

Who was Joaquim José Machado and what has he done for South Africa?

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INTRODUCTION

In the latter part of the 1800s, General Joaquim José Machado of Mozambique was hugely instrumental in the building of the railway line between Lourenço Marques (the current Maputo) and Pretoria, at the time the capital of the Zuid-Afrikaansche Republiek (ZAR), which was generally referred to as the Transvaal (the region nowadays roughly covered by the Provinces of Gauteng, Mpumalanga, Limpopo and North West).

BACKGROUND

The Transvaal's first attempts at gaining access to the Indian Ocean are traceable back to the 1830s. In later years the necessity for the Transvaal to have independent access to the sea, particularly for the development of its mining industry, became a fundamental *raison d'être* for good relations with the southern Mozambique economy.

The Transvaal and Mozambique in fact had links even *before* the discovery of gold. The first official contact between the Boers and the Portuguese happened in 1838 when the *Trekkers*, led by Louis Trichardt, reached Delagoa Bay. That early contact can be considered as the beginning of diplomatic relations between the two countries, eventually leading to agreements guaranteeing freedom of trade and the provision for building a railway line.

Preceding the proposed construction of this railway line several attempts to link the Transvaal with Delagoa Bay were made. On 14 August 1855 a concordat between the Transvaal and the

Lourenço Marques Governor was signed, establishing that both governments would try to provide passable communication between Lourenço Marques and the Transvaal. Later the 1869 Treaty provided for a road from Lourenço Marques to the border, hence setting the antecedents for the establishment of Article 8 of the 1875 Treaty, followed by the 1876 Railway Treaty between the two countries, which established the political covenant for the construction of a railway line. The discovery of gold in the 1870s had increased the need for such communication, justifying the construction of the Lebombo Mountain Road and the Lydenburg Road, also known as the *Royal Road to the Transvaal* and the *Road to Progress* in 1871/1874.

The Lydenburg Road, first of the initiatives to link Lourenço Marques with the Transvaal, did not accomplish the objectives of the two nations, as the path was arduous and long, and extremely exhausting to travellers. This made the construction of a rail link an increasingly more desirable solution for traffic between the two countries.

The first engineers appointed to perform a study of a possible railway path chose a route which crossed the border along the Umbeluzi River and across Swaziland. These works were started by George Pigot Moodie and were continued by Engineer R Thomas Hall, who believed that the route was practical and that a narrow-gauge railway line across that region could be installed economically and relatively easily.

An intricate negotiations process and concessions made the execution of the line difficult. On 6 November 1874 it was agreed with George Pigot Moodie that he would do a study of a route up to the Lebombo mountain range, starting from Lourenço Marques, and that he would carry out the topographical survey of the Lourenço Marques village and the respective stormwater and sewerage systems. However, as he could not find sufficient funding for the project, Moodie sold the concession to the Transvaal government.

President TF Burgers of the ZAR departed for Europe in 1874 in search of funds to construct the railway line, but, with the annexation of the Transvaal by Britain, the project was delayed further, forcing Portugal to start negotiations with Britain.

Only after the recognition of the Transvaal's independence by Britain in the year 1881, new initiatives were taken to finally implement the construction of the line. Britain, at the Pretoria Convention, and through a clause of the Convention, separated Swaziland from the Transvaal, thereby rendering Swaziland an independent territory.

The route through Swaziland was not acceptable to the Transvaal government. It is enough to consult a geographical map of the region to conclude that the Umbeluzi River route option had to be abandoned and replaced by another route following the Lebombo mountain range, north of the Swaziland border with the Transvaal, along the N'komati River banks.

The Transvaal government in Pretoria and the Portuguese government in Lisbon agreed to appoint engineers from both sides to negotiate a decision about the railway crossing point on the border between the two countries.

ENTER MACHADO

Captain J J Machado, who was a civil engineer and an officer in the Portuguese Army Corps of Engineers, was already stationed in Mozambique, having arrived in Lourenço Marques in March 1877 as the head of an expedition of the Public Works Department to

implement strategic fundamental infrastructure in Mozambique and Angola, with particular focus on railways and harbours.

Machado was very enthusiastic about building a railway line between Mozambique and the Transvaal, having mutual trade in mind, so he started the surveying of the track from Lourenço Marques to the border of the Transvaal, along the right bank of the N'Komati River.

However, the various efforts of Portugal and Mozambique to get the construction of the proposed railway line off the ground were delayed by the fragility of both the Portuguese and Transvaal political situations at the time, as well as by various interim agreements which eventually did not come to fruition (these make for interesting reading, but are not included here due to lack of space).

Nonetheless, at a meeting on 10 January 1883 between the Portuguese representatives, Major Machado and Edward Cohen (General Consul), and the Zuid-Afrikaansche Republiek, represented by Deputy-President Paul Kruger, Mr MW Pretorius, Mr CJ Joubert, Mr WE Bock (Secretary of State), Mr EJR Jorissen (Attorney-General and President of the Railway Commission), Mr JN Villiers and Mr GH Bruskes (members of the Railway Commission), consensus was eventually reached regarding the development of the Lourenço Marques – Pretoria railway line.

Major Machado instilled so much confidence with the ZAR representatives when he showed them his survey of the Mozambique sections of the railway line that they requested the Portuguese authorities to place Machado's services at their disposal for this project. They wanted Machado to do the surveying of the railway line from the Mozambique border to Pretoria. The Portuguese government agreed and the ZAR House of Assembly placed four thousand British pounds at Machado's disposal for this project.

With the assistance of three people, Machado completed the survey within eight months. It was an exceptionally difficult task, because of the practically impenetrable escarpment mountains. Machado nevertheless performed his task magnificently, and the plan that he had drawn up – although certain parts were amended – served as the basis on which the Nederlandsche Zuid-Afrikaansche Spoorweg Maatschappij (NZASM) constructed the Transvaal section of the Delagoa Bay railway (also known as the Eastern Line).

CONSTRUCTION

On the Mozambique side the laying of the railway line advanced at about 800 metres per day, with around 3 000 workers employed on the project. The contractor did not shun earth works – although slopes of 0.025 per metre were allowed, the maximum slopes in fact did not exceed 0.015 per metre; and the cross section of the profile in the filling and excavation areas was far more ample than what had been specified, measuring 4.8 metres instead of the specified 3.6 metres. The rails were made of 23.6 kilograms/metre Bessemer steel, and the steel sleepers weighed 32 kilograms each. The bridges were built with longer spans than specified.

On the Transvaal side, despite numerous difficulties, the construction progressed satisfactorily, reaching the farm Geluk, which Machado used as his camp until the end of the works.

Because of its convenient location, the farm Geluk, belonging to the second magistrate of Lydenburg, Cornelius Potgieter, had become a recognised halting place for transport wagons and mail coaches after the discovery of gold in the Eastern Transvaal. In

1893 a station was erected on the farm to serve the newly constructed Delagoa Bay railway.

COMPLETION

It was an historic event when President Paul Kruger of the ZAR solemnly placed the last spike of the line on 2 November 1894.

During the festive inauguration of the railway line in July 1895, Colonel JJ Machado attended the proceedings as the official representative of the Portuguese government. In his speech President Kruger acknowledged the excellent studies and field work which Colonel Machado had directed within the territory of the Transvaal. He also related to the difficulties around the construction of the railway line, and wished to remunerate Machado with 10 000 gold pounds. However, the Portuguese engineer excused himself politely, explaining to President Kruger that the Portuguese government had already remunerated him.

As a token of his admiration for Colonel Machado, and also to thank him for his honesty and total lack of personal interest, President Kruger determined that the railway village at Geluk farm, where Machado had made his camp during the construction period, would be named Machadodorp. The town carries the name to this day.

The great railway project was completed, thanks to the vision of the tireless Colonel Machado, the competent and superhuman efforts of Dutch engineers, and the firm will of that granite man President Paul Kruger. Not to be forgotten are also the many people who lost their lives during the construction of the Transvaal side of the line – it was said at the time that the number of dead equalled the number of railway sleepers that supported this railway line from Komatipoort to Pretoria.

Colonel Joaquim José Machado reached the rank of General in the Portuguese Army Corps of Engineers, and was later appointed Mozambique Governor General. The following wording (also in Portuguese and Afrikaans) appears on a bronze plaque at the Pretoria Station:

In honour of General Joaquim José Machado,
General of the Engineering Corps
who during 1882–1884 did pioneering work on the route
for the Railway Line Lourenço Marques – Pretoria
that was opened on the 8th July 1895

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