

# Exemption from further Heritage Impact Assessment: Rectification in terms of Section 24G for Residential Development in Loxton, Northern Cape Province.

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Site: Loxton Townlands

Map Ref.: 1:50 000 topographical map 3122AD Loxton

1:250 000 geological map 3122 Victoria West

## Site Coordinates:

31°28'18.78"S 22°20'37.09"E

The application relates to a 26.6 ha area designated for residential development following the unlawful commencement of listed activities (rectification in terms of Section 24G of NEMA) at a site situated outside of Loxton in the Northern Cape Province (**Fig. 1**).

The study area is located within early Permian Abrahamskraal Formation rocks of the Adelaide Subgroup (Karoo Supergroup) that is capped by severely degraded, superficial sheet wash and channel related (Quaternary) deposits bounded by Jurassic age dolerite intrusions to the north (**Fig. 2**). The Loxton area lies within the outcrop area of the Tapinocephalus AZ which spans the middle part of the Abrahamskraal Formation (**Fig. 3**). Vertebrate fossils of the Tapinocephalus AZ are not as common as in succeeding biozones and are usually found as individual specimens in the mudrock sequences in association with, and often enveloped by, brown-weathering calcareous nodular material. This faunal assemblage is mainly represented by small dicynodonts, large dinocephalians, pareiasaurs and pristerognathid therocephalians.

Rock engravings on the farm Klipkraal, near Nelspoort to the southeast of Loxton, suggest the possibility that a giant long-horned buffalo (*Syncerus antiquus*), which became extinct more than 10 000 years ago, previously occurred in the area (**Fig. 4**). Earliest human occupation of the Karoo is indicated by the occurrence of characteristic Early Stone Age (Acheulian) prepared core stone tools commonly found in the vicinity of Victoria West (**Fig 5**). Multiple rock engraving sites have been recorded in the region and are mainly attributed to San hunter-gatherers who inhabited the area and had done so for thousands of years (Smith *et al.*, 2000: 4) while the pastoralist Khoekhoe had been present in the Karoo for at least 2 000 years (Smith, 2002) The historical footprint is largely represented by the

vernacular architecture of the well-known corbelled houses in the region, which is related to 19th century trekboers who occupied these buildings, and whose cultural history dates back to their 18th century movement onto the VOC Cape frontier that resulted in ongoing interaction with indigenous people in the Karoo (**Fig. 6**).

The site is situated on flat, degraded terrain within an existing residential area located on the northwestern outskirts of Loxton and south of the R63 provincial road (**Fig. 7**). Historical evidence indicates that the site has already been developed as early as 2005 (**Fig. 8**). Potential for impact on palaeontological remains resulting from the existing development footprint at this stage is considered to be non-existent. However, future large-scale excavations exceeding depths of more than 1m into intact Abrahamskraal Formation sedimentary strata within the study area will require monitoring by a professional palaeontologist. Potential for impact on archaeological or historically significant remains within development footprint at this stage is considered to be non-existent. It is recommended that the planned development is exempt from a full Phase 1 Archaeological Impact Assessment.

#### References

- Johnson, M.R. et al. 2006. Sedimentary Rocks of the Karoo Supergroup. In: M.R. Johnson, C. J. Anhaeusser and R.J. Thomas (Eds). The Geology of South Africa. Geological Society of South Africa.
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- Le Roux, F.G. and Keyser, A. W. 1988. Die geologie van die gebied Victoria Wes. Geologiese Opname
- Mcrae, C. 1999. Life etched in stone. Fossils of South Africa, 305 pp. The Geological Society of South Africa, Johannesburg.
- Smith, A, Malherbe, C., Guenther, M. & Berens, P. 2000. *The Bushmen of Southern Africa: A foraging society in transition*. Cape Town: David Philip Publishers.
- Smith, R and Keyser, A.W. 1995 Biostratigraphy of the *Tapinocephalus* Assemblage Zone In: Rubidge, B. S. (ed). Biostratigraphy of the Beaufort Group. Biostrat. Ser. S.Afr. Comm. Strat. 1, 8 – 12.
- Van Riet Lowe, C. 1941. *Prehistoric art in South Africa*. Archaeological Series No. 5. Dept. of the Interior. Pretoria.

## 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 and have no interest in secondary or downstream developments as a result of the authorization of this project.

Yours truly,

A handwritten signature in black ink, appearing to read 'L Rossouw', written in a cursive style.

13 / 02 / 2019

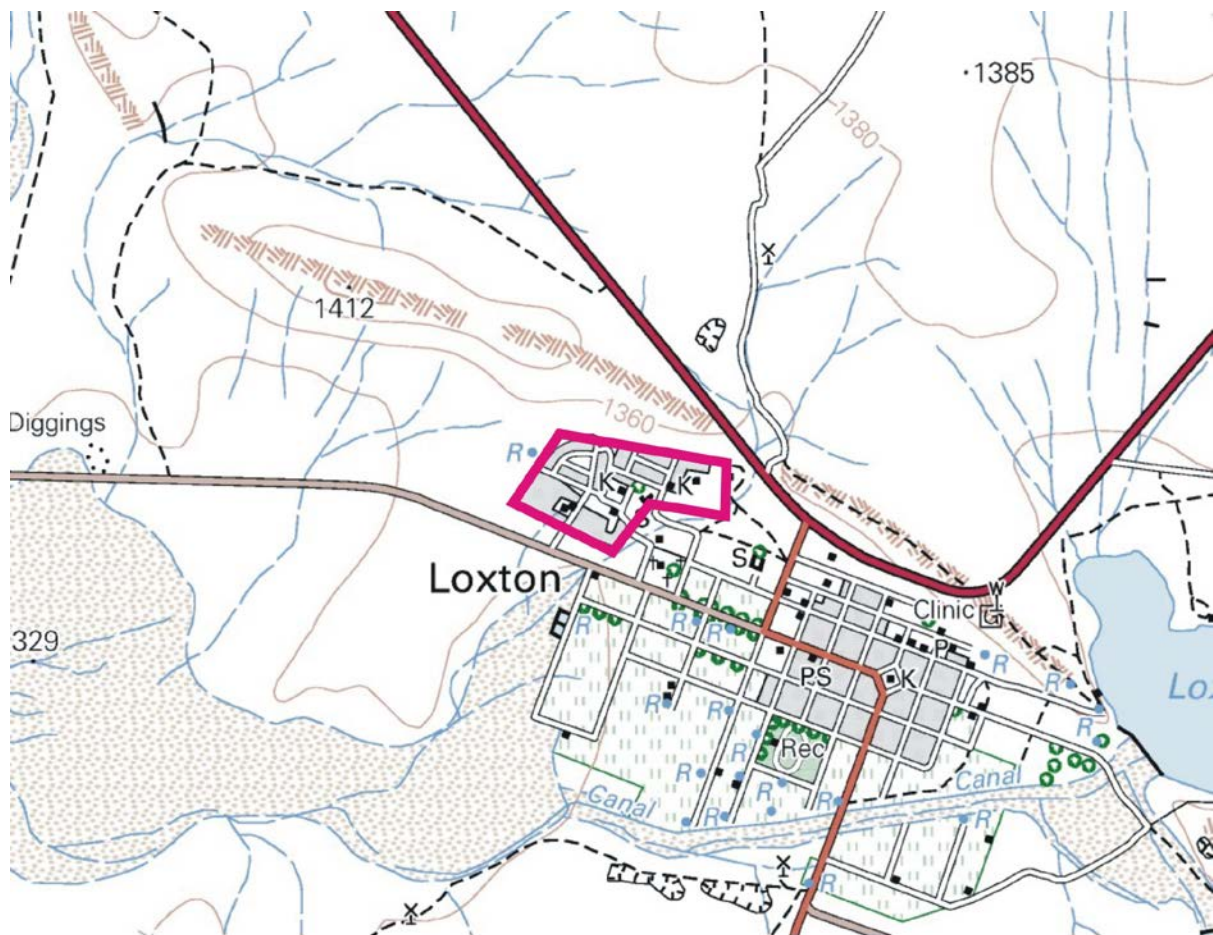


Figure 1. Map of the study area (portion of 1:50 000 scale topographic 3122 AD Loxton).



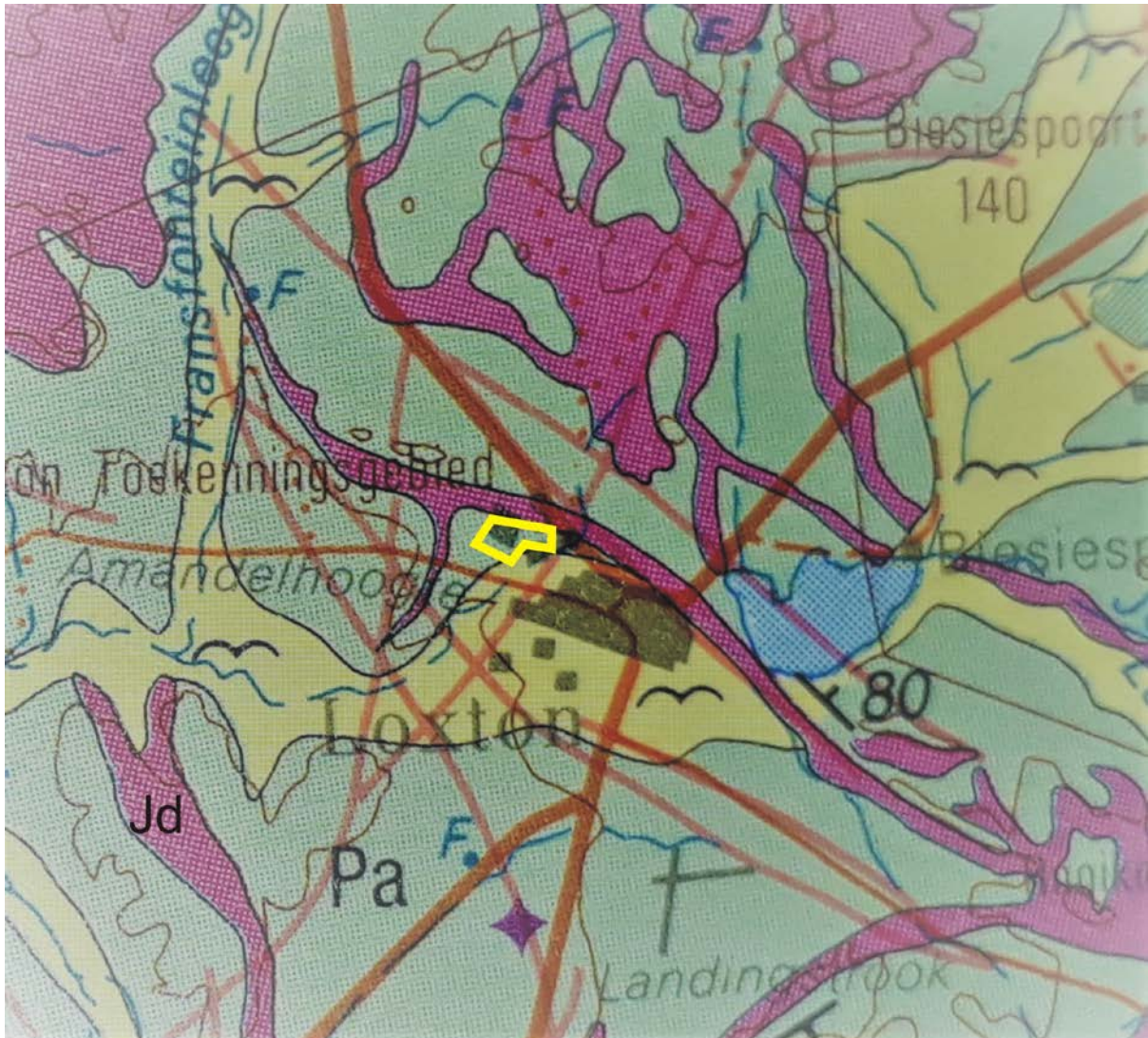


Figure 2. Portion of 1:250 000 scale geological map 3122 Victoria West showing underlying geology mapped in the area around Loxton. The study area is located within early Permian Abrahamskraal Formation rocks of the Adelaide Subgroup (*Pa*, Karoo Supergroup) that is capped by superficial sheet wash and channel related (Quaternary) deposits bounded by Jurassic age dolerite intrusions (*Jd*) to the north.

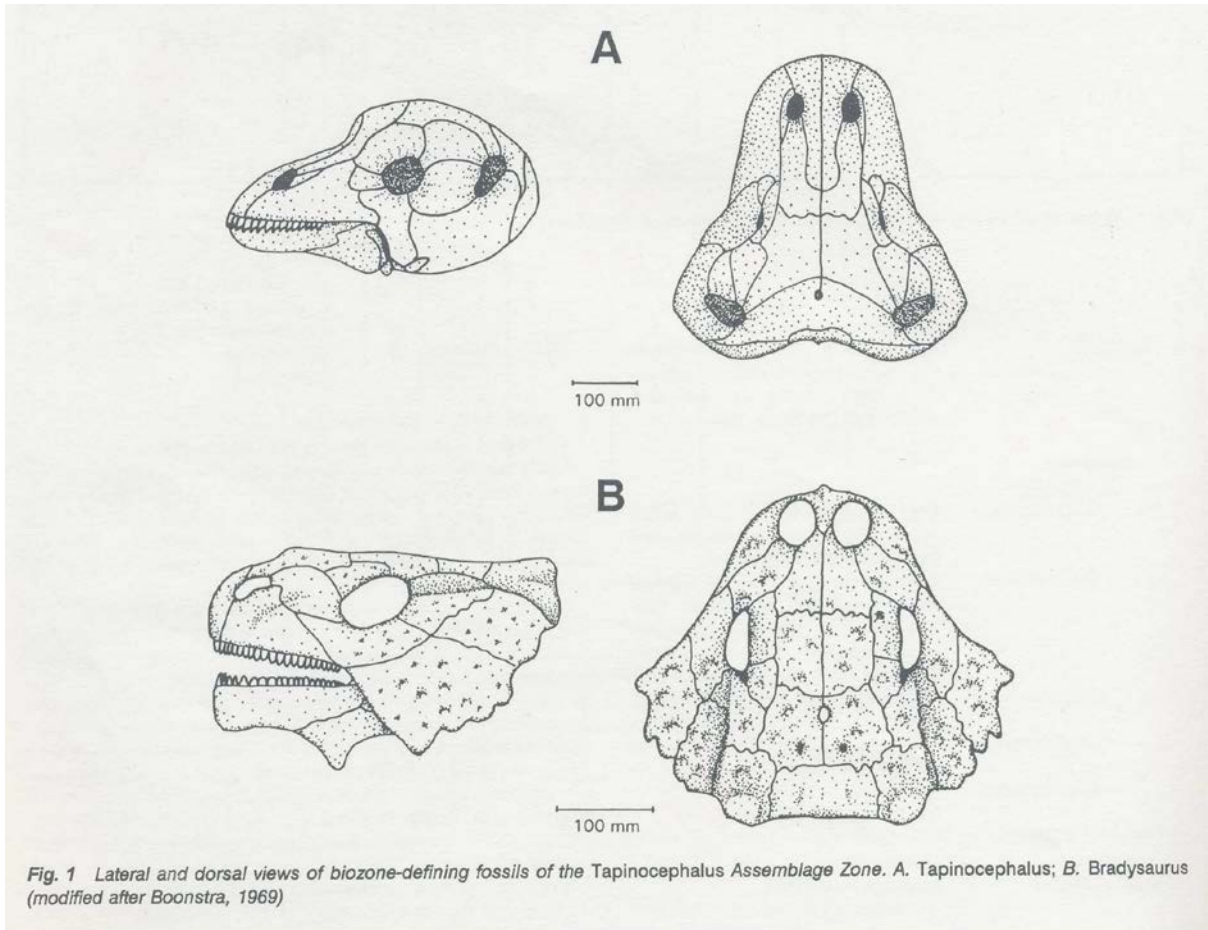


Figure 3. The Loxton area lies within the outcrop area of the Tapinocephalus AZ which spans the middle part of the Abrahamskraal Formation ((Smith & Keyser 1995).

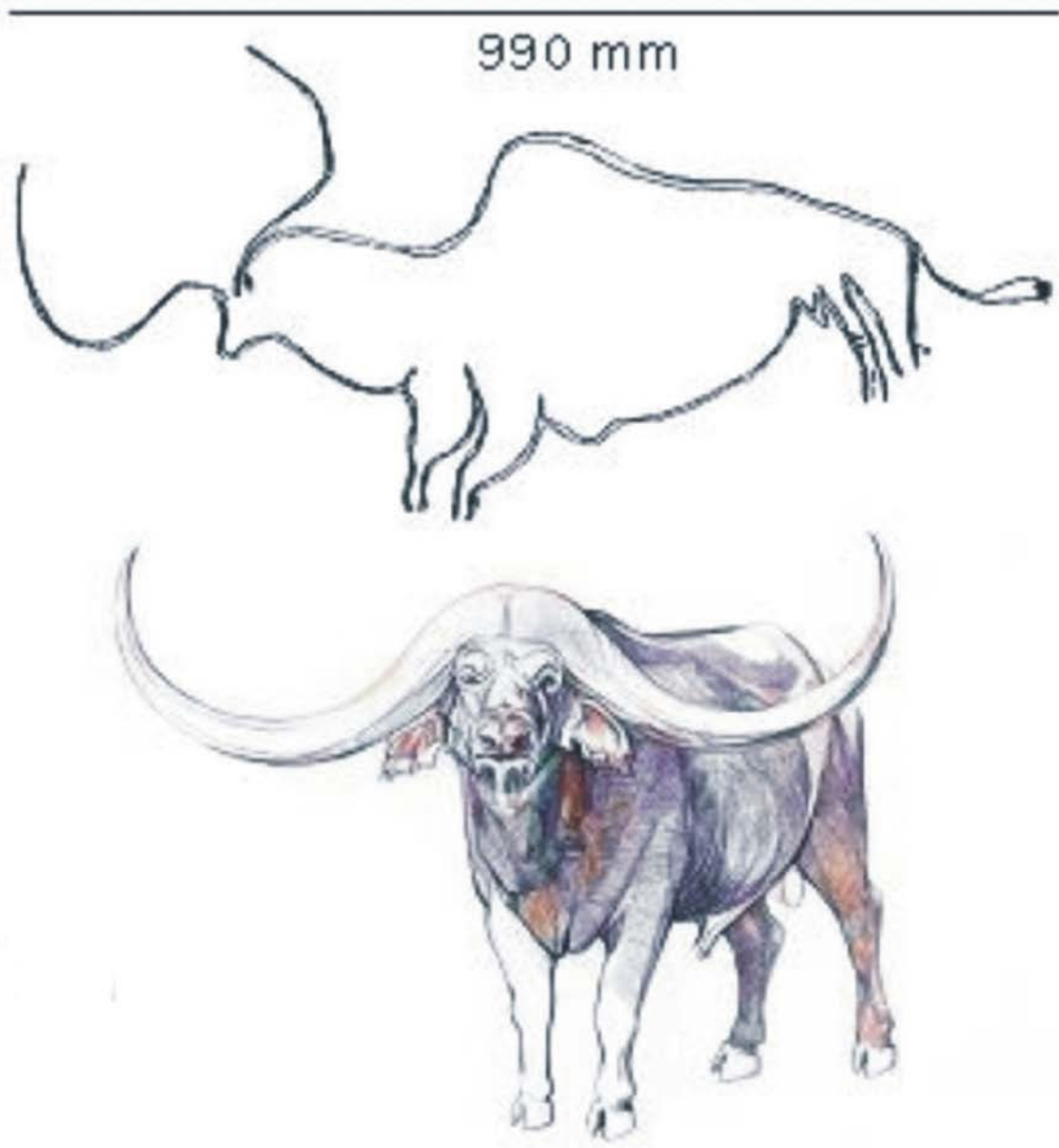


Figure 4. Engraving of extinct buffalo (top) and artist's impression of *Syncerus antiquus*





Figure 5. Typical Early Stone Age “Victoria West type” cores (left & center) and biface (right) found in the region.



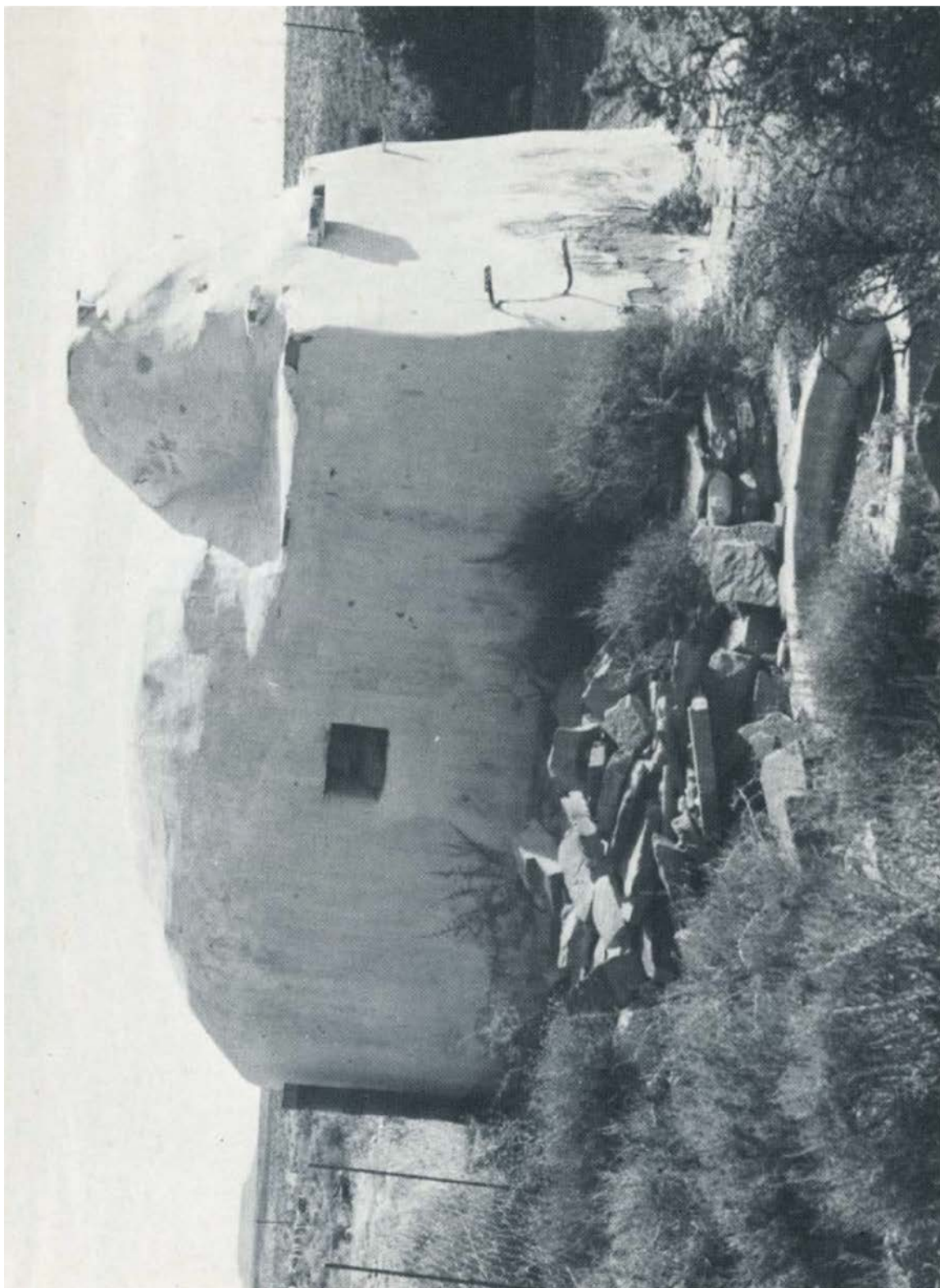


Figure 6. Historical soap house recorded by James Walton in the 1960's at De Puts near Loxton.









Figure 7. Aerial view of the study area c. 2005.