were to exploit the gold deposits and were occupied until as late as 1693, when, together with the other Mashonaland Fairs, they were destroyed by the Changamire who drove out the Portuguese. Despite this, Portugucse influcnce slowly reasserted itself and by the Nineteenth Century the area was theoretically divided into a number of Prazos (Estates) which were held by Portuguese "Settlers". Although officially "owned", these holdings were certainly never occupied as we understand it from later European Settlement. They were largely independent areas which were raided periodically by the "owners" and their slave bands for tribute and/or additional slaves. ${ }^{7}$ In the Lomagundi District they certainly had almost no effect, although in the Zambezi Valley nearer the Portuguese Settlements the Prazos caused profound changes in the traditional systems. ${ }^{*}$ With the arrival of the BSAC, the Portuguese attempted to reassert their "legitimate claims", and in late 1890 they persuaded the district Paramount, Chief Lomagundi (Makonde), to accept the Portuguese flag as a sign of allegiance." The Pioneers, however, ignored these claims and Portuguese rights to the area effectively fell away. There was no direct conflict as there was in Manicaland.

The Angwa Settlers were certainly hardy men who sought to eke out a living in adverse conditions. The region was the remotest of all the areas to which the Pioneers wandered. Perhaps for some this distance from any effective administration was a distinct advantage. Then
there was no infrastructure, and it was only through time that a "main wagon trail" became established through use. All supplies - food; clothing; trade goods; and mining equipment were totally unavailable, more so than in any other area of Mashonaland. There was also a serious problem with wild animals, particularly lion and hyena, and many had a tale to tell regarding their losses to these "beasts of the night" while they clung to the relative safety of their camp fires. Tsetse Fly furthermore claimed those horses and draught animals the lions spared, while malaria sapped away at the health of these men. On top of all this, in those early days there was very little "Native labour" to be procured and so the prospectors had to do all the work themselves. ${ }^{10}$ There were also several cases of theft by the local inhabitants. This resulted in the first official police presence in the area in September 1891, when a patrol of five policemen under the command of Major Forbes was sent out to investigate."

Given these problems one really wonders why these prospectors persevered, but I guess gold grips hard at a man's soul. Interestingly, although attracted by Baines' reports of alluvial gold, very few considered this source until many years later, see Figure 2. Instead these early prospectors chose to try and locate the source of the alluvial gold, believing (falsely) that it would be a concentrated ore body and a far greater prize.' ${ }^{12}$ Accordingly within a short time all visible quartz outcrops along the Angwa River had been pegged by various Syndicates with impressive titles such as the Glascow-Mashonaland Syndicate; D-Troop Syndicate; and the Selous Syndicate. A map of the area drawn in 1899 shows the situation hadn't changed over the decade, only that new syndicates had bought out and consolidated many of the earlier claims, Figure 3.

Most of the Angwa workings were concentrated in the hilly country along the River near the modern town of Mhangura. This area became known as the Maphuna Field. ${ }^{13}$ In May 1892 the Lo Maghunda Mining Commissioner inspected four of the workings in this Field: Glascow Reef; Albert Reef; Auagh Reef; and Black Chief Reef. While seeing little to encourage him,


Figure 2. Examples of gold nuggets found in claims along the Angwa in 1911/3. The nuggets are approximately one third of actual size
(National Archives of Zinhbabu'e)


Figure 3. Angwa gold claims, 1899
(National Archires of Zimbarowe)


Figure 4. Various officers and NCOs in I) Troop of Pioncer Cohmm, 1890. Those of direct relevance tothis story are indicated. Left: Cpl. Lewis A. Vincent; Centre: Sgt. Frank Mandy; Right: Cpl. William H. Clarke
(National Archives of Zimbalure)
like many of the Pioneers, he remained unreasonably optimistic that the best was yet to come.
". . . there is nothing glowing to report as regards the richness of the reefs in this district, but [I] can not help thinking that taking into account the enormous quantity of work done years ago on both banks of the Angwa River for miles, and the specimen pieces of quality which can be picked up in and around these workings and the pannings one gets from almost every piece of loose stone lying around them, that it is only a matter of time when good payable reefs will be discovered". ${ }^{14}$

Despite the optimism, however, the claims came to nothing and interest in this Field declined markedly as from 1892. Many of the Reefs proved barren or were minor copper deposits in which gold was a small uneconomic percentage. ${ }^{15}$ Prospectors abandoned the area selling their claims to various large "Speculative Syndicates", who were not interested in actual mining as playing for profits on the London Stock Market. These claims were simply further names on their property lists to attract the fool-hardy investor. Only years later, 1908-18, were these claims re-pegged and worked for their alluvial gold, ${ }^{1 / 6}$ but certainly the production level has never come anywhere near that dreamed of by Baines and the Pioneer prospectors.

While most of the early prospectors headed straight to the Angwa River a few investigated elsewhere in the Lomagundi District resulting in the discovery of a series of "ancient workings" to the south. This proved to be a richer area, and became known as the "Northern Goldfields"." Essentially the early history of the Lomagundi District is the development of this Field. From the records it would appear that the Field was first pegged along its western margin somewhere near modern Chinhoyi. Here J. P. Walker pegged claims on 7 November 1890 near "Sinoia". ${ }^{\text {| }}$ This was the name of a nearby Mashona Chief who at the time lived adjacent to the dolomite caves in the area. ${ }^{19}$ Other early prospectors to arrive shortly after where the trio Jack Spreckley, Arthur Eyre and Robert Beal, see Figures 5 and 6. They were probably guided there by Spreckley who had prospected in the area in 1887. They established camp on a prominent hill on the west bank of the Hunyani River (now Manyame River) just to the south of modern Chinhoyi. ${ }^{34}$ This became Spreckley's base for the next three years and is still called "Spreckley's Kop". ${ }^{21}$

After the western areas had been fully pegged, further prospectors arrived after initially having tried their luck elsewhere. These men looked further afield and soon located several "ancient workings" further to the east. This extension to the Northern Goldfields seemed to have greatest potential in the vicinity of the Odonto (now Dondo) and Masenge (now Musengi) Rivers, that is half way between Chinhoyi and Banket and largely on the farm Newlands Estate. Here a number of blocks were soon pegged. Along the Musengi River the Bechuanaland Exploration Company (BEC) registered on 28 February 1981 the "Masenga Block", a consolidation of a set of claims pegged earlier for Frank Johnson, Major of the Pioneer Corps and manager of the BEC. Immediately alongside Frank Mandy registered the Mount Saint Mary's Claims, together with a block a little further to the west along the Dondo River, including the claims: Tregoran; Eclipse; Saint Joseph's; Saint Valentine's; and Blue Peter. ${ }^{2 n}$ The reason for these largely saintly names was that Frank Mandy (Pioneer Officer) was a devoted Catholic, once a member of the Papal Zouaves and the Pope's Bodyguard, ${ }^{23}$ see Figure 4. These claims then went through a complicated history of sale, re-pegging, renaming, reworking, consolidation, fragmentation and reconsolidation. However, it seems that those along the Dondo River eventually became the Lanark Mine, and the Mount Saint Mary's and Masenga Blocks became the Victory Mine, both visible today on Newlands Estate. ${ }^{2+}$ These deposits never proved successful, being shallow and of a low grade, but people kept on (and still do) searching, such, I guess, is gold fever.

The only other important mines to be located at this early time were the modern Union Jack and Golden Kopje Mines, which were pegged respectively by R. H. and F. Nesbitt on 3 April 1891 and the Burnett Brothers sometime in late $1890 .{ }^{25}$ These, however, were considered minor


Figure 5. NCOs of 1890 Pioneer Column. Those mentioned in the text include:
Seated front: L/Cpl. Arthur Eyre; Seated centre: Sgt. Jack Spreckley; Back: Cpl. W. H. Nesbitt
(Narioneal Archines of Zimhabu'e)


Figure 6. Group of early settlers at the Mashonaland Hotel, Salisbury, in 1891. Whose of interest here are: Centre: Boblbie Beal; Right: Edward Pocock
(National Archives of Zimhabuce)
deposits away from the amin reefs. ${ }^{26}$ This is most ironic, for they in fact proved the only viable gold deposits located at that time, being worked until recently. Those in which the Settlers placed their hopes in fact proved worthless.

Such is the early history of gold prospecting in Lomagundi. I have dwelt on it in some detail, but this is because it sets the scene for the other developments in the area. It attracted the Settlers and provided the stimulus for growth. The initial unsupervised presence of these prospectors was of great concern to the BSAC Administration. Claims had to be registered, boundary disputes settled, and the Company Royalties collected. However, Fort Salisbury was too remote for effective administration. Thus on 28 February 1891 the first Administrative Official was appointed to the area. He was Lewis A. Vincent, Pioneer and brother of Joseph Vincent who became Chief Justice for the country, ${ }^{27}$ see Figure 4. Appointed by Administrator Colquhoun, Lewis Vincent became Acting Mining Commissioner, Registrar of Claims and general Company representative in the Lo Magondi area. He took up his post in the middle of the notoriously wet Rainy Season of 1890/91, and had great trouble in reaching the area owing to the many flooded rivers. Vincent's residence was at Spreckley's hilltop camp, which for the next few years became the centre of Administrative control. We could call it the first effective European settlement rather than mining camps. This hill was initially called Mount Colquhoun, ${ }^{2 \times}$ but was subsequently renamed Spreckley's Kop after Colquhoun's fall from grace.

In his letters home Vincent describes the many problems of the area he controlled: lack of provisions and medicine; prevalence of serious "fever" (malaria); dangerous wild animals; no regular communication with the outside world; and disappointing gold deposits. Vincent quickly realized the truth behind the illusion of the rich gold deposits of Mashonaland, "a big rush will be made to (the Country) and then a big rush backwards". ${ }^{29}$ When appointed in February 1891 he found that there were only a few Europeans and "Cape Boys" in the area, and most were seriously ill with Fever. Vincent helped care for the sick and complained bitterly that the Company was not supplying medicine to help the men. ${ }^{36}$ However, he himself was not immune, and was taken ill on Sunday 25th April 1891 while visiting the sick Fred Nesbitt at Burnett's Camp (Golden Kopje). Vincent grew progressively worse and while his friends were trying to get him to Salisbury for medical care he died of Fever, and was buried on 7 May 1891 at "Mandy's Camp", which was on the east bank of the Hunyani River. His death shocked many of the Pioneers, and Cecil John Rhodes himself ordered that the grave be suitably marked. ${ }^{31}$ This grave can still be seen today on the farm Hunyani, east of Chinhoyi.

The second Administrative Official was Jack Spreckley, appointed Acting on 29 June 1981 and confirmed in early $1892 .{ }^{32}$ Spreckley was probably appointed because of his local knowledge, see Figure 5. He continued to occupy his hilltop camp and spent much time visiting the widespread mines in the area, which was becoming increasingly "crowded" in the 1891 Dry Season. He certainly had his work cut out for him in collecting fees, inspecting shafts, settling disputes, dealing with "Native Labour" problems, and even destroying problem lions which were prowling around the camps taking livestock. ${ }^{33}$

One important event happened in November 1891. With the arrival of the Europeans, the local Mashona Paramount, Chief Makgundi (the prefix Lo being a praise title hence Lo Makgundi or various other spellings), refused to acknowledge his tributary status to the Matabele. Lobengula reacted to this affront and decided to punish Makgundi. A small impi of 30 to 40 men under Malete was sent to the area. ${ }^{3+}$ They arrived on the 25 th November 1891 creating great alarm, for, after visiting a local spirit medium to obtain her permission, ${ }^{35}$ they set upon Lo Makgundi's kraal killing him, four of his men and an unspecified number of women. ${ }^{3 / 6}$ The entire Mashona population in the area fled as a result, many taking refuge in the Chinhoyi Caves or at Spreckley's Kop where the European prospectors had already converged for safety. The Europeans were asked to help punish the Matabele, ${ }^{37}$ but nothing was done until 3

November when another patrol of Company Police, again under Major Patrick Forbes, arrived to investigate. By then the Matabele had left, taking with them a number of women, the deceased Chief's heart, and the overdue tribute. Forbes was informed by the survivors that the Matabele demanded to know of Lo Makgundi "why he had taken presents from the Portuguese and English, and had shown the English where to dig for gold, and also why he had given guides to take white men to the Zambezi, without taking leave of Lobengula, to whom the Country belonged". ${ }^{38}$

At this time no further action was taken against the Matabele, Administrator Dr L. S. Jameson justifying the action was "in accordance with Lobengula's laws and customs"." The area, however, remained severely disrupted and most Settlers abandoned it early that year, long before the onset of the rains. ${ }^{47}$ Confidence was restored only the following year, 1892, when a force of Company Police under Captain C. F. Lendy was sent out to install Chief Mazimbguba as successor to the deceased Paramount. ${ }^{41}$

After the incident, Spreckley remained at his post, but there was little to do that Rainy Season..$^{42}$ The only bright note was his salary increase. Dr Jameson decided that owing to his remoteness, Spreckley should receive $15 /$ - per month and rations as opposed to the usual 10/and rations. ${ }^{43}$ However, life was still no easier, and Spreckley often complained about the lack of supplies, medicine, horses and most importantly regular mail. He was also frequently struck down by serious bouts of Fever, often lasting four or five days at a time. ${ }^{44}$

The only other event of interest in 1891 was the pegging of the first two farms in Lomagundi. The first chosen, but not officially registered until the next year, was Kilmacdaugh on the Great Dyke. Here Arthur Eyre (Pioneer) established his homestead and a trading store in 1892, ${ }^{45}$ see Figure 5. The other farm was the Wesleyan Mission farm Hartleyton (later sold and subdivided as secular Commercial farms). The history of this farm is most interesting. In October 1891 the Revd. Owen Watkins of the Wesleyan Mission was granted the rights to three farms by Rhodes. His senior, Revd. Isaac Shimmin, decided that one of these should be in the vicinity of Chief "Magunda" to give "access to the north". However, after the murder of the Chief, and on the advice of Selous, he changed the location, choosing instead a farm near the Great Dyke, out of the Tsetse Fly Belt, less remote and in a densely populated area under the resident Chief Zvimba. It was pegged by Shimmin and Selous in December 1891, and was named Hartleyton after the then General Secretary of the Wesleyan Conference. ${ }^{46}$

With the onset of the 1892 Dry Season prospectors returned and Spreckley was more active once again. One new development was the mining of lime deposits near the Chinhoyi Caves. These had been pegged by a Mr Edmonson on behalf of the BSAC and were mined as from June 1892 by a Mr Armstrong. Chief Sinoia, who at the time resided nearby, resisted the mining but was persuaded to move away some 7 km to the south-west by Mining Commissioner Spreckley. The first wagon loads of lime were sent into Salisbury on 28 July 1892, where it was used in the "erection of several Public Buildings". ${ }^{47}$ I suspect the "Stables", Harare's oldest surviving building, was built with Sinoia Lime. Also during this time, mid-1892, several explorers investigated transport routes from Spreckley's Kop down to the Zambezi River. The proposals, however, did not prove viable with the rivers being unnavigable and the land too broken. ${ }^{48}$

Spreckley's responsibilities were further increased, when on 25 April 1892 he was appointed local Justice of the Peace and two police assistants were posted under him. Spreckley continued to complain to the Administrator about the lack of supplies, now only made worse by the arrival of Troopers Bron and Avery. ${ }^{4 \times i}$ Still nothing was done. With the onset of the rains most prospectors again left, but this time so too did Spreckley who had applied for leave to return to Britain from November 1892 to May 1893.*"

Some of the prospectors resumed work in the area in early 1893 , but Spreckley returned to

Salisbury only in June. ${ }^{50} \mathrm{He}$ may have gone out to his Lomagundi base, but I have no evidence for this. It seems he at once joined in the preparations for the Salisbury Column which was to march against the Matabele. Spreckley was appointed one of the Troop Commanders. ${ }^{51}$ However, some Administrative Official must have returned, for it is recorded that the first postal agency had opened in Lomagundi. ${ }^{52}$ This service was probably based at Spreckley's Kop and used "Native Runners" to convey the mails to Salisbury. This service was possibly organized by one or both of the Police Troopers based there.

The outbreak in July 1893 of the Matabele-Settler tensions and the subsequent invasion of Matabeleland, probably put paid to most activities in the Lomagundi District that year. Many of the Settlers, remembering the 1981 impi , sought safety in Salisbury where most enrolled in the Salisbury Column. Some remained, however, including a prospector and Pioneer by the name of Arthur Stanford. While trying to enforce labour at a kraal near the Paramount's village, Stanford was killed on 31 December 1893 by a resentful headman, Genouw. ${ }^{53}$ At the time the Administration took no action, probably because its finances and police were tied up in the Matabele War and subsequent pacification.

In 1894 Administrative control returned when, on 12 January, a new Acting Mining Commissioner was appointed, Francis W. Ferguson. Initially it seems that he possibly retained his offices at Spreckley's Kop, in fact he reports being delayed in taking up residence by the flooded Hunyani River. Ferguson's correspondence indicates that prospecting had declined markedly by this time. Probably because most prospectors had switched their attention to what they hoped would be the new Ophir in Matabeleland. Work in the Lomagundi region was essentially restricted to developing three of the large deposits: Ayrshire; Eldorado; and M'topa (later renamed Alaska). Greater emphasis was also placed in developing the limestone and slate deposits in the vicinity of Sinoia Caves. On 2 March 1894 Ferguson pegged for the BSAC a further 6000 acres "to cover all the main lime deposits". ${ }^{54} \mathrm{He}$ also collected samples of the local slate, some of which was sent to Welsh experts for their comments. A Mr John M. Williams of North Wales noted its good grain, cleavage, and overall quality, suggesting that it could be used for roofing purposes. ${ }^{55}$ The BSAC considered these proposals and the costs involved in the purchase and instalment of the necessary machinery, but nothing further was done - I guess it was too expensive.

Another major development in Ferguson's tenure, was the advent of "Native Hut Tax". This scheme was drawn up in March 1894, designed to improve the Company coffers and encourage wage labour among the Mashona. The Tax was to be collected by locally based European Police and "Native Constables" who were to be organized by the Mining Commissioner. The police were to collect in cash or kind, 10/- per hut per year, and the Mining Commissioner was to keep stock and periodically remit payment to Salisbury. ${ }^{56}$ This additional responsibility meant that Ferguson found that he was devoting more time to tax collection than mining matters. To this he objected. He also knew that the Mashona would resist payment. Ferguson had already had problems in encouraging the local chiefs to provide labour for the mines. Accordingly he counselled against the imposition of this tax. "If I start to enforce them to pay, there will be lots of trouble with them and the consequence will be deserted kraals and depopulated districts". ${ }^{57}$ However, his advice was ignored and he was promptly replaced by a more hard-line Official, Ferguson being appointed instead as Resident Magistrate, Fort Victoria (now Masvingo). ${ }^{58}$

It would seem that before being removed Ferguson relocated the Mining Commissioner's Camp from Spreckley's Kop to a high kopje overlooking the Makwadzi River in the north-east of the district, and, most importantly, near the Ayrshire Mine. This was probably because the Ayrshire was proving the only viable mine in the Region. Those near Spreckley's Kop were only ephemeral deposits and had long since been abandoned. The Mining Commissioner would
have wanted to be as near as possible to his main focus of activity, both from a mining and labour point of view. ${ }^{59}$ This shift in residence probably accounts for the existing postal system going amiss during this time. The postal authorities in Salisbury would have been uncertain of the situation. ${ }^{611}$ Not that there was a large population to serve. In the BSA Company Reports for 1895, the European population is estimated at a mere 21 people. ${ }^{61}$

The new appointee was Edward Pocock who took up his post on 31 July 1894, ${ }^{62}$ Figure 6. At first the new Mining Commissioner continued to use Ferguson's new camp while he set about implementing the Hut Tax Scheme. He toured the district explaining it and collecting what tax he could as he went. Mostly he received payment in the form of goats, maize meal and fowls. These he proposed to sell to the local Settlers to raise the money required by the Company. A few Mashona chose labour on the local mines in lieu of payment. Pocock complained, however, that too few had paid, requesting additional police to enforce payment. In August he again set out to collect taxes. This time there was considerable resistance, and at one kraal on 5 August 1894 a scuffle ensued during which one of the police, G. Cooper, was fatally wounded. Before he died Trooper Cooper stated that the Chief himself had stabbed him. This was none other than Paramount Mazimbguba whom the Company had earlier installed. ${ }^{63}$ The area became very tense. On the 18 August 1894 a police patrol under Sub-Inspector H. Hooper was sent out to investigate. However, he found that the Paramount and his followers had dispersed westwards into the Tsetse Fly Country where the police could not pursue him. Hooper then felt it necessary for a show of force to impress upon the local Mashona that the Company's mandate would be enforced. The patrol accordingly burnt numerous villages in the area around that of the Paramount, regardless of whether they were associated, while they then went onto the Hartleyton Mission some distance to the east. ${ }^{64}$

Hooper's patrol, supported by Pocock and his police and other local Settlers, arrived at the Mission on a Sunday just after the service. Prior to this the Missionary, George Eva, and his African Catechist, James Anta, had arranged for the local chiefs and their people to be addressed by Hooper. This Hooper did, castigating them "on the ingratitude of treacherously killing our people who had saved them from the Matabele". "5 He then had two men publicly flogged after they had been identified as having deserted from the mines. When he left, Hooper took seven chiefs and headmen as hostages who would guide him to the renegade Mazimbguba. These men tried to escape and four were shot dead. ${ }^{\text {ro }}$ Naturally this led to quite a scandal with the Wesleyan Missionary Society being very vocal, especially Revds G. Eva and J. White who protested the complete innocence of the victims. ${ }^{[77}$ ". . . these Chiefs were entirely innocent of the policeman's death. Indeed they were at the time totally ignorant of its occurrence". .0 The only result of this action was to build up an even greater Mashona resentment against the Settlers, while the entire "native population" fled their villages."

Pocock now found that absolutely no "native labour" was to be had, and he accordingly increased his raids to procure it. However, he found most villages deserted and his increasing violence only exacerbated their inhabitants' flight. Complaints about the situation soon filtered through to Salisbury. In response, the Secretary to the Administrator wrote to Pocock on 6 September 1894 instructing him, "do not raid the Natives either for Hut Tax or labour for the prospectors, as it is constantly leading the Company into troubles because once begun the thing has to be carried to a conclusion which involves shooting Natives, etc."." At the same time the Chief Native Commissioner, J. S. Brabant, decided to reorganize the Hut Tax System, removing the responsibilities from the Mining Commissioner and appointing new Officials, the Native Commissioners, who were to supervise all matters pertaining to the "Natives"." The first Lomagundi Native Commissioner was William H. Clarke who took up residence sometime in September 1894, ${ }^{72}$ see Figure 4.

While these changes were taking place Pocock decided to relocate the Mining

Commissioner's Camp. On 9 September 1894 he informed the Administrator that he was moving to a more central location convenient for both mining and police work. The old camp (Ferguson's) was described as being in an unhealthy situation, needing some repair, and too far in the north of the District for effective control. Pocock's new camp was " 6 miles this side of the Hunyani Drift and about a mile to the west of the Hunyani-Salisbury Road". ${ }^{13}$ This would place the camp on high ground to the west of the Dondo River, possibly in the hilly country in the western corner of Newlands Estate. Pocock's move probably further confused the Postal Authorities, and services were completely disrupted.

Initially Clarke set up camp on the Dondo River near Pocock. ${ }^{74} \mathrm{He}$ was at first appointed only "Official Hut Tax Collector", but he disputed this saying he had been engaged as a full Native Commissioner and expected remuneration as such. Once this, and other matters such as postal communication, stores and a horse, had been put in order, Clarke began his task of trying to rebuild "native confidence". There was an urgent need for them to return to their kraals both for their agricultural produce and labour upon which the Settlers depended. Clarke lamented the police action, confirming that the wrong people had been punished. Furthermore he requested all police to "keep away from the Kraals for the time being, as I have told the Natives that no one shall interfere with them". ${ }^{75}$ Slowly he regained the people's confidence and they came back from their "skerms in the bush", especially once Clarke began to distribute maize meal to the hungry people who had earlier abandoned their fields and produce. By early December 1894 matters in the south of the region were apparently settled, though Mashona resentment remained. Clarke was thus able to recruit some labour for the Ayrshire Mine and a few of the prospectors. On the 25 December 1894 he reported directly to the Administrator, Dr Jameson, as to the state of "Native Affairs" when Jameson was visiting Ayrshire Mine. ${ }^{76}$

In January 1895 Clarke relocated his camp further north close to the Ayrshire Mine and near Chimanga's Kraal. Here again he sought to calm the fears of the local Mashona and adjust them to the Administrative system. Up to this time, no or very little "Native Hut Tax" had been requested. On the 18 February Clarke was able to report substantial success in calming the situation and laying the foundations for the reintroduction of the Hut Tax. It was now understood by the chiefs, and would not be extorted from the ignorant as Pocock had done. Clarke also requested that he remain in the area for a while for "the natives are suspicious of change"."7 Obviously his transfer had been discussed, although I haven't located evidence for this. This request was not granted by the Administration, who probably considered Clarke too soft in his approach. He was replaced by a more hard line official, T. B. Hulley, who took up his post on I April 1895. ${ }^{\text {7 }}$ It is very likely that Clarke had left the area before this date, since his previously regular correspondence comes to an abrupt end in mid-February 1895.

While these administrative changes were taking place, what of the mining in the area? As already mentioned, most of the small workings, so widespread in the early days, had been abandoned, the only exception being those in the area of the Dondo and Musengi Rivers. Away from here only the larger deposits continued operating. West of the Hunyani River there were the Union Jack and Alaska Mines, while on the east bank there was the Eldorado Mine where the Glasgow-Mashonaland Syndicate was beginning work. The most important, however, was the Ayrshire Mine in the north of the District. ${ }^{7 \prime \prime}$ Here the new owners H. Hirsh and Company, had undertaken a considerable amount of tunnelling, employing a comparatively large number of European Miners and "native labourers". In fact so favourable were their reports, that Dr Jameson made a personal visit on 25 December 1894. Not long after that the Mine was again sold (August 1895), this time to the Lomagunda Development Company. This Company soon arranged for the construction of the first organized settlement at the mine, and in fact the whole of Lomagundi, while they established one of the earliest stores, a branch of the trading firm "Howmans". ${ }^{80}$ Also, probably with the help of the neighbouring Native Commissioner, they
established a postal service to the Mine from Salisbury. Like all the early services in the area, this would have operated using "Native Runners". ${ }^{\text {.t }}$

About the same time the Dondo-Musengi area was developing. The concentration of small workers and the close proximity of the administrative camps, made it viable for the establishment of a further trading store. This was opened some time before December 1894, making it the second oldest in the Region after Eyre's Store at the Great Dyke. It was run by A. W. Findlay and was located on the west bank of the Dondo River just north of the modern road bridge on the Harare-Chinhoyi Road. Findlay applied to take over the postal agency for the Lomagundi area, and was successful despite protests from Mining Commissioner Pocock who wished to retain the agency at his newly established offices. ${ }^{* 2}$ Findlay's Store was the first full postal agency in the area, in the sense that it had its own equipment, including a date stamp "Lo Mogundi, Mashonaland". ${ }^{3} 3$

Further events now rapidly took place. On 19 April 1895 Pocock was dismissed after investigations into his conduct. He was found guilty of unnecessary violence during this attempts to enforce Hut Tax and labour, and of abusing his authority to obtain Mashona girls for "immoral" purposes. ${ }^{k 4}$ He was replaced by A. J. Jameson. Jameson seems to have retained his camp at Pocock's for the first six months and everything seemed to go well. He was assisted by J. A. Frazer (Claim Inspector) and C. H. Watkins (Medical Officer). ${ }^{8.5}$ The only hitch was with the postal service. Findlay had endless problems with maintaining the "Native Runners". They would debunk and the mails were severely disrupted. This was resolved only when it was decided in October 1895 that the Runners would be fed and paid by Jameson at his Camp, although the postal agency remained at Findlay's. ${ }^{\text {6 }}$ One assumes reading between the lines that Findlay's labour relations weren't the best.

At about this time, October 1895, Jameson again relocated the Mining Commissioner's Camp, this time to high ground one mile on the Salisbury side of Findlay's Store, i.e. on the divide between the Dondo and Musengi Rivers. Here Jameson seems to have been very enterprising. By 4 March 1896 he and his assistants had established a vegetable garden near the Musengi River, while a higher area had also been cleared and construction begun of a rough building to serve as the first "hospital" in the Region. This was in response to an urgent need for supervised medical care, for several men had died that year largely due to "Fever", but in one instance after being mauled by a lion. Prior to this the sick would, if possible, make their way to Findlay's Store where he would attempt to nurse them, the dead being buried near the Store. ${ }^{87}$ Sometime about the end of 1895 , Findlay sold his Store and left the area. His Store was purchased by the trading firm "Deary and Company", who appointed Alfred Hodgson as Storekeeper. ${ }^{\text {** }}$

As already mentioned, the new Native Commissioner, T. B. Hulley, was appointed in April 1895. ${ }^{132}$ However, his residence was not for long, for within a month he was appointed Native Commissioner for Umtali (Mutare), a post at that time considered very much more senior. There then seems to be a gap until June 1895, when the third Native Commissioner of the area was appointed. ${ }^{\text {k }}$ " He was A. G. F. Mynhardt. Mynhardt, probably like Hulley, probably continued to use Clarke's Camp at Chimanga's Kraal near the Ayrshire Mine. However, Mynhardt was certainly not as popular or capable as his predecessors. He soon lost several of his "Native Detectives" on the apparent grounds that they felt poorly paid. Those that remained he allowed to commandeer without compensation any food they required from the Mashona villages. ${ }^{\text {"1 }}$ This was soon abused causing great resentment amongst all the communities - Mashona; Settler; and the Missionaries." At the same time Mynhardt proved incapable of controlling the activities of a private Labour Collector, Mr Lawson, who was using considerable force in his collection of labour for the Ayrshire Mine. The immediate result was a public outcry which made its way into the newspapers of the time and the Administration was forced to intervene.

Mynhardt was reprimanded and ordered to put matters right, which he attempted. ${ }^{42}$ The more important result, however, was its fuelling Mashona resentment against the Settlers and which resulted in the 1896 Rebellion (Chimurenga I).

This was thus the scene by 1896. The area was slowly developing and things seemed settled, but this was only the deceptive calm before the storm. Unbeknown to the Settlers, there were discussions going on throughout the Mashona villages, and various chiefs were making preparations, often encouraged by local spirit mediums who did much to inspire the insurrection. Today most people know of the roles played in the Rebellion by the Mediums Mukwati, Nehanda and Kaguvi, but there was also an important medium Goronga in the Lomagundi District. This medium was in close contact with the other Chaminuka Mediums in the Hartley (Chegutu) District, and it was probably via this link that plans for a simultaneous uprising spread. These plans were, however, kept secret and were to surprise many. ${ }^{1 / 3}$

With the outbreak of the Matabele Rebellion in April 1896, most of the Settlers left the Lomagundi District and Jameson reported, "the effect of the outbreak in Matabeleland has been to put a stop to all mining and prospecting to a great extent. Besides those employed at the Ayrshire Mine, there are not a dozen men prospecting or doing development work". ${ }^{44}$ This accounts for the relatively few Rebellion fatalities in the area. Jameson himself applied for leave to join the Salisbury Force which aimed to assist in crushing the Matabele Revolt. However, his request was refused and he remained in office. ${ }^{45}$ Despite the Matabele problems, few Settlers believed the Mashona would rise. In fact both Mynhardt and Jameson as late as May 1896, reported to the Administrator that everything was very quiet and that no trouble could be expected from the District. However, they did request additional rifles and ammunition for safety's sake. ${ }^{96}$

The first act of the Rebellion, to which the Settlers paid surprisingly little heed, was the murder on 20 May of a miner John Docherty. Docherty was "murdered by his boys at the Alaska Mine and his body thrown down the 60 foot shaft and covered in rock". ${ }^{47}$ Jameson recovered the body, and after investigation, Chief Sinoia handed over to him two "natives" reputedly implicated in the murder. Here the matter rested, much to Jameson's disgust. ${ }^{9 \%}$ There were no European policemen in the District. They had been withdrawn eight months earlier to participate in the abortive Jameson Raid, and Salisbury didn't seem interested. Further events then occurred but they were ignored. On 25 May a group of prospectors were fired upon near the Dandi River, while many Settlers reported that their "native labourers" had deserted. At the Ayrshire Mine some of the "Zambezi Boys" (i.e. non-Mashona) told the miners that the Mashona were about to kill them. ${ }^{19}$ However, this was all dismissed as isolated incidents and rumour.

The wholesale insurrection in Lomagundi seems to have erupted on 19 June 1896, the first incidents occurring to the north and spreading southwards. On that day three miners, James and Duncan Box and Arthur J. Ireland, were surprised at breakfast and their bodies thrown down the nearby Eureka Mine in the area of Sipililo's Kraal (near modern Guruve). "(k) The next day several "native policemen" were killed while collecting Hut Tax, as were two isolated prospectors recorded only as Kerr and Steyte. ${ }^{|0|}$ Rebel attention now seemed to be closing in around the Ayrshire Mine where the largest concentration of Settlers remained. Three, Mynhardt (Native Commissioner), Frederick Schooter (Store keeper) and William Care (Miner) were murdered at Mynhardt's Camp where the latter had only just arrived to complain about the desertion of the Ayrshire Mine labour force. ${ }^{162}$ The remaining miners were warned of the imminent attack and managed to laager themselves overnight, before fleeing towards Salisbury. The group, however, was ambushed in the thick bush along the Muneni River and three, Briggs (engine driver), Drysdale (blacksmith) and Gambier (Assayer) were killed. The party split up in confusion, and the survivors made their way in small groups to Salisbury. Theirs are epic stories of fear, hunger and thirst. ${ }^{1103}$

On Sunday 21 June, the uprising spread further south. Herbert Eyre was killed on the steps of his house at Kilmacdaugh. So too were several of his servants, although one escaped to Salisbury with her sorry tale. Near the Eyres' homestead, and I think on the Salisbury side of the Great Dyke, Trooper Arthur Young of the Mashonaland Mounted Police was surrounded by the same band of Rebels and murdered. Further to the west about 200 Mashona rushed Deary's Store on the Dondo River killing its keeper, A. Hodgson, and the District Medical Officer, Charles Watkins. Jameson at his nearby Camp seems to have realized the situation, collected a few of his papers and attempted to flee with a servant. However, they were caught and murdered along the Musengi River. They hadn't gone far. Also killed nearby was a prospector, James McGowan, whose Camp was near Deary's Store. ${ }^{104}$

On the same day the Rebels also attacked the Hartleyton Mission. At the time the Mission was run by a Zulu catechist, James Anta. The local Mashona not under his religious sway always held that Anta, being associated with the Settlers, was responsible for the many injustices against them, especially the 1894 murder of their Chiefs. They thus attacked the Mission on the evening of Sunday 21 st June after the service. Anta and eighteen of his congregation were killed. The Mission never really recovered after this, and although the Wesleyans did try to reopen it after the Rebellion it never thrived and was ultimately closed. ${ }^{1015}$

The entire Lomagundi District was now in open Rebellion, and all "White" settlements had been abandoned and looted. However, two separate groups of prospectors remained in ignorance. One, a group of four Australians, who had been at the Angwa, arrived at the Hunyani River on 23 June where they set up camp on the west hank of the River. At about 3:30 p.m. they were rushed by a group of Rebels who wounded two of them, F. W. Cape and Otto Krook. John Duncan and J. Stockfelt then drove off the Rebels with rifle and revolver fire. Not knowing the general situation, they inspanned and crossed the Hunyani on the way to report the matter to Jameson (by then already dead). On reaching high ground on the east bank they were fired on, but otherwise there was no further trouble until they got to the Store. Here they realized the situation, and after resting overnight in the Store, which they barricaded with meal bags, they abandoned their wagons and hurried towards Salisbury on foot. After a while they were again ambushed, with Cape being seriously wounded in the right calf. The party now struggled towards the Eyres', and after joining the Ayrshire Road camped overnight in the thick bush. Here was it was agreed that Duncan, now the only one uninjured, should proceed to seek help. Duncan moved swiftly arriving in Salisbury on 26 June and reporting his request to the Commanding Officer. In the mean time the remaining men stayed put until 28 June when, believing Duncan killed, they decided to part again leaving the badly injured Cape in a sheltered spot on the south bank of the Makwadzi River where it cuts through the Great Dyke. Krook and Stockfelt left Cape at 3 p.m. leaving him two guns and a supply of pointer meat. Previously they had had to kill their dog for food. In the mean time Duncan had been given permission to lead a patrol to bring his friends to safety. It consisted of Duncan, two White guides and 40 "Zulu Natives". Their purpose was achieved and all four Australians were safely reunited. The other party of prospectors, Graves and Orand, arrived at Deary's Store sometime afterwards, and on finding it deserted and seeing Watkins' body, they quickly pushed on to Salisbury, miraculously escaping any attack by the Rebels. This was probably because they kept away from the normal roads, especially after having seen the Eyres' homestead "alive with rebels". ${ }^{106}$

By 28 June, ten days after the Rebellion began in earnest, the Lomagundi District had been abandoned to the Rebels. They had achieved their stated aims of wiping out the Whiteman from their area, but this wasn't for long. On 21 October 1896 a large Settler force arrived at the Eyres' farm, Kilmacdaugh. It consisted of over 600 men drawn from Imperial and local forces as well as a "Native Corps". This troop set up camp on the flat ground to the east of the Great

Dyke near the entry point to Eyre's Pass. The next day it was divided into several small patrols which were sent out in various directions to punish the Rebels. ${ }^{1177}$ However, their advance was known and the Mashona retreated southwards or into shelters amongst the granite kopjes. Colonel E. A. H. Alderson who commanded this force lamented "We had a long day's work in a difficult and thickly bushed country, and, for most of us, it was not very exciting, for, though we found and burnt seven large kraals and many small detached ones, we did not see a single native". ${ }^{167}$ One party did, however, see action in the granite kopjes near Zvimba's kraal. Here the patrol, under the command of Captain Daly of the Rhodesian Horse, located by chance a series of large caves in which numerous people sheltered. These were dynamited and many people were killed. On the Settlers' side there was only one casualty. Captain Edward Finucane was shot through the leg and later died of shock and loss of blood. He was buried the next day near the Makwadzi River. ${ }^{\text {It1 }}$

On the 24th October Alderson returned to Salisbury, but he sent a "flying patrol" under Captain Godley (Imperial Forces) into the Lomagundi District to ascertain what had happened there, and, if possible, engage the Rebels further. Godley's patrol consisted of 306 men and it didn't prove easy going. There was a constant problem of supplies, especially horse feed which resulted in a daily stream of horses and mules dying of hunger and fatigue, while the troops who had been on patrol for some time lacked suitable footwear. Most had only remnants of boots held together with strips of horse and ox-hide. Nonetheless they did a circular tour of the area, during which they saw very little action. Initially they went to Deary's Store on the Dondo River, arriving on 26 October. Here and round about they located several murdered Settlers and buried the remains at the Store. All the remaining foodstuffs that hadn't been destroyed by the Rebels ("a few bottles of pickles, sauce, etc.") were commandeered and equally divided amongst the troops. ${ }^{114}$

Godley then decided to rest most of the horses and mules which were becoming exceptionally weak. Leaving them together with a good number of men laagered near Deary's Store, he and the remaining troops set off towards the Sinoia Caves with the hope of an engagement. However, once again there was no contact. They scoured the District burning a number of kraals but, as confirmed by an old woman they captured at Sinoia's kraal, "all the natives of the district had cleared into the fly-belt towards the Zambezi on hearing of our approach". ${ }^{110}$ The party then returned to the laager and proceeded to the Ayrshire Mine, arriving on 30 October. They found the settlement "completely and wantonly wrecked". They also visited Mynhardt's Camp nearby, where they recovered and buried the remains of Mynhardt and Schooter. While at the mine one of the Settlers, on hearing rumours of hidden gold, lowered himself down the shaft. However, the water level had risen flooding the Mine, and all he found for his troubles were a few quartz specimens, some tobacco, cigarettes and cocoa. At the Ayrshire, a group of Rebels suddenly appeared on top of a high kopje nearby. This group quickly dispersed on being shelled by the Troops. Otherwise they saw no further Rebels as they returned to the Eyres’ homestead, although there were plenty of signs: fresh spoor, deserted villages (which were burnt), and a lot of recently planted maize. On the way they located and buried the remains of Drysdale and Briggs. Godley's patrol thereafter had a completely uneventful journey back to Mount Hampden and thence to Salisbury. ${ }^{11!}$

I must add here that it is pointless trying to locate the graves of these murdered men. After the Rebellion the Salisbury Community decided to honour all those murdered in Mashonaland, and many of the remains near the Town were exhumed and re-interred in a special Memorial Crypt in the Pioneer Cemetery. Others, probably those not located by Godley's patrol, appear to have been recovered later and are buried separately in the Cemetery (Harare Old Cemetery), e.g. McGowan and Hodgson. Still others such as Kerr, Steyte and Care were never located.

With the departure of Godley on 3 November 1896, the area was abandoned once again to
the Rebels. Only ten months later, when Settler control had been re-established nearer the main towns and roads, was it deemed advisable to reassert authority in the remote Lomagundi District. On 15 September 1897 a force under Major Hooper arrived and began to construct Fort Lomaghunda. This was the last act of the Imperial Forces in this Country. ${ }^{112}$ The Fort was constructed on the site of the pre-Rebellion Mining Commissioner's Camp and took a month to complete. Initially it was manned by 42 European and 30 "Native police" but within a couple of months this number was halved. Their role was to enforce Settler control in the area, and to provide protection to those miners wishing to resume work. ${ }^{113}$ This Fort was a simple earth and stone structure around an iron store where the ammunition was kept. The men and horses lived around the Fort in tents and pole and dakha huts. The Fort wasn't a protective structure as much as a statement of presence in the area.

Fort Lomaghunda was made the Headquarters of C Troop of the Mashonaland Division of the newly formed British South Africa Police (BSAP), ${ }^{114}$ and it became a hive of activity. Several large patrols were sent out to reassert Settler presence, confiscate guns and, if possible, arrest those directly responsible for murders during the Rebellion. One patrol headed northwards towards Sipelilo's. They attacked several kraals capturing Rebel Chiefs and recovering looted goods. At Msembewi's kraal they located a large quantity of property stolen from the home of the murdered Norton family and the Eyres'. A number of those implicated in the Norton killings were apprehended. ${ }^{115}$ A short while later, another patrol, assisted by Revd. Eva, went southwards towards Zvimba to pacify that area and arrest Anta's murderers. Eleven from Nyanmenyara's kraal were charged. ${ }^{1 / 6}$ Over the first few months the Settlers quickly regained control of the Lomagundi District, 1194 Rebels being captured, while 155 guns and 274 assegais and axes were confiscated. ${ }^{117}$

At the Fort Lieutenant Griffiths was in charge of the police while Mr G. A. Jackson was the new Native Commissioner, Mr E. Pocock was at first Claim Inspector, ${ }^{118}$ but later in March 1898 he was promoted to full Mining Commissioner. ${ }^{119}$ Pocock is the same person who, as Mining Commissioner, had previously been fired from the post in 1895 for misconduct. It seems he was the only person available who had a good knowledge of the area, so the Company was forced to redeploy him, although at first not with full rights. Several civilians and prospectors were also associated with the Camp, although they didn't venture far. Deary's Store was reopened and a "Recreational Club" established. This was under Corporal Davis, and for its time was most costly. There was an entrance fee of $20 /-$ and an additional $5 /-$ per month. Admittedly it did stock a good supply of "British, Colonial and Rhodesian newspapers and magazines", and it had a reasonable canteen. There was also the District Hospital under the charge of Sergeant Brown. The men were in fact so enterprising that they published their own newspaper, the "Lo Magundi Hornet" of which unfortunately only one copy survives (No. 9, 8 January 1898). The paper covered the local camp news and was edited by Mr Rock, see Figure 7. ${ }^{126}$

Ford Lomaghunda did not, however, prove to be in a particularly healthy spot, and many of the men were taken ill. It also had a poor water supply which dried up in the Dry Season. Accordingly, it was decided to relocate the Fort to a more suitable spot. In a police report of 30 September 1898 it was noted that the old Fort Lomaghunda had been abandoned and that a new well-built Fort had been constructed seven miles further west. This was named Fort Sinoia, and was built on high ground near the Hunyani River. ${ }^{121}$ It was officially opened on 7 December 1898. ${ }^{122}$ Ironically this new Fort was only a stone's throw from Spreckley's original camp. The main settlement of the Lomagundi District had returned to the same place.

The new settlement soon flourished and the name Sinoia became associated with the town that grew up around the Fort. There was a gradual increase in the civilian population, while it remained the Headquarters of "C Troop" of the Mashonaland Division of the British South Africa Police until 26 June 1906 when the HQ was relocated to Hartley. ${ }^{123}$ By the turn of the

# THE LO MAGUNDI HORNET. 

|  | J.INCARY 8, 1808. |  |
| :---: | :---: | :---: |
| Rhodesia. <br> Ties "pening uf the Bulanayy railway is in event of grent impurtance to the white of sumth Africa, Tmuswani inNuilect. It is the first incentive the mining induatry hav houl he concinue their wurk of develophent. Rhadexian espitulixts brave hicherw been excep--ively haudiarpped in erecting tuitablo Hichinlery. "Everythiog comen to inim whu wnits" I believe I can consistently perdiet that the outpat for '9s will cormpurs unver favourably wifh uther buluffeldy in their infancy. Twenty-6ve yearn ago Kimberley wen a simple miniay eamp. Trelve yeara nigu Johmunenburg wae unknowa. We muxt nut forget the fact that experis of the first water gave, at their opigiona, their utter unbelief in buth pleoow. It io nbsulutely necesary for the wellere of Hhindexis that wo whould extend the hand of guod fellowelip to avergooe whu has conve to tayy. But we mont nut low night of the fact that Rhaderia must be kept entirely Britieh. The Company mat also do their duty. Finst and foremont it in imperativo that the pulice be ruied to their maximullt atrength, wo that in cato of thuther uutlirenk; we nall not find ourmelver whery Futher Monen, wan - 1 propara of the police, mont people will rubirit that the pay is inmulequate, and - Nh sumamell buthdy, men accurtomed to the cuansiry, will not do duty for the faltry anmuint of "Jx. per diem. It is the that there are hundreis of inpor runious Fixestutery wid young Buens whu wouk willingly neerpt the swe lubb; but the jucstiuls arimes, are they wamed! Which would they, servoLeyds in dhudesin'! We nre pleawd <br>  | linve left with a good impresuion of Rhodenis. Wo thank sir Alfred Milner for his candid manly apooch, not furgetting that old war home Cal. Saunderson. <br> Camp Newt <br> A mout enjoyable evening whe apeut lant daturday on the occation of Liout Gritithn' dapartare for Salinbury. The grallaus bicutenant has been ill for wome time, and thnugh not what he would call fit iasuficiontly well to proced to the City on private "biz" The chair was turken hy. Capt Poocolk. The toest of "The Queen and Royel Family" wean dralt vith right Britiah enthaviem. <br> Mr. Jecknon, Natiye Cosamimioner, in propocing the bexith of Viostenams Gritrithe, reforred to the gydellent mort doae during the lust month by Lieat. Griftichenand the polioe. The number of murdoren roo to enrth wer ia iteolf atentimanial; indeed, withoat the aid of Liout Griath the coold eor here dono mhything. <br> Liest. Griemthe in reapondiog to tho toent of hir beoth, theaked all for good wiehm, remarking that the dution of policemen were at timen mont enplemeant Discipline hed to be oarried ort "svan at the cont of louing the friendmbip of men we rempect" He had honeetly endeavoured to performo his dutiss without prejudics; if ho erred su did other yreater than he. It was humen to err. He truated on his retura to cerry out the work he had left unfiuished, and hoped that Lo Mayundi atation would be one of the mows comfortable in the Ifachoomland diviniun. <br> Capl. Pucack, in natty apeech, propued the health of the "Rhorlesian Prounctors." They were men who could fight as well an work; in fact, just the men wodvance the country. <br> Mr. Evanal briefly reypouded, maying hewne yroval to he one of the men relerred to by Capt. Puocek. <br> Sergt. Wood reaponling to the west of the "Pulice," referred in eulagiatio ternus to the nervieer of the police in the late riving. Thry hud acyuitted | themelven well under very trying circumetanoes. <br> $\mathbf{M r}_{\mathrm{r}}$. Flock proposed the health of Capt Puoock, Claim Innpector, and in no doing referred to hin wervicen in hin civil and military capecity. An claina inspector the wae mont popular with prompectors and mine ownera At all timex civil and obliging and willing to putanew chum on the right track. Asa volunteer officer he would never with to aerve under a bettor man. <br> In reply, Capt. Pooock said that in both capabilitien he had alwayn endeevoured to do hit duty. Prow peoton were good fellow, and ho ahould Always remember with pride hit ounsection with the Hhodesin Hormo, Folunters. <br> Actone am. the health of Lieut. Gritithe wes agein drunk with "He's - jolly grod tellow." <br> Mining Noter <br> Our reapected clains inepector, Capt. Puouck, has been laid up for the leat dsy or two चith fover. We ase pleseed to ntate ho is now much better. <br> The lateat newz from Gwelo and other mining distriete is mont encouraging. Proppoctora aro buaily at work ggain ereral of elvo "old handa" having retuthed to the scene of their out toie. <br> Minian in the Selukwe in going ahead rapidly. We aro pleand to note among the late arrivaln some of the old pioneern who have "conse to ntay," add whowe motto is "Advance Rhodecie l" This given the lie direct to cur Jewith frionda' of the Transval, whow joslouny of this country hins been no palpable. <br> 1 left Bulawayo with - profuand conviction of the gread future in store for Ahodexia The goldifidy are rich and extenaiva, and now trasuport diftrcultien are overoome by tho ruilway, I expect to see during and after tha* ensuing year, nuch an output as will open tio eges of tholeviau detructurs.". -Tmurrual difrenticas. |

Figure 7. Front page of the Lo Magundi Hornet
(National Archives of Zinhbabu'e)
century there were two stores in the town. The original owned by S. R. Garrard and in competition was Garrard's former employee Charlie Wilson. A third store was Deary's which was outside the settlement on the Salisbury side of the Hunyani River Crossing. ${ }^{124}$ The original Deary's store on the Dondo River had closed when the Fort was moved. Like Fort Lomaghunda, these original sites were soon forgotten and it was only recently that they have been relocated. Sinoia was soon even able to boast of a rough Hotel owned and run by Garrard. ${ }^{125}$ This Hotel evolved into the Sinoia Hotel which still exists on the same site.

Although Sinoia was flourishing, the surrounding areas lagged behind. Even as late as December 1898, one year after the end of the Rebellion, these areas were still considered unsafe. ${ }^{126}$ Mining therefore suffered. It was only in 1899 , after extensive police patrols, that the area was again pacified. These military efforts were supplemented by the work of the Native Commissioner who arranged for the relocation of the Mashona to places where they could be
more easily controlled, see Figure $8 .{ }^{127}$ Also many Mashona people decided of their own accord to move away from the Settlers, migrating to the south and westwards. ${ }^{128}$ All this meant that the area became open again to Settler occupation. The larger gold mines were quickly reopened, especially the Ayrshire which was about to undergo a dramatic boom in activity, ${ }^{124}$ while at the Eldorado there was a minor gold rush to peg claims along its newly discovered reef. Several other smaller mines slowly reopened by $1900 .^{136}$

At the time there was still no significant farming taking place, this really began only after 1900, outside of our present concern. Around Sinoia town there were a few attempts at market gardening, but this was very small scale. ${ }^{131}$ Gold remained the focus of Settler activity throughout this period. Only later was agriculture to emerge making it one of the Country's most productive areas.

By 1900 the colonial foundations of the Lomagundi District had been laid. The major mines had been located and were being developed. They would in a few years attract to the area a large amount of finance and Settlers. Roads, railways and community services would be established to serve this increasing number of people, while farming would gradually open up the land. All these developments were controlled from the major Settlement in the region, Sinoia, a position it (now renamed Chinhoyi) still retains. Such is the history of the first decade of the Lomagundi District. It was a period of hope, despair, disaster and determination to win in the face of all odds. Better years were now to come, but that's another story. Here we have considered only what it was like in the beginning, the Lomagundi Genesis.


Figure 8. The "new" Native Commissioner's camp, Fort Sinoia, 1899
(National Arehives of Zimbabure)

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# Anti-ambush Weapons, 1975-1980 

by P. G. Locke

In the face of an international arms embargo, coupled with many other constraints, an interesting and in many ways unique range of "home-grown" weapons for anti-ambush purposes was devised and manufactured in Rhodesia* during the period 1975 to 1980. These represented a practical response to the challenge to produce defensive systems which were required for military applications largely specific to the context of the prevailing war, including widespread civilian use outside the main urban centres.

The devices which evolved from this quest may have been the antithesis of modern "hitech" armaments but they could be locally fabricated at low cost and, most importantly, they were effective in operation.

As with other local armaments from this period there is a distinct lack of documentary material pertaining to these anti-ambush weapons. In deference to security considerations, detailed media coverage of the weapons was limited and, with few exceptions, little in the way of promotional or advertising materials was produced by the manufacturers themselves. However, an unpublished, unofficial military report' on this category of weapon has recorded much detail while a notable exception to the dearth of published material is an excellent section in Taming the Landmine by P. Stiff ${ }^{2}$ which is the only historical coverage of the subject - and particular acknowledgement must be given to these sources for providing the basis for this review.

Apart from limited documentary information, however, there is also an almost total absence of surviving examples of anti-ambush devices. Unlike the contemporary locally made small arms, this type of weapon became completely redundant on termination of the war, which led to wholesale scrapping of the items. Also, lacking any aesthetic qualities, neither were examples preserved as war souvenirs. Consequently only an incomplete selection of weapons is known to still exist - mostly salvaged from the scrap heap.

Despite resource limitation, however, this review attempts to collate all known records of anti-ambush weapons, incorporate additional detail wherever available and describe types not previously documented in order to present as comprehensive as possible a survey of these unusual and significant war materials.

## For deterrent and defensive purposes

With an escalating guerrilla war situation in the country in the mid-1970s and a corresponding increase in the frequency of ambushes on vehicles and attacks on farm homesteads, the necessity for defensive devices to deter such attacks and to provide effective counter-attack measures became imperative. Though the land-mine threat had been greatly reduced through the introduction of mine-protected vehicles, many of which were armoured against small arms fire as well, these vehicles were still vulnerable to ambushes, particularly as the use of armour piercing ammunition and rockets increased. In addition, "soft-skinned" vehicles, both military and civilian, were obviously at high risk.

To ameliorate the position it was clearly evident, therefore, that anti-ambush weapons of

[^1]some type were required for a variety of related applications and circumstances, primarily the following:

1. Civilian vehicles travelling in rural areas, whether mine-protected and armoured or not. A particular need existed to provide protection for members of the farming community in order to encourage them to remain on land. (In fact this was regarded as essential more to ensure a white presence in remote areas than for reasons of agricultural production.) To this end the Government subsidized certain "approved" security measures and this included a number of anti-ambush devices.
2. Protection of rural dwellings. Combined with the ubiquitous security fence, security lights and, in some instances, listening and trembler devices, strategically placed antiambush devices provided an effective deterrent to would-be attackers. These could be triggered automatically by trip wires or, more often, fired electrically by the occupants of the house. Such devices were also effective in protecting stores, barns, dip-tanks, etc. - often a target for guerrilla sabotage - through what amounted to booby-trapping of these facilities.
3. Protection of vehicles used by non-military governmental and other agencies, such as the Posts and Telecommunications Corporation, Roads Department, etc., whose maintenance work often required travel in remote areas and for whom it was often not possible to provide a military escort.
4. Protection of vehicles used by para-military forces, including the British South Africa Police (B.S.A.P.), such as Internal Affairs, Guard Force, etc., whose manpower and equipment limitations, plus the nature of their duties, necessitated unescorted travel. Partly for reasons of mobility, Police Land Rovers were seldom armoured and consequently they were especially vulnerable to ambush. No doubt for this reason the use of anti-ambush weapons was pioneered by this force.
5. Use by certain military units which operated in small numbers for various reasons, including clandestine work. Generally army units were sufficiently well equipped, were adequately armed, and travelled in large enough numbers, not to warrant the use of antiambush devices.

## Simplicity, suitability and savings

Devised out of necessity and demonstrating a high degree of ingenuity by what amounted to amateur arms designers and manufacturers, factors common to all anti-ambush weapons were simplicity, effectiveness, cheapness and, as far as possible, safety. Indeed of all the locally designed and produced war materials, none epitomized the concepts of simplicity of design and facility of manufacture more than the anti-ambush devices.

Though the paucity of materials available due to the effect of sanctions, urgent need for weapons at an affordable price, and to a lesser extent, scarcity of suitable engineering facilities, could be cited as reasons for the relative lack of sophistication of the anti-ambush weapons, these did not prevent far greater technological accomplishments in the manufacture of other military equipment in the country. It is evident, therefore, that the relatively rudimentary design and construction of these weapons was influenced principally by the fact that such devices, which functioned perfectly satisfactorily for the role for which they were intended, could be produced without the need for special materials or complex engineering equipment. In addition, this wals a field which spawned many home-built prototypes and designs by small enterprises, so that the nature of the end product at times reflected their limited resources - though not necessarily to the detriment of their efficiency.

Various devices, often one-ofts, were also fabricated in workshops of the less well equipped para-military forces to substitute for either military issue or commercially available weapons
and it is really only from these sources that a number of somewhat crude and potentially dangerous weapons originated.

## Munitions, materials and manufacture

Except for those devices which incorporated standard firearms in a modified role and others which made use of grenades or mines, all of the anti-ambush weapons were designed to fire standard 12-gauge shotgun cartridges, or in the case of cannon type weapons, used a variety of explosives and shot.

Because of their availability, wide spread of shot and limited range, shotgun cartridges were ideal for such applications. In addition their relatively low breech pressures meant that purposedesigned barrels were unnecessary. The B.S.A. Police Armaments Branch is known to have carried out tests to determine the most effective type of shot to use and in general buckshot cartridges (SSG, SSSG and 3A) found most favour, ${ }^{3}$ though No. 4 birdshot was considered by others to be preferable due to its even broader shot pattern. ${ }^{4}$

For cannon-type weapons blasting, rockets or black powder generally provided the propellant and this was either loaded in time-honoured muzzle-loading fashion or by means of specially made cartridges, either breech or muzzle-loaded. Shot was often simply manufactured from six or eight gauge wire chopped into half inch segments.

Common to all anti-ambush weapons was the use of standard materials and uncomplicated methods of manufacture. Materials were largely mild steel (in sheet, bar or angle iron form) and, for barrels, steel steam pipe or even water pipe of the appropriate internal diameter. Light and strong, 21 mm steam pipe proved ideal for weapons employing 12 -bore shotgun cartridges and well able to withstand the ballistic pressures. For cannon-type weapons thick-walled water piping was usually employed, sometimes being reinforced by inserting one length inside another of larger diameter and welding the ends. Manufacturing methods of even the commercially produced weapons were generally basic metal fabricating techniques, with a minimum of machining and casting.

## Control and proof-testing

Understandably, there was concern at the uncontrolled proliferation of a bizarre assortment of lethal anti-ambush and home protection devices appearing in the country and accordingly in 1978 the military authorities resuscitated an informal group, which had actually been set up in 1974 but was inactive, to monitor the situation. ${ }^{5}$ Named the Lethal Devices Advisory Committee, this group comprised government and civilian experts in fields ranging from explosives to electrical power. Originally charged with devising measures to safeguard the civil population, particularly the farming community, the new committee directed its efforts more at assessing and controlling the actual weapons already designed for this purpose. In this manner impractical or inherently unsafe types were scrapped while modifications were proposed for others which were sound in principle but whose manufacture was poorly executed. (In addition, most of these weapons were vetted independently by the B.S.A. Police Armaments Branch)." This resulted in approximately a dozen "approved" devices which were sanctioned for manufacture and distribution. Designation as "approved" weaponry was also significant in that such items came within the scope of the government security aid scheme to farmers in specified areas thus ensuring a ready market for the devices.

It is clear, however, that many of the weapons devised and built in limited numbers by various government bodies either escaped the attentions of the L.D.A.C. or were outside their authority and, as a result, these were often of inferior design and workmanship.

As far as proof-testing is concerned, it is likely that the great majority of anti-ambush weapons was never subject to official prooting, the load tolerances, safety and efficiency being
determined almost exclusively through trial and error by the designers and manufacturers themselves. Certainly no proof marks have ever been detected on the (relatively few) weapons examined. However these examples may well have been manufactured prior to standards control being introduced as, in early 1979, specifications for the safety and proof-testing of small arms using 12 -bore cartridges were devised at the request of the Government by a committee operating under the auspices of the Standards Association of Central Africa.' Also, as only very limited numbers of 12 -bore shoulder arms were ever manufactured in the country during the period, it would appear that these standards must have been intended for control of anti-ambush weapons of this calibre. No doubt therefore this was a further belated attempt by Government to curb the spread of unsafe devices amongst the civilian population - though by this time considerable number of anti-ambush weapons were already in use. It is noteworthy that the standards applied only to weapons available for sale to the public so that examples produced by Government agencies were again excluded.

## Operational effectiveness and tactics

Standard military procedure for countering a vehicle ambush is immediate return-fire in order to unnerve the ambushers, putting off their aim or causing them to take cover and cease attacking, thereby giving the ambushed vehicle an opportunity to escape the killing ground. In a very high percentage of cases, the attackers of a vehicle are totally unseen by the vehicle's occupants and even the direction from which fire is being directed is impossible to determine. ${ }^{.}$ The objective of an immediate return of fire is therefore very largely psychological with the possibility of actually shooting an attacker being somewhat remote. However, although the principle of counter attack is generally accepted as the best means of defence, in the Rhodesian war context, it was extremely difficult in practice for effective return-fire to be laid down with standard small arms by the vehicle occupants. This was because many vehicles were often obliged to travel alone with just one or two passengers or sometimes only the driver. Under these circumstances it was obviously very exacting, if not impossible, to properly control the vehicle and return fire at the same time with the small arms normally carried by military and civilian personnel in operation areas.

The fitting of anti-ambush devices to vehicles was unquestionably a major improvement, enabling rapid response to attacking fire, as they required minimal physical reaction by the driver/passengers, who merely had to press a button or pull a lever on the dashboard to lay down an arc of fire and could thus concentrate on keeping control of the vehicle. In addition, the anti-ambush devices were more effective at short range than conventional military smallarms and, conversely, because of their limited range, posed less danger to other friendly forces, who, when travelling in convoy, could be in close proximity.

It was not long before all of the military's operational vehicles were mine-proofed, and eventually most were also protected against small arms fire by armour-plating and various types of screening or shuttering to destabilize the flight of a bullet. These defences were certainly effective against standard ammunition but far less so with armour-piercing rounds and quite ineffective against the RPG7 anti-tank rocket. It was for this reason, therefore, that the use of anti-ambush weapons actually increased as the war progressed, despite vast improvements in ambush protection of the vehicles' bodies themselves, in order to counter the more effective hardware and tactics employed by the guerrillas.

Before tactics became more sophisticated, certain of the crack units in the security forces, were reputed to be able to deal effectively with an ambush by first firing anti-ambush weapons at the point of attack, then driving on several hundred meters to safety before debussing. The vehicle would then be quickly examined to determine from the bullet strikes the location of the ambushers and the vehicle turned and driven back to the ambush site to engage the attackers,
whose position was now known with some certainty. ${ }^{9}$ However, this was by no means standard practice amongst regular troops.

While these and other counter-ambush measures were successful for a period, it did not take long for the guerrillas to devise alternative tactics, after recognizing, in particular, that the antiambush weapons did not provide sustained fire. The most common and effective of these was to stage a mock or diversionary ambush causing the vehicle occupants to prematurely trigger the anti-ambush devices and expend their magazines, before mounting a full-scale ambush a short distance further down the road.

Of course, many other vehicle ambush tactics were employed by the guerrillas, often initiated with the detonation of a landmine, but generally speaking the principle of immediate return fire remained the appropriate counter measure whatever the circumstances. For this reason the anti-ambush weapons remained an important part of the forces' weaponry and were also used extensively by civilians for both vehicular and building protection until the end of the war.

## DESCRIPTION OF THE WEAPONS

## Police Grenade Launcher

The grenade Launcher is significant in that it is believed to have been the first anti-ambush device put into service. Designed by Insp. J. Steynberg of the B.S.A. Police Armaments Branch the device utilized redundant SMLE .303 rifles with grenade discharger cups fitted to their cut down barrels. These were arranged in banks of three on each side of a vehicle. ${ }^{11}$

The rifle actions were loaded with ballistite cartridges and either phosphorous or fragmentation grenades with safety pins removed were carefully inserted into the cups. The device was fired by means of a pull cable from the vehicle cab and the separate grenades could be discharged singly or in unison.

Naturally, loading, and especially unloading, of the grenade Launcher were high risk procedures. For unloading a special pair of tongs was used to extract the grenade just far enough for the safety pin to be inserted. Despite the dangers, however, it is believed that there was never a serious accident with the device and it did prove to be highly effective in operation."

Because of the potentially lethal nature of the Grenade Launcher to inexperienced users, it was never available for civilian use and the risk factor was probably also the reason why it did not achieve widespread use even among the armed forces.

## Land Rover AK "Gunships"

One of the earliest and most effective anti-ambush measures was the conversion of mine protected B.S.A. Police Land Rovers into armed "Gunships". This was accomplished by the installation of two AK assault rifles, minus butts, welded to a frame so that they faced in opposite directions. Designed by Supt. D. Hollingworth of the B.S.A. Police Armaments Branch and assembled using captured rifles, this set-up was mounted behind the cab of many Police Land Rovers and was fired electrically by pressing a button on the dashboard. In addition, on a number of vehicles, a third weapon was mounted inside the engine compartment, facing forward, so that fire in three directions was provided. The whole system was unobtrusive as nothing protruded beyond the body of the vehicle and, in fact, the forward mounted weapon was only discernible from the bullet hole punched through the front bodywork.

It has been suggested that the effect of these AK devices was more a psychological comfort to the vehicle occupants than a physical danger to the ambushers but the perceived success of the weapon may be judged from the fact that between four and five hundred Police Land Rovers are reported to have been equipped as "Gunships"." Indeed because of their fixed mountings,


1. The AK-47 anti-ambush device as fitted to B.S.A. Police Land Rover "Gunships" was the first vehicle protection system to be widely used in the bush war. Ingeniously simple, 400-500 Land Rovers were eventually armed with the weapon, which was assembled using captured assault rifles

2. Extract from sales leaflet for the K.Q. (Kill Quick) anti-ambush and protection shotgun
no arc of fire was possible with the AKs but, from a moving vehicle, fire was laid down over a fair transverse distance until the magazines emptied. Also, any of the AKs could be fired independently in short bursts to conserve ammunition.

Not surprisingly, perhaps, a number of accidents did occur with the AK "Gunships" but this was more a question of statistic probability due to the large numbers deployed than an inherent fault in the weapon system.

## Technical Features

The "Gunships" protection system was based on two or three standard AK-47 rifles of which there was an abundance of captured examples available. These were fixed permanently in place, exposed to the elements, where the weapon's reputation for reliability under adverse conditions was severely tested - and justified. The firing mechanism comprised standard automotive solenoids attached to the triggers, which were connected to the Land Rover's electrical circuitry. Generally 30 round magazines were used but, for special operations, the rare 60 or even 90 round magazines were fitted, giving the "Gunships" formidable fire power. ${ }^{1,}$

## K.Q. Anti-ambush and Protection Shotgun

Probably the most prolitic of the Rhodesian anti-ambush weapons, the success of the K.Q. or Kill Quick was due to its being a simple and robust yet effective device. Of 12-bore calibre, the K.Q. comprised a bank of five short barrets, splayed though a broad arc like the fingers of a hand, with gravity-operated firing mechanism. Designed to spread shot over a wide front, it is interesting to note that an identical arrangement of barrels was used for the "duck"s foot" or "mob" pistol as far back as the 18th century!

Manufactured by Keedon Enterprises, Bulawayo, the K.Q. was designed for attachment to vehicles as well as for static applications, and for both civilian and military use. The device was

3. The K.Q. shotgun in the cocked or ready position. When armed, an amber plate attached to the barrels was exposed warning of the danger (barrel length $\mathbf{2 2 5 m m}$ )
available from 1978 until manufacture ceased in 1980 and weapon serial numbers suggest that upwards of 1700 may have been produced.

Using steel steam piping for the barrels, as was usual with this type of weapon, the bulk of the component parts were made from stock materials which were cut, bent and assembled by welding to form the complete weapon. As a consequence, except for a limited amount of turning, manufacture of the arm demanded relatively unsophisticated engineering facilities. Nevertheless, it was a well made weapon of competent design.

For vehicle protection it was recommended that the K.Q. should be mounted in two or preferably four sets at roof height in order to give effective all-round fire. Proprietary adjustable brackets were available for this purpose and these were attached by means of an arrangement similar to a roof carrier. A complete set of four five-barrel shotguns with standard brackets was priced at $\$ 258.50$ but individual elements of the set and special brackets for mounting on homesteads were available separately to suit individual requirements. ${ }^{14}$

## Technical Features

The K.Q. consisted of a bank of 5 barrels. 225 mm in length and covering an arc of $96^{\circ}$, which was hinged to a body assembly incorporating anvil, firing mechanism and mounting back plate. Each barrel screwed into a threaded breech cap in which a floating firing pin, projecting at the rear, was located. The barrel bank was able to swing through $90^{\circ}$ from a vertical (ready) to a horizontal (fired) position. In the vertical position a bright orange plate attached beneath the barrel bank was exposed, warning that the weapon was cocked.

The weapon was loaded by first raising the barrel bank into the upright position, where if was held in place by a spring loaded bolt, and unscrewing each barrel using a tommy bar inserted through a hole provided at the nozzle. A square of light plastic was then secured over

4. The K.Q. shotgen in the fired position. A wide spread of shot was provided by fle detomation of all live barrels in unison (barrel lengela 225 mm )

5. Civilian pick-up fruck heavily armed with four Janks of Persuader anti-ambush shotguns. The bank on the extreme left illustrates the sequential firing mode of the weapon (barrel length 315 mm )

6. A "Kudu" mine and ambush protected vehicle litted with a pair of multi-barrelled antiambush weapons. These are believed to be 5 -barrelled versigns of the Persuader shotgun which disclarged on gravitationan fall of the barrels. Note also the ededrically fired, iwin-larrelled weapon monnted at the rear of the vehicle
the muzzle (by means of a rubber band or tape) to prevent the ingress of rain and dirt, a cartridge placed in the breech, and the barrel replaced. Arming the weapon was simply achieved by removing three split pins which acted as safety devices on the firing mechanism linkage.

To fire the K.Q. one of the duplicate levers located at roof height just above both the driver's and passenger's windows was pushed or pulled to discharge the front and rear gun sets respectively. By means of a mechanical linkage attached to the firing mechanism, the spring loaded bolt was withdrawn, allowing the barrel bank to pivot downwards. When it reached a horizontal position firing pins in the breech caps struck a fixed anvil discharging the shells simultaneously. A useful spread of 22 metres at a distance of 10 metres was claimed..$^{15}$

The elevation of the mounting brackets could be adjusted by a bolt and locknut and the whole unit was quickly detachable for safety and security.

## Persuader Anti-ambush Shotguns

The Persuader was another multi-barrelled device designed to fire 12-bore shotgun cartridges which depended on the gravitational fall of its barrels to operate the firing mechanism.

Comprising a bank of six barrels the Persuader was designed, like most of its contemporary rivals, to be fitted in sets to a vehicle or for static applications to protect buildings. With this device, however, the barrels fired sequentially, as opposed to the simultaneous detonation of the K.Q., which meant that from a moving vehicle the Persuader laid down fire over a greater transverse distance. (It seems probable that a more compact, 5 -barrelled version of the Persuader was also produced, as a number of weapons with these characteristics appear in period photographs fitted to Kudu mine and ambush protected vehicles.)

Of relatively simple design, the Persuader was left in a somewhat rough state of finish to cut the costs of production. It was fired mechanically by cable from the vehicle cab, but could be adapted for electric operation by means of a solenoid. The weapon was attached to mountings which could be fitted to the body of an armoured vehicle or, in the case of civilian vehicles, by means of a proprietary carrier. It could also be detached easily from the mountings as a security precaution when not in use. ${ }^{16}$

The Persuader was used mainly on civilian vehicles but, it is believed, was also employed by certain para-military forces. Manufacture of the weapon was undertaken by a tubular steel furniture factory in Salisbury.

## Techinical Features

The Persuader comprised a set of six barrels each hinged separately to a base bracket containing the firing mechanism. The barrels were made of steam pipe, 315 mm long, and threaded at the breech so as to screw into caps housing the firing pin. To induce shot scatter the muzzles of the barrels were cut off obliquely. The weapon was breech loaded by unscrewing the barrels, inserting a cartridge, and replacing the barrel.

When set in the vertical or cocked position the barrels were held in place by separate springloaded plungers bearing against curved hinge bars. The first plunger was attached to the firing cable which, when pulled, withdrew the plunger. This caused the first barrel to fall, releasing the adjacent plunger which in turn allowed the second barrel to fall and so on until all six barrels were released sequentially. As the barrels fell the firing pin in each breech cap struck a fixed anvil firing the cartridge. A split pin through the first plunger acted as a rudimentary safety, while plastic sheeting fixed over the muzzles prevented the entry of dirt and damp. ${ }^{17}$

## The Spider Anti-ambush Shotgun

The product of a large and capable engineering firm, the multi-barrelled Spider shotgun was undoubtedly the most sophisticated and best engineered of the Rhodesian-made anti-ambush

7. Advertisement for the versatile multi-barrelled Spider counter-ambush shotgun, which provided comprehensive fire through $360^{\circ}$
weapons. Designed by Hilton Walker (another of whose designs was a highly successful combat shotgun in the USA) and manufactured by Toolmaking and Engineering, Bulawayo, the Spider was a versatile weapon which proved to be reliable and effective in operation despite the relative degree of complexity of its mechanism.

Manufactured in several different barrel configurations with up to 36 barrels arranged radially from a common centre, the name of the weapon was derived from its likeness to a lethal many-legged arachnid. Mounted centrally on the roof of a vehicle a single weapon provided fire through a full $360^{\circ}$ making it ideal protection for a vehicle travelling alone. Being fired manually by a crank handle which protruded into the roof of the vehicle ensured simplicity and reliability of operation but, on the other hand, demanded particular concentration on the part of the driver or passenger of the vehicle in the event of an ambush.

Early versions of the Spider were made with a single bank of twelve short barrels and such a weapon was demonstrated to the Lethal Devices Advisory Committee in late 1978. ${ }^{\text {w }}$ This was later superseded by the "standard" production weapon which featured either 24 or 36 barrels arranged alternately in two tiers, with the top row horizontal and the bottom row angled downwards. However, both the number of barrels and their elevation could be tailor-made to suit any particular requirements. ${ }^{19}$

The Spider was designed for both civilian and military use and two additional versions were made specifically for fitting to the Pookie mine-detecting vehicle, which by the nature of its purpose travelled alone and was consequently vulnerable to ambush. Adapted to be mounted forward of the Pookie driver's capsule, below the vehicle's roolline, these versions were identical to the standard 24 and 36 -barrelled weapons but had 8 or 12 barrels respectively omitted in a segment facing the capsule - for obvious reasons. Also, in place of an overhead crank, the Pookie versions were fired by a lever attached to a chain and cog mechanism, to cater for the offset position of the weapon. ${ }^{211}$

Described in promotional literature as "the immediate action counter-ambush weapon with devastating fire-power", the Spider also incorporated excellent safety and security features to prevent accidental firing and to safeguard the weapon from tampering. ${ }^{21}$ In addition, a dummy breech block was provided which could be used to replace the functional item so as to keep the cartridges in place in the weapon, obviating the need to unload when travelling in a populated area.

Though ideal protection for lone vehicles, when travelling in convoy, appropriate barrels could be left unloaded or plugged in order to restrict the arc of fire. Also, as an optional feature, a ratchet could be attached to the firing handle 10 limit the number of barrels fired in one movement and prevent over-reaction in the event of panic.

8. The 36 -barrelled $S$ pider was a formidable sight, literally bristling with barrels. This example is mounted on a proprietary car roof rack (barrel length $\mathbf{3 0 5 \mathrm { mm } \text { ) } ) ~ ( 1 ) ~}$
(T, SHCOMCngen)

9. Spider anti-ambuslo weapon with breech-block removed to reveal the loaded cartridges. When travelling in convoy, barrels to the fromt and rear could be lefil undoaded
(T. Sincurcheron)

The Spider sold in relatively large numbers $( \pm 800)$ but by later 1979 , with the prospect of peace ahead, press advertisements were offering a reduction in price."? Even at the reduced price of $\$ 385.00$ the Spider was expensive for an anti-ambush class weapon but it compared lavourably with the cost of the better pistol-carbines on the market (e.g. R 76 at $\$ 400.00)$ at that time. Indeed, given the successful performance of the device it is difficult to understand why the Spider was not in greater demand despite its cost.

The Spider was patented in South Africal in 1979, presumably with a view to production in that country, but it appears that this was never achieved.

## Terhmical Fectures

The standard 24-or 36-barrelled Spider comprised a central drum (housing the breech block or liring mechanism) to which were attached two banks of 12 or 18 barrets each, arranged in radial fashion like the spokes of a wheel. Usual barrel length was 305 mm but some 24 barrel weapons were fitled with 225 mm barrels, while the early 12 barrel Spider appears to have had barrels only 150 mm in length. Chambered for 12 gatuge shotgun cartridges, the top bank ol barrels was fixed in a horizontal position while, on the standard weapon, the lower sel was angled downwards at $5^{\circ}$ to the horizontal. However the bottom barrels could be factory-fitted at a pre-determined elevation of up to $15^{\circ}$ or $20^{\circ}$, according to the height at which the weapon was mounted, in order to achieve the optimum matial coverage. ${ }^{23}$ As a result the weapon provided a good vertical

10. 16- and 24 -barrel versions of the Spider, with barrelsomitted in a segment facing the driver's capsule, were made especially for use on the "Pookie" mine-detecting vehicle. Because of its role in successfully focating land mines, the "Pookie" was specitically targeted for neutralization by the guerrillas and, conseduently, was well protected.
arc of fire in addition to complete all-round protection. Indeed, the latter was enhanced even further on some weapons by the use of barrels with flattened muzzles to increase the lateral spread of shot.

The weapon was loaded by removing the top cover of the central drum and withdrawing the breech block, enabling cartridges to be inserted into the breeches, followed by reassembly. During loading, with the firing handle locked in the safe position, the design of the firing system was such that any danger of an accidental discharge was eliminated. This firing mechanism comprised 24 or 36 spring-loaded pins located in the breech block which were drawn inwards by the rotation of 3 or 4 cam plates and, on release, sprung forward striking the shells. The cocking cams were evenly arranged with respect to each other so that balanced all-round fire was achieved, but the firing sequence could be altered by adjustment of the cams if required. After loading, the weapon was made ready by attaching the crank handle from inside the vehicle cab, and firing was accomplished by rotating the handle. Naturally the rate of fire depended on the speed with which the crank was rotated and firing was completed by one full rotation. The Spider could be made safe by engaging the crank in a safety lock or by removal of the handle. ${ }^{24}$

Like most of the shotgun protection systems, the Spider could either be mounted directly on to a vehicle body or, for civilian transport, by means of a special roof carrier.

## Kattleway-Henson Remote Control Firing System

The Kattleway Henson anti-ambush system was unique in that it employed a standard militarytype firearm in a special mounting fired by

11. The Kattleway-Henson remote control firing system employed a standard automatic weapon, electrically fired. The firearm was also readily removable in the event of an immobilized vehicle. remote control, with the firearm also being quickly detachable for hand use. The brainchild of R. Henson, the Kattleway-Henson was designed for use on high-sided armoured vehicles such as the Leopard and Kudu, and for mounting on the roof of civilian vehicles. As with other anti-ambush devices it was intended to provide vehicles with an effective form of retaliation against ambushes while allowing the driver to maintain control of the vehicle. The system was fired electrically through a wide arc of fire. It was active only with the vehicle's ignition on and incorporated a special safety switch. ${ }^{25}$

The Kattleway-Henson achieved considerable publicity through an incident in late 1979 when a prominent farmer and Member of Parliament used the device fitted to his vehicle to beat off an ambush and it was reckoned to have saved his life. ${ }^{2 \pi}$

Manufactured from mid-1977 until 1980, the system is not believed to have been adopted by the armed forces and was probably only produced in modest numbers for civilian use. The system cost \$110 complete with switches and wiring, while a purpose-made carrier added $\$ 15$ to the price.

It was made by Berbat Ltd., Marandellas, which specialized in the manufacture of "Kattleway" livestock scales.

## Technical Features

Full or semi-automatic firearms ranging from the FN riffe to locally made pistol-carbines could be fixed to the Kattleway-Henson by means of specially made mounting brackets and, it was claimed, the weapons could be "removed in a matter of seconds" to facilitate normal hand use in the case of an immobilized vehicle. The system was attached to any model civilian vehicle by means of an adjustable universal roof rack and could be set to fire though an arc of up to $210^{\circ}$ in a predetermined direction. In addition the rate of fire could be adjusted from between 4 and 10 rounds an arc and, it was estimated, at a speed of $60 \mathrm{~km} / \mathrm{h}$ a distance of 300 m could be travelled before the magazine emptied. ${ }^{27}$

Wired into the vehicle's electrical circuit, the Kattleway-Henson employed an automotive solenoid to depress the trigger. Firing was by means of a dashboard mounted switch and, in addition to a special safety switch, the device was only operational with the vehicle ignition on.

## A.D.F. Mk I and Mk II Anti-ambush Cannons

As archetypical examples of the many rudimentary devices constructed by various Government departments to substitute for the non-availability of military-issue weapons, the anti-ambush cannons made by the African Development Fund (A.D.F.) workshops in Umtali, warrant detailed description. Faced with the constraints of inadequate weaponry and limited resources, this type of weapon represented a practical, if unsophisticated, solution to the problem.

The Mk I cannon evolved from a massive $21 / 2$ inch internal diameter static defensive cannon built at the A.D.F. workshops, in 1976. As the original had been found to be too cumbersome ( 4 feet in length, requiring two men to lift it) and unnecessarily powerful, it was decided to scale-down and modify the design to make a weapon suitable for mounting on vehicles. The Mk I was the outcome - five barrels welded together on a bracket for fixing to a vehicle body. Optimum length of barrel was determined by experiment and the first sets were fitted to a Leopard mine and ambush protected vehicle later in 1976. Subsequently the design was scaled down even further to produce a lightweight version known as the Mk II. ${ }^{2 \mathrm{~K}}$

Initially each bank of barrels was fired electrically from the vehicle cab by a single button, with fuse running between the barrels to provide a timed delay. However, this was found to be unreliable and, instead, individual switches and igniters were used for each barrel, allowing controlled fire.

Of the materials available, the best shot was found to be thick gauge wire chopped into small segments. If properly wadded, this would penetrate approximately 25 mm thickness pine plank at 30 metres or 6 mm plank at 80 metres, penetration being gauged on targets in the bush so that the fragments also had to pass through undergrowth.

The vehicles equipped with these cannons were used extensively for night reaction, escort duties and night road patrols.

## Technical Features

Each barrel of the Mk I cannon was manufactured from a section of 41 mm water piping, 610 mm in length, which was slipped inside another pipe of slightly greater internal diameter to form a reinforced length of double wall thickness. This was plugged at one end and the rim welded at the muzzle, with a small vent hole made at the breech. Five such barrels were then welded together to form a robust construction of substantial proportions.

The Mk II version followed the same contiguration as the Mk I but was scaled-down by using shorter ( 510 mm ) single lengths of 27 mm internal diameter black pipe for each barrel.

12. The rudimentary ADF MK I cannon (shown with ramrod) represented the anti-ambush weapon at its simplest. Note the burst barrel caused by overloading (barrel length 510 mm ).

13. The ADF MK II camon was a scaled-down version of the earlier MK I (barrel length 510 mm )

The load per barrel for the Mk I was 720 grams of shot and the charge initially 150 grams of blasting powder and, later, 100 grams of MLl explosive, with proportional reductions for the Mk II. The muzzle-loading procedure, as follows, did not allow for quick re-loading in the heat of the battle! ${ }^{29}$

1. Insert powder in double plastic bag
2. Insert dry wad of half-page newspaper (crumpled)
3. Ram lightly
4. Insert wet wad of one page wet newspaper
5. Ram well
6. Insert shot
7. Wad again with dry and wet newspaper
8. Pierce hole through plastic powder bags with spike
9. Insert igniter
10. Seal igniter/vent hole with epoxy putty

## Holland-Hail Organ

A weapon of awesome capabilities, the Holland-Hail organ* featured prominently in the contemporary local media, and was even described at length in the renowned American mercenary magazine Soldier of Fortune, ${ }^{311}$ after a practical demonstration of the weapon when fitted to a Cougar mine and ambush protected vehicle was given before a large audience including the press in mid-1978. ${ }^{31}$ (In fact the abnormal publicity accorded this weapon was a deliberately orchestrated psychological campaign designed to spread word of its devastating performance. Indeed this may have been successful, for apparently not a single civilian vehicle armed with the cannon was ever ambushed.) ${ }^{32}$

Unparalleled by the other anti-ambush weapons in terms of its fire-power, the Holland-Hail Organ was certainly a formidable weapon of impressive proportions. Developed primarily by André Holland, M.P. in the government of the day, the design of the weapon was based on statistical analysis of records of hundreds of ambush situations. Having established that the average ambush was staged from 12 to 15 metres, the cannon was designed to be theoretically $100 \%$ effective in that range. After considerable experimentation, including reported destruction of 500 barrels before a suitable and inexpensive steel pipe was found to withstand the pressure, the weapon was put into production.

The cannon was produced in banks of either three or nine barrels for fitment to the front, rear and sides of a vehicle, or for a static defensive role around a building. In vehicular applications each battery was fired selectively by means of a dashboard control and discharge of the barrels was sequential. Apparently this tiring mode was adopted not for tactical advantage but rather to lessen the recoil of the system, estimated at 10 tonnes per bank, which could tip the vehicle over! ${ }^{33}$ Indeed, considerable reinforcing of the chassis of a vehicle armed with the cannon was necessary to cope with the recoil.

Though developed primarily for civilian use, the weapon is known to have had military applications, including special operations involving the use of civilian buses. ${ }^{3+}$ Priced all approximately $\$ 1,750$ phus a further $\$ 575$ for installation for a complete four-bank 36 -barrelled system, the Holland-Hail Organ was extremely expensive. Nevertheless, it was alleged by the designer to have sold in large numbers.
*Also known as the Holland-Hale organ dae to the involvement ol J. E. Halle in the design and development of the weapon.

14. A forward mounted battery of the devastating Holland-Hail Organ, fitted to a "Cougar" mine and ambush protected vehicle. (The Sunday Mail)

15. The Holland-Hail Organ had both civilian and military applications and is shown here fitted to an army truck. It was necessary to attach the weapon to the vehicle's chassis to albsorb the massive recoil.
(A. Holland)

## Technical Features

Sturdily built and of prodigious dimensions each battery of the Holland-Hail Organ consisted of either 3 or 9 barrels supported in a channel iron frame, with the barrels splayed through an arc of approximately $120^{\circ}$ in the case of the larger device. Of 50 mm bore, the cannons were each muzzle loaded with massive specially made cartridges ( 400 mm long) containing rocket powder and 250 steel fragments (chopped round bar) weighing 450 grams. Detonation was electrically initiated by means of fuse head igniters, with the system wired into the vehicle's electrical circuitry. As already mentioned firing was in "ripple" sequence, mainly to avoid excessive recoil.

## Breech-Loading Anti-ambush Cannons (Wattle Co. Type)

Small to medium-scale production of anti-ambush weapons was occasionally undertaken by concerns operating in the agricultural, forestry and mining sectors, which required such devices for the protection of their vehicles performing duties in the field. In some instances these organizations would have had the engineering expertise to develop their own unique designs as well as the facilities to manufacture the weapons, while in other cases tested designs were likely to have been "brought in" for weapons constructed in the companies" workshops.

An unnamed twin-barrelled cannon which was used in large numbers by the Wattle Co. is an example of such a weapon. This cannon was manufactured by the Company's own workshops in preference to the purchase of commercially available weapons - probably as a cost-cutting measure, though it is also possible that an under-utilized workshop capacity was another consideration. It is unknown where the design of this weapon originated from but the existence of what are clearly other variants of the Wattle Co. cannon, including a four-barred version (all of which are of unproven provenance), suggests a common design was used by a number of concerns, with modifications added according to individual requirements.

The Wattle Co. cannon was distinctive in that it incorporated an unusual mechanicall safety device which, it is understood, was added to the weapon after an accidental discharge exposed the fallibility of the original mechanism. This safety took the form of a stout defector plate attached to two brackets so that it would be swivelled in front of the barrel muzzles to direct the shot at an upward angle. Supplementing an electrical safety master switch, the deflector would have made it unnecessary to carry out a laborious unloading procedure each time the vehicle was driven into a populated area - bearing in mind that the cannon was not quickly detachable as a unit.

The cannons were fitted to Land Rovers in sets of three by the Wattle Co., one pair forward facing and two directed sideways. Each unit was fired electrically by a separate dashboard mounted button after arming by means of the main safety switch.

## Techmicul Feanures

Whether in banks of two or four barrels, all of the cannons were breech-loading and were electrically fired by means of igniters. The Wattle Co. weapons were charged with black powder and metal scrap and the load mechanism suggests that specially made cartridges were used. However the thin barrel walls must have necessitated a farly low-powered charge. The four-barrelled example was unusual in that the barrels were arranged in "box" formation. This version was obviously welded directly to the vehicle body whereas all of the twin-barrelled cannon had sturdy base plates for bolting to the bodywork.

Apart from their related design features, the dimensions and materials employed in all these cannons were also similar, strongly suggesting a common origin for the three types. The barrets were all approximately 400 mm in length and were made from either stean or black pipe of 27 mm internal diameter. Solid plates incorporating breech caps which slid over the rear of the barrels were held in place by a central bolt, enabling ready dismantling for loading. Each breech

16. Simplicity of design and low cost were key elements of the breechloading Wattle Co. cannon. A deflector plate could be swung in front of the murales to act as a safety device when entering urban areas (barrel length 40(31710).
17. A variation of the double-barrelled breech-loading cannon very similar in design to the Wattle Co. weapon (barrel length $4(0) \mathrm{m}$ (1mm).

18. An unnamed breech-Ioading camnon with font barrels in "hox" formation (barred length $40(10 \mathrm{~mm}$ )
cap was drilled to receive an igniter. Simply yet strongly built, these cannons were undoubtedly well up to the purpose for which there were designed and at the same time very cost effective.

## Fixed Horizontal Anti-ambush Shotguns

Included in this category are a number of weapons which had basically similar features and none of which was made in large numbers. All were multi-barrelled, with barrels in a fixed horizontal position, and fired either commercial 12-bore shotgun cartridges or special purposemade cartridges. ${ }^{36}$

The Adams Gun, designed by F. Adams, consisted of two single-barrelled shotguns mounted on the roof of a vehicle. The weapon incorporated a special spring recoil system and used custom-made black powder cartridges, fired electrically. It was removable as a security precaution when not in use.

The Sting comprised a group of 12-bore shotgun barrels in a fixed horizontal position, fired by electric detonators. It was also detachable as a security measure but no further details are known.

Another multi-barrelled 12-bore shotgun, the Com-Tech Gun, displayed certain similarities to the Spider. Its barrels were arranged in two banks facing oppositely, each covering an arc of $90^{\circ}$. These were attached to a ring which slipped over a cylindrical block. From a central hole in this block, channels were provided to each breech enabling connection of the electric detonators. Firing was by means of a three switch control box. The weapon is known to have been used by the army but it seems likely that only small numbers were constructed.

Finally, the Durbin Cannon was a rare custom-made multi-barrelled weapon which utilized its own special cartridges. It was also fired electrically, using fuse head igniters.

## Grenade and Mine Systems

Various anti-ambush systems employing either military issue or purpose-made fragmentation grenades were also used extensively for protection of military camps and rural homesteads.

Best known of the commercial versions was the Adams Grenade, designed by F. Adams, who was also responsible for the anti-ambush shotgun which bore his name. This weapon was manufactured in several different sizes and had a proven reputation as an extremely lethal device. ${ }^{37}$

At least two grenade systems of this type were officially "approved" for civilian homestead defence in 1978 , costing about $\$ 130$ each. ${ }^{3 K}$ Evidently both devices used an outsize 2 kg fragmentation grenade cast from white metal and charged with pentolite explosive that was specifically developed for ambush protection. Described as the "ultimate defence weapon", this grenade was reported to have a lethal range over a radius of 200 metres, with an even more powerful version being developed for manufacture. These grenades were detonated electrically, either manually by the building's occupants or by means of some automatic booby-trapping device.

In the military field, the Ploughshare mine, a South African-made copy of the American Claymore intended for static offensive ambush applications, was also adapled for vehicle protection. ${ }^{3 \prime \prime}$ Especially designed to thrust its main blast forwards in a wide are meant that, with additional steel backing plates, the mines could be mounted on the sides of a vehicle for ambush protection. Such devices are known to have been used successtully in special operallions but, generally speaking, their use was restricted.

## 12-Bore Booby-Trapping Devices

With the exception of the special grenade system mentioned in the previous section, all of the anti-ambush weapons described in this review were intended for protection of vehicles. However,

19. The 12-bore Rat-trap booby-trapping device was a cleverly improvised contraption used for defensive or offensive purposes (barrel length $\mathbf{4 0 0 m m}$ ).

20. The rear view of the Rat-trap Gun illustrates how an ordinary domestic rattrap was used for both the tripping and firing mechanisms. When sprung a weighted section on the trap bar was released to strike the firing pin.

21. The Wildcat anti-personnel mine was an inventive and well-made device. Unusually for this type of weapon it was based on a shotgun cartridge, incorporated a disarming safety feature and could be reused after reloading (overall length 210 mm ).
the majority were also designed to serve in static applications to deter attacks on buildings and other installations. In this role they were frequently mounted so as to be triggered automatically by intruders, and thus effectively became booby-trapping devices. It is not inappropriate, therefore, to include two weapons devised specifically for booby-trapping purposes, a trap gun and an anti-personnel mine, both of which had affinities with the anti-ambush weapons in terms of their origins and purpose, simple design, and use of the 12-bore cartridge. In addition, the anti-personnel mine was certainly manufactured commercially in limited quantities for sale to a select public.

As its name implies, the Rat-trap Gun incorporated into its design an ordinary domestic rattrap, which functioned as the tripping action and firing mechanism. Rudimentary but reliable, the device was produced for defensive booby-trapping against potential attackers or, oppositely, for offensive ambush situations. ${ }^{41}$

The basis of the weapon was a sturdy back plate with edges canted to increase rigidity and holes drilled to receive two U-bolt clamps. To the front of this plate was welded a stub of internally threaded pipe forming a breech cap, into which screwed a short barrel. At the rear, a rat-trap mechanism was attached in such a way that, when sprung, the trap bar (weighted to increase its effectiveness as a hammer) struck a floating firing pin in the base of the breech cap.

The trap gun was attached to a suitable support by means of the U-bolts and wing nuts and a trip wire attached to the trip plate on the rat-trap.

Loading was accomplished by unscrewing the barrel and insertion of a cartridge and the gun was cocked by setting the rat-trap mechanism. Easily concealed because of its small dimensions (barrel length 150 mm and base plate $115 \mathrm{~mm} \times 160 \mathrm{~mm}$ ) and camouflage paintwork, the Rat-trap Gun could be mounted in sets on fence posts or the perimeter of a building to provide an effective means of protection.

The precise origins and numbers of the Rat-trap Gun made are unknown but it is believed to have had both military and civilian applications.

The Wildcat Anti-personnel Mine was a cleverly designed and well-engineered device, manufactured in Umtali on a small-scale commercial basis. Intended for protection of rural homesteads, the mine could be laid at random outside the security fences which customarily enclosed such buildings to form a mini minefield. A particular feature of the device was the ease which it could be safely disarmed (and armed again) by removal (or replacement) of the barrel section - without disturbing the main body of the mine which remained buried in the ground. ${ }^{+1}$

The mine comprised two short sections ( 75 mm in length) of thick gauge metal tubing which were turned on a lathe so that one was a sliding fit into the other. Welded to the base of the outer tube was a metal spike, pointed at both ends, which protruded a short distance into the tube to form a fixed firing pin. Made from 12 mm bar, 150 mm in length, the man length of this spike supported the mine vertically in the ground. (Additional stability was achieved when necessary by welding a square plate to the base of the outer tube.) The inner tube or barrel was of the appropriate diameter $(20 \mathrm{~mm})$ to accept a 12 -bore cartridge, with a recess lurned at the breech to accommodate the cartridge rim.

When armed, the loaded barrel rested proud of the firing pin by means of a length of thin copper wire threaded across the diameter of the outer tube through small holes drilled in the walls. Even moderate pressure applied on the top of the barrel caused this section to cut through the soft copper wire, dropping the assembly onto the firing pin and thus discharging the cartridge. A small piece of plastic sheet tied over the muzzle and lubrication of the sliding parts ensured reliable operation of the mine in all weather.

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# Ayrshire District, 1909-1946 

by Cormac Lloyd and Benedicta Graves

## This is the text of a talk given to the Mashonaland Branch of the Society during 1992.

Benedicta Graves has graciously contributed the material for today's talk on the Ayrshire District from 1909 to 1946 . With the passing of the generation which preceded her in this district, she has become the "fundi" on its history. She is here today and can answer your questions better than I. She is a bit apprehensive of the microphone, so it has been arranged for me to deliver the talk.

The title of Historian of the Ayrshire District rightly belongs to the late Mr G. G. Moore. Benedicta remembers that he celebrated his 50 years in the district, by arranging a dinner with his friends on 24 September, 1976. At about 7 o'clock that evening Ian Smith broadcast the outcome of the Kissinger initiative, the fact that the RF Government was left with no choice but to comply. He concluded by saying "this is not the beginning of the end", using a quotation from Churchill in World War II. It left the gathering at the Ayrshire Club in a state of gloom, in particular GG who had just tinished the 5th chapter of his history of the Ayrshire District and had failing health ahead of him.

He did not live to complete the story. I am sure he would have been thrilled to read Rob Burrett's excellent article on Ayrshire Mine in our most recent edition of Heritage. In his memory, and in that of Rupert Fox, who preserved and himself handed down GG's unfinished manuscript, and with the help of Benedicta's notes, I would like to continue the story. I will start at the end of the beginning, which was the closing of the Ayrshire Mine in 1909.

At that time there were some five or six farms registered in the district. In the south, below where we sit, Ayrshire Mine was registered in 1904 in the name of Ayrshire Gold Mining Lomagunda Railway Company. It was not farmed, but had been used to supply timber for the mine. The man contracted to remove the timber was Henry Kneiser who was a pioneer and a man of many parts - policeman, soldier, prospector, miner, transport rider, timber contractor, hunter and hunting guide for the hoi-polloi. He also held the grazing lease known as "Kneiser"s Lease" in the area between Ayrshire and Eldorado and on Nyapi Farm he later became a very successful farmer. In the other corner of the district, where the Maquadzi River cuts through the Umvukwes Range, we had the first farm. This was Kilmacdoagh, which was occupied in 1892 and registered in 1896, but was left unoccupied after the passing of the Eyre brothers (see Heritage No. 9 and another article by Rob Burrett). Moving north from there along the foot of the Range there was Lone Cow, Umvukwes Ranch and Birkdale. Lone Cow was taken up by Ralph Bliss in 1908. Earlier in 1904 the Peake brothers, Albert and George (who was the hotel keeper at Ayrshire Mine and later at Eldorado Mine), obtained title to Umvukwes Ranch. In 1906 Hamilton Arniston Woods occupied the northern most property, which he named after his home in England. From 1901 he had been the Sergeant-in-charge at the Police Post established at Sipolilo, which became the administrative centre for the Ayrshire District.

A word of explanation is needed here, for Sipolilo's Kraal looked on the map to be very far from the only population centre which in 1909 moved to Eldorado Mine. As Rob mentioned in his article on the Eyre bothers, in 1892 the elder brother had joined a party which went north to scout a route to the Portuguese settlement opposite Kanyemba on the Zambezi. This was the route which was to carry the first mails to Northern Rhodesia. It was also the route which Bliss used to drive a thousand head of cattle from Abercorn on the border between Northern

Rhodesia and German East Africa back to his Lone Cow Estate, a task which took him two years. More importantly, since the Ayrshire District and surrounding areas were only sparsely populated by Shona, it was the track which was to bring those tireless Nyasa workers across the Zambezi onto the farms where their labour made everything possible. At Sipolilo's kraal there was a cattle trading post and quarantine centre and also the organization from which labour was recruited, until it later moved to Mount Darwin.

The man who must receive the credit for opening up the district was Mr P. A. C. Raath, who was employed by Mr George Peake as a storekeeper first at Ayrshire Mine and then at Eldorado. In 1911 he went trading on his own account and set up a number of stores on the way to Sipolilo. To service these outlets he made the road from the railhead at Eldorado through the various drifts on the way to Sipolilo. This road, or more correctly that part of it which served farms to the east and west became known, and is still known, as "the Street". Along the start of this road, land became available from the BSA Company in three thousand acre lots on condition they were occupied within six weeks of grant. They were taken up by the likes of G. Galloway, W. Knight and K. Dingwall, and other bachelors. Their living conditions were primitive and would have impressed even their modern day counterparts, the Raffingora bachelors. When Galloway was laid low with black water fever a carpenter, who was a neighbour, made him a coffin which fortunately was not needed. It stood at the front door for a while like a sentry box, then it was used as an extra wardrobe.

There are a number of theories as to how "the Street" got its name. One of them derives from the visits which these bachelors used to pay each other, to and fro, up and down the street for games of poker and the like. GG's manuscript even mentions a barmaid from Salisbury who used to spend her holidays visiting the bachelors along the Street. The theory which I favour is more prosaic. As more farms were opened up in the Ayrshire District, after the first World War, the roads servicing them tended to leave the road which Phil Rath had built at right-angles, giving in the end the impression of a suburban road network.

The next leap forward was the opening up of the Dora block of farms, numbered from 1 to 20, each of about six to seven hundred morgen in extent, surveyed in 1927. This was part of a larger exercise involving seven blocks of farms in the Lomagundi, to be taken up by settlers under the Empire Settlement Scheme. Up until then farmers had tended to be men in the mould of Henry Kneiser. What this scheme did was to bring ex-servicemen of the Great War in ever increasing numbers into the district direct from England, after a period of tutelage on farms elsewhere in Southern Rhodesia and with an initial capital of $£ 1200$. These men married, remained and in a generation of toil paved the way for the great leap forward, after the Second World War. Included in these Settlers between the wars were:
A. A. Alger on Tswitsi
W. R. Keevil on Berhills Ranch and Glen Rosa
C. H. Stanger \& G. H. Cautherley on Raffingora
T. B. Minton on Two Rivers Ranch

Capt. R. D. James on Two Rivers Ranch; Kaduna
R. N. Tanner on Two Rivers Ranch, Kuski

Alan Graham on Chaosina
R. A. L. (Dick) Fraser-Mackenzie on Allangrange

Capl. A. M. Spence on Chiwe
Maj. E. Ainslee on Birkdale
G. G. Moore on Fenemere
C. H. Butress on Ndare
C. T. C. Taylor on Nyarapinda
C. H. Moore on Katawa

# J. R. D. Evans \& C. J. Fleming on Mapumulo 

W. W. Laird on Chisanga
W. Fardell \& G. Parnell on Nyarugwe \& Morton
A. Whitfield on Bassett
W. Weir on Mchefu
E. S. Everett on Hovere
H. J. Berry on Royal Bucks
L. R. Q. Henriques on Erehwon
K. J. C. Fox on Mapumulo and Raffingora

In giving you this over-view of the stages in which the district developed, I have had to gloss over the wealth of material which Benedicta Graves has given me and can be found in G. G. Moore's manuscript. To do justice to that, in the time available, I have organized it under various headings and themes. So I must ask you to bear with me if I appear to be jumping forwards and then backwards in time.

## Tobacco and Diversification

Churchill had this to say about tobacco growers in his History of the English Speaking Peoples: "They were not long in developing independence of mind and a sturdy capacity for self government". He was talking of course about the Elizabethan growers of the Virginian leaf. The point he made about the profitability of this new industry in the 17th Century applies equally in the present. What made the Virginia grower a breed apart was his keen eye for the profit margin, which planting, processing and selling the crop taught him. It turned the prosperous planter into a businessman, sometimes into a politician, and eventually into a soldier.

The propensity of tobacco towards conflict between grower and merchant, and the desire of the colonial settler for independence from his motherland, is illustrated by the fate of the first recorded tobacco crop to be planted in this district. The first planting was made between 3 November, 1913 and 24 January, 1914, of 45 acres on "Lone Cow", under the new ownership of the Thorneycreek Ranching Company. This enterprise was the brainchild of J. Arnold Edmonds. Earlier in the year he had convened the inaugural meeting of the West Umvukwes Farmers' and Ranchers' Association, which was also altended by The Hon. John Parker and Tim Parker and Jack Fraser-Mackenzie, all fresh from England and working on "Lone Cow". Doubtless at this first farmers" meeting the prospect of the first tobacco crop to be planted in the district was discussed. In due course, the auction sale scheduled for 6 May, 1914, was keenly awaited. The Rhodesian Tobacco Planters Co-operative Society was formed in preparation for this crop of 1914, in order to develop new markets. In what must have been a heartbreaking experience for those involved, the auction sales had to be called off when only two buyers turned up. Imperial interests, it transpired, were best served by selling the Rhodesian crop to the South African subsidiary of Imperial Tobacco Company, and not to Britain where the leading merchants wished to keep their share of the American crop. In the end most of the tobacco had to be shipped to England and sold to speculators to cover costs and the Co-operative went into liquidation early in 1915.

The war meant that tobacco made a slow start in this district. A discovery made in 1917 over the bar counter at Eldorado was to send many of the farmers prospecting in the hills after the war, in some cases with a healthy profit being earned when claims were sold. What happened was that some pieces of black rock were brought over by Albert Peake to his brother's hotel at Eldorado. There an American mining man happened to see them and identified the ore as being that of chrome of a very high grade. Reports of the extent of the deposit attracted much attention overseas, where a number of new uses for the metal had been found during the World war. It wats even to play a part in Mr Kissinger's intervention in the affairs of this country towards the
end of UDI (Unilateral Declaration of Independence 1965-1979), when the Americans discovered that much of the chrome the Russians were selling could not have come from any mines in the Soviet Union.

In 1923 there were only 9 tobacco barns in the district. In that year the inaugural meeting was held of the Ayrshire Sipolifo Farming Association at the Two Rivers Ranch under the Chairmanship of Capt. Spence. The deliberations at meetings of this Association led to the district being called "Hot Ayrshire". One of the visitors to the district at that time was Major Cameron of the Gatooma Cotton Research Station, who reported that the soil and climate in the district were ideal for that crop. Until the advent of the jassid disease in the late twenties and later when a jassid resistant variety was introduced, cotton was grown successfully, particularly over towards the Hunyani. Private cotton ginneries were established at Two Rivers Ranch on the Maquadzi River by Mr Minton and subsequently by Jack Fraser-MacKenzie on Silater.

As a result of the Empire Settlement Scheme and a tariff concession for Imperial Leaf on the United Kingdom market tobacco growing increased. By 1927 the number of tobacco barns in the district had risen to 52 and it was estimated that this figure would be doubled in 1928. Sales of the 1928 crop, however, were nothing short of a disaster. Grown on light sandy soils, the Rhodesian leaf could not match its Virginian counterpart in the eyes of the British buyers. The Government had to advance to the Tobacco Growers Co-operative one-fifth of the Government's total annual revenue, amounting to some half a million pounds. This was all the growers ever received from the crop and many were ruined.

Until 1933 an air of poverty was to hang over the district. What was to save many farmers and their labourers was the offer made by George Pauling, contracted in 1929 to construct the chrome railway from the main line at Maryland to Kildonan, at the foot of the Umvukwes Range in this district. G. G. Moore was one of the farmers who benefited from the 37 s .6 d . per month per man to farmers who brought their labour to work on the railway line. At the time farmers were paying their labour 12s. 6 d . per ticket and making 25 s . a month on every labourer, so those farmers lived very well.

Another venture undertaken at this time was the removal of the glorious forest of red mahogany on Allangrange Farm, now Yomba, from the banks of the Hunyani, in sawn timber to the railhead at Banker Junction. I have often wondered how "Khaya Nyasica", now only to be found with giant girth in the Chirinda Forest at Mt. Selinda, came to get the popular name "Banket Mahogany". There you have it. This beautiful timber can be found in panelling at Zimbabwe House on the Strand and in the Criminal Court on Samora Machel Avenue.

By the time of the Second World War the system of auction selling in Harare had been successfully reinstated. Between the beginning and the end of that war, production in this country doubled. Men such as The Hon. John Parker, a "lone calt" of 1913, Capt. James who lived for 50 years in the district and Ken Fox and his younger brother, Hubert, who came to this district respectively before and after the Second World War, played an important part on a national level in making our tobacco industry what it is today.

## Farmers' Meetings and Social Affairs

During the period I have been talking about there was no club in this district. The farmers' meeting was about the only regular social venue and they were lively occasions. Initially they were held around the full moon so that the farmers could find their way home. Guy Cautherley, himself one of those farmers and the pioneer of contour ridging in this country, used to send humorous reports to the newspaper in Salisbury of events at and after these farmers meetings. One of them went thus:
"Mr W. R. Keevil of Berhilts Ranch, retuming from a farmers' meeting on a neighbouring farm was caught by a wall of water crossing a small river. Both he and the horse were
washed some way downstream and he was extremely fortunate in getting himself and his horse out safely. When he returned to his farm he is reported as having given his horse half a bottle of brandy. We presume that Mr Keevil himself had a warm bran mash."
The ubiquitous Model "T" Ford was an asset of dubious value in these parts. Because of the gravity feed to the carburettor it had to be reversed across the drifts and low level bridges in order for it to get up the other side. Regarding another incident recalled by G. G. Moore, one wonders whether P. A. C. Raath was engaged in such a manoeuvre when his Model " $T$ " Ford was also washed downstream. The only man who could make a quick get-away was Dick Fraser-Mackenzie of Allangrange. He had a Dodge, which would only move if it had one of his employees attached to the back of it, blowing into the petrol tank.

You will not be surprised to hear that when the farmer took his holiday, fishing and shooting on the Zambezi, the vehicle used was the bicycle, accompanied of course by porters. The women, it seems, would venture no further than the picnics set up at World's View on the Rukovakuona Range where the farmers met up for their hunting expeditions. From there they would proceed to Kanyemba and then up the Mupata Gorge to Chewore and Mana Pools. A great time was had by farmer and his labourer alike.

The lack of a bar in the district led to the establishment of certain customs, which Lionel Henriques of Erehwon Farm (known to his friends as "Liely") recalled in his own rendition of the Ayrshire story. Liely died in 1992. The following story was obviously one of his favourites, so I will read to you from his own words:
"There was an excellent tradition, which unfortunately lapsed many years ago, when a salesman of fertilizer or any other farm requirement could not enter a farm house unaccompanied by a bottle of Scotch. In fact it was customary to demand it before business could be discussed. Travel was slow and travellers would frequently stay for the night, so there was good reason for this excellent little custom. To stress the importance of this commodity, I can remember an occasion when my bottle was "in". I came in at sundown and called to old Joe, who had cooked and cared for me since my first year in the country, to bring the whisky. "There is none. It's finished," said Joe. "Nonsense", I replied or words to that effect. "Bring it at once", but it did not come. I searched in vain and Joe was unpopular, because I was certain that half a bottle remained. Neither threats or entreaty achieved any success. The next day a visitor arrived and at sundown 1 apologised for the absence of the right sustenance. At that moment in walked Joe with the bottle on a tray. "If I had brought it yesterday, there would have been none for the visiting boss", he said. I said nothing."
Liely's neighbour on Nyarapinda was Charles Taylor. Apparently relations were sometimes strained, for Liely reported that Taylor "had been some kind of secret agent in the Middle East and had always retained the subtlety and secrecy of his trade". At parties Charles Taylor was able to perform the astonishing trick of drinking a glass of beer whilst standing on his head. It was on Nyarapinda, where there was a golf course made, that in 1946 the building of Ayrshire Club was first undertaken.

## Modernization and the War

Jack Fraser-Mackenzie, who eventually returned to Scotland, wals one of the more inventive spirits in the district. With the expansion of his farming ventures onto properties in low lying areas near the Hunyani, the loss of oxen to tsetse Hy became a major problem, which he reported to a farmers' meeting in 1924. The native Commissioner, Mr Howman, was sympathetic to his plea and hatched a plan to burn up all the veld between the Hunyani and the Angwa Rivers. This was duly done in September, with some two thousand Africans, forty rifles and


Dick Fraser-Mackenzie on his "Waterloo Boy"

Rivers. This was duly done in September, with some two thousand Africans, forty rifles and some five thousand rounds of ammunition, which were issued with instructions to shoot everything from a rhinoceros to a rabbit. The whole exercise had limited success. With the establishment of his cotton ginnery, Jack Fraser-Mackenzie was able to resort to other means to counter the tsetse fly menace. The cotton gin used electricity, generated by the steam off a boiler. Overhead cables were rigged up for an electric-powered plough. According to G. G. Moore, Fraser-Mackenzie's diary at the time went something like this - Monday . . . cut wood, Tuesday . . . cut wood, Wednesday . . . cut wood, Thursday . . . plough breaks down after a few hours, Friday . . . boiler runs out and back to cutting wood. In the end Jack Fraser-Mackenzie abandoned the idea, but became the first person in the district to own a motor tractor, known as "Waterloo Boy" which was put on display at the Harare Show in 1987.

All in all the task of keeping machinery working was a frustrating one. Liely Henriques in his account described how his first venture as a homespun mechanic, on a gearbox, resulted in his vehicle having one forward gear and three reverse. It should be recorded that his departure from Erehwon Farm and just before the outbreak of war was the result of the sudden death of his young wife, an event not uncommon in this district. It was bereavement of this kind which in 1912 caused Ralph Bliss, the pioneer of "Lone Cow" to abandon farming. During the Second World War airmen training in this country were unable to take up offers of hospitality from this district, because of malaria. A ban was put on visits to Ayrshire. Aerial spraying after the war was to make the district a healthier place.

During the Second World War the Chairman of the Local Manpower Board wass Capt. James, who had seen a generation fall around him in the First World War and had himself been left for dead in "no-man's land". To enlist, farmers had to obtain the permission of this Manpower Board, which apparently was no easy task. In G. G. Moore's case it was achieved only by persuading the Land Bank Manager, at the time of Dunkirk, to turn down his loan application. When GG enlisted, even that was not the end of his problems, for being over 35 years there were restrictions placed on what he could do and where he could go.

At the time of my education in this country, in the battle for hearts and minds which was going on, it was claimed that Rhodesians had flocked to serve the King and as a result were now owed something by the British people. Of course now I realize that the British people owe us nothing, whether it be in connection with the Land Acquisition Act or in the way of financial assistance for resettlement. If today the Government needs evidence of the commitment of the non-indigenous farmer to the future of this country, in order to temper their administration of these matters, I can only point to what happened during the Second World War. In those days, during England's darkest hours, the Englishmen farming in this district and others by and large stayed on the land. Fifty years later we can ask ourselves the question whether this policy was enforced in order to promote the war effort, in production of food and raw materials, or to preserve the farming stock of this country, which at the time was very small in this district. The answer to this question, concerning those who stayed on the land, is that far from being unpatriotic they were exercising that "independence of mind and sturdy capacity for self government" of tobacco growers in the New World, on which Churchill remarked.

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# The Story of Handley Cross <br> by Martin Tracey 

## This is the text of a talk given to the Mashonaland Branch of the Society at Chakari on 19 May 1991.

You have very kindly asked me to tell you the story of Handley Cross as I remember it. The story of Handley Cross to me is the vision of four people for whom I have the most immense regard - my father, my mother, my brother, C. G. and his wife, Wendy.

The saga started a long way back when my father left London Port and my mother Southampton, one from the north of Devon and the other from the south in 1919, and met, after various travelling around, on Gweru station which led to their marriage in 1921. They were married in Rusape on a farm where my father had been a pupil for a year and for their honeymoon they went by ox wagon from Rusape right across to Gutu, crossing the Ruzawi and maybe the Sabi River as well on the way. They saw one white man only the whole time and in Gutu they outspanned on the farm that my father had been granted as a soldier settler. Things were very primitive there; financially it was a bottomless pit and they left there in 1925 to come to Chakari.

1 still have memories of Gutu even though I left there when I was three and a half years old. Something I don't remember, but I remember being told, was that when my father was carving the seat for the P.K., my mother came on him and remarked, "Oh! relief carving!"

And so in 1925, we came up to Chakari and all our worldly possessions were put on the honeymoon ox wagon and were trekked up. Father met the surveyor who was cutting up farms in the area and having looked at the land, asked him if he would carve out what he asked to be called Handiey Cross after the name of the book by Surtees of the last century of which he was very fond. So fond in fact that his nickname was John Jorrocks, the main charracter in Handley Cross.

The bush was so thick that it was impossible to see more than 15 yards in any direction. Much had been cut out by the miners who were around (as this was a gold belt title farm), and they were entitled to cut without payment up to half if not more of the wood on your farm, something that was remedied when the electricity supply commission was brought in around 1938, I think. While father was clearing land, all done by hand with mattocks, and digging a well for us to have water and starting to build, we were staying in two huts lent us by Mr Wheeldon and my father went by bicycle each day to work. The bricks were being made and burnt, and on top of all the other things which he was doing, Father laid a thousand bricks a day on the house to help the builder doing the job. The house site, my mother complained, would have been so much better sited up the slope, but this was not to be because ats I explained Father could not see more than 15 yards in any direction and there were two roads made by wood cutters which had already started to erode and seeing such beautiful soil he could only consent to put the house right in the corner of these two roads - he couldn't waste any of this precious, beautiful soil.

But things were wild. I can remember that tirst year the wild dogs killing a duiker within a hundred yards of the house. The cook with his frying pan and the waiter with his dish cloth over his shoulder came in to report that something terrible had happened outside and my father went out with the riffe but as he came on the site the wild dogs disappeared into the bush and then ringed him in a circle barking but gradually fled. A lion, I can remember, in 1927, killing a miner's ox on the north of the farm.

For all our ploughing and other draft work such as inter-row cultivation of crops, oxen were the means of draft and I used to love those days. I moved off my first span of oxen at the age of two as the men were loading bricks on it and the oxen were resting, standing in the yokes. I picked up the whip and must have made some blood curdling sound and off they moved to everyone's dismay. In 1927, at the height of the tobacco boom, my father, who was go-ahead, bought a Fordson tractor but that didn't last very long because the tobacco boom didn't last very long either. We had no modern practices, no herbicides, no pesticides, yields were poor, tobacco was grown on virgin red soil but after that it was too powerful to provide the bright tobacco required and was followed by maize and cotton.

The Empire Corporation in Gatooma, or Kadoma as it is now, was providing new strains of cotton and helping us in growing the crop but the termites were a real problem eating the roots and of course there were no pesticides so the boll worm had a heyday. Maize was 10 shillings a bag when the Maize Control Board came in and that was for the local crop but everyone had quota and after that anything went into the export market and got what it could fetch. Green manure was grown once every fourth year and later on more frequently to rejuvenate the soil and provide the nitrogen which nowadays we get in bags. Very little fertilizer was used - those were the days of relatively subsistence farming.

I can remember the people whose names you could conjure with - John Digby, Frank Crackanthorpe, John Kemple - I remember a policeman who used to play polo one a side on the police square in Chakari with a Mr Atkinson who was the manager of Chevy Chase Farm.

These men were as I say a legend in their own time. I can remember Frank Crackanthorpe going into Gatooma doing what he needed to do and coming home again 22 miles and when he got home finding his wife wasn't there. He had left her in Gatooma - he was always very absent minded. He had to go back and get her, but she didn't forget that in a hurry and it cost him a trip to England for her.

There was very little in the way of health care in those days. There was a hospital in Gatooma but it wasn't suitable for maternity cases and the people got together and decided that they must put their hands into their pockets and build what became the Queen Mary Maternity Home. My father was instrumental in the organization of getting it going and I remember hearing of him speaking at a meeting in Gatooma to raise funds and saying that they weren't wanting handouts from the government but they were prepared to pay and obviously the best way was COD - Cash On Delivery!

They were, as Monica said, relying on themselves for their own entertainment and they often got up to pranks. I can remember my father telling Frank Crackanthorpe of what he had heard somebody do - when receiving an account from a doctor he had sent a letter back saying, "Dear Mr So and So, Enclosed please find my cheque for " $x$ " pounds - I can't." Frank Crackanthorpe was highly tickled with this and I believe that he sent Mr Huggins a letter like that and got al receipt!

In 1929 the slump came and hit everything badly and the managers who had been employed couldn't be supported any longer. Father sold the scrub cattle he had and bought dairy cows and went in for darirying, producing the cream cheese which under the name of Handley Cross was known throughout the country, supplied to the railways for their restaurant cars and up into Northern Rhodesia too. He received a salary then for the sum of $£ 15$ a month from the partnership of Digby and Tracey. With $£ 5$ a month my mother fed and clothed the family and the other $£ 10$ she put into the post office savings bank for us children, which we received in due course. I haven't been able to look a sweet potato very kindly in the eye since then, but that was the way it was.

Father and Mother worked terribly hard to make it possible for us to take over the farms in due course. From 1928 until 1943 Father wrote a weekly farming article of about 1000 words
in the Herald under the title of Farming Whys and Wherefores using as his nom de plume, Sikereri, the name which he was given by the Africans almost as soon as he arrived in the country, meaning the man who laughs. A humorist said that the articles were written by Sick and Weary, but father was neither sick nor weary.

The area was noted for malaria; we children had a tablespoon of liquid quinine every night but this didn't stop me getting malaria I don't know how many times in 1929, somewhere round 12 times during the year, and what Kingsley Fairbridge called the great grey thief was a very real menace. We had one manager die of black water fever which is the consequence of neglected malaria and so at great cost my parents sent me to Ruzawi School in 1930 at the tender age of seven and three quarters and in that more temperate climate I didn't get malaria again for many years.

I was very grateful for Ruzawi. I learnt no more Latin than I learnt at Ruzawi by the time I did what nowadays is called "O" levels in an English school.

The roads were very rudimentary to say the least of it. R. W. Taylor who was one of the transporters in those days and who had oxen, got somebody to light a colossal bonfire at Chakari and decided to set out in that direction cutting a road through. But as you may well know if you come the Glasgow road today, it was far from straight. The Road Council came into being some time in about 1930 and maybe earlier. It was a small gang with a European supervisor, using scotch carts and shovels to carry gravel to put on the roads and they gradually got to building bridges where before there were drifts. I can remember, before there was a bridge at the Mswenzi River, the old Model-T Ford going down into the drift and up the other side and couldn't make it so Father had to back down again to get another run at it and of course not knowing the whole business of it, I remember pushing the back seat for all I was worth to help Father get that car up out of the steep drift! But they built these bridges; you can't see them now, although they are still there, because there is the high level bridge but if you stop on the high level bridge you can see it.

The post delivery was daily except for Sunday. Two black people set out on bicycles, one from Chakari and the other from Gatooma each day, crossed and came on through all weather even if they had to swim the rivers and we had a daily post delivery at Chakari, much more effective and on time than nowadays. When we were in England in 1927 for the birth of my sister, my father felt he had better do something about the furniture which up till then had been largely petrol boxes with shelves put into them and a bit of material as a curtain to cover it and he bought Mother a chest of drawers which remained with her for the rest of her days. He sent the driver with the scotch card to go and collect it in Gatooma but when he came out and wanted to get home and found the Chakari River was in flood he thought "That's too bad; we will cross". And he drove the oxen in but when he found them swimming and the cart going downstream he cut the neck-strops and let the oxen free and the cart went downstream. But Father retrieved it when the flood had subsided, a few hundred yards down, and the chest of drawers didn't seem much the worse for wear.

We were surrounded by small workers as Monica will have already told you. There were so many of them around and they were actually the bane of our lives, cutting out the wood, and when one wagon track got eroded they made one next door. The Mabel's Luck mine just off the corner of the farm is just a collapsed working but before the First World War three brothers brought a quarter of a million pounds worth of gold out of that mine, but they died penniless. They put it into other properties and they were most of them gamblers. Only Charlie Wheeldon banked his money and died without being broke. Plagis, the Greek shopkeeper of Chakari, fossicking around in one of the road pits just off the farm on the road between Chakari and Hartley, now Chegutu, stumbled upon visible gold in the gravel and he immediately went and registered the claim and paid the road council to make a deviation so that he could collect the


Threshing sunhemp


Handley Cross house, 1930?


Barns, circa 1926


Chevrolet truck, 1935/36
gravel off the road and put it through the mill and get the gold. That was in about 1932 or 1933 and I can remember the Times Weekly having a very brief news item, "Chakari's Streets Paved with Gold".

The Times was, except for the weekly Herald, our only form of information from the outside world; there was no radio or TV and it was a challenge to get the weekly crossword puzzle done before the next one came the following week.

These miners were a tough lot; I can remember Dr Mackenzie telling of three miners in the Chakari area who, when they got a bit liquored up in the evening, used to shoot off at the next man's camptire, but they were honour bound not to return it direct. You shot at the third one, so that it was a triangular shoot out. I don't quite know when it stopped. Nobody ever got wounded or killed.

We were isolated. Down at Gutu which was even more isolated, things were on barter. I can remember Father buying three cows for a pony or the other way round and selling the pony for three cows and I can remember Father telling me how they used to spend the evening sometimes concocting menus of anything except chicken because chicken was the only form of meat that they could manage having grown it themselves. When we were here at Handley Cross there used to be a monthly excursion to Gatooma to do the shopping for the month. I can remember Anglo African Stores there and Father saying to me, "I am going to Wragg, are you going to come with me or are you going to stay in the Model-T Ford?" and not knowing that Wragg was the chemist I thought he was going in for a bit of joisting, so I decided to stay in the car! It was only years later that I discovered that it wasn't Rag but Wragg. Campbell's Grocery Shop used to send out a three ton lorry with groceries once a month also and I can remember a Mr Balsam coming out with a pencil behind his ear and taking the orders for the next month. We coped.

The parson used to come out from Gatooma once a month and hold a service on a Sunday in the morning, matins, morning prayer in a rotation of farm houses but in 1932 by general consent Father was asked if he would turn over one of the houses, vacated as a result of the slump, and this was converted into a chapel, a two roomed house, the one half of which was the sanctuary, the other half for the congregation, and you had to look through an archway to see what was going on on the other side. This was burnt in a veld fire and in 1934 Father built a small chapel which was dedicated in 1934 by Bishop Paget and I was confirmed at the same time but in 1960 after those 26 years, my father remarked that it was rather too well ventilated - the termites had eaten the ridge away and in rainy weather you had to set a little bit to one side or the other if you didn't want to get wet. So we pulled that old chapel down and built the present chapel in 1960 and weekly services have been held there for some years now.

Handley cross became famous for other things. When C. G. took over in 1946 the pig herd became very famous right through from South Africa up to Kenya.

The rain was a doubtful factor in many years; our average is 27 inches but we have had it as low as 13 and as high as 54 inches in one season, and $C$. G. with his usual impetus and drive got the Suri Suri Dam built. Dalny was in a very precarious situation for water and it was then the biggest gold mine in the country and they needed the water. Golden Valley said they could do without so C . G. got the scheme going out of limbo and some of the remaining water that the Dalny did not get was shared amongst other farmers around, but C. G. got the lion's share and reticulated the whole arable area of Handley Cross, some 400 hectares I should think, and was able to irrigate when the Suri Suri was full, but it didn't always get full.
C. G. built a primary school on the farm and the workers' compound was extratordinary by standards of those days with electric light provided, water laid on.

Father's ideal had always been the development of the environment and he did as much as he could with the very limited means available to him. He took Dean Swift's maxim very much
to heart, which was: "The man who can make two blades of grass grow where only one grew before is worth more to mankind than the whole race of politicians put together." Father was very gratified to see the degree of development that C. G. had made after he had handed the farm over to him in 1946. He was envious of the means available to him, means which were not available to my father, but he was very gratified to see this before he died in 1971. C. G. continued to develop the farm so that by the time he sold it in 1985 there was not an acre of Handley Cross that was not fully developed. C. G. and Wendy brought to fruition and fulfilment the vision that had been Father's from the beginning. So that is the bare bones of the saga of Handley Cross. Thank you for listening to me and for asking me to share this with you. It has been a great pleasure and as I said at the very beginning, the vision of Handley cross was the vision of four people for whom I have the very highest regard, my father, my mother, my brother C. G. and his wife Wendy.

Mr Rhodes was always quoted as saying that the most important part was in the postscript of his letters and I have forgotten two things. One was that C. G. was always impetuous, ahead of events, and that was the case right from the start when three weeks before he was due he appeared on the farm at Gutu with my father having to deliver him. The doctor arrived the next day and said, "A good job done" and left him to it but, when my sister was coming, Father said, "Not again" and sent my mother and us off to England for the baby to be born in the lap of luxury in London.

The other thing which was very much part of things in those days was rivers which would come up and you couldn't get through and I can remember weeping bitter tears during the first exeat weekend at Ruzawi when Father and Mother couldn't come and see me because the Mswenzi and the Suri Suri were up and were not fordable and this was a maxim which I learnt from Father, and of course he was quoting from the Pioneers: "Always outspan on the other side of the river." At certain times of the year it might come up overnight and you would repent at leisure, waiting for days for it to go down, whereas if you had outspanned on the other side of the river then you would be able to go on until you got to the next river and (often in the breach) that has been a maxim that I have tried to maintain myself.

# A Dam on the Zambezi 

by J. W. H. Moore

## This article, containing detailed background on the history of Lake Kariba, was first published in National Archives Occasional Papers No. 1, 1965, and is reproduced below with the approval of the Director of the National Archives of Zimbabwe.

The building of the Kariba Dam is an epic of our time, but the story began long before the struggle with the Zambezi, 2000 miles in length and eighteenth in a list of the earth's major rivers, engaged world-wide attention in the mid-1950s. It is the purpose of this paper to show what the documentary sources reveal of the original ideas for using the river, and to draw together a connected account of progress toward the final project. Possibilities for making use of the Zambezi have pre-occupied Rhodesians almost from the beginning of settlement and attention seems always to have been focused mainly on the gorge at Kariba, which left strong impressions on its early visitors. Wild, mysterious, one of nature's inviolate vastnesses, home of the River God, notorious, dreaded, impassable, are the terms used in their brief and conflicting references.

Mention of Kariba seems first to have appeared a hundred years ago in David and Charles Livingstone's The Zamhesi and its Trihutaries published in 1865, though Livingstone may have described Kariba to the Royal Geographical Society in 1864. It was in 1860 that Livingstone passed through in hired canoes, where a century later the Queen Mother was to touch a lever setting in motion giant hydro-electric turbines. Writing to Lord John Russell, Livingstone records that "at Kariba there is a basaltic dyke stretched across the stream like an artificial dam, but it has a wide opening in it, dangerous only for canoes. The river is then narrow and deep, flowing for several miles through a range of lofty mountains".' It was on 20 th October, 1860, that Livingstone took the "considerable risk" of shooting these rapids and notes without emotion: "Went on three hours through the gorge. ... Wind rose and entered the gorge with great force ... waved half-filled my canoe and swamped Charley's, but being near shore nothing was lost." ${ }^{\text {" }}$

Kariba is nex1 mentioned by Selous, the hunter, who reached it in 1877 after at trek along the north bank of the Zambezi from the Victoria Falls: "The river Sanyati empties itself into the Zambesi from the south just at the western entrance to Kariba Gorge. ... The breadth of the Zambesi where it runs through the narrow gorge of Kariba, in many places cannot be more than sixty yards, narrower than at any other place I had yet seen." ${ }^{3}$ Fifteen years later a Mr William Keppel Stier, who examined in 1891 the possibility of a railway along the Zambezi valley to connect the navigable stretches of the river, wrote in a report dated 2nd February, 1892, as follows: "On the morning of 5 October, 1891, I left 'Junga's Kraal' near the Sanyati River junction and proceeded in a NNE direction up a valley rising gradually for nineteen miles through the 'Gwegee Hills'. This brought me on to an immense plateatu running NNE and SSE. This plateau I take to be the material supplying the Sanyati River in the west and the numerous rivers that run into the Zambezi on the NE." Mr Stier continued: "It is erroneous to suppose that the large triangular extent of country, bounded on the west by the Sanyati, on the north by the Zambesi, and on the east by the Misket mountains, to be a vast flat as shown on maps of the country. On the south of the Zambesi", he went on, "for forty or fifty miles, high mountains are met with, while to the east of the plateau from the Hulungwe Hills as far as the eye can reach the mountains are immense and the native paths through them both dilficult and dangerous to


Upstream entrance to the Kariba gorge seen from the promontory at the confluence of the Sanyati and Zambeai rivers
(National Archives of Zimbabure)


Kariba gorge at the proposed dam site looking upstream, 1956
(National Archires of Zimbabure)
pass over". He had evidently contemplated doing his journey by boat for he added: "Had the Sanyati River proved navigable, an obstacle in the shape of the Kariba Gorge would have been met with. This gorge is impassable for boats."

Nevertheless a bare six years after Stier had vouchsafed his opinion an expedition under the leadership of Major A. St. H. Gibbons of the East Yorkshire Regiment forced its way up the Zambezi and through the Kariba Gorge in a launch. A member of the expedition, James Stevenson-Hamilton, notes in his diary on 12th November, 1898 . . "We were rapidly approaching the dreaded Kariba Gorge". ${ }^{5}$ Eleven days later they were through it after a dogged struggle which has been described as not easily matched in the annals of African exploration. There is evidence in Major Gibbons's account of some confusion about the names of the Zambezi gorges." He suggests that the Mpata Gorge above Zumbo is "Livingstone's Kariba".? During the same year a land party made its way to the gorge to survey a possible crossing for a transcontinental railway, which was part of Cecil Rhodes's Cape to Cairo scheme.. The route was of course later abandoned in favour of the line through the Wankie coalfield crossing the Zambezi at the Victoria Falls. Five years later, in 1903, H. de Laessoe made a boat journey of exploration down the Zambezi from the Victoria Falls to Chinde. He notes that the "notorious gorge" had a local reputation for being not only dangerous, but quite impassable." So he had his entire outfit carried round the bar of rocks at the top, but later experience - the Kebrabasa rapids - convinced him that he should not have hesitated to take the boats and cargo through the supposedly impassable place. "The Kariba Gorge", he goes on, "does not present any unusual feature, with the exception of the basaltic dyke which crosses the river at the top end of the gorge and forms the rapid".
A. J. C. Molyneux visited the gorge in 1912. ${ }^{10}$ A member of the Victoria Column under Major Allan Wilson in 1893, Molyneux was a geologist, one of the first to set foot in Bulawayo, and to work on the mapping of Rhodesia. He was associated with the discovery of coal at Tuli and also of the Sengwe deposits. " Appointed to the Geological Survey Department in 1918, he carried out a geological survey of Lomagundi west of Sinoia. ${ }^{12}$ Molyneux died in 1920 and as a fellow of the Royal Geographical Society he received an appreciative obituary in the Geographical Journal. ${ }^{13}$ While no account of his visit to Kariba in 1912 is available, he mentions the gorge in a comprehensive paper on the physical history of the Victoria Falls in the Geographical Journal of 1905, where he puts forward for the first time the theory that the "combination of canon, gorge, chasm and falls is due to the ever reducing action of moving water eating back with relentless energy year by year and age after age". ${ }^{1+}$ Writing of the middle reach of the river, from the Kebrabasa rapids to the lower end of the Victoria Falls canon, he relates: "Parts of this are of great beauty, peaceful and enticing, fringed by a narrow belt of dark and shady trees, the bank cultivated in terraces by the lotus-eating natives, with water teeming with fish, and which still afford undisturbed retreats for hippopotamus. In places, however, the stream Hows with a furious current through narrow and gloomy gorges, including the Kariba, formed by its passage through a range alt the junction of the Sanyati."

The area so vividly described by Stier in 1892 was, of course, northern Lomagundi, the country stretching beyond the present town of Sinoia to the Zambezi. It was after the appearance of the Matabele in Mashonaland that a chief, Chinoya, built his village near the great cave so well known to present-day tourists. Chinoya successfully resisted all the Matabele attacks upon this stronghold. Early settlers had begun prospecting and mining in this area which was the scene of considerable trouble during the Rebellion, and Imperial troops were put into the area in 1896, occupying Fort Lomagundi. After their departure from Rhodesia the country's police force was reorganized and in the course of this a permanent post was opened at what is now Sinoia. For some years Sinoia remained isolated and remote on the settlers' frontier. Serious farming did not begin until 1905. Old newspapers reveal that a political meeting was held there


Bush clearing, Kariba basin: 2 tractors with anchor chain between them, October 1958
(Netional Archires of Zinhabwe)


Bush clearing, Kariba basin: Euclid tractor pushing trees into rows, October 1958
(Namonal Archines of Zimholowe)
in 1911, early evidence of residential occupation, but in 1914 it became the railhead of the present line which evolved from a narrow-gauge track between Salisbury and the Ayrshire mine. ${ }^{15}$ In 1914 a village management board was established at Sinoia; farming was increasing but settlement did not extend beyond the Angwa River, 40 miles away. Communications were severely limited, though rough roads connected farms and mines and it was possible to travel by some sort of road as far north as Urungwe. Beyond, the wilderness could have been described as "unknown parts" as were the great blanks on Cary's early nineteenth-century map of the African continent. Fourteen years later there were discussions with the Northern Rhodesia Government on the possibility of a road from Miami to cross the Zambezi valley and meet a road from Mazabuka in Northern Rhodesia at or near Kariba. Some opinions held that it would have considerable tourist potential, but the main conclusion seemed to be that there was no traffic to justify the expense. Another scheme was for a route from Sipolilo to Feira, but it was thought that the country to be traversed was too rough. ${ }^{1 / 4}$ Today, a broad tarmac highway cuts down to the Zambezi, over the splendid Otto Beit suspension bridge and on up the escarpment to Lusaka and the Zambian copperbelt. Prosperous farms extend to the edge of the southern escarpment and among the "immense mountains" described by Stier lies Lake Kariba, where tourists' launches play the waters for bream and tiger fish.

Some 50 fathoms down lies the drowned valley of the middle Zambezi where 51 years ago, in August, 1914, Mr H. N. Hemans, Native Commissioner of the Sebungwe District had just learned that Britain and Germany had begun the Great War. ${ }^{17}$ Hemans was journeying down the Zambezi valley visiting his African chiefs and was intent on seeing the Kariba Gorge. During his journey he had shot at rhino, kudu, elephant and herds of buffalo, little dreaming that their successors would one day have to be rescued, struggling in the rising waters that were engulting their age-long environment. He writes feelingly of this portion of the Zambezi. "N "None but government officials", he says, "whose districts border it on either side, a missionary stationed in Northern Rhodesia and hippo hunters ever find their way there where nature is untouched and unspoiled by civilization." Words failed him to described the variety of scenery, of birds and game life and "the moods of this mighty river in sunshine and storm and at all stages of the twenty four hours of the day". He recalls that he was a policeman escorting the transcontinental railway survey party of 1898 , but the road they had laboriously opened up proved to be barred by mountains so that the wagons could not proceed. The "big bugs" went on but he had to wait behind with the wagons until they returned; but now in 1914 he did reach the gorge. He crossed the Sanyati on foot and made his way down the gorge as far as he could, but was not able to make much progress on account of the steep and rocky nature of the bank. His account noted that the Zambezi above the gorge was half to three quarters of a mile wide and flowed at its normal place, but its waters became more and more contined in the narrowing channel: "It pours through the narrow opening and finally enters the gorge itself through which it passes, racing and roaring, throwing its spray into the air, determined to reach a broader channel as soon as it can." Either Hemans had never read The Zambesi and its Tributaries or he had forgotten it, for he considered that the depth of the river channel had never been determined "ass no human being has ever ventured on its surface". ${ }^{19}$ On 28th August, 1914, he turned inland to return to his station at Gokwe. While Hemans had been working along the banks of the river another expedition, which included an irrigation engineer, had come from Sinoia to look at the gorge and was even then many miles down stream where the Kafue pours in its waters from the vast swamps and flood plains of the north.

In the previous year, 1913, the British South Africa Company had begun a serious survey for a railway line from Sinoia to Kafue, crossing the Zambezi at Kariba. ${ }^{14}$ At this time the Land Settlement Department was interested in developing and setting land along the proposed line of rail and in the possibility of growing crops under irrigation at Kariba. In a letter dated 9th

August, 1912, to Mr C. R. MacGregor, ${ }^{21}$ manager of the Rhodesian Cotton Company's estates at Villa Machado in Mozambique, the Director of Land Settlement requested information of growing crops under irrigation. "There is a considerable tract of land", he wrote, "(at least 20 square miles) on the Zambesi in the Northern Lomagundi District. This land is rich alluvial soil and could be irrigated by pumping from the river." In a letter to the Director of Agriculture on the possibilities of the Zambezi and Sabi rivers the Director of Land Settlement suggested that in the former case the railway, if taken north to the Kafue bridge, would provide transport for produce. ${ }^{22}$ Mr H. S. Keigwin, Native Commissioner at Sinoia, in an enthusiastic reply to an inquiry for information, ${ }^{23}$ volunteered that those stretches close to the river could easily be irrigated by pumping, but in a place like the Nyaodsa delta, irrigation by damming seemed the more natural process - an attractive proposition to the irrigation expert. He goes on: "The damming of the Zambesi at the Kariba Gorge . . . presents a scheme for irrigating the valley which would fire the imagination of a Willcocks. ${ }^{י 24}$ An inquiry addressed to Lieut. C. L. Tribe, a sub-inspector of the British South Africa Police at Sinoia, brought a reply regretting that he could not supply more information because "I have never considered the Zambesi valley in this district as a place where the cultivation of the soil might be carried out". ${ }^{25}$ Sub-inspector G. J. Thornton at Belingwe, who had done some mapping of the area, was of the opinion that by far the greater part of the Zambezi valley was quite unsuitable for cultivation. ${ }^{26}$

It is therefore not surprising that on 23rd June, 1913, Mr Martin Randall, recently appointed Irrigation Engineer to the Land Settlement Department, wrote: "A rapid reconnaissance of the Kariba Gorge neighbourhood would, I think, settle the question of irrigation possibilities". ${ }^{27}$ By April, 1914, the Commercial Representative of the British South Africa Company, Mr Percy Inskipp, was writing to the Director of Land Settlement: "The Zambesi expedition ought to start at the beginning of June." ${ }^{\text {² }}$ In May it was decided that MacGregor should accompany the expedition to Kariba because of his knowledge and experience of tropical agriculture, and the plan took shape. Randall and MacGregor were to investigate the irrigation and planting points of view respectively, acconspanied by Mr C. H. Howell, Land Inspector at Sinoia. On the 16th June the Commercial Representative cabled that the expedition was to be delayed pending the arrival of Lieut. Colonel The Hon. Everard Baring and Sir Charles Metcalfe who intended visiting Kariba in connection with the proposed railway extension from Sinoia to Kafue. ${ }^{[17}$ It then transpired that Randall was required elsewhere so that the expedition would be unable to start before the beginning of August. It was emphasized that an early start was necessary on account of the great heat of the Zambezi valley in September and the following months. On 21st June the Board of the British South Africa Company in London was cabled that arrangements were being made for the expedition in early August. Correspondence in the Land Settlement Department file reveals a number of interesting items in the arrangements and provides a useful picture of the times. ${ }^{310}$ There were several snags and delays before the expedition finally got under way on 14th August.

On 4th July Howell had written from Sinoia to his Director detailing his plans for the expedition. Keigwin was to provide 100 carriers, with 30 bags of meal for food and 1.5 bags for mules, to be at Urungwe by 31st July. Of the 100 carriers, 50 would come on to Sinoia and be in readiness to carry the outfit to Urungwe if necessary and the remaining 50 would wait for the expedition at Urungwe. Howell suggested three methods of transport. The first method required the firm of Elcombe to provide all except five riding mules, comprising an ambulance with eight mules, a buckboard with six mules and a trolley with eight mules. The cost would be $£ 5$ per day, totalling about $£ 150$ for the journey to Urungwe and back. ${ }^{31}$ In the second method, the carriers could carry the outlit to Urungwe while Randall and MacGregor went ahead in Howell's ambulance, the carriers taking the five riding mules, to wait at Urungwe. Sir Charles Metcalfe, Baring and Howell would follow three days later by motor. "Mr Keigwin is sure that the road
is alright for a car." This method would cost $£ 100$ less than the first method. By the third method transport would be supplied by Major Masterman, the Controller of the Defence Force. No wheeled transport could be taken beyond Urungwe so that it would be idle while the expedition was in the valley, about three weeks. Howell wondered whether Metcalfe and Baring would ride mules. If they required machilas, these would have to be provided and more bearers engaged. He presumed a boat would be of service to enable the party to inspect areas which appeared to be suitable for irrigation on the north bank of the Zambezi. The Native Department boat was unsafe but he thought one could be hired from a Greek at the Kafue confluence. Howell considered that his ambulance should accompany them to Urungwe in case of breakdown of the motor car or in case one of the party became ill and had to be sent back to Sinoia.

Then on 15 th July, Howell was instructed to come to Salisbury to purchase, pack and dispatch supplies for the expedition and was told by the Acting Director of Land Settlement, Frank Inskipp, to adopt the second of his suggested methods of transport. He was given entire charge of the expedition to make all purchases and arrangements. A motor car would be supplied by the Controller of Defence to go to Urungwe and return and then be sent back again at a given date to fetch the party from Urungwe. His ambulance was to go ahead to Urungwe with Randall and MacGregor and wait there until he returned. He was also authorized to use his discretion about the hire of a boat. Two machilas were to be taken in case of any sickness when the expedition was beyond Urungwe. Lord Winchester and his party were due to leave Cape Town on 30th July. ${ }^{32}$

On 28th July a telegram brought the news that Baring would not be accompanying the expedition after all. The Director of Land Settlement then inquired whether Lord Winchester would take part and was informed that he would not. The name of Winchester makes rare appearance among documents and some digression from the main theme at this point is not without interest, nor is it entirely irrelevant.

The Marquess of Winchester, as Lord Henry Paulet, having travelled 10 South Africa in 1891 with the intention of restoring the family fortunes, was associated with the British South Africa Company from the beginning. He appears to have taken an active and varied part in its affairs, becoming a Director in 1906. He brought up the question of closer land settlement in 1912 and in a memorandum to the Board ${ }^{33}$ he concluded that the important point to be considered was the man under whose supervision the work would be placed in Rhodesia, so that no promises should be made to settlers which could not be immediately and amply made good upon their arrival in the country. Lord Winchester seems to have been greatly concerned with personalities. He had a sincere liking and uncritical admiration for Dr Jameson, who apparently pressed him without avail to become President of the Company in 1913. But he did not like Rochfort Maguire on whom, he states in his apologia, the Duke of Abercorn almost entirely relied for advice. ${ }^{3+}$ Maguire, it seems, did not favour the subsequent presidency of Jameson because of his part in the Jameson Raid. Lord Winchester avers that when he asked Jameson if Maguire had any previous knowledge of it Jameson replied: "The dog . . . he was present at the Burlington Hotel when every discussion on the subject was held and knew every move." ${ }^{3}$ Winchester came very much under the spell of Rhodes, in whose company he had travelled on occasions, and was well acquainted with many other prominent figures of Rhodesia's early days. Born in 1862, he succeeded to the title, England's premier Marquis, on the death of his brother in action at Magersfontein in 1899. He returned to England in 1914 to take part in the war. Close association with Clarence Hatry brought him ignominy when that gentleman's adventurous activities in London financial circles could no longer be concealed. The Marquis, stripped of his property and bankrupt, withdrew in 1930 , accompanied by a faithful chauffeur, to an obscure property in France where he died in 1962 , having married at the age of 90 his third wife, a daughter of the Parsee High Priest of Bombay.


Aerial view showing dam site with coffer dam foundations in the left foreground hooking downstream, August 1956
(Nethomal Archives of"Kinholbwe)


Aerial view slowing the lirst coffer dam, nearing completion, 1956


An ancestor, the Sixth Marquis and First Duke of Bolton, was said to have "had the spleen to a high degree" and affected an extravagant behavior. It is reported that for many weeks he would not open his mouth till such an hour of the day as he thought the air was pure. It would be wrong to suppose, however, that Lord Winchester's non-participation in this expedition to Kariba in 1914 may have been due to some inherited fear of bad air in the Zambezi valley, He had visited Lobengula and ridden the length and breath of Rhodesia on various other missions for Jameson and the company. He knew the lonely places and had in fact been to Kariba during a journey to investigate coal deposits. ${ }^{36}$

By 31st July, 1914, arrangements for Howell's expedition were complete and it only awaited the arrival of Sir Charles Metcalf. Meanwhile Howell had made a reconnaissance from Sinoia to Urungwe and into the country to the north. On 23rd July he left by car for Urungwe and found the road for 65 miles to be quite good. Then two roads led to Urungwe. Howell followed one which had been "scuffled" for Mr Keigwin's motor cycle but it proved in many places to be only three feet wide. Travelling over very difficult country he finished the last eight miles in the dark. The return over the other route proved excellent going and Howell saw no reason why the Directors should not go by car. ${ }^{37}$ By 4th August the Acting Director of Land Settlement was obliged to inform the Controller of Defence that the mules supplied had been withdrawn from Sinoia under the impression that they were no longer needed, and requested their early return. On 14th August the expedition got under way, the party consisting of Metcalfe, Howell, Randall and MacGregor. They waited a day at Urungwe for a Mr Banks ${ }^{3 \times}$ to return from Kariba and left on 18th August according to Randall, ${ }^{39}$ and on the 19th according to Howell. ${ }^{4 \prime}$

Riding mules, they passed due west through very rough and broken country, by way of the Katsiga, the Tsororo and the Nyaodsa rivers to reach Kariba on 22nd August. They camped for two days where the railway had been surveyed to cross the Zambezi. Of the Tsororo River Randall reported: "It runs through a narrow gorge flanked by very high kopjes marching with the river. ${ }^{n+1}$ For ruggedness he doubted whether the locality could be surpassed anywhere in southern Africa. With MacGregor he crossed over to the north bank of the Zambezi and inspected land about two miles above the Sanyati confluence. They found about 500 acres suitable for irrigation under the range of hills across which the proposed railway to Kafue would have its route. In all MacGregor thought that some 2000 acres immediately above the gorge were eminently suitable for irrigation. This land is of course today inundated by the waters of Lake Kariba, as is also the land along the Nyanyana River which the party followed on 24th August as they began to make their way down the gorge. Randall's report is enthusiastic about this area, visualizing storage dams among the kloofs, but the some what dour MacGregor was much less sanguine. Randall, in fact, thought up to 10000 acres might be irrigated. It was Mopane forest but the soil was not the ordinary light, poor variety usually met with in such conditions. A soil sample taken showed more than average properties necessary for cultivation. Randall's report is marked in pencil "Superseded", so it is possible that Randall's enthusiasm evaporated a little after reflection. ${ }^{12}$ As the party progressed down the valley they passed through a small range called "Churundu" and reached the Kafue confluence on 28th August. Strong winds at first prevented a crossing of that wide reach of the Zambezi but later, on the left bank of the Kafue to the north-east, they found land suitable for irrigating tobacco, cotton and maize, but too light for sugar. On the south bank of the Zambezi in this area there are now the considerable acreages of the Chirundu Sugar Estates. The expedition reached the Rekomitje River on 30th August and proceeded up it for eight miles to Dandawa's village. Here Randall and MacGregor left the party in order to carry on down the Zambezi to Feira.

Metcalfe and Howell left Dandawa's on the following day to return to Sinoia, continuing their way up the Rekomitje River. They saw many thousands of acres of rich alluvial flats along


Coffer dam foundations, December 1955
(National Archives of Zimhabwe)


Kariba hydroe electrle scheme:
General view of second stage coffer dam works from downstream, October 1957
(National Archives of Zimbabue)
both banks of sufficient depth and texture for irrigation. ${ }^{43}$ On Ist September they reached the foot of the Zambezi escarpment where the Rekomitje River comes out of the hills from Urungwe. During the following two days Sir Charles and his companion continued westward under the escarpment for some 18 miles and considered that good agricultural land continued. They began to climb the escurpment here and on 3 rd September, at 3 pm , reached Urungwe. On 7th September they were at Sinoia and Sir Charles returned to Salisbury on the 9 th. On this date Howell received a wire from MacGregor at Zumbo reporting that Randall was ill and the mules had been lost. ${ }^{44}$ In his report on the expedition, ${ }^{48}$ MacGregor recorded that the mules were never recovered - eventually they turned up at Sinoia on their own - and the party had to cover the remainder of the journey, a distance of 200 miles, on foot. He notes: "Lions were specially numerous in this district, and how the mules, hobbled as they were, managed to evade these and cover the distance to Sinoia, will ever remain a mystery to me." A telegram was received in the Lands Office from Sinoia on 21st September stating: "Mules which strayed from Randall brought here by natives." It is marked enthusiastically "Good!" in red pencil.

Randall's report reveals that he became ill with fever on 2nd September and it was then that the mules strayed away. He and MacGregor travelled in a dug-out canoe on the river down to Fiera on 6th September in a temperature of $104^{\circ} \mathrm{F}$., und Randall spent from the 7 th to 11 th September in bed at Feift attended by Dr Walluce of the Rhodesia Native Labour Board. They left for Sipolilo on 12th September.

Randall recorded his opinion that there was less arable alluvial land on the Zambezi banks than one would expect for such a large river draining vast areas of fertile plateau. He thought development would be of a slow order and suggested the opening of experimental stations on tracts immediately above and below the Kariba Gorge and near the proposed railway route. Any works involving the diversion of a portion of the Zambezi from its course would be likely to be of a costly nature and should not be attempted unless a big area of land could be irrigated with certain prospect of success. Reporting to the company, the Acting Director of Land Settlement said that the soil samples indicated that land in the neighborhood of Kuriba Gorge ranked among the best ureas inspected during the tour, a particularly fortunate circumstance as it would be traversed by the railway when the proposed extension was completed. Although the Irrigation Engineer had reported that the Zambezi was not navigable through the gorge, it seemed feasible to construct a short branch line from Kariba to Nyamunga where the river again became naviguble and to where produce could be brought by boats from irrigation areas lying between Nyamunga and the Mpata Gorge, including the irrigable lands at the Kafue contluence. ${ }^{\text {th }}$ In reply, ${ }^{47}$ the Board considered that this information would be of great value if and when circumstances permitted the railway extension. Though the question was discussed several times during the years the railway never came. But a massive dam was built, doubtless far surpassing anything that was envisaged at the time, and the water provides power for farming, industry, mining und civilized living over the great territories on both sides of the river.

As far buek as 1901 the Zumbezi hud been considered as a source of hydro-electric power when the African Concessions Syndicute Ltd. secured a grant from the British South Africu Compuny for the use for 75 yeurs of the wuter power of the Victoriu Fulls und the Zumbezi. This grunt was ceded in 1906 to the Vietoriu Fulls Power Company formed to "generaue, develop und accumulate electrical power at the Vietoriu Falls, in Rhodesila, ut the Witwuterspund Golditilds Districts and elsewhere, and transinit, distribute und supply sueh power throughout Rhodesith, the Trunsvaul, etc." The scheme was to take water from the Zambezi something over a mile ubove the eastern cataruet of the Fulls and lead it by a canal to a generating station in the second bend of the gorge below the bridge. A report was prepared by the Arm of Sir Douglas Fox and Parthers, the proposuls being to supply energy equal to $20000 \mathrm{~h}, \mathrm{p}$, to Johunnewburge, over 700



Aerial view of the site and the flooded area, looking south, A pril 1959
(National Archives of Zimbabure)


Kariba hydro-electric scheme: A general view of the dam wall, May 1959

equipment. The Victoria Falls Power Company was registered on 17th October, 1906 with a capital of $£ 3000000$. John Henry Birchenough, Rochfort Maguire, H. Wilson Fox and Sir Charles Metcalfe were among the directors listed. The Marquess of Winchester records that the reception accorded to the company by the press was chilling and the applications from the public amounted to less than thirty-three percent of the issue. The power station was to have been 340 feet below the level of the Falls and 10 feet above the flood level of the river, though Metcalfe did give instructions for another site to be surveyed in the next bend of the river one and a half miles further downstream. Two advantages claimed for the alternative site were an increase in the available head of water to 400 feet and a more secluded situation - the first site being visible from the hotel and from the railway on the north side of the bridge.

Lord Winchester's story of this project avers, however, that the mining industry forced the promoters, whose name was subsequently changed to the Victoria Falls and Transvaal Power Company, to provide steam-driven power stations on the Rand as a reserve. "There were", he wrote, "many other snags and pitfalls. ${ }^{" 511}$ Certainly Lord Elgin, Colonial Secretary, found it necessary to go into the validity of the concession to the company after questions in the House of Commons. ${ }^{51}$ Then a deputation, which included the Mayor of Salisbury, waited on the Resident Commissioner in December, 1906, after a meeting of a protest committee in Salisbury at which the following resolution was unanimously agreed.: "That this Committee maintain that the Victoria Falls are a national or State asset, and as such cannot be bartered away by the Board of the Chartered Company. That before this asset is disposed of the sanction of the public should first be obtained, but that in no case should the right to use the power be given without the State reaping some advantage by way of an annual rent charge, such as is imposed by the United States and the Canadian Governments for power taken from the Niagara Falls. That the government should make provisions to protect the beauty of the falls as far as possible, and also ensure against exorbitant and monopolistic charges being imposed on the general community." The grandiose scheme to harness the Zambezi for the benefit of the Witwatersrand fell away and in 1934 Lord Winchester could write: ". . . the mighty river whether in fullness or scarcity plunges over into the abyss just as unharnessed as on the day when David Livingstone first stood beside its banks. No power station, however cleverly camoullaged, mars the beauty of Nature's grandest whim." ${ }^{53}$

In 1926 the Southern Rhodesia Base Metals Corporation applied for a reservation of land where the Umfuli and Umniati rivers join to form the Sanyati. Under consideration was a dam which would inundate an area of between some six and twelve square miles on these rivers. A power plant was proposed at the falls downstream and the irrigation engineers of the Department of Agriculture were consulted. ${ }^{54}$ However, the Copper Queen property which it was intended to supply did not in the end come up to economic expectations. The first mention of Kariba in connection with electric power seems to have been made in 1921 in a paper on the water power resources of Southern Rhodesia prepared by Mr C. L. Robertson, the Hydrographic Engineer of the Department of Agriculture, for the Imperial Power Conference. ${ }^{55}$ This memorandum, admitting that data was sketchy, broadly reviewed the hydrographic conditions of Southern Rhodesia and delimited certain specific areas worthy of detailed investigation. The available fall through the gorge at Kariba had at that time been given as 130 feet and Robertson considered that there was an effective fall of 100 feet giving a potential of $75000 \mathrm{~h} . \mathrm{p}$. He also mentioned the Mpata Gorge. There were no details about the fall there, but he thought there was a minimum safe potential of 10000 h.p.

It was in 1927 that the construction of a dam at Kariba for the purpose of electricity generation was first seriously considered. A general reconnaissance of the water power resources of the Zambezi in the Kariba Gorge area was carried out by Mr P. H. Haviland, Assistant Government Irrigation Engineer, between the 9 th and 21 st April. During the journey various


Aerial view of front of dam with Kariba Lake spreading behind
(National Archires of Zinhahure)


Kariba Dam from the North Bank approach, September 1963
(National Archives of Zimhabure)
altitudes were determined and a vast amount of geological and other information was assiduously collected. The report describing this reconnaissance gives the position of the Kariba Gorge as approximately $16^{\circ} 34^{\circ} \mathrm{S}$. latitude, $28^{\circ} 44^{\prime}$ E. longitude extending in a north-easterly direction for some 17 miles from the Zambezi-Sanyati confluence. Haviland considered a high dam would be much too expensive. Alternative methods of diverting the flow of the river were thought to be impractical, and it was concluded that as power could be available at the Victoria Falls, it was unnecessary to use the Kariba Gorge.

In 1935 the gorge was visited by a Cambridge expedition which did a plane-table sketch of the upper part and mapped the lower part by plane-table traverse. ${ }^{56}$ They also carried out anthropological and ethnographic work in the surrounding area. There is no mention of irrigation or power possibilities in the account of the expedition. Its relevance here is that it included among its members John Keigwin, anthropologist and geographer, son of H. S. Keigwin, the Native Commissioner at Sinoia, who, when John was an infant, first visualized a great dam on the Zambezi. The expedition's journey to the gorge took six days, and they recorded that the route to the entrance was by a rough dirt road from Miami, only passable for motors in the dry season. By this route, they thought, the gorge was visited occasionally by the native Commissioner or white hunters, but few men had travelled more than a mile or two down it. A base camp was made at the junction of the Sanyati. Keigwin made a detour of 45 miles from this base camp to a village at the gorge exit 17 miles downstream. There he obtained a canoe with an experienced African and journeyed upstream through the gorge to within four miles of the entrance before he decided that the rapids made further progress impossible.

By 1941 the Electricity Supply Commission had begun seriously to consider the power supply position of the country, and commissioned an engineer, Mr J. L. Jeffares, to investigate the Zambezi valley and Kariba Gorge. Jeffares made repeated visits during the next three years and a report he made in 1947 formed the basis on which the Inter-Territorial Hydro-Electric Power Commission set up by the Central African Council in 1947 began its work. ${ }^{57}$ In 1951 the Southern Rhodesia Government set up a Kariba Gorge and Railway Project Standing coordinating committee. It now seemed as if there was going to be a dam on the Zambezi.

In one of his reports the Land Settlement Board's irrigation engineer, Randall, had drawn attention to the lack of hydrographic data in Rhodesia which rendered all investigations into irrigation open to serious risk of approximation. ${ }^{.5}$ Picturesquely he remarked: "It seems absurd to have to base such data on information supplied by the oldest inhabitant . . . usually a kraal native, hunter or a pioneer whose powers of observation are not of a mathematical order." In the following years the irrigation engineers gave increasing attention to this problem. By 1951 the Department of Irrigation had 77 recording gauging stations and had done considerable exploratory work, indeed vital work, on proposed dam sites in the gorge at a cost, incidentally, of an engineer's and mechanic's life in a disastrous landslide on the night of the 18th February, 1950. It had assembled a mass of data about the behavior of the river. This seems to have been one of the main considerations in the ultimate choice to go ahead with the Kariba scheme before a parallel project on the Kafue favoured by Northern Rhodesia. And so in 1955 the Federal Government, to whom responsibility for the development of power supplies in the Federation of Rhodesia and Nyasaland had passed, announced its intention of building the dam; the first Prime Minister of the Federation, Lord Malvern, poured the first skip of concrete for the main dam wall on 6th November, 1956.

From surveys carried out in 1959 it was found that the only large blocks of usable soils occur at intervals along the base of the escarpment, at considerable distances from the river and where extensive pumping would be required in order to reach them. It was concluded that the general irrigable potential of the Southern Rhodesian side of the Zambezi valley is considerably lower than was originally surmised. Along the river itself potential is confined to separate,
relatively small possibilities whereas the larger-scale projects would involve serious economic considerations. There may well come a time when the economic advancement of the indigenous inhabitants of the area will be effected by the use of such projects. The installation which can provide such developments exists in the great dam and its generators. It is on record that Hammurabi, great builder of the Babylonian Empire, counted the extensive irrigation systems among his proudest accomplishments. There is in fact on the tomb of Semiramis, the queen who appears in Babylonian history about 1200 years after Hammurabi, a proclamation which reads: "I constrained the mighty river to flow according to my will and led its waters to fertilize lands that had before been barren and without inhabitants." This is the kind of idea which must have stirred the enthusiastic Keigwin over half a century ago. At that moment the tremendous wall may fairly be said to have already begun to cast its shadow over the gorge at Kariba.

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42. It is interesting to note in a report on a survey of the soils of the Zambezi valley by D. D. Henderson and E. Griffiths in 1959 the statement: "This area |between the foot of the western part of the escarpment and the river! constitutes the major part of the valley and over most of this large tract of land Mopane is the dominant vegetation. Much of this area is undulating and broken though some flat areas do exist. Under the Mopane the soils are almost without exception sodium influenced at a relatively shallow depth". This is the language of the scientist but it underlines the long passage of time that has brought, among other things, greater knowledge of the soil.
43. Again it is interesting to note that the soil survey carried out in 1959 concurred, giving some of these areas the highest classitications of suitability.
44. C. H. Howell. Report . . . 2 Oct 1914, op. cit.
45. C. R. MacGregor. Report on Kariba Gorge expedition: Sep 1914 (L 2/2/83/5, Nat Arch SR).
46. Extract from weekly report no. 6 of the Acting Director of Land Settement, 1915. 2 (L 2/2/2/85, Nat Arch SR).
47. Secretary, B.S.A. Company, to Acting Commercial Representative: 8 May 1915 (L $2 / 2 / 85$, Nat Arch SR).
48. Resident Commissioner, Salisbury, to High Commissioner: 11 Dec 1906 (A 11/2/17/3, Nat Arch SR).
49. Sir Douglats Fox and Parmers to African Concessions Syndicate: 1906 March 29 (A 11/2/17/3, Nat Arch SR).
50. Paulet. H. W. M. Marquess of Winchester. Statesmen, financiers and felons, op. cit. p. 207.
51. Colonial Office to B.S.A. Company: 25 Mar 1907 (A 11/2/17/3, Nat Arch SR).
52. See enclosures in B.S.A. Company to the Administrator: 20 Apr 1907 (A 11/2/17/3. Nat Arch SR).
53. But in that same year, 1934, a formal agreement was reached between the Northern Rhodesia Government and the Victoria Falls and Transvaal Power Company, who still owned the unexercised

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rights, for the erection of a plant to supply 1000 kilowatts to the Municipality of Livingstone. This plant, by the Silent Pool in the Third Gorge, was put into operation in 1938; it is fed by a canal taking water from above the Falls on the north bank.
54. Southern Rhodesia, annual report of the Director of agriculture. Salisbury, Government printer (C.S.R. 5-1927), p. 31.
55. The paper was published in Rhodesia agricultural journal, v. 18, 1921, p. 571-582, and v. 19, 1922. p. 56-64.
56. Keigwin, J. "The Cambridge expedition to the Zambezi valley ..." (in Geographical journal, v. 86, 1935, p. 252-262).
57. Central African Council. Report by the Inter-tervitorial hydro-electric power commission on the Kariba Gorge and Kafue River hydro-electric projects. Salisbury, the council, 1951.
58. M. Randall to Director of Land Settlement: |1914| (L 2/2/83/5, Nat Arch SR).

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# Kariba 

by Ian Shand

# This is the text of a talk given to the Mashonaland Branch of the Society at Kariba on 13 July 1991. 

## Early History

Kariba Gorge was recognized as a possible dam site by David Livingstone and was investigated by a number of people for various purposes.

Major Gibbons looked at it in the late 1890s as a possible crossing site for the Transcontinental railway, and in 1931 Jeffeyres was commissioned to survey it for the same purpose. Here I should mention that his companion and booker, Mrs Goode, must have been the first European woman to visit Kariba. He returned again in 1941, this time to survey the basin of a possible dam in the Kariba Gorge.

But I am going too fast. As early as 1912, the District Commissioner Sinoia, a Mr Kegwin, arranged for two Irrigation Engineers, Mr Randall and Mr Howell, together with a sugar planter, Mr McGregor, to look at the possibility of diverting water at the gorge for irrigation downstream near Chirundu. This was something that actually came about, but not by diverting water at the gorge as the Chirundu Sugar Estates pumped it direct from the river, probably using Kariba power.

Then in 1946, my predecessor in the Hydrological Branch of the Department of Water Development, Bill Wallis, visited the gorge from the lower end, established a gauging station, and installed an automatic water level recorder.

Here I must mention dear old C. L. Robertson, the first Director of the Irrigation Department, who also started the Meteorological Department and the Department of Conservation, and who had the foresight to establish a gauging station at Livingstone above the Victoria Falls as early as 1907. If it had not been for C. L.'s foresight it is probable that the construction of Kariba would have been delayed for many years and cost much, much more.

## The K/K Argument

The Kariba Dam came about as a result of the formation of the Federation of the Rhodesias and Nyasaland. Heaven knows when it would have been built otherwise.

At the same time, of course, Northern Rhodesia (in this talk I am going to use all the old names and units) were pushing for the construction of the Kafue Hydro Electric scheme - a run of river scheme with comparatively small storage at Meshie-Teshie, and very nearly got it before Kariba. However, away from all political arguments, the pragmatic engineering arguments were that the Kafue scheme had not got the long term hydrological records to back it, and a lot of what they had got was suspect.

They argued that Kafue could be brought into operation earlier than Kariba, and here the Irrigation Department stepped in and said they could bring the completion of Kariba back one year - How? By building the access road in one year instead of two which the Roads Department said it would take. And we did. I wish someone would write up the story of that road. There is quite a tale to tell.

It was called the Elephant Path, and we signposted it as such because a lot of it literally followed the path the old Jumbos took, as many of you will appreciate, because they still use it, as evidenced by their numerous droppings down the road. Then there were the places of
interest all the way down like Camp Hill, Kidney Hill, Razor Ridge, Puff Adder Ridge, Buffalo Nek, Rhino Ridge where a Rhino charged a bulldozer, The Basin, Savory's Folly, Kieck's Corner and many others, each with its own saga. At one time these were all signposted, but these were removed when the Roads Department took over responsibility for the road as they "diverted drivers' attention". 1 ask you, and in the Eastern Districts they had HUGE signboards which were so long that it was only after you had passed the third that you had had time to read them! However, they straightened the road in parts, and finally put a black top on.

But I have diverted.
The end result was that Kariba went ahead before Kafue - quite correctly, I maintain, because Kafue was the natural follow-on to Kariba, not the fore-runner.

Those of you that have read Clements' book Kariba will have heard a lot of this before because I gave it to him. Clements had never heard of Nyaminyami before he came to see me in the Hydrological Branch. I gave him all I knew. He spent the best part of two days in my office recording all I had to tell on his tape recorder. He and his wife came to dinner, saw all our cine films of Kariba, and we went on talking until about 2 a.m., and he never had the courtesy to make an acknowledgement in his book.

## Flood Warning Scheme

So, thanks to C. L. or "Robbie" as everyone knew him, we had the records of the major How of the Zamberi River itself, but very little from the tributaries. At the end of the war, Bill Wallis set about establishing gauging weirs and gauging stations throughout the country.

During eonstruction of the dam it was particularly important to know what floods were coming down from Southern Rhodesia as some of these flash floods could be very high even though they only lasled a short time. Thus even the short term records from these stations were of immense value.

Throughout the flood season from the beginning of December - we always considered December 12th as the earliest date for a possible liood of any magnitude during construction to after the peak flood - usually in March - either my No. 2 in Hydro, the late Bob Wannell, or myself were on duty for 24 hours of every day for flood warnings. We went round with our files under our arms. The telephone service was quite wonderful as they gave flood warning calls top priority, and we would let the Supervisor know where we could be found throughout the days and nights.

We obviously worked in close co-operation with the Meteorological Department who gave us special detailed forecasts daily. They also operated their radar system from Belvedere whenever there were extensive rainfalls expected. From these patterns we could better assess the quantities we might expect. The runofts would then be read at the various flood warning stations we had established, and before long we had a fair idea of the speed of travel of the floods down river on the major rivers.

For this work we inspanned farmers, forestry officers, municipal workers and a host of others to read our gauges and phone the results through as soon as anything of any magnitude arrived. Otherwise the reports came in daily, were plotted, floods estimated and warnings given to the Consultants who passed on the information to the Contructors.

One umusing incident worthy of recalling was in the very early days of construction when the contructors were still working in the river bed. As 1 mentioned, we in the Hydrological Branch instituted a flood warning system with gauging stations on all the major rivers in the catchment. As far as I know, this had never been done before. So in the early days guesses had to be made both as to the magnitude and speed of the Hoods. One day, early on, we rang up the Consultants and warned them that there was a Hood coming down the Sunyati fiver but told them we could not say when it would arrive, nor the likely magnitude of the flood. However,
we suggested that all movable equipment be moved out of the river bed by the following day. The warning was ignored, and a bulldozer, pumps and other equipment were inundated, and the pontoon bridge washed away. The next time we issued a warning of a flood on its way which we thought would reach the dam site the following day, they said, "What time?"

What was not so amusing were the exceptional floods that occurred during construction of the dam, but before going on to them let me briefly give you the various stages of construction. Three possible sites were investigated briefly. Site 1 at the entrance to the gorge, Site 2 about midway down the gorge, and Site 3 near the exit from the gorge. In the event a fourth site was selected by our then Director, Roy Roberts, known as Site $X$ because of the constriction of the river during low flow to a comparatively narrow channel on the right bank with a shelf of rock running across the bed to the left bank.

It was Mons Martin who devised the method of diverting the river, A tunnel was excavated on the South Bank and a semi-circular coffer dam on the rock shelf on the North Bank, so work could proceed inside the coffer dam during the flood season 1956/57 leaving gaps in undersluices in the main dam. Then this was blasted away upstream and downstream to pass the water through the undersluices and down the North Bank channel. A rockfill dam was then thrown up by dumping rock off the bridge to form a 'pond' from which pontoons could operate to build the secondury coffer dam ucross the centre of the river for work to proceed during the 1957/58 flood season. Final closure was effected only when the whole dam was well up right aeross the river.

In the old Irrigation Department we always suid that if you wanted an exceptional flood, start building a major dam - it happened over and over again = Hunyani Poort, Ngesi, Bangula and several others. Kuribu was no exception, and I think the river God Nyaminyami must have added his bit.

In the first year of construction there was a double pank, the first on record since 1907. It did little damage but delayed restarting work on the North Bank coffer dam. Then in 1956/57 there was an all-time record flood which put the North Bank coffer dam under water. Finally, there occurred what we called a six-gate flood. It was so enormous that what it did not wash away, it put under water - both bridges, the site offices, roads und a lot of the original sides and bed of the river. This resulted in the redesign of the dam to incorporate six gutes instead of the original four.

It is worth telling you how this flood occurred. It started off as a cyclone in the Mozambique channel but uncharacteristically moved inland and ran across Mozambique and Northern Rhodesia, north of but parullel to the Zambezi River. It settled as a large low pressure area with very heavy rains over the Barotse plain, part of the Zambezi system in the West of Northern Rhodesia; which was already full from the annual food coming down the river, This naturally increased the quantity of water to be delivered down river. Then an extraordinary thing happened. The low pressure area moved South, then East following the Zambezi river, so the Hood got bigger und bigger as it proceeded down the river. Not only this but it was so extensive that it brought all the major tributaries down in flood too, each one adding to the already high Hood as it moved down river. Forecasting went "for a burton", and at the end, Eng. Henry Olivier (now the late Sir Henry) decided to close everything down and expect the worst.

There was one eatler raintall also worth mentioning which occurred in the Kariba area in February 1950. It was reputed to be $15^{\prime \prime}$ overnight. It caused extensive landslides throughout the Kariba area, one of which went through the Hydro and Drillers camp at Site 3 at the exit from the gorge. Four Europeans were engulfed in the slide but no Africuns as they had all gone oll' to a beer drink, and only found the camp gone the following morning.

## Overall Size of Dam and Lake

The dam itself is an arched dam 2025 ft long, and 420 ft above the river bed. In the centre, the section is 65 ft thick at its maximum, tapering to 43 ft at the crest. Six spillways are provided 90 ft below operating level, each $30 \mathrm{ft} \times 29 \mathrm{ft}$ to discharge 336000 cs .

Her Majesty the Queen Mother opened the dam and started up the first turbine on Tuesday 17th May 1960.

The lake formed by the dam is 175 miles long stretching up to the Deka river mouth, with a maximum width of 20 miles, and a surface area of 2000 sq . miles. The volume of water stored at operating level is 130 m acre ft although only the top 36 m acre ft are used to produce power.

The Consulting Engineers were a consortium of English and French engineers, called Gibb, Coyne and Sogei, and the main contractors the Italian firm of Impresit with a host of subcontractors, the main ones being Cementation (Mr Garret's firm) which did all the preliminary work and the subsequent drilling and grouting, and Costain who did all the housing and Merz and McLellan who attended to the design and construction of the power station.

With all the setbacks they had, mainly the excessive floods, it was only with the excellent co-operation of everyone concerned that the dam and power house were ready on time.

# Jumbo Trail to Kariba 

by Bob Woollacott

Before the work of building the Kariba hydroelectric dam on the Zambezi River could begin it was vital to have adequate road access both from the north as well as the south. What existed up to 1956 were some rough tracks blazed by hunters, miners and Government officials and, in more recent times, the handful of surveyors and engineers carrying out a multitude of preparatory tasks.

Many of you will recall driving past a series of intriguing signs between Makuti on the Great North Road and Kariba during the years 1956-1961. Then, suddenly, these were all removed without any explanation.

The story of how the south access road came to be built and the characters and drama involved in carrying this out has never been fully told. There was too much competition elsewhere! With the dramal of great floods threatening the engineering works in two successive years, the movement of 100000 Batonka tribesmen, the tragedy of the battle at Gwembe, the equally tragic underground accident that took 17 lives, and, finally, the spreading flood waters of the enormous man-made lake which gave rise to 'Operation Noah', it is not surprising that so little attention was given to this remarkable exploit.

Early in 1955 two engineers working in the wilds of the Zambezi River Valley were engaged in a conversation of tremendous significance.

Jim Savory's eyes lit up brightly as he listened to what he was being told. His lips were on the move even before Dr Henry Olivier finished his last sentence. "Balls," he exploded. "We can build you an all weather road at half that price and well within your time limits. We will not follow the alignment selected by the Roads Department but follow the ridges, just as the jumbo have been doing for centuries. Elephant are specialists at finding the best routes for moving heavy loads."

Savory, the Director of Irrigation in the Southern Rhodesian Government, and his team of dedicated engineers who had worked so hard to prepare for the building of the huge hydroelectric power project at Kariba, had understood, but at the same time been disappointed as they watched the 'Big Boys' move in. Duncan Anderson, chairman of the Federal Power Board, and the Federal Government headed by Roy Welensky, were now responsible for the building of Kariba.

Henry Olivier, as the chief consulting engineer to the Power Board, was the key man involved in all the major engineering decisions. Time was a vital factor. The response by the Roads Department to his requirement for an all weather road from the main north highway to Karibat had been disappointing. "Our planning is well advanced," they reported, "but we are short-statfed and the road might take up to two years and cost over $£ 1$ million. There are several major bridges that must be built."

Jim Savory's gut reaction to the problem was refreshing, but there were dangers in letting his department take on the chaltenge. In the first place it was not what they were employed to do; for the second, how could the Federal Government favour this bid against the carefully considered plans of their own road engineers? thirdly, the Irrigation Department was part of the Southern Rhodesian Government, not the Federal.

Savory was asked to investigate and report in detail with an accurate estimate of time and cost. This he did. The result? By keeping to the high ground favoured by the jumbo and thereby eliminating many river crossings, and crossing others high up in the catchment where a
concreted apron was sufficient, the cost could be cut to one third and completion guaranteed before the heavy loads were due to start arriving.

Duncan Anderson was naturally sceptical: "Is the Irrigation Department really competent to build roads?" he asked. "And can we do this without going to competitive tender which is the criterion usually set by the World Bank?"

Henry Oliver's response was that the World Bank was not yet fully involved, the time factor was paramount, the cost estimates had been carefully verified by his staff, and that the estimated savings were such that the Federation, which had made its own scarce funds available for the necessary preliminary work while awaiting the outcome of negotiations for full financing, could not waste time and costs risks on procedural grounds.

To his eternal credit, Duncan (later Sir Duncan) took the proposal to Government and obtained immediate approval. But he was not one to mince his words: "I will hold you personally responsible, Henry", he warned, a statement he was to repeat more frequently and, as Henry puts it, "with increasing venom" as the pressures built up!

In a recent letter Henry Oliver (now Sir Henry) summed up what followed in a very few words:
"There now began the most bizarre exercise outside war-time. An unattended scraper was 'lifted' from near the airport (it did in fact belong to the Department) and two more were obtained from as far afield as Nairobi and Lourenço Marques. Teams and drivers were sent to collect them from Mbeya and Komatipoort respectively. The one from Mbeya was driven 880 miles in two days and was at work on the third day!
"The machines were worked 24 hours a day and to avoid long water hauls boreholes were sunk along the route as they progressed. Time sheets often showed 150 hours of overtime in a single month. Such was the spirit of the watermen in fulfillment of Jimmy Savory's promise! We had to beat the onset of the rains if the ultimate schedule was to be met.
"The road was completed well before the coming of the main civil engineering contractor in August 1956 and stood the test of time and traffic. It was subsequently surfaced with a black top and, with some realignment, is still the main access to and over the dam to link with its northern counterpart which has also become a permanent road."

Jim Savory has fleshed out the story for me and given his side of it:
"I had two parties locating the route for the road, working from each end. One day I got a message from the one at the Kariba end to say they could get no further. So 1 dashed out from Salisbury next day and we went out together to where he was stuck (it was a one man party). From there, looking ahead, all one saw was a conglomeration of hills. 'Well, come on,' I said, 'let's see what it's really like.' So we walked, blazing trees as we went, and after about an hour came to the crest of a ridge and there ahead of us was 'THE BASIN', a wide hollow with a single palm tree in it. I knew the Makuti survey party was just the other side so decided to go across to it but just then a lion gave us a magnificent concert from somewhere down below and we changed our minds! So the route we had blazed was that followed by the survey party and the earthworks involved in construction comparatively light. Meanwhile, my chaps had christened it 'SAVORY'S FOLLY!' Actually, I had followed as closely as possible a well trodden elephant path. Hence the name of the road.
"Then came the question of building the road. Henry Olivier approached me one day and asked about our survey and eventually I suggested we go out and I show him the route. When he had seen what I proposed, he asked what my estimate was and we got busy in the office. Unknown to me Olivier had got the Roads Department and the Consultants to give him estimates of costs and time to construct the road. They agreed closely at $11 / 2$ to 2 years and $1 / 2$ to one million pounds! When he told me this I said one rude word - yes, you're right - balls! My Department's estimate was six months and $£ 300,000$ !"
"In the event we carried the heaviest loads ever on Rhodesian roads, namely, 110 ton transformers for the Kariba Power Station. It was built to high standard specifications of grades and curvature but only gravelled. The route avoided the need for any bridges, only a few drifts. The final cost was about $\$ 350000$."

The men from the Irrigation Department of the Southern Rhodesian Government accepted a tremendous challenge willingly and without any questions. Civil Service rates and no trade union hours. No promise of fat bonuses. Nothing more than a quiet thank you from the boss and the satisfaction of a job well done. I hope the telling of this story is not too late and that credit will at last be given to a truly wonderful bunch of men.

Fortunately Dennis Kieck and Jim Nurton, two of Jim Savory's bright young engineers, kept notes and records and can tell us something of what it was like 'on the ground' during that time.

Jim Nurton recalls how he and others got to Kariba in the very early days:
"When I first saw the original track in 1954, the turn-off from the gravel road to Lusaka was an almost indiscernible gap in the trees with grass the height of the bonnets of the one ton vehicles we were driving. For the first few kilometres the route was mostly that which was eventually followed by the final alignment; down the escarpment it was later altered and only used again from the Naodsa River and across mopani flats to the vicinity of the gorge. It was obvious from the start that much of the existing route would be unsuitable for a main access road - steep grades, deep river crossings, poor soils and incorrect alignment. Good travel time was of the order of 5-6 hours for the 80 km ., and this after some of the worst sections had been worked on by a D 7.
"My first journey to the site took from $5 \mathrm{a} . \mathrm{m}$. to $10 \mathrm{p} . \mathrm{m}$. and $2 \times 5$ tonners and $1 \times 1$ tonner were left on the side of the road at river crossings that could not be traversed by the larger vehicles until much work had been done. Fortunately I had with me Dave Swears, a Technician who had been on site in 1953 with Eng. Joss du Toit. He did a sterling job looking for the track where sections were completely overgrown or had disappeared where the river crossings had been washed away. The last section was done on a one tonner carrying the men, camp gear and food.


Track washed out by rains December 1954.
Dave Swears beside Land Rover
"There were a number of amusing incidents during the first year and one in particular comes to mind. During one journey to Kariba a water trailer had to be left behind due to road conditions. By this time we had been sent a Land Rover as being a more suitable vehicle for our work, and a driver and assistant were sent off in it to recover the trailer. There was no sign of them at nightfall and about 9 p.m. a search party was sent out. The Land Rover was found part way up a steep slope which had been deeply eroded and the trailer was standing just off the road at the bottom of the slope. After much shouting, faint replies were heard from the distance and eventually two rather shaken figures appeared. It seems that the trailer could not be towed up the slope so the driver decided they would leave it where it was and return to camp to get help. On attempting the slope with the Land Rover alone it slid on the loose dust and rough ground they had created and into the ditch.
"The two were discussing their next move when they heard a noise at the trailer and looking down saw a lioness having a good sniff and a rub on the draw bar. They turned to run but were startled to see a male lion at the top of the slope watching them. 'What did you do?' we asked. 'Ah,' said the driver, 'the umfasi (female) is more cheeky than the madoda (male) so we ran up the hill!' The story was substantiated by the spoor. The lion, charged by two terrified black men, was more frightened than they were and had taken off even more rapidly!

The track became almost impassable after the first heavy rain in November and after spending nights in the only village on the route due to flooded rivers and saturated ground (this in spite of having a winch) we used the Zambezi river from below the gorge for access until work was abandoned for the year just after Xmas."

Dennis Kieck gives a graphic account of the reconnaissance party tasked with doing the alignment of the new road early in 1956.
"There were ten in the party that set out from the camp near the abandoned air strip below Makuti. Moving slowly through thick bush and grass sometimes more than seven feet high we relied on our African scouts to make sure we were not surprised by lion or any other wild animals. We had to clear a way for the vehicles, a TD tractor and a Land Rover, and very soon there were mechanical problems. A perforated radiator on the tractor meant a loss of water that was to have serious repercussions; the hydraulic fluid lines were severed on the Land Rover and a faulty generator deprived us of any sort of light at night apart from one or two torches and our camp fires.
"Temperatures soared to well over 100 degrees Fahrenheit and tsetse flies tormented us continually. By mid afternoon we were exhausted and decided to move off the high ground down to a vlei where there might be some water. The gradient was very steep and, despite 4wheel drive, the Land Rover difficult to control. Suddenly, one of the scouts came running back shouting that there were hundreds of buffalo stampeding ahead of us. Stopping the vehicle was impossible until it fortunately ran smack into a tree putting a large ' $V$ ' in the front bumper! When we eventually did get down we found that the water hole was dry. Everyone was tired and hot and thirsty and on the point of collapse.
"Two of us drove the Land Rover back along the trail we had made in order to get help. A burst tyre was replaced with the spare but a second puncture forced us to carry on by foot. With my rifle over my shoulder and conscious of the wild animals all around us we stumbled over fallen logs and boulders and into antbear holes before eventually arriving back in camp, exhausted.
"Loading two large drums of water on to a 3-ton lorry, we made our way back to the Land Rover, repaired its tyre and battled on through the bush. One headlight was soon broken and, with no brakes on the Rover, progress was slow.
"Reaching the steep slope leading down to where we had left the others we transferred one drum of water to the Land Rover and the driver took it down alone. How it did not turn over

I shall never know! The others came staggering out to meet us, parched and suffering from heat exhaustion.
"Revived by several hours sleep and a breakfast of beans and bully beef we reorganized and made our way back up to the watershed and sent the lorry back to base. Having first scouted out a possible route we then began bulldozing a track using an Abney level to determine gradients, eventually arriving at what became known as 'CAMP HILL'. This is a wonderful vantage point. From it we were able to study the rugged country ahead and pinpoint some landmarks on the aerial photographs. With the bush thick and 20 to 30 feet tall and grass up to 8 feet high it was essential to have these reference points.
"Sleep came easily that night despite the howling of hyena and the barking of baboons threatened presumably by a leopard. The next day brought a fresh crisis.
"After a hard morning trying to fix the route to what is now known as 'RAZOR RIDGE' we sat down to lunch on bully beef and onions. We had been trying to conserve the little water we had and now found to our dismay that the new supply was undrinkable! It was a case of not wanting to believe our noses! The smell was horrible but we each checked for ourselves to confirm that what we had was a mix of water and dieseline. (The same pump that was used for dieseline had been used to fill the water drum!)
"So here we were without water again but now much further from our base camp and even more weary than before! The sun was beating down on us unmercifully and we were becoming dehydrated. Scouting for a waterhole produced no results and called for desperate measures. Our 'sundowners' consisted of gin, Mazoe orange juice and $1 / 2$ gallon of diesel contaminated water! Dreadful but life giving. In fact, we only managed a mouthful or two each but it was enough to keep us going.
"Leaving the tractor behind we headed back to main camp, some walking, some riding, and made it by ten that night.
"It was time for a fresh plan. The existing track which had been used for the early work at Kariba would become impassable some time after November when the rains broke. It was already June and it was essential to open up the watershed road before then.
"An air recce was ordered but first we carried out exploratory investigations from the Kariba end and decided to locate the new road south of what is now known as 'KIECK'S RIDGE'. A flag was raised there and the recce Hown in a De Havilland Rapide. We circled Main Camp first then Hew down the route we had cleared to where we had left the tractor and on to where the flag was flying. One thing was immediately clear. There was no ground water - we would have to carry every drop with us.
"When we set off again from the camp near Makuti for the second time there were 12 of us with a D 7 Caterpillar tractor and a scraper and we made it to 'CAMP HILL' comfortably. But next day disaster struck within the first 50 yards. The scraper overturned and drums of fuel and water went rolling down the hill in every direction carrying our blanket rolls, food supplies and utensils with them. We felt like sitting down and crying! Instead, we righted the machine, recovered everything and managed to make it to 'RAZOR RIDGE' by that night and next day recovered the first tractor.
"We moved forward slowly from one camp to another selecting the allignment for the road and opening it up, surprising a rhino in the process (which fortunately snorted and took off away from us) and having our nights' sleep broken by marauding hyenas. While investigating one steep ridge I almost tramped on the largest puff adder I have ever seen. Not surprisingly, this became known as 'PUFF ADDER RIDGE'.
"Finally, we pitched another camp below what became known als 'BUFFALO NEK' but found it difficult to locate an alignment with acceptable grades. Even the elephant paths which had been so much help up to now went straight up and down hills! We persisted and eventually
found a way through before we had our first major breakdown when the tracks came off the D 7 tractor. We made camp and that night one of the drivers told us he had heard the sound of hooves on loose stones. When we took a look next day we found the spoor of a rhino only 20 yards away and evidence that we had parked ourselves right across a pathway he used regularly!"

Dennis Kieck then goes on to describe his side of the story told above by Jim Savory. He says that during the week they had to wait for the D 7 to be repaired he was involved in checking out the route from the Kariba end and was there joined by Savory.

Leaving their Land Rover behind they followed an elephant's path alongside a dried up stream to its 'headwaters'. From a high vantage point they looked down onto the flat section of land that later became known as 'THE BASIN'. Their intention to climb down to this was frustrated by a lion announcing its presence noisily and frightening the wits out of the survey staff man who nearly walked into it! Further checking convinced them that the route they had blazed that day was the best. This did not show up very well on the aerial photographs and the Head Office staff in Salisbury were soon declaring it would turn out to be a mistake. The fact that Savory was right made no difference. Up went the road sign declaring this section of the road should forever be known as 'SAVORY'S FOLLY'.

I recall being told at the time that 'KIECK'S CORNER' gained its name because Dennis Kieck happened to be the only engineer around when Savory visited and upbraided him about the tightness of that corner, but let Dennis tell the story for himself:
"This comer, only about $1 / 2$ mile from Makuti had been set out a little tighter than the agreed radius but still within the capabilities of the large vehicles which were to transport the heavy loads to the dam site. We felt this was the main criterion and, if the radius was to be increased, it would have involved a D 8 (large Caterpillar tractor) having to be brought back from the forward construction party some 10 miles down the track. As time was of the essence we went ahead. Well, the road was also designed for a $30 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. speed limit and this corner did not meet the requirement as Mr. Savory found out! He was compelled to brake a little harder than he would have liked and was not too happy about that! When our reasoning was explained to him he accepted the position but, back in Salisbury, the incident was latched onto and up went the sign for 'KIECK'S CORNER!'"

Jim Nurton hals a fund of anecdotes which are best quoted almost in full with as little editing as possible:
"In March 1955 I went back to Kariba down the track and found it in surprisingly good condition, except for the completely washed out sections, as in the photo, and when work started in carnest the track carried the first parties to site and was really the skeleton on which was hung the final road on which, in its turn, was hung the present tar road. At site we knew little of Savory's acceptance of the task to build an all weather road before the onset of the next rainy season, and it was quite a surprise to find ourselves engaged in this work.
"We were very lucky to have a number of superb engineers, machine operators and labour supervisors to whom building a road was a challenge, especially as the Ministry of Roads had said it couldn't be done! Bill Wild, who was in charge, was a superb organiser, very practical and able 10 recognize and utilize each person's assets to the maximum. Pete Wright whose knowledge of soils and capabilities of machines was encyclopaedic. Dennis Kieck, always calm, laughing at difliculties, Aluent in Zulu.
"There were a number of real characters among the plant operators one of whom was Jock Spink - originally from Scotland, solid, red-headed and tough. A hard worker who didn't like people who stood on their position. He once told Sir Duncan Anderson, Chairman of the Power Board, when asked by him to: 'Bring the plan, my man' that he was not his man and he could get the plan his b....y self! "Jock camped with another of his countrymen Tommy and they used to get
into town for a break and a haircut about once every 2 months. One evening after a few relaxing beers they decided it would be much more economical and also cooler if they shaved their heads rather than having haircuts, and why not do it for each other straight away? They tossed a coin for first go. Jock sat in the chair and Tommy did a creditable job with scissors followed by a razor. After he had finished Tommy studied the result and when Jock said 'Sit down, your turn now', decided it was not a good idea and wouldn't have it done! Shortly after that he was quietly sipping another beer when he heard a noise behind him and turned to see Jock with a 12 bore shotgun. Jock said 'You can have it cut off or blown off - take your choice.'
"Head Office once received a telegram from Jock which read 'Please send butcher's meat. Have eaten so much Impala I am jumping over bushes instead of walking round them.'
"Jock's job was to supervise one of the contractors who had hired machines and operators to the Department and record the hours they worked. Somehow he had the knack of appearing just when one of the machines stopped. The construction men could not get away with anything and were sure that Jock used to hide in the bushes to wait till they had to get off to answer the call of nature and then clock them 15 minutes 'standing time'.
"It was said that at the end of the job Jock was presented with a pair of kneepads so he could sneak up on people better!
"At the entrance to the main camping area near the gorge a tly gate was set up, manned by the Tsetse Dept. It consisted of a single barrier where vehicles had to stop and, whilst the guard used a flit gun all round the vehicle, the driver completed a simple sheet with vehicle number, driver's name, etc. One day Jock arrived and stopped to carry out the normal procedures. Unfortunately no one had told him that the guard's equipment had been changed and a 'swing fog' was now used and not a flit gun. This piece of equipment produced a dense cloud of white smoke - the insecticide. The guard handed over the form and proudly turned on his new equipment. Jock's open Land Rover disappeared in the dense cloud of white smoke from which emerged a shout, pencil and paper and the guard moving at a smart pace pursued by a short, white overalled figure!
"The swing fogs were a wonderful invention. They had a small petrol engine and compressor with a tube projecting $\pm 3 \mathrm{ft}$ in front. Air and insecticide were fed into the tube and a dense cloud of insecticide issued forth. The Officer-in-charge of the Tsetse operation at the site decided that a section of dense bush near the camp should be cleared of tsetse using the new equipment and, as tsetse flies settle at night, the job should be done during hours of darkness. Routes were marked out for the operators by strips of coloured reflective tape on trees. The first night's operation was carefully planned and in pitch darkness the start signal was given and the operators moved into the bush with swing fogs at full blast. Unfortunately in that patch of bush was a thinoceros who, naturally, was rather cross and charged about in the dense smoke trying to locate his tormentors. Chaos resulted, swing fogs were dropped and the operators and their supervisors took to the trees. After a time the machines stopped through lack of fuel and Clive Schiff, one of the entomologists, told me afterwards he was convinced some of his men had been flattened by the enraged rhinoceros. He was much relieved when from the top of the tree he had climbed he heard a noise in the top of the next tree -- one of the operators. By calling repeatedly, he established that no one was hurt. They were all in the tops of trees! They did not spray at night again!
"There was also Binge, can't remember his full name, who would tell the most wonderful stories and end up believing them. He camped for a short time by a dry river bed and dug a hole for water with the bulldozer. The game found it very quickly and Binge said he didn't mind the elephant using it but he objected to the lion. If they arrived for al drink so did all the black labour gang - into Binge's tent! This was the same man who later in the job had to shoot a rhino which put it's head in his tent!!!
"Hours of work were long, daylight to dark, but there was a spirit amongst the workers on that job that drove people to achieve targets that were not thought possible. Pete Wright motivated his coloured operators to particularly high rates of production. These men drove their machines flat out the whole time and undertook tasks they had not done before, and succeeded. Alexander Joe, one of the tractor drivers, had a problem with a part of a D 7 and on return to camp reported to Pete Wright that the final drive of his machine was unserviceable. The dismantling of this part normally took a trained mechanic with special tools, so Peter was amazed when a sack was produced which held the worn parts. Joe had stripped the drive with tools from his pick-up and driven in late at night to ensure it was repaired as soon as possible.
"At times holidays were declared. That year the French Rugby team were touring South Africa and when a test was to be played bets on the results were laid, usually in crates and bottles, and all met in the caravan which formed the office to listen to the match. Usually most of the bets had been drunk before the match finished and a very good party resulted!
"Tribute to the few wives who came and lived on site should be paid. These ladies made a home for their men from a couple of tents and a bucksail. Bachelors, or those living as such, envied those men. The wives put up with the primitive conditions cheerfully and nothing seemed to deter them. They produced a little bit of civilization in the thick bush.
"The party at the end of the job was stupendous. A buffalo was shot and a braai held at about the mid point of the road under a baobab tree. At the end of the evening Bill Wild and, I think, Pete Wright carefully loaded a young technician, who had been a little overcome by the liquid refreshment onto the back of an open pick-up and set off for Makuti. On the way they came across some sheets of corrugated iron which had blown off one of the trucks during the camp stripping operations. Being conscientious and responsible Civil Servants the vehicle was stopped and the sheets carefully loaded with many comments about the driver and the persons who had loaded the truck. The process was repeated a few times on the journey as more sheets were discovered. On arrival at Makuti camp the two were standing by the vehicle discussing the party when an odd noise was heard. After a search the source was discovered. It was the technician graduatly being compressed by the now heavy load of iron and unable to call out due to his inebriated and breathless state!
"Many of the workers at the party had been overcome by the hospitality and fell asleep. It was not possible to load all those inert bodies, especially as the loaders were also feeling the effects of the evening's entertainment, so the bodies were left at the site of the party covered by bucksails. In the morning there was the most colossal uproar as the bodies awoke and found they had been left at the mercy of any passing predator!"

Jim ends his story with: 'It is amazing when one thinks back that one remembers only the amusing things that happened, amusing to those of us who were there and still remembered when we meet all too infrequently. The hard days when the dust and heat were at their worst are forgotten except, of course, for the relief felt standing under the water tank outlet pipe at a point somewhere at the bottom of the hills during the lunch time break. One also forgets the difficulties of sleeping in the high night time temperatures and I know I often abandoned the mattress to sleep on a grass mat stretched across the bed springs."

Next time you travel down the ELEPHANT'S PATH from MAKUTI to KARIBA take along the map in this issue of Heritage of Zimbabwe. Try to locate some of the landmarks marked on the map and appreciate the immense difficulties those men faced, the initiative and courage of all concemed. Pause for a few moments to mull over what they had to face - the heat, the dust, the dangers from wild animats, the biting of tsetse flies by day and mosquitoes by night, the long hours, the pressure to get the job done in time. Then, when you get down to your hotel house, coltage, houseboat, or wherever else you are going, and pour yourself that first ice-cold drink, raise your glass and remember what it must have been like all those years


First transformer being moved along Elephants' Path
ago. Drink a toast to the vision and courage and incredible hard work of the planners, engineers, and the workers who made it all possible.
"Cheers, fellas!"

## Author's Notes

I would like to record my thanks to the many people who helped put this story together. In particular, Jim Nurton, Dennis Kieck, Jim Savory and Sir Henry Olivier, who took the trouble to send in their valuable contributions, and to lan Shand, for checking the manuscript. There must be many others now scattered to the four winds who could add to, or possibly subtract from, what has been written. If any of them who read this would like to let me have their versions of what happened, or just to add to the memories I have collected logether, please feel free to do this.

I apologize for any omissions or errors but I sincerely believe the story as it has been told is as historically accurate as I could possibly make it. Finally, may I recommend most strongly that the series of signposts on which the history of this road was commemorated be returned to their places of honour in the near future with suitable inscriptions. This would add a tremendous attraction to the route for visitors and tourists and pay back handsomely the small amount this would cost.

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# Kariba in the Early Days <br> by Bill Garrett 

## This is the text of a talk given to the Mashonaland Branch of the Society at Kariba on 14th July 1991.

Yesterday we were given a wide overview of the building of the Kariba Dam wall by Mr lan Shand. I hope today to be able to give you some interesting detail of the very early days of construction.

Whenever a wall is to be built to dam a river, the first critical item of construction is to divert the river so that construction may be carried down and keyed into the underlying rock. At Kariba, the plan adopted by the consulting engineers envisaged a large coffer dam on the rock shelf exposed at low river flow on the north bank and a diversion tunnel right round the entire dam site on the south bank. The coffer dam on the north bank could be built at low river flow without serious interference by the river and once built would enable construction to proceed on the north bank irrespective of the river flow level.

Once this critical decision had been made it was realized that many months would have to elapse before documents would be completed and tenders called for and adjudicated. This would involve a loss of at least two dry periods of low river flow, but if a preliminary contract could be negotiated to open up the site, build the north bank coffer dam and drive the diversion tunnel, a great saving in time was possible. This was the Cl contract, the first contract of the construction of the Kariba project, and it was awarded to the Cementation Company, who had a small force on site busy with the basic exploratory work.

At that stage the whole area was primeval bush with no access at all to the north bank, and access to the south bank only by a hunters' track which had probably been an elephant track. It wound its way from Makuti on the Harare-Lusaka Road, to the entrance of the gorge and could only be negotiated in a landrover with four-wheel drive.

The only conceivable supply base was Harare, with the lines of communication over the main Chirundu Road to Makuti, at that time a reasonable road but not of the present standard. Access to the site was thus tenuous and large numbers of men and much heavy equipment had to be got in to build the north bank coffer dam, itself a large dam in its own right, and drive the tunnel some 40 feet high and 30 feet wide right round the site on the south bank.

At the outset there was what lawyers would call a conflict of interest. With the river low the north bank coffer dam foundations had to go, but the camp also had to go. If ever we were to get the necessary numbers of men needed on site, we had to practically establish a small town in the wild with an electricity supply and a bilharzia-free and safe water supply, and all the other needs, big and small, of a self-contained community.

The only access to the north bank was over the river, so a pontoon bridge was built using some of the drilling equipment. Across it small compressors and drilling gear were manhandled and drilling and blasting a foundation trench for the coffer dam could start, but to lift the broken rock out of the trench the equipment used was almost prehistoric. Little mining kibbles could be found in the then Rhodesia and the equivalent of small Scotch Derricks were made up of available timber and hand windlasses. The equipment would horrify any modern contractors but only light gear that could be manhandled over a landrover track and a pontoon bridge was practicall. Obviously, the road from Makuti had to be upgraded for heavier transport and access was cut in the hills to a reasonably high campsite, as well as opening up a working area.

Surprisingly, all these operations did go along together and the coffer dam trench did get excavated.

Now to get it concreted before the river rose became the first deadline crisis in the building of Kariba. There was no way of getting normal concrete materials to the site and no way at that stage of establishing a quarry and crushing plant. The solution was to place the reinforcement normally and fill the trench with broken rock of which there was plenty on site, and convert it to concrete by pumping sand/cement grout into it through pipes extending to the full depth of the cut. The idea was right but there was none of the necessary equipment nearer than Johannesburg and no staff familiar with it. Crisis produced the answer in the form of a full crew under a foreman with all the equipment from Johannesburg loaded onto a convoy of trucks with pre-arranged entry permits and customs clearance. They only just did the job in time and almost had to paddle out as the river rose.

The start of the tunnel had to be considerably delayed as much heavy equipment had to be bought, and a highly skilled crew got together. The delay however did not matter as the driving could proceed whatever the river level. Access to it was down an incline and the top portion of the tunnel was excavated first over the full length to enable the hanging of the roof to be made safe. Thereafter it was rock excavation with mechanical loading of trucks which drove straight up the incline and dumped the spoil into the river which disposed of it. As soon as we had available equipment after cutting roads into and around the site an airstrip was cleared and levelled. It helped communication considerably and was invaluable for bringing in fresh food supplies and other light needs. Opening up the site by road and air access also brought visitors in, the high and the mighty, as well as sightseers. It also allowed other contractors to get on the site and carry out specialized works, such as the building of a pedestrian suspension bridge over the river and for a start to be made on the main camp to house the Italian labour force when it arrived later.

One bunch of citizens of the Federation demanded the right to see the project and drove down into the tunnel without permission or ceremony and despite the fact that the blast whistles were going. They met the miner coming out to fire the charge and still demanded to see the face. Only when he asked where they would like to be buried did the penny drop and they retired.

Almost all the thoughtful people who visited the site were astonished at the river, which was then in Hood, and expressed interest in the diversion scheme and some doubt as to it ever being possible to divert such a large flow of water. There is a photograph of me demonstrating the plan with sketches on the road while a gentleman sitting on a shooting stick asked questions - he was the Governor General of the Federation, Lord Llewellin. Another VIP was Lord Reith, head of the BBC, who apart from interest in the project was very depressed at what he termed the communist takeover of the BBC. Roy Welensky another VIP was more interested in the muck shifting in the tunnel and very shrewdly put his finger on one of the main problems, namely, wear and tear on the mechanical excavators and their maintenance. There are of course problems and incidents on any sizeable construction job and few incidents are worth mentioning.

One incident involved a young member of the consulting staff who, after making some measurements, arrived in the Tunnel Superintendent's office and announced that the tunnel was not correctly positioned, and demanded that the work should stop at once. Bill Lodder, the Tunnel Superintendent, a large resourceful and very successful mining man, looked at him for some time and then told him to go away in two words, one of which is unprintable. The resulting row was monumental, the tunnel position was checked and found to be correct and, fortunately, the whole disturbance ended in laughter.

Another incident occurred between Henry Olivier, the consultants representative in Harare, and myself concerning payment for the construction of the bridge piers. They were started when the water was low but had to be finished with the river flowing round them and rising fast. Agreement by the respective staffs could not be reached and I visited him in his office in Harare
and thumped the desk in my explanation of the difficulties. He sat back and laughed and we settled the matter in ten minutes or so. He recalls the incident in his book, Dammit, and remarked that it was a good thing there was a desk between us.

There were other things less pleasant in the form of parties of inexperienced enthusiastic hunters who got lost in the bush and had to be rescued, and other citizens who would not listen to advice about bilharzia and contracted it. But by and large it was a happy place and a great time to be there.

The main contract negotiations were completed and the contract let to the Italian consortium, Impresit, some six months before the Cl contract was due for completion and there was in fact much work still to be done. The consultants considered that a further saving in time would be achieved if Impresit could move onto site immediately and we were asked to study the suggestion with them. Discussion between Mr Lodigiani, the Consortium leader, and us therefore started and turned up considerable problems if two separate concerns were to attempt to work on what was then a restricted site with limited accommodation. Mr Baldassarini, who was to manage the Impresit contract, and I were asked to study the position further and if possible come up with suggestions.

We were in fact able to devise a plan whereby Impresit successively took over portions of our contract complete with equipment, housing and personnel on specific dates. The plan envisaged taking over the whole site over a period of some 4 to 5 months and was worked out in great detail by the respective staffs almost on the lines of a military operation. Mr Baldassarini moved onto site and I provided him with an office and landrover and a truly wonderful co-operation developed between us which was invaluable in carrying out the rather difficult takeover operation.

On the occasion of the first section handed over both sides were a little cagey but it went off safely with all documents and measurements duly signed. Thereafter we invited them to have a drink with us and they returned the compliment. This process continued into a memorable party with real merriment and argument. Technical staff of both parties tended to gang up against the administration staff irrespective of language and company loyalty. Thereafter the changeover went miraculously well and they were well established on site with their own preliminary work without interrupting the completion of the CI contract.

I left Kariba when Impresit finally took over the whole site at the end of 1956 and my knowledge of the main construction of the dam is limited to what I saw on the occasional visits I made to the site thereafter. Cementation Company sub-contracted to do all the grouting work and one section of that work could be of interest. Construction of the coffer dam spanning the main channel of the river was a crucial operation in the whole project. A Mr Bergamasco, one of the Impresit partners, remarked that when they got down to the rock below the river bed and got the first concrete in, the job was done.

The problem lay in the rubble and boulders lying on the bottom of the river channel through which water could percolate freely. Driving heavy steel sheet piling into the rubble along the sides of the coffer dam walls was a major part of the solution, but piles could not be expected to cut through large boulders and hence a seal with the bed rock was virtually impossible. The difficulty was solved by drilling through the rubble inside the lines of steel sheet piling, washing out sand and tine material, and following up by injecting cement to consolidate the rubble thus disturbed by the high pressure water and air jets. By this means the rubble was made substantially watertight and excavation inside the coffer dam was carried down to bedrock.

I remarked earlier that the essential first step to building a dam across a river was to push the river out of the way. The record of the Zambezi's resistance to this procedure was well illustrated in the flood pictures but the surprising thing was that so little damage was done. The fact that there was so little damage done is in fact a great compliment to the excellence of the diversion design and the really good quality of the work carried out by Impresit.

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# Kariba South Power Station: An Operational Overview <br> by George Woods 

This is the text of a talk given to the Mashonaland Branch of the Society at Kariba on 13th July 1991.

## Introduction

The concept of building a Hydro-Electric project at Kariba dates back to the early 1940 s but it was not until the 1 st March, 1955, that an official decision to undertake the scheme was made. Construction began in 1956 with the first machine (generator 1) being commissioned on 28 December 1959 and the remaining 5 machines being commissioned over the next 26 months, culminating with generator 6 in February 1962. In order to be able to generate electricity at the earliest convenient opportunity, generators 1 and 2 were commissioned using temporary intakes situated at 1370 level thus making use of the partially full lake. When the lake covered the low level intakes of generators 3 and 4 at 1460 level these machines were commissioned, which enabled generators 1 and 2 to be shut down for transfer to the permanent intakes situated at the 1510 level.

## Operation

The principle of operation of a hydro-electric scheme is very simple and relies solely on the energy of the falling water to provide the motive power.

The main parts of the hydraulic plant consist of the following:

## a. Intakes and Penstock

The purpose of the Intakes and Penstock is to direct the water to the turbine. Large debris such as logs, etc., are prevented from entering the machines by screens placed across the entrance to the intakes. These screens are cleaned on a regular basis by a mobile trash rake situated on the intake platform at the 1606 level. After passing through the screens the water travels horizontally to the penstock which contains a radial gate at its mouth.

The radial gate is held open by a hydraulic cylinder and when released closes under its own weight to cut off the flow of water in the event of an emergency. The first 155 feet of the penstock is 20 ft diameter and concrete lined. At the 1355 level the penstock narrows to 17 ft diameter and is steel lined in order to contain the rising pressure of water.
b. Turbine

The Turbine provides the motive power to drive the electrical generator and consists of the spiral casing, Guide Vanes and Runner.

The spiral casing forces the water around the periphery of the runner and is of a constantly reducing diameter in order to maintain a steady pressure around the runner. The 24 guide vanes, situated between the spiral casing and the outer diameter of the runner, direct and control the flow of water into the runner. The action of the water on the 18 blades of the runner caluses it to rotate and it is capable of producing over 140000 HP .

c. Draft Tube and Surge Chamber

After passing through the runner the water exits downwards into the draft tube which is designed to maintain a negative pressure below the runner. From the draft tube the water enters a surge chamber common to each pair of machines. The surge chamber as its name implies is provided to accommodate surges of water due to sudden increases or decreases in generation. The water finally exits to the Zambezi river via 3 tailraces, each one serving two machines.

## Clectrical Equipment

a. Generators

The 6 generators are each capable of producing 111000 KW (111 MW) of electricity and consist of two major parts, the Rotor and the Stator. The Rotor, as the name implies, is the rotating element and is nothing more or less than a large electromagnet which is turned inside the stator to produce electricity. The rotor is 25 ft in diameter and weighs 370 tons, the required magnetic field being produced by 36 poles around its rim. The stator, being the stationary element, weighs 168 tons and has an outside diameter of 32 ft . Wound into the stator are 378 copper coils which, when they are subjected to the rotating magnetic field of the rotor, produce electricity at 18000 volts with a full load current of 3560 amps .
b. Generator Transformers

In order to transmit power effectively over long distances it is necessary to minimise the power losses on the transmission lines. This is achieved by increasing the transmission voltage which lowers the transmission current. This increase in transmission voltage is carried out in the Generator Transformer which steps up the generated voltage of 18000 volts to 330000 volts. Power is then passed via oil filled cables to a switching station on the surface where it is distributed to the various load centres of the country.

## Control

Control of the electrical functions of the Power Station is carried out from the Control Room situated on the surface. From the control room the turbines can be started and stopped automatically, and the power and voltage produced by each generator adjusted to meet the changing system conditions. The main circuit breakers and auxiliary isolators of all the power lines from the switching station are also operated from the control room. All the major equipment in both the Power Station and the switching station is fitted with fault detection equipment which provides an audible and visual alarm in the control room enabling the operator on duty to take corrective action. Communication with the ZESA National Control Centre in Harare is of vital importance for the safe and efficient operation of the Station and the system as a whole. Thus several methods of communication are employed, namely, Power Line Carrier, PTC, teleprinter and VHF Radio.

Power Line Carrier communication is ZESA's own private system whereby the power lines leaving Kariba are also used as telephone lines. This is achieved by impressing a high frequency signal over the power line which is captured at the remote end. The extent of the Transmission system is such that the Controller in Harare can communicate as far as Kitwe in Zambia with little or no delay.

## Staffing

The complement of staff at the Station is currently 242, however of that number only 93 are directly concerned with generation, control and maintenance functions. The remaining 149 are
mainly of an administration nature including security guards, messengers, drivers, etc., and a fairly large civil engineering section is required for the maintenance of staff houses, etc. As the Power Station is required to generate electricity 24 hours a day the Operations Staff man the site round the clock 365 days per year. Outside of working hours there are only 6 people required to run the station although maintenance personnel are on stand-by to attend to any faults that may occur.

## Future Development

Several sites for future Hydro development have been identified, the most promising being Batoka Gorge which is situated some 50 km down stream of Victoria Falls. The proposed dam wall would be 196 metres high and 600 metres across and will impound a lake almost to Victoria Falls containing two billion cubic metres of water. It may be seen that by comparison with Lake Kariba, which is 200 km long and contains 180 billion cubic metres of water, the Batoka scheme becomes almost a "run of the river" project. Indeed, the location and storage capacity will complement the Kariba dam as each site will be ideally suited for peak generation at different times of the year.

This promotes greater flexibility and better energy utilisation of the resources at our disposal.

# The Fortieth Anniversary of the History Society of Zimbabwe in June 1993 and the Years Before 

by Michael J. Kimberley

## Introduction

This is an historic occasion for the History Society of Zimbabwe since we are gathered to celebrate the 40th Anniversary of the establishment of our Society on 12th June 1953.

Our last celebration of this kind was held in 1978, at the height of the civil war, when, for the purpose of our Silver Jubilee, the National Executive Committee of that year organized a full programme of events.

The celebrations were formally opened on Friday 12 May with a special retreat ceremony at Government house, followed the next day by a Symposium of five lectures by Messrs Latham, Dickinson, Burke, Storry and Roberts, and a glittering banquet in the evening attended by 218 members and guests. On the Sunday a nostalgic steam train journey was made from Harare to Marondera and back with no less than 550 participants making the journey. There were also a National High Schools Art Exhibition and a National High Schools Essay Competition.

Other Societies and Institutions joined in support and put on exhibitions to coincide with our Silver Jubilee and these included the National Archives, the National Gallery, the Prehistory Society, the Heraldry and Genealogy Society, the Mashonaland Photographic Society and the Vintage Car Club.

A limited issue of commemorative beer mugs and a Portfolio of Historic Botanical Prints limited to 500 sets were produced as well as a specially printed souvenir brochure for the train trip.

By September of that year the Society's worthy Editor, Vernon Brelsford, had produced a 126 page journal describing the events and functions and containing the full text of the lectures.

The Silver Jubilee after 25 years, the Golden after 50 years and the Diamond after 60 years are notable and important anniversaries with, perhaps, the 40 th being neither so remarkable nor significant.

Nevertheless it is an achievement and it is appropriate for us to review briefly the Society's achievements upon its 40th Anniversary.

## Establishment

From 1949 to 1952 two civil servants, Harry Archie Cripwell and Brendon Lloyd, based in difference departments in what is now Masvingo, discovered that they shared a common interest in books on Rhodesia in particular and Africa in general. Upon transfer to what is now Harare they met to discuss Rhodesiana and Africana and the possibility of founding a Society on the lines of the Van Riebeeck Society was mooted.

Their thoughts became a reality in 1953 when they invited those who were interested in Rhodesiana to attend a meeting at the Presbyterian Church Hall on 8th May 1953. A handful of people attended and their names are important - Archie Cripwell, Brendon Lloyd, Tony Tanser, Father Hannan, Jan van Heerden, Rhoda Ellis and Mrs Mary Lloyd. They agreed to form a Society and appointed a Committee to draft a Constitution.

On 12th June !953, in a room made available by Tony Tanser in the Audio Visual Theatre of the Ministry of Education, the Rhodesia-Africana Society was formally established to further the interests of collectors of Rhodesiana and to assist in the preservation of books and documents relating to the Rhodesia's and Nyasaland. The membership subscription was one guinea and the first Committee comprised Archie Cripwell as Chairman and Brendon Lloyd as Secretary, together with Tony Tanser, Jan van Heerden and Father Hannan. By the end of the year the Society had 19 paid-up members.

It is rather nice that 40 years later our National Chairman is Tim Tanser and our Mashonaland Branch Vice Chairman is Cormac Lloyd both perpetuating the work of two of our foundation members.

## The Early Years

The emphasis in the early years was on books and their acquisition through exchange or sale. Members who wished to dispose of duplicate books and unwanted books were invited to inform the Secretary.

The first outing was a visit to the Africana Library at Chishawasha Seminary and the second to the National Archives.

There was also an emphasis on lectures and at the first annual general meeting in 1954 Vernon Brelsford spoke on Northern Rhodesiana followed later by Mrs E. Goodall who gave an illustrated lecture on Rock paintings.

The Society nearly foundered when in November 1955 only four members appeared at the second annual general meeting and it had to be immediately adjourned due to lack of a quorum.

## Publications

Although newsletters compiled by Brendon Lloyd and Archer Cripwell were issued two or three times a year, the Committee realised the vital importance of a journal if the Society was to survive. Material was sought by the Chairman and by Tony Tanser and sent in 1955 to London for printing under the supervision of Chas J. Sawyer the well known and long established publisher and bookseller.

Tony Tanser tells us in his article on the history of the Society from 1953 to 1974, on which I have relied a lot for my talk this evening, that it took six months to get the galley proofs and the final delivery was in February 1957. We have trouble with our printers nowadays and we suffer broken promises and experience delays but 1955 to early 1957 is a very long delivery period.

The first issue contained the text of an address by Sir Robert Tredgold on the unveiling of the memorial at the Mangwe Pass and the text of Vernon Brelsford's lecture on Northern Rhodesiana.

As a preface to Sir Robert's address there was a note entitled "Three Episodes in Rhodesian History", the first relating to Robert Moffat and being an extract dated 26th November 1859 from the Matabele Journals of Robert Moffat (Oppenheimer Series Volume II), and the second relating to William Sykes and being an extract from the Matabele Mission (Oppenheimer Series Volume). The third episode was the address by Sir Robert, the grandson of John Smith Moffat.

It was discovered that the printer had omitted four pages from the text being the first two episodes each of two pages referred to above. To return the 75 specially bound and numbered hard bound copies and the soft covered copies to London for correction was impractical so a local printer was commissioned to print the four pages and these were tipped into the bound copies. In the case of the ordinary copies the staples were lifted and the pages inserted. Although no complaints were received these pages were in the wrong place, i.e. between pages 6 and 7 instead of between pages viii and ix!

We have come a long way since that time and 40 volumes of the journal Rhodesiana appeared between 1957 and 1979 annually until 1962 and biannually thereafter. For obvious reasons the title of the journal was changed in 1980 and 11 issues of Heritage of Zimbabwe have appeared up to now with another issue due before Christmas this year.

Twelve different editors have produced those 51 volumes. The late Ted Burke did a wonderful job producing eight consecutive biannual volumes. However, the doyen of our several Editors during the society's 36 years of publishing was undoubtedly Vernon Brelsford who was responsible for no less than 24 volumes between 1967 and 1979 and we remember him for his dedication, competence and resilience.

Without a steady flow of material, Editors, of course, can achieve very little so we should also remember our authors. For our 40 issues of Rhodesiana the main authors were Colonel Hickman with eleven articles, Cran Cooke with ten, Ted Burke with eight, Father Rea, Dickinson and Jack McAdam each with six articles. For Heritage of Zimbabwe Peter Locke has provided eight articles, Robert Smith, a former Editor, seven and your present Editor six.

## Growth in Membership

Membership reached 100 in March 1958 and 300 in 1963. On Robert Turner's suggestion in 1964 a membership committee was appointed under his Chairmanship with Mr Lloyd, Mrs Kane and myself to assist, with a target of 1000 members. By 1968 we had 962 members and the magical 1000 was achieved in 1969. By 1972 we had a record 1300 members. The civil war and emigration resulted in a steady decrease in membership and today we have about 800 paid up members on our books.

Of the members as at March 1956 listed in Rhodesiana No. 1, I think the only ones who are still members and still alive are Roger Howman and myself. I joined in 1955 whilst a University student and Roger probably in 1954. Tony Tanser was a Committee member for 26 years (1953 to 1979) and Robert Turner and I have been on the national Committee for 32 years and 31 years, respectively. Archie Cripwell was Chairman continuously for 17 years from 1953 to 1970 (we changed the Constitution when he retired on health grounds to restrict Chairmanship to two continuous years). Lex Ogilvie was Honorary Treasurer for 14 years from 1979 to 1993, and I served as Honorary Secretary from 1962 to 1972 and Vernon Brelsford as Honorary Editor for 12 years from 1967 to 1979 .

## Active Branches

The Branches have been very important and have played a major role in the development and success of the Society.

The Mashonaland Branch was formed in May 1969 to organize social functions including tours and dinners in Harare, taking over this role from the National Committee which had, with Tony Tanser and Ronnie Howland in the forefront performed this function up to then producing an interesting number of historical walks, talks, the very popular and enjoyable train journeys, tours and films. Ronnie Howland excelled himself by producing several excellent films which members found extremely enjoyable. Tony Tanser was the first Branch Chairman and his tirst committee included Colonel Hickman, Dr Howland, Miss von Memerty and myself.

The Mashonaland Branch organized its first outing to Hartley in September 1969 to commemorate the 100th anniversary of the naming of Hartley Hills and just under 200 members and their guests participated. This was followed in July 1970 by a visit to Mashayamombe's stronghold and Fort Martin attended by no less than 260 members and guests.

Since that time and for 24 years numerous outings, tours and expeditions have taken place under the auspices of the Mashonaland Branch with good participation from the membership though the numbers participating in the early years are no longer achieved.

The Matabeleland Branch was established in October 1967 under the Chairmanship of Peter Gibbs with Don Low as Secretary and Oliver Ransford and Bill Pagden as Committee members. Their first outing was in January 1968 with visits to Government House, Umvutcha Kraal, the Jesuit Mission and Old Bulawayo. This Branch was very active for about 12 years but unfortunately disbanded in about 1980.

The Manicaland Branch was established in November, 1968 with Reverend Sells as Chairman and Angela Cripps as Secretary, and Don Broadley, P. Gordon Deedes, Peter Hutchinson and F. O. Bernhard as Committee members. The Branch was never very active and by 1979 had more or less ceased to exist.

## National Dinner

The National Annual Dinner has been held every year since 1967 with the first being held in Harare in that year and the second in Bulawayo in 1968 in the Year of that City's 75th Anniversary and the third in Mutare in 1969. Originally the venue rotated between Harare, Bulawayo and Mutare or Nyanga. We have more often than not been unlucky with our after dinner Speakers and I recall a dinner 20 years ago at the Montclair Hotel attended by 100 members and guests with two former Cabinet Ministers snoring quite loudly during the main speech!

## Crest, Tie and Medals

Following a design competition launched in the local newspaper, which was won by Captain R. P. Gardiner of Army Headquarters, Harare, the Society adopted a crest in June 1967. The description of the crest is as follows:
"The very name of the Society being indicative of its nature, I selected the Rhodesian Lion as the central motif of the design. However, the attitude of the Lion was to convey the following meaning:
I. Rampant - the active spirit of the Society
2. Regardant -- the reflection of History The other symbols chosen represent the pursuits of the Society:

1. Book of Knowledge - the achievements of the Society
2. Torch of Knowledge - the research

Instead of the usual garter, the central design was circumscribed by a Bandolier. Quite frankly, this was a gimmick - and an after thought at that, but it was rather appropriate as it served to illustrate;

1. The link with our Pioneers.
2. The unity amongst those who appreciate Rhodesian history."

This led to the production of the Society's first necktie which was completely sold out a few years later. A second version of the necktie, more attractive than the first, was produced in 1992 and is still available and proudly worn today by many of our members.

In 1969 Robert Turner's proposal was adopted to strike bronze decade medals for sale to members and gold medals for award to persons who had rendered outstanding service (a) to the Society or (b) to Rhodesian history. The bronze medals sold well and eight gold medals were awarded, seven in category (a) and one in category (b). The first awards were made in January 1971, posthumously to Archie Cripwell and Viscount Malvern, and also to Colonel Hickman. In August 1972 awards were made to Tony Tanser and Oliver Ransford, in October 1975 to Harry Simons and myself, and in November 1978 to Robert Turner.

## Changes to the Society's name and its Objects

As already indicated, the Society, upon its establishment, was called the Rhodesia Africana Society and its objects were beamed on the interests of collectors of books.

As time passed the society's scope was widened and with the adoption of a new Constitution in March 1969 its objects became to unite all who wish to foster a wider appreciation and knowledge of the history of Rhodesia and neighbouring territories.

Similarly, the Society's name was changed on several occasions. Firstly, in October 1958 to The Rhodesiana Society. Secondly in March 1980 to the National History Society and finally, in March 1981, to the History Society of Zimbabwe

## Rhodesiana Society Scholarship

By resolution dated 18 th July 1978 the National Executive Committee in order to commemorate 25 years of the Society's existence, established a scholarship. The purpose of the award was to encourage and assist amateur historians to carry out research into aspects of Rhodesian history with the object of making a distinct contribution to the knowledge of such history. The scholarship was tenable for one year and was in the sum of $\$ 100$ or such greater sum as might be approved by the Committee and the rules governing its award were set out in Rhodesiana No. 39. So far as I am aware no applications were ever received and no award was ever made.


## 10 <br> MOVE UP TOZImban' BANKING AT ITS BEST

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# History Society of Zimbabwe <br> National Chairman's Report - 1992 

The History Society of Zimbabwe and more especially the Mashonaland Branch of the Society under the leadership of John Bousfield, has had an active year. Once again, a variety of attractive outings and talks were arranged, including a weekend in the Banket-Chinhoyi area.

I regret to have to report the recent death of an Honorary Life Member, Mrs Cripwell, who was the widow of one of the founders of the Society. The Society now has 781 voting members as against 696 last year, an increase of 85 and two Honorary Life Members.

The Society is this year celebrating its 40th anniversary which coincides with the 100th anniversary of the War in Matabeleland and the founding of Bulawayo. We shall be marking the Society's anniversary with an exhibition of pictures at the National Gallery and later in the year, we will be arranging a cocktail party at the National Archives where the papers of the Late Archie Cripwell who I mentioned earlier, was a founder of the Society and former Chairman, will be on display. The anniversary of the Matabele War will be marked by a weekend outing towards the end of July under the leadership of Tim Tanser to some of the battlefields.

A particularly outstanding volume, Number 10, of the Society's journal, Heritage of Zimbabwe was published during the year. I wish to pay tribute to our editor, Mike Kimberley for his dedication to the publication of the Society's journals and particularly for his work in connection with Heritage 10. Heritage 11 is in the hands of the printer and we expect it to be dispatched to paid-up members in the next few weeks. It was necessary to award the contract for the printing of Heritage 11 to a different printer and the change of printer for Heritage 11 has resulted in more work than usual for Mike.

The cost of producing and publishing editions of the journal has increased enormously. As I indicated in my report for 1991, it had become necessary to make an appeal for funds to enable us to go on publishing the journal. Revenue from membership fees and advertising fell far short of the cost of producing the journal. I am pleased to be able to report that the Society's appeal has been successful and we should receive sufficient funds from those companies which have made pledges to enable us to continue publishing the journal for the next two or three years but we will be continuing to seek further funds to enable us to go on publishing the journal after that period. The Anglo American Corporation has provided additional support for the publication of Heritage 11 which will be a special edition and will contain more pages and more photographs than usual. We are extremely grateful to the Anglo American Corporation for this additional support. Work is already in progress for the production and publication of Heritage 12.

During the year, a new neck-tie for the Society was put on sale. The tie has been wellreceived and sales are going reasonably well but we still have a large number of ties to sell so if anyone would like to acquire a tie, please contact Mrs Rose Kimberley at P.O. Box 8268, Causeway (Phone: Harare 39175). The Mashonaland Branch has arranged for the production of an updated version of the beer-mug and also a dish in the shape of a scallop. Beer mugs are presented to gentlemen and the dishes are presented to ladies who address meetings of the Branch or have assisted in other ways.

The annual dinner which was held at the Harare Club on the 10th April, 1991 and which was addressed by Mr Mike Wiley on the History of Plumtree School of which he is the Headmaster, was fully subscribed. The annual dinner will be held this year on Friday, 16th April, again at the Harare Club which has just celebrated its centenary during the last few weeks. The guest speaker will be Mr. Robin Rudd from Bulawayo, a direct descendant of Rudd
who obtained the Rudd Concession. Robin Rudd has a reputation of being an excellent raconteur. We can expect a most interesting and amusing address from Robin Rudd at the dinner, so those of you who have not yet responded to the invitation to attend the dinner, should do so as soon as possible.

Lex Ogilvie who has taken care of our finances during the last 13 years is retiring as Treasurer of he Society with effect from the close of business at this meeting I would like to thank him very much for the exemplary manner in which he has kept the Society's books and for his long service to the committee and to the Society as a whole.

Rose Kimberley has been a tower of strength to us all. I thank her very much indeed on your behalf for the day to day administration of the Society's affairs. I thank Richard Wood for his services as Secretary to the Committee; Tim Tanser, our Vice-Chairman for the support he has given to me during the last two years; Richard Franks for organising the annual dinner and each and every other member of the Committee for their advice and assistance. Having been Chairman for the last two years, I step down from the Chair at the close of business at this meeting and take this opportunity to wish my successor and the incoming committee as a whole well in their endeavours.
A. M. Rosettenstein

# Dr Oliver Neil Ransford 1914-1993 

## A Personal Appreciation, by Robin Rudd

My wife and I met Neil and Irene Ransford soon after we came to Bulawayo from Harare in 1971. Although he wrote under his first name, Oliver, he was known by his second, Neil. We were near neighbours in Suburbs: we used to go round to them in Heyman Road and they would come to us in Clark a couple of blocks away. In between we would sometimes meet walking our various dogs, even trying occasionally walking them together but this was not a success.

Neil and Irene made a wonderful couple, both large and tall and soon white-haired, always appearing delighted to see one: they were tremendous conversationalists, widely informed, very amusing, splendidly articulate and full of spicy but never malicious gossip, and they really made you laugh and loved laughing themselves.

Not long after we came to Bulawayo, they had gone on an expedition to retrace Livingstone's steps beginning at Kuruman, the mission station, where he was first sent and where he arrived in 1841. It had taken him ten weeks to get there by ox-wagon from Port Elizabeth, and, as Neil wrote, he had enjoyed every moment of the journey "for there is a wonderful sense of liberty in the wide horizons of the high veld, and nothing compares with the excitement of the nightly camps when each star glitters with twice its usual brightness, and all is quiet except for the yelping calls of a distant animal".' This was not the sort of thing that could be written by anyone who had not experienced it to the full himself.

There was talk of our joining them on this expedition but we could not do it. (As far as I was concerned, it was just as well because not only do I share my great grandfather's "distaste for life in the wilds",' but as a camper I burnt myself out in 1948, the year the Nationalists came to power in South Africa, and I was at Stellenbosch and I went with the Berg en Toer Klub to Knysna and my feet gave out and I had to hitch-hike, which was simply not done. Richard Burton, the actor not the discoverer, with Speke, of Lake Tanganyika, described himself as the most maladroit man who ever lived but, sadly, he did not know me. I sympathize wholeheartedly with Rochfort Maguire when Matebili Thompson tried to teach him to cook on their journey here in 1888.
"Maguire, up to this time, had played the part of onlooker very well. I now asked him to prepare breakfast. The meal was to consist of salmon curried, and his first question was how to open the tin. I handed him a strong pocket-knife, and explained how to use it, but he thrust the blade deeply into his thumb-nail instead of into the tin. The accident terminated his training as a chef.".")

The Ransfords' journey resulted in a short documentary for which Neil was the narrator and the camera work was done by Andy Hendry the renowned Bulawayo photographer. I believe it was shown briefly on the South African circuit but its audiences were not quite on the scale it was hoped they would be and a number of years passed before he embarked on his next and final venture in the film world.

It had come about that Neil, as a world authority on David Livingstone, had joined up with Thomas Barlow who had recently sold Vergelegen, at Somerset West, probably the most famous of all Cape Dutch houses, which had been in the Barlow family for a number of years. The Ransfords had known the Barlows for a long time. Somebody had managed to interest Wolf Mankowitz, the Oscar winning script-writer, and together they were going to produce a
major film on Dr Livingstone to be called "The Word of a Gentleman". Understandably, Neil and Irene were intrigued at the prospect, and very enthusiastic about it.

They let us read the script which we thought terrific and I said, "What a super story behind the title". I recounted how when Livingstone was about 9 , a woman who lived in their tenement block in Blantyre in Scotland was desperately ill. They could hear her groaning and crying out with pain and Livingstone's father said, "She will be all right. Jesus says he will save her." When the poor woman did not seem to be getting any better and the sounds of suffering continued, the little boy asked, "Will Jesus really do as he says and save her?" "Yes," said his father, "it's the word of a gentleman". Irene liked it but implied that it was not in fact the story behind the title - although it was there in the script. For some reason this proposed film failed to fulfil its early promise and so far nothing more has been heard of it.

In 1975, it was the turn of the Bulawayo Branch of the Institute of Bankers to run the Annual Banking School. This was normally held at Inyanga. The Branch decided however that it should take place within its jurisdiction, in other words at the Victoria Falls, in Matabeleland. Approval was accordingly sought from the Institute's President, Mr Noel H. B. Bruce, who was also the Governor of the Reserve Bank of Rhodesia. This was forthcoming with the proviso that we should not go to the Casino Hotel. He was not going to have his bankers being seen as a body anywhere near what he considered a gambling den. Despite his name, he was an elder in the Dutch Reformed Church, the B. being for Botha; and he spoke with an Afrikaans accent reminiscent of General Smuts. So we went to the A'Zambezi, which was on the banks of the river and in those days still in private hands.

The person who had most to do with these Banking Schools - this was the eighth - was Geoff Wilde an outstanding character who was the Managing Director of the Discount Company. He had died suddenly on June 9, two months before the School was due to begin - it ran from Wednesday to Sunday, August 6 to 10. It was therefore decided to commemorate the part he had played by having a Wilde Memorial Lecture. And who more appropriate to give the first lecture at the Falls, discovered by David Livingstone 120 years before, than Dr Ransford one of the world's greatest experts on Livingstone who was right here in Bulawayo?

It all fitted in perfectly. Not only did Neil and Irene come but they brought their delightful daughter, Charlotte, and her almost as delightful daughter, Nicky, aged I. It really was a family affair and of course Neil's lecture was absolutely brilliant. The Wilde Memorial Lecture is now in its 19th year and there have been many very fine lectures including in 1982 one by Professor Dick Christie who spoke superbly on 'What is Justice?' (The sole condition laid down from the start was that the Speaker could talk on anything provided it had nothing to do with Banking.) That School was also run by the Bulawayo Branch but in 1982 it was thought unwise to travel along the Falls Road, so it was held at Troutbeck.

In his lecture entitled 'David Livingstone: a Reassessment', Neil explained how he believed that a biographer 'can only attain a proper intimacy with his subject if he visits the places associated with him; he must tread the same ground as his subject, see the same sights, breathe the same air, and - most important of all - he must ponder over his subject's thoughts in places where he was exposed to undue psychological strain. As a doctor himself, he could enter into Livingstone's mind and as he said 'chance as well as purpose' took him to most of the places associated with Livingstone in both Britain and Africa. In addition, he had an exceptional ability to write lucidly. What he wrote of Livingstone could just as well have been applied to himself: 'he possessed an extraordinary felicity of phrase and sent words out glinting in the sun.'

His lecture amounted to a piece of fascinating investigative analysis, showing how Livingstone throughout all his astonishing achievements was suffering from cyclothymia or manic depression, with "the classical manifestations - lack of proportion, easily aroused dislikes and repeated reversion to an affront." And yet he "gained fame as a missionary, as a
doctor, as a geographer and humanist; as an advocate for Africa and the emancipator of her peoples. Livingstone too was one of the world's greatest explorers, and he extended his explorations into the realms of the intellect and spirit. He is the pioneer 'par excellence' of Rhodesia (as Zimbabwe still was in 1975), Zambia, Malawi, Botswana, Mozambique, Angola, Zaire and Tanzania. Livingstone too was one of the first men to give an account of conditions in the infant Transvaal immediately after the Great Trek."

On re-reading the lecture, I found he had quoted a phrase of Livingstone's which I had quite overlooked. He told us how "towards the end of his magnificent trans-African journey, on 14th January 1856 Livingstone with his Makololo porters came marching down the northern bank of the Zambezi from Victoria Falls, and approached the Luangwa River. That afternoon he watched a threatening mass of warriors gathering across the path ahead, preparing to dispute his passage to the river. He was in an exalted mood at that time and rather apt to compare himself to his master; now in his journal he wrote: 'See O Lord how the Heathen rise up against me as they did thy Son'. But with evening he became oppressed by the thought of dying at random before he had broadcast his discoveries to the world, and he considered crossing the river at night or even turning back. Instead, in the fading light of afternoon and evening, he turned for comfort to his Bible. It fell open, as though it were meant to, at St. Matthew's Gospel and he read the words: 'All power is given to me. . . . And I am with you always, even unto the end of the earth'. Livingstone accepted this divine assurance as directed especially towards himself, and in his journal he wrote 'It's the word of a gentleman of the most sacred and strictest honour. I will not cross furtively at night as I intended - for why should such a man as I flee?' Next morning, as if by a miracle, Livingstone passed unharmed through the warriors . . ."

When he finished this marvellous lecture and was being thanked for it, it was suggested that though he and Geoff Wilde had not met each other in this life, perhaps in thirty or forty years' time when Neil was walking in the Elysian Fields Geoff would come up to him and say "Dr Ransford, I presume".

Neil's first book, Livingstone's Lake, came out when he was 52 in 1966. It was published by John Murray as the rest were with the exception of Bulawayo: Historic Battleground of Rhodesia, which he was commissioned to write for Bulawayo's 75 th anniversary in 1968. Not unnaturally, in Bulawayo, this book is the most in demand of them all.

Not so long ago, I telephoned him to ask where Beesleys was -_ "You know," I said, "the shop where, in 1896, that 'thrusting ambitious officer, who did not suffer from the defect of modesty' had gone to buy a stetson, and instead of denting it down the middle "had poked his fingers into the crown - and the scout hat had been born' because he was of course Baden Powell". He thought it a splendid story and said, "Where did you get it?" and I said, "From your book on Bulawayo". And we both roared with laughter. Beesleys was incidentally where Meikles is today on Leopold Takawira.

This was an example of his courageous fight against a failing memory which, as The Times said in its obituary, made the last three years of his life so devastating for his family; "yet he remained gracious, family orientated and in good humour". Earlier, he had discovered - I think through his son, a distinguished orthopaedic surgeon - and liked to quote the lines of Dylan Thomas:

Do not go gentle into that good night,
Old age should burn and rave at close of day;
Rage, rage against the dying of the light.
Though wise men at their end know dark is right, Because their words had forked no lightning they Do not go gentle into that good night.

Charmingly, when he dedicated a new book, Neil never went outside his family. Livingstone's Lake was 'To My family' and between the next, The Battle of Majuba Hill in 1967 and the last Bid the Sickness Cease in 1983, both appropriately 'To My Wife', there was one for his son, Andrew (The Rulers of Rhodesia, 1968) his daughters, Carol, (The Battle of Spion Kop, 1969) and Charlotte (The Slave Trade, 1971) and for his daughter-in-law, Penny (The Great Trek, 1974). David Livingstone: The Dark Interior (1978) was the only one not to be dedicated to anyone. But there is no doubt that his help and comfort throughout their 53 years of marriage and especially throughout his years of authorship in the latter part of his life was his beloved wife, Irene, his constant companion on their travels, herself a highly competent nurse, who looked after him wonderfully and always.

## Acknowledgements

In preparing this, I should like to say how grateful I am to their great friend Olive Penhale for providing me with family details; and to Louis Bolze and Peter Genge, Archivist at the Historical Reference Collection of the Bulawayo Public Library, of which Neil was the Chairman from 1974-81, for helping with information on his books. The last one he planned was to be a novel, something he had not tackled before, in connection with the rock paintings in the Matopos. He had told Peter, an acknowledged expert on them, that he was to be the model for his hero. Perhaps, in thirty or forty years' time . . .

## References

1. O. N. Ransford, David Livingstone: The Dark Interior. John Murray, 21.
2. Rouillard, Matabele Thompson, Rhodesiana Reprint Library, 95.
3. Op. cit. 102 .

# The History Society of Zimbabwe Constitution 

## Name

1. The name of the Society shall be "The History Society of Zimbabwe" (hereinafter referred to as "the Society").

## Objects

2. (1) The objects of the Society shall be -
(a) to unite all who wish to foster a wider appreciation and knowledge of Zimbabwean history;
(b) to publish a journal or other similar publication to further this aim;
(c) to hold meetings, to arrange field expeditions and to take part in any other kind of relevant activity;
(d) to co-operate with the National Archives or any other Society or organisation with similar objects to those of the Society;
(e) to promote and further the interests of collectors of books and items of historical interest relating to Zimbabwe;
(f) to give support to any proposals for the preservation of buildings of historical significance.
(2) These objects shall not exclude interest in the history of those neighbouring countries with which Zimbabwe has an historical association.

## Membership

3. (1) Membership of the Society shall be open to all persons and institutions interested in furthering the objects of the Society.
(2) Annual Subscriptions shall be due and payable on the Ist January each year and shall be fixed by the National Executive Committee who, in determining the amount of the subscription, shall pay regard to the Society's income and expenditure.
(3) Should any member fail to pay such annual subscription before the Ist June in any year, he shall be deemed to have resigned his membership of the Society.
(4) Any institution which is a member of the Society may appoint any person to represent it at any meeting of the Society and attend, vote and speak on its behalf.
(5) Such representative may be elected as an office-bearer as if he himself were a member of the Society.

## Headquarters

4. The Headquarters of the Society shall be in Harare or such other place in Zimbabwe ats may be decided at the Annual General Meeting.

## Management

5. (1) The Management of the affairs of the Society shall be vested in a National Executive Committee (hereinafter called "the Committee") consisting of -
(a) a National Chairman; and
(b) a National Deputy Chairman; and
(c) a National Honorary Secretary; and
(d) a National Honorary Treasurer; and
(e) nine members.
(2) The Committee shall be elected to office annually at the Annual General Meeting and shall hold office until the conclusion of the next Annual General Meeting.
(3) The nine members referred to in paragraph (e) of subclause (I) shall include at least one representative of each Branch of the Society.
(4) No person shall hold office as National Chairman for more than two years in succession; and no person shall hold office as National Deputy Chairman for more than two years in succession.
(5) The Quorum of Committee meetings shall be four and in the case of an equality of voting the Chairman shall have a casting vote.
(6) The Committee shall have the power -
(a) to convene General Meetings;
(b) to control the funds of the Society;
(c) to appoint an Auditor to audit the accounts of the Society;
(d) to appoint an Editor to edit the Publications of the Society;
(e) to co-opt any member as a member of the Committee provided that a co-opted member shall only remain a member of the Committee until the next Annual General Meeting;
(f) to form sub-committees and determine the terms of reference of such sub-committees;
(g) to establish Branches of the Society in any area of Rhodesia and to define the powers of such Branches;
(h) generally to do all such things as may in the opinion of the Committee be necessary and expedient to further the objects of the Society.
(7) The Chairman shall submit to every Annual General Meeting of members a report on the activities of the Society since the date of the previous Annual General Meeting.
(8) The Committee shall meet at least twice in every year for the despatch of business.
(9) Each Branch established in terms of paragraph (g) of subclause (6) of clause 5 shall have power and authority to raise and disburse funds for Branch purposes without reference to the Committee but shall submit to the Committee an annual statement of receipts and payments.

## Honorary President, Honorary Vice-President and Honorary Members

6. Two patrons and an Honorary President and an Honorary Vice-President and Honorary Members of the Society may be elected by members at an Annual General Meeting.

## Meetings

7. (1) There shall be held not later than the thirty-first day of March in each year a meeting of members which shall be known as the Annual General Meeting.
(2) Other meetings of members, which shall be known as Special General Meetings, may be called at any time by the Committee and the Committee shall call a Special General Meeting if requested to do so in writing by not less than five members of the Society.
(3) Notice of a Special General Meeting shall be given within one month of the request being received by the Committee.
(4) Notice of all Annual and Special General Meetings of members shall be given to all members of the Society in writing and shall be posted to all members not less than twenty-one days before the date of the meeting.
(5) Notices of meetings shall state the business to be transacted at the meeting.
(6) The Chairman of the Society, or failing him, the Deputy Chairman shall take the Chair at all General Meetings of members of the Society, provided that if neither are present, the members present at the meeting shall elect one of their number as Chairman of the meeting.
(7) The quorum for an Annual or Special General Meeting of members shall be twelve members personally present.


#### Abstract

Voting 8. (I) Each member of the Society shall be entitled to vote at all Annual and Special General Meetings of members of the Society and each member shall have one vote on any resolutions which may be placed before such meeting. (2) At all meetings of members of the Society the Chairman of the meeting shall have a casting vote. (3) Voting shall be by show of hands by members present in person, providing that if five members present in person at the meeting demand a poll, a poll shall be taken in such manner as the Chairman of the meeting may decide.


## Accounts

9. (I) The financial year of the Society shall be from Ist January to 31 st December in each year.
(2) The Committee shall maintain proper financial record which shall at all times show a true and fair view of the finances of the Society.
(3) The audited statement of accounts in respect of the previous financial year shall be placed before each Annual General Meeting of members.

## Publications

10. Each member of the Society and each husband or wife member, having paid his subscription, shall be entitled to receive one copy of all publications by the Society during the financial year and shall receive such copy without payment, unless the Committee decides that payment shall be made therfor.

## Amendments to the Constitution

11. This Constitution may at any time be amended by a majority of the members present and voting at an Annual General Meeting or Special General Meeting of members, provided that notice of the proposed amendment has been posted to members at least 21 days before the date of the meeting.

THE CONSTITUTION WAS ADOPTED BY MEMBERS AT THE ANNUAL GENERAL MEETING HELD IN SALISBURY ON THE 2IST MARCH, 1969. AS GIVEN ABOVE IT CONTAINS AMENDMENTS MADE SINCE THAT DATE.

## THE HISTORY SOCIETY OF ZIMBABWE

FOUNDED: 1953
P.O. Box 8268, Causeway, Zimbabwe.

## PUBLICATIONS PRICE LIST

A. The journal RHODESIANA
(40 issues published from 1956-1980)
The following issues are available

| No. 19, 1968 | No. 24, 1971 | No. 29, 1973 | No. 34, 1976 | No. 39, 1978 |
| :---: | :---: | :---: | :---: | :---: |
| No. 20, 1969 | No. 25, 1971 | No. 30, 1974 | No. 35, 1976 | No. 40, 1979 |
| No. 21, 1969 | No. 26, 1972 | No. 31, 1974 | No. 36, 1977 |  |
| No. 22, 1970 | No. 27, 1972 | No. 32, 1975 | No. 37, 1977 |  |
| No. 23, 1970 | No. 28, 1973 | No. 33, 1975 | No. 38, 1978 |  |

The nett price per copy, inclusive of all bank charges and surface mail postage, is $\$ 20$.
B. The Journal NADA
(Published annually from 1923-1980)
The following issues are available
1977, 1978, 1979, 1980.
The nett price per copy, inclusive of all bank charges and surface mail postage, is $\$ 20$.
C. The journal HERITAGE OF ZIMBABWE
(Published annually). The following issues are available -

| No. 1.1981 | No. 2, 1982 | No. 3, 1983 | No. 4, 1984 | No. 5, 1985 |
| :--- | :--- | :--- | :--- | :--- |
| No. 6, 1986 | No. 7. 1988 | No. 8. 1989 | No. 9, 1990 | No. 10, 1991 |

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D. History Society of Zimbabwe Neckties
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Orders accompanied by payment should be sent to the Society at the address indicated above.

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Zimbabwean subscribers may remil by cheque or postal order. Please add $\$ 1$ to cheques from outside Harare.

American subscribers should preterably remil the amount indicated above by cheque in livour of the Society but cash is acceptable.

Other foreign subscribers should preferably remil by bank draft but cash is acceptable.
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[^0]:    * Returned 1875 to Shiloh.

[^1]:    *Rhodesia became Zimbabwe-Rhodesia in 1979 and then Zimbabwe alter independence in 1980. For historical accuracy, names of the country and the cities which were in use at the time of the events described have been retained.

