

# THE ARROWSMITH AND S.D.U.K. MAPS OF SOUTH AFRICA OF 1834 – SOURCE MATERIAL AND CARTOGRAPHICAL SIGNIFICANCE

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## ABSTRACT

Arrowsmith's map of the Cape of Good Hope of 1834 and the map of South Africa by the Society for the Diffusion of Useful Knowledge (S.D.U.K.) of the same year are considered the most authoritative maps of the region published on the eve of the Great Trek when thousands of frontier farmers left the Cape Colony to settle in the interior of the country. According to annotations printed on both maps, the information on them was derived from a manuscript map in the Colonial Office. This paper purports this manuscript map to be a compilation by L. Hebert now kept in the British National Archives. Drawing on the history of exploration of Southern Africa, this paper brings to light the source material which was used for Hebert's map and comments on the notion that certain information on this map had been "unlawfully" copied from a manuscript map of 1831 compiled by James Centlivres Chase.

## INTRODUCTION

The first edition of John Arrowsmith's map of the Cape of Good Hope was published on 15 February 1834 with the S.D.U.K. map of South Africa appearing six weeks later on 1 April 1834. Both fulfilled a long-felt need for a reliable map of the country and have long been lauded by historians as the best maps of South Africa which were published at a time when the demography of the subcontinent was about to undergo a significant change. Prior to 1835 the only geographical location where there was intensive contact between Europeans and Africans was in the Eastern Cape along a two hundred kilometre zone bordering on the Fish River. By 1840 this situation had changed dramatically as thousands of white frontiersmen had settled amongst the black tribes to the north where they considered the extensive unpopulated grasslands of the South African highveld and the fertile valleys of Natal as open for occupation.

An annotation on Arrowsmith's map mentions that it was "with permission copied from the original manuscript drawing in the Colonial Office by Mr L. Hebert, Snr." Likewise, the S.D.U.K. map indicates that it was "Compiled from M.S. maps in the Colonial Office", as well as from information furnished by "Captain Owen's Survey". Like all contemporary small-scale maps of newly discovered areas of the British Empire, both maps were compilation maps put together by using various sources of information. Presuming that the "M.S. maps" the S.D.U.K. map refers to also included "Hebert's map", I was intrigued as to how the Colonial Office had acquired the information depicted on Hebert's map, what the provenance of the map was and what that source looked like. The latter question was solved when I located a map by L. Hebert, dated 1830, in the British National Archives (previously the Public Records Office) in 1991.<sup>1</sup> Light dawned when I read an article by the late Prof. P. R. Kirby of Rhodes University, South Africa in which he describes how information on a manuscript map by James Centlivres Chase had been used by the Colonial Office in 1831 and made accessible to Arrowsmith and the S.D.U.K. without Chase's consent.<sup>2</sup> Chase was a so-called British Settler who had emigrated to the Cape Colony in 1820 and who took a keen interest in all matters related to geography and map-making. He was also the first civilian in South Africa to produce overview maps of the South-Eastern Cape and although his manuscript map of 1831 did not survive, ample reference to it occurs in the relevant historical records.

The initial spadework on Chase's interest in exploration and mapping was done by Kirby who had a lay historian's interest in Chase's geographical endeavours. Kirby only had access to the 1842 edition of Arrowsmith's map which he thought was the first edition, and although he came across a map of Hebert in the British Library, he never succeeded in tracing the map in the Colonial Office which Arrowsmith refers to as "Hebert's map". Whilst fully acknowledging Kirby's initial contribution, this paper attempts to give a more complete account by reviewing the dearth of maps of South Africa before the 1830s and the role Chase played in providing topographical information to the Colonial Office to be used by Hebert and later on also by Arrowsmith and the S.D.U.K.

## DEARTH OF RELIABLE MAPS PRIOR TO 1834

When Britain assumed control at the Cape in 1795 the British authorities were ignorant of the extensive surveys and mapping of especially the coastal areas that had been undertaken under Dutch rule since 1652. They considered the country unmapped and with large parts of the colony already inhabited by frontier farmers, they were eager to obtain reliable maps.

However, by 1834 the interior of Southern Africa was still unmapped. The available maps were all of a small scale and mainly covered the Cape of Good Hope and its immediate surroundings with a few sketch maps of the Eastern Frontier and the area to the northwest of the Colony beyond the so-called Orange River. These maps were compiled by explorers, travellers, hunters, missionaries and military and civilian surveyors, as well as professional map makers in Britain and Europe. Most of the locally compiled maps formed part of travelogues which were, at the time, sought-after reading material overseas. Geographical information was also passed on to the Colonial Office via government sources and in Britain and Europe this information, supplemented by books, maps, pamphlets and other unpublished sources, was used by map-makers to compile wall and atlas maps of the newly explored regions.

## **ATTEMPTS BY THE GOVERNMENT TO OBTAIN TOPOGRAPHICAL INFORMATION**

By 1818 the ongoing clashes with Xhosa tribes on the Eastern Frontier justified the arrival of five additional Royal Engineer officers to strengthen the small contingent serving at the Cape since 1803. Their commanding officer was Major W.C. Holloway. To assist the government with the registration of land grants in the newly occupied areas and also to comply with the request for maps from the Colonial Office, the Governor Lord Charles Somerset, commissioned Holloway in July 1819 to supervise a general trigonometrical survey of the Cape Colony “to lay the foundation of a map...so that the limits of this colony...shall be known”.<sup>3</sup> Work on this project started on the Eastern Frontier and in the district of Graaff-Reinet in August 1819 but had to be abandoned in 1825 due to a lack of funds.<sup>4</sup> None of the sketches made during this survey was ever published and those which have survived are currently kept in manuscript form in the Cape Archives and the Laidler Collection of the Library at the University of the Witwatersrand .

That the existing maps of South Africa were of little use to the Colonial Office, and that the British Government was in need of reliable maps in spite of its shortsighted decision not to support Holloway financially, is evident from a letter by the Colonial Secretary Lord Bathurst, to Somerset dated 14 June 1824: “As much inconvenience is felt at times from the want of good Maps..., I have to request that you will make arrangements for furnishing me with such Maps already in your possession as may obviate the inconvenience I have already pointed out...”<sup>5</sup> The Cape government was not in a position to comply with this request with the result that Bathurst reiterated his need for reliable topographical information in another despatch dated 1 January 1827. In this letter, written shortly after Holloway’s survey had been abandoned, Bathurst stated that “from the want of Geographical information it has been found impossible to complete with any degree of accuracy the Maps deposited in this office of the distant Colonies which belong to this Country”.<sup>6</sup> To rectify this situation, Bathurst requested the Acting Governor, Sir Richard Bourke, to furnish him with “a half-yearly report of the progress in Geographical and Topographical Knowledge which may be made in the Colony”<sup>7</sup> and to accompany all his reports “with such Maps and Surveys as may be necessary to their elucidation”.<sup>8</sup>

The first Surveyor-General of the Cape Colony Colonel Charles Cornwallis Michell was appointed in 1828. Michell also held the position of Chief Civil Engineer and his busy schedule allowed little, if any time for mapping. By 1829 the lack of response by the Cape Government compelled the Colonial Office to present Michell with a skeleton map of the Cape Colony, requesting him to “mark thereupon the divisions of the several districts and the boundaries of the Colony” as “much inconvenience has been felt here from the want of a correct map...”<sup>9</sup> Michell acceded to this request, but felt it his duty to report back to the Government Secretary that “I see many inaccuracies thro’-out this map, and [I have] to state my regret that ... I cannot ...rectify them.”<sup>10</sup> According to him he had examined all surveys which had at different times been made of portions of the Colony and found it impossible “to obtain from these wherewithal to *compile even a tolerably correct general Map of the Colony*”<sup>11</sup> (my italics).

Michell returned the skeleton map to the Cape Government on 28 February 1831 to have it forwarded to the Colonial Office. Whether this map influenced the compilation of the map referred to by Arrowsmith as “compiled by Mr. L. Hebert, Sr.” will be argued later in this article. At this stage it suffices to say that no such map has been found in the collections of the British National Archives (BNA) or British Library (BL), but that there exists an undated manuscript sketch map signed by Michell in the Herbert Strange Library for African Studies in Johannesburg<sup>12</sup> which seemingly answers to all the requirements necessary to pronounce it either a precursor or an exact copy of the map in question.

## **HEBERT’S MAP(S)**

Although no official decision in this regard could be traced, it is plausible that by 1829 the lack of reliable maps of large parts of the Empire compelled the Colonial Office to introduce some in-house cartographic activity to cater for this need. It also seems plausible that as far as the Cape was concerned, the skeleton map sent to Michell was the first step in this direction. The British cartographer employed at the time to compile an official map of the southern part of Africa was apparently a Mr L. Hebert who, during the 1820s, ‘30s and ‘40s, worked as cartographer and lithographer for the British Government as well as a number of private firms.<sup>13</sup> Today evidence of such activity with regards to South Africa exists in the form of two manuscript maps, one residing in the BNA and the other in the BL. The document in the BNA is an

enormous coloured MS map measuring 118 x 186 cm of which the lower left corner bears the inscription “Drawn at the Colonial Department by L. Hebert, Senior 1830”.<sup>14</sup> It covers the country south of 25° S and has a town plan of Cape Town as inset. The map in the BL is much smaller (50 x 77,5 cm), is in black and white only, and carries the annotation “Drawn by L. Hebert. Printed at the Lithographic Establishment Quarter Master-General’s Office Horse Guards London November 1830”.<sup>15</sup>

The BNA and BL maps are clearly by the same hand as the delineation of rivers and the occurrence and sequence of place-names in the western half of the Colony are similar. There is, however, a marked discrepancy between the western and eastern halves of the BL map with the result that the depiction of the Eastern Frontier and Natal on the latter differs greatly from that on the BNA map. The date 1830 indicated on both maps is also questionable. The name “D’Urban” which, on the BL map, is used for the settlement at Port Natal, only took effect after 1835, while the peaks named “Giants Castle” and “Saddleback” in the present Drakensberg mountains on the same map were first visited and named by Captain Allen Gardiner whose narrative of his journey was not published before 1836.<sup>16</sup> On the BNA map the area between the Keiskamma and the Kei Rivers is labeled “Province of Queen Adelaide”, a name which only came into use after the Sixth Frontier War when, in June 1835, the border of the Colony was shifted east as the Kei River. An additional peculiarity to which we shall return again later in this paper, is that the map shows, in red, the route along which the explorers Cowie and Green travelled from Grahamstown to Delagoa Bay in 1829. Considering that the information regarding Cowie and Green’s journey did not reach London until June 1831,<sup>17</sup> it is fair to assume that the route they had followed was plotted on Hebert’s BNA map sometime *after* 1830.

On studying Hebert’s BL map closely, it is clear that it actually consists of two maps which were joined together at approximately 27° E. Unable to trace Hebert’s map,<sup>18</sup> Kirby was not in a position to comment on the obvious similarity between the western parts of the two maps, neither could he identify the eastern half of the BL map. Having studied all three maps, I am of the opinion that the western part of the BL map closely resembles Hebert’s BNA map whereas the section east of 27° E is a copy of the 1836 edition of Arrowsmith’s map of the Colony of the Cape of Good Hope. Why, when and by whom the two maps were joined remains a mystery.

## SOURCE MATERIAL FOR HERBERT’S MAP

Given the contents and provenance of the BNA and BL maps, it is fair to conclude that the map Arrowsmith refers to as the “map compiled by Mr Hebert”, is in fact the BNA map. And that Arrowsmith’s map is indeed a copy of the BNA map, becomes obvious when comparing these two maps. Not only are most of the place-names and the delineation of rivers and roads the same on both maps, but many notations and inscriptions on Hebert’s map also occur *verbatim* on Arrowsmith’s map. Likewise, the many similarities between Hebert’s map and the S.D.U.K. map suggests that the phrase “MS maps compiled in the Colonial Office” which appears on the latter map, also refers to, amongst others, Hebert’s map.

The fact that both the Arrowsmith and S.D.U.K maps were copied from Hebert’s BNA map, makes an analysis of the contents of this manuscript map a precondition for any further discussion of the two printed maps. Questions such as “From where did Hebert derive his information?”, and “What sources were used?” come to mind.

### Published maps

Notable amongst the travellers’ and explorers’ cartographic recordings of the early 19<sup>th</sup> century are the maps by Barrow (1801),<sup>19</sup> Lichtenstein (1803-06),<sup>20</sup> Bouchenoeder (1806),<sup>21</sup> Truter and Somerville (1806),<sup>22</sup> Burchell (1822)<sup>23</sup> and Thompson (1827).<sup>24</sup> Barrow’s map was considered the first of the more accurate maps of the new century and served as model for the maps by Lichtenstein, Bouchenoeder, and Truter and Somerville. Like Barrow’s, Burchell’s map was also based on his own observations and yielded important new information. The small-scale map by Thompson drew heavily on information already provided by his predecessors and did not contribute much to the already existing geographical knowledge of that time.

Missionaries who included maps in the published narratives of their travels and work in this area were Campbell (1815 and 1822)<sup>25</sup>; Latrobe (1818)<sup>26</sup> and Kay (1832)<sup>27</sup>. Notable maps by military and civilian land surveyors published during this period were the 1818 map of a part of the Eastern Frontier by Lieutenant. Wily;<sup>28</sup> J.B.C. Knobel’s *Map of Albany* of 1822<sup>29</sup> which depicts that part of the Eastern Frontier where the 1820 British Settlers were to be given land, and Aegidius Petersen’s “Map of the District of George”<sup>30</sup> of 1825 which was never published, but which the Cape government nevertheless bought in 1836 for government use for the amount of £25.<sup>31</sup> The District of George, which appears in considerable detail on Hebert’s BNA map and is shown as an inset on the S.D.U.K. map, was in all probability copied from Petersen’s map of 1825, whereas the depiction of the Eastern Frontier region must have relied heavily on the information on Wily and Knobel’s maps.

Of the professional cartographers active in Britain during this period Aaron Arrowsmith (1802, 1805, 1815, 1817),<sup>32</sup> John Cary (1808),<sup>33</sup> Pinkerton (1809),<sup>34</sup> Thomson (1815),<sup>35</sup> Lizars (1818)<sup>36</sup> and Sidney Hall (1828)<sup>37</sup> produced maps of the Cape Colony. Aaron Arrowsmith's map of 1805 was the first large-scale adequate map of the Cape produced in England. Like his other maps, it closely resembles Barrow's map. The maps of Cary, Pinkerton, Thomson and Lizars were small-scale atlas maps based on the information provided by Barrow, Lichtenstein and Campbell whereas Sydney Hall obviously made use of Burchell's map (which he himself engraved) when compiling his own.

Nautical charts also yielded important topographical information and the S.D.U.K. map explicitly mentions that it was compiled from, *inter alia*, "Captain Owen's Survey". In February 1822 Captain W.F. Owen was instructed by the British Admiralty to proceed to Cape Town and to survey the south-east coast of Africa as far as Delagoa Bay.<sup>38</sup> In 1823 Owen returned to Cape Town and in 1824 he surveyed parts of the west coast of Africa. The African journals compiled by Owen and his officers were published in 1833 and the notes on the Cape include surveys and maps of the Cape Peninsula, the shores of False, Hout and Table Bay, and the coast from Cape Hangklip eastwards to the Keiskamma River and northwards to Delagoa Bay. Published in London in 1833 it is logical that the Colonial Office, as well as Arrowsmith, would have taken note of this information.

### Unpublished cartographical material

Military engineers were important collectors of topographical data during the 19<sup>th</sup> century and the Royal Engineers based at the Cape initiated a number of surveys of areas around Cape Town and compiled various large-scale manuscript maps. From 1812 onwards British military personnel were also stationed on the Eastern Frontier and notable manuscript maps which have survived are a military sketch of the Eastern Frontier by Lieutenant Colonel T. Arbuthnot compiled in 1812,<sup>39</sup> and a military chart and sketch of the South-Eastern Frontier of 1819 by Lieutenant Ives Stocker, R.E.<sup>40</sup> Although the military nature of these maps determined that they were eventually deposited in the War Office, it is logical to assume that much of the information on them also reached the Colonial Office. Likewise the trigonometrical survey undertaken by Captain Holloway yielded results which found its way via the Colonial Office onto later maps of the Colony. The 1834 maps of Arrowsmith and the S.D.U.K. were cases in point because in 1875, the Surveyor General of the Cape Abraham de Smidt, mentioned that the materials from which Arrowsmith constructed his map consisted of the military surveys undertaken under the superintendence of Colonel Holloway, the coast charts of Owen and others, and the route sketches of travellers such as Barrow.<sup>41</sup> Although none of the sketches made during Holloway's survey was published, the survey results and the manuscript maps had a decisive influence on the establishment of the Colony's north-east border in a time when much confusion was caused by the various frontier arrangements negotiated with the black tribes. Of particular interest in this regard is the "Map of the North-Eastern Frontier of the Cape of Good Hope" executed in seven sheets by Lieutenant John Bonamy (6<sup>th</sup> Regiment) from 1822 to 1824.<sup>42</sup>

Examples of early travellers and explorers who did not produce maps, but nevertheless collected important topographical material are Chase and Collis who in 1825 visited Klaarwater, the London Missionary Society's station beyond the Orange River; Bain and Biddulph who in 1826 travelled via Kuruman as far as Dithubaruba on the Tropic of Capricorn in present-day Botswana; Scoon and McLuckie who were the first white men to reach the Zoutpansberg in 1829; Cowie and Green who in 1829 travelled all along the Natal coast to Delagoa Bay but died of malaria on their return trip; and David Hume who established a trading post at Kuruman in 1829 and in his quest to reach Lake Ngami in 1832-33 together with Hugh Millen, travelled further north than any other white man before him. Extracts from Cowie and Green's journal were published in the *South African Commercial Advertiser* of 12 September 1829, the *South African Almanack and Directory for the year 1830* and the *Asiatic Journal*, London 1830, whereas Bain communicated his experiences in three instalments to the *South African Commercial Advertiser* of November and December 1826. Extracts from the journal of Scoon and McLuckie were read to the South African Literary and Scientific Institution in Cape Town in 1830 and published in the *SA Quarterly Journal* of July-September 1830.

The journeys of the natural scientist Andrew Smith to the north western frontier of the Colony (1826) and later to Port Natal and Zululand (1832), also yielded valuable topographical information. His third journey, also known as the Great Expedition, was organized by the Cape of Good Hope Association for Exploring Central Africa and lasted from August 1834 until January 1836. According to Smith one of the objects of the expedition was to afford geographers "the means of filling up the immense chasm which now exists in all Maps of Southern Africa".<sup>43</sup> Smith travelled as far as the Tropic of Capricorn just south of Mahalapye in present-day Botswana and collected a plethora of scientific and anthropological material. Although his report on his first journey was never published and his report on his journey to Port Natal was apparently lost, his report on the Great Expedition was published, although for subscribers to the Association only.<sup>44</sup> Smith was, however, an ardent correspondent and on a friendly footing with many high-ranking and influential people interested in geographical data about the newly discovered areas. On returning to Cape Town, he claimed that his party had been able to determine the correct position of many places and that they had gained a great deal of information about the sources and course of various rivers which would be of value to map-makers.<sup>45</sup> Given that the Great Expedition was

officially sanctioned, one can surmise that much of this information also found its way to the Colonial Office. Smith's published *Report* on the Great Expedition was also forwarded to the Royal Geographical Society (R.G.S.) where, on 10 August 1836, it was discussed by its Fellows amongst whom Arrowsmith and some of the members of the S.D.U.K.<sup>46</sup> An abridged version of 19 pages appeared in the *Proceedings* of the R.G.S. for 1836.

Noteworthy on 9 July 1834 the Sub-Committee of the Association which organized Smith's Great Expedition reported to its General Committee that the Surveyor-General Major Michell, had promised to prepare a map for the use of the Expedition. According to Kirby,<sup>47</sup> Michell might have done so, but the map could not be traced. Although Michell's map in the Strange Library<sup>48</sup> is chronologically of the same period, it is unlikely that this document represents the map that the Surveyor-General compiled for the Expedition. The map in the Strange Library has no graticule, only covers the Cape Colony as far north as the Orange River and does not indicate the routes of any of the earlier travellers. Michell knew that Smith aimed to reach the Tropic of Capricorn and would undoubtedly have made provision for the geographical location of features situated at least as far north as Lattakoo (presently Kuruman) to be read off his map.

Geographical information also reached Britain via the London and the Wesleyan Missionary Societies which were established in 1795 and 1814 respectively. During the first three decades of the 19<sup>th</sup> century many English-speaking missionaries came to South Africa, most of whom settled in remote and little known parts. In finding suitable locations for mission stations and tending to their widespread flocks, men such as Kicherer, Shaw, Edwards, Archbell, Robert Moffat, John Philip, Broadbent and Hodgson travelled widely and accumulated much geographical knowledge of interest to map-makers. Although most of them only published their memoirs and reminiscences in the second half of the 19<sup>th</sup> century, they submitted regular reports to their superiors in Britain, the details of which were often published in the relevant societies' mouthpieces.<sup>49</sup> Cain's<sup>50</sup> article mentions an example of how such data was pursued by the S.D.U.K. for its 1834 map of South Africa.

Not all land surveyors in the Cape Colony were well qualified and only a few were interested in topographical mapping. Thus they contributed little to cartography. Surveyors who compiled notable maps before 1834 were J.L. Leeb, Lieutenant C.L. Stretch, W.F. Hertzog and the Surveyor General himself. In 1821 prior to Bonamy's survey, Leeb made some accurate sketches of the north-eastern wards of the Graaff-Reinet district.<sup>51</sup> Stretch came to the Cape in 1818 with the 38<sup>th</sup> Regiment, worked on Holloway's trigonometrical survey and afterwards served as land surveyor on the Eastern Frontier for many years. Some of his manuscript maps are in the Cape Archives,<sup>52</sup> as are the maps of the Cape area compiled by the Assistant Surveyor General W.F. Hertzog.<sup>53</sup>

Michell resumed office as Surveyor General in November 1828 and one of his first cartographic tasks was to complete the skeleton map of the Cape Colony mentioned earlier in this article. Although it is not clear whether the undated manuscript map in the Strange Library is a copy of this skeleton map, Michell's depiction of the eastern districts implies that he must have compiled it shortly after 1829 as the south eastern border of the Colony is shown as running along the Kat River instead of along the Koonap, a change which was only proclaimed in 1829. Assuming that this map closely resembles Michell's original skeleton map, it is difficult to estimate its influence on firstly, Hebert's map and subsequently, Arrowsmith's and the S.D.U.K.'s maps. Michell's map is a mere sketch map devoid of detail and contains no graticule reference marks. The coastline and district boundaries are very generalized and on the whole compare poorly with those on the S.D.U.K map which is on a slightly smaller scale.

## **CHASE'S INVOLVEMENT WITH TRADE EXPLORATION, 1819 TO 1831**

Chase arrived in Algoa Bay (presently Port Elizabeth) on 10 April 1820 as member of a party of British Settlers and was given land near the mouth of the Great Fish River on which to farm. In July 1823 he moved to Graaff-Reinet.<sup>54</sup> It seems as if Chase did not see his future in farming because in June 1825 he and a fellow-settler James Collis obtained the necessary permit from the Landdrost of Graaff-Reinet to journey up-country to trade with the indigenous tribes beyond the Orange River. On returning to Graaff-Reinet, he ran a series of articles in the *South African Commercial Advertiser* under the pen-name "Evitas", promoting the trading possibilities in these areas.<sup>55</sup>

Ever since his arrival in South Africa Chase took a marked interest in exploration and began collecting whatever information he could find on the various expeditions into the interior. He became the agent for the two travellers, Dr Alexander Cowie and Benjamin Green, who set off from Albany on a trading expedition to Delagoa Bay in 1828, but died on their return journey in 1829. A servant carried their papers to the pioneer settler Henry Fynn at Port Natal who then sent them to Chase as agent of the dead men.<sup>56</sup> Chase corresponded with Fynn and on 12 September and 25 November 1829 published reports in the *South African Commercial Advertiser* describing Cowie and Green's fate. An account of Cowie and Green's travels, written by Chase, was also published in the *South African Directory and Almanac of 1830* as well as in the *South African Quarterly Journal* of 1831 after it had been read at a meeting of the South African Institution held on 25 May of that year. In 1832 Chase made use of the same subject when he published a series of articles on Cowie

and Green in the newly-established *Graham's Town Journal* of 1, 8, 15 and 22 June. In 1830 he managed to obtain the manuscript journal of Robert Scoon and William McLuckie who in 1829 were the first white men to trek into what was later known as the Transvaal. On 30 June 1830 Chase's paper describing Scoon and McLuckie's journey was read to the South African Institution. This paper was also published in the *South African Quarterly Journal* of July-September 1830. Chase also got hold of the journal which the traveller and geologist Andrew Geddes Bain kept during his journey with John Biddulph to Dithubaruba in Bechuanaland in 1826. He corresponded with Bain and read a portion of Bain's journal at a meeting of the South African Institution in Cape Town in 1830. A part of Bain's journal was also printed in the *South African Quarterly Journal*, July to September 1830.<sup>57</sup>

## CHASE'S MAP OF 1830

Chase had in the meantime moved to Cape Town where he used the information he had collected to compile a map of south-eastern Africa, presumably of the area between 22° and 33° E, and 23° and 34° S. This map, which has not survived, was intended to accompany the article he was preparing on the exploration of the interior of southern Africa since 1801, a publication which only appeared in 1834. The map, however, was completed by about the end of 1830 because on 24 February 1831 Chase wrote via the Governor of the Cape to the Colonial Secretary in London Viscount Goderich about his projected work, enclosing a copy of the sketch map.<sup>58</sup> It is clear that Chase was aware of the fact that arrangements had been made by the Colonial Office for the in-house compilation of a Map of southern Africa, as he stated in his letter that "...[I]f this Sketch should be considered of the slightest value in aiding *the construction of a Map of South Africa which I understand from Sir Richard Plasket is being formed by the Government*, [my italics], I shall be proud to offer it for that purpose".<sup>59</sup> In his letter Chase took pains to explain the various sources he had used to compile his map, stating that it might not be exact and accurate in all its details, but that its chief merit was that he was "the only individual who had attempted to compare and to bring into connected form, the numerous real authorities..." and that "the whole has been compiled from *original and authentic* sources in my possession, and fills up at least 100 000 square miles hitherto a *perfect blank* in the maps of Africa".<sup>60</sup>

The Governor Sir Lowry Cole dispatched Chase's letter to London on 14 April 1831, mentioning in his covering letter that Chase's depiction of the Eastern Frontier was "I believe more correct than any which has hitherto appeared", but that "what relates to the Colony is not I believe very accurate".<sup>61</sup> Not knowing the contents of the Governor's letter and craving a position in the Government's service, Chase also wrote directly to Goderich, again promoting his map. His letter and the letters dispatched by Sir Lowry Cole were received by the Colonial Office in London on 25 June 1831.<sup>62</sup>

Whilst living in Cape Town Chase was an active member of the South African Literary and Scientific Institution, having as mouthpiece the *South African Quarterly Journal*. He was also honorary secretary of the Cape of Good Hope Association for Exploring Central Africa, the body which sponsored Andrew Smith's Great Expedition of 1834-36.<sup>63</sup> In 1834, just before Smith's departure to the North, Chase published his "Sketch of the Progress and present State of Geographical Discovery in the African Continent, made from the Colony of the Cape of Good Hope" in five instalments in the *South African Quarterly Journal*. In a footnote at the end of the first instalment he mentioned that he hoped to be able to procure an engraving of the sketch which he had prepared for its illustration for the next number of the *Journal*. The engraving was never published but on the inside of the front cover of No. 3, Part 2 of the *Journal* which contains the last instalment, a notice to subscribers was published in which Chase lamented that he was not in a position to present the map he had exhibited at the Meeting of the South African Literary and Scientific Institution (no date mentioned). Unless Chase had in the meantime compiled another map, the map referred to here must have been the sketch he had sent to England.

## CHASE'S PROTEST AND CLAIM

By 1834 Chase still had not received any response from the Colonial Office as regards his map. However, on 15 February and 1 April 1834 respectively, Arrowsmith's and the S.D.U.K.'s maps of southern Africa were printed in London. We do not know when Chase saw Arrowsmith's map for the first time, but we do know that when the S.D.U.K. map came to his attention, he bitterly complained to the South African Literary and Scientific Institution which, in its Report for 1833-34, noted that on the map of southern Africa published by the S.D.U.K., "nearly the whole of the important territory east and north of the eastern colonial boundary is drawn *without acknowledgement* (my italics) from ... a sketch composed by Mr. Chase, and from documents in his possession".<sup>64</sup>

Chase was so perturbed by the publication of the S.D.U.K. map that he sent a so-called Memorial dated 7 November 1834 to the Governor Sir Benjamin D'Urban, to be forwarded to the Colonial Office in London.<sup>65</sup> D'Urban supported Chase in his claim that he had been dealt with unjustly and together with a letter of his own and Chase's Memorial enclosed a copy of the S.D.U.K. map on which Chase had demarcated with a purple line the area of which the details had been taken from his map of 1831.<sup>66</sup> In his lengthy Memorial Chase accused the Colonial Office of plagiarizing his map without his approval and of transmitting the information to "Third parties", something which was never contemplated by him and for which he

had never received any remuneration. He stressed the fact that he had never sent any other copies of his map out of the country and that on receiving the map back from the Colonial Office in 1831 his friend in London Mr W.H. Nuthall, most probably on his (Chase's instructions), refused to negotiate its sale with Arrowsmith who had seen the map and who wanted to purchase it.<sup>67</sup> As evidence that the contents of the S.D.U.K. map was transcribed from the map he had entrusted to the Colonial Office, he referred to Schoon and McLuckie's route to Delagoa Bay in 1829 on the S.D.U.K. map and mentioned that the documents of these two travelers had "never been in any hands but his own."<sup>68</sup> To compensate him for this unjust treatment, he asked for "such remuneration ... as the Government may deem equitable".<sup>69</sup> No evidence could be found that Chase saw Arrowsmith's map shortly after it had been published. It is, however, highly probable that it did come to his attention quite soon after its publication and that he noticed that like the S.D.U.K. map, Arrowsmith's also showed Cowie and Green's route to Delagoa Bay and even indicated "Cowie's tomb 1829" south west of Delagoa Bay.

Chase waited another two years before the Secretary for the Colonies Lord Glenelg replied to Governor D'Urban. In a letter dated 5 September 1836 the Colonial Office acknowledged that Chase's map "was placed in the hands of the Geographer of this Office, who was employed at the time in compiling a Map of Southern Africa", but stressed that Chase's map "was by him freely rendered to the Government for the express purpose of being used as a contribution towards the construction of another Map".<sup>70</sup> Glenelg drew D'Urban's attention to the fact that Chase's map was in itself a compilation made "of the labors of other persons", and "had only been used for the object sanctioned by himself (Chase)".<sup>71</sup> To conclude, Glenelg disclaimed all responsibility for the use of the map by third parties.

## VERIFICATION OF CHASE'S CLAIM

The acknowledgement by the Colonial Office that Chase's map was referred to "the Geographer of this Office" implies that Hebert was in a position to make ample use of Chase's map when he compiled the official "Map of South Africa". The area on the map which Chase considered plagiarized concerned south east Africa as mapped by him in 1831 and involved the Cape Colony north east of the Keiskamma River, the area now known as KwaZulu-Natal, the present north-eastern Free State, the northern part of the present North-West Province, and southern Botswana.

Chase had a thorough knowledge of the topography of Natal and was well versed in the political and economic developments which at that time were taking place along the east coast of southern Africa. In his "Sketch of the Progress..." which was published in 1834, he gave a detailed description of the "Terra de Natal" and today he is revered for his *The Natal Papers* which was published in Grahamstown in 1843.<sup>72</sup> Apart from the information yielded by the journal of Cowie and Green, Chase also corresponded with the pioneer settler Henry Fynn and prior to the publication of his "Sketch of the Progress...", had had access to Fynn's unpublished manuscript entitled "Ten Years' Residence at Port Natal".<sup>73</sup> In 1831 Chase was undoubtedly the first to use the names "Port Natal", "Farewell Fort", "Fynn's Kraal" and "Dingaan's Kraal" on a map, to show the route Cowie and Green followed in 1829 and to indicate the location of the battle where on 27 August 1828 Colonel Henry Somerset and Major William Dundas defeated the Fetcani tribe at Mbolompo near the Umtata River. The same names and information also appear on Hebert's map from where it was copied onto the maps of Arrowsmith and the S.D.U.K.

Chase was well acquainted with the contents of A.G. Bain's journal of his trip to the present Botswana in 1826 and must have been the first cartographer to depict Bain and Biddulph's route north of Lake Chue which was the northernmost point reached by Burchell in 1812. Places such as Litabaruba (the most northern point Bain and Biddulph visited), Melita, Siloqualie and the Lorolani River, were all taken from Bain's journal and before 1830, when a part of the journal was printed in the *South African Quarterly Journal*, their exact location was not known to anybody but Bain, Biddulph and Chase. Hebert copied some of this information from Chase, but omitted the extreme northern section of Bain and Biddulph's journey as the map of the Colonial Office did not cover the area beyond 25° S. The fact that Bain's entire route as far north as Litabaruba appears on both the Arrowsmith and the S.D.U.K. maps, suggests that the authors extended Hebert's points by plotting the geographical coordinates given in either Bain's letters to the *South African Commercial Advertiser* of 14 November, and 5 and 15 December 1826 or in the printed version of his journal in the *South African Quarterly Journal* of July to September 1830.

The same happened with regard to the journey of Scoon and McLuckie who in 1829 travelled as far as the kraal of the Matabele chief Mzilikazi. Although the journal of Scoon and McLuckie was until 1830 accessible to Chase only, the location and sequence of the place-names relevant to the route of these travellers as plotted on Arrowsmith's map and to a lesser extent also on the S.D.U.K. map are obviously taken from the *Substance of the Journal...* published by Chase in 1830.<sup>74</sup> South of 25° S the same information also appears on Hebert's map which confirms that Hebert originally copied it from Chase after which it was passed on to Arrowsmith and the S.D.U.K.

In 1829 the Wesleyan missionary James Archbell, guided by the trader David Hume, travelled from the mission station Platberg in the present western Free State to the kraal of the Matabele chief, Mzilikazi, at enKungweni in the Magaliesberg. The route they followed, together with relevant place-names such as Maquassa (Makwassie), Grootte Fountain and Sea Cow Fountain, appear on Hebert's map as well as on the Arrowsmith and S.D.U.K maps. Archbell's route falls wholly within the area Chase claimed was plagiarized and it is possible that Chase was the first to map the missionary's route which was then subsequently copied by Hebert. Indeed, all the routes of explorers marked as such on the maps of Hebert, Arrowsmith and the S.D.U.K., occur in the contested area which Chase claimed was copied from his map.

The presence of the routes of the above-mentioned travellers depicted on Hebert's map seems to verify Chase's claim that his map was copied without his consent. Kirby<sup>75</sup> is of the opinion that the Colonial Office was right in maintaining that Chase had freely rendered his map to the Government for the purpose of being used for the construction of another (Herbert's) map, but wrong in deliberately avoiding an explanation of how Chase's map could have fallen into the hands of both Arrowsmith and the S.D.U.K. According to Kirby the response of the Colonial Office was "both astonishing and shabby".<sup>76</sup>

## HISTORICAL SIGNIFICANCE

The fact that Arrowsmith's map of 1834 was considered a reliable representation of the level of geographical knowledge of southern Africa is borne out by the fact that it was reproduced in the official report on the *Condition and Treatment of the Native Inhabitants of Southern Africa*, Part II, which was presented to the British Parliament on 17 March 1835<sup>77</sup>. It also served as base map for Harris's map in his book *Wild Sports of Southern Africa*<sup>78</sup> which was first published in 1837. Updated editions of the map appeared in 1836, 1840, 1842, 1858 and 1875,<sup>79</sup> and it continued to be a comprehensive, if not utterly reliable record of the topography of the Colony for many years. Eminent people belonging to the local surveying and cartographic community such as H.M. Astronomer at the Cape Sir Thomas Maclear and the Surveyor General Abraham de Smidt made mention of it as late as 1857<sup>80</sup> and 1875 respectively<sup>81</sup>. In 1871 the 1835 edition was also included as a reference map in the autobiography of the influential Sir Andries Stockenström<sup>82</sup>, Magistrate of Graaff-Reinet from 1815 to 1827 and later Lieutenant Governor for the Eastern Districts.

Although of a smaller size, the map by the S.D.U.K. gives considerable detail and contains insets of the 'Environs of the Cape', Cape Town itself, the 'District of George' and the 'Environs of Graham's Town'. Quoting Tooley,<sup>83</sup> Cain<sup>84</sup> considers the S.D.U.K.'s maps of Africa as the best of their day, and in the *South African Commercial Advertiser* of 25 March 1834 the owner and printer of the newspaper, George Greig, advertised two sets of maps of the S.D.U.K. as being "unrivalled" for "neatness, fullness and accuracy". In 1835 the S.D.U.K. map of South Africa also enjoyed wide recognition when it was included in the narrative of the explorer Andrew Steedman<sup>85</sup> on his adventures in the interior of the country.

Concerning the historiography of the Great Trek, neither Theal<sup>86</sup> nor Walker<sup>87</sup> consulted contemporary maps when they researched the history of this period. Muller,<sup>88</sup> however, studied both the Arrowsmith and S.D.U.K. maps and mentions that both indicate considerable progress when compared to maps published prior to 1834. In his researches Muller also came across Hebert's map and Chase's correspondence with the Colonial Office and realized that the former was a "key map" which had been gradually improved and updated by, *inter alia*, Chase.<sup>89</sup> However, not particularly interested in cartography as such, he failed to take the matter further. Bergh and Visagie,<sup>90</sup> in their commendable cartographic guide for research on the Eastern Frontier Zone 1660 to 1980, use both the Arrowsmith and the S.D.U.K. maps as references but are sadly ignorant of the existence of Hebert's map. Amongst map historians, Schire refers to Arrowsmith's map of 1834 and its later edition of 1842 as "superior to most of his contemporaries' work in every respect"<sup>91</sup>. Tooley is of the opinion that Arrowsmith's map provides "one of the fullest geographical pictures of the expansion of the Boers into Natal, the Orange Free State and the Transvaal, beginning with the Great Trek", and that the S.D.U.K. map is "one of the best maps of the Cape at this period".<sup>92</sup> Because the Arrowsmith and S.D.U.K. maps were compilations they were not accurate maps and in 1857 Sir Thomas Maclear reported gross planimetric errors on Arrowsmith's map.<sup>93</sup> Maclear, however, was of the opinion that "Mr Arrowsmith is not blameable, for he went to the fountain head..."<sup>94</sup>; the latter being of course Hebert's map.

Hebert's map was without doubt the best cartographical portrayal of southern Africa of the time and the fact that Arrowsmith and the S.D.U.K. were given permission to copy its information and have it published for wider use must be commended. Both maps provided in a long-felt need and were comprehensive records of the physical and human-made landscape of southern Africa in the mid-1830s. For both map and cultural historians the two maps are important icons of the country's cartographic heritage.

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- <sup>5</sup> CAR, GH 1/48, General Despatches: Bathurst to Somerset, 14 June 1824, no. 666.
- <sup>6</sup> CAR, GH 1/59, General Despatches: Bathurst to Bourke, 1 January 1827.
- <sup>7</sup> *Ibid.*
- <sup>8</sup> *Ibid.*
- <sup>9</sup> CAR, GH 1/72, General Despatches: Murray to Lowry Cole, 4 January 1829, no. 1060.
- <sup>10</sup> CAR, SG 1/1/3/1, Michell to Secretary of Government, 28 February 1831.
- <sup>11</sup> *Ibid.*
- <sup>12</sup> Herbert Strange Library (hereafter HSL), S Map 912 (687) “1830” MIC.
- <sup>13</sup> Personal communication from Dr. Ian Mumford, (retired Principal Map Research Officer, Ministry of Defense, U.K.), 10 November 2004.
- <sup>14</sup> See footnote 1.
- <sup>15</sup> British Library (hereafter BL), map 67235(21).
- <sup>16</sup> Gardiner, Allen F. 1836. *Narrative of a journey to the Zoolu Country in South Africa*. London: William Crofts, pp. 339-348, and map facing p. 412.
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- <sup>60</sup> *Ibid.*
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- <sup>64</sup> Kirby, P.R. 1968. John Centlivres Chase, p. 147.
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- <sup>69</sup> *Ibid.*
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- <sup>76</sup> *Ibid.*
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## BIOGRAPHY

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