VERSATILE GENIUS
The Royal Engineers and Their Maps

Compiled by
Yvonne Garson
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This edition is limited to two hundred and ten copies of which this copy is
Fort Pato 1856: Water-colour attributed to Robert Wilmot
VERSATILE GENIUS

The Royal Engineers and their Maps

Manuscript Maps and Plans of the Eastern Frontier 1822–1870

Compiled by

Yvonne Garson

Johannesburg
University of the Witwatersrand Library
(African Series No 3)
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FOREWORD

In the seventy years since the founding of the University of the Witwatersrand in 1922, its Library has succeeded in building up some remarkable research resources. These valuable books, periodicals and manuscript materials distinguish a great university library from an ordinary tertiary teaching and learning resource.

The present Catalogue focuses on a very special collection of thirty-eight beautifully executed manuscript maps donated to the University Library by Dr Percy Ward Laidler. Dr Laidler, as well as being a medical practitioner and writer on medical matters, was an accomplished bibliographer. He compiled, among other historical works, *The Pre-Victorian Products of the Cape Press, 1796-1837*. This was published in 1935 as Bibliography No.1 of the South African Library Association. These maps are now designated the Laidler Collection of Maps and Plans. This collection of Royal Engineers' maps is probably the second largest in South Africa. The largest collection, as yet not inventoried, is held by the Cape Archives Depot of the State Archives, and there are smaller deposits in various libraries in the Eastern Cape. The maps and plans described in this catalogue are dated from 1822 to 1870 and depict certain areas and features of the eastern frontier of the Cape Colony, ranging from sketch maps of districts to sectional plans of towns. These maps nearly all bear the stamp of the Royal Engineers' Office in Grahamstown, as well as the signatures of the commanding officers at the time and those of the officers or Sappers who drew or copied the maps.

This Catalogue, with its thoroughly well researched and annotated bibliography, is the culmination of several years' work by the Early Africana Librarian, Yvonne Garson. She not only meticulously compiled the Catalogue but has also provided an important introductory essay. This contribution highlights the activities of the Royal Engineers and confirms that they fulfilled an invaluable role in the building of bridges, mountain passes, canals, public buildings and other structures for which they were fitted by their remarkable training.

The University of the Witwatersrand Library has been fortunate in several respects. In the first instance the acquisition of its fine research collection is a considerable achievement. Secondly, the University Library has been most fortunate in having on its staff outstanding librarians who have not only served as custodians but also become accomplished bibliographers. A former University Librarian, Percy Freer, set a pioneering example, which his successors have followed. Yvonne Garson has maintained this excellent tradition by researching this collection and completing the project with a carto-bibliography which reveals considerable bibliographic and scholarly expertise.

The present publication is therefore the blend of a remarkable collection, a gifted map librarian and a skilful photographer. It continues the fine publishing record of the University of the Witwatersrand Library, which has highlighted early rare books (general, law and medical) and superb manuscript collections of historical and literary papers. The present compilation is the Library's first venture with maps. It is the third publication in an Africana Series, the first two having focused on the Jan Smuts Library (1985) and aspects of Johannesburg history (1987). It is hoped that the University Library will continue to publicise its fine Africana resources through publications of this kind. A published catalogue of the Africana Library's Map collection would be a worthy follow-up to the present Catalogue.

**Reuben Musiker**

*Emeritus Professor of Librarianship and Bibliography*
ACKNOWLEDGEMENTS

The compilation of this bibliography has generated assistance from many quarters. I wish to thank especially Professor Reuben Musiker, former Librarian of the University of the Witwatersrand and instigator of the project, for his encouragement, bibliographical advice and practical guidance in facilitating its publication. The University Librarian, Heather Edwards, has been most supportive and generous in providing word-processing facilities from Library Administration.

Bob Cnoops, Senior Photographer of the Department of Fine Arts of the University of the Witwatersrand, who has always shown an appreciation of the aesthetic qualities of antique maps, photographed the collection. He was faced with a considerable challenge which he met with patience and ingenuity. For his valuable expertise, advice and technical assistance, freely given, I am grateful to Gerry Levin, Honorary Archivist of the Geological Society of South Africa, who has for some years shown constructive interest in the Africana map collection of this Library and in this project.

I am greatly indebted to Beth Strachan, former Africana Librarian, Anna Cunningham, Curator of Manuscripts, Margaret Northey, Deputy Africana Librarian, Peter Duncan, Custodian of Early and Fine Printed Books, Shelagh de Wet and Jenny McGhee of Government Publications, and all my colleagues and friends in the William Cullen Library who gave generously of their time and expertise in a multitude of ways.

Thanks are also due to Professor Roger Fisher, formerly of the Department of Surveying, University of Cape Town; Commander Mac Bisset, Fort Wynyard, Cape Town; Professor Guy Butler, Honorary Fellow of the Department of English, Rhodes University, Grahamstown; Dr Chris Hummel of the Department of History, Rhodes University, Grahamstown; Professor Vernon Forbes of Fish Hoek; Professor Elri Liebenberg, Department of Geography, University of South Africa, Pretoria; Professor Colin G. Coetzee, Grahamstown; Professor David Hammond-Tooke, former Head of the Department of Social Anthropology, University of the Witwatersrand; Richard Cope, Senior Lecturer in History in the University of the Witwatersrand; Graham Neame, a former member of the same Department; Denver Webb, Deputy Director of Historical Monuments in the Ciskei; William Jervois of East London and Major William Benjamin Smith of the Western Province Command, the Castle, Cape Town.

The directors and staff of the following libraries and institutions have been most helpful: Cape Archives Depot, Cape Town; South African Library, Cape Town (Margaret Cartwright); Cory Library for Historical Research, Rhodes University, Grahamstown; National English Literary Museum, Grahamstown (Catherine Woeber); Albany Museum, Grahamstown (Patricia E. Scott, former Director); East London Museum; Kaffrarian Museum, King William's Town; Don Africana Library, Durban; Killie Campbell Africana Library, Durban; Africana Museum, Johannesburg; Strange Library of Africana, Johannesburg Public Library; Reference Library of the Johannesburg Public Library; Library of the Military History Museum, Johannesburg (Barbara Warby); Library of the University of South Africa, Pretoria (Mary-Lyn Suttee).

For guidance in the production of this bibliography I have to thank Eve Horwitz, Head of the Witwatersrand University Press; Helen McKane of the Creda Press; Wendy McAllister, Senior Assistant Registrar Communications and Publications, University of the Witwatersrand; Vasu Naidoo and Maryanne Kelly of the Central Graphics Service of the University of the Witwatersrand.

I am greatly indebted to Ray Smithers, Administrative Secretary of the University Library for her patience and her immaculate production on the word-processor of a difficult manuscript, and to Clare Walker, Africana Librarian, and Jo Sandrock of the Witwatersrand University Press for their invaluable proof-reading.

I thank my daughter, Fiona, for her careful lettering on the photographs of the maps. Finally my husband, Noel Garson, Professor of History in the University of the Witwatersrand, a tough but friendly critic, was always on hand to give encouragement and editorial advice. Of course, neither he nor anyone else mentioned in these acknowledgements is responsible for any errors which may have crept in.
INTRODUCTION

The printed Africana maps in the Library of the University of the Witwatersrand date from the early sixteenth to the early twentieth century. It is a collection containing some rare and handsome items which have provided valuable information to the researcher and aesthetic pleasure to the map-lover. The inclusion of this set of original manuscript maps and plans has served to further enrich the collection.

While the compilation of this bibliography has only recently become feasible, the collection has been consulted over the years by researchers in fields as varied as military history, survey, geography, archaeology and fine art. Awareness of the complexity of some of these items has gradually emerged and it was felt that anything less than a detailed and annotated bibliography would not do justice either to the maps or to their makers. It was also decided that a visual image to accompany each annotation would be essential. As it turned out, the photographing of some of the very large items presented a challenge that was ultimately solved by selecting relevant portions of each outsize map for reproduction. The reduction in size of any of the maps would have resulted in loss of detail. Unfortunately colour printing has not been possible, which means not only loss of quality, as some of the maps are beautifully coloured, but also that the meaning of the colour-coding sometimes used by the cartographers to denote areas or structures is not always clear. It is hoped that these defects will be regarded as minor.

The initial procedure of adapting current cataloguing rules for manuscripts proved to be reasonably straightforward, although there were some troublesome handwritings, abbreviations, notes and numberings to contend with. All these elements have been reproduced unaltered. Scales have been recorded as given, followed by their representative fraction. Where no scale has been supplied by the cartographer, an approximate scale has been suggested. True north and/or magnetic north have been added were necessary. Place names, geographical features, tribal names and names of individuals have been rendered in accordance with the modem orthography. Full bibliographical details of items consulted and cited are included in the Bibliography at the end. Where possible, full names of persons referred to in this compilation have been included.

Greater difficulties were encountered when the need arose to determine geographical location, frequently not made clear, and to place each item in its historical context. It sometimes happens in the professional librarian's working life that the subject matter of material requiring bibliographical treatment is outside the range of his or her academic experience and training. This project was a case in point. The demands made by the annotations were considerable and a wide range of sources was consulted. Agonies of selection and compression dictated by limitations of budget and space were also experienced. It is to be hoped that the historical requirements have been adequately met. In spite of these trials, the pursuit of a new aspect of librarianship was richly rewarding, and the task was greatly facilitated by the availability of the abundant resources of the special collections in the William Cullen Library of the University. Of additional interest was the gathering of data about the Royal Engineers, their history and their significance for South Africa.

Military engineering of one kind or another is probably as old as warfare itself. It became a structured activity in England from the time of the Norman Conquest, and since then the Engineers have given unbroken service to the Crown, thus claiming a unique position in the military history of Britain. Royal recognition by warrant was given in 1787 with the title of ‘Corps of Royal Engineers’ and with that the privilege of parading with the Royal Artillery on the right of the line. The final seal of royal approval came in 1832 with the permission to the Engineers to bear royal arms and to share with the Royal Artillery the motto Ubique quo fas et gloria ducunt (Everywhere where right and glory lead). 1

The temptation to dwell on some of the colourful aspects of the corps’ more than nine hundred year long history cannot be indulged here, but the following statement, attributed to T.W.J. Connolly, author of The History of the Corps of Royal Sappers and Miners published in 1855, gives a useful picture of the multi-faceted nature of their
profession: 'What is a Sapper? This versatile genius . . . condensing the whole system of military engineering and all that is useful and practical under one red jacket. He is a man of all work of the army and the public – astronomer, geologist, surveyor, draughtsman, artist, architect, traveller, explorer, antiquary, mechanic, diver, soldier and sailor; ready to do anything or go anywhere; in short he is a Sapper.'

A further interesting comment rounds this out: 'The end of war for the Royal Engineer may be the end of physical danger, but it is also the start of strenuous labour and great endeavour. For the Sapper peace has often been more rewarding than war.'

The Royal Engineers' first contact with South Africa came when the Cape was occupied by British forces in 1795, ending nearly a hundred and fifty years of Dutch rule. For the seven years' duration of that occupation, a small detachment of Engineer officers carried out fortifications and territorial and coastal surveys, utilising the few and, in many cases, unreliable maps and plans at their disposal, and producing new maps of their own. The Cape Archives Depot, the Public Record Office and the Manuscript Library of the British Library, as well as other specifically military repositories in the United Kingdom, record a number of maps and plans of this period.

Among the instructions to Lord Macartney (1737-1806), when he took office as the first civilian governor of the Cape Colony in 1796, was an order to 'cause a survey to be made of . . . rivers, landing places and harbours.' The fortifications and surveys were largely the work of Captain James Carmichael Smyth, Captain George Bridges and Lieutenant Henry Smart. The Department of Historical and Literary Papers in the University Library contains a remarkable report on fortifications compiled by Captain Bridges. This manuscript, a model of clarity, is written in a beautiful hand and is supplied with facts and figures, footnotes and references to numbered plates, some of which are recorded in the Cape Archives Depot and the Public Record Office.

Of these men, Smyth (1779-1838) then eighteen, soon demonstrated his talents as an engineer and an administrator, becoming aide-de-camp to the governor, Sir Francis Dundas (1759-1824) in 1800, and Commanding Royal Engineer and acting colonial secretary in the early years of the second British occupation of the Cape in 1806. He was responsible for mapping, coastal surveys and fortifications, and gained considerable knowledge of the interior of the colony, providing information for Aaron Arrowsmith's magnificent map of the Cape Colony, 1805, which was dedicated to him.

The lack of maps and plans which would have provided a basis for the Royal Engineers to work from, gave rise to the belief that the Dutch had made no maps of the colony, and that the first serious efforts to map the Cape were made only after the British arrival. This was not a surprising assumption, although it was inaccurate. Within a few years of the Dutch occupation of the Cape in 1652 the post of 'landmeter ende kaertmaker' (surveyor and map-maker) was created and a standard of measurement adopted. The first surveyor was Pieter Potter of Amsterdam who held the post from 1655 to 1691. The surveyor's task was to keep records of the land grants by drawing up title-deed diagrams, thus building up a type of cadastral survey. Expeditions along the coast and into the interior by travellers and officials yielded rudimentary topographical maps and charts, but it seems that these records have largely been fragmented between the Cape Archives Depot and repositories in the Netherlands and elsewhere in Europe. Maps of southern Africa and the Cape were in fact included in European travel literature from the early sixteenth century. The discovery of the sea-route to the east provided a tremendous stimulus to author-travellers of various nations for the next two to three centuries. Many of the ensuing publications, which included first-hand accounts of the Cape coast and interior, have become Africana classics. The maps were geographically unsound but are valued today for their historical interest and decorative qualities.

The mystery of the dearth of maps encountered by the British authorities at the Cape was finally cleared up in the 1950s. Cornelis Koeman, an eminent Dutch historian of cartography, discovered a portfolio of nearly a hundred maps and plans in the Ordnance Survey Archive in Delft in the Netherlands. There he found a fine collection of manuscripts drawn between 1784 and 1791, most of them having been commissioned from skilled Dutch surveyors by Cornelis Jacob van de Graaff (1734-1812), governor of the Cape Colony from 1785 to 1791 and himself a military engineer. On being recalled to Holland to give an account of his alleged maladministration of the colony, he took the collection with him. These maps are judged to be of extremely high quality. Had they remained as a collection for future use locally, the cartography of the Cape might have had a firmer base than was the case in the
early years of British occupancy. Another important set of eighteenth-century maps and plans which may have been of use was also spirited away from the Cape in 1795 on the death of the man responsible for their compilation, Robert Jacob Gordon (1743-1795). These are now in the Gordon Collection of Maps and Drawings in the Printenkabinet of the Rijksmuseum in Amsterdam. Gordon, a Dutch soldier, naturalist and scientist, came to know the Cape interior thoroughly through extensive travels during the twenty-odd years of his sojourn in the colony.8

With the second British occupation of the Cape in 1806, an equally small group of Engineer officers arrived, under the command of Captain Smyth on his second tour of duty to the Cape, which lasted until 1808. He was replaced as commanding officer by Captain Henry Smart, who was at times, until 1818, the sole Engineer in office. By then, the steadily growing need for the fortification of the eastern frontier against the dispossessed Xhosa brought to the colony five Royal Engineer officers under the command of Major William Cuthbert Holloway (see Map 2, n.6). The colony was now into the era of the devastating frontier wars in which the resources of the Engineers were to be increasingly utilised.

The earliest map in this collection of Royal Engineer manuscripts is dated 1822. By this time the training of the Engineers had been radically improved by the creation in 1812 of the Royal Engineer Establishment at Chatham in Kent. The course also offered specialised training for the Royal Military Artificers, who then became known as the Royal Sappers and Miners. These were the non-commissioned ranks who were finally united with the Engineers under the name of Corps of Royal Engineers in 1856 (see Map 7). Previous to this the training for Artillery and Engineer officers had been given at the Royal Military Academy at Woolwich. Once the new institution was established, cadet officers were regularly selected from Woolwich on a highly competitive basis, for a further formidable course of instruction at Chatham.9 The scientific advances of the eighteenth century would certainly have influenced the nature of the curriculum.

This innovation owed much to the efforts of Major Charles Pasley, eventually the first director of the school, as it was sometimes called. He had the support of the Duke of Wellington (1769-1852), who came to understand the dangers of military engineering and the resultant high mortality among the Engineers in the Peninsular War (1808-1814). He wrote to Lord Liverpool, under-secretary for war at the time: ‘These great losses could be avoided... and time gained in every siege if we had properly trained people to carry them on’10 and later: ‘I would beg to suggest to your lordship the expediency of adding to the engineers’ establishment a corps of sappers and miners. It is inconceivable with what disadvantage we undertake anything like a siege for want of assistance of that description.’11

In addition to the training provided at Chatham, practical experience in topographical work was gained at the Ordnance Survey at Southampton, by now a well-established institution in which the Royal Engineers were prominent participants. Undoubtedly the most significant and lasting feature of the Royal Engineers’ contribution to South Africa lay in the field of geodetic survey and topographical mapping. In the gradual development of this field a recurring theme is the narrowness of vision and general parsimony of the home government, which caused many projects to be either abandoned or hampered, resulting in slow progress in co-ordinated survey. Serious frustration was experienced by succeeding commanding officers who were instructed to supervise the compilation of accurate maps.

The number of Royal Engineer maps and plans deposited in South African institutions, proportional to the volume of work produced by the Engineers during the period of their engagement as part of the imperial army, is relatively small. Available sources of information do not explain how the vast quantity of Royal Engineer colonial manuscript material came to be dispersed between several repositories such as the Horse Guards in Whitehall, the Royal Engineers Establishment at Chatham, the Public Record Office, and the British Museum (now the British Library) and the Cape Archives Depot in Cape Town.

It is apparent from bibliographical enquiry that Royal Engineer maps and plans of the colonies were on the whole not published as separate entities either as sheet maps or in atlases. There are, however, some notable exceptions
relating to South Africa. Sheet maps by Henry Hall of the Royal Engineers' Department (see Maps 12, 13, and 14) and the beautiful map of British Kaffraria by Lieutenant William Jervois (see Map 16) were compiled here and printed in England. The predominant functions of the cartographic items assembled here appear to have been twofold. In the first place Engineer maps, plans and sketches were used to illustrate the official reports and articles in professional journals and monographs, of which the Royal Engineers were prolific writers. Secondly, the concern would have been to supply accurate information to the map-makers of the day who were producing maps of southern Africa. These cartographers were reliant on information from a wide variety of sources. The writings and sketch-maps of officials of the colonial government, travellers and missionaries such as John Barrow, William Burchell, Thomas Baines, Hinrich Lichtenstein, Robert Moffat, Christian Latrobe and many others provided a rich resource to draw from. But it was without question the Royal Engineers whose communications on cartographic matters would have been the most accurate and workmanlike, based as these were on scientific geodetic principles.

Geodetic survey in South Africa is said to have begun in 1751 with the arrival at the Cape of the noted French astronomer and member of the French Academy of Sciences, the Abbé Nicolas Louis de la Caille (1713-1762) and the groundwork provided for geodetic and topographical surveys by his remarkable observations and calculations. It may be of interest to note that the Abbé was not the first astronomer to study the southern skies from the vantage point of the Cape. Between 1685 and 1688, the Jesuit Père Guy Tachard (1651-1712) and his companions visited the Cape four times, utilising a summer-house in the Company's garden for astronomical observation. His findings are described in his *Voyage de Siam des Pères Jesuites, Envoyés par le Roy aux Indes à la Chine*, which included a map of the Cape, and *Second Voyage du Père Tachard et des Jesuites, Envoyez par le Roy au Royaume de Siam*. But it was de la Caille's venture which proved to be of substantial scientific worth, providing Cape geodesy with its first firm foundation. 12

But for the interest of Captain George Everest, convalescent in Cape Town from India where he was chief assistant on the Indian trigonometric survey, and after whom Mount Everest was named, de la Caille's work might have remained in obscurity. In 1820 Everest wrote a treatise on Cape geodesy13 which had the effect of encouraging Sir Thomas Maclear (1794-1879), Astronomer Royal at the Cape from 1834 to 1870, to reassess de la Caille's findings. He described the undertaking in his great work, *Verification and Extension of La Caille's Arc of Meridian at the Cape of Good Hope*. In conducting the revision from 1837 to 1848, Maclear was ably assisted by the Royal Engineers and Sappers. 'I must here acknowledge my obligation to my friend Lieutenant [Montgomery] Williams [see Map 6] who smoothed the way... and to Colonel [Griffith George] Lewis [see Maps 7, 8, 12] the commandant, for various kinds of assistance throughout the work; indeed the value of the zealous co-operation of the engineer department can only be estimated by those acquainted with the Cape of Good Hope. In the friendship of these two gentlemen I was particularly fortunate.'14

A further development in the progress of South African survey took place in the form of a project undertaken by Captain William Bailey RE from 1859 to 1862. 15 The results of the survey were incomplete and inadequately assessed due to the disastrous shipwreck on the homeward journey in which instruments and documents were lost (see Map 34). Valuable additions were none the less made to the existing framework of knowledge, enabling Sir David Gill (1843-1914), Astronomer Royal at the Cape from 1879 to 1907, to implement his plans for extending geodetic activities.

Through the drive and initiative of Gill the work of Maclear and Bailey was reassessed and, in spite of financial difficulties, continued by Major William Morris RE (later Lieutenant-Colonel Sir William) from 1883 to 1892. In a public address Gill said of him: 'I recommended the employment of officers and men of the Royal Engineers for the work... It did not require long to find out what manner of man was Major Morris... I have never had occasion to do otherwise than express my high sense of the zeal, the tact, the ability, and energy that he has shown throughout.'16 Commenting on the quality of the work of Morris and his assistant Engineers and non-commissioned officers on the completion of the triangulation of the Cape Colony and the Transvaal, Gill wrote that it 'is a consistent and accurate basis upon which all future surveys and the subsequent cartography of the country may be confidently founded'. 17
In spite of this preparatory geodetic work, without which good topographical maps could not have been compiled, there was little activity in the topographical sphere: the British forces in the Anglo-Boer War of 1899 to 1902 were considerably hampered by the lack of reliable maps. After the war Sir David Gill supervised the extension of the geodetic survey to the then Orange River Colony, again under Morris, who completed the task in 1905. Gill's further attempts to effect a proper topographical survey, now that a good geodetic base existed, ran into predictable financial difficulties. The War Office in London then took the initiative and the first complete colonial survey was carried out between 1905 and 1911 in the Orange River Colony, renamed the Orange Free State after Union in 1910. The colony contributed half the funds required and, under the direction of Captain L. C. Jackson RE, the survey was completed in the projected time and for the estimated cost. 'The greatest credit is due to the officers and non-commissioned officers of the Section who carried out this survey to a successful conclusion. Throughout the whole of the period ... they never spared themselves nor grudged the hardships incidental to such work . . . . Such prolonged and continual exertions are quite exceptional . . . . '18 The University Library is fortunate in its collection of some of the maps in the series which were compiled in South Africa during this period by Royal Engineers. The Jackson project mentioned above is particularly well represented, not only in the first issue, but also in the sets of revisions which followed.19

Reference has been made above to the Royal Engineers in time of peace. Engagement in non-military matters is an attractive feature of their activities, and specialised training in a variety of disciplines fitted them admirably for civilian duties and cultural and scientific pursuits. Examination of the journals and transactions of learned societies of the sciences and the humanities reveals that as individuals Royal Engineers were fellows, members, associates and licentiates of bodies such as the Royal Society, the Royal Geographical Society and the Royal Institute of British Architects, to name a few. They were also regular contributors of articles to the publications of these societies.20

It is therefore not surprising that the period of the Royal Engineers' active involvement in South Africa should have yielded some fine examples of works unconnected with warfare. In the course of the compilation of this bibliography numerous instances of these came to light. A few have been noted as examples of creativity in literature, art and architecture.

Illustrated accounts of soldiers' experiences in foreign parts are a well-known literary genre. These are by no means a preserve of the Royal Engineers, but there are interesting works by them of artistic as well as literary value, demonstrating a keen response to the landscape of this country and its inhabitants, human and animal. *Four Years in Southern Africa*, 1829, by Lieutenant Cowper Rose is an item of Africana which became popular soon after it appeared. It was translated into French within two years of publication. Although Rose did not endear himself to the colonists of the Cape, who felt that he had cast them in an unflattering light, his is a work of some importance. He was a skilled artist and the charming frontispiece was drawn by him. The original water-colour of this frontispiece and a copy of his book in which a further seventeen of his water-colours have been interleaved, are now in the Africana Museum, Johannesburg. Another copy of Rose's book containing three water-colours and four pencil sketches is in the Don Africana Library in Durban. The superbly illustrated works of William Cornwallis Harris of the Bombay Engineers, written during his years of convalescence in South Africa in the late 1830s and early 1840s, are classics of Africana which have undergone many editions and reprints over the years. As well as comprehensive holdings of Harris's publications, the University Library has a set of coloured lithographs from his *Highlands of Aethiopia*, 1844. Some of the beautiful colouring has been finished by hand. The original drawings are in private ownership in London. Probably not so familiar to Afrikaner enthusiasts is the *Report upon Kaffraria in Southern Africa . . . 1820*21 by Lieutenant Ives Stocker. It is rich in detail and at times lyrically descriptive of the countryside, indicating a highly developed aesthetic sense and an aptitude for minute observation. His enormous map entitled *Military Chart and Sketch of the South-Eastern Frontier of the Cape of Good Hope . . . 1819* . . . is deposited in the Public Record Office. Apart from its considerable artistic merit, it may be a useful illustration of the topographical features referred to in his Report. A photocopy of the map is in the Cory Library at Rhodes University, Grahamstown. Stocker was also a skilled water-colourist but to date only one example of his work has been traced in South Africa. An exquisite painting of Cape Town and part of Table Bay,
it is now in private ownership. Sketches and water-colours are also included in the collection of Royal Engineer manuscripts in the Cape Archives Depot.

A familiar landmark in Cape Town is the Egyptian Building, the first structure of the South African College, built in 1840 and now used by Fine Arts students of the University of Cape Town. It was designed initially in accordance with the current fashion for ‘Egyptian Revival’ brought about by renewed interest in archaeology. The original plan by James Constantine Adamson, a founder of the College and Professor of Science and Classics, was adapted and enlarged by Colonel Griffith George Lewis, then Commanding Royal Engineer. Lewis supervised the building of the structure which is now a national monument. Many other buildings, mainly in dressed stone, for which the Royal Engineers were responsible (particularly those in Grahamstown and King William’s Town), have been declared national monuments. In 1809, shortly after the second occupation of the Cape by the British, the old Dutch military camp at Wynberg was taken over for army use. It became dilapidated over the years and in 1886 a decision to rebuild the camp was taken by the colonial government. The Royal Engineers undertook the design and construction of the necessary buildings. The officers’ mess is a notable feature, not only on account of its fine façade but also because of the quality of the interior design. The beautifully constructed ceilings, carved panelling, chimney-pieces and cupboards are splendid examples of the Engineers’ talents as designers and craftsmen. Somewhat lesser constructions are a number of elegantly carved tombstones in the King William’s Town cemetery which bear the signatures of the officers who engraved them, presumably to augment an inadequate income.

Perhaps it is fitting, in this attempt to present a picture of the Royal Engineer as a well-rounded military figure with skills outside the ordinary, to give the last word to Major Charles Selwyn on his retirement as Commanding Royal Engineer from Grahamstown in 1842. ‘In peace the officer of the Engineers is as useful in advancing the arts and sciences and internal improvements of his country, as he is during war . . . ’.
NOTES

1. London Gazette, 9 July 1832.
2. Boyd, D. Royal Engineers, p.144. ‘Sapper’ is a generic term for military engineers still used informally today.
3. Ibid., p.xxii.
9. Head, Sir F.B. Royal Engineer, pp.1-25. Sir Francis Bond Head was a Royal Engineer and governor of Upper Canada from 1835 to 1838.
12. Levin, G. De la Caille’s Contribution to Astronomy, Geodesy, and Cartography at the Cape. In: Martin, C.G.C and Friedlaender, K.J. eds. Surveying and Land Tenure in the Cape 1651-1812, pp.227-234. A manuscript field-book belonging to the Abbé de la Caille is deposited in the Department of Historical and Literary Papers in the Witwatersrand University Library. It contains astronomical observations and tables of calculations made while he was in the Cape Colony.
20. Porter, W. History Corps of the Royal Engineers, v.2, Part III. This section includes some interesting accounts of the Royal Engineers in public service in the nineteenth century. Albert, the Prince Consort had the highest regard for their capabilities, and in employing their services in the building of the Crystal Palace for the International Exhibition in 1851 did much to encourage the use of the Engineers in public building projects.

23. Sketches and working drawings for the exterior and interior of the officers’ mess at Wynberg military camp were examined in the Cape Archives Depot. Information on the rebuilding of the camp was supplied by Major W.B. Smith. The original Royal Engineer architects’ plans are preserved at the camp.

# Maps & Plans

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<td>16</td>
<td>Port Natal to Colesberg</td>
</tr>
<tr>
<td>17</td>
<td>Buffalo River Mouth</td>
</tr>
<tr>
<td>18</td>
<td>Mess Establishment, King William's Town</td>
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<tr>
<td>19</td>
<td>Fort Murray</td>
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<td>20</td>
<td>Fort Pato</td>
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<td>21</td>
<td>Forts Fordyce</td>
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<td>22</td>
<td>Whittlesea to Burghersdorp</td>
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<td>23</td>
<td>Bailie's Grave</td>
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<td>24</td>
<td>Keiskamma Hoek to Fort Hare</td>
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<td>25</td>
<td>Keiskamma Hoek to Fort Hare</td>
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<tr>
<td>26</td>
<td>King William's Town</td>
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<td>27</td>
<td>German Villages</td>
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<td>28</td>
<td>King William's Town</td>
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<td>29</td>
<td>Port Elizabeth</td>
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<td>30</td>
<td>Posts and Signal Towers</td>
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<tr>
<td>31</td>
<td>King William's Town</td>
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<td>32</td>
<td>King William's Town</td>
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<td>33</td>
<td>King William's Town</td>
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<td>34</td>
<td>Port Elizabeth</td>
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<td>35</td>
<td>King William's Town</td>
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<tr>
<td>36</td>
<td>Military Reserve, King William's Town</td>
</tr>
<tr>
<td>37</td>
<td>Skittle-Alley, King William's Town</td>
</tr>
<tr>
<td>38</td>
<td>King William's Town</td>
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</tbody>
</table>
In 1820 Andries Stockenstrom (1792-1864), then landdrost of Graaff-Reinet, proposed that the existing unsatisfactory and confusing boundary of the north-eastern Cape Colony be re-delimited and extended. Permission for the survey was granted in 1822 by the governor, Sir Rufane Donkin, and the new boundary became operative on 9 September 1824. Lieutenant John Bonamy, later Colonel, had been seconded to the Royal Engineers to assist Stockenstrom in the survey, and became a life-long friend. Stockenstrom described him as 'an educated and high-minded British officer'. The sketches made by Bonamy in the course of his work were eventually amalgamated in a Plan of the north-eastern frontier of the Cape of Good Hope compiled from sketches made in the years 1822, 1823, and 1824, copied in 1846 by John Reid, a Sapper draughtsman of remarkable competence (see Maps 7, 11, 12, 13, 14, and 16). The plan appears to consist of four sheets and is preserved in the Cape Archives Depot with other valuable maps by Bonamy.

The lower third of the map depicts a small area of the Graaff-Reinet district within the old boundary of the colony. Graaff-Reinet is shown on the south-east corner of the map with the Sneeuberg and the Kompasberg prominently featured. The south-west depicts the Nuweveld and the road leading to Fort Beaufort. The rest of the map portrays the vast territory northwards across the Orange River, through San and Griqua country to Kuruman, continuing north-east to Tswana country, with descriptions of the terrain and its inhabitants, animal and human. Presumably Bonamy copied this map from the original survey as a preliminary exercise to his own re-appraisal of the area.
This is a remarkably detailed, well drawn and beautifully coloured map. It depicts Algoa Bay, following the coastline as far west as the Gamtoos River mouth, and east to the Swartkops River mouth. The inland area of the map lies between the Winterberg and the border formed by the Gamtoos River to the point at which it becomes the Kouga River.

Important landmarks are Port Elizabeth, Uitenhage, Cradock, Bethelsdorp, Cape Recife and Francis Bay. The Van Stadensberg, the Elandsberg, and numerous small rivers, roads, settlements and details of the landscape are shown. The comparative heights of hills and peaks are indicated by numbers 1 - 50 (see note above). The reference key refers to ‘stations’ indicated by red circles. These are presumably military posts, probably abandoned after the Fifth Frontier War of 1819, but they have not been named on the map.

A pleasing feature of the map is the style of comment, such as ‘The end of this ridge is very remarkable’, ‘Rugged ridges divided by deep kloofs’, and ‘Good grass’.

Lieutenant, later Major, Thomas Charles White (1792-1835), 79th Foot, led a party of English settlers to Albany in 1820, where over many years he was a prominent and popular citizen. His former experience of survey in the West Indies brought him to the attention of Major William Cuthbert Holloway, Commanding Royal Engineer in the Cape Colony. White was made an assistant engineer on the eastern frontier where he conducted surveys and compiled maps for some years.

Major, later Colonel, William Cuthbert Holloway (Elphinstone-Holloway) (1787-1850), son of Major-General Sir Charles Holloway RE. He became Commanding Royal Engineer at the Cape in 1818, responsible for fortification, road-making, mapping and survey of the colony. The survey, begun in 1819, had to be abandoned by 1825 as the necessary funds were not forthcoming. He wrote eloquently and at length to the authorities, expressing his frustration at their parsimony. Many of his letters, on other matters as well as this, have been reproduced in several volumes of G.M. Theal’s Records of the Cape Colony. He emerges from these letters as an imaginative, highly competent man, concerned for all the inhabitants of the colony. It is interesting to see his name in the list of subscribers to the pamphlet The Cape of Good Hope Philanthropic Society, for Aiding Deserving Slaves and Slave Children to Purchase Their Freedom.

His greatest achievement during his term of office was the design and construction of the Franschoek Pass. According to Lord Charles Somerset, this was ‘a gratifying instance of the triumph of art over nature, and has no parallel out of Europe, and is indeed to be considered with the Simplon itself.’
1823

**District of Somerset**

[Sketch for a plan of the north-eastern frontier of the Cape of Good Hope] / Signed by J. Bonamy. – Scale 1" = 18 furlongs [1:142 560]. – 1823. – 1 ms map: ink drawing, col.; linen-backed paper; 41 x 28 cm. – Captions in English and Dutch. – Orientation: true and magnetic north. – Royal Engineers' stamp 1861; A.1; 025 on verso. – Sketch No.7. – Royal Engineer Office 8th May 1823 No.36. – Pencil calculations.

Although this sketch is numbered 7 in the series of Bonamy's plans of the north-eastern border of the Cape Colony (see Map 1), it is dated some months earlier than the sketch numbered 4 (see Map 4). It depicts a very clearly defined area of the Somerset district east of its border with the Graaff-Reinet district. The southernmost point is the confluence of the Great Brak and Teebus Rivers which then separate to form the western and eastern borders of the map respectively. The northern boundary is the Sneeuberg range as it lies within the confines of the two rivers (see Map 4).

Notable landmarks are Juriesbaken, Bulhoek, Jan Blaauwskop and Klipheuvel. 8
District of Graaff-Reinet
Although the map lacks some detail owing to the missing portion, the eastern border of the territory covered is clearly shown by the Great Brak River, from its confluence in the south with the Great Fish River to the point at which it reaches the Ysterberg Peak in the north. The western border is formed by the Seekoei River. There is considerable detail to be seen in the marking out of roads and settlements and the numerous topographical features such as valleys and peaks, kloofs and smaller rivers. The Sneeuwberg, Rooiberg and Agter-Renosterberg ranges, the Little Brak River and the Tafelberg Peak are important landmarks to note.9

There is an inset of a portion of the Seekoei River north of the Agter-Renosterberg showing points of reference such as Hondekop, Elandsgat and Kalkoenkrans.

This map is the third in this collection in the series drawn by Bonamy during the survey which eventually resulted in his plan of the north-eastern border of the Cape Colony (see Maps 1 and 3). The number of sketches made for the survey is not recorded; presumably the majority are to be found in the Cape Archives Depot.10 It has been established that this map and Map 3 fit together in Bonamy’s jig-saw puzzle of sketches. Although the scale used is not recorded on either map, careful study has shown that they were drawn to a scale of 1: 142 560, and that they share a common border, namely a stretch of the Great Brak River.11 It is interesting to note that Bonamy describes himself above as being on half pay (‘h.p.’); his work for the Royal Engineers probably provided him with a much-needed addition to his income.
Junction of the Little with the Great Fish River right bank as far as Kooste's Drift\textsuperscript{12} in front of Grahamstown / Signed by C.L. Stretch. H.P. 38th Regt. Ast. Engineer. – Scale 2 miles to 1 inch [1:126 720]. – 1824. – 1 ms map: ink drawing, col.; linen-backed paper; 49 x 76 cm. – Captions in English and Dutch. – Orientation: magnetic north; compass indicator is situated on map against cartographic convention. – Grid drawn in pencil. – Royal Engineers’ stamp 1861; A.4; P.1. – Received 16th April 1824. J. Mudge. Lieut. Royal Engineer Commdt\textsuperscript{13} – Reference table. – Ms note: No. 1 containing 973 square miles.

This beautiful map is initially confusing to the eye as the captions read upside down to magnetic north. Although the colouring is sombre, the effect created is remarkably scenic. The area defined, part of the deputy-drostdy of Albany, proclaimed on 7 January 1814,\textsuperscript{14} lies between the banks of the Great and Little Fish Rivers and the Suurberg mountains.\textsuperscript{15} The Bushman’s and New Year’s Rivers are given prominence, and other smaller rivers have also been added. Grahamstown is shown on the extreme eastern border of the map. Other details are roads, farms, kloofs, valleys, drifts and abandoned military posts, a legacy of the Fifth Frontier War of 1819. Circles numbered 1-48 are placed at intervals on the map. These presumably represent survey beacons.

Charles Lennox Stretch (1797-1882)\textsuperscript{16} arrived at Cape Town in 1818 with the 38th Regiment as an ensign on half pay; other members of his family had settled in the Cape as early as 1810. He transferred to the eastern frontier to become assistant engineer to Major William Cuthbert Holloway, commanding Royal Engineer in the Cape Colony. Stretch was appointed government surveyor in 1824 and was employed on a military survey of the colony till 1827. He took up this appointment again in 1835 after the Sixth Frontier War of 1834-1835; at that time he was a captain in the 2nd Battalion, Provisional Colonial Infantry, and became active in the design and building of forts\textsuperscript{17} (see Map 6).
Amatola Mountains, vicinity of Fort Cox
The area depicted here is located in the newly formed Province of Queen Adelaide (proclaimed on 10 May 1835), with Fort Cox in the centre and an encampment nearby ‘formed on the 6th July, 1835’. The fort, laid out in August 1835 by Captain Stretch (see Map 4) and Lieutenant Montgomery Williams, is clearly shown on the beautifully drawn map with its four redans corresponding to the points of the compass, north facing the Amatola valley. Robert Wilmot, an informed and observant traveller in the Cape in 1856, described the setting of the fort ‘cresting a hill at the entrance of a beautiful mountain valley at once rich, wild and luxuriously wooded...’ Of all the frontier forts it occupied the most vulnerable position, surrounded as it was by high mountains covered with vegetation, and dangerously near to the Xhosa stronghold. It was named after Major William Cox 75th Regiment, who commanded the third division of the invading forces against the Xhosa in the Sixth Frontier War of 1834-1835. Cox laid the first stone of the fort on 25 July 1835.

The map also depicts bearings to Forts Beresford, Willshire and Beaufort, Burnshill Mission Station and Ntabaka Ndoda Mountain.
Eastern Frontier
This is a beautiful, meticulously drawn map, a clear illustration of the diverse functions required of the Royal Engineers in eastern frontier activities. It depicts the frontier from Uitenhage and Port Elizabeth in the west, and follows the coastline eastwards to beyond the Kei River. The northernmost point of the map is at the confluence of the Kei with the Klipplaat River. It shows clearly the territorial divisions of the frontier subsequent to the treaties with the Xhosa concluded by Andries Stockenstrom in December 1836 (see Map 9).

The original map, from which this copy was made, was probably one among many documents which would have accompanied Lieutenant-Colonel Lewis’s report to the home government (see Map 8).

The reference table is interesting. It is in the form of a diagram headed: ‘Assumed population of Kaffraria in the year 1834.’ It consists of an analysis of the tribes under headings such as ‘Nation’, ‘Principal Chiefs’, ‘Men’, ‘Women and Children’, ‘Remarks’. The last heading refers by different colours to the locations on the map of the individual tribes. The grand total of the population was 395,000. Below the diagram is a note: ‘Those marked thus ‘x’ where [sic] hostile tribes in the late war.’ This refers to the Sixth Frontier War of 1834-1835.

The work of Private John Reid, Royal Sappers and Miners, demonstrates a remarkable quality of draughtsmanship (see Maps 11, 12, 13, 14 and 16). He would have been well trained at the Royal Engineer Establishment at Chatham, where those Royal Sappers and Miners (thus named since 1812) who showed an interest in and aptitude for the subjects were given instruction in surveying and draughting techniques.26

The first significant detachment of Sappers was sent to the Cape in 1834 after repeated requests from the commanding Royal Engineer, at that time Lieutenant-Colonel Robert Thompson. Their services were urgently required for the building of forts, roads, bridges and clerical work as well as for military purposes.27
Plan of Port Elizabeth, Cape of Good Hope shewing the relative situation of the existing and proposed military buildings to accompany an estimate and report from Lt.Col. Lewis Comg. Rl. Engr. to the Inspector General of Fortifications. Dated 18th March 1837 / Signed by H.W. Piers Oct. 1837. – Scale 8 inches to 1 mile [1:7 290]. – 1 ms map: col.; wove paper; 39 x 47 cm. – Orientation: magnetic north. – Royal Engineers’ stamp 1861; e.17, P.N.22 on verso; General plan No. 7. – Reference table to buildings. – Memo: All the military buildings are coloured red, proposed buildings yellow & private property in Indian ink.

After the Sixth Frontier War of 1834-1835, the eastern frontier was considerably strengthened by increasing the number of troops, military settlements and forts. None the less, Lieutenant-Colonel Griffith George Lewis (1784-1850), commanding Royal Engineer in the colony at the time, expressed his frustration at the tardiness of the British government in allocating funds for the effective defence of the frontier districts. He wrote extensively on frontier defence policy, and complained that for years after the close of the war no clear decisions had been taken on how funds were to be utilised. Lewis’s career was one of great distinction; he was decorated several times for his courage and resource as an Engineer. Owing to severe wounds, one of his legs was amputated above the knee in 1813, when he was twenty-nine years old.

Interesting features to note on the plan are Donkin’s Pyramid, now the Donkin Memorial, put up in 1821 in memory of Sir Rufane Donkin’s young wife, Elizabeth, after whom Port Elizabeth was named, and Fort Frederick on the east bank of the Bakens River. The fort is thought to be the oldest building of British construction in Africa south of the equator. It was at first a wooden blockhouse, built in 1799 to protect the landing-place at Algoa Bay and was replaced a few years later by a stone building on the eminence above the old site. After having been the focus of much activity over the years, it fell into disrepair after 1868. It was proclaimed an historical monument in 1940, and thoroughly restored soon after that.
DISTRICT OF ALBANY

Sketch of the District of Albany Cape of Good Hope / Unsigned. – Scale 4 miles = 1 inch [1: 253 440]. – 1837. – 1 ms map: ink drawing, col.; linen-backed paper; 64 x 45 cm. – Captions mainly in English, some Dutch. – Orientation: true north. – Lacks Royal Engineers’ stamp; B44; O. No. 37; B44 and No 37 on verso. – Ms note: To explain the Boundary on the Eastern Frontier as defined by the Treaty with Amakosa Kafirs, dated 5th Decr. 1836 & the Treaty with the Fingoes, dated 10th Decr. 1836.

This is one of the most interesting maps in the collection. It is detailed and informative and clearly fulfils the intention of the note above. In the terms of the treaties mentioned, Andries Stockenstrom, then Lieutenant-Governor of the Eastern Districts, agreed to the readjustment of the eastern frontier, moving it westwards to the Great Fish River, thus virtually restoring the former ‘Ceded Territory’ to the Xhosa. What is shown on the map is the position of the new territory in relation to Albany.

That part of Albany which is shown is the area lying between the Great Fish and Bushman’s Rivers in the south, including the coastline. Apart from the Bushman’s River, the map features Grahamstown and its environs, ‘W Koester’s’ (see Map 5, n.12), and further north the Koonap and Mankazana Rivers. To the north-east are the Didima and Katberg ranges, with the Great Winterberg as the furthest north-easterly point of Albany.

Although there is no key to the colours used on the map, it is clear that the darker brown area on the right is intended to indicate the extent of the territory established by the treaties. It lies between the Great Fish and the Kat Rivers in the west and north, while the Keiskamma, the Tyhume and the Gaga Rivers feature in the east. Fort Beaufort is the northernmost point. On this section there are patches of varying shades of red, but their significance is obscure.

The detail of the map consists of networks of roads in red, trails (probably bridle paths), rivers, drifts, valleys, peaks, settlements, posts and forts. These include Koonap, Willshire, Beaufort, Block Drift, Kat River and Golana. The Tyhume Mission, established by the Glasgow Missionary Society in 1820, is lightly sketched in near the Kat River Post. The likely position of Elands Post in relation to the map is indicated in pencil with a question mark and in a different hand; as the post was only established after the War of the Axe of 1847, the addition could have been made at any time after that.

The map has clearly been drawn by H.W.Piers; this is confirmed by comparison with Maps 6 and 8. There is also a strong possibility that it may have been copied from a sketch by Stretch.
The history of Port Frances on the Kowie River, goes back to 1820 when the first settlers attempted unsuccessfully to develop the river mouth as a harbour, Port Kowie. Shifting sand and high waves made entry to the deep waters of the river mouth dangerous. Five years later the name was changed to Port Frances, after the wife of Colonel Henry Somerset, and attempts were made to reconstruct harbour facilities. The earlier problems prevailed and the harbour was closed in 1828. In 1839 William Cock, leader of a party of 1820 settlers and owner of extensive lands on the west bank of the Kowie, gained permission to cut a new channel on the western side of the delta, closing the natural channel to the sea. He undertook this at his own expense, but in 1852 he was granted government aid and the Kowie Harbour Improvement Company was formed. The port was renamed Port Alfred, after Prince Alfred (1844-1900), who visited the area in 1860. Although for some years the harbour was open to large vessels, the difficulties could not be overcome and there is a long record of shipwrecks. In spite of the expenditure of a great deal of public and private money, the attempts at making the port navigable had to be abandoned in 1888.

The map shows clearly the proposed channel to be cut through the west bank, William Cock’s house, a site for a signal station, commissariat stores and Mary’s Cove, thought to be named after Cock’s daughter. There are many other features, existing and proposed, indicated in the detailed reference table. Colour-Sergeant Hopkins may have been part of the contingent of Royal Sappers and Miners sent out to the colony in 1834 (see Map 7).
Bearings and distances between Military Posts
Sketch shewing the relative bearings and distances per waggon route between the different military posts on the Eastern Frontier Cape of Good Hope. Unsigned. – Scale 8 miles to an inch [1: 506 880]. – [1844-45]. – 1 ms map: ink drawing, col.; fine wove paper; 40 x 46 cm. – Orientation: magnetic and true north. – Lacks Royal Engineers’ stamp and any series numbering.

This is a beautifully executed map which, as the title suggests, clearly shows the bearings and distances between points in every possible permutation. The coastline from Port Elizabeth to the Keiskamma River forms the southern boundary of the map, the Black Kei River being the northernmost feature. Those forts and posts which are shown are situated mainly on the Great Fish, the Kat, the Kowie, the Koonap and the Tyhume Rivers. Grahamstown, Bathurst and Fort Beaufort are given prominence.

Although the map is not signed, it was clearly drawn by Private John Reid (see Maps, 7,12,13,14 and 16). It is probably a fair copy of a sketch which he may have compiled himself. In the absence of any other information, this is a reasonable assumption. The maps in the collection drawn or copied by Reid are all dated between 1844 and 1847; presumably this map fits somewhere within that range. It must have been made before the War of the Axe of 1847, as Fort Hare is not shown at Block Drift, which is marked as 'abandoned'. The fort was begun on the Xhosa side of the Keiskamma River from Block Drift in 1846, and completed after the war in 1847.36
Bearings of points and remarkable proposed sites on Hill 8 of Fort A, Fish River, and

<table>
<thead>
<tr>
<th>Point</th>
<th>Bearing ENE</th>
<th>Bearing ESE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Peckie</td>
<td>30° 30'</td>
<td>20° 30'</td>
</tr>
<tr>
<td>Coeloe's Rep.</td>
<td>31° 0'</td>
<td>30° 30'</td>
</tr>
<tr>
<td>Winterberg</td>
<td>25° 0'</td>
<td>1°</td>
</tr>
<tr>
<td>U.S. Fort</td>
<td>23° 30'</td>
<td>not visible</td>
</tr>
<tr>
<td>Connectly</td>
<td>23° 30'</td>
<td>2°</td>
</tr>
<tr>
<td>Paeder's Rep.</td>
<td>35° 30'</td>
<td>34° 30'</td>
</tr>
<tr>
<td>Gov. Dep.</td>
<td>22° 30'</td>
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</tr>
<tr>
<td>Lat. Rep.</td>
<td>32° 30'</td>
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<td>Escape's Rep.</td>
<td>23° 30'</td>
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</tr>
<tr>
<td>Signal Station</td>
<td>22° 30'</td>
<td>Signal Station</td>
</tr>
<tr>
<td>Kinios</td>
<td>23° 30'</td>
<td>22° 30'</td>
</tr>
<tr>
<td>South Doors</td>
<td>21° 30'</td>
<td>20° 30'</td>
</tr>
<tr>
<td>Signal of Pd. Apple Station</td>
<td>15° 30'</td>
<td>14° 30'</td>
</tr>
<tr>
<td>Mancosoma</td>
<td>33° 30'</td>
<td>32° 30'</td>
</tr>
<tr>
<td>Rich Harbourside</td>
<td>not visible</td>
<td>17° 0'</td>
</tr>
</tbody>
</table>
Bearings of principal military posts and remarkable peaks visible from proposed sites of signal towers at hill s of Piet Apples Location, Great Fish River, and hill over Fraser's Camp / Unsigned. - Scale [1 inch = 44 furlongs; 1:348 480]. - [1843-46?]. - 1 ms map: ink drawing, col.; fine wove paper; 47 x 40 cm. - Orientation: magnetic north. - Royal Engineers’ stamp 1861; A10; A11 crossed out; A11 on verso, crossed out. - Reference table explaining the bearings. - Memo: The points marked in red denotes [sic] the signal stations.

Henry Hall (1815-1882) was the compiler of the map which was later copied by Private John Reid [see Maps 7,11,13,14 and 16]. The original sketch, signed by Henry Hall, is held in the Cape Archives Depot with other of Hall’s manuscript sketches, maps, plans and memoranda. He was born in Dublin in 1815 and worked for the British government in the Royal Engineers’ Department as foreman of works until 1843, when he was sent to the Cape Colony to become clerk of works to the Royal Engineers on the eastern frontier. Hall became actively engaged in the design and construction of forts and signal towers. His own lively description (he became well known in Cape circles as a litterateur as well as an accomplished geographer and map-maker) of the system of signal towers is well worth reading.

That part of the project which was completed before the War of the Axe of 1847 is shown in this beautifully drawn plan. The system of signal towers for use on the eastern frontier was devised by Lieutenant-Colonel Griffith George Lewis, then commanding Royal Engineer in the colony (see Map 8). It was patterned on a method used on the Indian north-west frontier but proved to be unsuitable in the Cape. The system failed for a variety of reasons; the greatest problems were the difficulty of protecting the towers and the invisibility of the signals in rain, mist or haze.

From a surveyor’s perspective this plan is one of the most interesting in the collection. Hall’s original drawing includes notes which explain in part the procedure used in its construction, and careful analysis of the bearings demonstrates the remarkable accuracy of the work.
[1843-46?]

**Signal Towers, Eastern Frontier**

Bearings of principal military posts and remarkable peaks visible from proposed sites of signal towers at hill s of Piet Apples Location, Great Fish River, and hill over Fraser's Camp / Unsigned. – Scale [1 inch = 44 furlongs; 1:348 480]. – [1843-46?]. – 1 ms map: ink drawing, col.; fine wove paper; 47 x 40 cm. – Orientation: magnetic north. – Royal Engineers’ stamp 1861; A10; A11 crossed out; A11 on verso, crossed out. – Reference table explaining the bearings. – Memo: The points marked in red denotes [sic] the signal stations.

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Plan of the Vicinity of Fort Beaufort and Flat rock House.
This map is initially confusing to study as the captions are upside down to magnetic north. There is strong evidence to show that it was copied or sketched by Private John Reid (see Maps 7, 11, 12, 14 and 16). Examination of Henry Hall's Map of the Eastern Frontier of the Cape Colony, printed in 1856, suggests that the sketch was made to show the planned continuation of the Queen's Road (named in honour of Queen Victoria's accession) to Fort Beaufort. The Queen's Road was built by the Royal Engineers between 1837 and 1845, supervised by Andrew Geddes Bain under Major Charles Jasper Selwyn, commanding Royal Engineer in Grahamstown from 1834 to 1842. Major Selwyn (1792-1847) later Lieutenant-Colonel, was well known not only for his road-building activities but also for his architectural achievements in many parts of the eastern Cape. He left his mark on Grahamstown where he was a popular and respected figure. He designed his own house, Selwyn Castle, the Drostdy Arch, the Provost, Fort Selwyn and the Roman Catholic Church, and was responsible for the restoration and re-stocking of the Grahamstown Public Library. All these structures were built by the Royal Engineers.

The area depicted is an eleven mile stretch of road to the flat-roof house. The Kat River’s west bank is shown with the road crossing its tributaries, the Klu Klu River and the Gilberts River. The Gilberts River may have been very small, eventually drying up: it is not shown on maps consulted which were printed later than 1860. To the south-east of the house is ‘Howse’s’, later Howse’s Post. James Howse was a frontier wool baron in the Kat River district and prominent in local affairs. Two other features worth noting are Dan’s Hoogter (Hoogte), incorporated into the chain of signal stations in 1842 or 1843, and Victoria Bridge (not named on the map), across the river at Fort Beaufort. Inaugurated by Major Selwyn in 1840, it was the first stone bridge to be built over an important river on the eastern frontier.
Plan of the Eastern Frontier Cape of Good Hope and the adjacent country of the Kaffir tribes / Signed by J. Reid. Decr. 1846. Scale of 8 miles to an inch [1:506 880]. – 1846. – 1 ms map: ink drawing, col.; linen-backed paper; 46 x 86 cm. – Orientation: magnetic and true north. – Grid drawn in pencil. – Royal Engineers’ stamp 1861; A.3; 0.47 on verso. – Table of latitudes &c. of principal places. – Table of distances. – Ms note: The red tint[s] shew the present colonial boundary; the military posts are marked in red. Compiled and drawn by J. Reid.

This is a topographical map of great beauty, meticulously drawn and coloured. It contains a remarkable amount of detail and gives an accurate view of the eastern frontier just prior to the War of the Axe of 1847. Of all the maps in the collection either compiled or copied by Private John Reid this is the most elaborate (see Maps 7, 11, 12, 13 and 16). The two reference tables would have been very useful to the viewer at the time, particularly the table of distances. This offers a refinement of the method of distance plotting used in Reid’s earlier sketch (see Map 11), in that the distances between Port Elizabeth, Grahamstown, King William’s Town and the forts and posts on the frontier are immediately accessible. It appears to be an unusual feature on such an early map.

Three of the leading cartographers engaged in the mapping of South Africa’s expanding regions from the 1840s onwards, John Arrowsmith, James Wyld and Henry Hall (see Map 12), acknowledged among others the Royal Engineers’ contribution of sketches and surveys. The name of Lieutenant-Colonel Charles Cornwallis Michell, surveyor-general of the Cape from 1828 to 1848, appears as well, on some of the maps, as a communicator of information. As Michell was responsible for co-ordinating the survey and for the mapping of the colony, one of his functions would presumably have been to disseminate material to map-makers of the calibre of those referred to earlier. Reid’s map would also have added significantly to the cartographic material assembled by Michell. It was from this period that the trend towards greater accuracy in the mapping of South Africa became evident.
Vicinity of Fort Hare
Plan of the ground in the neighbourhood of Block Drift, near to the Chumie River in British Kaffirland, shewing the position whereon the Commander in Chief has directed a temporary post to be erected / Signed by J. Stokes Lieut. R.E. 18th Decr. 1846. – Scale 3 inches to a mile [1:21 120]. – 1846. – 1 ms map: ink drawing, col.; wove paper; 32 x 51 cm. – Orientation: true north. – Grid drawn in pencil. – Royal Engineers' stamp 1861; B26; F21 and on verso. – Sd. J. Walpole Capt. CRE.E.F. Memo: Copy forwarded with estimate to I.G.Works dated 21st Decr. 1846 (see Map 8, n.1). – Ms note: S site of the post – called Fort Hare.

This map shows in detail the area in which Fort Hare, planned in 1846, was finally built in 1847 after the War of the Axe. The site was at Block Drift on the Xhosa side of the Tyhume River. It was named after Sir John Hare, successor to Andries Stockenstrom as Lieutenant-Governor of the Eastern Districts. Roads are marked leading to Forts Beaufort and Peddie, the Burnhill and Tyhume Missions, and the Tyhume and Victoria Posts. The small Fort Thomson, built after the Sixth Frontier War of 1834-1835, is shown, as well as details of the settlement around the site of the fort.

An interesting feature to note is ‘Mr Stretch’s’, north of the fort. This refers to the land given to Stretch by the Ngqika in 1842, half of which he gave to the Church of Scotland on which to build a new Lovedale Mission to replace the old one, burnt down in 1835. The rest of his estate was appropriated by the government in 1847, after the war, and he was also deprived of his official posts with the Ngqika and the Fingo. His appeal for an enquiry into his dismissal was refused and he was eventually only compensated for the loss of his land.

Lieutenant John Stokes was an exceptional Engineer whose career, professional and public, earned him honours to the end of his life. He served the Royal Engineers in several capacities with great distinction and courage in the Seventh and Eighth Frontier Wars of 1847 and 1850-1853, and was mentioned repeatedly in general orders. Stokes married Henrietta Georgina de Villiers in Grahamstown, by whom he had six children. He was prominent in later years in the development of the Suez Canal, both as Royal Engineer and diplomat. Concerning these activities he was praised in parliament by Benjamin Disraeli in 1876: ‘Colonel Stokes . . . is an invaluable public servant, and a man of great intelligence, and who had [sic] completely mastered all the details of what was then a very complicated question.’

39
Sketch shewing the route travelled between the Natal and Cape Colonies by the Commanding Royal Engineer on a tour of inspection from sketches made by Lieut. Jervois Royal Engineers / Signed by J. Reid. 25th March 1847. – Scale 2.5 inches = 30 miles [1:762 320]. – 1 ms map: ink drawing, col.; fine wove paper; 48 x 89 cm. – Captions in English and Dutch. – Orientation: true north; standard degree grid based on Greenwich. – Royal Engineers’ stamp 1861; A.18; G.78 on verso.

The route taken by Lieutenant-Colonel Robert Sloper Piper, commanding Royal Engineer, and Lieutenant William Francis Drummond Jervois through the British Colony of Natal (proclaimed in 1843) crossed the Drakensberg at Bezuidenhout’s Pass into the territory of Transorangia which lay between the Orange and Vaal Rivers, bounded by the Drakensberg in the east. Afrikaner stock farmers had settled there in small numbers since the early years of the nineteenth century and more were to follow, even before the Great Trek in 1836. Accounts by traders, travellers and missionaries, verbal and printed, as well as rough maps of their journeys, encouraged movement across the Orange River. Names of settlers and their farms are noted along the entire route. In 1848 the territory was annexed by the British government as the Orange River Sovereignty, which existed until 1854.

Other interesting features to note on the map are the deposits of coal in the Biggarsberg and on the banks of the Bushman’s River; passes over the Drakensberg; roads leading to mission stations; the rivers along the route such as the Sand, Klein Vet, Groot Vet, Modder, Renosterspruit, Riet and Orange, and also the confluence of the Orange with the Caledon River. Private John Reid has drawn this map from Lieutenant Jervois’s sketches with careful attention to detail; it is interesting to note that Jervois placed the Drakensberg in its correct geographical position, running in a NNE direction instead of in a straight line, NE to SW as shown on printed maps of the time. He does not seem to have been given any credit for this important correction. It was only forty years later that the Drakensberg were reasonably accurately mapped.

Colonel-Commandant Sir William Francis Drummond Jervois, CB, KCMG (1821-1897), whose professional achievements became legendary, had his first posting as lieutenant to the eastern frontier of the Cape Colony. He remained there from 1841 to 1848 and distinguished himself, in the words of Sir Harry Smith, ‘as one of the most able, energetic, and zealous officers I have ever exacted more than his share of duty from’. Apart from his actions in the War of the Axe of 1847, for which he received the War Medal, he was actively engaged in the survey of British Kaffraria.

Concerning Jervois’s mapping abilities, Colonel Henry Somerset wrote: ‘Lieutenant Jervois, Royal Engineers, has accompanied [me] upon every occasion and has shewn great intelligence in laying down the country.’ Jervois’s diary, kept during his posting to the eastern frontier, gives a description of his map-making methods. He appears to have been an exceptionally hard-working officer, much involved in local affairs. The sketches made by Jervois in 1847 and 1848 were compiled in a magnificent map, his Military Sketch of British Kaffraria, published by John Arrowsmith [1850]. Several of his survey plans are held in the Cape Archives Depot and their records suggest that Jervois worked on Bonamy’s sketches of the north and north-eastern boundary of the Cape Colony before they were copied by John Reid in 1846 (see Maps 1, 3 and 4).
The Buffalo River lies between the Keiskamma and Kei Rivers, the east and west boundaries of the Province of Queen Adelaide, newly proclaimed and annexed to the Cape Colony in 1835, having been taken from the Xhosa after the Sixth Frontier War of 1834-1835. As a consequence of the war, greater security for the settlers became necessary, and the rapid construction of forts was undertaken. Forts Cox, White, Beresford, Hill, Murray, Wellington, Warden and Waterloo were all completed by the end of 1835.63

Anticipating the need for a good harbour for the province, Captain John Bailie, 1st Battalion, Provisional Colonial Infantry, leader of Bailie's Party of 1820 Settlers, and a former naval officer, secured permission from Sir Benjamin d'Urban to survey the Buffalo River mouth with John Rex, the founder of Knysna. The harbour was found to be suitable and in November 1836 Bailie hoisted the British flag on Signal Hill. Meanwhile the Province of Queen Adelaide had been relinquished by the British government and the harbour, Port Rex, was no longer under British authority until the situation altered once more ten years later.64

In 1847 the harbour was re-established to serve the needs of British Kaffraria, the new territory proclaimed after the War of the Axe of 1847. Lieutenant Charles Forsyth RN carried out the survey, producing two magnificent maps, of Waterloo Bay and the Buffalo River mouth, that were published in 1847 by the British Admiralty.65 He had previously completed twelve years of service on HMS Beagle, famous for its association with Charles Darwin and his scientific voyages.66 The port was named East London in 1848 and was annexed, with the territory for two miles around it, to the Cape Colony in an attempt to curb smuggling.67 A monument was raised on Signal Hill to John Bailie as the virtual founder of East London.68

This beautifully drawn map has many interesting features. It shows soundings up the river for about two miles, commissariat stores, the 'Old Kaffir Garden', a flagstaff and a 'Sapper tank'.69 There is also a square building, not named, which may be the rudimentary Fort Glamorgan, begun in 1847. Thomas Baines described the fort in 1849 as having 'substantial and extensive buildings'.70 Also of note is the 'Fort [Port] Rex Stone'. Local mythology has it that this was the stone on which John Rex sat while conducting his trading activities.71
Mess Establishment, King William's Town
1849

MESS ESTABLISHMENT,
KING WILLIAM'S TOWN

Plan elevations and sections of front buildings of mess establishment as compiled at King Williams Town Co. Middlesex British Kaffraria as completed / Not signed by architect - Copied by W. McLintock 2nd Corpl. R.S.&M. – 1849. – 1 ms plan: ink drawing, col.; fine wove paper; 62 x 47 cm. – Lacks Royal Engineers' stamp; B.K/30 [crossed out]; A.K. / 6; reference C/145. – M.Dill [Marcus] Capt. Royal Engineers 31st October 1849; Richd. Howorth Capt. Commanding Royal Engineer E.F. 26th Novr. 1849.

This is an exceptionally attractive plan showing not only details of the interior and exterior of the mess building but also its position in relation to a proposed infantry barracks, for which a simple design is also laid out.

Presumably the structure depicted here was made of wattle and daub, with a thatched roof. The Royal Engineers would have been familiar with this type of building construction; wattle and daub, used in early Cape dwellings, was commonly used in rural Britain. The technique, when skilfully employed, was ideal for rapid construction and a well-built wattle and daub house was extremely durable. Some of these buildings can still be seen in King William's Town (see Map 35) and Grahamstown. As part of their training in building techniques the Royal Engineers and the Royal Sappers and Miners were instructed in the composition of all types of building materials and how to use them.

After the War of the Axe of 1847, with the proclamation, in December of that year, of British Kaffraria as a separate colony, now divided into districts (named after English counties), King William’s Town, as the military headquarters, began to expand its military reserve. The Royal Engineers were actively engaged in the task of designing and constructing military installations, barracks, hospital premises and numerous buildings in wattle and daub and dressed stone, many of which are still to be seen today.
There were two phases in the life of Fort Murray. First built, along with many other forts, as a consequence of the Sixth Frontier War of 1834-1835, it was a simple entrenchment on the Buffalo River near Mount Coke, a Wesleyan mission station south of King William's Town. The fort was abandoned shortly after the war when the Keiskamma River again became the eastern border of the colony. There is some confusion over the naming of the fort. The most likely person seems to have been Captain George Murray of the 72nd Highlanders, who was seriously wounded during the war and repeatedly commended in general orders for his resource and courage. A.W. Burton in his Highlands of Kaffraria disputes this attribution, suggesting instead the name of Colonel George Murray, late of the 42nd Regiment, Royal Highlanders, who never served in the Cape Colony. He was Master-General of Ordnance in England at the time, and seems to be a remote contender. Other sources claim Colonel A.S. Murray or Captain A.S. Murray of the 72nd Highlanders, but neither is recorded as a member of that regiment during the Sixth Frontier War.

The second phase came after the War of the Axe of 1847, when the territory between the Keiskamma and Kei Rivers was proclaimed British Kaffraria, and some of the abandoned forts were reinstated or rebuilt. Fort Murray underwent elaborate reconstruction and was to be the centre of control of the Ndlambe district which included several Xhosa tribes. The commissioner appointed to the Ndlambe was Colonel John MacLean, for whom a house was built within the fort (see n. 76).

The map shows the old and new forts within the same enclosure, a short distance from each other. Bergh and Visagie have positioned them about 6 km apart (see their map 17.1). The fortification is given as 400 x 400 yards, and 'ordnance boundary' is printed in a circle around the inside of the walls. Outside are the 'engineers yard', 'hut for Kaffir chief' and 'contractor's kraal'.

The Buffalo River is prominent and there are roads to King William's Town and East London leading away from the fort. Fort Murray is now a ruin but has been declared an historical monument. The Cape Archives Depot has a large collection of manuscript material concerning Fort Murray.
The map shows Fort Pato situated between Fort Murray to the west and Forts Grey and Glamorgan along the Buffalo River to East London in the south-east. Also marked are a wagon road, leading north to the right bank of the Buffalo River and 'Col. Somerset’s Camp', and the road west to Fort Murray passing ‘Need’s Camp’ (see Bergh and Visagie, Map 20.1).

Despite pressure from certain other Xhosa chiefs to join them in resisting the government forces in the Sixth Frontier War of 1834-1835, Phato (ca 1785-1869), chief of the Gqunukhwebe, adopted a loyal stance towards the colonial authorities. In the War of the Axe of 1847, however, Phato proved to be a troublesome and dangerous adversary, only surrendering at the end of the war. The Eighth Frontier War of 1851-1853, on the other hand, saw him once more determinedly loyal to the authorities, despite urging to resist by his fellow chiefs. He effectively kept the road to East London clear, providing protection for wagon trains.

The fort named after Phato was completed by the end of the war but it is not clear whether he actually lived there. The naming of the fort would seem to be an unusual gesture towards a Xhosa chief since the convention was either to honour British military or official figures, prominent settlers, or simply to adopt a local geographical name.
Forts Fordyce
Forts Fordyce were named after Lieutenant-Colonel John Fordyce of the 74th Highlanders, who was killed on 6 November 1851 in the battle of Waterkloof which was fought against the great Ngqika chief Maqoma in the Eighth Frontier War of 1851-1853. Thomas Baines recorded the scene in an oil painting in which he is himself portrayed standing at Fordyce’s head where he lay dying. The picture is in the William Fehr Collection in the Castle at Cape Town. Baines also gives a graphic description of the battle in the journal he kept on his South African travels.

The forts, made up of a stone as well as an earthen fort, replaced two older encampments at Mount Misery. They were constructed a few hundred yards from where Fordyce fell; both components are shown as clearly drawn plans, with a ‘kraal’, a flagstaff and outbuildings nearby. The table of accommodation is interesting as it gives a breakdown of the regimental divisions, including hospital patients and horses, housed in both forts. There were one hundred and fifty-four soldiers of the 73rd Regiment and twenty-five horses. The occupants of the erven are named in the reference table and the erven are laid out in a neatly drawn plan of a proposed village. Other features to note are the roads leading north to Mundell’s Krans and Post Retief, south to Blinkwater Post, and west to Fort Beaufort on the Argyle Road. The vicinity of Waterkloof is indicated as ‘to 7° of Waterkloof’. The kloof itself is eloquently described by Robert Wilmot. ‘The Waterkloof is . . . far more beautiful . . . than I had expected, being a richly wooded strath between two lines of forest hill which fall in the most graceful sweeps I ever saw, and though of vast height, deceive the eye by their extreme grace of outline . . . .’

Springs, swamps and little streams are also marked on the map.
Sketch of the route from Whittlesea to Burgersdorp called for by the Qr Mr Genl’s letter 21st Octr. 1852 / Not signed by compiler. Copied Corpl. McLintock R.S.& M. 3rd July 1853. – Scale 4 miles to 1 inch [1: 253 440]. – 1852. – 1 ms map: ink drawing, col.; fine wove paper; 75 x 48 cm. – Captions in English and Dutch. – Orientation: magnetic north. – Lacks Royal Engineers’ stamp; 89/197; 0/61 and R/6 on verso. – Richd Tylden Capt. & Comg. R.Engr. Sovereignty expedition 18th January 1853. – Ms note: Sketched between the 27th Octr. and 2nd Novr. 1852. R.T. – No.I. To accompany Capt. Tylden’s letter to the Commanding Royal Engineer Eastern Frontier & dated 18th January 1853.

The map shows part of the route taken by a ‘splendidly equipped' force led by Lieutenant-General Sir George Cathcart on 4 December 1852 to the banks of the Caledon River in the Orange River Sovereignty (1848-1854). The aim of the expedition was to restore British prestige, which had been severely eroded in the territory through the lack of an adequate military force to deal with the disorder caused by inter-tribal strife and the plundering of Boer cattle and property. It was felt that a forceful presence would facilitate peace negotiations with the Sotho, instead of which a bloody battle was fought against Moshweshwe and his followers before an uneasy peace was finally concluded on 21 December 1852. Cathcart withdrew his troops, travelling back to the colony along the same route. The British government, already inclined to relinquish the Orange River Sovereignty, gave up its authority over the territory in 1854 in terms of the Bloemfontein Convention, 23 February 1854.

Captain Tylden and a small contingent of Royal Engineers conducted an initial inspection of the drift across the Caledon River in case it became necessary to advance to the other side, surveying the area in the vicinity of Thaba Bosigo, Moshweshwe’s hilltop stronghold. As part of what appeared to be a hazardous operation, Lieutenant Herbert Sibome (see Map 25) was required to swim his horse across the swollen stream. Presumably it was Tylden’s function to report on the events of the expedition to Royal Engineer headquarters on the eastern frontier, and the letter referred to in the note above would no doubt have been accompanied by any other sketches made in the course of the expedition.

The route shown on the map passes due north through the districts of North Victoria, Cradock and Albert (proclaimed on 9 January 1848), across the Stormberg Mountains. Settlements are shown along the main and subsidiary rivers, the road to Colesberg, numerous smaller roads and certain prominent peaks, such as the Great Tafelberg. The area to the east of the Klaas Smits River is marked ‘Territory added to the colony by the proclamation 5th July 1848’. This refers to a new boundary declared on 17 December 1847 which gave even more land to the Cape Colony. The eastern boundary was then formed by the White Kei River, not marked on the map.
Sketch of Ground

BAILEY'S GRAVE

KEISKAMA HOEK

Scale 3 inches : 1 mile

The new road is shown from where it leaves the old road to follow the east bank of the Kabula River (a tributary of the Keiskamma), joining it again approximately four miles to the north. The section of land depicted here lies in the foothills of the Amatola Mountains, within the Crown Reserve. After the Eighth Frontier War of 1850-1853 this territory was evacuated by the Ngqika who were then settled further east near the Kei River, the eastern border of British Kaffraria. Good roads between military posts were important for the maintenance of stability, and white settlement was only permitted in the vicinity of proper fortifications.103

In 1846 Lieutenant John Stokes (see Map 15) had been engaged with a party of Sappers in opening a road for wagons in the Amatola Mountains. The old road shown on this map would probably have been a section of that original road; no doubt the new stretch was an improvement. It appears that on this mission Stokes established a field-work post near Bailie’s Grave called Fort Stokes which, after the Eighth Frontier War became known as Bailie’s Grave Post. Although ‘Fort Stokes’ is mentioned in documents which indicate that its position accorded with the later Bailie’s Grave Post, it is not recorded on any contemporary maps; perhaps it was too short-lived as Fort Stokes to be properly noted under that name.104 Bailie’s Grave Post was established near the burial place of Charles Bailie (1810-1835) a courageous young man of deep religious conviction. He was a lieutenant in the 1st Battalion of the Cape Corps and took part in the Sixth Frontier War of 1834-1835.

Bailie and thirty of his men were killed in an ambush after fighting until their ammunition was exhausted. Their remains were found three months later, on 7 October 1835, by a party which included John Bailie, his father (see Map 17). The burial took place on the banks of the Mnquesh River.105 A vivid account of the area surrounding the site and its eerie and disturbing atmosphere is given by Robert Wilmot, who visited the grave in 1856. By then the post was ‘a dismal square of falling mud hovels, planted round a mud swamp of equal sloshiness and tenacity . . . the whole scene struck me with a cold shiver.’106
Sketch of ground between the Keiskamma Hoek and Fort Hare shewing proposed line of waggon road / Signed Srd. [surveyed] R.Tylden R Eng B.Kaffraria 28 July 1853. – Scale 2 miles to 1 inch [1: 126 720]. – 1853. – 1 ms map: ink drawing, col.; fine wove paper; 26 x 41 cm. – Orientation: magnetic north. – Royal Engineers’ stamp 1861; B31; B37 crossed out. – C D Robertson Major C.R.E.F.; Copy Edw. Belfield Lt.R.E. Aug. 19 1853. 107 Ms notes: 1. To accompany Capt. Tylden’s report of same date. 2. The line of road shown in yellow approved by order of the Commd of the Forces 108 dated August 2 1853.

This map was compiled towards the end of the Eighth Frontier War of 1850–1853. The road referred to in the note runs west from Keiskamma Hoek Post, past Fort Cox on the way to Fort Hare, continuing north-east to Tyhume Post. It then becomes a bridle path eastwards through the Amatola Mountains and crosses the Keiskamma and Wolfe rivers back to Keiskamma Hoek Post. The yellow road is also shown leaving Keiskamma Hoek north-east to Kabousie Post, and south-east towards King William’s Town. A branch of the bridle path goes towards the Hogsback in the Amatola Mountains. Also shown are the Seven Kloof Mountains, Mount McDonald, small rivers and streams. The Burnhill Mission 109 is marked south-east of Keiskamma Hoek. Of the forts and posts in the sketch, Fort Cox was the oldest, having been built after the Sixth Frontier War of 1834-1835. It was named after Major William Cox, 75th Regiment, commander of the third division of forces against the Xhosa. 110 Keiskamma Hoek Post 111 and Tyhume Post 112 were established after the War of the Axe of 1847. Fort Hare was also completed after the war (see Map 15).
Although the basic design of this map is identical to that of Map 24, there are proposed amendments which were added nearly a year later. The original yellow line of road described in the annotations to Map 24 is shown here with an additional caption: ‘Yellow line proposed by Lt. Sibome RE.’ An amended road in red has been added and captioned: ‘Red line proposed by Capt. Tylden RE on the 26th April.’ The red road is of more elaborate design, converging here and there with Sibome’s road but in fact making many more crossings of the Keiskamma River; Tylden’s proposal was obviously put into effect. Robert Wilmot, writing about his ride from Fort Cox to Keiskamma Hoek in 1856, described the countryside in lyrical terms: ‘we passed along ... a bold ridge over the river and then entered the rich and beautiful Linia Valley, the most lovely thing in Kaffraria. We crossed and recrossed the Keiskamma River frequently ...’

An additional interesting feature is the obvious strengthening of the bridle path (shown on the previous map), converging with a road running from the Amatolas along the left bank of the Wolfe River to Keiskamma Hoek. This is captioned: ‘Line proposed by Lt.Col. [Cosby Lewis] Nesbit[?] 60th Rifles.’
The history of King William's Town begins with the establishment of the Buffalo Mission on the east bank of the Buffalo River in 1826 by John Brownlee of the London Missionary Society. During the Sixth Frontier War of 1834-1835 the mission was burnt down and after the war the settlement was declared a township, named after King William IV. It was to serve as the military and administrative centre of the new Province of Queen Adelaide created on 10 May 1835 (see Map 17). The province was abandoned in the following year, becoming Xhosa territory again, and for the next ten years John Brownlee was able to conduct his mission while the town developed as a trading centre. The War of the Axe of 1847 brought destruction to the mission once again and Brownlee was forced to leave. The importance of King William's Town was re-established, this time as capital of British Kaffraria, which was proclaimed a separate British colony on 23 December 1847. The town lay in the county of Middlesex, one of the several districts in the territory named after English counties.

A considerable number of forts were either built or reconstructed in British Kaffraria after the war, including Forts White, Cox, Glamorgan, Grey, Wellington and Waterloo. Fort Hill, first built in 1835, is shown in some detail on this plan, which also sets out the military and government structures in King William's Town after the Eighth Frontier War of 1850-1853.

The entire military reserve, as shown on the map, was surveyed by the Royal Engineers in 1847 and demarcated by nine "ordnance stones". Some were marked 'B O' (Board of Ordnance), others 'W D' (War Department). They were placed at intervals on the boundary, the reserve being formed by a rough triangle with the Buffalo River as the base.

Roads to Grahamstown and Forts White, Cox and Hare, with their distances from King William's Town, are shown, as well as the road to Fort Murray to the south, and the road to the Kei River, the eastern boundary of British Kaffraria.
German Villages


The area covered by this map lies between East London and the Kabousie range in the north. Forts, posts, the German villages and the Dohne and Peelton mission stations are clearly marked. Panmure and Kolding villages are shown as ‘abandoned (no water)’.

After the Eighth Frontier War of 1850-1853 the Xhosa were driven across the Kei River, and other tribes such as the Thembu, Dange, Ntinde and Dushene-Ndlambe, whose chiefs had taken up arms against the British, were also deprived of their land. By 1856 British Kaffaria was left with acres of vacant territory. The fearful loss of life among the remaining tribes in British Kaffaria following the tragic Xhosa ‘Cattle-Killing Movement’ also served to further reduce the black population. Part of Sir George Grey’s policy of creating a predominantly white British Kaffaria was to recruit members of the German Legion to the colony, assuring them of land and housing in village settlements. Those who volunteered to come to British Kaffaria, about 2 500, arrived early in 1857 at East London. The wives and children of the few who were married were to follow later. The scheme was not a success: the legionaries were soon to complain about their treatment and the hard conditions they encountered. Many of them were unsuited to the life and their numbers were greatly reduced by those who went to fight in the Indian Mutiny of 1857-1859; many of them did not return to South Africa.

Grey, in conflict with the colonial office over the financing of his immigration policy, disregarded orders and negotiated for a further influx of German settlers, who arrived in British Kaffaria in 1858. These were industrious people, purposeful immigrants who adapted reasonably well to the often harsh realities of their rural lives. By 1861, when the Legion was disbanded and the remaining members were made ordinary citizens, the German settler community had become stable and productive.
As the title implies, this is a simple plan of King William's Town, designed specifically to show the position of the proposed military stores on the east side of Fort Hill, which is drawn in outline only. Other features are the road to Forts Cox, White, Hare and Beaufort, the road to Grahamstown, and locations of the barracks of the Royal Engineers, the 60th Rifles and the Cape Corps.
This map and the previous one of the same date were probably part of a specific project. Shown here is a simple plan of Port Elizabeth demonstrating part of the coastline and the Bakens River. The main features are the positions of the ordnance and commissariat stores, Fort Frederick and a nearby hospital with its outbuildings. There is also an inset of the marketplace, showing its dimensions, drawn to a scale of 40 feet to an inch [1:480], oriented true north and with the legend: 'Copy of plan no.6. Title deed book v/1.'
Post and Signal Towers
This simple sketch map shows, through the medium of the reference table, the following features in the districts of Albany and Beaufort: the permanent military posts and forts of Grahamstown, Trompetters Post, Fort Peddie, Fort Brown, Fort Beaufort, Elands Post and Post Retief; the temporary posts of Bathurst, Cawood's Post, Botha's Post, Committee's Post and Double Drift, and the abandoned signal towers at Grahamstown, Governor's Kop, Grass Kop, Botha's Post, Fraser's Camp, Piet Appel and Dan's Hoogte.
King William's Town
This detailed map of King William’s Town clearly illustrates the military nature of the town, which had been largely planned by the Royal Engineers and built with military labour. The fine quality of some of the dressed stonework buildings can still be seen today, although many of the buildings in the military reserve have been demolished or allowed to decay over the years. It is interesting to note that the town properties referred to in the reference table were mainly owned by military men who either lived in their own houses or rented them to others of the military or, in a few cases, to ministers or doctors.

During the period 1858 to 1866 King William’s Town experienced considerable expansion as the white population of British Kaffraria increased rapidly; East London, no longer part of the Cape Colony, had also been incorporated into the territory. On 9 February 1860, two days before Major-General Bolton signed the map, King William’s Town was declared a borough under civil authority, lying within the district of the same name, one of the six districts into which British Kaffraria was now divided (see Map 33).

This is the last map in the series to bear the Royal Engineers’ stamp. Presumably the removal from Grahamstown of the military headquarters to King William’s Town in 1862 disrupted this particular system of handling military documents. It was probably not continued after the reinstatement of Grahamstown as the eastern frontier headquarters in 1864 (see Map 35).
Site plan shewing in yellow the position of the several items proposed to be extended during the year 1860-61. The date has been crossed out; 1860-61 written above in pencil. Not signed by compiler. – Scale 100 yards = 1 inch [1: 3 600]. – 1860. – 1 ms map: ink drawing, col.; fine wove paper; 45 x 56 cm. – Orientation: true and magnetic north. – Ms notes: 1. Postponed items shewn in blue [in pencil]. 2. To accompany BAE 1859-60 dated ITEMS. 3. On verso: Site plan to accompany Barrack Annual Estimate for 1860-61. Proposed items in yellow postponed items in blue. Francis R. Gubbins Lieut. (see Map 31)

The proposed items were a second comissariat store, to be placed on the east side of Fort Hill, and some additions to the Royal Engineer’s yard and offices. The postponed items were barrack stores and offices, the Cape Corps mess establishment, a court martial room, the Corps armourer’s shop, a dung pit for the Cape Corps barracks and a drain leading from the barracks to a stream, as well as additions to the magazine and to command quarters. Presumably these postponements, considerably more numerous than the additions, resulted from the ever-present problem of insufficient funding by the British government.
Although this is a very rough sketch-map, with little information concerning its origins, it does reveal the situation of the King William's Town Borough within the district of King William's Town. For the easier administration of British Kaffraria after its expansion of population in 1858, six districts were created: King William's Town, East London, Stutterheim, Gonube, Keiskamma Hoek and Middle Drift. 131
This is an unusual map in the series, attention being focused on the coastline and coastal waters of Algoa Bay. It shows positions of beacons, lighthouses, the breakwater in the harbour and the area marked out for ships riding at anchor. Dangerous reefs and heavy breakers at Cape Recife are depicted and information is also given about the visibility of lights beyond a certain distance out to sea. There is a system of curved red lines indicating distances from the coast of 2,500 yards and 6,000 yards.

Certain landmarks in Port Elizabeth are noted, such as the Donkin Memorial and Fort Frederick. Also included further inland are the Cradock town mill and the salt lake at Bethelsdorp.

Although there is little information concerning the function of this map, there is a possibility that it may have been connected with the coastal survey conducted by Captain Bailey RE and a number of Royal Engineer officers between 1859 and 1862. After the completion of the work the survey party sailed to England from Algoa Bay, only to be shipwrecked on the rocks off Struys Point, an ironic stroke of misfortune. Instruments, drawings and observations were lost 'to my infinite regret and annoyance', wrote Captain Bailey. The work had to be reassembled, a difficult and unsatisfactory task. In spite of inaccuracies it became a basis for subsequent survey operations.
In April 1862 the military headquarters for the eastern frontier were moved from Grahamstown to King William’s Town. Grahamstown was already experiencing an economic depression and the removal of the troops added considerably to the problem, as well as creating something of a social and cultural vacuum. King William’s Town’s resources, on the other hand, were hopelessly inadequate to deal with the influx of more soldiers.134 The governor of the Cape Colony and high commissioner, Sir Philip Wodehouse, was anxious to curtail public spending and, when faced with a £65 000 estimate for the further expansion of the barracks at King William’s Town, recommended to parliament (sitting for the first and only time in Grahamstown in 1864), that the military headquarters be re-established there.135 The return of the regiments in that year was greeted with great enthusiasm by the local citizens.136

The plan shows a small section of the barrack area of the military reserve in King William’s Town. The areas marked out for expansion were a large site for the wattle and daub huts, infantry officer’s quarters, Cape Mounted Rifles’ stable and officers’ accommodation, and a number of new roads between and around the quarters.
This beautiful plan shows the extent of the military reserve at the end of 1863. Although the military headquarters were relocated in Grahamstown in the following year, some extensions were still being planned, namely a large portion of land near the cemetery to be developed for a mule train establishment with an access road from d'Urban Street, a rifle practice range and a brickyard for the Royal Engineers.

Five of the nine original boundary stones (see Map 26) are marked. Against the fifth, a War Department stone, is the comment: ‘This stone was thrown down by order of the Lieut. Governor.’ The martial law governing British Kaffraria in 1853 was lifted in September 1856. During this time the Government buildings, including Government House, were part of the military reserve, ‘being taken therefrom by order of Sir George Grey 7th October 1856, and proposed to be resumed’. Presumably ‘thrown down’ in the case of the boundary stone meant removal, as the government departments reverted to civil administration.

Only three boundary stones remain in King William’s Town. Two, marked ‘B O’ (Board of Ordnance) are located in Berkeley Street, the third, marked ‘W D’, is on the Amatola Row side of the Excelsior School boundary, a useful landmark of the old military reserve boundary line. Fortunately steps have been taken to preserve these stones.
This is a meticulously drawn and constructed plan, a fine example of the architectural skill displayed by many of
the Royal Engineer officers, as well as some of the rank and file. It shows external elevations and internal details of
the alley, materials to be used and method of construction. There is also an inset showing a site plan indicating
the location of the skittle-alley within the Royal Engineer barracks. This would seem to be an unusual feature in
the recreational life of a nineteenth century soldier in a far-flung corner of the British Empire, but Royal
Engineers were familiar with the sport of ten-pin bowling. There was an American skittle-alley, built for
their use, at the Chatham barracks. Among the Royal Engineer manuscripts in the Cape Archives Depot is a plan for a
fives court to be built in King Williams’s Town in 1866.

The need for diversion and constructive recreation for the soldiers on the eastern frontier in times of inactivity
was considerable. Robert Wilmot was aware of the problem: ‘I can imagine no banishment more complete than
the frontier posts to men of no particular tastes but a general liking for society. Sporting men get on well enough,
and scientific or reading men are never at a loss, but the generality are bored beyond endurance and many date
their fondness for spirits to the time passed at a lonely outpost . . . .’ Lieutenant William Jervois remarked in his
eastern frontier diary (see Map 16, n. 61) ‘Another wet day . . . Read “Romeo and Juliet”. I never really read the
play attentively through before and was therefore ignorant of its beauties.’
King William's Town
Sergeant Graham, is here designated ‘RE’. In 1856, after the Board of Ordnance was abolished and its important duties transferred to the War Office, the Royal Engineers and the Royal Sappers and Miners were united into one corps and the former ‘RS&M’ was replaced by ‘RE’. Since 1414 the Board of Ordnance had been in control of every aspect of military engineering. In Elizabethan times, probably in about 1597, the Board was created a department of state with great powers of patronage. By the mid-eighteenth century these included the granting of first commissions to cadets of the Artillery and Engineers for admission to the Royal Military Academy at Woolwich, established in 1741. As the educational requirements for entry were formidable and there was fierce competition for places, the system was theoretically a way of producing officers of quality, but it was open to abuse through corruption. The abolition of the Board was regarded by many as long overdue.  

The plan depicts eleven items coloured in yellow for the purposes of the barrack annual estimate, but the customary note explaining the intention for structures ‘marked in yellow’ is lacking. Examination of the yellow items suggests that the estimates were for repairs rather than new structures. The imperial troops were gradually being withdrawn at the time and the colonies were expected to establish their own military forces; it would not seem to have been an appropriate time for expansion in the reserve.

The regimental lists in the Cape directories for 1869 and 1870 reflect the beginnings of the drastic reduction of British troops in the colony.
1. Examination of available records has failed to identify this surveyor.
5. Ibid., Map 7.
9. Ibid., p.34; Map 10.
10. Ibid., p.34, n.3, n.8.
11. Information supplied by Mr Gerry Levin.
12. Coetzer's Drift, usually referred to as 'Koester' or 'Cooster' on contemporary maps. Bergh, J.C. and Visagie, J.C. Eastern Cape Frontier Zone, p.22; Map 7.
13. The signatory to the map, Lieutenant Mudge, may have been given a commanding role in Grahamstown at the time. By 1830 a formal position of Commanding Royal Engineer was established there, as well as the Royal Engineer Office, together with several clerks.
15. Ibid., p.22; Map 5.
17. For a full biography see Stretch, C.L. Journal of Charles Lennox Stretch. Edited by Basil A. Le Cordeur.
18. H.W.Piers was a clerk in the Royal Engineer Office in Cape Town.
22. Wilmot, R. Cape Traveller's Diary, 1856, p.43.
25. Bergh, J.S. and Visagie, J.C. Eastern Cape Frontier Zone, p.44.
28. In 1802, the title of Chief Engineer was changed to Inspector-General of Fortifications and Works. Lewis at that time would have been sending his reports to Major-General Sir Frederick Mulcaster. Porter, W. History of the Corps of Royal Engineers, v.2, p.94.
31. Bergh, J.S. and Visagie, J.C. Eastern Cape Frontier Zone, p.44; Map 16.
32. Ibid., p.20.
33. Burton, A.W. Highlands of Kaffraria, p.32.
35. For information on the history of Port Frances the following items were consulted: Hummel, H.C. *Settler Hamlet: A Study in Mentalité*; Turpin, E. *Basket Work Harbour: The Story of the Kowie*.


40. Information supplied by Mr Gerry Levin.


43. Information from Barnes, P. *Where duty leads. The Life of Colonel Jasper Selwyn R.E.*

44. This house must have served as a landmark in the district for some time. It is clearly noted on Map 14 in the exact location depicted on this map. Flat plaster roofs were a traditional feature of Cape architecture of the late 18th and early 19th centuries. They tended to leak and, in the eastern Cape after about 1825, metal and a type of clay tile made by the Albany settlers were used as covering in an attempt to solve the problem. Lewcock, R. *Early Nineteenth Century Architecture in South Africa: A Study of the Interaction of Two Cultures*, 1795-1837, pp.384-385.

45. *Dictionary of South African Biography*, v.3, pp.31-32


48. Lieutenant-General Sir Peregrine Maitland, KCB.

49. Captain John Walpole, later Colonel and Assistant Inspector-General of Fortifications and Works, was commended for his courage in the War of the Axe of 1847, and became known as the ‘English lion’. Le Cordeur, B. and Saunders, C. *War of the Axe 1847*, p.267, n.13.

50. Ibid., p.16; p.23, n.14.


52. Obituary. Lieutenant-General Sir John Stokes, KCB, RE. *Royal Engineer Journal*. New Series, 1 April, 1903, pp.76-78; 1 May, 1903, pp.102-104.


55. Lieutenant Jervois gives a vivid description of the journey in a signed autograph letter. Department of Historical and Literary Papers, University of the Witwatersrand Library.


57. Ibid., pp.85-87.


61. Le Cordeur, B. and Saunders, C. *War of the Axe 1847*, p.205; Manuscript diary of Lieutenant Jervois, the property of Mr William Jervois of East London.

62. Arrowsmith also acknowledges Jervois's contribution of material on his 1851 and 1858 maps of the eastern Cape.


65. Le Cordeur, B. and Saunders, C. *War of the Axe 1847*, p.44.

66. Ibid., p.73, n.54.


69. Derived from an Indian ‘(Gujarati)’ word ‘tankh’ meaning a small reservoir or pond. *Oxford English Dictionary*, 2nd ed.
71. Information supplied by the East London Museum.
73. Head, Sir F.B. *Royal Engineer*, pp.197-201.
75. Captain Richard Howorth, presumably ill at the time.
77. Bergh, J.S. and Visagie, J.C. *Eastern Cape Frontier Zone*, p.44; Map 15.
84. Captain Charles Duesbury Robertson was probably second-in-command on the eastern frontier in 1851. He became commanding officer in the following year.
85. The Africana Library of the University of the Witwatersrand has in its possession a water-colour of Fort Pato (see Frontispiece). Although it is not signed there is strong evidence to suggest that it was painted by Robert Wilmot. The manuscript of his diary, in the Department of Historical and Literary Papers, Witwatersrand University Library, and published as *Cape Traveller's Diary*, 1856 (see Map 6, n.5) contains many sketches and water-colours made by him of the forts he visited and scenes he observed in British Kaffraria in 1856. Comparisons of these with the painting of Fort Pato show a marked similarity in the handwriting, and in the style of drawing and painting.
86. Colonel Henry Somerset (1794-1857), eldest son of Lord Charles Somerset; overlooked as Commander of the Forces in the War of the Axe in favour of Lieutenant-General Sir George Berkely (1785-1857).
90. Fehr, W. *Treasures at the Castle of Good Hope*, p.38.
91. Baines, T. *Journal of Residence in Africa*, v.1, pp.229-50. Baines had been appointed in 1851 by Colonel Henry Somerset to sketch the events of the Eighth Frontier War and thus became the first official war artist in South Africa.
93. Colonel Abraham Joris Cloete CBKH (1794-1886) was the grandson of Hendrik Cloete, owner of Groot Constantia, Cape Town. He was made a lieutenant in the British army by the age of sixteen and rose steadily in rank, becoming a general in 1871.
94. Captain Richard Tylden (1819-1855), commanding Royal Engineer, district of North Victoria, with headquarters at Whittlesea. His short career was a brilliant one; he was conspicuous for his courage and his engineering and surveying skills, and was frequently mentioned in general orders and despatches during the Eighth Frontier War of 1850-1853. He was mortally wounded in the Crimean War of 1853-1856 and died on his way to Malta where he was buried. *Dictionary of National Biography*, v.51, p.417.
95. Captain Charles Duesbury Robertson.
96. Sir George Cathcart (1794-1854) was governor and commander-in-chief of the army in the Cape Colony from 1852-1854.
97. Moshweshwe (1795-1870) founder and first king of the Sotho nation.
99. King, W.R. *Campaigning in Kaffirland*, pp.280-329. Lieutenant Sibome later introduced the use of the lasso, 'a novel mode of applying horse-power for traction purposes ... [which] was carried by Sibome to a high pitch of perfection, and formed an important and attractive part of the mounted Engineer training.' Porter, W. *History of the Corps of Royal Engineers*, v.2, p.108.


101. Ibid.

102. Lieutenant-General Sir George Cathcart.

103. Bergh, J.S. and Visagie, J.C. *Eastern Cape Frontier Zone*, p.54; Map 19.


105. This sad event was recounted by John Bailie in a letter to his son's widow. Burton, A.W. *Highlands of Kaffraria*, pp.17-21.


108. Lieutenant-General Sir George Cathcart.

109. Burnhill Mission was established by the Glasgow Missionary Society in 1830 and had to be abandoned in 1851 during the war. Du Plessis, J. *History of Christian Missions in South Africa*, pp.184,188.

110. Bergh, J.S. and Visagie, J.C. *Eastern Cape Frontier Zone*, p.44.


112. Tyhume Post was probably developed in the war from a camp in use during the War of the Axe, referred to by Major-General J.J.Bissett in his *Sport and War*, pp.53-69; Burton, A.W. *Highlands of Kaffraria*, p.26; Wilmot, R. *Cape Traveller's Diary*, 1856, pp.23,39,40,72.

113. It is puzzling to note that Robertson describes himself as 'Major' on Map 24 and 'Captain' on Map 25, both maps having been dated 28 July 1853. He continued to be listed as a captain in the regimental lists, only appearing as a major in 1855.

114. Wilmot spent time travelling with Robertson and Captain Hampden Charles Blamire Moody: 'I found Moodie [sic] as agreeable as all engineer officers are ... Laughed at each other's stories all night ... .' Wilmot, R. *Cape Traveller's Diary*, 1856, p.89.

115. Wilmot, R. *Cape Traveller's Diary*, 1856, pp.43-44.


118. Bergh, J.S. and Visagie, J.C. *Eastern Cape Frontier Zone*, p.48; Map 17.1, Map 17.2.

119. Ibid.

120. The fort was very large, probably capable of housing a thousand men. It fell into disrepair in the late 1860's and the site has been proclaimed by the National Monuments Council. Webb, D. *Report on the Military Reserve and the Buildings that Remain in the Grounds of Excelsior School*, pp.6-7.


122. Peires, J.B. *The Dead will Arise: Nongqawuse and the Great Xhosa Cattle-Killing Movement of 1856-7*. Of particular interest is Chapter 10: 'Everything you always wanted to know about the Xhosa Cattle-Killing'.

123. Sir George Grey (1812-1898) was governor of the Cape Colony and high commissioner for British Kaffraria 1854-1860.

124. These were German soldiers who had contracted to fight with the British army in the Crimean War of 1853-1856, which ended before they could take part. They were a burden on the British government and virtually stateless.


126. Colonel Daniel Bolton (1794-1860) was commanding Royal Engineer in Grahamstown from 1854 to 1859. While stationed in Grahamstown he took a keen interest in local flora and sent specimens to Sir William Hooker at Kew and William Harvey in Dublin. He became a friend of Dr William Guybon Atherstone of Grahamstown, who wrote on Bolton's sudden death in Cape Town: '... he was a great lover of botany and an excellent geologist.' Gunn, M. and Codd, L.E. *Botanical Exploration of Southern Africa*, p.97.

127. Lieutenant-General Sir James Jackson (1790-1871) was commander of the forces in the Cape Colony from 1854 to 1859. He was not greatly respected, and 'seems always to have been quaking with fear and expecting immediate disaster'. Cory, G. *Rise of South Africa*, v.6, p.7. 'General Jackson must go to the wall immediately, no one disputes that, and his successor will have the hard task of repairing his mistakes.' Wilmot, R. *Cape Traveller's Diary*, 1856, p.105. Robert Wilmot, who met Jackson in
Grahamstown in 1856, included among the many sketches he made an unflattering caricature of him; it is the frontispiece of his published diary.

128. There is no explanation for the signature, ten years after the map was compiled, of Colonel Charles Fanshawe, commanding Royal Engineer in Grahamstown in 1869.


131. Ibid., p. 56; Map 20.2; Standard Encyclopaedia of Southern Africa. Article on King William's Town, v. 6, p. 400.

132. Lieutenant-General Robert Henry Wynyard (1802-1864) was acting governor for Sir George Grey during his absence in 1859/1860, and again in 1861/1862.


134. Gibbens, M. Two Decades in the Life of a City, pp. 60-64.

135. Sir Philip Edmond Wodehouse (1811-1887) was governor of the Cape Colony from 1862 to 1870, his term of office having been twice extended. Dictionary of South African Biography, v. 1, pp. 882-886.


137. The Cape of Good Hope Almanac and Annual Register for 1862 lists both Lieutenant-Colonel Henry Arthur White and Lieutenant-Colonel William Turnbull Renwick as commandant Royal Engineers.


139. British Kaffraria was annexed to the Cape Colony in 1866 and was subdivided into two divisions, King William's Town and East London. Bergh, J.S. and Visagie, J.C. Eastern Cape Frontier Zone, p. 56.


141. Wilmot, R. Cape Traveller's Diary, 1856, p. 46.

142. Head, Sir F.B. Royal Engineer, p. 1-26; Porter, W. History of the Corps of Royal Engineers, v. 2, pp. 139-166; Watson, C.M. History of the Corps of Royal Engineers, v. 3, p. 34.

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