

Ingogo to Langsnek – echoes and archaeology of railways and wars



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Writing about his part in WW1, the war to end all wars, TE Lawrence wrote:

“The algebraical element looked to me a pure science, subject to mathematical law, inhuman. It dealt with known variables, fixed conditions, space and time, inorganic things like hills and climates and railways, with mankind in type-masses too great for individual variety, with all artificial aids and the extensions given our faculties by mechanical invention. It was essentially formulable.”
(*Seven Pillars of Wisdom*, Chapter 23).

El ‘Awrens may equally well have been planning a daring strike in 1899 from the Transvaal into northern Natal. Driving railways over mountain passes, attacks, train and railway sabotage, retreats, fast rebuilding railway infrastructure ... these were the activities of courageous men (for only men were involved there and then, in this story), and engineers who left tangible artefacts. Of Lawrence, Sherif Ali famously says in the ensuing biopic *Lawrence of Arabia*:

“Truly, for some men nothing is written unless THEY write it.”

We merely retell their story, a century or so later ...

INTRODUCTION

It is a mere 10 km, as the crow flies, from the insignificant, abandoned railway siding of Boscobello to the original, disused railway tunnel at Langsnek. Along this short, extraordinary tract in northern Natal there remain relics of the early railways, and of the wars between the two main groups of European settlers. Many of the traces are difficult to spot, and modern travellers, rushing between Newcastle and Volksrust, brush past these two landmarks, largely unaware of the echoes of rich history that rang and still ring out in this rugged, lovely setting. Lunging up, as it were, between the two former independent Afrikaner republics, the narrow corridor lies between the escarpment mountains to the west and the Buffalo River to the east. On the heights of the true right bank of the river, the railway runs, and the wars were fought. We (the BERRT group, a small band of mostly elderly engineers) visited this area on a sunny weekend during September 2015, when the cawing of the Cape crows echoed in the kloofs, which were covered in flowering black wattle. We came to probe, and were pleased to find, from our admittedly narrow viewpoint, more than we originally sought: many traces of railway and military archaeology. This is our account.

Two maps and a timeline are included – a contemporary general map of the area (Figure 1), an unnumbered modern map by Bruno Martin from *The Railway Atlas of South Africa* (to be published at a later date) and the timeline (Figure 2) to complement the text following.

THE FIRST SOUTH AFRICAN WAR

Interwoven historical threads of railway development and military conflict start to converge in Natal near the end of 1880.



Figure 1: General view of the area between the Ingogo River and Charlestown, from an unidentified Natal travel guide, provided by Graham McCallum (shows the situation circa 1900)

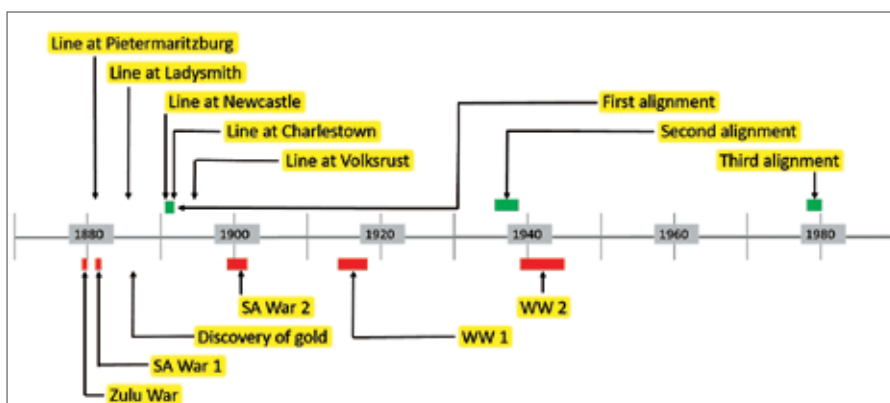
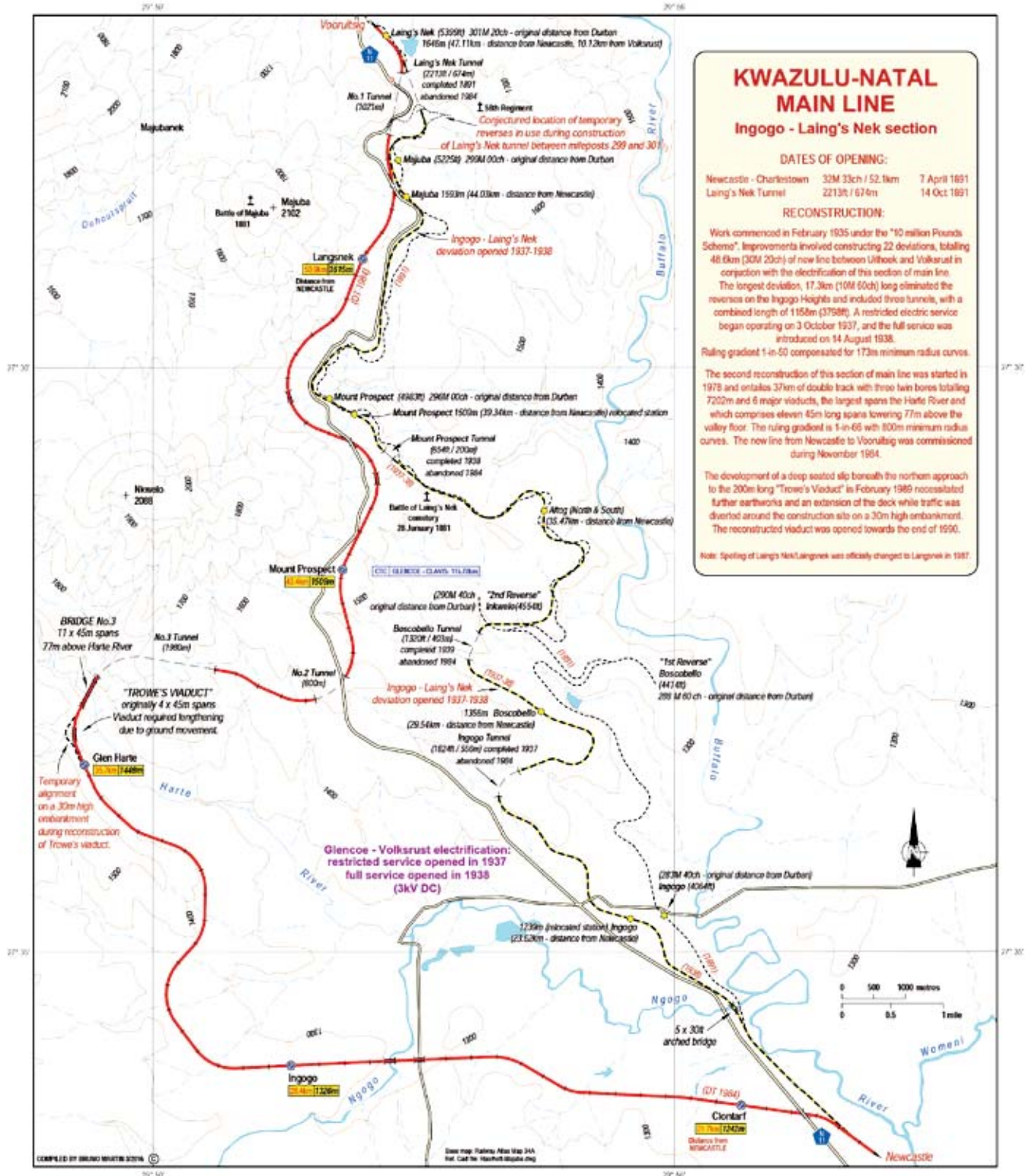


Figure 2: Timeline of military and railway events relevant to the Ingogo–Langsnek railway line

RAILWAY ALIGNMENTS AT MAJUBA



KWAZULU-NATAL MAIN LINE
Ingogo - Laing's Nek section

DATES OF OPENING:
 Newcastle - Charlestown 32M 33ch / 52.9km 7 April 1891
 Laing's Nek Tunnel 2213ch / 674m 14 Oct 1891

RECONSTRUCTION:
 Work commenced in February 1935 under the "10 million Pounds Scheme". Improvements involved constructing 22 deviations, totalling 48.6km (30M 20ch) of new line between Ulbreek and Volksrust in conjunction with the electrification of this section of main line. The longest deviation, 17.3km (10M 60ch) long eliminated the reverses on the Ingogo Heights and included three tunnels, with a combined length of 1156m (3758ft). A restricted electric service began operating on 3 October 1937, and the full service was introduced on 14 August 1938.
 Ruling gradient 1-in-50 compensated for 173m minimum radius curves.

The second reconstruction of this section of main line was started in 1975 and entails 37km of double track with three twin bores totalling 7202m and 6 major viaducts, the largest spans the Harte River and which comprises eleven 45m long spans lowering 77m above the valley floor. The ruling gradient is 1-in-66 with 800m minimum radius curves. The new line from Newcastle to Voonabisa was commissioned during November 1984.

The development of a deep seated slip beneath the northern approach to the 200m long "Trowe's Viaduct" in February 1985 necessitated further earthworks and an extension of the deck while traffic was diverted around the construction site on a 30m high embankment. The reconstructed viaduct was opened towards the end of 1990.

Note: Spelling of Laing's Nek/Langnek was officially changed to Langsnek in 1987.

LEGEND



- Freight & scheduled passenger services
- Electrified line - 3kV DC
- Deviation 1938 - 1984
- Original alignment 1891 - 1938
- Temporary reverses at Laing's Nek
- Site of former station or siding
- Siding or halt
- Tunnel, length in metres
- Major bridge
- Single track - year of opening
- Double track - year of opening
- Distance in kilometres
- Height above sea level (metres)
- TRAFFIC CONTROL
- Centralised Traffic Control
- CTC Crossing Place
- (29M 40ch) Distance in Miles and chains
- (4054ft) Station / halt elevation in feet

Area map by Bruno Martin from *The Railway Atlas of South Africa* (to be published at a later date); the map was kindly adapted by Bruno especially for use in this article

Initiating the military thread, British annexation of the Transvaal in 1876 led to a protest meeting on 8 December 1880 in Krugersdorp, and the First South African War (hereafter SA War 1 for convenience) followed immediately thereafter. Small military British units in various towns were besieged, the only military skirmish on Transvaal soil occurring when a British relief unit rushing to Pretoria was beaten at Bronkhorstspuit (20 December, 59 fatalities). British forces in Natal were hastily commandeered to re-establish British authority, and the arena shifted to the northernmost part of the border between Natal and Transvaal. To intercept the invasion from Natal, Boer forces (1 500 men) quickly occupied Langsnek, a prominent ridge about 5 km inside Natal. By 26 January 1881, a British force of 1 200 men established camp at Mount Prospect, 5 km south of the Boer line of defence. The first two battles – at Langsnek (28 January, 97 fatalities) and Ingogo (8 February, 84 fatalities) – ended in retreats by the British. On 23 February the British force at Mount Prospect was strengthened to 3 500 men. On 28 February, General Colley led his men on a night march to occupy the summit of Majuba Mountain, a strategic point overlooking the Langsnek area. In a short, fierce battle the British force was driven off the summit, with Colley killed by gunfire (28 February, 93 fatalities). A peace treaty was signed at nearby O'Neill's Cottage on 21 March.

The railway thread started in 1878 with the construction of the railway line from Durban to Pietermaritzburg, a project hampered by difficult terrain and the Zulu War of 1879. Although only a limited section of the line was complete, the Zulu War showed that the Natal railways could transport troops much quicker than otherwise. By 1 December 1880 the first train with dignitaries arrived at Pietermaritzburg, where the line was officially opened by General Colley with the usual festivities. (Colley held three powerful positions at the time – High Commissioner of both colonies in southern Africa, Governor of Natal, and the Commander of all the military in southern Africa.) SA War 1 broke out a week later and the Natal railway line was probably fully occupied moving troops and equipment to and from the battle front. Only a day after Colley died on the summit of Majuba was the line opened for general traffic, i.e. on 1 March 1881.

Today landmarks of SA War 1 are clearly visible and easily accessible:

- Langsnek is the highest point on the modern motorway and offers a fine panorama over the entire theatre of the war.
- The skyline is dominated by the Majuba and Nkwela mountains (the latter the halfway mark of the night march by Colley's forces towards Majuba).
- Battle sites on Majuba Mountain are well preserved.
- The small Mount Prospect cemetery with Colley's grave is well maintained and open to visitors.
- O'Neill's Cottage houses a small museum and is sign-posted from the main road.
- The Ingogo River meanders throughout. (Most readers and many maps refer to "Laingsnek" rather than "Langsnek". William Timothy Lang purchased the farm "La Belle Esperance" immediately to the west of Majuba Mountain in January 1874, but the clerk in the deeds office spelled his name "Laing". Although Lang had the "i" struck out immediately, the seed of confusion was firmly sown. A few years later a John Laing was appointed as a senior official in the Cape Colony, after whom Laingsburg was named – this may have added to the confusion: one modern source claims erroneously that Langsnek was named after John Laing. William Lang's grandson, Lincoln Lang, took the matter up more than a hundred years later and had the name officially confirmed as "Langsnek" in August 1987, by FW de Klerk, then Minister of Education.)

THE RACE TO THE RAND

Barely four years after the peace treaty agreed to at O'Neill's Cottage, gold was discovered on the Witwatersrand in 1886, an event which rearranged the political landscape in southern Africa. Within a year, the market for goods and services on the Witwatersrand developed on a scale not seen or contemplated before. Obviously, at that time, railways offered the best means and capacity to supply this market. Competing for a share of the market, three railway lines soon converged on the Rand from ports lying off in three compass directions – from Lourenço Marques (Maputo) in the east; from the south, an extension of the Cape system via Bloemfontein and Vereeniging; and from the south-east, an extension of the Natal Main Line from Durban via Ladysmith to the Transvaal border at Volksrust. Known as the "Race to the Rand", this was a short period of

intense regional, international, political and financial hullabaloo, involving complex negotiations on tariffs and customs, complicated financial and political arrangements, hasty surveys and frantic construction. Of course the three lines vied to be the first to enjoy an initial monopoly on the lucrative trade. Arriving first, the southern line from the Cape reached Bloemfontein on 17 December 1890, the Vaal River on 21 May 1892 and Pretoria on 1 January 1893. Second, the eastern line from Lourenço Marques reached the Transvaal border at Komatipoort on 14 May 1891, Waterval Onder on 20 January 1894 and Pretoria on 2 November 1894 – 22 months after the Cape line. Finally, the south-eastern connection from Natal joined the Transvaal system at Heidelberg on 10 October 1895 – 33 months after the Cape line.

When gold was discovered in 1886, the Natal system, starting from Durban, had already been extended to Ladysmith. On 15 May 1890 it reached Newcastle, with the following section to Charlestown on the Transvaal border completed on 7 April 1891. The Natal extension therefore beat the Cape line to the Transvaal border by 13 months, and yet lost the race to Pretoria by 33 months! Why? Politics – an earlier agreement between the Transvaal and the Orange Free State had it that a direct line between Natal and Transvaal had to be first approved by the Orange Free State. After much political wrangling amongst the three parties, permission to start the survey was only confirmed by December 1892. The extraordinarily short section between Charlestown and Volksrust was completed in October 1894, joining the South African Republic (Transvaal) system at Heidelberg 12 months later. But winning the trade in the long run was obviously decided by more prosaic factors, such as shipping, harbour facilities, distances travelled, trade barriers, and various incentives.

THE FIRST RAILWAY LINE IN NORTHERN NATAL

We now turn to the railway line between Newcastle and Volksrust. In this area, the Buffalo River formed the international border between the Colony of Natal and the South African Republic (ZAR), and still provides a subtle barrier to the east (crossing it would have placed much of the projected line in the ZAR, whereas the Langsnek route allowed the NGR (Natal Government Railways) to lay the longest possible line within their own jurisdiction, and also to

the point closest to the Rand); likewise, the Nkwela and Majuba mountains loomed as fortresses to the west. Overall, the chosen route follows a fairly straight line between Newcastle and Volksrust, but in detail is naturally intensely sinusoidal over the rugged topography, which comprises three parts – first, an almost flat section between Newcastle and the Ingogo River (30 m fall over 20 km), second, a steep rise to the lowest point on Langsnek (480 m rise in 14 km), and third, an almost flat section on the plateau between Langsnek and Charlestown (40 m fall in 5 km). Clearly, the challenge was to find a feasible ascent of the steep natural gradient between the Ingogo River and Langsnek. NGR engineers resorted to two unusual features for the time, both firsts for South African railway engineering. A major railway tunnel was driven through the crest of Langsnek, reducing the highest point on the railway line by about 40 m (hailed “the greatest engineering feat of this nature Natal has witnessed, without parallel in South Africa”); and two railway reverses were built at Boscobello, accounting for about 60 m of elevation. Permanent railway reverses were only used three times in South Africa: the Boscobello reverses were the first to be completed, a few months before the three Van Reenen reverses, and 20 years before the first six reverses on the Lady Grey – Barkly East line (see our previous article in the May 2013 edition of *Civil Engineering*).

Langsnek Tunnel

On 26 November 1889 the NGR awarded a contract of £80 000, a considerable sum for the time, to R Wagstaffe & Co for the construction of the tunnel. Work commenced in 1890 from both ends, using special drilling equipment imported from England, and explosives to blast 195 000 cubic metres of spoil. Two teams, employing a total of 500 men, met at mid-tunnel on 24 January 1891. At a total length of 674 m, the tunnel remained the longest in South Africa, until the Stockton tunnel (865 m) in 1914. Although the line to Charlestown was opened a few months earlier via a temporary deviation, the tunnel itself was completed later, and officially opened to traffic on 14 October 1891 by Sir Henry Loch (High Commissioner to the Cape Colony) and Sir Charles Mitchell (Governor of Natal) (see Figure 3).

An interesting feature of the tunnelling project was the temporary construction line over Langsnek employing two reverses, used



Figure 3: Official opening of the Langsnek Tunnel in 1891 – southern portal (Transnet Heritage Library, 68337)

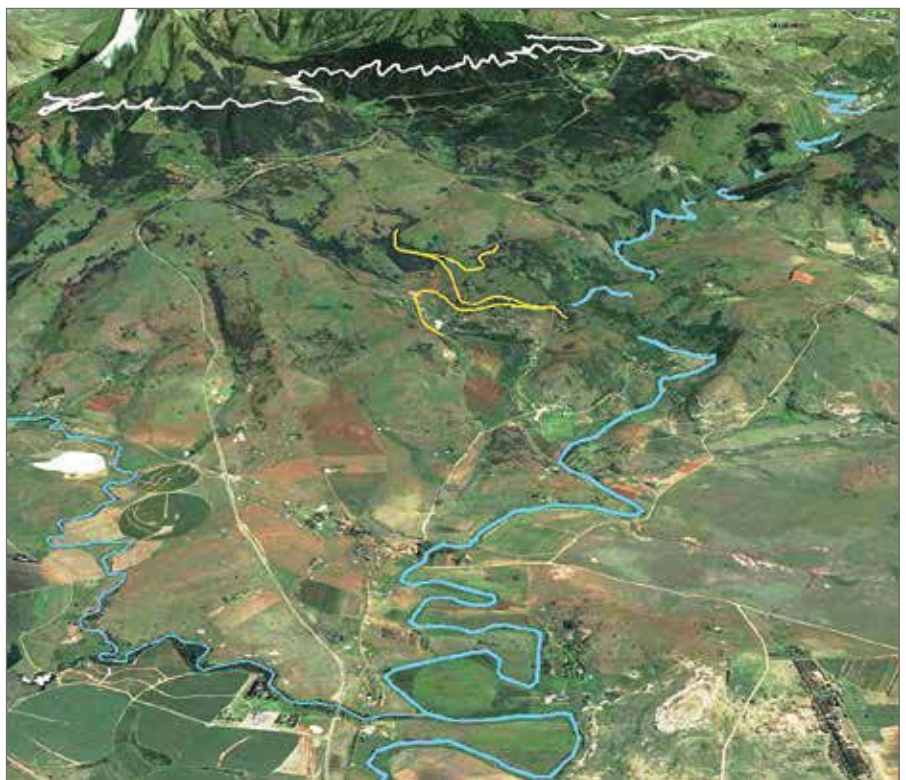


Figure 4: Oblique Google Earth view in a northward direction showing the Boscobello reverses (yellow) lying between the Ingogo River (thin blue line to the left) and Langsnek (the gap in top centre of the image). The Buffalo River (thick blue) and the 1 600 m contour line (white) define the narrow corridor of possible railway routes

with great caution – locomotives had to be both at the rear and in front, permanent pointsmen were present at each reverse, and the speed was limited to 13 km/h.

The Boscobello reverses

The Boscobello reverses were built halfway between the Ingogo River and Langsnek, in an area known as Ingogo Heights. Relics such as earthworks, bridge foundations and remains of culverts can still be found in the area. From the Ingogo River, the line follows a sweeping horseshoe bend over two bridges before it climbs around another curve to the first reverse. From here, it climbs further towards the second reverse with about 2 200 m between points (or switches). After the second reverse, the line follows the contours of the foothills to the south of Langsnek. Today, the area is in places completely overgrown with black wattle, not easy to navigate, complicating the location of relics of the early lines. Using Bruno Martin's excellent map (see page 67), the tracks were marked digitally by yellow traces, and the coloured trace transferred to and superimposed on Google Earth, thus marking the reverses. By then removing the Martin map, the precise route could be identified on modern topography and landmarks – a great aid to have on site, especially using oblique views with slight vertical exaggeration, and for preparing Figure 4.

Working trains through the reverses was meticulously prescribed (see Figure 5). A locomotive always had to be in the lead. For trains with only one loco-

motive, this meant that both reverses had to be provided with a loop line to allow the locomotive to run around the train. At each reverse, the train had to stop before the points prior to entering the reverse. It then had to await a hand signal from a permanent pointsman to proceed into the reverse at a speed not exceeding 3 km/h. As a result, the negotiation of the reverses was frustratingly slow. An analysis of the first timetable shows that the travelling time along the Ingogo–Charlestown section took 35 minutes longer than the average travelling time on other NGR lines of similar length. The reverses were to remain in use for almost fifty years, until eliminated in 1938.

THE SECOND SOUTH AFRICAN WAR (SA WAR 2)

When the ZAR declared war against the British Empire in October 1899, the uneasy truce concluded after SA War 1 was shattered – and SA War 2 started. By now a fairly extensive railway system had been built, which materially changed the character of the war. Trains could move troops and supplies in larger numbers and at greater speed, making the railway lines the obvious focus of sabotage and defence, as was well demonstrated in northern Natal on the main line between the important British-controlled port of Durban and the ZAR.

Only a few days after the declaration of war, the Boers invaded Natal along the railway line. British and Natal Colonial forces retreated to Ladysmith, leaving northern Natal unprotected. General

Joubert suspected that the Langsnek tunnel would be sabotaged or booby-trapped and first sent a coal truck through the tunnel. To his surprise, the tunnel was intact, which allowed the Boer forces to move their war material by rail all the way to Ladysmith, where they besieged the town on 2 November 1899. After the siege had been lifted on 28 February 1900, the Boer forces were slowly driven back to the border. On 16 May 1900, Newcastle was retaken by the British.

As the Boer forces retreated, they sabotaged the railway line, with "every bridge, culvert, reservoir and railway ... destroyed". To blow up bridges and culverts on its way, the final retreating Boer train carried a special gang. One source stated that about 60 bridges were destroyed in Natal alone. Naturally the first British train following "close on the rear of the Boers" was a reconstruction train tasked with restoring the line as quickly as possible. All repair work was controlled by the Imperial Military Railway (IMR). Initial repairs were conducted by the IMR and were temporary – ruins were cleared, culverts were filled in with stones and earth, and where feasible, deviations were constructed around damaged bridges. This was usually followed by semi-permanent trestle bridges placed on the original centre line, sometimes completed by the civil railway authority in the Cape and Natal, and, finally, by permanent new steel spans erected by the two civil authorities. Much of SA War 2 was fought in the dry season, and temporary works in dry river beds functioned for a short while until the next rain. In the Ingogo area the

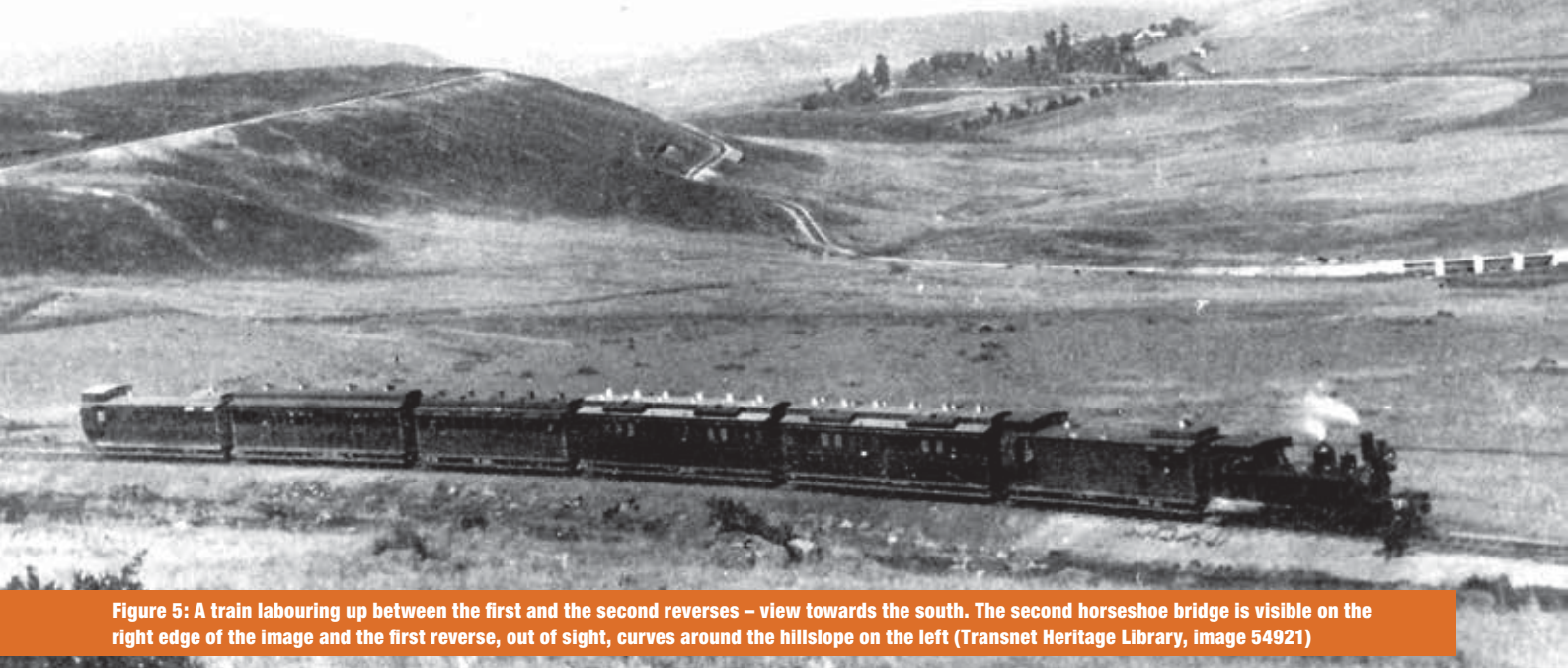


Figure 5: A train labouring up between the first and the second reverses – view towards the south. The second horseshoe bridge is visible on the right edge of the image and the first reverse, out of sight, curves around the hillslope on the left (Transnet Heritage Library, image 54921)

IMR usually made the first temporary repairs, assisted by the NGR who took a stronger interest in the restoration, and permanent repairs were exclusively done by the NGR. Reconstruction was hazardous, “erecting bridges under fire, work ... was frequently done by the reconstruction engineers”. At times, they had to wait until the adjacent kopjes were cleared of snipers. After Newcastle was retaken on 16 May, reconstruction crews waited until 3 June for permission to continue, presumably because the hilly terrain further on allowed snipers to get much closer to the railway line.

Of the four bridges between Newcastle and Langsnek, the largest was at the Ingogo River (one 100-foot girder), with smaller bridges at the Boscobello horseshoe bend (four 10-foot girders), at Donga Spruit (one 40-foot girder) about halfway between Ingogo River and Boscobello, and a bridge at the Mount Prospect siding. In all cases, the girders were either cut or dropped and the abutments partially dynamited. Repairs at Donga Spruit and Ingogo River started on 5 June and the temporary repairs were completed in four and nine days respectively. The repairs at the Boscobello horseshoe bend started on 14 June and were completed in six hours. Temporary repairs at the Mount Prospect bridge started on 13 June and took four days. Foundations were made by layers of sleepers or concrete, or even a piled foundation at Ingogo River. Damaged abutments were brought level with sleeper cribs. Wooden trestles between abutments were spanned by timber beams to support the rails. Also, two 10 000 gallon steel elevated water tanks were destroyed, one at Ingogo and one at Mount Prospect. During these repairs, “Natal was still threatened by Botha’s incursions, and an armoured train patrolled the line between Charlestown and Glencoe, while we had a reconstruction train ready under load”.

For both saboteurs and reconstruction crews, the largest prize on this section was the Langsnek Tunnel. Sabotage by the Boers was elaborate and, in the words of the British, carried out by “masters of the art” – four shafts were sunk in “shaly rock” from the surface towards the tunnel, but apparently only the northern shaft penetrated to the crown of the tunnel which was lined with 18-inch stone masonry. Furthermore, holes, two feet long, were drilled through the side walls at intervals of 30 feet and charged

with dynamite. Most damaged was the northern end, including the northern face and 100 m of tunnel; at the southern end, 45 m of lining was destroyed (see Figure 9). Elsewhere the lining was seriously damaged, but the crown of the arch was intact. Reconstruction crews arrived on 14 June and reopened the line in four days. Work continued day and night with

the help of electric light in the tunnel – the IMR worked by day and the NGR at night. Access was first opened to the middle of the tunnel, thus allowing repairs to be done from four ends. The crews inside the tunnel stacked the debris in the drainage ditch alongside the track, to be removed as soon as trolley access was established from the open ends. Loose sections of



Figure 6: The BERRT 2015 group inspects a small dam at the end of the second reverse, built in fine stone masonry; it is not clear whether this dam was built during the first or second alignments



Figure 7: The remains of the two horseshoe bridges at Boscobello in September 2015 – the first in the background and the single remaining wall of the second in the foreground. During SA War 2, the three piers of the first bridge were damaged, the two end girders were dropped and the middle two girders cut



Figure 8: A closer view of the first horseshoe bridge at Boscobello

lining were underpinned by driving wedges between the lining and supporting beams, the beams supported in turn by rail sections. Gaps between the rails were filled with dry stone masonry. After the war, a contract for the permanent rebuilding was awarded to DW Thomas.

About a year later, a commando of the Danie Theron Scout Corps, under Commandant Walter Mears, returned to the area. Early on the morning of Thursday 4 April 1901, at about 4 am, a charge of dynamite derailed a train about 2 km north of Mount Prospect and south of the Langsnek Tunnel. After the explosion, the Boers started firing at the train, but found no opposition – to their disappointment the train

carried only flour, some coal, stationery and clothing. Jumping off the train, the fireman and guard hid in long grass, but driver Parker was captured and had to give up his boots, watch and cash (and was released that same evening). Besides setting the train and its goods on fire, a new trick was played by releasing the breakdown van and one truck to come crashing down the steep gradient into a train standing at Mount Prospect. British troops stationed at Mount Prospect proceeded to the scene of the disaster, but by then the commando had retired in the direction of O'Neill's Farm and Majuba. A breakdown gang hurried to the scene and cleared the line again in time for the next mail train at 3 pm on the same day.

The NGR made a large contribution to the British war effort, despite all the destruction. From 1 November 1899 to 31 March 1901, the military traffic alone amounted to 544 000 tonnes of goods, 384 000 passengers and 209 000 horses and livestock. But the heavy traffic was not confined to the war period, as the traffic volume to the Transvaal steadily increased. By 1909, the tonnage hauled through Charlestown required more powerful locomotives for trains that were nearly three times heavier than before.

THE REVERSES ELIMINATED

Electrification and regenerative braking were major technological advances



Figure 9: The damage inflicted on the Langsnek Tunnel during SA War 2: (a) the northern portal, with the shaft dug for the explosives in the background, and (b) the southern portal, which suffered less damage (Transnet Heritage Library, P3232)

in the history of railways. Under the leadership of Sir William Hoy, the first General Manager of the South African Railways (SAR), electrical traction was first introduced in Natal in 1925. For this, the SAR had to construct the Colenso power station. However, in the same period, ESKOM was formed as the national supplier of electrical power. Despite its vehement opposition, the SAR had to relinquish the ownership of the Colenso power station to ESKOM in 1928, which increased the cost of electricity significantly. This brought a temporary halt to railway electrification. To compound matters, the disastrous economic effects of the international global depression

reached South Africa, and by 1932 the primary activities of the country came to a practical standstill. But fortunately, when the depression lifted, the South African economy bounced back, mainly due to a boom in gold mining. Rail traffic increased rapidly, and the line between Durban and Johannesburg, then South Africa's busiest line, became a bottleneck. Improved financial fortunes allowed the SAR to embark on an expansion project known as the "Ten Million Pound Scheme", on a scale never equalled before.

A substantial part of the budget (£800 000) was reserved for the 137 km line between Uithoek (16 km south of Glencoe) and Volksrust, to be spent

in two ways. First, the line had to be electrified. Second, to allow for heavier loads and larger locomotives the alignment had to be eased, entailing 22 deviations totalling 49 km, with the longest, 17.3 km, between Ingogo and Langsnek. Sharp curves and steep gradients had forced most trains in the up direction to be split at Ingogo and taken up to Langsnek in parts. To eliminate train splitting and the Boscobello reverses, many curves were eased and two new tunnels built, as well as lowering the Langsnek Tunnel. Work on the project started in February 1935 under the direction of Engineer WH Evans and was completed by the end of 1938.

The economic hardships of the early 1930s brought the "poor white problem" to the fore – a social problem that had been lingering since the 1890s when many rural white people migrated to towns and cities. Railways had a long history of providing employment for white labourers in times of economic depression, and the Ten Million Pound Scheme provided some relief in this regard. Two "model villages" to house the work force immediately next to the railway line were jointly constructed by the Department of Labour and the SAR – "Arbeidslus" was constructed just north of Ingogo, precisely over one of the tunnels to be constructed, and the second, "Werkgenot", on the foothills of Nkwela Mountain at Mount Prospect, overlooking Majuba Mountain. Each village had a number of standalone family cottages (195 at Arbeidslus and 249 at Werkgenot), communal ablution halls, a community hall with seating for 300, a school, medical doctor, pharmacist, library and a non-profit supply store. Two schools, the first Afrikaans schools in Natal, offered education up to Grade 8 in collaboration with the Natal Provincial Department of Education. A small graveyard remains at Arbeidslus, with at least 17 graves, all of children who died between 1935 and 1938. Each family received a monthly "market ticket", free rail passage to Newcastle or Volksrust. A strict code of conduct was enforced by a superintendent, forbidding private cars, controlling visitors, prescribing hygienic practices and many other minutiae. Inhabitants first arrived at Arbeidslus in February 1935 and were gone by October 1938; Werkgenot was inhabited from September 1935 to December 1938.

Figure 10: The northern entrance to the 1936 tunnel closest to the second Boscobello reverse (photo taken September 2015)



Not everyone favoured the villages. Some of the first inhabitants complained about the meagre payment and staged a “hunger march” (payment was made on piecework basis, calculated weekly for each work team). Newcastle commercial interests selfishly argued that the labourers should have been housed there, while the broader community was wary of the large number of poor strangers. Others argued against the “dictatorial” management which structured the villages as “indoctrination camps, producing labour that was compliant, productive and conforming to what its promoters regarded as western cultural standards”, but conceded that “perhaps surprisingly ... the experiment appears to have succeeded to a significant degree ...” This was supported by the stability of the work force, which was free to leave if they wished. During their occupation, the total population averaged 403 families comprising 805 adults and 1 013 children. In the eight months following the hunger march, only eight workers left. Unsurprisingly the SAR declared the model villages to have “served as a timely and important contribution to poor-white rehabilitation”. During August 1938 the SAR moved the first 22 families to two new sites, Dohne and Toise River, near Stutterheim in the Eastern Cape to improve the Cape Eastern line. World War Two and rising costs played a role in

the official termination of the “model village” programme in 1945.

MAJOR REALIGNMENT

As the workhorse of the SAR, the Natal main line between Durban and the Witwatersrand retained the engineers’ attention. Starting in 1978, forty years after the elimination of the Boscobello reverses, the Ingogo–Langsnek section of the line was realigned in a major way. While the 1938 alignment conformed to a maximum gradient of 1:50, compensated for a minimum radius of 173 m, the new alignment conformed to a maximum gradient of 1:66 and a minimum radius of 800 m. Routed to the west of the abandoned old route, the 37 km new double track was located higher up the slopes of the Majuba and Nkwela mountains, incorporating three twin-bore tunnels with a total length of 7 202 m, and six tall viaducts, the longest of which crosses the Harte River with 11 spans of 45 m each (Figure 11).

Unfortunately, in February 1989, a deep slip was observed on the northern approach to Trowe’s Viaduct (four 45 m spans), and a deviation was constructed around the viaduct while repairs were undertaken. Eventually the deck was extended and the bridge opened for traffic at the end of 1990.

POSTSCRIPT

Harkening back to our opening quotations, WWI’s best war movie (*Lawrence*

of Arabia) is also a train movie, and the famous train sabotage scene tells us something about the nature of the physical struggles in northern Natal. Lawrence is held to have been *not an ordinary man*. Neither, we submit, were the South African actors on this set.

ACKNOWLEDGEMENTS

The BERRT 2015 group who visited the Ingogo–Langsnek line in September 2015 comprised Louis Eksteen, Linda and Andrew Foster, Johannes Haarhoff, Lyn and Bill James, Zulch Lotter, Gillis van Schalkwyk, Chris James, Neil Webb, and Johan and Nico de Koker. Graham McCallum and Bruno Martin contributed the maps, Bill James suggested major text improvements throughout, Gillis van Schalkwyk researched the renaming of Langsnek, Eric Conradie provided historical perspectives on the model villages, and Yolanda Meyer in the Transnet Heritage Library produced supporting documents, newspaper clippings and historical photographs. Cornel Rautenbach and family, farming the land at the Boscobello reverses, graciously hosted and cheerfully accompanied us for the better part of a day.

REFERENCES

In the interests of space, references have been omitted. For the fully referenced article, please contact the author. □

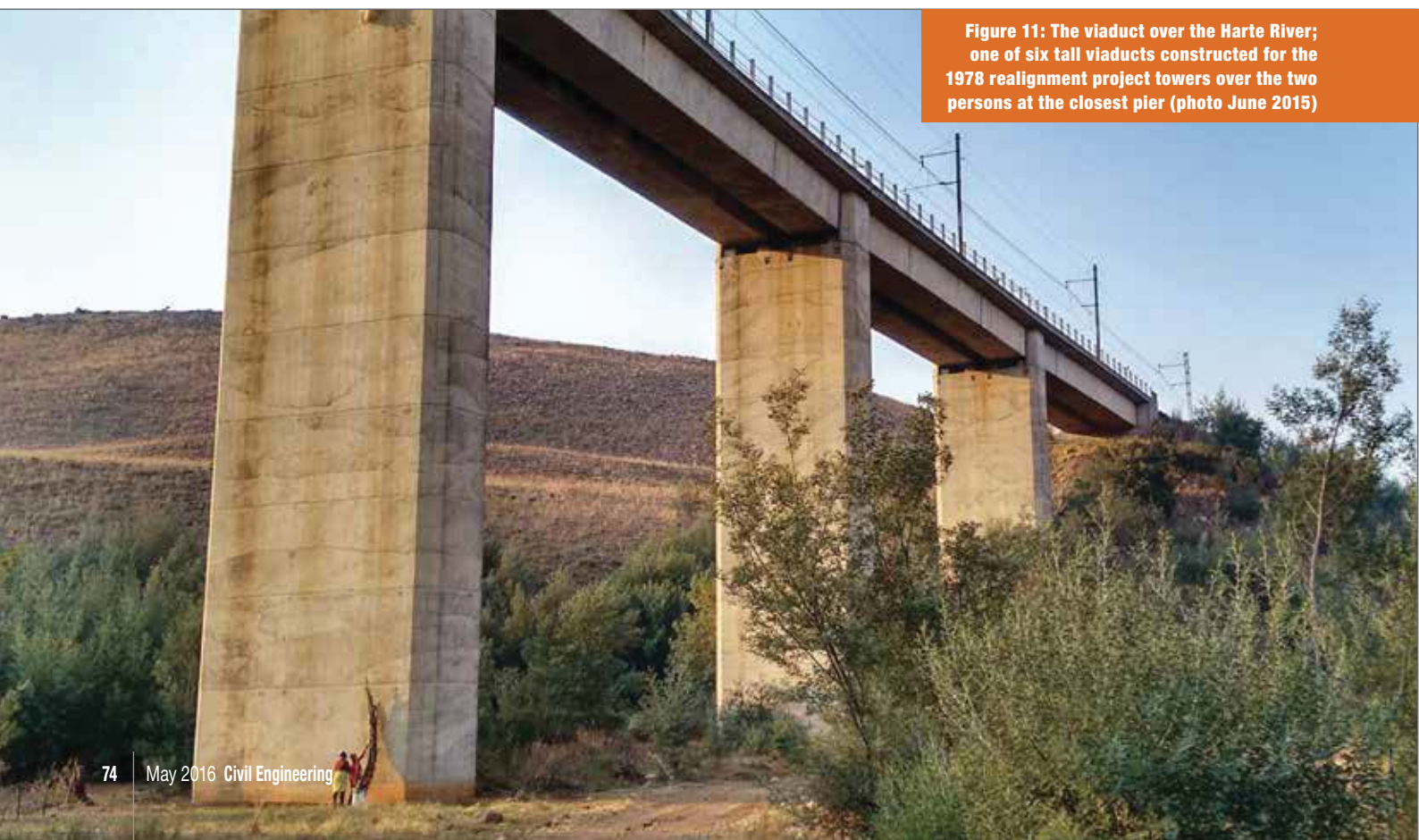


Figure 11: The viaduct over the Harte River; one of six tall viaducts constructed for the 1978 realignment project towers over the two persons at the closest pier (photo June 2015)



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