An Archaeological Investigation of the Irene Rural Residential Development, Irene, Centurion District, Pretoria, Gauteng

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Executive Summary

Although specific recommendations are made with regard to the various sites, the following general guidelines are presented:

- Due to the age of the historical remains (older than 60 years) they are protected by legislation (NHRA, Act no. 25 of 1999)
- These structures represent a specific (though not unique) aspect of the cultural landscape of Irene during the late 19th and early 20th centuries
- It is recommended that development activities avoid the sites recorded
- If this is unattainable, those affected structures should be fully documented and an application for its destruction presented to SAHRA.

Also note the following:

- It should be kept in mind that archaeological deposits usually occur below ground level. Should artefacts or skeletal material be revealed during the construction of the rural development, a university or museum has to be notified in order for an investigation and evaluation of the find(s), by a qualified archaeologist, to take place, prior to any further developments.

1. Introduction

The Archaeology Contracts Unit (UNISA) conducted an archaeological and historical investigation of the proposed Irene Rural Residential Development situated on the southern periphery of the suburb Irene, Pretoria. This report is compiled for Van Riet and Louw Landscape Architects.

The aim of this investigation is to locate, identify and document visible archaeological and historical artefacts, structures (including graves) and settlements of cultural significance within the proposed development area.

2. Terms of Reference

The terms of reference of this survey are as follows:

- * Compile a brief contextualisation of the area's ethnographic and colonial history
- * Provide a detailed description of all archaeological artefacts, structures (including graves) and settlements
- * Estimate the level of sensitivity/importance of the archaeological remains within the area
- * Assess the significance of the impact of the proposed development on the archaeological remains
- * Propose possible mitigation measures provided that such action is necessitated by the development

3. Definitions and Approach

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited in or on the ground.
- Cultural resources are non-renewable.
- All archaeological remains, artificial features and structures older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999).** The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory. No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.
- Cognisance will also be taken of the Minerals Act (Act No 50 of 1991) and the National Environmental Management Act (Act No 107 of 1998) when making any recommendations.
- Rating the **significance of the impact** on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low.

- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- It should be kept in mind that archaeological deposits usually occur below ground level. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted, and a university or museum would be required to be notified in order for an investigation and evaluation of the find(s) to take place (*cf.* NHRA (Act No. 25 of 1999), Section 36 (6)).
- A copy of this report will be lodged with the **South African Heritage Resources Agency (SAHRA)** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4).

4. Methodology

4.1 Literature Study

Various archaeological, ethnographic and historic sources were consulted to compile a concise cultural framework of the area under investigation.

4.2 Maps and Other Sources

The development area was localised by using the 1:10 000 Orthophoto 2528 CC 15 (Irene) and the 1:50 000 Topographic Map 2528 CC (Centurion) followed by an on-site investigation. The orientation and location of sites were determined by using a Global Positioning System (GPS)¹ correlated with the geographic features (i.e. rivers, fields, topography etc.) of the area.

Furthermore, members of the Van der Byl family were interviewed or phoned to obtain additional information on known historic structures.

The **Archaeological Data Recording Centre (ADRC)** was consulted to determine whether known archaeological settlements are listed for the investigated area.

4.3 Fieldwork

The site visit to the proposed development area took place on 9 July 2001. An area of approximately 200 hectares was extensively investigated on foot.

5. Area Description

The investigated area is characterised by an extensive road network, several fenced

¹ According to the manufacturer a standard deviation is to be expected when determining the location of sites. However, care has been taken to correlate the reading with the topography and to obtain a low dilution of precision (DOP) before plotting sites on a map.

areas used for grazing, a pump station with reservoir as well as cultivated fields. The area is therefore generally seen as a disturbed area with several historic and more recent alterations.

PERIOD	APPROXIMATE DATE	
Early Stone Age	more than c. 2 million years ago - c. 200 000 years ago	
Middle Stone Age	c. 200 000 years ago - c. 25 000 years ago	
Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)	
Early Iron Age	c. AD 400 - c. AD 1025	
Late Iron Age (Stone-walled sites)	c. AD 1025 - c. AD 1830 (c. AD 1640 - c. AD 1830)	

6. Chronological Framework

7. Archaeological and Ethnohistorical Context

The extended geographic area south of the Magaliesberg, known as Pretoria is generally rich in archaeological sites due to the availability of water and migrating game (i.e. Wonderboom Poort). Early Stone Age, Middle Stone Age and Later Stone Age sites are abundant in the area. Revil Mason excavated Hennops River Cave and attributed the Later Stone Age tools to the Middle Smithfield Tradition indicating Stone Age occupation as recently as a few thousand years ago. The Iron Age occupation, reflected in the pottery excavated in the upper layers, was attributed to the Uitkomst Tradition (Mason 1962:70,78).

Oral history indicate the presence of amaNdebele and BaKwena people (people of the crocodile) in the Pretoria area. Stone-walled settlements attributed to the BaKwena people were known in the Irene area. In 1826, during Mzilikazi=s sojourn through the area his impis annihilated this group as illustrated by the underground cave episode as reflected in oral history (see 9.7.1) (Kotzé 1983:8-11).

8. Historical Context

Daniël Elardus Erasmus purchased the farms Swartkoppies and Doornkloof on 8 and 9 August 1841 respectively (Kotzé 1983:23). Later, the farm Doornkloof was calculated to be 6000 morgen in extent on which Erasmus mainly farmed cattle. He died on 15 April 1875 and was buried, together with his wife, on the farm. The graves could still be seen in 1942 and were situated west of the railway line near the station building (on the present-day Irene Golf Club estate) (Kotzé 1983:37). Subsequent to his death, the farm was divided into three portions along natural divisions indicated by the *Olifantspruit* and *Hennopsrivier*. The oldest son, Daniël Jacobus Elardus Erasmus inherited the southwestern section, Michiel Christiaan the south-eastern section and the youngest son, Stephanus Petrus the north-eastern section (Kotzé 1983:38, though some discrepancy exists *cf.* p. 80). Daniël and Stephanus sold their farms on 17 October 1889 for , 45 000 to the Hungarian Jew, Alois Hugo Nellmapius who later named the central area Irene (after his daughter). The remaining section of the farm Doorkloof which was passed on to Michiel=s son, Daniël Elardus Erasmus was sold to General Jan C Smuts on 3 September 1908 (Kotzé 1983:48).

Nellmapius envisaged large-scale development on the farm. The architect WJ Zwaan was contracted to design and build the luxury residence, the barn and dairy. In addition, various other structures were constructed on the property which included toolsheds, workshops, stables and small dams. The horticulturalist W Fuchs was appointed to develop gardens and cultivate tree plantations (including approximately 100 000 forest-trees and 20 000 fruit-trees), various crops (sorghum, maize, wheat, oats, barley, millet) and a wide range of vegetables. Nellmapius also appointed the veterinary surgeon Dr Arnold Theiler to oversee the cattle and horse breeding programme. The mining of Dolomite was another economic pursuit during this time, culminating in the founding of >Irene Limeworks= (Kotzé 1983:66-67).

After Nellmapius= death on 28 July 1893 the farm (>Irene Estates=) was sold in 1895 to Johannes Albertus van der Byl (50% share) and to the firms Eckstein and, Lewis and Marks (25% shares each) (Kotzé 1983:70). Van der Byl proceeded to build up a dairy herd and constructed a number of dams and water furrows on the farm (Van der Byl 1963:8).

Developments in the region were interrupted by the South African War which commenced on 11 October 1899. Of importance is the location of the concentration camps and related activity areas which resulted from the war. The construction of the well known Irene Camp (Camp 1) was initiated on 9 December 1900. It was initially situated north of the Hennops River and west of the railway line but later moved further north and west of the railway station. With the transfer of people from the Nylstroom Camp in March 1902 to Irene a new camp (Camp 2) was laid out. It was situated approximately 1,5 kilometres south of Camp 1 and approximately 800 metres west of the Hennops River (Sesmylspruit). Apparently it was situated on a slope which provided protection against the cold south-easterly wind (Kotzé 1983:78-79, Hattingh 1967:97). It would appear that Camp 2 probably was situated on or close to the western periphery of the newly acquired so-called, >Irene Estate=. Badenhorst located the site at 25°54'15" E; 28°12'10" S (cf. In press: 3). The transfer which necessitated Camp 2 introduced 2000 new inhabitants to the area. A small hospital was erected >oorkant die rivier= to attend the sick (Hattingh 1967:153) and a school was opened which operated until December 1902 (Hattingh 1967:171).

The cultural landscape of the area changed dramatically after the war. An orphanage was erected in October 1902 and consisted of a dormitory, an eating hall, reading room, kitchen, warehouse, scullery, sickroom, offices, bathrooms, various workshops, ironing room and accommodation for two matrons. By November the orphanage accommodated 50 girls and 21 boys. After the amalgamation of the Pietersburg, Pothchefstroom and Irene orphanages with Potchefstroom as the new head office, the Irene orphanage closed on 20 September 1907 (Badenhorst In press:5-6, Kotzé 1983:98).

Furthermore, a fort was built on the highest hill in the area by the Duke of Cornwall=s

Light Infantry to safeguard the railway station from post-war raids. The suburb of Irene was proclaimed on 21 September 1902 with the first 337 stands surveyed. One of the last large scale developments was the construction of a nine-hole golf coarse in 1912 (which was later extended to eighteen holes), situated on the southern section of the farm (Kortzé 1983:129-130&139). Amongst the trees near the fifteenth green stood the cottage of Nellmapius= manager which was rebuilt by John Henry van der Byl in 1950 (Van der Byl 1963:17).

9. Description of Sites

9.1 Site 1 (2528CC1)

Situated adjacent to a wooded Bluegum (*Eucalyptus globosus*) area, Site 1 consists of a group of three small circular house foundations with a square veranda (protruding approximately 200-300 millimetres above the surface). No other remains or middens were identified in the open area surrounding the structures. The foundation layout of two structures suggest the erstwhile buildings probably had two rooms. One of the house foundations is much larger and elaborate then the other two.

9.2 Site 2 (2528CC2)

This site consists of two square house foundations (about 30 metres apart) with associated scatters of broken porcelain, glass (stained) and pieces of metal and wire. The foundation layout again suggests the erstwhile buildings probably had two rooms and were 6 metres wide and 12 metres long. The house foundations were constructed with chert which is associated with dolomite formations both occurring naturally in the area (Photo 1).

Additional foundation structures were identified east of abovementioned structures. A locally-made brick with the imprint 'Kaalspruit' was also recorded in the foundation walling (Photo 13).

9.3 Site 3 (2528CC3)

Additional square and round foundations were located about 150 metres to the northwest of Site 2. Individual structures could not be discerned (Photo 2). A recently excavated ditch or furrow cuts through some of the foundation structures (Photo 3). Scatters of broken stained glass were recorded. The structures are also associated with a cluster of alien Syringa trees (*Syringa vulgaris*).

9.4 Site 4 (2528CC4)

Site 4 was identified as a stilling pond (4x4 metres) which is connected to an extensive irrigation system that runs parallel to the *Sesmylspruit* (Hennops River). This system mainly consists of a single water furrow (cemented in some places) and is indicated on the 1:50 000 map (2528CC) (Photo 4,5). It appears that the furrow provided water for cultivated fields situated along the southern plains of the river. According to John van der Byl the furrow was built by his farther at the turn of the previous century (*circa* 1900) but has fallen into disuse in recent years (Personal Communication).

9.5 Site 5 (2528CC5)

Site 5 consists of four recently demolished brick and concrete buildings. The remaining rubble and foundations of the main building indicate that it was an extensive structure (approximately 20x40 metres) enclosing a central open square (Photo 6,7). According to Adrian van der Byl the building was used as a hostel for Coloured children who were removed from their homes due to social problems (Personal Communication). The building fell into disuse in the 1960s. Bricks, tiles, metal frames, concrete, broken glass etc. were recorded on and in the area around the remains of the building. The three smaller structures and associated main building were demolished about 6 years ago due to illegal occupations.

9.6 Site 6 (2528CC6)

Site 6 is an isolated mound (Photo 8) indicated by John van der Byl. It appears to be the remnant of a building as *in situ* bricks can still be discerned. The mound is situated adjacent to a water furrow. No other structures or surface cultural material were recorded in the near vicinity.

9.7 Site 7 (2528CC7)

Site 7 is a historic building situated in the main farm complex adjacent to the dairy and farm shop. It is a plastered brick structure with a corrugated iron roof and wooden fixtures (Photo 9). The upper level floor is supported by pillars and trusses and is entirely constructed of wood (Photo 10). The wood seems to be in a stable condition but some of the inside walling appears brittle. The building was built by Nellmapius sometime before the farm was purchased by the Van der Byl family in 1894 (John van der Byl: Personal communication). It is currently envisaged to convert the building into a tea garden with an associated equestrian facility.

9.7 Other Features

9.7.1 Underground Gave

Situated approximately 2 kilometres south of the railway station, adjacent to the present-day road leading to the Agricultural Research Council, is what is known as the >Big Tree Hole=. The site consists of a large hole in the ground with trees growing out of it. The site is situated at 25°53'46,2"S, 28°13'20,9"E. The gave has deep underground cavities and was used by baKwena people to hide from Mzilikazi=s raiding soldiers in 1826, at the beginning of the *Difaqane/Mfecane* period. A fire was made at the entrance to the gave with the result that most of the refugees were either stabbed or suffocated to death. No structures or cultural remains were recorded in the vicinity of the gave.

9.7.2 Gully

A gully (3 metres deep and 3 metres wide) was constructed about 6-7 years ago and runs along the periphery of the southern section of the farm (west of the Hennops River and south of Nellmapius Drive)(Photo 11)(Henry van der Byl: Personal Communication).

No historical or archaeological remains were recorded near this feature.

10. Culture Historical Evaluation

10.1 Introduction

The proposed rural development area was visited on 9 August 2001 for the purpose of evaluating the archaeological sites recorded by Francois Coetzee in the preceding weeks.

As indicated, the general area on which the above land is situated do have a long record of human occupation. The specific period covered in this report seems to fall in the *historical period* focussing mainly on the white pioneer occupation of the land, the South African War (Second Anglo-Boer War) as well as black labour housing of the early late 19th and early 20th century. The demolished AColoured children's hostel@ (Site 5) presents an interpretive Aproblem@ due to various inconsistencies between the information provided and the architectural evidence.

All structures seem to be associated with land-use by two prominent families namely, Nelmapius and Van Der Byl, white pioneers in the middle 1800's.

Detail of each site will be discussed in following sections of the report, but for orientation of the reader the following may be taken note of.

The original farmlands belonged to the Erasmus family, typical white pioneers that used the land mainly for stock raising and hunting. As far as is known to us, the only homestead that can be linked to this early period, is situated down in the fountains valley. No buildings or remains from this early period could be found during the present survey.

Nelmapius though, at the end of the 19th century, embarked on mayor building activities in the Adevelopment[®] of the farm and much of his work is still to be seen in the form of structures surrounding the present dairy. Water played an important role in the farming operations, and water furrow systems and stilling ponds from this period have also survived. During this period portions of the farm was also utilised as a bivouac for English troops and a concentration camp. Some sites from this period have survived and even bricks from the 'Kaalspruit Steenmakery' could be found. Before and after the takeover of the farm by the Van Der Byl family black labour was housed on the farm. Possibly during the apartheid years these people were relocated, and a large portion of the archaeological remains found by Coetzee is associated with this aspect of the cultural history of the farm

10.2 Sites Revisited

Site 7 (2528 CC7)

According to Mr Coetzee this building is to be renovated as a restaurant and at present being redesigned for this purpose. The following must be noted.

- Due to the age of the building (older than 60 years) a permit must be requested

from SARHA to perform any work or alterations on the structure.

- Even though architects have apparently been appointed to supervise these alterations, the building has to be fully documented before **any alterations** of **any form** is undertaken.
- A list and plan of intended alterations must be submitted to SAHRA.
- Personal observations:-
 - * There is substantial structural problems with the low-fired bricks used in the structure as was observed in several places in the walls
 - * These structural problems can also be observed in some of the ceiling structural members that have been repaired in the past.
 - * Further evidence of these problems can be observed by walking through the attic and the Awavy@ condition of the floor.
 - * The concrete placed on the floor in the first section of the building is not separated from the original walls and columns by softboard or similar material, and does not seem to have been done in accordance with restoration architectural specifications.
 - * The finials and ventilators on the roof is in bad condition.
 - * The attic Afloor@ is not suitable for any type of load bearing.
 - Some of the old farm implements (especially the Adamskrop@) are also noteworthy and should be not removed from the site.
- A SARHA representative should preferably be involved with the alteration process.

This site is understood not to be part of the area to be set out for building purposes and is thus not in direct danger of demolition.

Site 6 (2528CC6)

According to information recorded by Coetzee, this structure is loosely associated with the Anglo Boer War of 1899-1902. There is no obvious archaeological signs that can at present confirm this. Architecturally speaking, bricks are aligned in such a manner as to suggest that the mound is the foundation of a substantial low-fired brick building of approximately 15 feet by sixty feet (5m x 20m). The height of the >foundation@ above normal ground level is about 2 feet (600 mm). The aforesaid possibly places it in the category of typical British military buildings of the period which consisted of four offices of 15 feet square placed adjacent to each other.

Recommendation

If the building is to be disturbed by the development and there is no means of avoiding this then it is recommended that:

- The building be cleared of soil and rubble
- The building be excavated to reveal the foundations and floor plan and this be documented
- The stages of excavation to be photographed

If at this stage the building still has to make way for new structures then it will be suggested that the final demolition be done by systematically taking it apart by archaeological excavation and the full documentation thereof.

Site 5 (2528CC5)

This is possibly the most puzzling site on the farm owing to the fact that the information supplied by informants to Coetzee and the archaeological/architectural evidence does not match at all. It is said that this building was only used for the accommodation of homeless Coloured children and that it fell in disuse in the 1960's. Apparently, owing to illegal use of the building by vagrants it was bulldozed recently.

The remains of tiles and bathroom fixtures that could be seen in the western wing correlates with ceramic imprints from the 1950-1960's (Upgrading of ablution facilities?). However, in several places remnants of the original walling displayed the AEnglish Bond@ building technique often associated with early 20th century structures (Photo 12). In addition, many of the trees surrounding the complex show signs of great age, possibly much older than 50 years.

Furthermore, although we know that the Van Der Byl family were very generous, it is hard to imagine that they would have built a structure this size for the sole purpose of tending to the needs of quite a large number of Coloured orphans and then very soon afterwards demolish such a structure to take away shelter from needy people.

Recommendation

Before this building can be condemned to final removal it should be positively established for what purpose, by whom and when it was built. If it can be sown to be younger than 60 years old, no further mitigation is suggested.

However, if it can be established the building is significant, then we will at least have to do a full documentation of the structure and its associated landscape features such as trees, furrows, fields, roads, etc.

Site 4 (2528CC4)

This site forms part of the extended and complicated system of water furrows that was at different times utilised to bring fields under irrigation with water from the river. In essence it is a number of furrows meeting and dissipating from a central stilling pond. Adjacent to the stilling pond we recorded a very large midden containing a high concentration of cultural material.

Recommendation

Although it might not appear to be much, these furrows were in the past the essence of this farm in bringing life-giving water to the fields and animals. One should hope that at least a section could be retained as a reminder that this area once was farmland. If not, then the same principle of archaeological excavation and documentation is to be followed. This pertains especially to the midden, as it is deemed important to obtain some idea of the cultural material used on the farm. The position of the midden is unusual, as it is not closely linked with any specific structure or complex. Its excavation might provide information for contextualization.

Site 3 (2528CC3)

This site located by Coetzee is primarily a range of structures and houses that are located against a ridge facing the north and east, looking towards the river. At least seven individual sites with possibly as many as 20 homesteads makes up this collection of structures. They are linked by the following typical characteristics:-

- Many circular plan forms can be observed
- 'Font-' and 'backyards' are demarcated at most sites by low walls.
- None of the buildings show any sign of 'substantial' building
- Very little or no cement can be observed
- Many structures have metal parts of wagons as structural elements
- Signs of outside cooking areas could be observed
- Date of the building and use of these structures could be established by the presence of the following
 - * Ceramics from the late 19th century.
 - * Bottles from the late 19th century.
 - * Waggon parts.
 - * Bricks with AKaalspruit@ trademark (Photo 13).

Recommendation

These structures represent the lives of a Alost generation@of South Africans that lived on white owned farms, often for a number of generations. This co-habitation ceased in the apartheid years when such people were obliged to move to local black areas such as Atteridgeville and Mamelodi. In this respect the archaeological remains of the cultural footprint of this people from this era is of some historical importance owing to the fact that in most other cases such records have already disappeared. Seen in this light it is of importance that detail recording of the sites must be made before there removal. If possible a selection of these structures that is associated with the very old seringa trees should be protected in memory of the labour force that were the real producers of the wealth generated on these farms .

Trees

None of the trees have been recorded as 'historical' landmarks but may be associated with special events. Seen in the light that this landscape was originally totally devoid of any trees, it can be recommended that all trees be seen as part of the old cultural landscape even though there is little representation of indigenous trees.

11. Summary of Areas

Site	Location	Significance
Site 1 (2528CC1)	25°52'48,7" S 28°12'24,3" E	Medium ¹
Site 2 (2528CC2)	25°53'07,8" S 28°12'20,6" E	Medium ¹
Site 3 (2528CC3)	North-west of Site 2	Medium ¹
Site 4 (2528CC4)	25°52'57,4" S 28°12'30,6" E	Medium ¹
Site 5 (2528CC5)	25°53'11,0" S 28°13'03,1" E	Medium ¹
Site 6 (2528CC6)	25°53'06,0"S 28°12'47,5"E	Medium ¹
Site 7 (2528CC7)	25°52'40,8"S 28°12'46,8"E	Not affected

Though not unique, these sites represent a specific part of history that should be documented before it can be destroyed by development.

11. Discussion

There are few opportunities in South Africa where Adevelopment@ takes place in an area with such rich associated historical events as this one. It would be of immense Avalue added= to the development, if the **Astory@** of the Irene **Ahistory@** is woven into the fabric of the new development by selective conservation of icons from the past, linked with the passing on of the >oral traditions= of the area. Apart from the real conservation value of such an arrangement, it can serve as educational cameos that will remind us in the future that every 'new development' will also end, and that only through care can we cement the history of a region into the minds and lives of the present and future generations.

12. Conclusions and Recommendations

Although specific recommendations are made with regard to the various sites, the following general guidelines are presented:

- Due to the age of the historical remains (older than 60 years) they are protected by legislation (NHRA, Act no. 25 of 1999)
- These structures represent a specific (though not unique) aspect of the cultural landscape of Irene during the late 19th and early 20th centuries
- It is recommended that development activities avoid the sites recorded
- If this is unattainable, those affected structures should be fully documented and an application for its destruction presented to SAHRA.

Also note the following:

- It should be kept in mind that archaeological deposits usually occur below ground level. Should artefacts or skeletal material be revealed during the construction of rural development, a university or museum has to be notified in order for an investigation and evaluation of the find(s), by a qualified archaeologist, to take place, prior to any further developments.

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