Creating maps as historical evidence: Reconsidering settlement patterns and group relations in the Rustenburg-Pilanesberg Area before 1810

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Samevatting

Die aanlyn Landbougeografiese Inligtingsstelsel Sisteem – (bekend as AGIS) – sowel as die omvattende Atlas databasis, tesame met mondelinge oorlewering/tradisies en topokadastrale kaarte is in hierdie artikel gebruik om terrein- en grondkaarte te ontwikkel ten opsigte van sowat agt van die vyftien 18e euse nedersettings in die Rustenburg-Pilanesberg gebied. Hierdie kaarte demonstreer die belangrikheid van grond- en waterbronne in die keuse van waar landelike nedersettings eventueel gevestig is. Hierdie keuses wat gemaak is, wys dan ook noodwendig kontrasterende standpunte uit rakende tradisionele en bestaande sieninge oor vestigingspatrone en intergroepverhoudinge in die pre-mfecane periode. ’n Oorsig van mondelinge oorlewering en AGIS kaarte voorsien die nodige bewyse om die historiese vertolkings Parsons en Manson krities te debatteer. Hierdie vertolkings stel dit dat die nedersettings in die Rustenburg-Pilanesberg-gebied in ’n toenemende konflik ingetrek is in die fase wat die mfecane voorafgegaan het. In die artikel word die standpunt gehuldig dat groepe in die Rustenburg-Pilanesberg-gebied hulle landboubedrywighede en veeteeltaktiwiteite sedert die 17e eeu geoptimaliseer het en nie-defensief van aard was. Vir generasies is daar in vrede met mekaar geleef, alhoewel konflik onderling soms wel aan die orde van die dag was. Dit blyk uit hierdie vertolking dat die Rustenburg-Pilanesberg nedersettingsgroepe wel moeilike bure met mekaar kon wees, maar eweso was hulle in staat om langdurige ooreenkomste te sluit. Hierdie langdurige vrede het in die vroeë 1820’s by die Pedi gedurende die vroeë 1820’s. ’n Analise van die kaarte wys ook uit dat toekomstige argeologiese navorsing gelyksoortige baat kan vind by die onderzoek van kleinere nedersettings soos die Rustenburg-Pilanesberg gebied teenoor die van mega-nedersettings soos Marathodi.

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Foremost among the difficulties in reconstructing the history of the many groups in the Rustenburg-Pilanesburg Area (RPA) prior to the 19th century is slender evidence. The literature to date has been based on some 19-th-century travel accounts but mostly on oral traditions collected in the 20th century by Paul-Lenert Breutz, Isaac Schapera, Vivien Ellenberger, and PD Coertze. Recently, archaeological work in this part of the Transvaal has added site-specific evidence of great significance for the 18th and 19th-century, but many more sites remain to be examined before general conclusions can be offered. Nevertheless, the paucity of evidence has not starved us into reticence; for more than a decade two broad interpretations of 17th- and 18th-century RPA history, by Parsons and Manson, have enjoyed wide acceptance.

The eagerness to fill this lacuna is understandable. The people of the RPA were central to major historical developments in the nineteenth century and almost certainly much earlier. The area’s large number of iron-age sites and traditions of origin point to the RPA as a likely center of the formation of

1 The non-descript, generic ‘group’ is used in place of society, community, tribe, polity, etc. because of the difficulty in describing the nature of human organizations prior to the 19th-century, although it is likely that each group discussed here was made up at any one time of an assortment of kinship groups assembled under the authority of one lineage. Nevertheless, problems of understanding these groups arise because, among many, the senior lineage’s governance was weak and inclined to divide over disputes among agnatic adult males.


Tswana-speaking peoples. Geography, most likely, played the starring role. The RPA’s rich and varied resources—perennial streams, good soils and grazing, iron and copper deposits—supported agriculture, herding, hunting, mining and trading. At the beginning of the 19th century, as many as 15 groups were anchored in the RPA, and their large herds and human population attracted a string of invaders and immigrants, beginning with the BaPedi, and followed by Sebetwane’s MaKololo, Mzilikazi’s AmaNdebele, and Potgieter’s Voortrekkers. In the 1840s the first Boer settlers located themselves next to African settlements in the RPA and made the area their principal base for expansion into other parts of the Transvaal. Though some African groups emigrated beyond Boer control, most Africans remained rooted, and a significant number of emigrants returned.

The most striking feature of this historical outline is the RPA’s capacity to hold a variety of people and sustain diverse lifestyles. The area was conquered on occasion but its inhabitants were never unified politically—its African groups remained distinct over generations, proving resilient during extended periods of violence (Even their 19th-century over-lords, the fast-multiplying Rustenburg Boers, spawned political and religious factions). Yet to date, little attempt has been made to differentiate among the RPA’s long-standing inhabitants and account for them historically as next-door neighbours. Of the 15 RPA groups, only two—BaKgatla and BaFokeng—have been written about extensively, and another—the BaTlokwa—have received recent attention, but even in these three cases we have been provided with only the faintest glimpse of how they fit historically into the surrounding human landscape. Recently a team of archaeologists who excavated the Tlokwa “megasite” of Marathodi has begun to examine more closely the “Tswana chiefdoms” located in the RPA’s “highly ranked habitat,” taking into account the relationship of their sites to natural resources, in particular the relationship of vegetation in site areas to agricultural production. In relating physical resources to human settlement, they are carrying forward a discussion begun in the 1960s by Revil Mason, who discerned iron-age site patterns from aerial photographs noting their association with “drainage areas of major rivers or streams” ostensibly


6 F Morton, When rustling was an art: Pilane’s Kgatlha, 1840-1902 (Cape Town: David Philip, forthcoming); RD Coetzee, Bafokeng…; J Boeyens, “Tlokwa oral traditions…” (Paper, 500-Year Conference, 2008).

7 Hall et al, “Towards an Outline…”, N Swanepoel et al, Five Hundred Years Rediscovered…, pp. 55-85.
for grazing cattle.\(^8\)

This article endorses the above approach by taking it yet another step, i.e. by associating 18\(^{th}\)-century settlements with RPA terrain and soil types. What follows also is the implicit argument that geographical data bases can be used to create maps that form a category of historical evidence in its own right and one that can be used productively with oral traditions and the archaeological record. RPA maps that illustrate settlements according to terrain and soil types for this discussion were constructed by: (1) searching oral traditions for references to settlements and their locations, (2) positioning settlement sites on topocadastral maps, (3) using an online data base to create templates for terrain and soil, and (4) placing settlement locations on the templates. Eight of the 15 RPA groups have been studied in this way, and the patterns that emerge form the basis of the discussion. In short, these historical maps, used alongside a review of oral traditions, challenge the claims of Parsons and Manson and offer an alternative explanation of settlement preferences. They also enable us to consider a new hypothesis that accounts for relationships among RPA groups and to point out sites for archaeologists to test it.

A look at the prevailing view (Parsons and Manson)

For more than a decade, the views of Neil Parsons and Andrew Manson have held currency among archaeologists working in the RPA area.\(^9\) Together they regard the decades prior to, not during, the mfecane/difaqane as the time when RPA societies began to suffer from violence, i.e. brought on by conflict among themselves. Parsons discerns two periods of conflict, gradually increasing, that occurred before the invasions beginning in the 1820s (Pedi, Kololo, Ndebele). The first period took place before 1750 and was marked by the “trans-Vaal Ndebele (Tebele) diaspora,” during which the Lete (BamaLete), Tlhako, and Po dominated the landscape, and when the latter two built large towns and acquired great wealth in cattle. After 1750, Parsons argues that the “Hurutshe state,” which had dominated the “western Highveld,” steadily lost its power to chiefdoms in the area and ushered in a period marked by “mega-sites” (indicating “urbanization”) and by increased “violence” (“forced migrations, dynastic quarrels and conquests”). Parsons suggests that these developments

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may have been spurred by a population “take-off” fed by increased agricultural activity (possibly after maize was introduced), “intensification of the tributary mode of production,” and increased conflict over cattle among “cattle-centered chiefdoms-cum-states.” He considers other factors, including the effect of trade, and regards the period between 1750 and the mfecane/difaqane as one of a “continuum of change” for highveld chiefdoms.

Andrew Manson supported Parsons’ conclusions with his account of the groups in this region during the period 1750-1820, based on his review of traditions collected by Paul-Lenert Breutz. After 1750 Manson states that, as the Hurutshe faded, “subordinate chiefdoms” broke away and came into conflict with one another. By the early-nineteenth-century, internal conflict exposed these groups to the Pedi, who invaded the area, taking captives and cattle. Manson attributes all the above to a severe drought that followed a period when the “desire to increase holdings of cattle through raiding” coincided with increased population due to “stable supply of food” and “good rainfall.” Women captives enlarged groups and the labour supply, while cattle provided the “basis for exchange” for “labour and loyalty;” thus, women and cattle provided the “basis of political life.” When drought set in after human and cattle populations had increased and created a “land shortage,” raids became wars, and internal conflicts (“fission”) became common. Manson argues that throughout the period all chiefdoms attempted to expand their territory and bring others under their control and that their societies became more hierarchical, though wars reduced their cohesion and independence.

Significantly, Parson and Manson demonstrate that turmoil in this part of the Western Transvaal (along with other areas, it should be noted) was underway prior to the mfecane period, which heretofore had been characterised as the sole dynamic force, and that the pre-mfecane period, rather than static, was dynamic, that is, was undergoing fundamental changes due to natural forces and human initiatives (trade, changing crops, etc). Their work blended with Thomas Huffmann’s five-level model of political stratification and took some cues from other studies of cattle increase, maize introduction, and climatic change.10

The force of Parsons and Manson’s argument depends heavily on Manson’s reading of Breutz. Though Parsons’ is a brilliant exercise using a wide array of

sources, his overview of events preceding the *mfecane* pertains to developments in the Western Transvaal that lack any specific examples for the RPA area in the 18th century. This is an important distinction, because the RPA area was the principal focus of invading groups, the last of which, the Voortrekkers, quickly recognised not only the rich and varied natural resources in this area, but invariably moved next to the African communities in order to gain (or coerce) their assistance in hunting, cattle-rearing, trade, and, ultimately, cash-cropping.\(^{11}\) The RPA area, in other words, was a hub of development prior to the *mfecane* and was one of the most important enablers of Boer settlement in the interior in the 19th century. Therefore, rather than defer to the large patterns that Parsons discerns for the western Transvaal as a whole, it seems fitting to chart as best one can the history of the many RPA groups prior to the *mfecane* in order to understand developments in this very area after the onset of white settlement.

Vetting the work of Manson, who offers some detail about RPA groups in the pre-*mfecane* period, therefore, becomes crucial. At a glance it becomes apparent that Manson’s depiction of the RPA is based on a cursory use of oral traditions recorded by Breutz. Manson confines himself to only a few RPA groups and extrapolates from a few incidents in a very narrow time frame to argue that major developments were occurring across the area for extended periods. To put it another way, Manson’s tendency to generalize, like Parsons’, blurs the RPA landscape and obscures a much more complex reality. For example, Manson asserts that the Fokeng near present-day Rustenburg were, from 1790, involved in a “twenty-year hostility” with the Tlokwa,” and “similarly, the Kwena baMogopa…were locked in a state of conflict with the Kgatla and Po…” Moreover, “the traditions of the Kgatla bagaKgafela emphasize a prolong war with the Fokeng.”\(^{12}\) Although the Breutz traditions contain reference to conflicts at this time, Manson gives the impression that these incidents demonstrate an escalation of violence that was typical of the RPA and part of a region-wide phenomenon.

**The Breutz traditions**

A close look at the Breutz traditions shows that such was not the case. For

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example, Breutz's traditions refer to clashes and feuds roughly dated to the 1790-1820 period, but they also reveal that intra- and inter-group conflict was by no means confined to this period, even though it appears then to have been somewhat more common. For example, the Fokeng, Kgatla, Tlokwa and Mogopa Kwena experienced conflict on different occasions from the early eighteenth to the early-nineteenth century, whereas the Mmatau/Matlhaku Kwena traditions reveal none throughout the entire period.\(^{13}\) The Tlhako had their most tumultuous time in the second and third quarters of the eighteenth century, and each quarter was marked by raiding and internal divisions, but the Tlhako were quiescent in the late-eighteenth/early-nineteenth century.\(^{14}\) Only the Po fit Manson's profile, experiencing peace and quiet until the third quarter of the eighteenth century, when they suffered a division and later became embroiled with other groups.\(^{15}\)

Manson also gives the distinct impression that the 1790-1820 period was marked by raids for “women captives” as well as cattle, but traditions reveal that only the Pedi of Malekutu took women and that when they raided the RPA in the 1810s/1820s. RPA groups raided one another for cattle, but not one Breutz tradition mentions taking captives, male or female. All references in Breutz to raids among the RPA groups pertain only to cattle, with the exception of the Kgatla who conquered the Bibididi, Rokologadi, Mabodisa and Tlhalerwa and incorporated them as distinct wards. Isaac Schapera has recorded the praise of Kgatla chief Pheto (c. 1795-1810), which refers to taking captive women (\textit{botsere tshopya} ‘hornless cattle’) from the Mogopa Kwena, but then only from one man (Ntseanyane).\(^{16}\) It seems illogical for any RPA group to try seizing women from any of its neighbours, because it necessarily would involve attacking settlements and inviting retaliation in kind, as opposed to stealing cattle on the open veld, where only young men were likely to be involved and casualties likely to be low.

Breutz’s references to war and protracted conflict among RPA groups, during any period, also need to be balanced against other mentioned events that modify the picture considerably. For example, the brief reign of Sekete IV (Moseetsana) (c. 1790 – c. 1800) of the Fokeng was marked by fighting with the Po, Mmatau Kwena, Tlokwa and Kgatla.\(^{17}\) Yet Sekete’s erstwhile foe, the

\(^{13}\) P.L Breutz, \textit{Tribes}…, pp. 61-63; 85-87; 108-110; 125; 252-255; 359-362.
\(^{14}\) P.L Breutz, \textit{Tribes}…, 288-291.
\(^{15}\) P.L Breutz, \textit{Tribes}…, 178-181.
\(^{16}\) I Schapera, \textit{Praise-poems}…, p. 48.
Po, invited Sekete to resolve an internal dispute (his prescription – that both sides must fight it out—was rejected), and later the Po backed Sekete against the Tlokwa and Kgatla. In other words, the Po and Fokeng were hardly sworn enemies. Nor were the Fokeng and Mmatau Kwena, among whom Sekete grew up and to whom Sekete’s son and successor Thethe sought refuge among following an internal dispute. RD Coertze got the impression from oral sources that Sekete “never embarked on a war without provocation,” but there is much evidence to demonstrate otherwise. The Tlokwa and Kgatla fought Sekete’s forces after Sekete burned Tlokwa crops and sent his cattle into their pastures. Sekete liked to involve himself in other group’s affairs, boast of his prowess, and act the bully. Fighting looms large in Tswana traditions (and praise poems) because of the manliness it projects and the fame that comes with it. The Fokeng recalled Sekete “a greater warrior than any other of the chiefs of the tribe.” But his neighbours were more apt to think of him as a repeated annoyance. It was not acceptable for RPA groups to kill defeated chiefs, but when the Tlokwa captured Sekete, they executed him. Thereafter, Fokeng-Tlokwa-Kgatla relations were peaceful.

So, if Manson’s account of late-18th century conflict, expansion, and fusion is open to doubt, at least for the RPA, what may be offered in its place? As a starting point for those interested in studying this under-researched but important area, I would like to argue that there is much to be said about the stability of the groups settled here prior to the mfecane. I say so fully aware of the difficulties of reconstructing their 18th-century past using oral traditions, whether of Breutz or those collected by others, such as Ellenberger, Schapera, Coertze, and lay writers who submitted their local histories at the behest of the Department of Native Affairs in Pretoria in the 1940s and 1950s. What I have attempted, however, is to introduce a method of using traditions that permits corroboration using external data and sources, albeit non-contemporary. In short, I have directed my review of the traditions at specific RPA groups with regard to their mention of pre-mfecane settlement names and locations and analyzed these settlements according to their position in relation to soil, terrain and water. The pictures or rather maps created with this method, I would argue, reveal patterns that are consistent among the 8 RPA groups I sampled, and they suggest that in the pre-mfecane period, these groups utilized their space and interacted with one another in ways that appear to have achieved equilibrium, or at least a significant degree of compatibility, that stands in

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18 RD Coertze, Bafokeng... p. 29.
19 P-L Breutz, Tribes..., p. 62.
contrast to Manson and Parsons’ portrayal of rising, endemic violence.

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Map 1

The method used to create historical maps has been to collect settlement site references from oral traditions and to overlay these site references on templates created from geographical data bases. Oral traditions recorded by Breutz and others often contain site references in association with landmarks or farm designations, which are useful in placing them on modern topocadastral maps. Two geographic templates have been created, one for terrain types, another for soil types. Both templates include rivers and streams. These templates were created using the online Agricultural Geographic Information

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20 Rustenburg 2526 and Thabazimbi 2426 @ 1:250,000 (Mowbray, Directorate of Surveys and Mapping, 2003). In addition, Surveys and mapping topocadastral maps@1:50,000 the AGIS topocadastral templates@1:50,000 were used to pinpoint sites [see note 17].
The first map template (see Maps 1-1, 1-2) uses the terrain types option (under Natural Resources, Terrain), the second (see Map 1-3) the generalized soil patterns (under Natural Resources, Soil, General). On each template the approximate RPA settlement sites were placed according to group and cluster. Maps were created to illustrate the 18th-century settlements of eight of the fifteen RPA groups. Of these eight, five were selected for their relative duration and for being the larger Tswana entities: These five are the Kgatla (Bakgatla baga Kgafela), the Fokeng (Bafokeng), the Mogopa Kwena (Bakwena ba Mogopa), Matlhaku/Mmatau Kwena (Bakwena Modimosana Matlhaku and Bakwena Modimosana Mmatau) and the Makabe Tlokwa (referred to by Breutz as Batlokwa ba ga Sedumedi). Two have been associated with “mega” sites: the Matlhaku/Mmatau Kwena with Molokwane, and the Makabe Tlokwa with Marothodi. Three, lesser groups were included in the sample. One is of Tswana origin, Phalane (Bakwena Baphalane), and two are of Ndebele origin: Po (Bapo baMogale), and Tlhako (Balthako). As of c. 1810, each of the eight groups was settled not far from a neighbouring group. The Tlhako and Makabe Tlokwa were located on the plains on the western side of the Pilanesberg, the Fokeng and Matlhaku/Mmatau Kwena on either side of the northern Magaliesberg via Magatasnek [Mokgatle’s Pass], the Po and Mogopa Kwena in the Brits/Bethanie area, and the Kgatla and Phalane on the northeastern side of the Pilanesberg (See Map 1). These pairings are useful for the purpose of discussion and are referred to as “clusters”: Kwena-Fokeng, Tlhako-Tlokwa, Kwena-Po, Kgatla-Phalane. Another factor in determining the sample was the involvement of these eight in cattle raiding and other forms of attack from or against other groups in this sample, particularly in the late eighteenth/early nineteenth century. Violent activities involving them have been used by archaeologists and historians to argue that “war” and “stress” in the RPA caused, if not represented, significant changes occurring in these societies

21 Available at http://www.agis.agric.za/agisweb/agis.html. Agricultural Geo-Referenced Information Systems (AGIS) is a free web service administered by CEIT Development in Pretoria and created to bring together spatial information from the National Department of Agriculture, the Provincial Departments of Agriculture, the Agricultural Research Council and other providers. The site integrates geo-referenced information on land, climate, plant nutrients, and water, among other categories. The purpose is to promote the use of “best choices among options in using these resources to achieve sustainable levels of food production and development in an increasingly complex environment.” AGIS, 2007. Agricultural Geo-Referenced Information System, (available at www.agis.agric.za as accessed on 8 January 2008).

prior to the *mfecane*.

**Map 2**

*The Tlhako-Tlokwa cluster*

The *terrain* graphic (Map 2) demonstrates that until their last pre-*mfecane* settlement, the Tlhako selected three sites within 20 km of one another (Moreteletsi, Maseletsane, and Mothoutlung). Each of the three sites is adjacent to a hill facing the plain bordered by the Matlapengsberg, Pilwe Hills, and the Pilanesberg (Moreteletsi-Matlapansberg, Maseletsane-Pilwe, Motoutlung-Pilanesberg). On site investigation would be needed to pinpoint these settlements, but it is presumed they were located at the base or on the slope of each range. The fourth, last, pre-*mfecane* settlement (Legatalle) was positioned in the plain itself and will be discussed together with the Tlokwa settlement of Marothodi. As with the Tlhako, the Tlokwa settlements apart from the last (Marothodi) follow the hill-plain pattern (Modungwane-Matlansberg, Maruping-Pilwe, Mankwe-Pilwe, Itholanoga-Pilwe), the
latter three facing the plain stretching south from Pilwe on either side of the Ngwaritsi (Selons) River.

The soil template (Map 3) reveals another pattern, but one similar for either group. In all cases, except for the last settlements (Legatalle, Marothodi), the Tlhako and Tlokwa settlements are positioned facing a band (2-5 km. wide) of red soils with high base status (organic matter), suited to agriculture. Beyond this band in the Matlansberg-Pilwe-Pilanesberg (MPP) plain lies uniform strongly structured cracking soils dominated by swelling clays. The Tlokwa settlements at Pilwe face a much narrower band of red soils but beyond in the Ngwaritsi plains are the well-drained dark reddish soils with strong block structure, also well suited to agriculture. The last settlements of the Tlhako and Tlokwa (Legatalle and Marothodi) are located in the middle of the MPP plain. Legatalle is positioned in a relatively low-lying pass between Thhorosane Hill and a lower hill, whereas Marathodi is located in a slightly raised area. The soils underneath and surrounding these settlements, to repeat, are strongly structured cracking clay.

It would appear that apart from Legatalle and Marothodi, Tlhako-Tlokwa settlements were situated to locate womenfolk close to arable land leaving the plains for cattle and stock grazing. Movement to a successor settlement close by and in a similar terrain/soil area would have facilitated minimal disruption in social and economic patterns. Establishing Legatalle and Marothodi meant reversing these arrangements and altering social patterns to accommodate different daily cycles. Marothodi’s close proximity to nickel sulphide pipes probably determined its location, but it remains uncertain as to what led the Tlhako to select Legatalle, which is much further away than any other settlement in the cluster from arable land (red soils, etc). None of the settlements appear to have been “hilltop” or “defensive.” All were situated near to river sources but far enough away and on higher ground to achieve good drainage and remain clear of a temporary flood plain.
The Kwena-Fokeng cluster

Between c.1700 and 1820, the Mmathau/Matlhaku Kwena and Fokeng settlements were close to but separated from one another by the upper Magaliesberg. The Mmathau/Matlhaku were settled briefly on Mafatlhe (Rhenosterfontein 390 JP, incorrectly “Klipspruit” on the AGIS map) before moving to the “megsite” Molokwane (Selonskraal 317 JQ/Moedwil 254 JQ). Mafatlhe and Molokwane were situated on the western Ngwaritsi River plain south of the Kgetleng River. Prior to 1700 the Fokeng were located at Pilwe Hill (Swartkoppies 212 JP), but thereafter ca. 1700 until the mfecane made Phokeng (Boekenhoutfontein 260 JQ) their only settlement. The pre-mfecane Kwena and Fokeng lived in physically parallel environments. They were plains dwellers, though the Fokeng placed their settlement on the lower slopes of the Magaliesberg. The Kwena and Fokeng had direct access to
large plain areas: the Kwena, the Ngwaritsi River plain (roughly 30 x 12 km) and the Fokeng, the open plain between the Kgetleng River and east of the Matsukubyane (Hex) River (between present-day Phokeng and Brits).

The soil types associated with Molokwane and Phokeng help explain why these settlements persisted for more than a century. (see map 4) Molokwane sits within the Ngwaritsi River plain, entirely composed of well-drained dark reddish soils with strong blocky structure suited to agriculture, not to mention grazing near perennial water. Phokeng is even more blessed, situated as it is in a long band running along the eastern slopes and plains of the Magaliesberg of red, yellow and grayish soil with high base structures. With abundant good soils all around, the Leragane River close by, and the open plains for grazing stretching well to the east (and intersected by three rivers—Leragane, Matsukubyane, Gwatlhe), it is no wonder that the Fokeng lacked incentive to relocate and returned to the very spot after the mfecane. As with the settlements of the Tlhako-Tlokwa, Molokwane and Phokeng may not be considered “hilltop” locations or “defensive” in purpose. Long-term, everyday, pragmatic considerations would seem to have been decisive.

The Kwena-Po cluster

During the eighteenth and early nineteenth centuries, the Mogopa Kwena and Po settlements appear often to have been placed within an area between the Tshukutswane River (tributary of the Gwatlhe/Sterkstroom) and the Oodi (Krokodil) River. This certainly was the case for the Po, though a number of problems arise when locating Mogopa Kwena settlements.

The Po established four settlements during this time, in order: Makolokwe (northeast of the present Makolokwe on Wolvekraal 408 JQ), Tobong (Boschfontein 458 JQ), Tlhogokgolo (Perhaps Wolhuterskop 452 JQ), and Mongana (Modderspruit 461 JQ). The latter three were located roughly between 6 and 7 km of one another. The Mogopa Kwena were far more restless, relocating themselves frequently between the Gwatlhe River and the Pienaars River, though gravitating toward the Brits area. Pinpointing their settlements, however, will have to confront vague location references in the oral traditions and the apparent destruction of one of their principal sites in the Brits koppies (Mabjanamatswane) by granite and vanadium mining. It is altogether possible that the principal Po sites have been compromised
as well by road construction, concentrated modern settlements (Bapong, Majakaneni, Modderspruit), and platinum mining.

What can be said about this cluster’s settlements is that in the century leading up to the Pedi invasions in the early 1820s, they were concentrated in the southeastern corner of the extensive plain extending to the western Magaliesberg (Phokeng), up to the Pilanesberg, and bordered in the east by the Oodi River. Though often lumped with other Tswana-speaking RPA groups, the Kwena-Po cluster was the most removed from the others, their settlements separated from those of their nearest neighbours, the Kwena-Fokeng, by approximately 55 km.

In terms of soil and terrain types, (See Diagrams 1-2) the Po located most of their settlements in the band of fertile, high-based soils (similar to Phokeng) that stretches along northern and eastern foot of the Magaliesberg. And, like Phokeng, the Po settlements faced out toward the strongly-structured cracking soils of the plain. In other words, the Po utilized an environment well suited to agriculture and stock-keeping, positioning their settlements with the necessary resources close at hand. Streams from the Magaliesberg (Modderspruit, Kareespruit, etc.) provided reliable water nearby. Because the Mogopa Kwena sites are at this stage impossible to locate with any reasonable accuracy, an attempt to summarize their preferred soil and terrain environment would be premature.

Kgatla-Phalane cluster

In contrast to the other three clusters, the Kgatla-Phalane cluster settlements in the eighteenth and early nineteenth centuries were situated in an area north and east of the Pilanesberg in soil and terrain types that favor herding and hunting. In some respects, their settlements remind us of the Tlhako-Tlokwa in that most are situated in areas with red soils with high base status adjoining areas of strongly-structured cracking soils. The Kgatla-Phalane, however, were situated entirely in what botanists refer to as mixed bushveld, characterised by dense acacia thickets on clay soils and by relatively low rainfall, whereas the other clusters were located in thorny bushveld with relatively higher rainfall and with fertile soils suited to intensive crop cultivation. Moreover,

significant portions of the Kgatla-Phalane area encompass soil types that are shallow on hard or weathering rock and minimally developed. It is therefore unsurprising that the area utilized by the Kgatla and Phalane was much larger than was the case with the groups in the other clusters, and very likely much more dependent on cattle and meat from the hunt than on agriculture. And, if we allow ourselves to be guided by the 1902 claims of the Kgatla regarding their eighteenth-century area, as well as by the Kgatla patterns of settlement of the post-*mfecane*, mid-nineteenth-century period, the Kgatla utilized by far the largest area of any of the RPA groups and were in the habit of maintaining multiple settlements rather than concentrating their people in one.\textsuperscript{24}

The Phalane placed their settlements in two distinct types of eco-zones. Until the early eighteenth century, they shifted their settlements among the hills around Ramokoka’s (Ramakokskraal 25 JQ), with ready access to red high-based soils. Thereafter until the *mfecane* they placed them near the Oodi and Thokwe (Sand) rivers, in places like Tlhapelajbele (Wachtenbiestesdraai 350 KQ/Klipgat 384 KQ), Thokwe, and Botlhapatshwene (McKip Zyn Rand 438 KQ) with limited access to good soils. Their settlement pattern in the eighteenth century gives the impression, no more, that until the *mfecane* the Phalane utilized areas with meager resources especially agricultural, and that apart from gaining access to water they were prevented by geography to the north and by other RPA groups in the south and west from shifting their settlements to more promising territory.

The Kgatla, on the other hand, demonstrated a capacity of utilizing a wide array of settlement options, in distinct eco-zones, each of which offered particular advantages. It is difficult to periodise many of these using Breutz, but what is noteworthy are references to settlements that were occupied in the seventeenth and reoccupied in the eighteenth and nineteenth centuries. With the exception of Momusweng, Ntwane and Moretele (perhaps Rhenosterdrift 172 JQ)—all in the Moretele/Pienaars valleys (occupied in the 17\textsuperscript{th} century)—the Kgatla had a habit during the seventeenth through the nineteenth centuries of returning close to earlier settlements: (a) Makakwe, Maramapong and Moruleng on Saulspoort 38 JQ, and (b) Mabule, Magakwe and Dithubaruba on Kruidfontein 40 JQ. The single outliers are Molokwane (junction Odi and Oodi), Sefikile (Spitskop 410 KQ), Tlokwane (Rhenosterkop 251 KP) and Tsekane (Leeuwpooort 554 KQ). Return settlement locations (a) and (b)

\textsuperscript{24} F Morton, “Perpetual motion: Resettlement patterns in the Western Transvaal and Southeastern Botswana since 1750”, *Historia*, 48, 1, 2003, pp. 265-282.
and Sefikile are situated in areas of red high-based soils. Tlokwane borders the extensive level plains extending to the Limpopo River, an area ideal for hunting and winter grazing. Tsekane has no attractive agricultural or herding attributes, but it is located on the site of rich tin deposits, which have been connected to long-distance trade routes. In brief, the Kgatla demonstrate a long-term adaptation to a fixed, though broad environment, that availed them to agricultural, herding, hunting, mining, and presumably trading, options, often simultaneously.

**Conclusion**

The online Agricultural Geographic Information System (AGIS) Comprehensive Atlas data base is used together with oral traditions and topocadastral maps to create terrain and soil maps illustrating 18th-century settlements of eight of the fifteen groups in the Rustenburg-Pilanesberg Area (RPA). These maps demonstrate the importance of soil and water resources in the choice of settlement sites and reveal settlement patterns that contradict prevailing notions about inter-group relations in the pre-mfecane period. A review of oral traditions and AGIS maps provides evidence to challenge the interpretations of Parsons and Manson, which state that RPA groups were drawn into increasing conflict in the decades prior to the mfecane. Instead it offers the view that from the 17th century RPA groups optimized their agricultural and herding options in spaces at comfortable distances from one another, created settlements that were non-defensive in nature, and lived for generations in a state of equilibrium, albeit marked by occasional periods of conflict. RPA groups could be uneasy neighbours, but they could also form lasting alliances. The long period of equilibrium collapsed abruptly with the invasion of the Pedi in the early 1820s. Analysis of the maps also suggests that future archaeological research stands to gain as much from examining smaller RPA sites as from such ‘megasites’ as Marathodi.

Noteworthy about the RPA settlements during the pre-mfecane period is both the persistence of their location in an historic eco-zone and the close proximity of new settlements to the former. In the 18th century, regardless of incidents or levels

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of internal or external conflict, RPA groups (with the exception of the Kgatla) pretty much stayed put in a closed area. If a crescendo of violence occurred in the late-18th/early-19th centuries in the RPA, as Parsons and Manson argue, it is not reflected in RPA settlement patterns, which remained undisturbed during this period.

From the 17th century, RPA groups appear to have learned how to optimize their agricultural and herding options in spaces at comfortable distances from their neighbours. Within the four clusters, each group used adjoining resources rather than shared a common resource with the other. In two clusters, geography helped groups maintain respectable distances. The western Magaliesberg separated the Fokeng from the Mmakau/Matlhaku Kwena, just as the Oodi River separated the Po from the Mogopa Kwena. The other two clusters occupied adjoining areas without a natural barrier, but they kept their settlements comfortably away from one another. As well, each cluster was separated from the other four by distance or barriers. The Kgatla-Phalane had the Pilanesberg to separate them from the other three clusters, the Po-Mogopa Kwena and the Fokeng-Mmatau/Matlhaku Kwena settled at opposite ends of the large plain between Phokeng and Brits, while the Tlokwa-Tlhako kept to the western side of the Pilanesberg and Pilwe Mountain.

Traditions over the entire period are replete with references to cattle raids launched by each RPA group against all of their other seven RPA neighbours, but warring parties were as apt to form alliances. In reviewing oral traditions for this study, it became apparent that the study of the origins of age regiments, though fret with obstacles, may help explain the ability of certain groups to secure large areas. Initiation must have preceded by many generations the time when young initiates were organised into fighting units, and the moment of “militia-zing” initiates appears to have occurred first in the mid-18th-century. A look at Tlokwa and Kgatla mephato (age regiments) strongly suggests that sometime between 1750 and 1780, they began to share initiation and the forming of age-regiments. At least five of their early mephato were identical in name, which cannot be coincidental.26

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The Kgatla-Tlokwa partnership enabled the Tlokwa to defeat Sekete IV and end Fokeng meddling in Tlokwa affairs just prior to their building of Marothodi. The close association between the Tlokwa and Kgatla is mirrored in the *mfecane* period by the marriage of Tlokwa chief Bogatsu’s daughter, Mankube Bogatsu Taukobong, to Pilane prior to his ascendance to the Kgatla throne. Further evidence is found the several Kgatla wards in the Dipyega *kgoro* of the Tlokwa created by Bogatsu through marriage.\(^{27}\)

What may be fairly described as a state of equilibrium among the RPA groups, who could nevertheless be uneasy neighbours, came to an end with the Pedi incursions in the early 1820s. Even this propitious event was ignited not by inter-group conflict within the RPA, but by a leader seeking help from outsiders to settle an internal threat. The ousted Fokeng chief Thethe used a Po emissary to invite the Pedi of Sekwati to come to his rescue and eliminate his usurping brothers, Nameng and Noge. Sekwati’s brother Malekutu answered the call but, instead of acting at Thethe’s bidding, used the occasion to invade the RPA knowing that one of its largest groups, the Fokeng, was divided, and that another, the Po, would regard the Pedi force as friendly. Malekutu’s forces devastated the Fokeng, attacked the Po, and turned on the Po’s neighbours, the Mogopa Kwena. Malekutu returned to Pediland with lots of cattle and women.\(^{28}\) Other groups in the RPA were spared Malekutu’s opportunistic pillaging (perhaps because they were located away from the Phokeng-Brits plain), but from this point the prospects of all RPA groups began to suffer from internal strife, raids and counter-raids, and the rule of appalling chiefs or regents. The Pedi invasion effectively collapsed the equilibrium among RPA groups and set in motion a new phase in their respective histories, marked by the subsequent arrival of the BaKololo, AmaNdebele, and the Voortrekkers.

What is suggested at this point, therefore, is that greater attention be paid to individual groups in the RPA and that interdisciplinary approaches will be needed to come to our best conclusions about the historical dynamics of the people of this area. Already, the careful examination of oral traditions, contemporary accounts, and archaeological evidence, with close appreciation local particulars, is demonstrating great promise for reconstructing RPA history.\(^{29}\)

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Maps as historical evidence (a comment)

The maps created as historical evidence for this discussion should be regarded as relatively unsophisticated. These AGIS-made maps were able to answer basic questions regarding the relationship between terrain, soil, and RPA settlements and in so doing could demonstrate the potential for integrating data of value to historians, archaeologists, geographers and others interested in pre-colonial history. But, though the AGIS site may be useful, historians and archaeologists cannot input additional data of relevance. AGIS is a discreet, self-contained data set that is designed to answer non-historical questions. Therefore it is impossible to use it in such a way that allow specific data, such as aerial photos illustrating iron-age sites, for example, or GPS co-ordinates of sites measured in field research, to be overlaid on AGIS templates.

In other words, those wishing to create sophisticated maps will have to turn to Geographic Information Systems (GIS)-like software, with which they can control the input of data. GIS provides the freedom to create a varied assortment of templates reflecting a wide and expanding spectrum of data and images available online and in hard form, whether aerial or satellite photographs, topographical and survey data sets, or existing maps, among others. This author is quick to confess that the technical training required to build GIS templates was far beyond his ability, but others are encouraged to ignore my failure and try their hand.

Diagram 1

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30 Such as ESRI’s ArcView.
LEGEND—TERRAIN

<table>
<thead>
<tr>
<th>Colour</th>
<th>Description</th>
<th>Local relief (m)</th>
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<tbody>
<tr>
<td></td>
<td>Plains or plateaus with &gt;80% level land</td>
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<tr>
<td></td>
<td>Level plains or plateaus</td>
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<td></td>
<td>Level plains or plateaus with some relief</td>
<td>30-90</td>
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<tr>
<td></td>
<td>Open plains or plateaus with low hills or ridges</td>
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<tr>
<td></td>
<td>Open plains with high hills or ridges</td>
<td>150-300</td>
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<tr>
<td></td>
<td>Open plains with low mountains</td>
<td>300-900</td>
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</table>

Rolling landscapes, broken plains or plateaus with 50-80% level land

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<th>Colour</th>
<th>Description</th>
<th>Local relief (m)</th>
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<tbody>
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<td></td>
<td>Rolling or broken plains or plateaus with low relief</td>
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<td>Rolling or broken plains or plateaus with some relief</td>
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<td>Rolling or broken plains with high hills or ridges</td>
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<td></td>
<td>Rolling or broken plains with low mountains</td>
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Open hills, ridges or mountains with 20-50% level land

<table>
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<th>Colour</th>
<th>Description</th>
<th>Local relief (m)</th>
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<tbody>
<tr>
<td></td>
<td>Open low hills or ridges</td>
<td>30-90</td>
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<td></td>
<td>Open hills or ridges</td>
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<td></td>
<td>Open high hills or ridges</td>
<td>150-300</td>
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<td></td>
<td>Open low mountains</td>
<td>300-900</td>
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Hills, ridges or mountains with <20% level land

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<thead>
<tr>
<th>Colour</th>
<th>Description</th>
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<tr>
<td></td>
<td>Low hills or ridges</td>
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<td>Low mountains</td>
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<td>High mountains</td>
<td>&gt;900</td>
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Diagram 1 (continued)
LEGEND--Generalized Soil Patterns

Red-yellow well drained soils generally lacking a strong texture contrast
Red and yellow soils with a humic horizon
Red and yellow, massive or weakly structured soils with low to medium base status
Red, massive or weakly structured soils with high base status

Soils with a plinthic catena
Red, yellow and greyish soils with low to medium base status
Red, yellow and greyish soils with high base status

Soils with a strong texture contrast
Soils with a marked clay accumulation, strongly structured and a reddish colour
Soils with a marked clay accumulation, strongly structured and a non-reddish colour.
In addition one or more of vertic, melanic and plinthic soils may be present

Well structured soils generally with a high clay content
Dark coloured, strongly structured soils dominated by cracking and swelling clays (vertic soils).
In addition, one or more of melanic and red structured soils may be present
Soils with dark coloured, well structured topsoil with high base status (melanic soils).
In addition, one or more of vertic and red structured soils may be present
Deep, well drained, dark reddish soils having a pronounced shiny, strong blocky structure (nutty),
usually fine (red structured soils). In addition, one or more of vertic and melanic soils may be present

Soils with limited pedological development
Soils with minimal development, usually shallow on hard or weathering rock, with or
without intermittent diverse soils. Lime rare or absent in the landscape
Soils with minimal development, usually shallow on hard or weathering rock, with or
without intermittent diverse soils. Lime generally present in part or most of the landscape
Soils with negligible to weak profile development, usually occurring on deep deposits

Sandy soils
Red, excessively drained sandy soils with high base status - dunes are present
Red and yellow, sandy well drained soils with high base status
Greyish, sandy excessively drained soils

Strongly saline soils
Strongly saline soils generally occurring in deep deposits on flat lands

Podzolic soils
Soils with a sandy texture, leached and with sub-surface accumulation of organic matter and
aluminium with or without iron oxides, either deep or on hard or weathering rock

Rocky areas
Rock with limited soils

Diagram 2