



04 Research Results and Achievements

Background

The project was undertaken so as to address the criteria as set out in the *Embassy of the Kingdom of the Netherlands in South Africa: Dutch Shared Cultural Heritage Programme - Call for Proposals* (Call date: 2015 06 17; deadline date 2015 07 20), namely:

- Specialist considerations such as cultural significance, uniqueness, representativeness and urgency of the need to take action:

The researchers were formally appointed to the project once BE@UP (now Enterprises University of Pretoria) had successfully submitted a proposal and been awarded research funding by the Cultural Desk of the Royal Dutch Embassy of the Kingdom of the Netherlands in late 2015. Clarke is located in the Netherlands, so field trips and consolidation of the research material were planned to coincide with his visits to South Africa in April 2016 and again in October-November 2016. Previous trips had already been undertaken as part of the so-called *Eclectic ZA Wilhelmiens* project. It is estimated that in excess of 5 000 km has been travelled on the field trips of this project.

The researchers in the interim engaged through Skype, e-mail and telephonically to co-ordinate activities and share information.

In undertaking the research various stakeholders were identified and engaged, thus raising awareness of users, occupants and interested and affected parties. Researchers from South African Universities (University of Pretoria and the University of South Africa, UNISA), at the time of writing, have expressed their interest in the *Footsteps Along the Tracks* project results, especially the inventory, as primary source for their research.

Clinton Jackson, the Content Moderator of the National Inventory Unit at the SAHRA in Cape Town was visited and engaged (2016 04 21) so as to develop a strategy and system for the bulk upload of data into the SAHRIS. This has proven to be an innovative and fruitful consequence of the research project and is now an established methodology for future similar research results.

A student research assistant, Sipiwe Semelane, was appointed to the project to help prepare and populate data sheets from desktop searches and reviews of related periodicals as well as populate pre-prepared SAHRIS datasheets. He has been instructed by and reported to Clarke on all matters.

Clarke in the Netherlands has been approached and given presentations. The first was on the NZASM to ICOMOS, the Netherlands (2016 05 11)

04.1 (Left): Detail of the only known surviving NZASM corrugated sheet metal Gangers Cottage (NZASM_SEL_071) in Balfour, Mpumalanga. This is a unique and precious heritage resource with a high level of material authenticity.

04.2 (Right): The *Footsteps Along the Tracks* project registration on the South African Heritage Resources Agency (SAHRA) SARIS inventory database (<http://sahra.org.za/sahris/recording-projects/footsteps-along-tracks-fat-mapping-extant-nzasm-built-heritage-structures>).

The screenshot shows the SAHRIS RecordingProjects interface. At the top, there is a navigation bar with 'Log In/Register', 'SAHRIS', and 'Explore Calendar Maps Help'. Below this is a search bar and a 'RecordingProjects' section. The main content area displays the title 'Footsteps Along the Tracks (FAT). Mapping Extant NZASM Built Heritage Structures'. Underneath, there is a 'ProjectSummary' section with details about the site identification, documentation, and assessment of extant built structures. It also includes a 'Programme' section, a 'GISLayer' section, and a 'Group' section with details like 'Institution/Group: University of Pretoria - Architecture', 'Email: nicholas.clarke@up.ac.za', 'Website: www.up.ac.za/architectur', 'ProjectLeader: Nicholas Clarke', and 'Group: Request group membership'. There is an 'APPLY' button next to the group information. Below the group information, there is a 'Title' field with a dropdown menu set to 'Contains' and an 'APPLY' button. The 'Group visibility' is set to 'Public - accessible to all site users'. The 'Group Content' section states 'There is no content in this group.' and shows '49 reads'. At the bottom right, there is a 'Back to Top' button.

List of projects

This is the company floated for the construction and operation of the Zuid-Afrikaansche Spoorweg-Maatschappij (ZASM, Transvaal Republic) railway network before the Second Anglo-Boer War, particularly the connection between Pretoria and Delagoa Bay (Lourenço Marques, now Maputo) and that with the Orange Free State Republic, Cape Colony and Natal Colony railway systems, the consequence of the Zuid-Afrikaansche Republiek (ZAR) policy to lay a railway line across the friendly territory. Mozambique, through which connection would be made with the outside world without crossing British territory. The Volksraad nominated a commission in 1874 to study the laying of a rail connection with Delagoa Bay but the plans were wrecked by a shortage of capital and the British annexation of the ZAR in 1877. Independence was restored in 1883 after the First Anglo-Boer War.

The NZASM was established on 31 June 1887. The chief engineer, RAJ Smeethago, and his colleagues started their surveying at Komatipoort in 1887, but malaria and tariff disputes between the Republic and Portugal delayed construction. Consequently the NZASM first began laying a railway between Johannesburg and Boksburg (the "Rand Tram"), which was opened in 1890 and later extended to Springs and Krugersdorp. The completion of a railway bridge over the Vaal River in 1892 made possible the connection to the Cape by way of the Orange Free State through the completion of the Southern Line.

Railway conferences, in which the NZASM also took part, were held in Pietermaritzburg and Cape Town in 1897 and 1898 between the Republic and the British colonies in South Africa. In April 1899 the successor to the Chief Engineer MIDDELBURG, who had left at the end of 1896, Jhr. J. VAN BRITTELBOER, O.M. V.E.R., had under his control a staff of 1770 Netherlanders and ex-Netherlanders, 4477 South Africans of which 3700 were black and 777 white labour and 1615 representatives of 26 other nationalities.

On 19/09/09 13 the Executive Council of the ZAR got the railway lines, the staff and the rolling stock of the NZASM at the disposal of the Commandant-General. After the British occupation of Pretoria the NZASM activities were taken over by the IMPERIAL MILITARY RAILWAYS (IMR) on 19/09/09. All NZASM properties were confiscated on 19/09/09, 12, after 3402 members of staff and their families had been repatriated to Europe by the British authorities. The last serving staff of the NZASM left Komatipoort on 19/09/09, 18, soon followed by Jhr. Jan Kretzschmar van Wees. The Portuguese government delivered NZASM rolling stock in Lourenço Marques to Britain and on 19/01/10 the company ceased its payments. In 1908 an arrangement was made between the British government and the NZASM by which the company would receive more than £200 000 in compensation and the British government undertook to indemnify all slaves which were in the possession of Crown agents for the colonies. The NZASM was dissolved on 19/08/10 13.

Commemorative of the NZASM are the administrative block of the South African Railways which was opened in Pretoria in 1964 and occupies the site of the former offices of the Netherlands company; plaques in Bloemfontein and Pretoria in memory of Netherlanders and ex-Netherlanders in the service of the NZASM who were killed during the war; and



Meyer, Knowledge Centre Information Specialist, Knowledge Centre Heritage Library, Transnet Freight Rail, Johannesburg who are aware and supportive of the research endeavours of the FAT project. This has led to discussions between these entities and the Cultural Heritage Agency of the Netherlands with a view to further co-operation of knowledge exchange pertinent to how NZASM resources, which are a shared cultural heritage, may benefit broader South African society. From this has arisen opportunity for management of the Transnet to visit the Netherlands, facilitated by the Dutchculture Visitors Programme, in achieving this end. This exchange is also to facilitate the sharing of knowledge and skills in practices of the management of archival material.

held at the head office of Dutchculture (Centre for International Co-operation), Amsterdam, the Netherlands. A second lecture was presented on invitation at Zuid-Afrikahuis, Amsterdam, the Netherlands on the NZASM – *Op het spoor van de NZASM*. This has led to the Stichting NZASM (the Netherlands) initiating an internship which facilitates an Honours or Master research student from South Africa to further research the extant infrastructure of the NZASM in South Africa for utilisation in economic development and upliftment. Clarke will present, on already extended invitation, at the 2017 annual *Vereniging Vrienden Nieuwe Kunst 1900* conference to take place in Arnhem, the Netherlands.

Pursuant to the sense that the NZASM heritage is at risk, Fisher and Clarke have engaged Elvin Harris, Executive Manager – Strategy and Planning at Transnet Freight Rail and Yolanda

The project was presented Mpumalanga Heritage Resources Authority (MHRA) Council by Fisher in March of 2016 and the SAHRIS FAT database by Fisher and Clarke to Benjamin Moduka, Heritage Officer of the MHRA, Mpumalanga Department of Sports Arts and Culture, in Mbombela (Nelspruit) in November 2016.

Fisher and Clarke made a Power-Point presentation of the project at the SAIA-MIA AGM in White River in November 2016, alerting local architects to the built residue of the exercise and presenting its broader historical and geographical context, so sensitising those designers and decision makers should they encounter such features in the future. Fisher and Clarke also met with the Railway Society of Southern Africa (RSSA) on 2016 11 07 and presented the project. RSSA indicated that they would be very interested to receive copies of the FAT research report as well as the FAT database.



DUTCH FOOTSTEPS



Kingdom of the Netherlands



2014 COOL CAPITAL

04.3 (top): The Dutch Footsteps website, with added NZASM content (www.dutchfootsteps.co.za).

04.4 (bottom): The FAT inventory has also been made available to www.artefacts.co.za and has been incorporated into this seminal open-source database of the south African built environment (<http://www.artefacts.co.za/main/Buildings/archframes.php?archid=1184>).

Outcomes

The researcher, in undertaking the research, have fulfilled the following research objectives of the FAT Project:

- identified and photo-documented over three-hundred of these built structures through desktop study and fieldwork, indexed these through a custom indexing system and identification photograph and assigned each to a geographic sequence along each pertinent line:
 - The Rand Tram (17 entries).
 - The Southern Line (24 entries).
 - The Eastern Line (151 entries).
 - Barberton Branch Line (19 entries).
 - The South Eastern Line (91 entries).
 - The South Western Line (60 entries).

This includes:

- Photo-documentation.
- GPS location coordinates.
- State of conservation.
- Current occupation/use where possible.
- Statement of significance.
- Current legal status under the National Heritage Resources Act (Act 25 of 1999).
- undertook archival research at the Transnet Archives, Johannesburg;
- created a MS Excel digital database of these structures for dissemination to the pertinent Heritage authorities, namely SAHRA, PHRA-G and MHRA;
- formally engaged the SAHRA of creation of over three-hundred-and-fifty new entries for uploading into the SAHRIS database;
- created entries for over three-hundred-and-fifty structures, including the assessment of their legal status under the National Heritage Resources Act (25 of 1999) for uploading on the SAHRIS;
- disseminated information about these structures in digital and print media of thirty hard copy documents distributed as per the project proposal.
- The extant web platform Dutch Footsteps (www.dutchfootsteps.co.za) has been modified and amplified to display twenty new NZASM entries by way of dedicated tabs. Fisher, in engagement with Frank Gaylard as web-developer and web-manager of artefacts.co.za (Artefacts), has supervised and written all

NZASM entries on the Artefacts website which are now in the public domain, and give more detailed and extensive narrative information beyond only the built environment structures contained in this report;

- compiled this research report which is published both in hard copy and electronically.

Concluding observations

Significant remains include the discovery of an in situ set of fish-belly girders as part of an abandoned bridge of the period near Bronkhorstspuit, in-situ prefabricated and imported cast-iron water-tanks, for example at the abandoned Pan Station, a percolation well at Koekemoerspruit Bridge, a light-weight prefabrication corrugated iron Ganger's Cottage in Balfour, Workers' Rondawels at Malelane and Kaapmuiden, recycled NZASM rail lines as electrification gantries along the South-Western Line, authentic structures and particularly sections of railway lines on the Barberton Branch Line.

Abandoned structures or constructions often serve use as farm roads, dam walls, fence posts and if buildings, inhabited.

Unfortunate discoveries were the ruinous state of many declared heritage resources, namely Clewer Station, Elandshoek Station and Volksrust Station.

In conclusion the research project has met its objectives and in many instances exceeded expectations, particularly in fostering enthusiasm for a often forgotten history of the NZASM and its artefactual residue, has alerted to a far richer and greater residue than was first suspected and opened opportunity for further future research.



04.5 (Top): No opportunity was missed during fieldwork to discuss and educate. Roger Fisher is seen here instructing Johan Swart and Sipiwe Simelane at Pan Station, Mpumalanga (NZASM_EL_119) on 2016 04 10.

04.6 (Bottom): Project visit on 2016 04 04 to the Transnet Freight Rail Knowledge Centre / Heritage Library, in Johannesburg. From left to right: Roger Fisher, Yolanda Meyer (Information Specialist Transnet Freight Rail), Elvin Harris (Executive Manager: Strategy & Planning at Transnet Freight Rail) and Nicholas Clarke.

04.7 (Right): The FAT project was discussed by Clarke and Fisher with Benjamin Moduka, Heritage Officer of the MHRA, Mpumalanga Department of Sports, Arts and Culture, in Mbombela (Nelspruit) on 11 03 2016

