A cartographical history of Pretoria

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ABSTRACT

This paper deals with the cartographical portrayal of Pretoria and its environs over the past 150 years. Apart from showing the evolution and growth of the settlement, attention is given to the fact that maps of the same place, mapped at different times by different people under different circumstances, often communicate different messages or signals to their readers. The latter refers to the style of the map which could, in some cases, convince the map user that the map is accurate, objective and value-free. In other cases, the map could be interpreted as a cultural symbol which communicates the underlying values, attitudes and principles on which the society responsible for producing the map is founded.

Keywords: Pretoria; survey; map; cartography; cultural symbol; semiosis.

Introduction

The enduring intimate relationship between a map and the landscape it portrays is evident from one of the most traditional and frequently used definitions of a map. According to this definition, a map is a generalised and reduced representation of a portion of the curved surface of the earth onto a flat surface or plane (Robinson *et al*. 1995:9). Phrased differently, one could say that a map image is a structured cartographic representation of selected spatial information (Johnston 1994:355). If the map in question is a historical map, that is a map made at some instance in the past, much could be learnt from the prevailing interrelationships between the physical and cultural features of that specific landscape. Likewise, the analysis of a sequence of maps of the same landscape, made over time, could reveal much of the unfolding history of the place or site which might otherwise be difficult to observe. Historical maps, like historical books and prints, form part of a nation's cultural heritage and should be treated and preserved as such. They comprise a rich mine of factual data, form a basic guide to the changing face of a country, and are often works of art in their own right.

This article deals with the cartographical portrayal of the city of Pretoria and its immediate environs since the inception of the town in the 1850s. Apart from showing the evolution and growth of the settlement, attention is also given to the phenomenon that a map, any map, is not necessarily objective and value-free, but should in fact be regarded as a cultural symbol of the landscape it portrays (Harley 1991; Wood 1993). In everyday life this manifests as the phenomenon that maps created of the same place, mapped at different times by different people under different circumstances, often send out different messages or signals to the reader.

Establishing the town of Pretoria

The history of the establishment of Pretoria has been dealt with by a number of authors (Engelbrecht *et al*. 1952; Rex 1960; Andrews & Ploeger 1989; Allen 2007). These narratives are not of exceptional relevance to a paper which attempts to analyse the way in which the settlement has been mapped over time. However, for a map reader confronted with the present-day Pretoria, to form a realistic mental picture of what the original nineteenth-century settlement looked like, it would be helpful to note some of the facts regarding the growth of this settlement from a so-called church farm to a modern city.

The original inhabitants of the Pretoria environment were the Bakwena, a western Sotho people. By the mid-nineteenth century, most of them had been driven out of the area by the powerful Khumalo chief Mzilikazi who founded the Matabele kingdom and ruled over a large area north and south of the Vaal River.

The Great Trek got underway in 1835, and by 1852 four fledgling towns in the Transvaal had been founded: Potchefstroom, Rustenburg, Lydenburg and Zoutpansberg. The long distances between these settlements from early on necessitated the establishment of a central town which could serve as a hub for governmental, religious and social activities. As different groups of frontier farmers preferred such a central domicile to be situated within easy reach from where they lived, it took a long time before a unanimous decision on the location of a central town could be reached. It was only in 1853, after Rev Dirk van der Hoff from the Nederduitsch Hervormde Church had arrived in the Transvaal as its first and only minister, and after MW Pretorius officially succeeded his father, the Voortrekker leader Andries Pretorius as Commandant-General, that some progress in this respect was made (Rex 1960:35-48).

On 23 August 1853, MW Pretorius wrote to the Volksraad which had assembled in Lydenburg that he had inspected the farms of JJP Prinsloo and A van der Walt on the Apies River south of the Magaliesberg and found these properties not only centrally situated, but also possessing sufficient level ground and adequate water to lay out a large town.[1] The farms Pretorius referred to were Elandspoort and Daspoort which had belonged to A van der Walt and JJP Prinsloo respectively, but were bought from them by Pretorius for 8 000 Rix-dollars.

In 1854, the Third General Meeting of the Nederduitsch Hervormde Church under the chairmanship of Rev Dirk van der Hoff convened in Rustenburg and decided to establish a new Nederduitsch Hervormde congregation on the farm Elandspoort, now the property of President MW Pretorius. They also decided to commence with the building of a church at Elandspoort on a piece of land earmarked for this purpose by Pretorius.

In 1854 the Volksraad sanctioned this decision and the new congregation was christened Pretoria-Philadelphia in memory of M W Pretorius' father, the Voortrekker leader AWJ Pretorius. When the Volksraad convened in Potchefstroom in 1855, further progress was made when it also approved the establishment of a new town on the farm Elandspoort. The name Pretoria-Philadelphia was rejected in favour of Pretoria, and the plot where the church was built, was to become the centre of the new town (see Figure 1). The church was inaugurated in 1857, but burnt down in 1882 to be replaced by a Victorian Gothic structure (see Figure 2), which was again demolished in 1905.

Early town plans

The first map, or rather plan, of Pretoria took shape in 1857-1858 when Andries Francois du Toit, who was also the first magistrate of Pretoria, was commissioned by President Pretorius to survey the town and measure erven which would be put up for sale. Using a chain and a ship's telescope as his only instruments (DSAB III:252), Du Toit successfully surveyed the enlarged town of Pretoria with Church Square as its centre and Scheiding, Schubart, Boom and Du Toit Streets as its boundaries. A total of 622 erven were surveyed and measured and sold to the public for £4 each. The erven were sold with full water rights for irrigation purposes and the right to graze up to 33 head of cattle on the town lands for each erf holder. As payment, Du Toit was allowed to survey his own piece of land, which included the present-day suburb of Arcadia, into 82 erven which he sold for his own account. As proof of his work, Du Toit prepared a map of Pretoria[2] depicting all erven and the unique numbers allocated to them. In 1858 he added another 108 erven to his map which he indicated with the block letters A-L and K-T (Aucamp 1974a:29-42).

1. SA Archival Records (Tvl.) 2: 445, VR 310/53. The original Dutch phrase reads: '… zoo heb ik gevonden den plaats van den Heer JJP Prensloo [sic] en A van der Walt boven aan Apiesrivier, voor een der geschikste plaatsen tot dien einde, om rede het in het midden legge, en ook bekwaam gelegen voor een stad te bouwe, groote en uitgestrecte bouw grond en water.'

2. Archives of the Tshwane City Library, Sammy Marks Square, Pretoria. Plan van het dorp Pretoria , dated 2 March 1859.

FIGURE **Nº 1** ‹

Market Square (later Church Square) with the first Nederduitsch Hervormde Church (Photo: Transvaal Archives Repository).

FIGURE **Nº 2** ‹

The second Nederduitsch Hervormde Church which was demolished in 1902. (Photo: Transvaal Archives Repository).
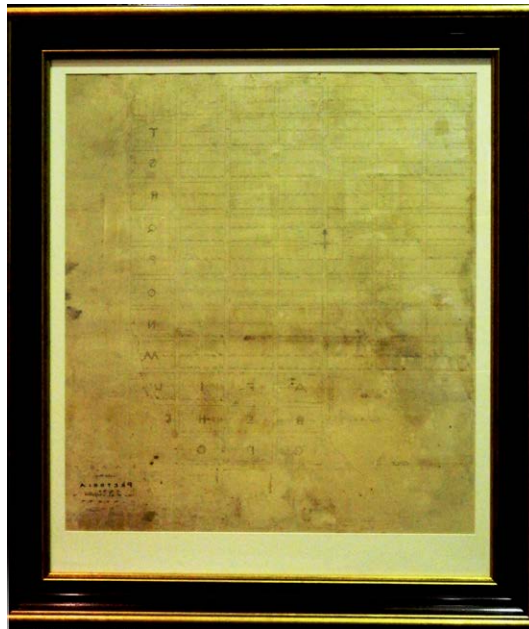
FIGURE **Nº 3**

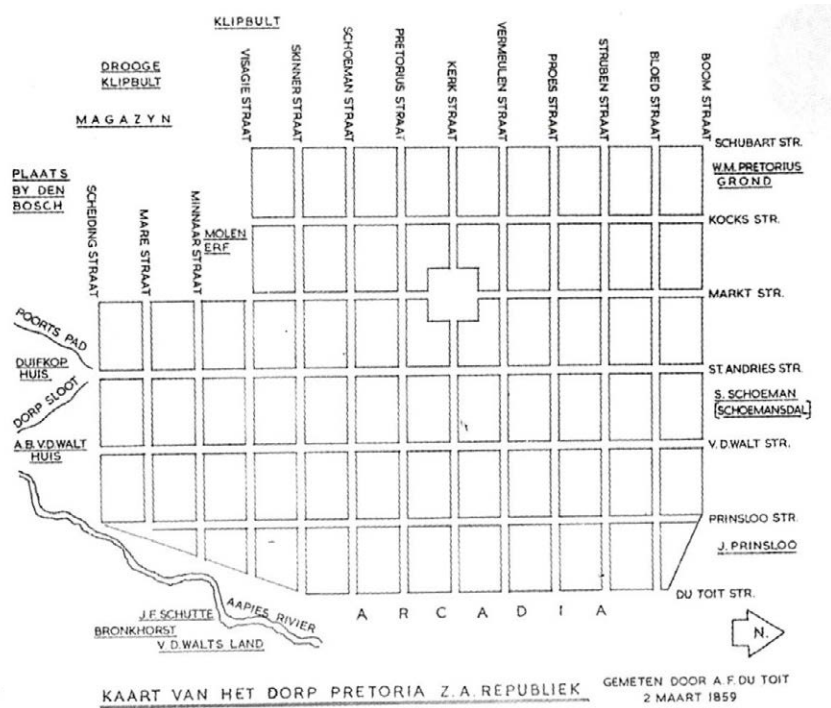First map of Pretoria, drawn by AF du Toit

FIGURE **Nº 4**

A present-day representation of Du Toit's map.

After 1860, Pretoria steadily developed into a functional town, but by 1870 had to be resurveyed and all erven renumbered owing to problems that had cropped up as a result of uncertainty regarding the exact boundaries of erven. The task of resurveying the town was given to Surveyor AH Walker, who compiled a new map of Pretoria[3] in 1875 (see Figures 7 and 8) and completed the resurvey in 1877 (Aucamp 1974b:46-50). Additional farmland had been purchased to make provision for development and new erven were measured by Walker and added to all four sides of Du Toit's original plan. Provision was also made for a third square, namely Pretorius Square (the other two being Church and Market Squares) in front of the City Hall. According to the 1876 census, Pretoria had at this stage a population of 1,040 able-bodied burgers of whom 193 resided in the town itself.

An interesting plan of Pretoria[4] indicating the layout of the town during the last decade of the nineteenth century was compiled by Gustav Aldolph Troye, a German surveyor and cartographer who had settled in the Transvaal in 1877. Troye was employed in the Office of the Transvaal Surveyor General in Pretoria from 1884 until 1889, but later moved to the Barnato Group's Department of Mining Surveys in Johannesburg. The date of his plan (see Figure 9) is unknown, as is the function it fulfilled in this instance where different parts of the town were colour-coded. The printed background information in black is, however, highly informative as it not only indicates the names of suburbs and streets, but also the names of the land owners to which the land adjacent to existing townlands belonged, as well as a list of the town's principal businesses. Attached to a service contract dated 1895, the plan clearly illustrates the development of Pretoria away from the centre towards the suburbs of Trevenna and Sunnyside in the southeast.

An important town plan of Pretoria,[5] of which the original is unfortunately reported missing by the Transvaal Archives Repository,[6] was a map compiled in 1889 by two Dutch government officials who were in the employment of the Zuid-Afrikaansche Republiek (ZAR) Department of Mines, namely J van Vooren and JH Oerder. Their map was more elaborate than that of Troye's in that it also depicted the suburbs of Arcadia and Bryntirion on the slope of Meintjies Kop north of Church Street (see Figure 10).

GA von Wielligh was appointed Surveyor-General of the Transvaal in 1884, and during his tenure he published an attractive town plan of Pretoria,[7] which provides an excellent picture of the structure of the town in the decade prior to the South African War. North of Meintjies Kop the suburb of Villiera had taken shape, and at the lower end of the map, erven had been laid out on the northern slope of Muckleneuk Ridge.

3. Surveyor General's Office (Gauteng). Map M63. Plan van het dorp Pretoria, gemeten voor de Gouv. door my, Arthur H Walker, Maart 1875.

4. Transvaal Archives Repository (here-after TAR). Map 2/23. *Plan of Pretoria and Suburbs* by GA Troye, late Surveyor-General's Department. Printed at the Government Printing Works, Pretoria. One graphic scale, 1 inch to 30 miles. Size: 40 x 48.5 cm.

5. *Kaart van Pretoria, ZAR vervaardigd door J van Vooren en JH Oerder*, 1889 as published in Engelbrecht *et al.* (1952).

6. Personal communication from Mr Dan Moyana, Client Services, SA National Archives, Pretoria. 15 October 2014.

7. TAR, Map 2/98. *Plan van Pretoria. Voorsteden en Omliggende Gronden.* Gecompileerd en Lithografeerd ten Kantore van den Landmeter Generaal. ZAR. GR von Wielligh, Landmeter Generaal. Scale 600 Cape feet equals 1 inch. Size: 62 x 97 cm.
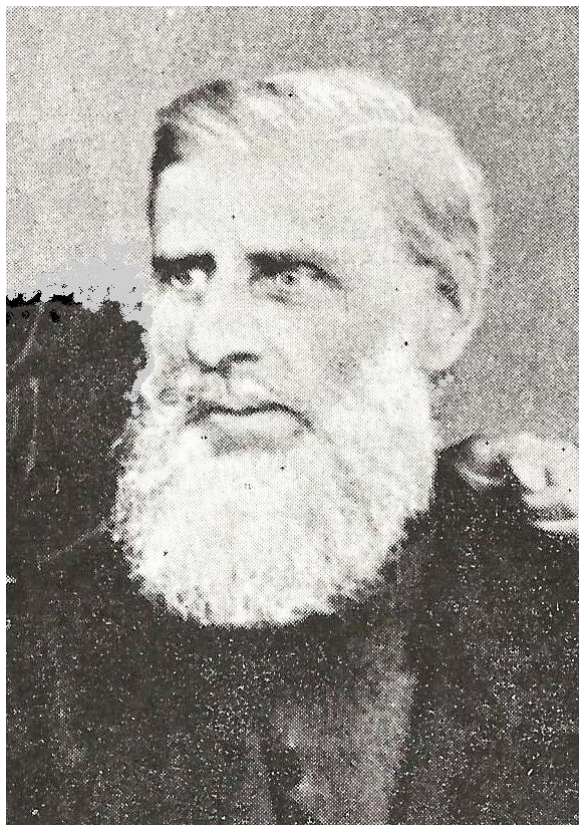
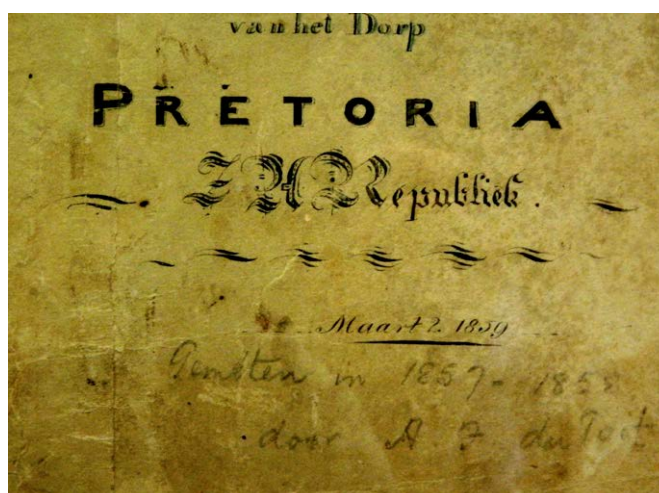FIGURE **Nº 5** ‹

AF du Toit (1813 -1883).

FIGURE **Nº 6** ‹

Detail on Du Toit's map dated 2 March 1859.

8. TAR, Map 2/10. *Compass Sketch Plan of Pretoria, Transvaal.* Compiled in the RE Office, Pretoria, 14.11.79. Lithographed at the Intelligence Branch, Quarter Master General's Department, Horse Guards, March 1880. Scale 1 : 15 840 or 4 inches to 1 mile. Size 59 x 50 cm.

9. IDWO 1438, untitled. Heliozinco-graphed at the Ordnance Survey Office, Southampton, 1899. Scale 1 : 42 240 or 1 inch to .66 of a mile. Size: 60 x 87 cm. In Britain, the Intelligence Department of the War Office (IDWO) was responsible for the mapping of all overseas areas and colonies. From 1880 onwards, all maps of overseas areas were numbered in the sequence in which they were issued, and designated IDWO, followed by an unique number. This system changed in February 1904 when the Directorate for Military Operations was formed as a branch of the Department of the Chief of the General Staff after which all new maps bore the serial number TSGS (Top-ographical Section, General Staff). In April 1907, the Topographical Section was renamed Geographical Section, after which all maps of foreign areas were des-ignated GSGS (Geographical Section, General Staff). Maps printed and issued in South Africa by the Field Intelligence Department during the South African War, were designated FID.

10. IDWO 1478. *Pretoria and surrounding country.* May 1900. Scale 1 : 63 360. Size 92 x 62 cm.

11. Jeppe, F and Jeppe, CFW. 1899. *Jeppe's Map of the Transvaal or South African Republic and surrounding terri-tories.* Scale 1 : 476 000. London: Edward Stanford. Size 6 sheets, each 65 x 63 cm.

The annexation of the Transvaal by Britain in 1877, as well as the discovery of gold in the eastern Transvaal and on the Witwatersrand, profoundly influenced the cartography of the region as maps were henceforth also produced by the British military. One of the first military maps of the Transvaal to be published by the British War Office was a map of Pretoria *indicating south at the top* (see Figure 12).[8]

The map was compiled in November 1879 at the Royal Engineer's Office in Pretoria and lithographed at the Intelligence Division, Horse Guards, London. Drawn shortly after Walker's resurvey, the Apies River still forms the eastern boundary of the settlement.

The period immediately before the South African War was characterised by intensive efforts by Britain to collect as much intelligence on the Transvaal as possible. Map IDWO 1438[9] of Pretoria and its immediate environs, which was published in 1899 (see Figure 13), gives a schematic representation of various military features both inside and on the outskirts of the town. Examples are the tram route from the main railway station to Sunnyside; the location of the Powder Magazine, a hill (Struben Kop?) marked Commands Klapperkop Ft. approachable by artillery from North side, as well as the location of the four military Forts surrounding Pretoria, Klapperkop Fort, Schanzkop (*sic*) Fort, Daspoort Fort and Wonderboom Fort (the last two forts are not included in Figure 13).

Map IDWO 1478 of Pretoria[10] and its environs, which was published in May 1900 (see Figure 14), is an excellent example of British military cartography and depicts a variety of important topographical features. New suburbs which appear on the map are Muckleneuk and New Muckleneuk to the southeast, Villiera to the northeast, Eloffsdal, Les Marais, Mayville and Roseville to the north, and Hermanstad on the north-western side of the town.

Friedrich Jeppe, who was at one stage Postmaster-General of the South African Republic, was a pioneer cartographer who produced a number of maps of the Transvaal. His map of 1899 contains a detailed inset map of Pretoria,[11] which is considered the most accurate map of the town at the turn of the century (see Figure 15). Working in the Office of the Surveyor-General of the ZAR, Jeppe had access to all the title deeds and survey diagrams pertaining to Pretoria and the growth of the settlement towards the east and west are particularly obvious. On the north-western side of the town locations for the settlement of Indians and Blacks are indicated.
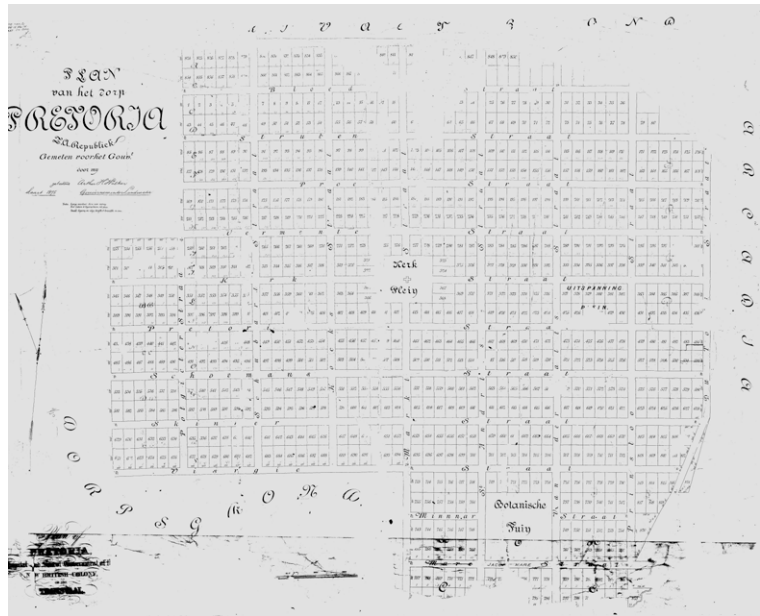
FIGURE **Nº 7** 〈

Plan of het dorp Pretoria, by AH Walker, 1875.

FIGURE **Nº 8** 〈

Arthur H Walker.

Nineteenth-century maps depicting Pretoria as capital of the ZAR

Henry Hall's map of 1857

The first printed map on which the name Pretoria (albeit on the wrong side of the Magaliesberg) appeared, was the 1857 map of South Africa[12] drawn by the pioneer cartographer Henry Hall (see Figures 16 and 17). Hall came to the Cape in 1842 as a draughtsman in the Royal Engineers' Department. He served on the Eastern Frontier during the Frontier Wars of 1846 and 1851-1852, first in Grahamstown and later in Fort Beaufort before moving to Cape Town. As reliable geographical information on the Transvaal was still scant, Hall's positioning of towns such as Pretoria, Lydenburg and Ohrigstad, as well as his delineation of the main river systems, are located too far to the north, and too far to the east. What renders this map all the more interesting, is that it was the first map to be printed in South Africa, and one of the earliest cartographical documents to include the newly-found Boer Republics of the Orange Free State (founded 1854) and the Transvaal or South African Republic (founded 1852). Hall also depicted the routes followed by mid-nineteenth century explorers such as Harris (1836), Chapman (1854), CJ Andersson (1853), Livingstone (1853 and 1856), and Moffat and Edwards (1854), which extended the mapped area into the vast unknown part of south-central Africa north of 20° South.

Jeppe's and Merensky's map of 1868

This map[13] occupies a unique position within South African cartography as it was the first map of the Transvaal ever to be published in an international scientific journal (see Figure 18). Although in English, it appeared in 1868 in *Petermann's Geographische Mitteilungen*, the leading German geographical periodical of the time. In 1867, Friedrich Jeppe was appointed Postmaster of Potchefstroom, and at the end of that year he became Postmaster-General of the South African Republic. Alexander Merensky, who came to South Africa in 1858, was a pioneer missionary of the Berlin Missionary. They were both acquainted with the German explorer and geologist Karl Mauch who undertook extensive geological exploration and cartographical surveys in the Transvaal, Swaziland, Mozambique and the present Zimbabwe, and who is credited with discovering the Zimbabwe ruins (Burke 1969:263-269). The compilation of the 1868 map was originally commenced by Mauch, but was later continued by Jeppe and Merensky who presumably wanted to create a map which could serve as symbol of the new Transvaal state and its

12. Hall, Henry. 1857. *South Africa, compiled from all the available official authorities in the Survr. Genl . & Royal Engineer Offices Cape of Good Hope & numerous contributions by ... most respectfully dedicated to His Excellency, Sir George Grey, KCB,* by Henry Hall, RED. Engraved and printed by JA Crew, 8 Short-market Street, Cape Town. Size: 82 x 70 cm.

13. Jeppe, F and Merensky, A. 1868. *Original map of the Transvaal or South African Republic*. Scale 1 : 1 850 000. Gotha: Justus Perthes. Size 59 x 46 cm.

situation in relation to other communities in southern Africa (Carruthers 2003). They probably also wanted to report to an international community on the geological explorations and cartographical contributions made by Germans in the ZAR.

British military maps

The discovery of rich gold deposits in the Transvaal during the 1870s and 1880s strengthened the British government's ideal to establish a confederation of states in southern Africa that would create a settled environment for greater economic integration and progress, and would enable the region to bear the costs of its own centralised and streamlined administration. The two Boer Republics (Transvaal and the Orange Free State), who were bitterly opposed to British supremacy, denounced this idea and declared themselves willing to revert to armed resistance to protect their independence. Two wars emanated from this clash of ideologies – the so-called First Boer War or Boer Rebellion of 1880-1881, and the Second Boer War or South African War of 1899-1902. Although most of the military action during the First Boer War took place in northern Natal at the Battles of Laiing's Nek (28 January 1881) and Amajuba (27 February 1881), the area around Pretoria was considered sufficiently important to also be mapped (see Figure 20).[14] Situated on the crossroad of the north-south and east-west waggon routes, the town of Pretoria is surrounded by the names of farm owners whose surnames act here as toponyms.

At the advent of the South African War (1899-1902), the two Boer republics were virtually unmapped and the Boers had no systematic mapping programme to support their strategy. The main reasons for this was that the average Boer was intimately acquainted with the topography of the country and, additionally, that the Boer forces had no military tradition of strategic planning with the aid of maps.

The British forces, on the other hand, knew the value of maps for military purposes, but were at a disadvantage in that they had no available maps, were unfamiliar with the terrain, and had to fight in an unknown country twice the size of France. By 1899, the available maps of southern Africa in the War Office were incomplete and unreliable as the Transvaal and Orange Free State had never been surveyed, and no maps were in existence except inaccurate compilations of rough farm surveys (Royal Commission, *Report of HM Commissioners* … 1903:160). The reasons for this situation were twofold. In the first instance the Imperial Government had always regarded the surveying and mapping of its self-governing colonies as a domestic matter to be catered for by the colonial governments themselves. The colonies were expected to finance their surveys out of current revenue and to produce their own maps. The fact that many survey departments were ill-provisioned and

14.   IDWO 11. *Part of the Transvaal embracing the country between Pretoria, Standerton, Rustenburg and Potchefstroom,* March 1881. Scale 1 : 633 600 or 10 miles to 1 inch. Size 29 x 35 cm.
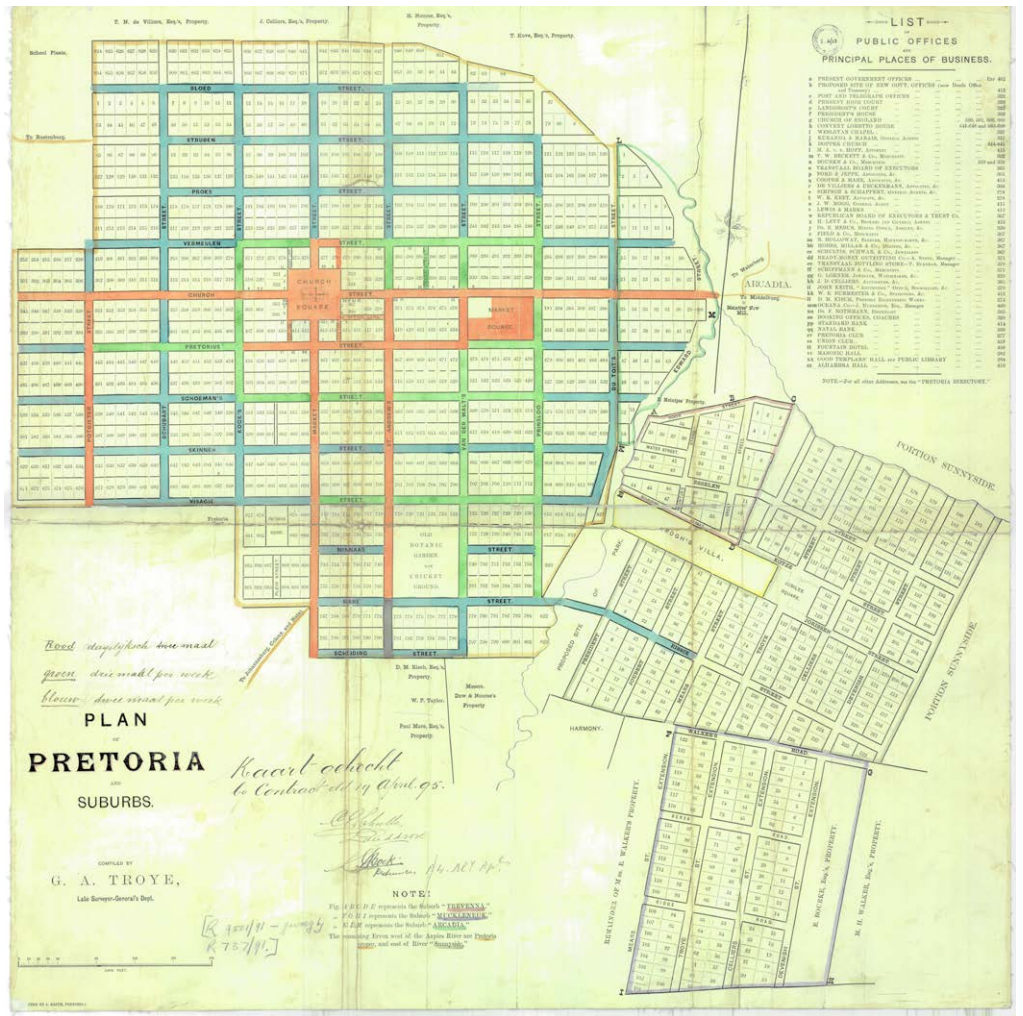
FIGURE **Nº 9**
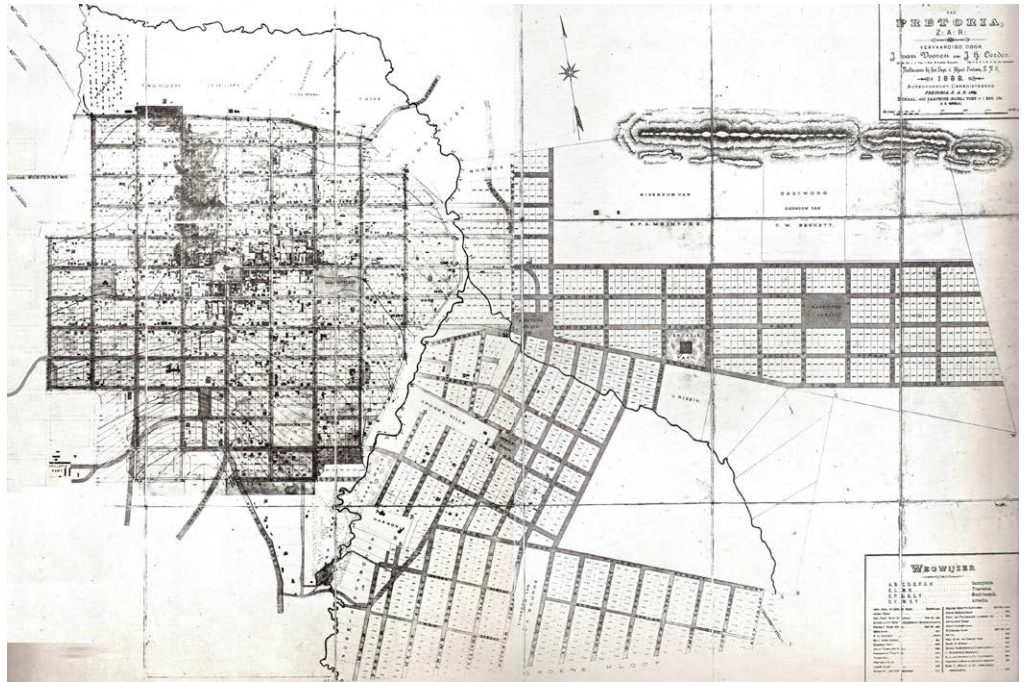
Plan of Pretoria by GA Troye, ca. 1890.

FIGURE **Nº 10**

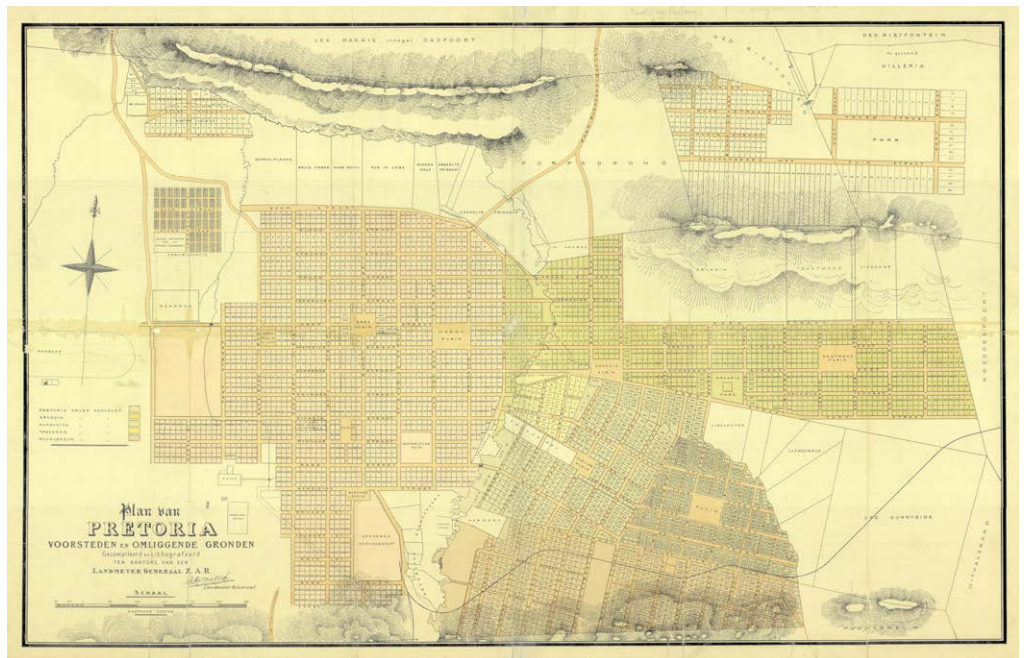*Kaart van Pretoria,* ZAR by J van Vooren en JH Oerder, 1889.

FIGURE **Nº 11**

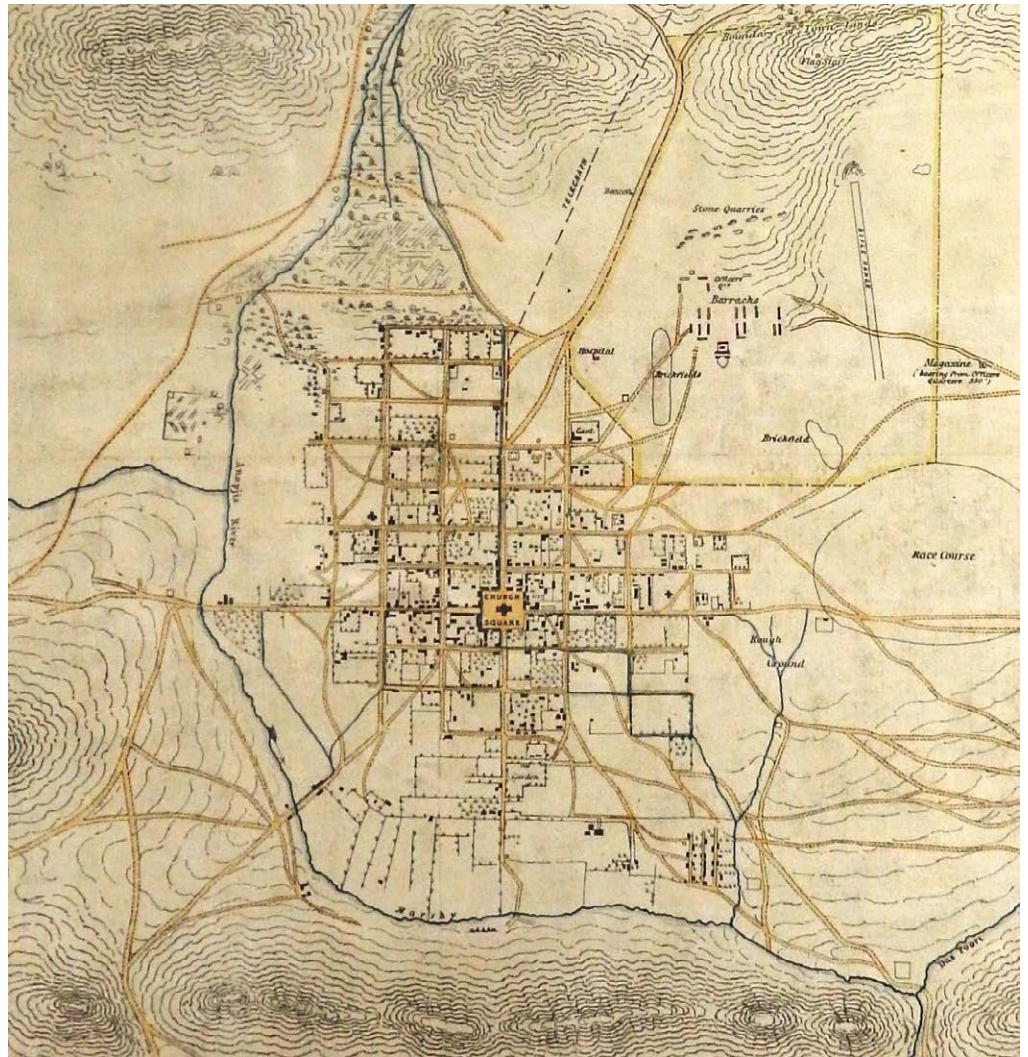*Plan of Pretoria,* by GR von Wielligh, ca 1890.

FIGURE **Nº 12** <

Excerpt of a military map of Pretoria, 1879. An unusual feature of this map is that it indicates *south* at the top end.

understaffed, and that colonies did not regard detailed topographical maps for military purposes a necessity in the earlier stages of their development, were not taken into account (Amery 1909:350). The second reason was that in the years prior to the War the British Intelligence Service was poorly structured, understaffed and insufficiently funded (Fergusson 1984:112-120). In later years, Sir Charles Close, who headed a survey section during the Boer War and later became Director General of the Ordnance Survey, commented as follows on this situation: '… it is rather a severe commentary on our methods in those days, or rather on the methods imposed on us by financial authority, that we should have had to fight in an unmapped South Africa' (Close 1933:5).
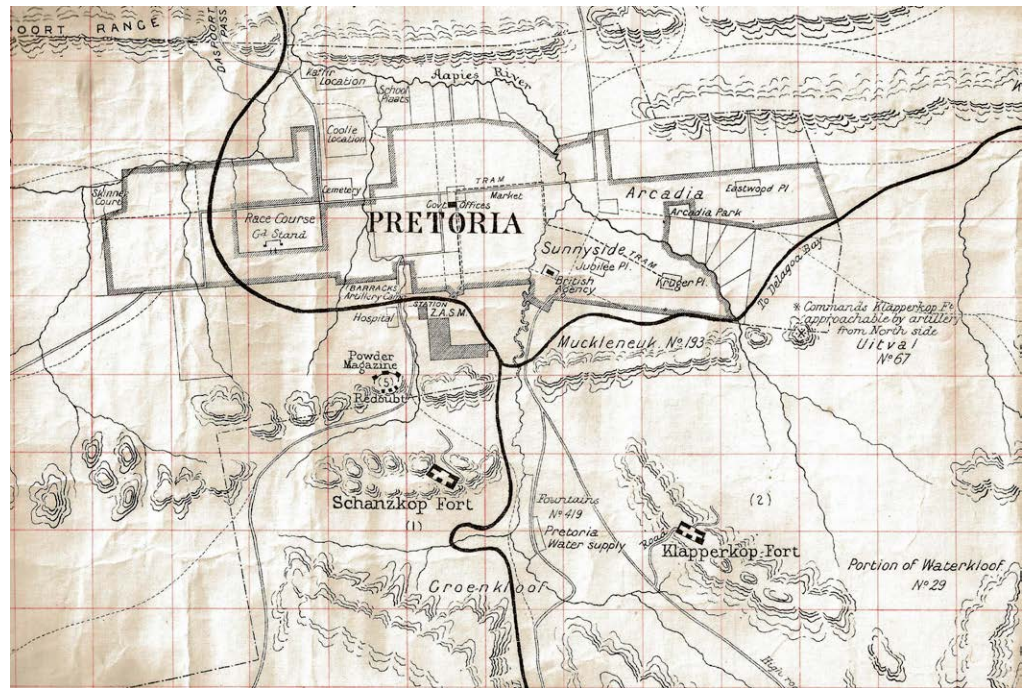
FIGURE **Nº 13**

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Excerpt from IDWO 1438 of Pretoria and its environment, 1899.

15. IDWO 1367. *Transvaal and Orange Free State.* Scale 1 : 250 000. 28 sheets. Each 44 x 58 cm. Heliozincographed at the Ordnance Survey office, Southampton, 1899-1900.

16. FID. 1899-1902. *Imperial Map of South Africa*. Scale 1 : 250 000. 66 sheets, each 47 x 62 cm. Pretoria and Cape Town: Field Intelligence Department.

17. FID. 1901-1904. *Major Jackson's Transvaal and Natal Series*. Scale 1 : 148 752. 74 sheets of variable size, most 50 x 60 cm. Pretoria: Field Intelligence Department.

Prior to the War, the best the British War Office could do was to collect as much topographical information on the Transvaal and Orange Free State as possible and to make this information accessible in mapped form (Royal Commission, *Report of HM Commissioners* …1903:160). Figure 21 shows the Pretoria sheet of a pre-war British map series[15] which covered the Transvaal and the Orange Free State. It was put together from various sources such as existing maps, the information contained in reports, reconnaissance sketches of officers who had been sent to South Africa prior to the War, plans supplied by local surveyors, as well as the oral accounts of travellers and transport drivers. The maps were sketchy and inaccurate and it is questionable whether they were ever used for strategic purposes (Close 1933:5).

Once the War was underway and the Orange Free State and the Transvaal occupied by British forces, two types of military maps were in use, namely compilation maps and conventional survey maps. Figures 22 and 23 are examples of the Pretoria sheets of two series of compilation maps which were compiled by fitting together the title diagrams of farms filed in the Offices of the Surveyors-General like the pieces of a jigsaw puzzle. Figure 22 is an example of the *Imperial Map of South Africa*,[16] and Figure 23 of the *Major Jackson's Series of the Transvaal and Natal*.[17]
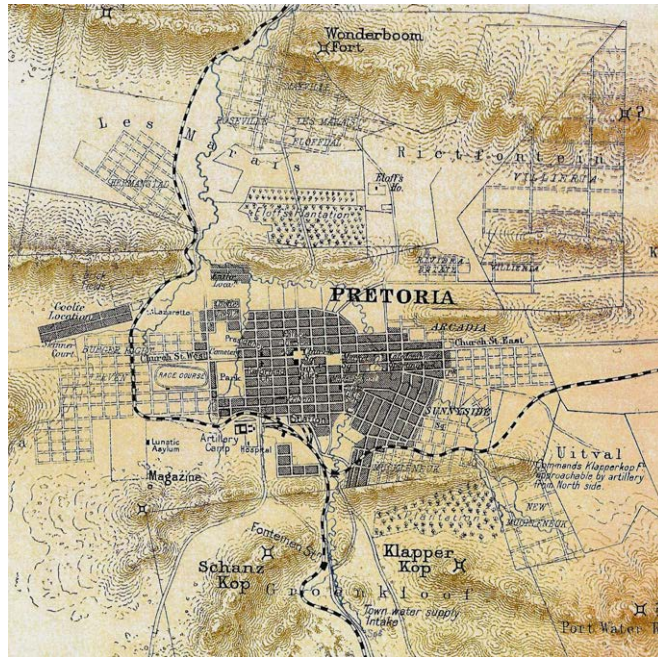
FIGURE **Nº 14**

Excerpt from IDWO 1478, *Pretoria and Surrounding Country*, 1900.
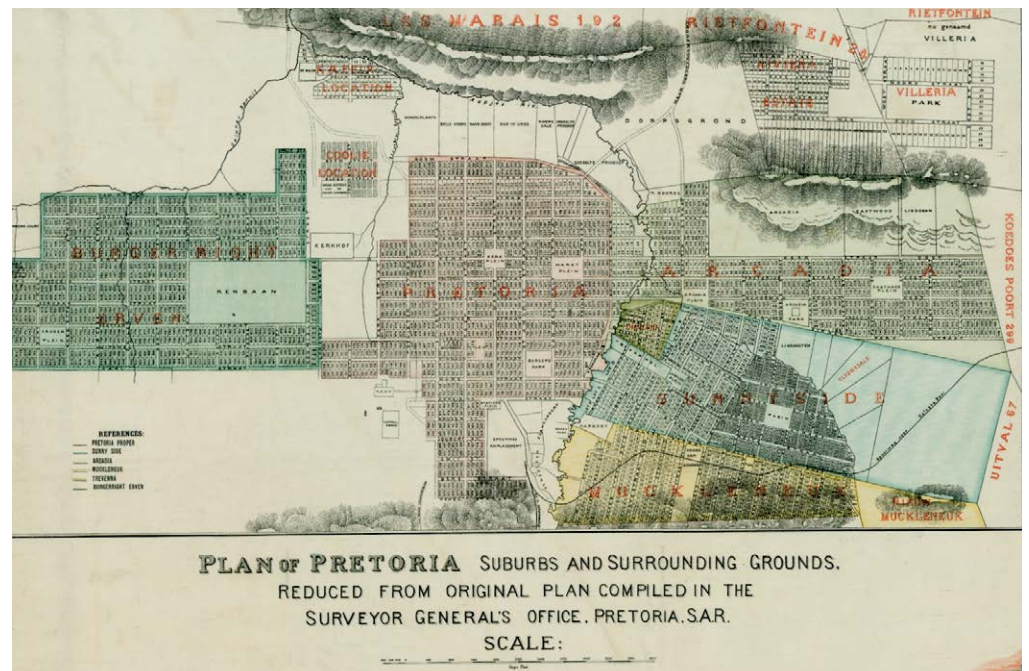

FIGURE **Nº 15**

Plan of Pretoria as an inset on Jeppe's 1899 map of the Transvaal.

Cartographically speaking, these maps were not reliable, but they played an important role during the War as they provided place names plus vital information on the physical topography. In many instances, they were the only maps available.

Survey maps, as opposed to compilation maps, were based on actual fieldwork undertaken by military surveyors, the officers of whom were members of the British corps of Royal Engineers. At the outbreak of the War, Britain immediately took steps to remedy the shortage of suitable campaigning maps by sending survey and mapping sections to South Africa. A survey section normally carried out the actual surveying work, whilst a mapping section compiled maps based on either the work of the survey section, or on other available sources. Most of the survey maps of strategic locations which were compiled and drawn in South Africa were only printed in Britain after the War and were therefore more professional and more attractive than their local compilation counterparts. Figure 24 is a good example of a survey map[18] which was compiled during the War, but only issued as late as 1908. Printed in colour with the relief represented by numbered contour lines instead of the traditional method of hachures, the map is obviously of a much better quality than the compilation maps in Figures 22 and 23.

Jeppe's 1899 map of the Transvaal

After his retirement as Postmaster of Pretoria and Postmaster-General of the South African Republic, Fred Jeppe worked as chief draughtsman and compiler of maps in the Office of the Surveyor-General of the Transvaal. His access to the cadastral information filed in this Office put him in a position to compile a definitive six-sheet map of the Transvaal[19] which shows all farms with their registered names and numbers. The map, compiled with the assistance of his son CWH Jeppe, was published in London a year after Jeppe Senior's death in 1898. The position of Pretoria on the southern slopes of the Magaliesberg is prominently shown. Although the relief features and drainage pattern on the map are still crudely represented, the depiction of farm boundaries and farm names made this map of inestimable value for military purposes and it played an important role in the South African War of 1899-1902. After publication, the map was sent by ship from Britain to the Transvaal where it quite accidentally fell into British hands in Cape Town in January 1900 where 1,000 copies were confiscated as contraband of war (Maurice 1906:13). The British Intelligence Department considered it the most reliable source of information on the topography of the Transvaal at the time (Royal Commission, *Minutes of Evidence* vol II:132; Liebenberg 2013:221) and used it successfully in the compilation of their own map series gleaned from the available farm diagrams in the Offices of the Surveyors-General.

18. TSGS 2312. *Map of Pretoria and Surrounding Country*. Scale 1 : 63 360 or 1 mile to 1 inch. Printed at the Ordnance Survey Office, Southampton, 1908. Size 65 x 78 cm.

19. See note 11.

FIGURE **Nº 16**

Henry Hall's map of South Africa, 1857.

Maps as cultural symbols: apartheid maps of the twentieth century

The South African government embarked on a national mapping programme as late as 1936, which meant that the British maps which were compiled during the South African War were, for many years, the only maps available of large parts of the country. Prior to World War II, South Africa's official map agency, the Trigonometrical Survey Office,[20] began issuing its own national map series on scales of 1 : 50 000, 1 : 100 000, 1 : 250 000 and 1 : 500 000, and Figures 28 to 32 are examples of how Pretoria had been depicted on some of these more modern maps.

It is of interest to note that the definition of a map referred to in the first paragraph of this article is by no means the only definition. Geographers and cartographers
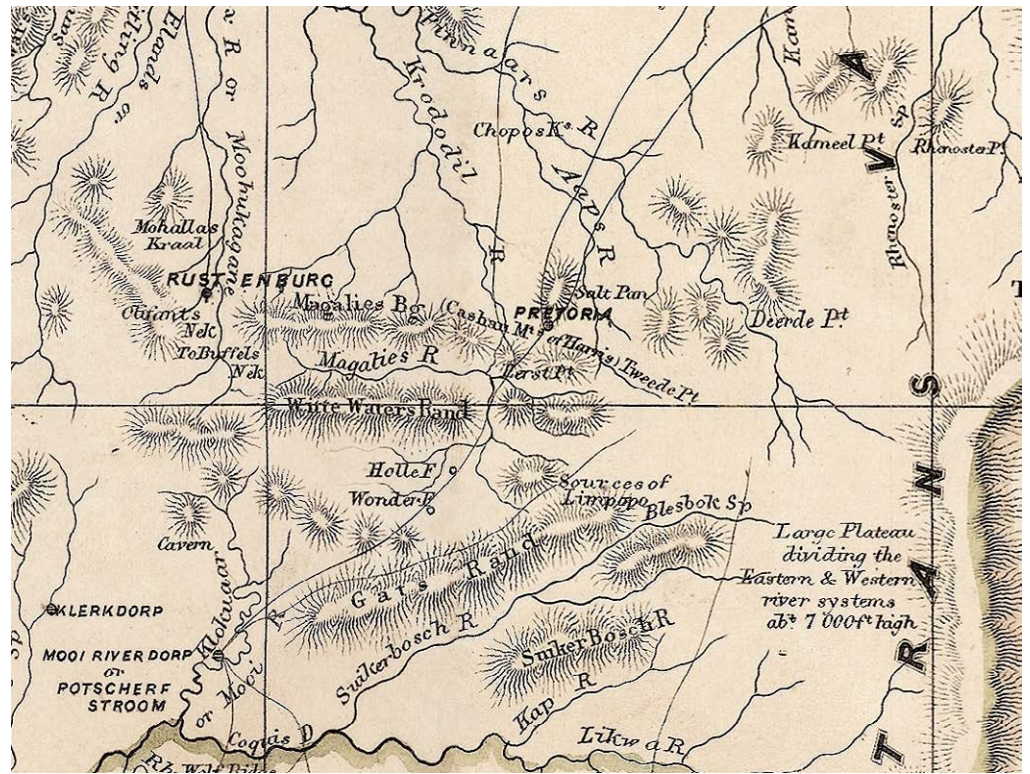
20. Now the Chief-Directorate: National Geo-Information (NGI), a component of the Department of Rural Development and Land Reform (DRDLR).

FIGURE **Nº 17**   ‹

Excerpt from Hall's 1857 map indicating Pretoria on the northern side of the Cashan Mountains (Magaliesberg).

21.   **Semiotics** is the study of meaning-making, that is the philosophical theory of signs and symbols. This includes the study of signs and sign processes (semiosis), indication, designation, likeness, analogy, metaphor, symbolism, signification, and communication. Semiotics is closely related to the field of linguistics which, for its part, studies the structure and meaning of language more specifically. Semiotics can, however, also study non-linguistic sign systems such as maps.
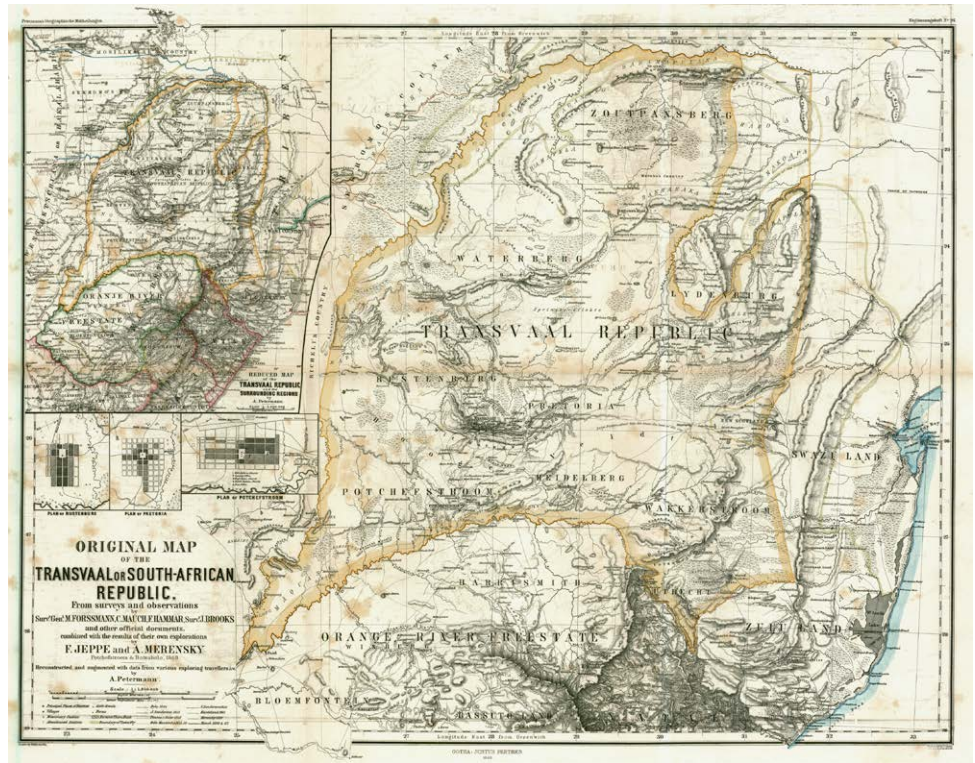
working within a humanist research framework have, for some time, propagated the idea that a map is not so much a representation of a landscape, but rather a representation of *an idea* about that landscape (Wood & Fels 1986:65; Wood 1992). According to this viewpoint, maps are not objective and value-free documents, but *sign systems* (Schlichtmann 1979; 1985) which should be deconstructed in order to communicate to the map user the underlying values, attitudes and principles on which the society responsible for producing the map is founded (Harley 1989; 1990). Using this approach and by applying semiotic principles,[21] a map can be interpreted as a *cultural symbol* of the actual landscape it represents (Wood & Fels 1986).

In the analysis of a map as a cultural symbol by means of semiotic terms, every mark on the map, as well as the map itself, should be considered a signifier which conveys a certain meaning to the map reader by means of a code system. Without examining and discussing the various types of signs which could occur on a map and which could be iconic, symbolic or indexical, this paper will only refer to **intrasignificant codes** which are, so to speak, inherent in the map, and to the system of **extrasignificant**

FIGURE **Nº 18**

Jeppe's and Merensky's map of the Transvaal, 1868.
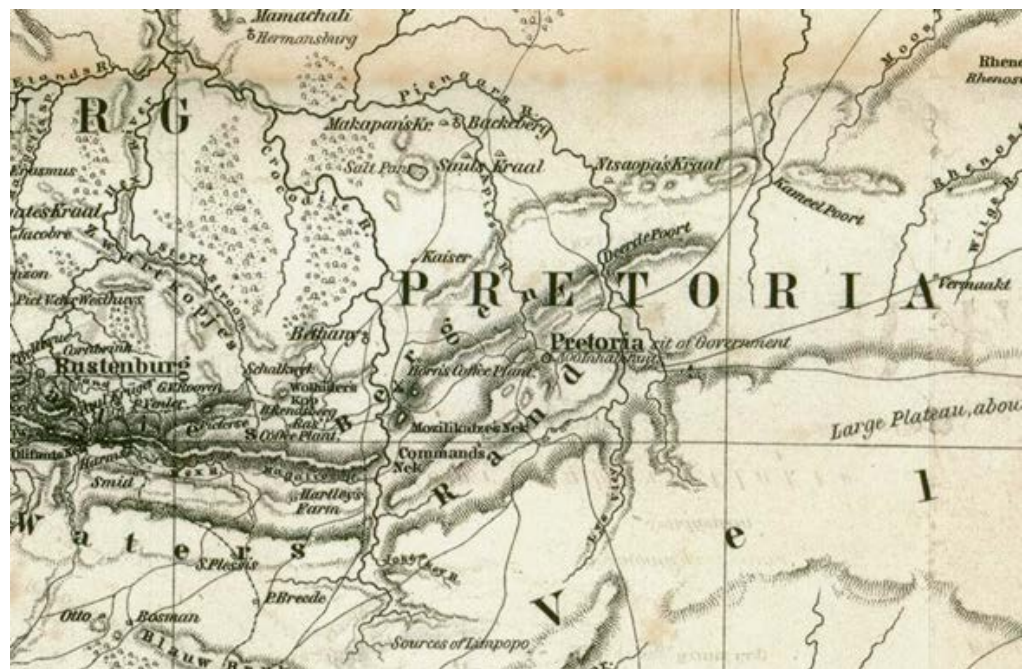
FIGURE **Nº 19**

Excerpt from Jeppe and Merensky's map, showing Pretoria as the *sit* [*sic*] of government.
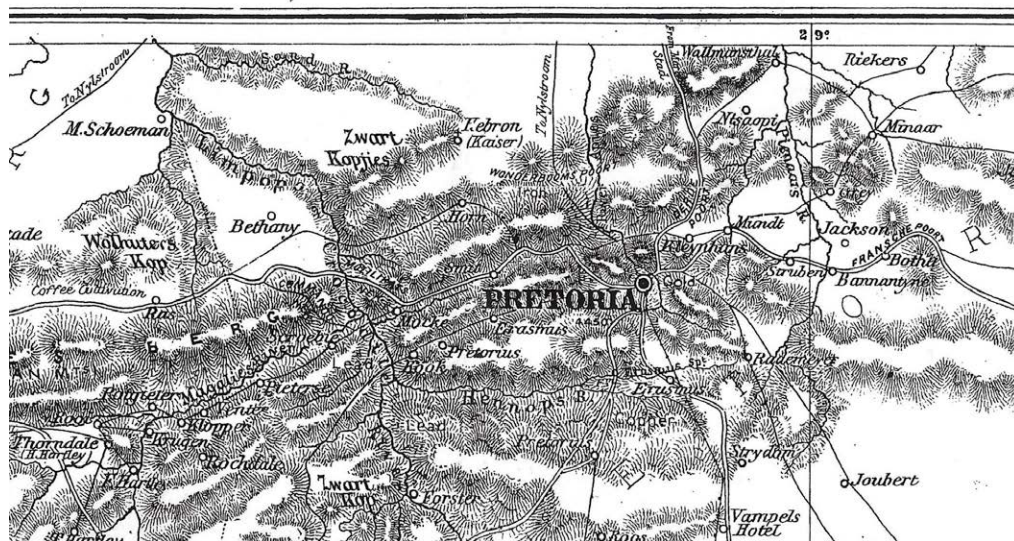
FIGURE **Nº 20** 〈

Pretoria as depicted on the map IDWO 11, March 1881.

codes which governs the appropriation of the entire map as a sign vehicle for social and political expression (Wood & Fels 1986; Wood 1993). Map symbols such as a blue line representing a river, a black dot representing a dwelling, and a brown line representing height above sea-level, are signifiers which operate by means of **intrasignificant codes** which assist the cartographer to understand the relationship between the space on the map and the corresponding space on the globe. These codes also present the map with a certain appearance and a certain discursive tone.

In the case of **extrasignificant codes**, the map as a whole acts as the signifier. What happens here is that information which is in fact a value judgement is subtly passed on to the map reader as a factual truth. As these facts have already been naturalised within the cultural milieu of the map user, he or she reads the relationship between the signifier and the signified as a natural one, and the information on the map, which
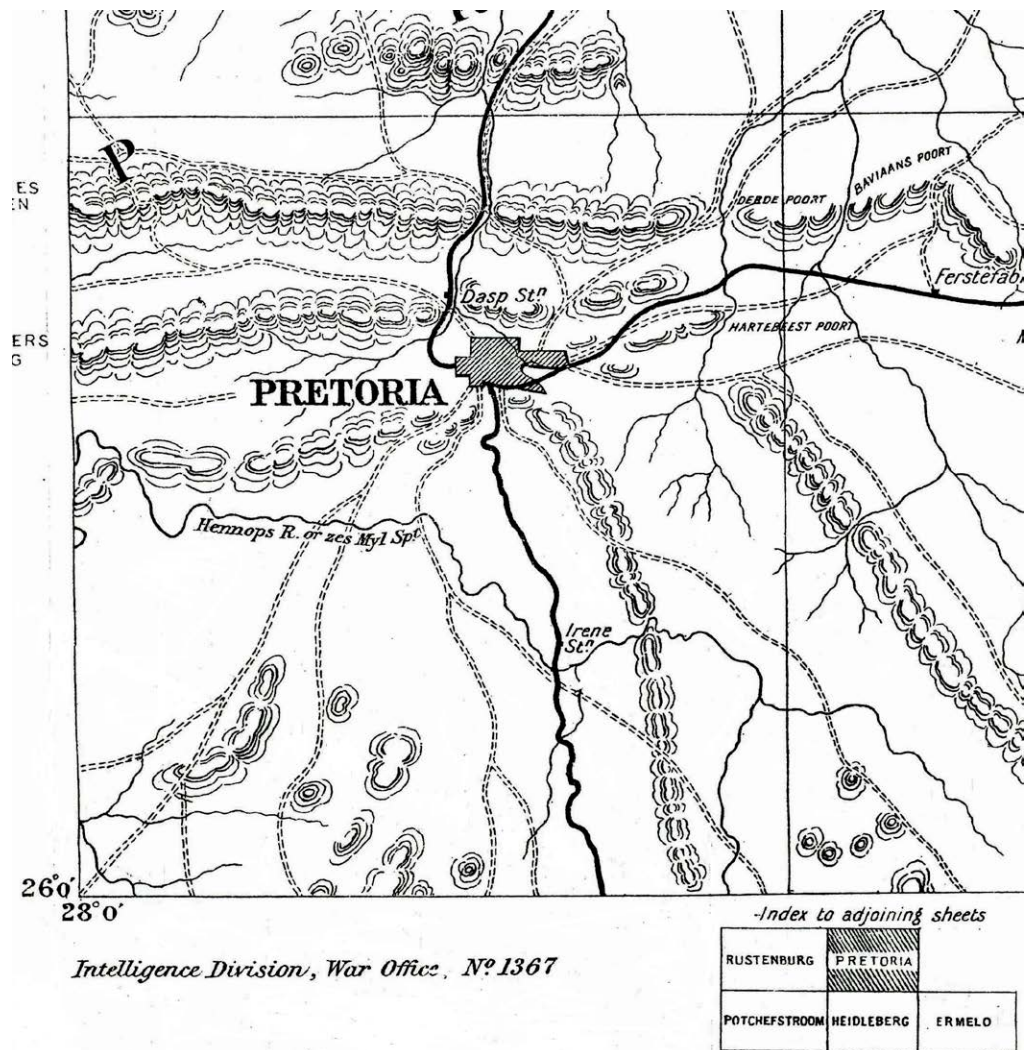
The Pretoria sheet of the pre-war British map series IDWO 1367.

could be highly controversial, as an innocent and natural attribute of the mapped landscape. A good example is a South African map of the 1970s on which the borders of the Black homelands of the apartheid era appear as international boundaries. In this instance the map operates on the level of myth since its contents are culturally naturalised and the map reader persuaded that what he or she perceives is not only planimetrically accurate, but also politically, historically and socially true (Wood & Fels 1986). The various extrasignificant codes ascribe to the map a certain theme and style appropriate to the myth it attempts to propagate. A Shell road map, for instance, will appear in the style of an advertisement; a map of the Kruger National Park in the style of nature conservation; a TV weather map in the
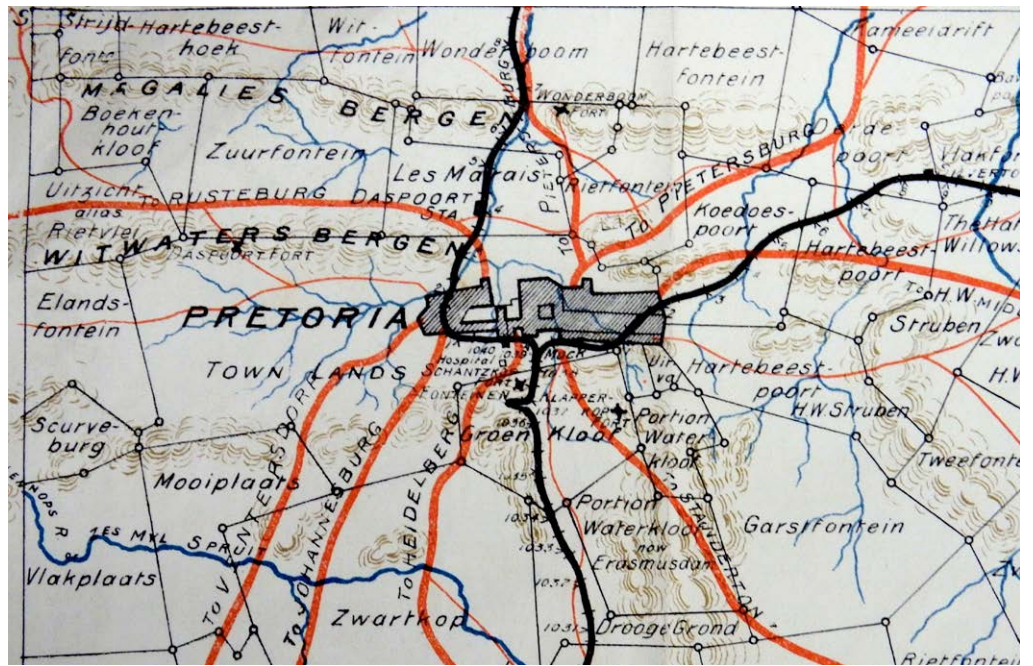
FIGURE **Nº 22**

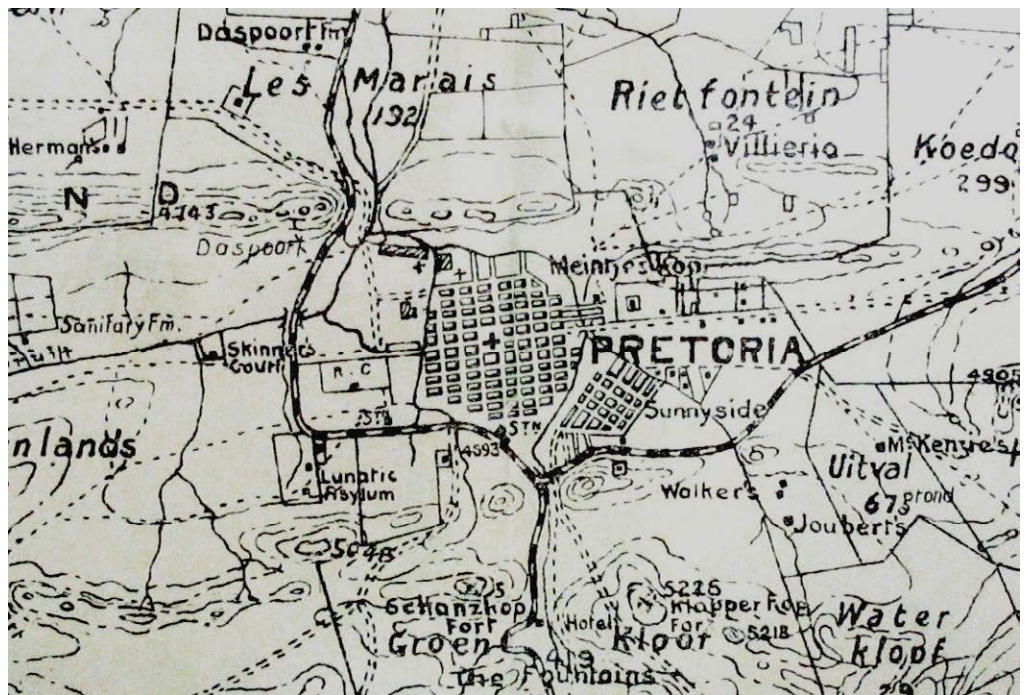Excerpt from the Heidelberg sheet of the *Imperial Map of South Africa*.

FIGURE **Nº 23**

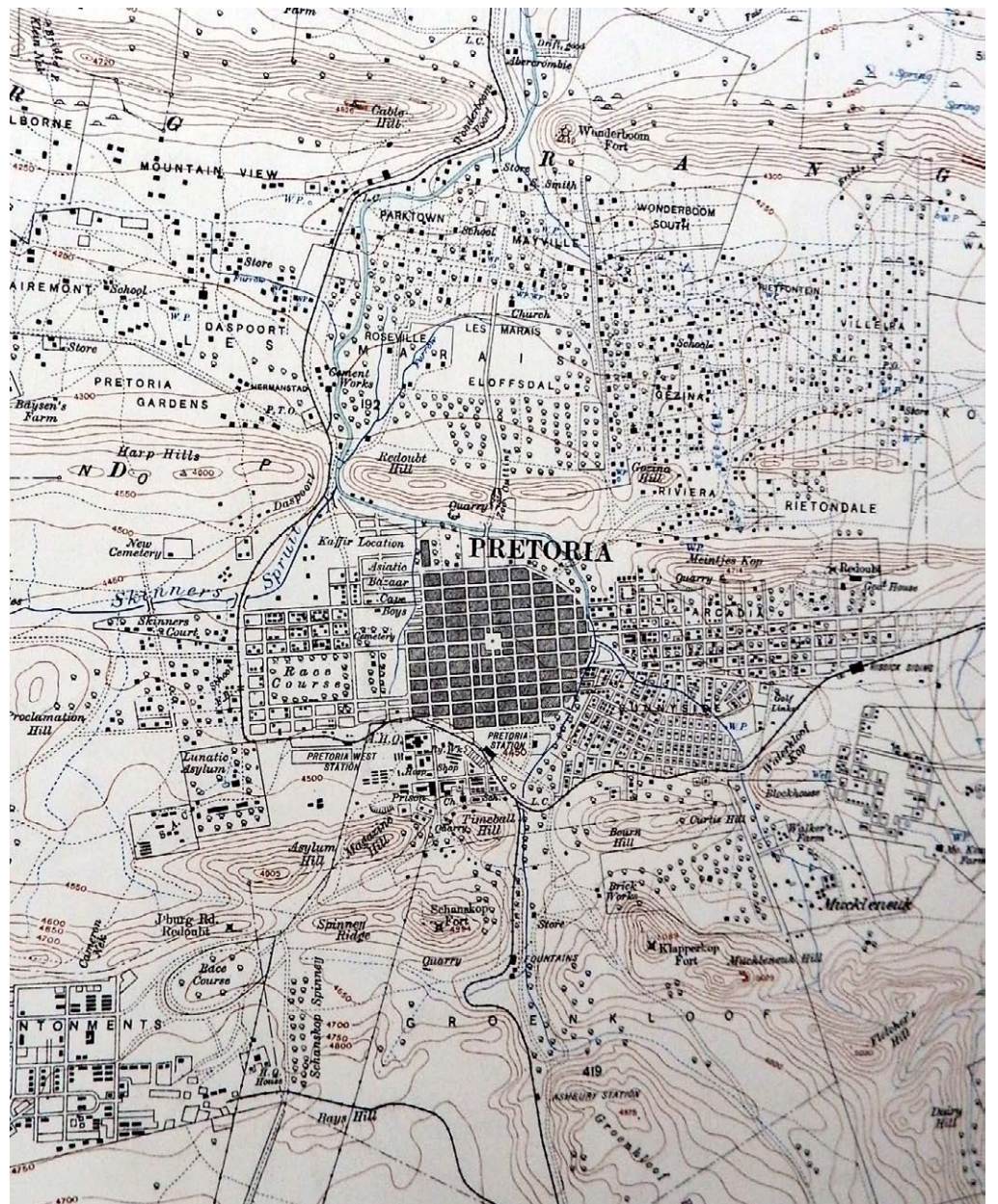Excerpt from the Pretoria sheet of the *Major Jackson's Series*.

FIGURE **Nº 24**

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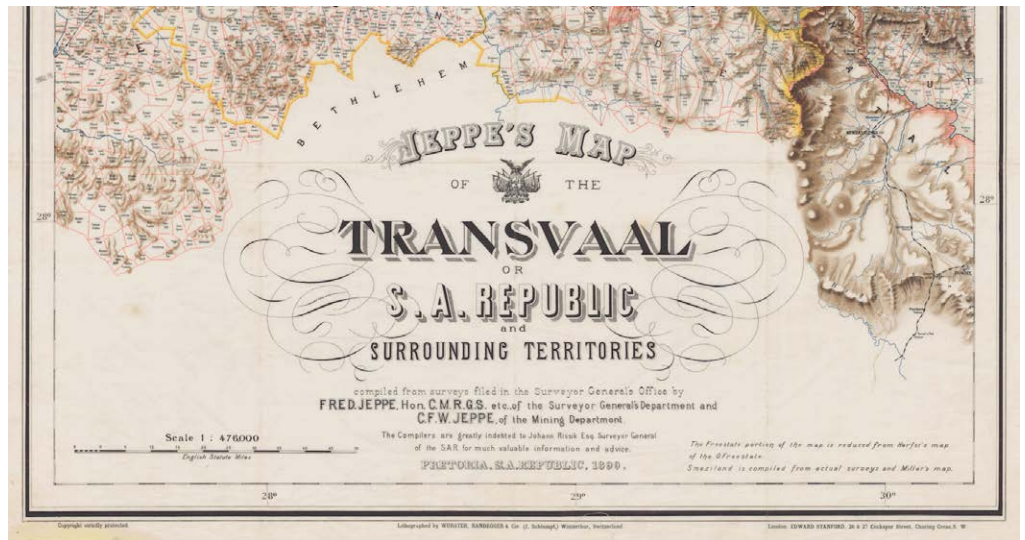TSGS 2312. Military survey map of Pretoria and surrounding country, 1908.

FIGURE **Nº 25**

Part of Sheet 3 (the title sheet) of Jeppe's map of the Transvaal, 1899.

FIGURE **Nº 26**

Jeppe's map of the Transvaal of 1899 is reminiscent of the culture of a pioneering society for which private landownership is of prime importance.

FIGURE **N⁰ 27**   ⟨

Detail on an Imperial Map sheet.

style of ephemerality and functionality, and a modern topographical map in the style of scientific objectivity.

To illustrate the analysis of maps as cultural symbols, the cultural meaning of three of the historical maps of South Africa referred to in this paper is considered. The first example is Jeppe's map of 1899 (see Figures 25 and 26), which was one of the first maps of the South African Republic to indicate farm boundaries, farm names and the number allocated to each farm by the Surveyor-General and the Deeds' Office. The extrasignificant semiotic codes prevalent here determine the iconology of this map to be that of a pioneering society of frontier farmers for which private landownership and the systematic opening up of the interior were of cardinal importance. Land was plentiful and easily accessible and the system of perpetual quitrent by which the land was granted emphasised the individual's right to his or her land and strengthened the autonomy of the pioneer farmer.

The *Imperial Map of South Africa* which was produced by the British forces during the South African War (see Figure 20), was printed in four colours (black, blue, brown

FIGURE **Nº 28**

Pretoria as depicted on the 1: 100 000 sheet 2528C, 1939. The grey areas indicate the predominantly white settlements whereas the existence of Black settlements to the west, north and south of the city are omitted.
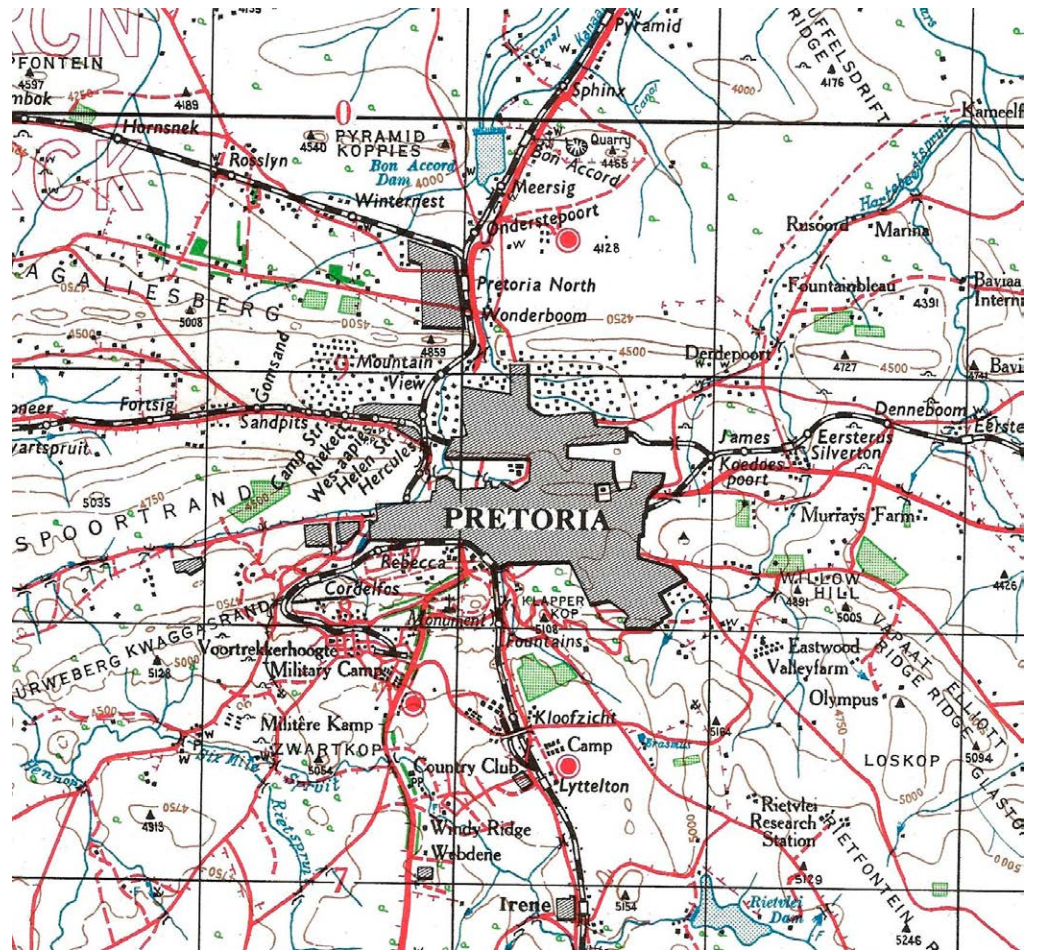
FIGURE **Nº 29**

Pretoria as depicted on the 1: 250 000 sheet 2528 PRETORIA, 1943. Compared to Figure 27, the grey areas indicating the predominantly white settlements have grown in size. Atteridgeville on the western side of the city, and Black settlements to the east and north are still omitted.

FIGURE **Nº 30**

Pretoria as depicted on the1: 25 000 sheet 2528 PRETORIA, 1970. The presence of Black people is underplayed and where a black settlement is shown, it appears in a diminutive font.
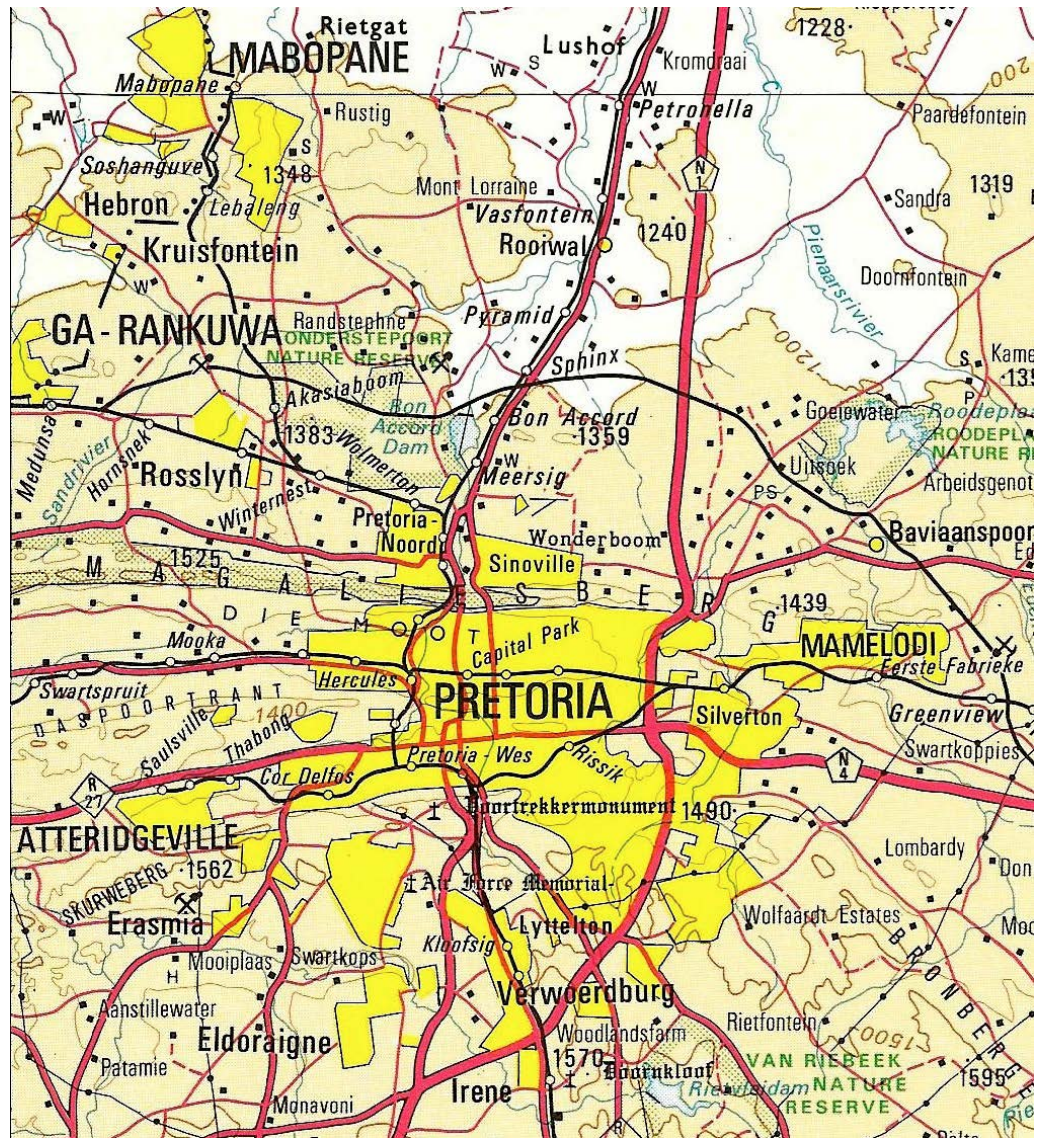
FIGURE **Nº 31**

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Pretoria as depicted on the PRETORIA sheet of 1: 500 000 SOUTH AFRICA, 1984. The black townships of Atteridgeville, Mamelodi and Mabopane are now named and appear in capital letters with Mabopane in the same font size as Pretoria. The international boundary between South Africa and the Bophuthatswana homeland is still visible in the upper left corner of the figure.
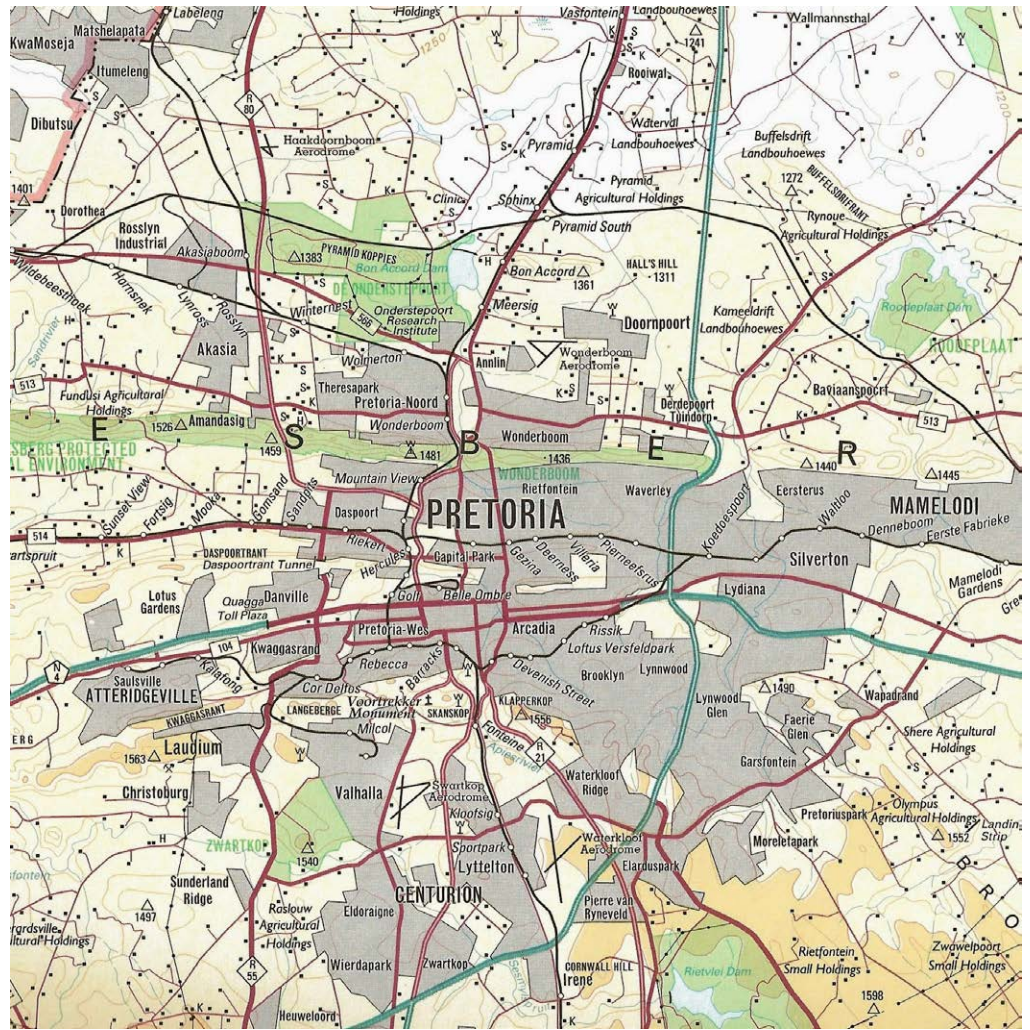
FIGURE **Nº 32**

Pretoria as represented on the official map 1:250 000 SOUTH AFRICA, PRETORIA-WITWATERSRAND-VEREENIGING, 1998.
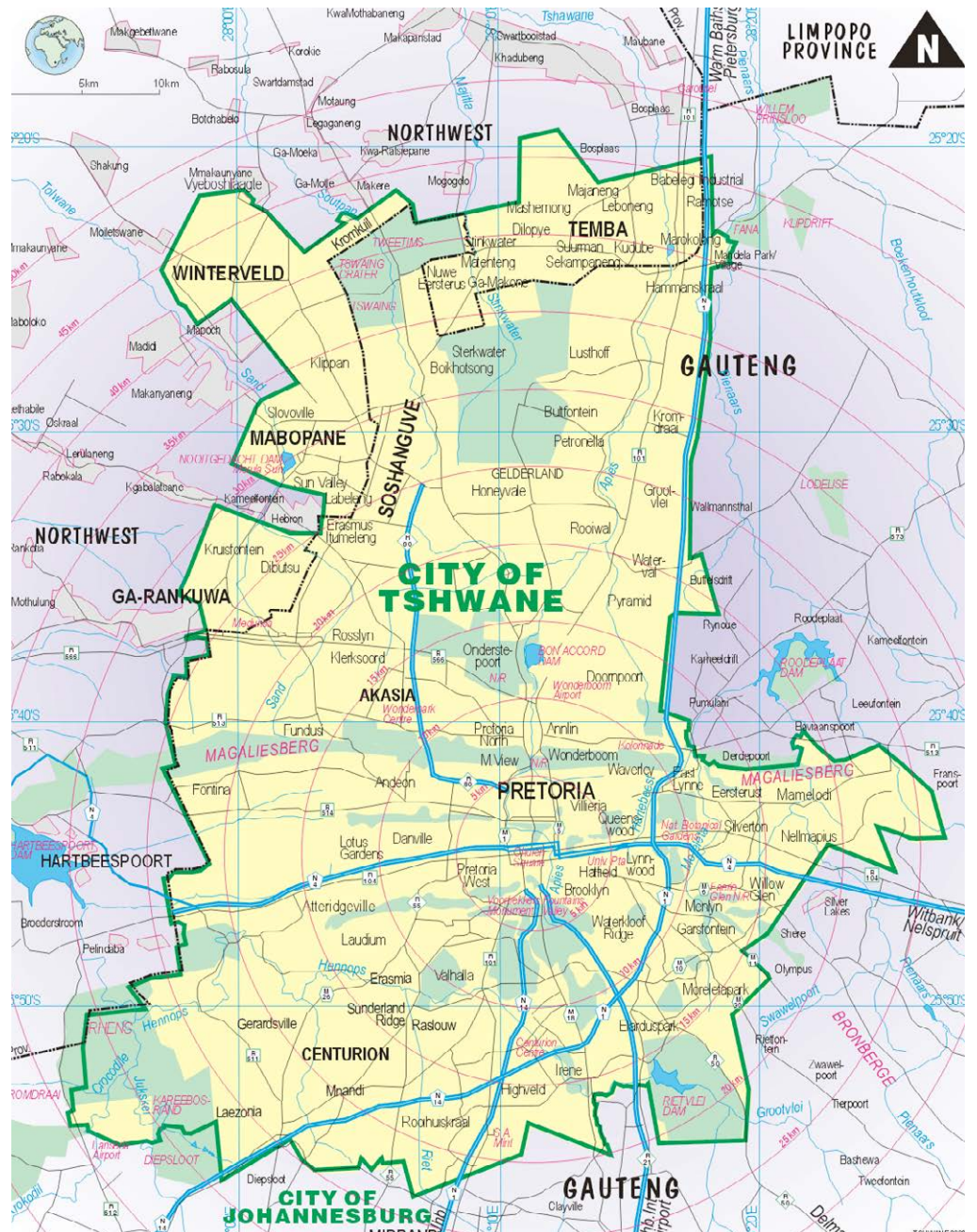
FIGURE **Nº 33**

⟨

The City of Tshwane Metropolitan Municipality, which is made up of 13 former city and town councils, including Pretoria, Centurion, Cullinan, Bronkhorstspruit, Eersterus, Laudium, Mamelodi, Atteridgeville, Mabopane, Soshanguve, Winterveld, etc.

and red). The presence of farm boundaries and roads on the maps seems innocent and objective as these signs represent the most visible objects in the landscape. The reader does, however, get the feeling that in this case the farms are mapped as physical entities within the landscape rather than as indices to the position of other topographical phenomena. This notion is strengthened as we know from evidence presented in 1903 before the Royal Commission on the War, that farm names were of great importance to the British troops (Royal Commission, *Minutes of Evidence* vol. I 1903:31). The latent meaning of the map remains military as the map symbols all relate to the infrastructure for a war which was fought on horseback. One can also view the red roads and blue rivers against the white background (see Figure 27) as an attempt to appropriate the map to the British flag and argue that as presented as such, the map was used as a political document to further Britain's imperialistic ideals.

In the last instance, examples of cartographic censorship which occurred on the official maps of South Africa during the larger part of the nineteenth century should be considered. On these maps, elements of alternative human-made landscapes regarding Black and Coloured South Africans were often underplayed or omitted to the advantage of a landscape created by the dominant white culture. Three examples were evident: the absence of the names of Black rural towns; the smaller font size used to indicate Black townships, and the complete absence of large Black informal settlements (Stickler 1990). White rural towns and predominantly white urban areas were usually indicated on the map by means of iconic signs of which the shapes more or less resembled the actual shapes of the settlements. Black towns, however, were either not indicated, or the name of the town was omitted.

The two maps illustrated in Figures 28 and 29 were published in 1939 and 1943 respectively. Although the government policy of separate development or apartheid was not yet official, it is obvious that these maps were compiled during a time when the Black population of the country was considered relatively unimportant and their dwelling places not worth mentioning. The apartheid cartography which was exercised here should be looked upon as symptomatic of a system of semiotics where the map as a whole acted as the signifier to propagate the value-system of the dominant white culture responsible for the creation of the map. Figure 30 depicts a 1970 map which was published in the hey-day of apartheid. No consolidated black settlements are shown and no toponyms indicate the presence of Black people north of the Magaliesberg which, on the map, is implied by black dots.

Figure 31 depicts a map which was published in 1984 and is reminiscent of the fact that by the 1980s the tide against apartheid as a socio-political system had already turned significantly. Not only are Mamelodi and Atteridgeville now named and the

corresponding toponyms printed in capital letters, but large settlements such as Ga-Rankuwa and Mabopane appear on the map in the same font size as Pretoria.

Post-apartheid cartography

The map in Figure 32, published four years after South Africa became a full democracy, seems to further express the ideal of a non-racial society with the cartographical playing field having eventually been levelled. Pretoria is now depicted as the entire grey area with the names of large, predominantly Black settlements such as Mamelodi and Atteridgeville appearing in the same font size as Centurion, which is a predominantly white settlement. On this map the distinction in font size is not based on race, but on the overall accepted notion that the name of Pretoria as capital of the Republic of South Africa should be more prominent than those of other settlements in its vicinity.

When South Africa acquired full democracy in 1994, Pretoria became the executive (administrative) capital of a united, non-racial country where no one suburb would be considered more important than another and none would be characterised by a single ethnic group. The map in Figure 33 was compiled in 2013 and depicts the current importance of the city relevant to a wide array of suburbs, townships and informal settlements surrounding it and stresses the role the city plays in forging a national identity to which all South Africans can aspire.

Conclusion

In this paper, some twenty historical maps were chosen for the way in which they have thrown light on the emergence of the topography of Pretoria, nowadays so heavily marked by modern systems of communication. Taking cognisance of how a certain place or area has been mapped over time is akin to peeling away layer upon layer of what, to a certain extent, represent an archaeological site. To understand the true character of present-day Pretoria, it is necessary to have insight into the social, political and administrative processes that have shaped this city since its inception. To bring these processes to mind is not a simple matter, but it is here where historical maps could come to one's aid in that they not only reveal the physical world which existed at a certain period of time, but also the prejudices, biases and partialities of the people who lived there and who were responsible for these maps.

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