Phase 1 Archaeological Impact Assessment of a proposed new hotel development on Erf 5206 in Springbok, Northern Cape Province.

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Summary

A Phase 1 archaeological impact assessment was carried out for a proposed new hotel development on Erf 5206 in Springbok, Northern Cape Province. The study area covers about 1.2 ha and is located next to the Springbok Caravan Park and the R355 provincial road going south. The field assessment provided no above-ground evidence of prehistoric structures, buildings older than 60 years, graves or material of cultural significance or *in situ* archaeological sites within the study area. The proposed development footprint and existing access road yielded no archaeological or cultural heritage resources and are not considered archaeologically significant. It is also considered unlikely that any significant artifact occurrences would be found below the surface within the boundaries of the study area. No mitigation is required, as long as all planned activities are restricted to within the boundaries of the development footprint. The heritage significance of the proposed footprint is considered **low** and the study area is assigned a site rating of **Generally Protected C.**

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Introduction

The report is an assessment of potential archaeological impact with regard to a proposed new hotel development on Erf 5206 in Springbok, Northern Cape Province (**Fig. 1**). The region's unique and non-renewable archaeological and palaeontological heritage sites are 'Generally' protected in terms of the National Heritage Resources Act (Act No 25 of 1999, section 35) and may not be disturbed at all without a permit from the relevant heritage resources authority. As many such heritage sites are threatened daily by development, both the environmental and heritage legislation require impact assessment reports that identify all heritage resources including archaeological and palaeontological sites in the area to be developed, and that make recommendations for protection or mitigation of the impact of the The primary legal trigger for identifying when heritage specialist involvement is required in

the Environmental Impact Assessment process is the National Heritage Resources (NHR) Act (Act No 25 of 1999). The NHR Act requires that all heritage resources, that is, all places or objects of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, battlefields, graves, and structures over 60 years of age, living heritage and the collection of oral histories, historical settlements, landscapes, geological sites, palaeontological sites and objects.

The Act identifies what is defined as a heritage resource, the criteria for establishing its significance and lists specific activities for which a heritage specialist study may be required. In this regard, categories of development listed in Section 38 (1) of the NHR Act are:

- The construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- The construction of a bridge or similar structure exceeding 50m in length;
- Any development or other activity which will change the character of the site;
- Exceeding 5000 m² in extent;
- Involving three or more existing erven or subdivisions thereof;
- Involving three or more subdivisions thereof which have been consolidated within the past five years;
- Costs of which will exceed a sum set in terms of regulations by the South African Heritage Resources Agency (SAHRA).
- The rezoning of a site exceeding 10 000 m².
- Any other category of development provided for in regulations by the South African Heritage Resources Agency (SAHRA).

The significance or sensitivity of heritage resources within a particular area or region can inform the EIA process on potential impacts and whether or not the expertise of a heritage specialist is required. A range of contexts can be identified which typically have high or

potential cultural significance and which would require some form of heritage specialist involvement (**Table 1**). This may include formally protected heritage sites or unprotected, but potentially significant sites or landscapes (**Table 2**). The involvement of the heritage specialist in such a process is usually necessary when a proposed development may affect a heritage resource, whether it is formally protected or unprotected, known or unknown. In many cases, the nature and degree of heritage significance is largely unknown pending further investigation (e.g. capped sites, assemblages or subsurface fossil remains). On the other hand, it is also possible that a site may contain heritage resources (e.g. structures older than 60 years), with little or no conservation value. In most cases it will be necessary to engage the professional opinion of a heritage specialist in determining whether or not further heritage specialist input in an EIA process is required. This may involve site-significance classification standards as prescribed by SAHRA (**Table 3**). Alternatively, useful sources of information on heritage resources in South Africa can also be obtained through SAHRA's national database of heritage resources, including existing heritage survey information as well as other published or secondary source material on the overall history of a particular area or site.

Methodology

The significance of the affected area was evaluated through a desktop study and carried out on the basis of existing field data, database information and published literature. This was followed by a field assessment by means of a pedestrian survey of the area. Particular attention was given to low-lying areas and associated alluvial deposits. A Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera were used for recording purposes. Relevant archaeological and palaeontological information, maps, Google Earth images and site records were consulted and integrated with data acquired during the on-site inspection.

The task also involved identification and assessment of possible archaeological heritage within the proposed project area, in accordance with section 9(8) and appendix 6 ("Specialist reports") of the NEMA EIA Regulations, 2014 , whereby the specialist report takes into account the following terms of reference:

- Identify and map possible heritage sites and occurrences using available resources.
- Determine and assess the potential impacts of the proposed development on potential heritage resources;
- Recommend mitigation measures to minimize potential impacts associated with the proposed development.

The study area is rated according to field rating categories as prescribed by SAHRA (**Table 3**) and summarized according to three significance rating categories (**Table 4**).

Assumptions and Limitations

It is expected that the proposed development will be localized, and that potential archaeological impacts, if any, will be confined to the development footprint during the construction phase. The field assessment focused on a small development footprint located on rocky terrain with sparse vegetation and shallow soil profiles, with the expectation that archaeological visibility should be relatively high in terms of Stone Age archaeological remains, rock art sites and above ground historical structures. However, for the sake of prudence, it is emphasized that potential subsurface features of heritage significance may not be noticed during the initial field assessment.

Locality Data

The study area covers about 1.2 ha and is located next to the Springbok Caravan Park and the R355 provincial road going south **(Fig. 2**).

Site Coordinates:

A) 29°40'17.63"S 17°53'54.22"E
B) 29°40'16.53"S 17°53'59.81"E
C) 29°40'19.00"S 17°54'0.44"E

D) 29°40'20.63"S 17°53'54.87"E

Background

Archaeological and historical evidence show that the Middle Orange River and Bushmanland regions have been populated more or less continuously during prehistoric times and that the region was extensively occupied by Khoi herders and San hunter-gatherers during the last 2000 years (Morris & Beaumont 1991; Beaumont *et al.* 1995; Smith 1995). According to Beaumont (1986) archaeological visibility in the region was high during the Last Glacial Maximum, a viewpoint that is in contrast to that indicated for southern Africa as a whole (Deacon and Thackeray 1984). Beaumont *et al.* 1995 also noted that MSA artifact occurrences are widespread in the Bushmanland area, but are mainly preserved as low density surface scatters on the landscape. Morris (2010, 2013a, 2013b) noted very sparse localized scatters of MSA stone tools at the top of Gamsberg at Aggeneys, including a MSA knapping site, and ESA material, including a Victoria West core on quartzite within the Gamsberg basin. The importance of Gamsberg as an archaeological/historical focal point is further alluded to in early 19th century records (Penn 2005) as a place of refuge and conflict during the colonial frontier period and by the meaning of its name, which is derived from the Khoikhoi word Gaams, meaning 'grassy spring'. The principal Khoikhoi inhabitants of the Middle Orange River were the Einiqua who belonged to the same language group as the Namaqua and Korana, namely the Orange River Khoikhoi (Penn 2005). The Einiqua occupied the area around and east of the Augrabies Falls while the Korana occupied the Middle-Upper Orange River further to the east. A large number of burial cairns were excavated near the Orange River in the Kakamas area and appear to be related to Korana herders (Morris 1995). It is pointed out that while Bushmanland sites in the surrounding area appear to be ephemeral occupations by small hunter-gatherer groups, substantial herder encampments found along the Orange River itself indicate that the banks and floodplains of the river were more intensely exploited (Morris & Beaumont 1991; Beaumont 1995).

Hinterland sites are mainly restricted rock shelters near mountainous terrain sand dune deposits, or around seasonal pans and springs (Beaumont 1995). Herder sites with ample pottery have been recorded near Aggeneys (Morris 1999) and historical records show that herder groups settled at the stronger springs such as at Pella located about 28 km northwest of Pofadder (Thompson 1827).

After a group of Namaquas brought pieces of copper ore to the Cape in 1681, exploratory expeditions under the command of ensign Oloff Bergh were sent out to find the 'copper mountains'. It was eventually discovered by a party led by Simon van der Stel in 1685 and today it is situated about 11 km east of Springbok on the N14 national road to Aggeneys (**Fig. 4 & Fig. 5, no. 1**). One hundred and eighty years passed before people began to exploit copper commercially in the vicinity. The town of Springbok was founded in 1862 as a copper-mining centre under the name *Springbokfontein*, and was administered by a village management board from 1922. It became a municipality in 1933. When copper mining operations began in earnest in 1852, Springbokfontein consisted of one mud hut and a few mat huts and by 1864 the Springbokfontein Reduction Work, located to the north of the village, was fully operational for smelting copper ore on an industrial scale (Smallberger 1975) (**Fig. 5, no. 2**). The total population totaled 244 by 1875 where after it became virtually deserted in 1877 after the mine closed down. After reopening of the Springbokfontein Mine in 1881, the town's population grew again with around 111permanent inhabitants by 1906 **(Fig. 5, no. 3 & Fig. 6**). Translated from the Khoikhoi word 'guchas' meaning 'springbok', the name Springbokfontein was officially shortened to Springbok in 1911.

Field Assessment

Located on a west-facing slope the proposed development area covers mostly rocky terrain with very little soil development (**Fig. 7**). Four unidentifiable metal cans and three unmarked ceramic fragments were observed as surface scatters. No above-ground evidence was found of intact Stone Age archaeological assemblages or sites. The pedestrian survey also revealed

no evidence of prehistoric structures, marked graves or rock art sites within the confines of the study area.

Impact Statement Recommendation

The field assessment provided no above-ground evidence of prehistoric structures, buildings older than 60 years, graves or material of cultural significance or *in situ* archaeological sites within the study area. The proposed development footprint and existing access road yielded no archaeological or cultural heritage resources and are not considered archaeologically significant. It is also considered unlikely that any significant artifact occurrences would be found below the surface within the boundaries of the study area. No mitigation is required, as long as all planned activities are restricted to within the boundaries of the development footprint. The heritage significance of the proposed footprint is considered **low** and the study area is assigned a site rating of **Generally Protected C** (GP.C) (**see Tables 3 & 4**).

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DECLARATION OF INDEPENDENCE

I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference. I have no interest in secondary or downstream developments as a result of the authorization of this project.

05 / 11 / 2017

Tables and Figures

Table 1: Relationship between different heritage contexts, heritage resources likely to occur within these contexts, and likely sources of heritage impacts in the region.

Heritage Context	Heritage Resources	Impact
Palaeontology	e.g. Precambrian shallow marine and lacustrine stromatolites, organic-walled microfossils, Ghaap Plateau (Transvaal Supergroup) Neogene regolith, Bushmanland	Road cuttings Quarry excavation Bridge and pipeline construction (Quaternary alluvial deposits)
Archaeology Early Stone Age Middle Stone Age LSA - Herder Historical	Types of sites that could occur in the Northern Cape include: Localized Stone Age sites containing lithic artifacts, animal and human remains found near *inter alia* the following: River courses/springs Stone tool making sites Cave sites and rock shelters Freshwater shell middens Ancient, kraals and stonewalled complexes Abandoned areas of past human settlement Burials over 100 years old Historical middens Structural remains Objects including industrial machinery and aircraft	Subsurface excavations including ground levelling, landscaping, foundation preparation, road building, bridge building, pipeline construction, construction of electrical infrastructure and alternative energy facilities, township development.
History	Historical townscapes, e.g. Kimberley Historical structures, i.e. older than 60 years Historical burial sites Places associated with social identity/displacement, Oppermansgronde Historical mission settlements, e.g. Pella, Moffat Mission	Demolition or alteration work. New development.
Natural Landscapes	Formally proclaimed nature reserves Evidence of pre-colonial occupation Scenic resources, e.g. view corridors, viewing sites, Historical structures/settlements older than 60 years Geological sites of cultural significance.	Demolition or alteration work. New development.
Relic Landscape Context	Battle and military sites, e.g Magersfontein Precolonial settlement and burial sites Historical graves (marked or unmarked, known or unknown) Human remains (older than 100 years) Associated burial goods (older than 100 years) Burial architecture (older than 60 years)	Demolition or alteration work. New development.

Table 2. Examples of heritage resources located in the region.

Historically, archaeologically and palaeontologically significant heritage sites & landscapes	**Examples**
Landscapes with unique geological or palaeontological history	Karoo Basin Neogene regolith, Bushmanland, Rock engravings and glacial striations on Ventersdorp andesites Taung World Heritage Site
Landscapes characterised by certain geomorphological attributes where a range of archaeological and palaeontological sites could be located.	Orange River valley Ancient Koa River drainage Ghaap Plateau Gamsberg
Relic landscapes with evidence of past, now discontinued human activities	Wonderwerk Cave Stone Age deposits
Historical towns, historically significant farmsteads, settlements & routes	Cambell, Pella, Copper Mountain
Battlefield sites, burial grounds and grave sites older than 60 years.	Prieska Kakemas

Table 3. Site rating categories as prescribed by SAHRA.

Field Rating	**Grade**	**Significance**	**Mitigation**
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

Table 4. Significance rating and recommendation

Rating	**Recommendation**
High	No-Go area. Off limits for development
Medium	Poses a potential risk to heritage resources, but can be accepted with mitigation
Low	Acceptable for development

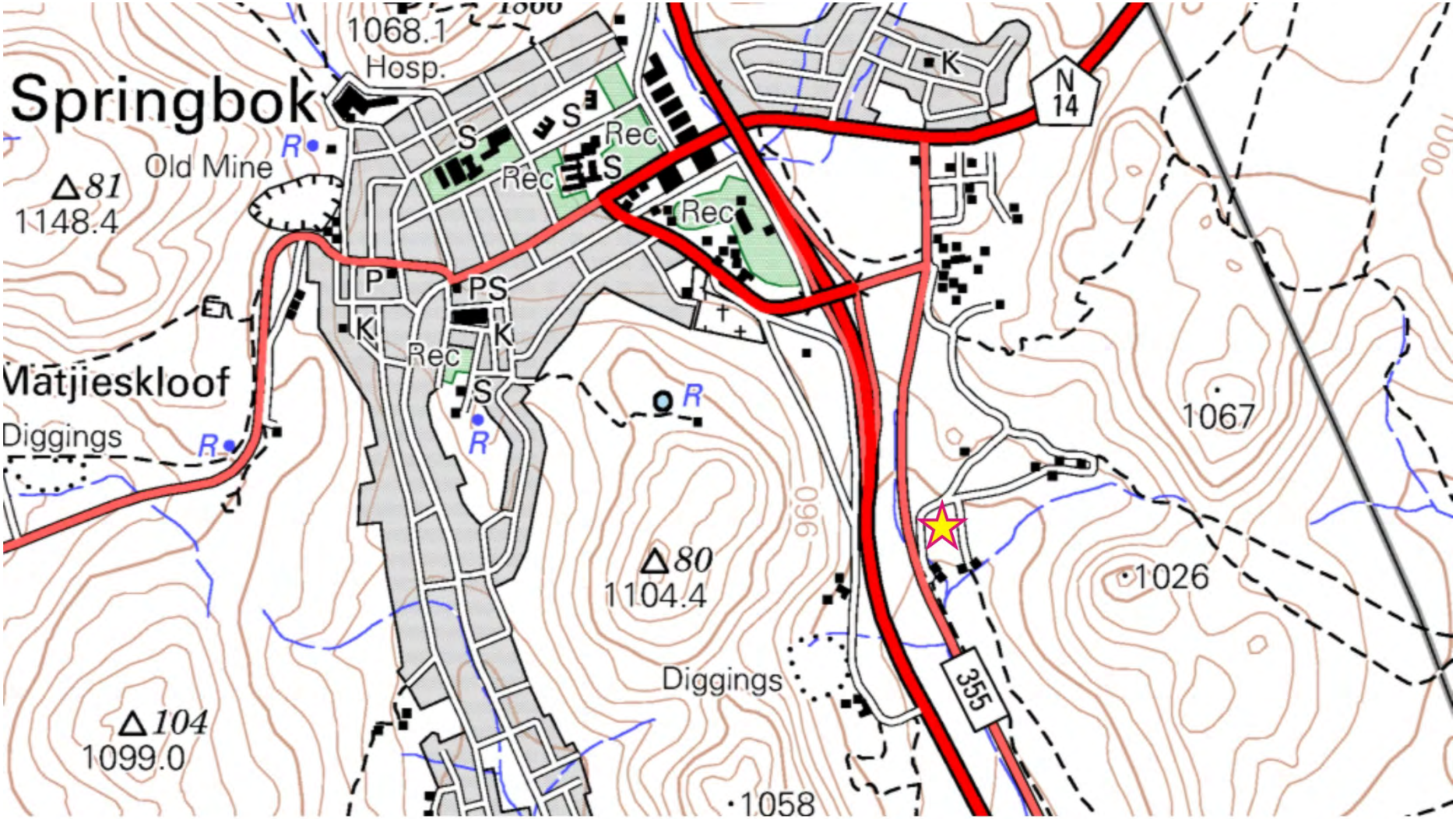

Figure 1. Map of the proposed development footprint (yellow star) marked on portion of 1:50 000 scale topographic 2917 DB.

Figure 2. Aerial view of the study area.

Figure 3. General view of the site, looking east (top) and west (below).

Figure 4. Van der Stel's camp in the Copper Mountains c 1685.

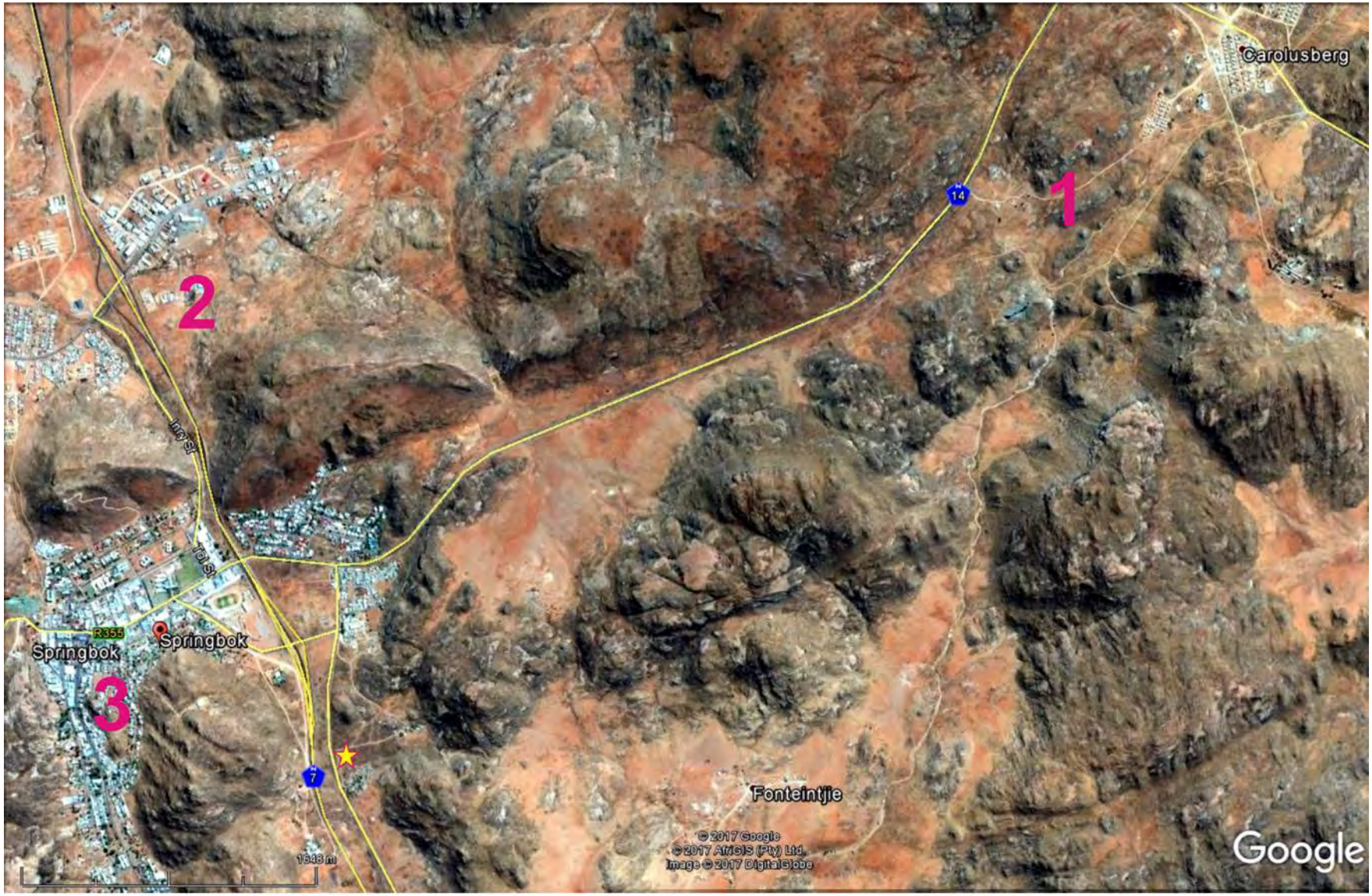

Figure 5. Map of historically significant localities mentioned in the report (study area marked by yellow star).

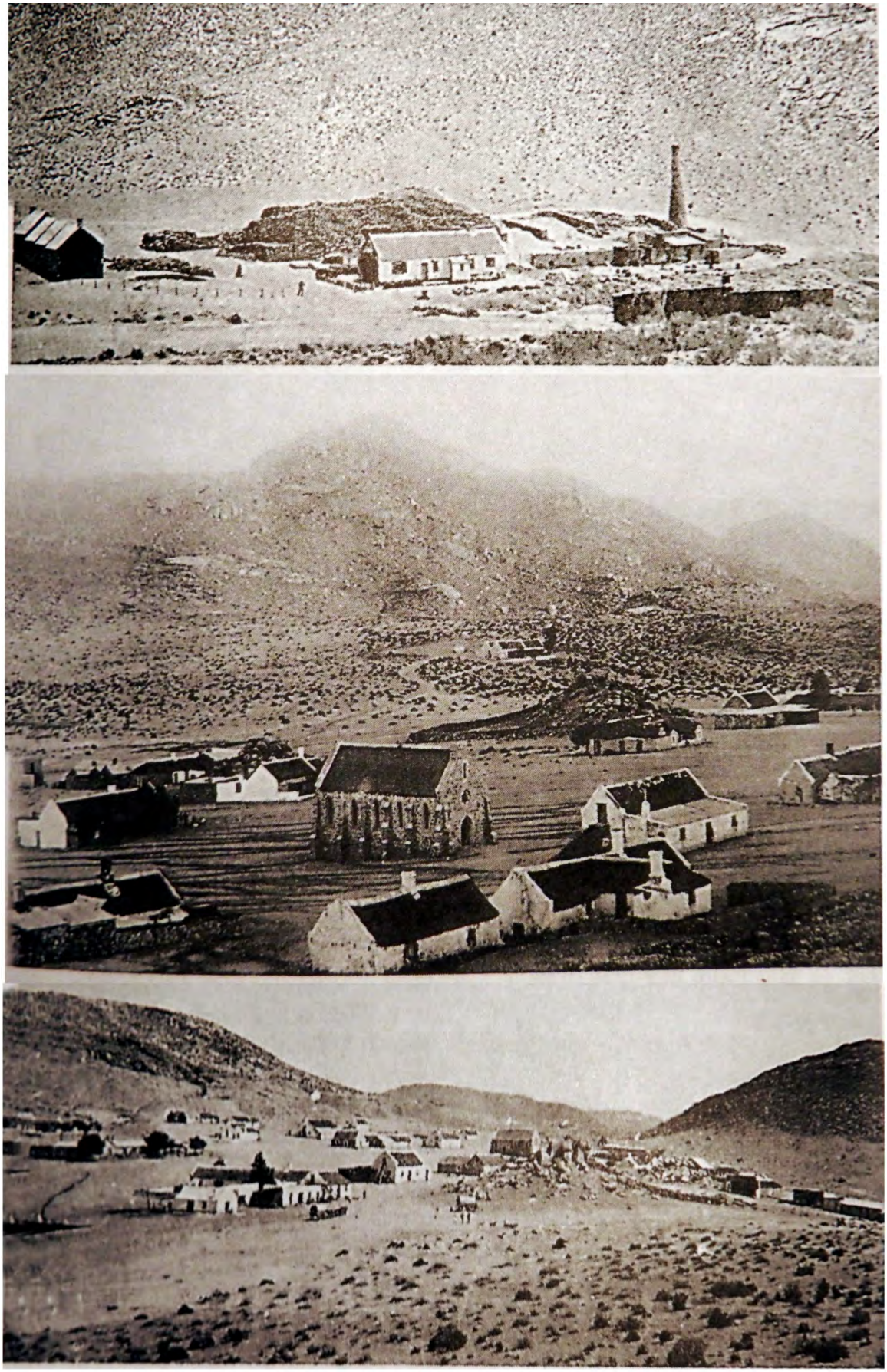

Figure 6. Springbokfontein Reduction Works c 1870 (top), Springbok c 1880, looking east (cente) and Springbok c 1880, looking south (bottom).

Figure 7. *Ex situ* cultural remains observed within the study area include four small unidentified metal containers and three unmarked ceramic fragments.
Scale 1 = 10 cm.