



08 *Wilhelmiens in the African landscape*

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We now live about 5 minutes outside of Amsterdam, on the Overtoom¹ outside the city gates to Leiden and in the immediate vicinity of the so-called Vondels Park, a large public strolling park with shrubbery, lakes and seating benches, of which, on occasion, we make good use.²

... wrote Sytze Wierda in a letter to his mother in 1874. The Friesian family Wierda arrived in Amsterdam in 1870 as small part of a great tide of rural Dutch who resettled to the bustling capital during its Second Golden Age, a result of the late, but none the less rapid industrialisation of the Netherlands.

Introduction

The architectural and social context in the Netherlands from which Sytze Wierda and his compatriots journeyed the 11 000km to the Transvaal Republic (ZAR), has been described elsewhere in this publication (see Chapters 1 and 2) as has their architectural response – the main theme of this book. They arrived in a still undeveloped and partly untamed southern Africa, in which they had to find an appropriate architectural response. This essay will explore the translations of the Dutch landscape

architectural and town planning traditions at the end of the C19, by presenting Dutch precedent for South African projects. The landscape residue of two institutions which together had a marked influence of the development of the South African landscape will be explored: the ZAR *Departement Publieke Werken* (ZAR DPW) and the *Nederlandsch Zuid-Afrikaansche Spoorweg-Maatschappij* (NZASM). But firstly a short sketch presenting the personal experiences of it the main protagonist of the ZAR DPW, Sytze Wierda, within the tradition of landscape architecture in the Netherlands at the end of the C19.

08.01 (Left) The main building of the former Westfort Leper Institution (2014).

08.02 (Right) NZASM Court (2013).

¹ A street name referring to a boat lift *overtoom* that had been located there since the 14th century later replaced by a sluice.

² *Wij wonen nu ongeveer 5 minuten buiten Amsterdam aan de Overtoom buiten de Leidsche Poort en in de onmiddellijke nabijheid van het zogenaamde Vondelspark, een groot publiek wandelpark met boschaadjes, vijvers en rustbanken, daar maken we nog al eens gebruik van.* Quoted from a letter by Wierda to his mother dated 21 June 1874. From Rex, 1957: 293.



Amsterdam, Vondel Park: Genteel nature for the white-collar worker

The Wierda family's move to Amsterdam had been due to father Sytze's employment as first class superintendent on the construction of the railway line and its associated infrastructure by the *Maatschappij tot Exploitatie van Staatsspoorwegen* (State Railways Company, SS). This company was engaged in the connection of a line to Amsterdam with the important naval and commercial harbour of Den Helder via Zaandam. The works in Amsterdam required that Wierda, a man of reasonable import in executing the project, be close at hand. Before their move to the Capital, the Wierdas had been based in

Alkmaar, and before that in Drachten, Friesland. The westward migration of the family coincided with a steady improvement of their economic and social circumstances. By the time they reached Amsterdam Wierda was a man of reasonable social stature and comfortable middle-class means.

The family relocated twice in Amsterdam. The city was bursting at the seams and finding suitable and affordable accommodation could not have been an easy task. At one point they lived on the Keisersgracht, one of the C17 canals around the medieval city and then not the desirable address that it is today. Their move to *buiten de Leidsche Poort* (outside the city gates to Leiden) was certainly an escape from the insalubrious cramped C17 city centre. The city of



08.03 Vondel Park, a picture of idyll.

08.04 Burgers' Park with Melrose House in the background, c.1900.



Amsterdam had begun with the demolition of her defensive walls in the 1850s, but it was only because of this tide of humanity flooding its cramped medieval quarters in the 1870s that the city finally burst its metaphorical banks beyond its *Singelgracht* (enclosing defence moat) and flooded onto the adjoining *polders* (low lying tracts of land ringed by dikes as flood defences). By relocating to *outside the city gates to Leiden*, the Wierda family had not only chosen for *licht, lucht en ruimte* (light, air and space), but also relocated to the fashionable bourgeois Amsterdam South, having at its heart the proudly mentioned *Vondelpark*.

Vondel(s)park

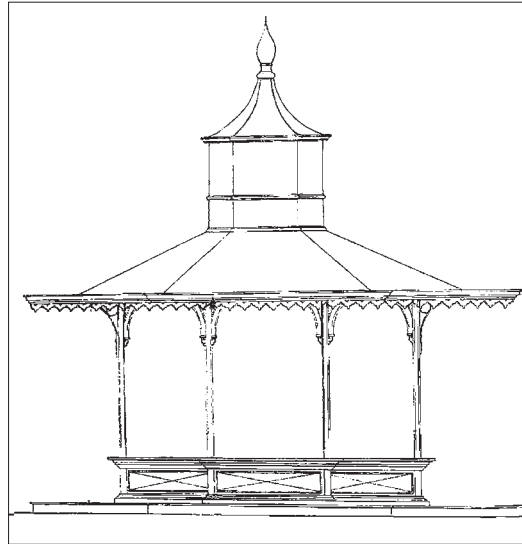
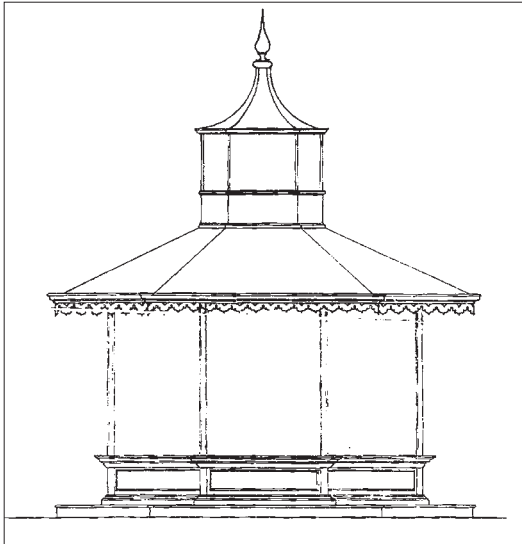
The *Vondelpark* park (figure 0.03) was laid out through private endeavour, in the marshlands outside the Amsterdam defensive moat by a consortium called *Vereeniging tot Aanleg van een Rij- en Wandelpark* (Society for the Construction of a Riding- and Walking Park) which, in keeping with the spirit of the times, capitalised on the social reaction to the unwholesomeness of the industrial city though the development of a villa neighbourhood having at its centre a vast recreational park, a prelude to the development of Ebenezer Howard's ideal of Garden Cities. The first phase of the project, to the design of (landscape) architect JD (David jr, 1791–1870) and his son LP Zocher (1820–1915), was opened to the public as *Het Nieuwe Park* (The New Park) in 1865, only five years before the Wierda family arrived in the bustling metropolis.

In the aforementioned letter to his mother, Wierda sketches a romantic image: shrubbery, lakes, walkways and benches. Riding was affordable only to the upper echelons of society. Promenading was the recreation of the new middle classes, liberated from a seven-day working week by the wealth created through the Industrial Revolution.³ If there is a bit of personal pride lurking in the statement that his genteel family 'make good use' of the public park we can forgive him this – it is not without just cause. Wierda had worked hard to achieve his and his family's advancement. He, having commenced his professional career as a carpenter, could now call himself engineer-architect. Then bachelor Klaas van Rijse, Wierda's student and later right hand man in the ZAR DPW lived in the vicinity as well and there is no reason to doubt that he joined the Wierda family on occasion for a summer evening's 'roamin' in the gloamin' along the park's meandering walkways, music drifting from the timber bandstand, constructed in 1873. We can also imagine them admiring – if not critically discussing – the statue of Joost van der Vondel,⁴ seated with quill in hand on elevated pedestal, above four guardian angels who represent four manners of poetry (see figure 02.11).⁵ The pedestal of the monument had been designed by Pierre Cuypers (1826–1921), arguably the most fashionable architect in the Netherlands of his day. He had been entrusted with the design of the *Rijksmuseum* and been called in, to the embarrassment of the architectural office of the *Staatsspoorwegen* (SS), to assist with the design the Amsterdam Central Station, part of the Den Helder-Amsterdam line. This was the project Wierda as *opzichter eerste klasse* (first

³ Cycling, a new craze, was only permitted in the park in 1893, and then only during morning hours.

⁴ Joost van de Vondel (1587–1679) was the foremost Dutch poet and playwright of the so-called First Dutch Golden Age. The 1867 statue in the Vondel Park is by Louis Royer (1793–1868).

⁵ Being the Sacred, Tragic, Satirical and Didactic.



08.05 Collage of sketch designs and realised projects: The two Burgers' Park pavilions dating to c.1900.

class supervisor) was supervising as employee of the *Staatspoorwegen* under the leadership of Dolf (AD) van Gendt (1835–1901), then chief architect-engineer. The statue of Joost van der Vondel gave rise to the unofficial name *Vondelpark* (Vondel's Park), which in turn was eventually adopted as the formal name as *Vondelpark* (dropping the 's') in 1880.

That the shrubbery and lakes described by Wierda paint a romantic picture should not come as a surprise. Father and son Zocher, designers of the Vondel Park, were at the time the main proponents of the English Landscape Garden Style⁶ in the Netherlands, there known as the *Engelse Landschapstijl*. This mode of design had found entry into Dutch society from the 1750s onwards⁷ and was radically different from the formal French manner it supplanted. Where the French garden aimed at domination of the natural environment, the English Landscape garden, grafted on the ideal of the Arcadian Landscape – a benign (crafted) romantic 'natural' environment – responded in part to the harness of the industrial landscape unfolding around it. Away

with the topiary and pompous energetic playing of fountains; picturesque beech trees and willows tranquilly silhouetted in lily-decked ponds where fish ...fly-replete, in depth of June, dawdle(ing) away their wat'ry noon.⁸ The demolition of the of the defensive walls of Dutch cities from the middle of the C19⁹ provided new open space and opportunity to green the cities so that today many a Dutch city has a park in the English Landscape Style encircling its historic core. These were invariably designed by father and/or son Zocher who made good use of potential of the already existing *singelgrachten* (defensive moats) as water bodies in their designs. The style would hold sway for almost 200 years in the Netherlands with parks being laid out in the *Engelse Landschapstijl* right up to the onset of the Second World War, with echoes of the tradition continuing up to this day.

The emigration to the ZAR of first the matrimonial couple Van Rijse, and then the family Wierda has been discussed elsewhere in this book, as has their contribution to architecture in South Africa through their involvement in both private and public

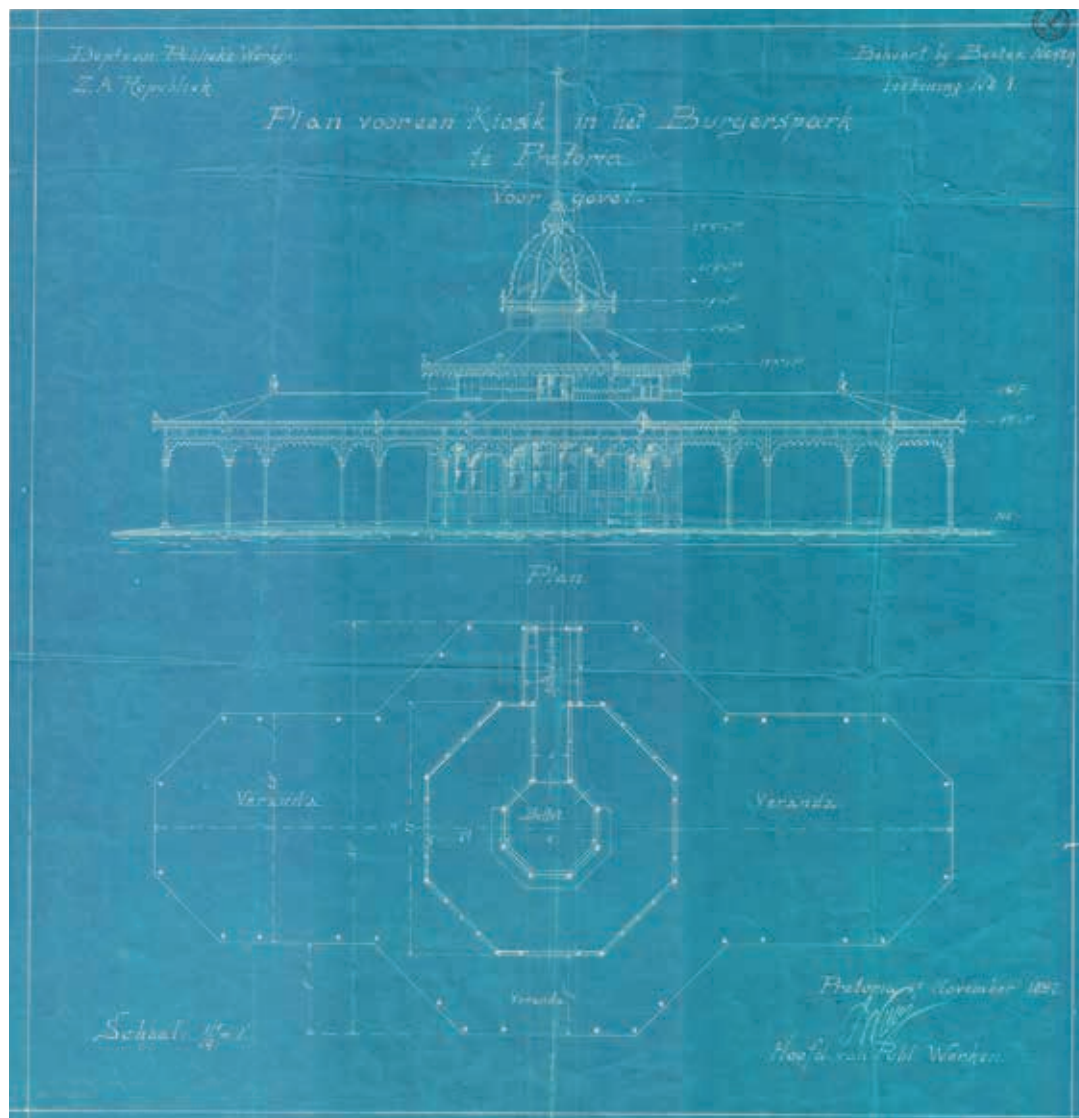
⁶ H Copijn (1842–1923) also deserves mention.

⁷ Tromp, 2012: 232.

⁸ With due reverence to Rupert Brooke.

⁹ Under the *Vestingwet* (Defence Act) of 1974 cities were allowed to demolish their defences due to the implementation of centralized inundation system. Some cities including Amsterdam had already taken the step with Arnhem (1929) and Utrecht (1930) being the first.

08.06 Pavilion for Burger's Park executed in the Chalet Style, design date 1897.



architectural practice. Of all the projects planned and executed by the ZAR DPW only one is a landscape architectural project, named after erstwhile President of the ZAR, TF Burgers (1834–1881).

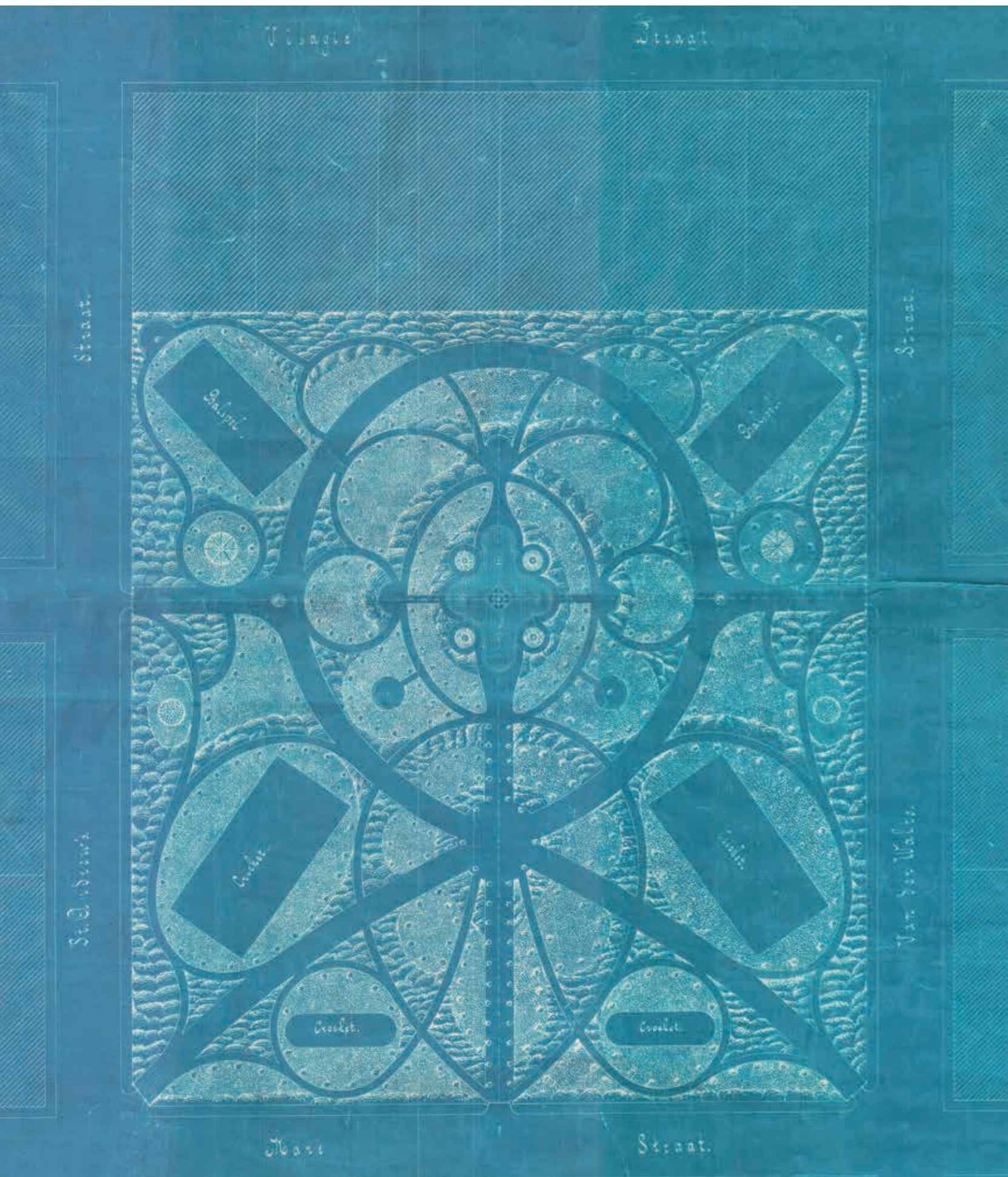
In the ZAR. Burgers' Park: a Dutch *English Landscape Garden*

The only designed landscape that can be attributed to the ZAR DPW is that for Burgers' Park, the plan signed by its chief, Wierda (figure 08.09). The title of the drawing *Rijen Wandelpark* (Riding and strolling park) clearly links it to the Vondel Park. At this point the park was not yet known as Burgers' Park and it was only renamed in 1892 when the park layout was completed. The site had been earmarked as garden site for sixteen years before the ZAR DPW undertook the design, having been created by wish of its namesake when Burgers was still president of the ZAR with the intention that it serve as botanical garden.¹⁰

At the time of rapid industrialisation and urbanisation the development of parks such as the Vondel Park in Amsterdam, but later also the Wilhelmina Park in Utrecht, opened in 1898 to the design of H Copijn and JA Loran, were undertaken as private endeavour with a two-fold purpose: to aid the health of citizens in creating a salubrious environment and opportunity for wholesome public interaction, and to create opportunity for commercialisation of the adjacent building properties.¹¹ The latter did not play a direct role in the decision to create or locate Burgers' Park, but the effect was the same and the edge of Burgers' Parks soon saw the construction of House Klein (also known as *Parkzicht*, see Chapter 7, *Lost Wilhelmiens*) to a design of Wierda's deputy, Klaas van Rijsse in 1895. Businessman George Jesse Heys' Melrose House had already been completed in 1887 and he was awarded the contract for the planting of the park. The drawing does not indicate if its designer had any specific species in mind for the planting of the park, making distinction only between tree, shrub and lawn.

¹⁰ Burgers' had proposed the creation of a Botanic Garden over 16 erven in Pretoria. This proposal was supported by the *Volksraad* of the ZAR (18 October 1874) and Burgers himself promised £25 per month from his own salary to support this project. During the First Anglo-Boer War the park was decimated and the site remained vacant until 1888 when Dr Amieshoff, a Pretoria advocate, proposed to develop the site as hotel and sports grounds. Following a public petition the decision was taken to retain the site as park and the DPW given instructions to develop the site. Warnau, 1990.

¹¹ Warnau, 1990: 25.





08.07 (Top) Burgers' Park, today still a lush retreat from the pressures of city living.

08.08 (Above) Burgers' Park: an aerial view dating to between 1937 and 1948.

08.09 (Left) Design for a *Rijen Wandelpark*, today, Burgers' Park, by the ZAR DPW. Drawing dated 1889.

No in-depth investigation into the design that Wierda's department proposed, has yet been made apart from a footnote statement which ascribes the quadrant layout as a deliberate attempt to represent an *imago mundi* mirroring the biblical description of paradise with four rivers streaming away from its centre.¹² Whether the highly Reformed Protestant Wierda engaged in this level of esoteric design generation cannot be ascertained and close inspection of the plan of the park in fact shows that even though the design is structured along four quadrants, these axes are not articulated as the main structuring elements.

The park provides for six functional spaces for sports; two for cricket, two for croquet and two for *balspel* or ball games. This might be a reflection of the proposal by Dr Amieshoff (see side-note 10) but also mirrors emergent Dutch conditions. The Vondel Park for instance became host to a soccer club in 1895 and a tennis club in 1902. The main structuring element of the design is a carriageway that enters the park on the south-east and the south-west corners and

loops around the centrally placed lily pond. A design for large pavilion was concluded in 1897 but never executed. This is reminiscent of the Vondel Park Pavilion designed by W Hamer (see Chapter 1, *The making of an architect*). Where this was to be located is not clear as the pond visible in the sketch plan still graces the centre of the park. The design for the pavilion (figure 08.06) has an octagonal building at its centre with a large veranda around and a curiously bracketed central flag mast and fretwork abounding, clearly designed in the Chalet Style, as style associated with peri-urban and rural living in the Netherlands of the time. The central building was intended to house a restaurant with a kitchen and buffet. Two smaller pavilions or bandstands (figure 08.05) were planned (all these designs can be found in the South African National Archives in Pretoria).¹³ Eventually two near-identical octagonal bandstands were selected from the catalogue of the Walter MacFarlane Saracen Foundry in Glasgow and erected in the park in 1895 (figure 08.07). But the similarities do not end with the functional qualities such as dining, strolling, horse riding or sport.

The layout of Burgers' Park draws from Wierda, Van Rijssse and their compatriots' memories of the Dutch English Landscape or *Landschapstuin* tradition but is of much more formal conception. The flowing non-symmetrical lines of the walkways are designed to bisect shrubbery and tree-edged lawn, creating surprising vistas through individual lawned 'rooms', all against a backdrop of trees and shrubbery. This is reminiscent of the design aims of the *Landschapstuin*. The main crossing of the carriageway is planned in an all but enclosed space, a copse in the park.

¹² Holm, 1998: 62. This is incidentally also given as the driver behind the layout of Boer towns, a contentious position in the opinion of the author.

¹³ NASA, TAB, S. 3/1191. Geb. R. 2176/97, R. 13684/97 and R. 14041/97; S. 2/209. Geb. R. 2176/97, R. 13684/97 and R. 14041/97.

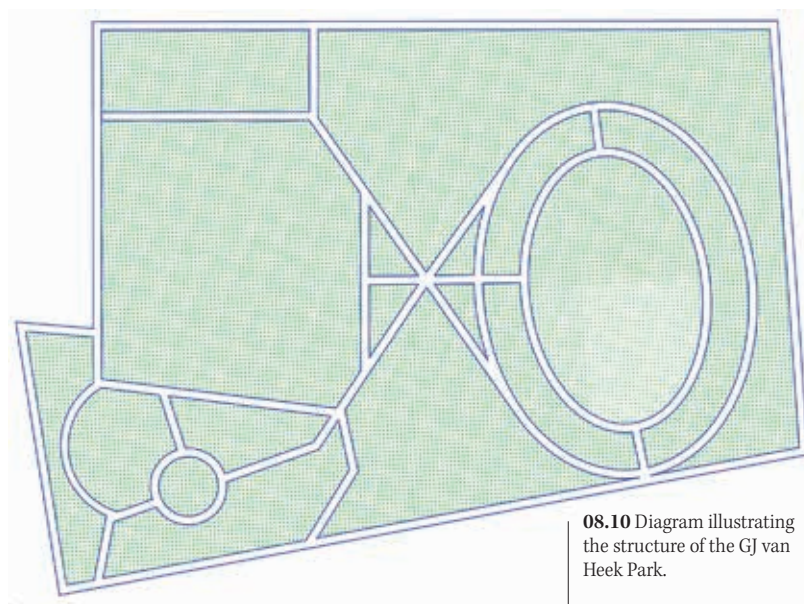
In the hierarchy of routes there is clear resonance with the work of JD Zocher jr such as his design of 1887 for Agnetapark in Delft by LP Zocher, son of JD (figures 08.19 and 08.20). The only missing element of the Dutch *Landschapstuin* body of devices from the Burgers' Park design, is the use of large bodies of water, an element compensated for by the large lily pond and fountain at the centre of the park – a luxury in Pretoria of the 1890s. An interesting climatic device is worth mentioning: all programmed spaces are edged with shrubbery to the north, providing welcome shade to spectators watching sports on the cricket pitches or croquet lawns. When compared to Dutch examples of the time it is clear that Wierda was not slavishly copying, but inventing and formalising his park design, and in doing so, foreshadowing the early C20 landscape idiom in the Netherlands. An example is the design of the GJ van Heek Park in Enschede by PH Wattez (1871–1953) with its strongly symmetrical layout and provision for sporting activities (figure 08.10). While rooted in the tradition of the *Landschapstuin* (as is evidenced by the use of planting and curvilinear foot paths) this geometricized design of Wierda's DPW presents a departure from the *Landschapstuin*, which is characterised by an absence of symmetry, the endeavour for an 'elegant prospect' but still contains the ideals of the 'picturesque'. But then again Burgers' Park was an attempt to create genteel order out of African wilderness – not provide an Arcadian wilderness retreat from the pressures of dense city living.

Town Planning

Wierda's DPW did not undertake the design for the layouts of new towns. This as the responsibility of the Surveyor General's office, the able leadership of Gideon Retief von Wielligh (1859–1932)¹⁴ who had held this post since 1884 and trained in surveying at the Cape.¹⁵ Johann FB Rissik (1857–1925), his deputy, became his successor. Although born in Linschoten, the Netherlands, Rissik did not have any formal training in surveying or urban design. His family emigrated to the ZAR when he was nineteen. Before his appointment as clerk in the Surveyor General's office he had assisted in the pharmacy of his father, a doctor. The planning of new towns therefore followed a distinctly pragmatic South African tradition. The office of the Department of Public Works had specific ways of addressing these conditions and the locations of buildings were chosen with very clear spatial intent.

A face for government

It stands to reason that the public buildings designed by the offices of the Department of Public Works – post offices, government offices, police stations, magistrate's courts and mine commissioners offices – had to be located in publicly accessible places and be visually conspicuous. Often these were located



08.10 Diagram illustrating the structure of the GJ van Heek Park.

facing onto the church squares of Boer towns, but seeing as this was also the most commercially viable land in a town other strategies were employed. Two strategies dominate siting of public buildings:¹⁶ the first being the design of bilaterally symmetrical buildings with the axis at 90 degrees to the façade employed for the most important buildings.¹⁷ Church Square, a pre-existing open space with, it must be borne in mind, a large church¹⁸ at its centre, provides us with the textbook case. Here the positioning of the Raadzaal was predetermined before Wierda even arrived in the ZAR, but the choice to locate the Palace of Justice on axis directly opposite the *Raadzaal* was a deliberate choice to create a formal public space, edged on the east by the Neo-Gothic church spire and punctuated by the Kruger statue¹⁹ at its centre (figure 08.11). This category of building was almost always designed as an object-in-the-round, excepting in large cities like Pretoria where, in the case of the *Nieuwe Kantoorgebouw*,²⁰ annex to the *Raadzaal*, the façade was intended to form part of a continuous street edge. The spatial relationship of *Raadzaal* – Palace of Justice – Church, disrupted by the demolition of the Church on Church Square in 1903, presents the close relationship between church, state and law in unambiguous spatial terms but also the discreet separation of the legislature and judiciary as distinct autonomous entities of state. Pretoria was to be the most formal of ZAR towns as is testified by the positioning of the ZAR Government Museum (1898, figure 08.12) at the head of Andries Street (today Thabo Sehume Street). Today vehicles turn away from this façade up a one-way street but when it was conceived it was a clear monumental termination of this important street, set against the backdrop of the Magalies Mountain range. The location of utilitarian structures was decided on in a more *ad hoc* manner, use-rights not yet being in existence. Thus we find the largest industrial complex in the city at the time the *Staatsdrukkerij* (Government Printing Works, 1895–

¹⁴ A well known collector of Bushman/San narratives published as *Boesman-stories: versamel deur G.R. von Wielligh* (Von Wielligh, G. R. (1920). *Nasionale Pers.*) and *Dierestories soos deur die Hottentots Vertel* (Vol I–IV) (Von Wielligh, G. R. (1922). Van Schaik) collected while surveying.

¹⁵ Braun, 2008: 256.

¹⁶ Minnaar, 2000: 84.

¹⁷ Apart from the *Raadzaal* (1889) and Palace of Justice (1895–9) in Pretoria extant examples include the *Staatsartillerie* (State Artillery) buildings in Pretoria (1895–7), Rissik Street (Johannesburg) Post Office (1895), The Magistrate's Court, Potchefstroom (1894), Boksburg Magistrate's Court (1889) and Volksrust Magistrate's Court (1895) (the last-mentioned sadly in a state of ruin). The Magistrate's Court in Wakkerstroom (1895, then known as Marthinus-Wessel-Stroom) is an anomaly, not located facing an open space, in this case due to the fact that this street block was already in government ownership. Pragmatism trumped ideals.

¹⁸ Constructed in 1884–85 to the design of Tom Claridge (?–1889).

¹⁹ By Dutch born and trained sculptor Anton van Wouw (1863–1945).

²⁰ Now known as the Compol Building.



08.11 Church Square, c.1902 with the unfinished placement for the Kruger Statue and the, soon to be demolished, church, with the Palace of Justice in the background and the Pretoria Club in the far distance.

²¹ It is interesting to note that in the Netherlands industry was also located in close proximity to city centres and residential areas. A good reference is the Heineken Brewery, located between the Vondel Park and the historic city centre. The architect for this project was Isaac Gosschalk (1837–1907).

²² The mine commissioner's office/police station/ government office building at Venterskroon (1888), and Jeppes Town Post (1896) in Johannesburg still remain as good examples of this category and illustrate the steadfastness of strategy within the ZAR DPW. It was especially for this category of buildings that Type designs were developed by the DPW as was common practice in the Netherlands as well for of only railway stations but also *Kantongerecht* (District Courts) Buildings under JF Metzelaar (1818–1897), architect of the Department of Justice there. Floor, 2012: 190.

08.12 The ZAR *Staatsmuseum* (State Museum). Elevation from the ZAR DPW drawing office, 1898.

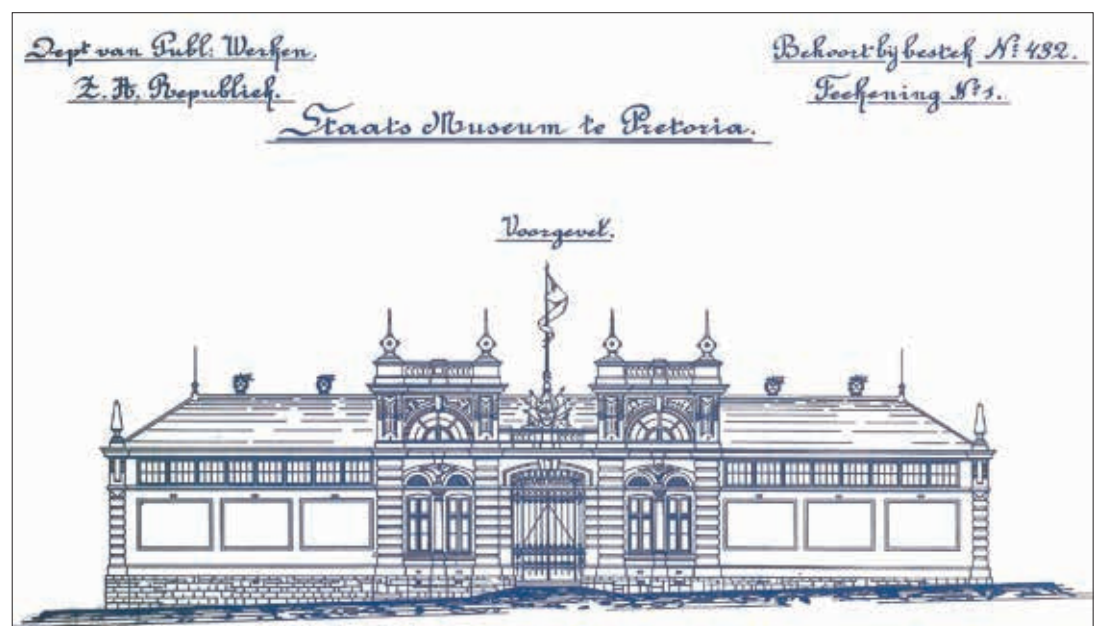
1896) located across the street (then Koch Street, now Bosman Street) from Albert Lodge, the townhouse of wealthy industrialist AH Nellmapius (1847–1893).²¹

The second strategy was also bilaterally symmetrical in the Beaux-Arts tradition, but with the main axis at 45 degrees diagonally across the corner of a building, intended to be located on a street corner.²² The latter was utilised for the more mundane service buildings such as post offices and mine commissioner's offices in smaller towns (see Chapter 7, *Lost Wilhelmians*) and was useful to optimise the impact of the building on the visual quality of its environment by presenting two of the four façades to the streets. This made government more 'visible' in these, often sparsely built-up, outlying towns. It might also have been a strategy aimed at encouraging formalization of fledgling towns; defining the corners of street blocks helped to define their urban structure.

Prisons, the least public of public buildings, were dealt with in a consistent and unique manner. When of a mentionable size these buildings were always located on the outskirts of towns, the undesirable elements of society banished from the civic sphere. But on closer inspection another aspect presents itself for interpretation – larger prisons were always located on main entry routes into towns. In the case of Pretoria, this was the route to and from the 'sinful' Witwatersrand gold field, the Potchefstroom prison located conspicuously on the way to and from the 'wild' western goldfields at Ottoshoop. Heidelberg gaol is located on the route to Johannesburg, those of Krugersdorp, Klerksdorp, Zeerust and Ermelo similarly strategically positioned so that they would be the first public building travellers would encounter, even before entering towns (figure 08.13). Were they simply located along main routes to facilitate access or were they purposefully located to imprint into the memory of passers-by their futures should they ignore the rule of law? That this was indeed the strategy is evident when we examine the one exception to the rule: the Johannesburg Prison, or *The Fort*, first built as prison (1893) and converted to serve as fort after the 1896 Jameson Raid. Here, despite the many practical problems this caused, the choice fell on locating the prison right on the top of Hospital Hill, a clearly visible symbol of ZAR Republican rule in a town perceived by the conservative Boer regime in Pretoria as a nest of, mainly foreign, vipers.

Institutions

It has already been stated that the task of designing the layouts of new towns did not form part of the tasks of the DPW. They did however design a small number of compounds which are worthy of note. Where government employees needed to be housed *en masse* in towns free-standing houses were the norm, each



on its own stand as is the case at the *Staatsartillerie* (State Artillery) where the Artillery Road consists entirely of a sequence of all-but identical houses built to the design of Klaas van Rijsse, (figure 08.13). These villas follow standard convention for the time and the only contextual urban adaptation is that made to the corner dwelling which is more ornate than the rest and thereby articulates the street edge and defines the start of the row. This short street, hidden between railway and barracks and containing fifteen houses in various states of conservation, remains one of the most precious ensembles of late C19 Wilhelmiens architecture in existence today.

When dealing with institutional compounds, such as the *Leprozeninrichting nabij Pretoria* (Westfort Leprosy Colony, 1898, figures 08.01, 08.17 and 08.18) pragmatism reigned, though precedent influenced this. The location was far westwards out of town to minimise contact with uninfected civilians. The tradition of institutionalisation of the unwanted members of society was strong in the Netherlands and various health institutions on the Netherlands survive

to illustrate the tradition. The most famous, that at Veenhuizen (figures 08.15 and 08.16), had its origin in 1822 when the *Maatschappij van Weldadigheid* (Company for Goodwill) founded it as a social-rehabilitation colony for the down-and-out and ill-adapted members of society. This whole Veenhuizen complex is structured by the pre-existing orthogonal drainage system of its rural location. Over time it grew into a penal colony and later prison. Between 1848–1886 it was the principal leprosy colony of the Netherlands and the main asylum for colonists who had contracted leprosy in the Dutch colonies. An English visitor, Herbert Mills,²³ in 1889 commented:

*We next went through some of the hospitals, for it was found, at an early period in the history of the colony, that many of the 'beggars' were really unfit for work of any kind, and that they ought to be under the care of nurses and of doctors. Consequently there are hospitals at Veenhuizen, with bright cosy rooms, surrounded always by flower gardens, with pictures on the walls, and men of pleasant countenance for attendants and nurses.*²⁴

08.14 (Right) Prisons (marked P) in relation to the church squares (marked C) of three ZAR period towns: Ermelo (top right), Boksburg (center) and Potchefstroom (bottom).

23 An influential English Unitarian minister

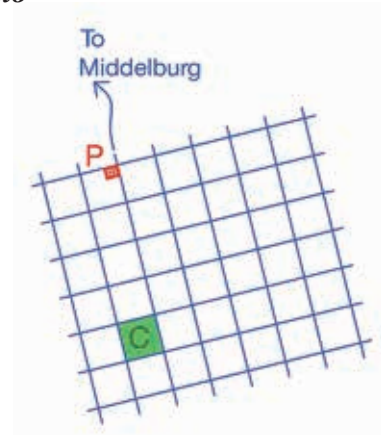
24 Mills, 1889: 160.



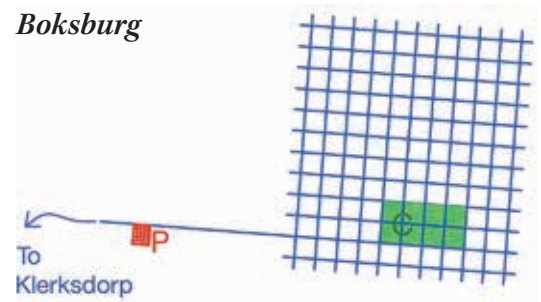
08.13 Officer's houses, Artillerie Street, Pretoria, designed by Klaas van Rijsse. A simple street of single-family villas, the corner house articulated with a turret.



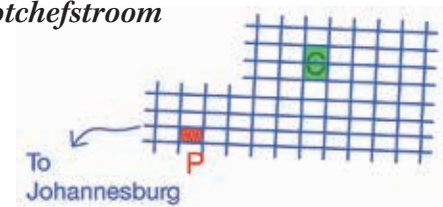
Ermelo



Boksburg



Potchefstroom



0 1km



Mills further remarked of the Leprosy ward that:

*... here I saw ten men who were lepers, afflicted with a frightful disease which I am thankful to believe does not exist in England. I saw a man lying in his cot who had been lingering for two years, his hands half rotted away, his eyesight utterly gone; he was hare-lipped, and his voice nothing but a hoarse whisper; but he told us, poor fellow, that he was a little better to-day.*²⁵

Are there similarities to be found between Veenhuizen and the Pretoria Leper Institution? Unfortunately no original site plans have been found to provide for a detailed comparison.²⁶ Yet similarities can be found. In Pretoria the main administration building guards over the entrance to a compound of barrack style houses, double-rows forming a short street, with clear place-making devices in use: the clearly bilaterally symmetrical and monumental nature of the main institution building with central turret as indication of its formal nature, the barrack-style accommodation in rows, each unit with an own front and back garden, and a central square, defined by flanking buildings (figure 08.17). A church²⁷ designed by the DPW, in this case known to be by the hand of Klaas van Rijsse²⁸ is a curious octagonal structure (figure 08.18), located at the entrance at the complex provided for the spiritual well-being of those so unfortunately infected. Its location in the institution, as well as its spatial positioning along the main entry clearly reflect the close association of Church and State in the ZAR, also clearly illustrated by the spatial praxis of the layout of Church Square. Seen in this spatial and programmatic context it can be concluded that this ZAR DPW church is clearly derived from the *Nederduitsch Hervormde Kerk*, or *Koepelkerk* (Domed Church, 1825–26) at Veenhuizen (figure 08.15). This octagonal protestant church, designed by H Wind, is located at the entrance to the complex and slightly removed

from the residences of the infected. The complexes at Veenhuizen utilise small squares as space structuring devices around which barrack type accommodation is provided. The clear resonance in the spatial planning of both institutions – the cultural associations aside – clearly is an indication that Veenhuizen (now inscribed on the Tentative List of the World Heritage List) served as precedent for the development of the ZAR DPW Leper Institution complex.

The site of the *Leprozeninrichting nabij Pretoria* continued to grow over time with accommodation, more churches and supporting facilities being added. It was abandoned towards the end of the C20 and is now severely neglected. The wider site has been earmarked as location for affordable housing development, but the future of this important complex remains unclear.



²⁵ Mills, 1889: 160.

²⁶ A specification for *Koelkamers en kerkengebouw by die Leprozengesticht naby Pretoria*, dated 1898 is listed in the ZAR DPW specifications register located in the National Archives in Pretoria, NASA, TAB, PWV 166(1).

²⁷ One of two churches known to have been designed by the ZAR DPW. The other was located at the *Staatsartillerie*. Its specification, dated 1897, is listed in the ZAR DPW specifications register located in the National Archives in Pretoria, NASA, TAB, PWV 166(1).

²⁸ Rex, 1953.

08.15 The Veenhuizen Koepelkerk by H Wind – precedent for the Westfort Church?



08.16 The Veenhuizen Colony, the Netherlands.

08.17 (Right) Westfort Leprosy Colony, *Leprozeninrichting nabij Pretoria*, an adapted 1947 aerial photograph. The approximate extent of the 1890s institution is indicated. Note the main building and octagonal church in the north-eastern administration precinct separate from the nurses' quarters, centered around a square in a north-western precinct.



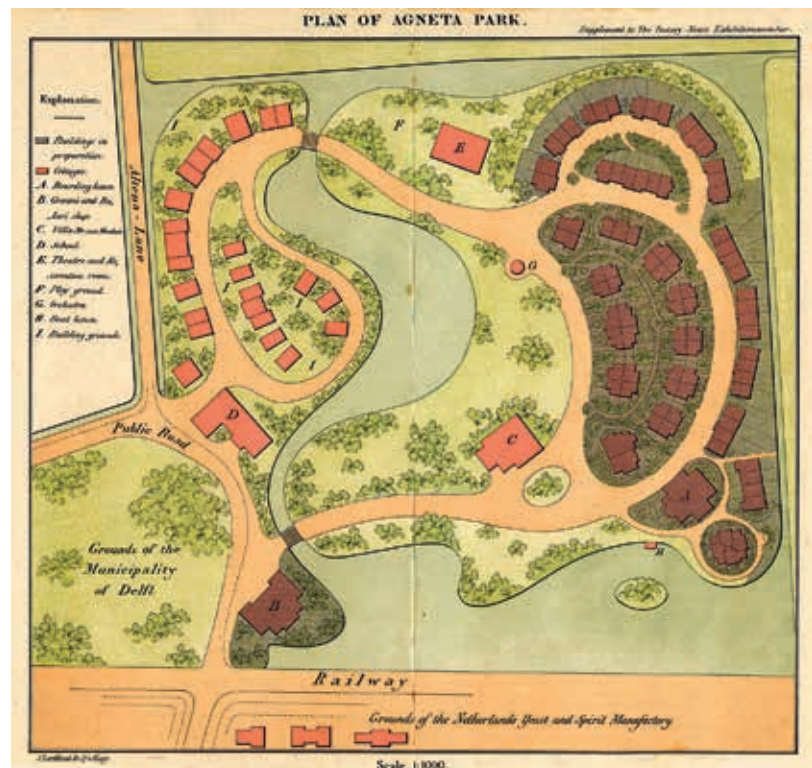
08.18 The Westfort Church (2014). Mostly intact; the façade having been refaced.



The NZASM – Unlocking the hinterland

The NZASM was faced with a vastly different project to that of the ZAR DPW, which included the housing of workers in new and existing towns and along its new trajectories. The planners of the NZASM also had to take cognisance of the impact of the placement of its stations on the future growth of existing towns.

We look again towards the Netherlands for the source of NZASM town planning where industrialisation was creating congestion in cities, leading to unhealthy living conditions.²⁹ The first planned industrial complex in the Netherlands, Nijverdal in Twente, was founded in 1836 as model cotton mill by English industrialist Thomas Ainsworth (1795–1841) and the *Nederlandsche Handel-Maatschappij* (Netherlands Trading Company). Housing was provided for the occupants. Each was provided with its own *moestuin* (vegetable garden) as Ainsworth thought it beneficial to the health of the workers to provide a link between their industrial occupations and agriculture.³⁰ This pre-occupation with the well-being of the working man led to the second and most famous of Dutch Industrial workers colonies – Agneta Park (figures 08.19 and 08.20) in Delft, master planned by LP Zocher with buildings designed for industrialist JC van Marken (1845–1906) by architect EH Gugel (1832–1905) and FML van Kerkhoff (1858–1909). Agneta Park is located 'outside' the historical city in a garden city and predates the publication of Ebenezer Howard's (1850–1928) 'Garden Cities of Tomorrow' (1898) by fourteen years. Construction started in 1883 and the project was completed a year later. The architecture of the cottages in itself is not exceptional and can be described as late C19 Dutch eclecticism with influences of the Flemish



08.19 Plan for Agneta Park by LP Zocher in collaboration with E Gugel and FML van Kerkhoff.

Renaissance Revival and the Chalet Style, with the ubiquitous *speklaag* (streaky bacon) coursing and decorated front gables. A variety of housing types were built, some stand-alone villas and a number of row house typologies. Following on the logic of Ainsworth, Van Marken provided each dwelling with its own hedged front garden. The design went one step further and located the whole complex in a lush English Landscape Style park. The exceptional character of the complex lies in this master plan and landscape design, the contribution of LP Zocher.

²⁹ The similarities between the Dutch responses to railways housing in South Africa and Indonesia have not yet been studied, and require further investigation.

³⁰ Lintsen *et al.*, 1995: 65.

08.20 Agneta Park, the first Dutch factory town.



³¹ Oldenburger-Ebers, 1991: 28.

³² Leupen, 1985: 249.

³³ Agneta Park is not the only of its kind, but it was a first in the Netherlands. Following in the tradition, the *Martha Stichting* (Martha Foundation) at Alphen aan de Rijn, constructed from 1895 onwards to house *onverzorgde* (neglected) children, consists of a large bilaterally symmetrical main building, facing onto parkland that contains a loose conglomeration of buildings.

³⁴ With thanks to Roger Fisher for the crystallization of this statement.

The 'colony' provided healthy living environments, away from the insalubrious old city with, its caf  s and other 'distractions'.³¹ The two lakes were intended to provide recreation for the inhabitants. Other amenities, a school, recreation building and a bakery were provided as well. The layout of the park, with its concentric walkways centred on the main water body and lawn (where the villa of Van Marken himself was constructed to a design by the first professor of the Delft Polytechnic, EH Gugel) indicate an enforced communalism where peer would keep watch over peer. The location of the Agneta Park compound and its association with Gugel, makes it likely that the engineers of the NZASM, such as Chief Engineer (1888–1893) W Verwey and a successor (1896–1900) C van der Made who both graduated from the Delft Polytechnic,³² brought memories of this project with them on their African sojourn. It would be the lessons of Agnetapark³³ that railways architect CB Posthumus Meyjes sr (1858–1922), designer of the exuberant

Flemish Renaissance Revival Delft Station (1884) would take when designing the second 'garden city' complex of the Netherlands, the Snouck van Loosen Park, constructed in the northern town Enkhuizen between 1895–1897 (figure 08.21 and 08.22). In both these project we find not only the ideals of the garden city, but also early explorations of the emergent ideals of the C20 Modern Movement in the Netherlands – *licht, lucht en ruimte* (light, air and space). The internalised layout of both complexes present a social programme where peer supervision is utilised to ensure proper social housekeeping and create a sense of community. Here creation of a picturesque ensemble, utilising the Chalet Style, follows from the English Arcadian ideal that ones own home is a picturesque personalisation and statement of 'belonging' in the 'landscape' – very much a concern of the rise of the individual in the C19 and their romantic notions of being cultivators rather than exploiters of their domain.³⁴

08.21 The Snouk van Loosenpark, c.1898. Note the central circular ensemble, arranged around a flag mast. Undated Postcard.



08.22 The Snouk van Loosenpark (2014). *Speklaag* and Chalet Style symmetrically designed duet houses.



The NZASM

Locations of stations

Topography was the main determinant in the location of stations, and these matters were compounded when the new rail had to be brought to a pre-existing town. The trajectories planned for railway lines also sought out the high ground and therefore stations were topographically located up-hill from town centres. Where possible, stations were strategically placed on the axis of existing streets leading up to them, but topography often overruled aesthetic considerations as in the case of the Pretoria Station where a station square acts as a spatial mediation between the unrelated geometries of street pattern and the station position. In certain instances such as Middelburg, planned urban growth was taken into account and the station complex located a kilometre out of town, as determined by the expediency of topography.³⁵

Housing

By the very nature of the territory of the NZASM endeavour it was inevitable that housing should form part of its built residue.³⁶ Yet the NZASM was a company with one aim: profit. We should therefore not expect it to aspire to the high ideals of the Snouck van Loosen Park and in general the NZASM housing at stations was constructed in straight rows, facing onto the NZASM tracks, sometimes two or three rows deep, creating small, grid-planned townships, almost always on the land-side (out of town) of the tracks which in turn acted as main street for the settlement.³⁷ This could have been a purely economical decision. The establishment of the railway station would lead to a rise in market prices for land between the station and the town; locating the housing on the 'wrong side' of the tracks would be more economically beneficial for the company. However there could also have been an aspect of social control intended with the employees housed in such close quarters, away from the distractions of the towns, the tracks acting as social boundaries. Yet even this was not always feasible and where individual gangers' cottages were located in the middle of the wilderness, these were always parallel to the tracks – the lifeline to civilization and constant reminder of duty. A photo (figure 08.24) paints an endearing picture of such a cottage in the veldt – the inhabitants having gone to painstaking efforts to create order out of their fenced patch of veldt.

The main centres of the NZASM, Pretoria and Waterval-Boven received somewhat more attention regarding the design of their housing compounds with an open 'green' space at the centre of both.

NZASM Court

The layout of the housing complex constructed by the NZASM in Pretoria, its headquarters, is anomalous within the larger body of housing provision. When the NZASM arrived the section of town known as Salvokop had already been surveyed and streets laid out by 1892, aligning it with that of the city, with a *spoorweg emplacement* (railways grounds) located to the west. Instead of continuing the logic of the predetermined grid, NZASM planners provided a totally different off-grid design: houses centred around two circular open spaces – one being a sports field (including provision for the newest fad: a cycle track); the second an oval

08.23 (Top) NZASM Court, c.1890 with in the right mid-field the fenced sports field.

08.24 (Center) Cottage of NZASM personnel in an unidentified location in the ZAR. c.1896. Note the well manicured formal garden with circular walk – a stark contrast to its environment.

08.25 (Bottom) Waterval-Boven, the NZASM headquarters during construction across the central park. Note the flattened section of earth: preparations for a ball-game court or skittles alley?



35 De Jong, *et al*, 1988: 125.

36 The design of the dwellings themselves are discussed in the Chapter 6 *The Genesis and Development of Type*.

37 An exception occurs at Middelburg, Mpumalanga where three double-cottages were located along the main street leading to the station precinct. Bearing in mind that the station was located far out of town, in accordance with a planned urban extension. It might be that these cottages built here to encourage growth (see Chapter 6, figure 06.59).

38 It is interesting to note that the Wilhelmine Kolmanskop Settlement in Namibia also had a ten-pin alley; still extant, if slowly being covered in dune sand.

39 A system quite extensively employed on Dutch Railway lines in Indonesia as well from 1889 onwards and was still in use today in for instance the Anei Gorge on Sumatra Island in 1976. Oegema, 1982: 152–175.

08.26 NZASM Houses, Standerton, Mpumalanga, located on the 'land-side' of the tracks.



court around which houses were clustered with at its centre a water well. The housing of the NZASM all had individual fenced off front gardens very much like the Nijverdal houses with their vegetable gardens around a commons, having at its centre the communal well. The compound also had provision for a school for employees' children, a skittles alley and shooting gallery (figure 08.23).³⁸ The layout and principles of the compound, while rigidly geometrical, reminds strongly of the Agneta Park compound of Van Marken and the slightly later Snouck van Loosen Park. All have a similar centralised layout; Snouck van Loosen Park centred on a flag mast. They are all structured to create an enforced communality focussed on an outdoor space intended for continual recreational – and in the case of NZASM Court, functional – use. In larger NZASM settlements, as far as these have been recorded, black workers were housed in separate areas, in the case of Pretoria, in a long barrack that, incidentally, included a church.

Waterval-Boven

At Waterval-Boven the NZASM created a whole new town and it comes as no surprise that this too was centred around a park. Here, on the undulating highlands of the escarpment, the Highveld section of the eastern line terminated, wagons drawn down a steep rack-rail³⁹ to the Lowveld and onwards. This terminal necessitated a large infrastructure, which in turn required employees who needed to be housed. The Waterval-Boven town was laid out above the railway lines even though the land below the station was also vacant. This positioned the station in sight of all front doors of all dwellings and with a consequence, intentional or not, that for the inhabitants of the houses it was a downhill walk to work, even though it was possible, and even easier, to build in the flatter valley below. Here the unknown designer in the NZASM drawing office elected for a typical rational

grid layout, adjusted to accommodate the topography, especially with regards the access route to the station, which had to be designed to an incline that loaded wagons could navigate. The central park was bordered by the NZASM office building and defined by streets, creating a spatial order in the veldt. The park provided recreation opportunities, serving the same social function as the ponds of Agneta Park. While spatially similar to Boer town layouts, the park did not provide the location for the church or commercial activities – these were integrated into the streets surrounding the park – but catered for festivities, *balspel* and other communal sports. The railway remained the main arterial of the town and the main space for engagement just as with the small NZASM housing settlements along the NZASM lines. The town plan centred all activity in the town around the reason for its existence: the hauling of goods up and down the steep escarpment.

Epilogue

Today Burgers' Park retains its original layout (figures 08.08 and 08.09), but after more than a century of change, the planting presents a much more formal appearance that would be associated with the Dutch English Landscape tradition. Yet other Dutch associations remain to remind us of the origins of this unique landscape.

For the many Dutch immigrants in the former Transvaal Republic, the coronation of Queen Wilhelmina (1880–1962) in 1898 was an important event and, keeping with the Dutch tradition of planting trees on important occasions the first Wilhelmina tree was planted on 31 August of that year, fenced with a wrought-iron trellis manufactured and donated by the NZASM. It was an orange tree, symbolic of the House of Orange. This first tree was replaced in the 1920s by a *naartjie* (mandarin) tree. In 1986 a new orange tree was ceremonially planted to replace the *naartjie* tree and the NZASM-made fence restored. With the demolition of the Van Rijsse designed House Kleyn the garden gates manufactured by the FW Braat foundry in Delft were relocated to the south-eastern entrance of the park, enriching the already strong associations of shared South-African Dutch heritage.

But the legacy does not only lie in a single park. The cultural and inhabited landscape of the territory of the former Transvaal was, in many cases, determined by the NZASM whose stations and crossings founded towns like Nelspruit, Kaapschehoop and Komatipoort. The legacy also lies in the small-town incisions and monumental urban ensembles of the ZAR DPW that still define the hearts of Pretoria and Johannesburg. It was here, in the African landscape, that these Dutch architects with their Wilhelmiens architecture were able to achieve a monumental ideal not possible in the restrictive environments of their country of origin.