

# *The Opening of the Railway Between Durban and Pietermaritzburg — 100 Years Ago*

The inauguration of the railway between Durban and Pietermaritzburg on December 1, 1880, was an occasion of great ceremony and festivity. Not only did the event represent the completion of the first major work of engineering in Natal, but also marked the first instalment of the main railway to the interior. The 70 mile stretch of railway was built in just under five years; but it was by no means a simple undertaking, as the work of levelling the track-bed and excavating the cuttings was done entirely by hand with pick and shovel. Although the general physical features of the countryside between Durban and Pietermaritzburg did not pose any abnormal constructional difficulties — if compared with those encountered on the routes through the Alps, the Rocky Mountains, or the Andes — the railway engineers were nevertheless faced with a formidable task of locating a tracksite on the undulating terrain with the small amount of capital subscribed to the undertaking. Consequently, the line was engineered to avoid extensive earthworks, major bridges and long tunnels by following a sinuous course that was beset by strenuous grades and severe curvature. Over a considerable part of its length the average curvature per mile was 360 degrees and a train accordingly turned a full circle for every mile it travelled over the line. The maximum permissible speed on this tortuous alignment was 15 m.p.h., and it is not surprising, then, that the arduous train journey between Durban and Pietermaritzburg in 1880 took as long as six hours and 14 minutes to accomplish.

## **The Building of the Line**

Plans for building a railway between Durban and Pietermaritzburg were first formulated in 1862, but it was not until 1873 that a detailed survey was made which delineated the route the Natal Main Line would follow.<sup>1</sup> The initial stage of railway construction in Natal provided for 105 miles of track comprising a 78 mile section of Main Line from Durban to Pietermaritzburg and two branch lines to the North and South of the port. Conditions and specifications for the proposed railway system and the articles of the contract were contained in the Natal Government Railways Law, 1875.<sup>2</sup> The provisional contract, subject to the approval and confirmation by the Legislature of Natal, was signed in London on June 13, 1875. The signatories were representatives of the Crown Agents for the Colonies, acting on behalf of the Lieutenant-Governor of Natal, and Messrs. George Wythes and John Jackson, contractors for public works. In the specifications of the contract it was stipulated that all lines were to adopt a gauge of 3 ft. 6 ins., the weight of

the rails to be 40 lbs to the yard and were to be spiked in lengths of 21ft. to at least 2 000 creosoted sleepers per mile. No curve was to be of a shorter radius than 300 feet and no gradient be steeper than 1 in 30.<sup>3</sup> Of the total contract value of £899 037, the estimated cost of building the section between Durban and Pietermaritzburg was £606 749 or £7 778 per mile. To meet the cost of construction, legislation was introduced to authorise the raising of a £1 200 000 loan on the London money market.<sup>4</sup>

Construction work was initiated in Durban on New Year's Day, 1876, with a ceremony, as was the custom of the times, to mark the turning of the first sod. The ceremonial act was performed by Sir Henry Bulwer, then Lieutenant-Governor of Natal, at a site<sup>5</sup> on the intersection of Pine Terrace and Grey Street.<sup>6</sup> On February 15, 1876, the railway contract was ratified and from that date the contractors were bound to complete the main line as far as Pinetown by August 15, 1878, and throughout to Pietermaritzburg by February 15, 1880.<sup>7</sup> The two most prominent engineers concerned with the building operations were the consulting engineer for the contractors, Arrot Browning C.E.,<sup>8</sup> who had supervised the preliminary survey in 1873, and the Resident Engineer for the Natal Government Railways, William Ridley M.I.C.E.,<sup>9</sup> who arrived in Natal from England in March 1876 accompanied by six civil engineers. On April 1, 1876, the *Acteae*,<sup>10</sup> a barque of 300 tons, arrived in Durban with the first 100 labourers recruited on Mauritius to work on the construction of the railways.<sup>11</sup> By the end of June, 1876, the earthworks had been completed for the first four miles, the stone foundations had been laid for the bridge over the Umbilo River and work was progressing to the 9th mile peg. At the Pietermaritzburg end, the route had been finalised from the 63rd mile peg (Fox Hill) and the line had been staked out to the proposed terminus at the base of Camp Hill.<sup>12</sup> Early in November, 1876, the rails had been laid down Pine Terrace and along the Bay to the approaches of the Umbilo River Bridge while work had commenced in Pietermaritzburg with the levelling of the track bed from the terminus towards the bridge site for the crossing of the Umsindusi River.

On January 1, 1877, the Natal Government formally acquired the Natal Railway Company which operated six miles of railway between the Point and the Umgeni River.<sup>13</sup> This railway<sup>14</sup> was built to the 4ft. 8½ins. gauge, but with the introduction of the narrower, 3ft. 6ins. gauge as the standard for the railways in Natal, a new track-bed was built alongside the existing formation and by February, 1877, the rails had been laid from the Point to the station on the Market Square. The first two locomotives<sup>15</sup> ordered by the contractors, the "Maritzburg" and the "Durban" were landed at the Point on February 1,<sup>16</sup> and on March 22, 1877, respectively.<sup>17</sup> Since both locomotives were designed to burn wood fuel, tenders were called for the supply of firewood in quantities of ten tons of blue gum and ten tons of thornwood per month.

On August 23, 1877, the bridge over the Umbilo River, consisting of two spans of 40 ft each and a centre span of 100 ft, was successfully tested,<sup>18</sup> and two weeks later, a trial run was made with one of the engines over the tortuous alignment to the 8th mile post. The first shipment of rolling stock for the Natal Government Railways, comprising two locomotives,<sup>19</sup> ten passenger carriages and thirty open goods trucks, was landed at the Point on December 14, 1877.

Early in January 1878, the rails reached the 13th mile post while the earthworks had advanced to the vicinity of Botha's Hill and were also progressing for 16 miles near Pietermaritzburg. The next major bridge of importance to be completed was that over the Umbilo River near Pinetown and to celebrate the event, a special train with 50 passengers from Durban traversed the structure for the first time on February 9, 1878.<sup>20</sup> Although the new line between the Point and the Market Square Station was opened to goods traffic by the middle of February, passengers were conveyed on the old 4 ft 8½ in. railway until May 11, 1878<sup>21</sup> when the changeover to the narrow gauge line was made thus ending 18 years of broad gauge operation in Natal. The official opening of the 16¾ mile section from Durban to Pinetown took place on September 4, 1878, without a formal ceremony and apart from several senior railway officials, the inaugural train carried only six fare-paying passengers!<sup>22</sup> There were two trains operating daily in each direction. However, the service brought forth such strong criticism from the public regarding the inconvenient times of departure and arrival that six weeks after the introductory service to Pinetown had been in operation, the time table was amended and an additional train was run daily. The first serious accident, involving the loss of the lives of two passengers, occurred near Pinetown on December 26, 1878, when five trucks were derailed.<sup>23</sup> With the start of the war in Zululand in January 1879, the demands of the War Department had priority in the railway service and this situation hindered the transport of materials required for the building of the line. On March 24, 1879, the services of the main line were extended by 14¼ miles with the opening to Botha's Hill, but the service was restricted to 1st and 2nd class passengers and the conveyance of military equipment until June, when the Railways Department announced that this section of the line was prepared to "carry wool, skin and other Colonial produce".

The earthworks between Botha's Hill and Inchanga were particularly heavy and in view of the difficulty of finding suitable building stone in the vicinity, it was decided to substitute the larger masonry structures with iron girder bridges. There were nine structures of this kind required, the largest was situated between mile posts 38 and 39 and consisted of seven spans of 81 feet each and towered 90 feet above the bed of the stream.<sup>24</sup> In addition to the sinuous location work there were 9 smaller masonry bridges and 22 culverts and a short tunnel, 172 feet in length, over a track distance of 7 miles. Work on the erection of the iron girder bridges commenced in February 1879.

To avoid any further delays in the laying of track towards Pietermaritzburg, the contractors carted the rails and a ten ton locomotive ahead over the main road to the construction site near Camperdown. With the completion of all nine viaducts at the end of March 1880, the most difficult section of the line was finally overcome. The contractors' engine, the "Ulundi", was the first to cross the viaducts on July 10, 1880.<sup>25</sup> Nearly two months later, on October 1, the 16½ mile section from Botha's Hill to Camperdown was declared open to traffic with two passenger trains operated daily in each direction. The rails reached the Pietermaritzburg yard on October 21, 1880 and the contractors arranged a small ceremony to mark the arrival of the first train at 5 p.m.<sup>26</sup> Lady Colley was invited to board the locomotive at the Umsindusi Bridge while the Mayor of Pietermaritzburg, NGR officials and rep-

representatives of the contractors took their seats in one of the open trucks. Within a few minutes the train reached its destination “amid the loud cheers of a group of bystanders”.<sup>27</sup> All that remained now was the ballasting of the newly laid section and the formal opening was expected to take place on November 15, 1880. Early in November, however, rainy weather set in which caused subsidences and wash-aways at several places along the line as well as a spate of derailments. By the third week in November the line had been repaired and the official opening was announced for December 1, 1880.

### **The Inaugural Train<sup>28</sup>**

Wednesday, December 1, dawned a bright, blue, bracing day after several weeks of intermittent rainy weather. Great preparations had been made by the residents of Pietermaritzburg to celebrate the arrival of the inaugural train from Durban. Many buildings in the centre of the town were decorated with banners depicting railway scenes and Church Street was lined with flags. Although the special train was not due to arrive until shortly before 1.30 p.m., a crowd of about 1 200 townspeople had already gathered at 10 a.m. on the Market Square where a banner display was presented by school children. After the display everyone was treated to refreshments and “within a short space of time” 2 500 buns, 600 oranges, 80 lbs of sweets and an “incalculable” amount of ginger beer was consumed. Shortly before midday the townspeople assembled in front of the Town Hall and at about 12.15 a procession, about one mile long, moved slowly along Church Street towards the station. The order of the procession, according to the official programme, was the following:

Military Band (60th Rifles), Children of all schools (four abreast), from St. Charles’ School, St. Saviour’s, First Presbyterian School, St. John’s Presbyterian School, Cadet Corps, High School, Wesleyan School, the Drill Shed School, St. Peter’s School, Congregational School. Good Templars, Rechabites, Foresters, the Oddfellows, the Clergy, Officers of the Civil Service, Police Force, the Town Council, Mayor and the Clerk, Speaker and Members of the Legislative Council, Fire Engine, the Maritzburg Rifles, Natal Carbineers, the General Public. (The only conspicuous absentees from the procession were the Natal Carbineers who were going into camp at the time.)

Meanwhile at Durban Station a large crowd of townspeople had gathered on the platform at 7.30 that morning to witness the departure of the special train to Pietermaritzburg. The train was composed of Kitson Engine No. 12 with driver Hayes and stoker Jackson, five new carriages and a brake van. There were between 80 and 90 invited guests on board, the most prominent being the Mayor of Durban, seven Town Councillors, the Town Clerk, the Resident Magistrate, the Port Captain, the General Manager of the NGR as well as senior railway officials and representatives of the contractors. The train departed at 7.54 a.m. (four minutes late) and proceeded at walking pace along Pine Terrace to West End Station, then rattled across the Congella Flats to Umbilo where a short stop was made. Immediately after leaving South Coast Junction the train encountered the first of numerous 1 in 30 inclines, this particular section of the line being named “Jacob’s Ladder”. Bellair Station was reached at 8.21 a.m. and after a four minute halt, the

train continued past Malvern and Northdene and arrived at Pinetown Bridge at 8.55 a.m. where the water tanks of the locomotive were replenished. Pinetown was reached at 9.07 a.m. and a short stop for refreshments was made. So far a rise of 1 072 feet was achieved in 12 miles and, after leaving Pinetown, the train negotiated the steep climb around Field's Hill where a further 573 ft in altitude was gained in four miles. At milepost 29 the locomotive had to replenish its watertanks yet again. Thereafter the train continued along the increasingly tortuous alignment on a precarious location at the side of a high cliff with a commanding view of the Valley of a Thousand Hills. Botha's Hill was reached at 10.09 a.m. and the passengers were allowed ten minutes for refreshments at the canteen on the Station. The summit was passed at milepost 33 on an altitude of 2 444 ft. Thereafter the train made its way through the only tunnel on the line and then descended on the sinuous route to the Inchanga Viaduct. A further steep climb followed which brought the line to an elevation of 2 425 ft. at milepost 42. The train pulled in at Camperdown Station at 11.30 a.m. where two tables laden with food and drink had been placed on the platform and passengers were allowed 17 minutes to take in the refreshments. The highest elevation between Durban and Pietermaritzburg was crossed near milepost 58 (3 054 ft.) and thereafter a 1 000 ft. descent in 11 miles brought the line to the Umsindusi River Bridge. At 12.32 the train passed through Richmond Road and only stopped  $1\frac{1}{2}$  miles further on at a tank so that the locomotive could take on water. As it turned out, several passengers were given an unexpected soaking when water from the feeder pipe spurted into the carriages as the train moved on. At 1.36 p.m., ten minutes behind schedule, the historic train arrived at Pietermaritzburg Station.

About 3 000 people had gathered at the station and as the distant whistle of the engine was heard, the crowds moved forward to catch the first glimpse of the train. As the train came into view fog signals were detonated and the Military Band struck up with "See the Conquering Hero Comes". There was loud cheering as the train came to a halt next to the platform where the Governor of Natal, Major-General Sir George Pomeroy Colley and the Mayor of Pietermaritzburg, Councillor Kershaw, stepped forward to greet the distinguished guests from Durban.

The Mayor of Pietermaritzburg opened the ceremony with the presentation of an address to the Governor, to which his Excellency replied. Lady Colley was then presented with a basket of fruit and a bouquet of flowers by the Mayoress and Ladies of Pietermaritzburg. The Mayor of Durban, Councillor Arbuckle, then read his address and the Governor also gave a short response. Thereafter, Sir George stepped to the edge of the platform and in a stentorian voice declared the railway open, followed by loud cheering and several ear-splitting blasts from the whistle of the locomotive. A song, specially composed for the occasion, was then performed by the school children.<sup>29</sup> Following the exchange of compliments between the two corporations of Pietermaritzburg and Durban, the National Anthem was sung and the procession was re-formed. A special luncheon was served in the engine shed for the 200 invited guests with many speeches, toasts and glowing tributes to those who had been responsible for the planning and building of the line.

Meanwhile, the procession had moved to Alexandra Park where refresh-

ments were provided for the children. The City Minstrels presented the musical entertainment and athletic sports were held for both the children and the adults. In the evening the festivities culminated in a giant fireworks display on the Market Square.

The line from Durban to Pietermaritzburg was opened to passenger and parcel traffic as from December 2, 1880,<sup>30</sup> limited to one train daily in each direction, and to all traffic as from March 1, 1881. As a result of the deviations to the original survey the length of the railway between Durban and Pietermaritzburg was shortened by  $7\frac{3}{4}$  miles and the final distance was 71 miles 1 421 ft.

BRUNO MARTIN

#### NOTES

- <sup>1</sup> This survey was carried out in connection with a scheme initially put forward in 1869 by Joseph Welborne. It was to provide Natal with a system of 345 miles of railways. (An unpublished M.A. thesis by Cox, G.A.S., *Railway development between Durban and Pietermaritzburg, 1865-1880*, deals with this scheme and others that appeared during the 1860s and early 1870s in detail.)
- <sup>2</sup> Law No. 4 of 1875: Law to empower the Lieutenant-General to make, maintain, equip and work certain Railways in the Colony of Natal, and to confirm a Provisional Contract entered into for the Construction of the same.
- <sup>3</sup> Where the ruling gradient was combined with the sharpest permissible curves the gradient was equivalent to 1 in 24.4 on the straight.
- <sup>4</sup> Law No. 5 of 1875: Law to raise a loan for the Construction and Equipment of certain Railways in the Colony of Natal.
- <sup>5</sup> The site representing the Zero point of the survey.
- <sup>6</sup> *Natal Mercury*, January 2, 1876.
- <sup>7</sup> In terms of the contract a penalty of £150 per week would be levied for non-completion of the various sections within the dates specified.
- <sup>8</sup> Arrot Browning, a civil engineer, had been associated with the building of railways in England, Mauritius and Spain and canal construction in India.
- <sup>9</sup> William Ridley, a civil engineer, had been associated with the building of railways in India, Spain, the United States of America and Mauritius.
- <sup>10</sup> The *Acteae* was chartered by Browning for the recruitment of Indians from Mauritius.
- <sup>11</sup> *Natal Mercury*, April 1, 1876.
- <sup>12</sup> *Natal Witness*, May 5, 1876.
- <sup>13</sup> Law No. 6 of 1875: Law to provide for the taking over by the Colonial Government of the Lines of Railway between the Point and the Town of Durban, and between the Town of Durban and the River Umgeni.
- <sup>14</sup> The Natal Railway Company was formed on February 28, 1859 on a nominal capital of £10 000 and opened the first scheduled train service in South Africa on June 26, 1860. The railway operated between the Market Square and the Point, Durban and was  $1\frac{1}{4}$  miles in length.
- <sup>15</sup> These diminutive tank locomotives were manufactured by Beyer, Peacock and Co., of Manchester, England. Each developed a tractive effort of 9 800 lbs. and weighed 25 tons 8 cwt.
- <sup>16</sup> *Natal Mercury*, February 8, 1877.
- <sup>17</sup> *Natal Mercury*, March 22, 1877.
- <sup>18</sup> *Natal Mercury*, August 25, 1877.
- <sup>19</sup> The first locomotives for the NGR were also ordered from Beyer, Peacock and Co., and were of similar design to those employed by the contractors.
- <sup>20</sup> *Natal Mercury*, February 13, 1878.
- <sup>21</sup> *Natal Mercury*, May 13, 1878.
- <sup>22</sup> *Natal Mercury*, September 5, 1878.
- <sup>23</sup> *Natal Mercury*, December 27, 1878.
- <sup>24</sup> Report upon the progress of the works on the Natal Government Railways, June 1878.
- <sup>25</sup> *Natal Mercury*, July 12, 1880.
- <sup>26</sup> *Natal Witness*, October 22, 1880.
- <sup>27</sup> The bystanders on the platform were the Colonial Secretary, the Colonial Treasurer, several Members of the Legislative Council and many leading residents.
- <sup>28</sup> The event as described by the reporters of the *Natal Mercury*, *Natal Witness* and *Natal Mercantile Advertiser* on December 2 & 3, 1880.

- <sup>29</sup> The song specially composed for the occasion of the opening of the railway between Durban and Pietermaritzburg by Stephen Stranack:

Hail this happy festal day,  
Now with one accord we pray  
Heavenly Father, hear and bless,  
Crown our labours with success.

Children loud your praises raise  
In a grateful song of praise.  
Finish now the work of years;  
Give the steam-horse ringing cheers.

Countless blessings shall appear,  
Following his advent here.  
Coast and Midlands joined at length,  
Unity shall give us strength.

- <sup>30</sup> Time table: Durban dep. 12.20 p.m. Pietermaritzburg arr. 6.34 p.m.  
Pietermaritzburg dep. 12.00 p.m. Durban arr. 5.46 p.m.  
Fares: Single journey 1st Class: 17s 9d, 2nd Class: 11s 9d, 3rd Class: 6s.  
Return journey 1st Class: 26s 9d, 2nd Class: 17s 9d.



# Natal Government Railways

*Opening throughout, for Passenger Traffic,*  
OF THE

## MAIN LINE TO PIETERMARITZBURG,

ON

**THURSDAY, 2nd DEC., 1880.**

The Public is respectfully informed that the Main Line will be opened throughout for Passenger and Parcel Traffic between

**DURBAN AND PIETERMARITZBURG**

On Thursday, the 2nd December, 1880.

*For the present, the Train Service will be limited to one Daily Train each way,*

AS UNDER:—

<b>TO PIETERMARITZBURG:</b>				<b>Fares from Durban to Pietermaritzburg, and vice-versa:—</b>		
Durban	-	dep.	P.M. 12.20	<b>SINGLE JOURNEY.</b>		
Pietermaritzburg	-	arr.	6.34	1st Class.	2nd Class.	3rd Class.
<b>TO DURBAN:</b>				17s. 9d.	11s. 9d.	6s.
				<b>RETURN JOURNEY.</b>		
Pietermaritzburg	-	dep.	NOON. 12.0	1st Class.	2nd Class.	
Durban	-	arr.	5.46	26s. 9d.	17s. 9d.	

For alterations consequent upon the above and minor changes, see Time Tables exhibited at the Stations.

## GOODS & GENERAL TRAFFIC.

*The Date of Opening for Goods and General Traffic to Pietermaritzburg will be subsequently announced; in the meantime, Goods Traffic will continue to be conveyed to and from Camperdown.*

## REVISED GOODS CLASSIFICATION & SCALE OF RATES.

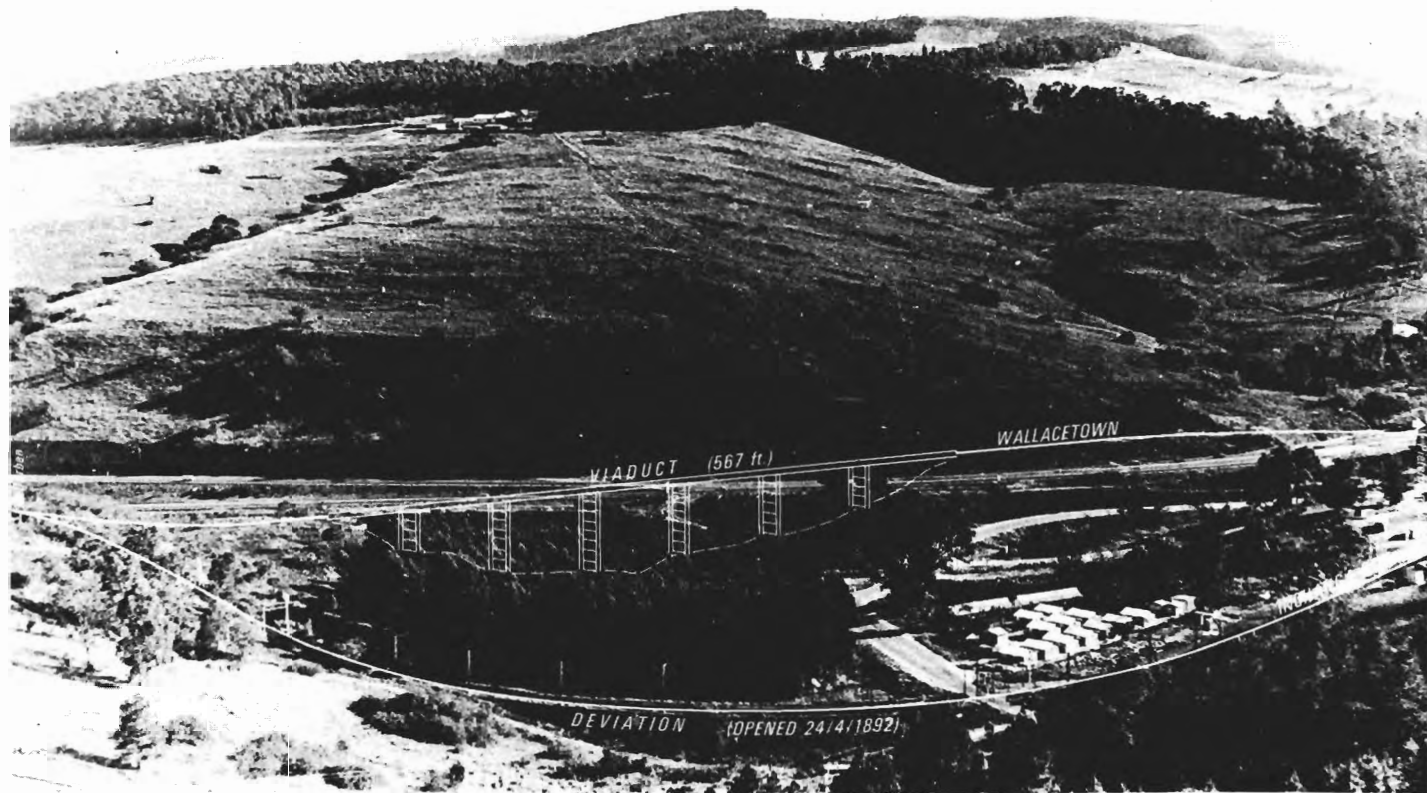
*On 1st December, 1880, a Revised Goods Classification and Scale of Rates applicable generally to all Stations will be brought into operation, and changes will be made in Season Ticket and other Rates. Full particulars of the Rates will be given in printed Notices exhibited at the various Stations.—*

**DAVID HUNTER, General Manager.**

Durban, November, 1880.

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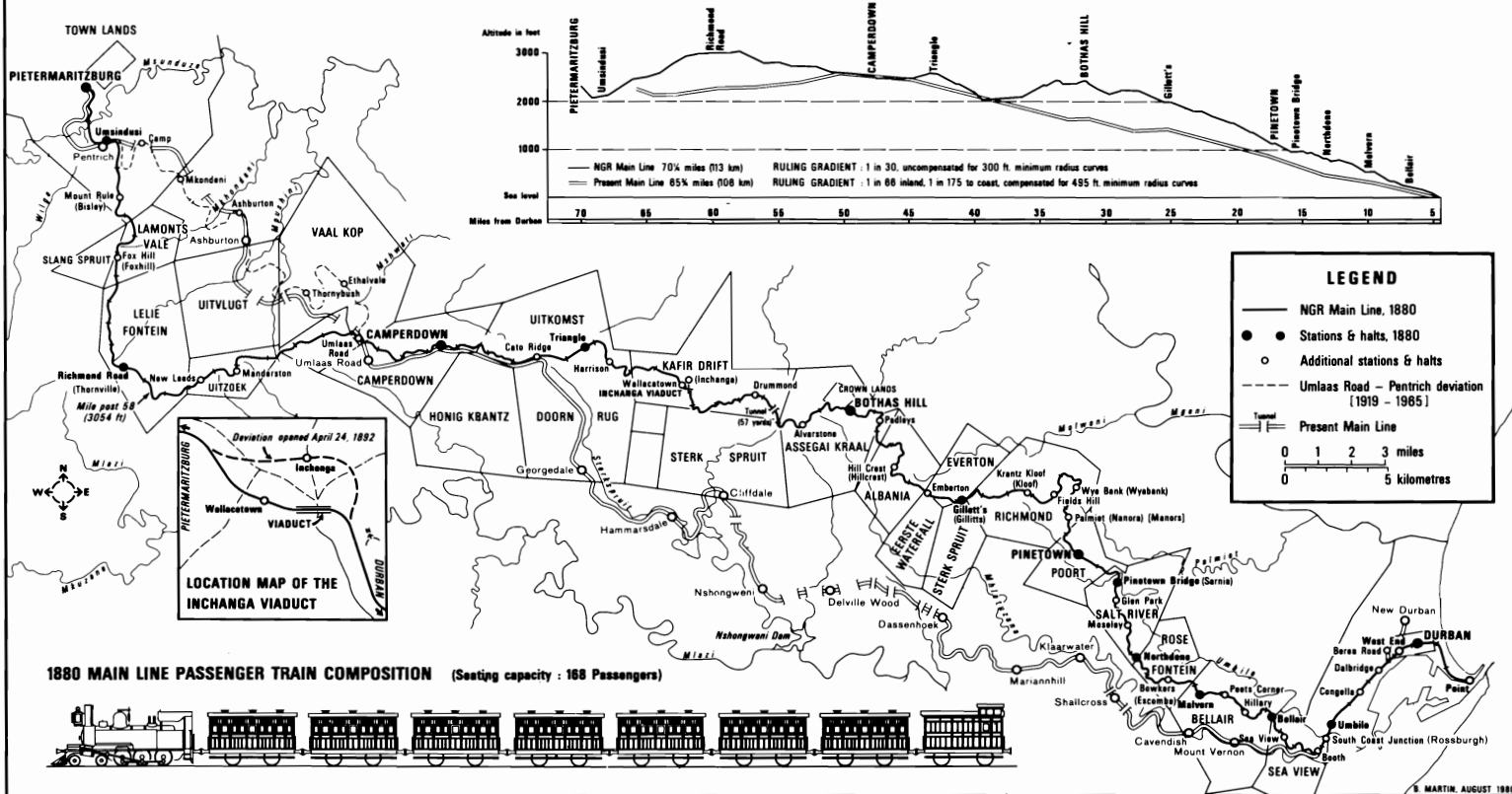




B. MARTIN

The route of the old Natal main line at Inchnanga showing the location of the viaduct and the deviation built in 1892. The viaduct was finally dismantled in 1897. Some of the spans were used on the Richmond and Greytown branch lines.

# NATAL MAIN LINE DURBAN – PIETERMARITZBURG SECTION





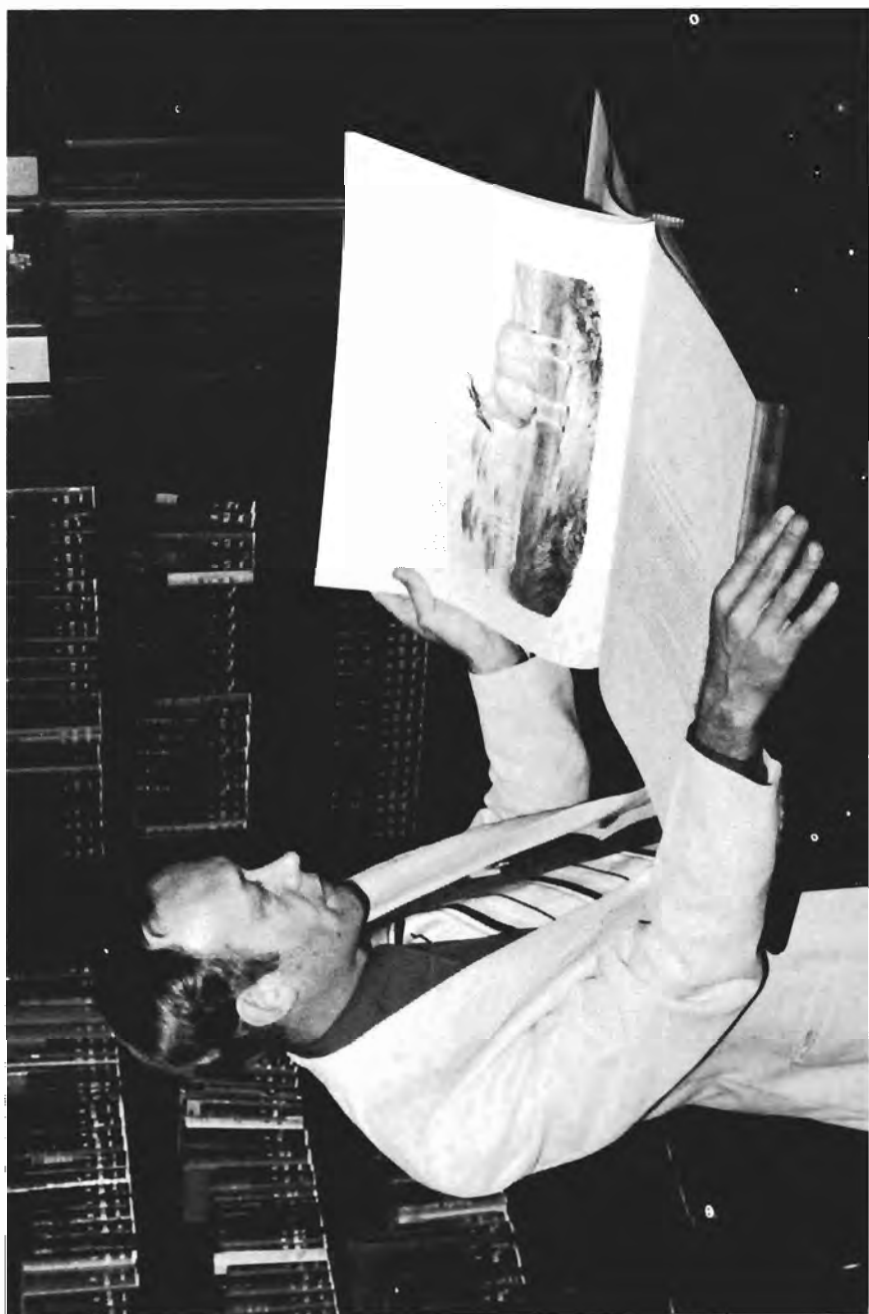
The arrival of the inaugural train at Pietermaritzburg Station on December 1, 1880 at 1.36 p.m.

With grateful acknowledgment to the University of Natal Library (presented by Lt.-Col. K.H. Wallis)



The Inchanga Viaduct (567 ft.), completed in March 1880

With grateful acknowledgment to the Natal Archives, Pietermaritzburg



The former Chief Librarian, Mr A.S.C. Hooper, studying a volume in one of the Special Collections