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FIRST PHASE ARCHAEOLOGICAL AND HERITAGE ASSESSMENT OF THE PROPOSED INSTALLATION OF THE NAVAL HILL RESERVOIR & WATER PIPE LINE, BLOEMFONTEIN

EXECUTIVE SUMMARY

Naval Hill has always been a very prominent landmark in the Free State in general and in Bloemfontein in particular. It is known as an important focal point for historical, cultural and natural objects. Naval Hill is probably the most important historical feature of Bloemfontein. The White Horse on the eastern slopes had been described as the only feature of this kind outside Wiltshire in the United Kingdom.

Other features on top of the summit include the Lamont-Hussey Observatory, the caretaker's house and several communication masts. It is alleged that the base of the original gallows where death sentences were executed during the 19th century is still to be found in Hangman's Kloof. The major part of the area falls inside the Franklin Game Reserve where various species of game are kept.

The summit of Naval Hill contains numerous remnants of the Anglo-Boer War and other features dating from the past. Remains of earlier military activities occur in the form of remnants of corrugated iron buildings, concrete foundations, reservoir dams and irrigation furrows, stone terrace walls and steps. The planning and construction of a new water reservoir will have to be exercised in such a manner not to damage any of the historical features.

A new reservoir and water pipeline are planned on the north eastern part of the hill.

The pipeline will follow a route down the hill to Naval Avenue from where it will divide to link with other existing water installations down below. The pipeline route will pass through the Hilton residential area and it is unlikely that it will have any impact on heritage remains in this area.

No archaeological remains in particular were found on top of the hill and along the proposed route of development.

I recommend that comments from the South African Heritage Resources Agency (SAHRA) as well as from the Free State Provincial Resources Agency (PHRA) should be obtained before any final planning and construction work should take place.

INTRODUCTION AND DESCRIPTION

Scope and Limitations

The investigation provided the opportunity to examine the whole area on top of Naval Hill. The site for the proposed new water reservoir and the pipe line route were investigated in particular. The reservoir area contains a dense grass cover, but no serious limitations were experienced during site visit.

A military map that could have explained the different features on the hill would have been of great help to determine the historical importance of the hill top in general and the site proposed for the reservoir in particular. Such a document could unfortunately not be traced.

Methodology

1. The summit and pipeline route were investigated on foot.
2. GPS points were taken and the surroundings and features were recorded on camera.

INVESTIGATION

The water reservoir site on Naval Hill and the proposed pipeline route along Naval Avenue in suburb of Hilton, Bloemfontein were visited on 10 March 2010, 14 June 2010 and 2 July 2010. Marguerite Cronjé and Darius van Rensburg from MDA Environmental Consultants, Bloemfontein, accompanied me to the sites.

The area was examined for possible archaeological and historical material and to establish the potential impact on any cultural material that might be found. The Heritage Impact Assessment (HIA) is done in terms of the National Heritage Resources Act (NHRA), (25 of 1999), which protects all structures older than 60 years (section 34), archaeological sites and material (section 35) and under the Environmental Conservation Act, (73 of 1989).

The study aims to find and evaluate the significance of cultural heritage sites, archaeological material, manmade structures older than 60 years, and sites associated with oral histories and graves that might be affected by the proposed development. The investigation provides the opportunity to submit appropriate recommendations with regard to any cultural resources.

LOCALITY

The proposed water reservoir will be erected on the north eastern side of Naval Hill in the centre of Bloemfontein (Map 1). The pipeline will follow a route down the hill and along Naval Avenue from where it will divide to link up with other existing water installations (Map 3) (Surveyor-General, Bloemfontein 1973).

Thick stands of *Buddleia saligna* (Baster Oliehout or Vaalbos) flourish on top of the hill (Fig.25).

The reservoir site and the route planned for the proposed pipeline is indicated on Map 3.

The following GPS coordinates (Cape scale) were taken (2926AA) (Map 3):

A	29°05'57"S 026°14'31"E	Altitude 1394m (Figs.1&2).
B Naval & Vels St.	29°05'47"S 026°14'37"E	Altitude 1400m (Fig.3).
C (Naval Avenue)	29°05'36"S 026°14'38"E	Altitude 1403m (Fig.4).
New Reservoir	29°05'51"S 026°14'22"E	Altitude 1466m (Fig.5).
Caretaker's House	29°06'08"S 026°13'41"E	Altitude 1480m (Fig.24).
White Horse	29°06'00"S 026°14'21"E	Altitude 1450m (Figs.6-9).
Bloemfontein Name	29°05'59"S 026°14'16"E	Altitude 1478m (Fig.7).
Observatory Theatre	29°05'48"S 026°14'11"E	Altitude 1472m (Figs.22&23).
Hangman's Kloof	29°06'03"S 026°13'51"E	Altitude 1459m (Figs.17-21).
Picnic Spot	29°05'51"S 026°13'55"E	Altitude 1427m (Fig.25).
Barrack-foundations	29°06'06"S 026°13'39"E	Altitude 1477m.
Barrack-foundations	29°05'59"S 026°13'44"E	Altitude 1471m.

Sink hut ($\pm 3\text{m} \times 3\text{m}$) 29°05'58"S 026°13'52"E Altitude 1471m (Figs.14&15).

Concrete floor (33m \times 10m) 29°06'17"S 026°13'48"E Altitude 1487m (Fig.16).

RESULTS

FINDS

Naval Hill has always been a very prominent landmark in Bloemfontein and in the Free State. It is known as an important focal point for historical, cultural and natural features. Its locality right in the centre of town makes it part of the heart beat of the City (Map 2).

A wide range of historical and cultural finds forms part of the total image of Naval Hill (Maps 4&5). Prominent features on the summit include the Lamont-Hussey Observatory, the caretaker's house and several communication masts. It is alleged that the base of the original gallows where death sentences were executed is still to be found in Hangman's Kloof. The major part of the area on the hill is part of the Franklin Game Reserve where various indigenous species of game are kept. These characteristics will now be discussed in more detail.

THE WHITE HORSE

The White Horse on the eastern slope of Naval Hill (Fig.6) could easily be considered as the main characteristic of both the hill and the City of Bloemfontein. The horse image is constructed out of rocks painted white (Fig.9). There is a claim that the words "For Remounts" were written below the horse, but the inscription has disappeared for some time.

There are several theories about the origin of the White Horse. Some authors claim that it had been built by private individuals, but none of these assertions seem to be convincing. More recently there is a story that the White Horse commemorates the pony owned by Lerotholi, one of Moshoeshoe's grandsons. Allegedly the horse was named "*Thabure*", hence the claim that the City of Bloemfontein should be renamed as *Thabureng* (Sesotho, in the locative = the place of Thabure). This rumour probably originated from Me MaSehlabo form Thaba Nchu. The dignified lady is a member of the Free State Place Names Commission, and used this venue a number of years ago to introduce her narrative. The statement clearly surprised the meeting and left many of the members speechless. Since that time the claim seems to have gained momentum and at a recent workshop on the subject in Bloemfontein, members of the Lesotho Royal family were invited to present their version of the case. For some unknown reason, however, the distinguished delegation did not show up.

It is generally accepted that the White horse was built by British troops stationed in the area during the Anglo-Boer War (1899-1902) (Fig.8). The sign could have been a direction marker for troops taking horses to a remount camp which had been established there at the foot of the hill (Fig.11). Although a number of people have claimed to have been responsible for the work, it was probably created by men of the 2nd Battalion of the Duke of Edinburgh's Wiltshire Regiment (Fig.8). It is therefore claimed as perhaps the only Wiltshire White horse outside the Wiltshire County.

The County of Wiltshire in the United Kingdom has no less than nine White horses within its boundaries. Known as "Chalk Horses", these features have been cut into the turf of the chalk downs. Pictures of five horses lay within a mile radius of Avebury, in the centre of the Wiltshire Downs, with another three horse's images some distance away.

The history of the Wiltshire white horses is uncertain. It is speculated that with regard to Westbury, which is the oldest of the Wiltshire horses, the site is known to have been restored in 1778, but could possibly date back to the year 878 A.D.

Wiltshire White Horses with possible dates of construction:

Westbury	1778
Oldbury or Cherhill	1780
Pewsey	1785
Marlbrough or Preshute	1804 renovated 1873
Alton Barnes	1812
Broad Hinton or Hackpen	1838
Devizes	1845
Broad Town	1863
Ham Hill or Inkpen	1860s
Pewsey	1937

(Wiltshire Webb.co.uk)

These dates confirm that the people of the Wiltshire County were quite familiar with white hill horses over many decades and provide some circumstantial evidence in favour of the Wiltshire Regiment as the builders of the Bloemfontein White Horse.

White horses are not the only form of hill figures in Wiltshire and chalk figurines are not limited to this specific county only. Features in other parts of the United Kingdom include giant beasts, Christian crosses and regimental badges. The term used for the art of creating these large hill figures is called *gigantotomy*.

When these facts and verifications are considered, there seems to be convincing evidence that the members of the Wiltshire Regiment of the British army have been the builders of the White Horse of Bloemfontein.

BRITISH ARMY BARRACKS

The declaration of peace to end the hostilities of the Anglo-Boer War in 1902 did not terminate the British occupation of Bloemfontein. The Royal garrison remained in the Free State capital for another eleven years. By 1904 British contingent of about 3000 troops were still housed in cantonments on top of the hill (Schoeman 1980:183). A photograph of Naval Hill from the time of occupation (Schoeman 1980:pl.124) shows buildings close to the western perimeter of the hill above the road to the summit (Fig.12). Compared to another picture from the Free State Archive (Fig.13), the placing and prominence of the buildings in the first photograph appear somewhat exaggerated and artificial.

By 1912-13, on the eve of World War I, a general withdrawal of British troops from South Africa took place. After the departure of the soldiers, these buildings of wood and corrugated iron were allegedly demolished and the material auctioned to the public (Schoeman 1980:229). Different maps produced during and after the war, present an interesting image. In 1907 (Map 6) a number of barracks are shown on the hill, with a substantial increase in 1913 (Map 7) and a total disappearance by 1924 (Map 8).

A wide distribution of concrete slabs and foundations on top of Naval Hill could be the remains of these barracks of the British occupational forces (Figs.12&13). It is difficult, if not impossible to explain the maze of remains of corrugated iron buildings (Figs.14-16), concrete foundations (Fig.16), reservoir dams (Fig.19-21), irrigation furrows (Fig.30), stone-curbed pathways and stone terrace walls and steps (Fig.16). Serious efforts to recover maps and plans of the British cantonments on Naval Hill brought limited success. Investigations at the Free State Archive, Anglo-Boer War Museum and enquiries amongst amateur Anglo-Boer War experts and private collectors did not bring any light on the subject.

A concrete floor of 3mx3m dimensions was discovered on the ridge to the west of Hangman's Kloof (Fig.14). The floor shows scalloping on the outside, left by corrugated iron sheets (Fig.15). The purpose of this structure could not be determined from the remains.

A large concrete floor covering 33mx10m is found near the eastern periphery of the hill (Figs.). The purpose of this structure could not be determined, but judging from the dimensions of the floor, it could well be the remains of some of the military buildings. I thank Ntate Moeti Tumelo for pointing this structure out to me.

A network of cement furrows (Figs.29&30) that connects several hexagonal ponds and pedestals (Figs.28&29) of unknown purpose was found on the western area of the summit.

ANGLO-BOER WAR NAVAL GUNS

Naval Hill derives its name from a battery of four Naval Guns placed there by the Royal Naval Brigade for the period of the British occupation of Bloemfontein during the Anglo-Boer War (Schoeman 1980:162).

It is also reported that the guns originated from the battleship HMS Powerful which was lying before anchor at Durban harbour. The weaponry were four 4,7 naval guns which had been positioned on the eastern side of Naval Hill to face towards Thaba Nchu and Sannaspost, the direction from which attacks by the Boer forces were expected. The guns were manned by naval soldiers from the ship (The Friend 21/4/1965).

No traces of any form of gun supports could be found on the hill.

HANGMAN'S KLOOF

According to a news report in the *Friend* of 10 June 1950, the wooded kloof running north on Naval Hill derives its name from the public executions that were performed there during the 19th century. A specific case mentioned by Schoeman (1980:115) is also endorsed by the former Director of the National Museum, Bloemfontein, through an illustration which depicts the platform of the gallows (Fig.17) (National Museum News 10, 1976). This locality is also confirmed by a number of people who have been living in Bloemfontein for more than sixty years (cf. Personal Communication Prof O.B. Kok, Department of Natural Sciences, University of the Free State.).

A recent inspection on the site revealed a concrete structure with high and wide walls, resembling a water reservoir (Figs.19-21). The structure is heavily overgrown with indigenous shrubs (Fig.18), which made a detailed inspection very difficult. No indication of any features suggesting the presence of a gallows could be found. (On the contrary, I have never seen a scaffold before, so I really did not know what to expect or what to look out for.) The open top of the structure could have been covered by wooden boards to provide a platform on which to erect the gallows. This unclear picture raises doubt about the explanation for the specific structure. The actual execution of death sentences in Hangman's Kloof is not in doubt, but unless proven the locality could have been somewhere else in the area.

LAMONT-HUSSEY OBSERVATORY

The Lamont-Hussey Observatory was erected in 1928 (Fig.22). Over the years the installation gradually fell into disuse and by 1976 the building had been

transformed into a theatre for the performing arts (Fig.23). There is an rumour that part of the building is used as a fodder store at present.

CARETAKER'S HOUSE

The Caretaker's House was also built in 1928 as a living place for the Observatory staff. It later became the residence of the game warden and is still the residence of the Municipal Chief Nature Conservation Officer (Fig.24).

FRANKLIN GAME RESERVE

The Franklin Game reserve was proclaimed on 29 April 1929. It has been named after Councillor Stuart Franklin, a former Mayor of Bloemfontein. The extent of the Nature Reserve covers the total crown and slopes of the hill as well as the surrounding area inside the fence. A water drinking dam for the game animals was erected in the kloof. Various indigenous and foreign game species were introduced and a 1932 report mentions Ostrich, Mountain Reed Buck, Impala, Fallow Deer, Blesbok, Springbok, Zebra, Eland and Red Hartebeest. More recently a Lynx family was also introduced to control the Dassie-population on the hill.

RADIO AND TELEVISION MASTS

A succession of radio and television masts and other structures were erected on Naval Hill. At present the tranquil atmosphere and sky line is fatally disturbed by a substantial number of masts and installations. It is almost as if there is a total disregard for the status of the hill and its long history. The status reminds of a conflict between preservation and the careless advance of development.

BLOEMFONTEIN NAME

The name BLOEMFONTEIN with an arrow pointing towards the city centre is written in large letters on top of the hill (Fig.7). The origin and date of erection of these letters are not known. The name is only visible from the air and could be part of some bygone trade or tourism promotion.

PICNIC SPOT

Probably not many residents of Bloemfontein are aware of the existence of the picnic spot with ablution facilities in Hangman's Kloof (Fig.25). The age and purpose of the facility is not clear.

DOMESTIC UTENSILS

Several ash heaps were spotted on the hill and in the kloof. These middens contain various remains of domestic utensils (Fig.27). Some of the finds could be connected with the British occupation of Bloemfontein. Except for the extensive distribution of nails and galvanised roof screws (Fig.27), metal food containers characterised by heavy soldering on the seams (Fig.26) and a little carbon dioxide canister used to make soda water (Fig.27), are some of the more interesting finds. Similar objects were found at other British military camping sites dating from the Anglo-Boer War.

A network of cement furrows (Figs.29-30). of unknown purpose network the western area of the summit. Hexagonal ponds and pedestals are found at regular intervals along the furrow.

The pipeline route will eventually pass through the Hilton residential area and it is unlikely that it will have any further impact on any heritage remains in this area.

No indication of any archaeological or historical material was found on the proposed development site.

IMPACT ASSESSMENT

The water distribution pipeline will follow a route down the hill to Naval Avenue from where it will divide towards other existing water installations down below. The route is located in an area where many activities took place over the years and numerous alterations were done. The pipeline route will pass through the Hilton residential area and it is unlikely that it will have any further impact on heritage remains in this area.

The summit of Naval Hill contains numerous remnants of the Anglo-Boer War and other features dating from the past. The present investigation of the area on top of the hill did not reveal any structures or remains of historical significance in the vicinity of the proposed reservoir site. However, the planning and construction of the new water storage facilities will have to be exercised in such a manner to avoid damage to any of the historical features on Naval Hill.

No archaeological remains in particular were found on top of the hill and along the proposed route of development.

RECOMMENDATIONS

I recommend that comments from the South African Heritage Resources Agency (SAHRA) as well as from the Free State Provincial Resources Agency (PHRA) should be obtained before final planning and construction work take place.

No obvious reasons could be found to delay the commencement of further planning and development of the site, providing that the necessary precautionary measures should be in place.

I recommend that the proposed pipeline developments could proceed after comments from the South African Heritage Resources Agency (SAHRA) as well as from the Free State Provincial Resources Agency (PHRA) have been obtained.

MITIGATION

Concerning the area for the proposed developments, no mitigation measures will be required.

In case of the discovery of any historical or archaeological material, the present author and other experts from the University of the Free State and Anglo-Boer War Museum, Bloemfontein, should be contacted immediately.

ACKNOWLEDGEMENTS

I thank Marguerite Cronjé and Darius van Rensburg from MDA Environmental Consultants, Bloemfontein, for accompanying me to the sites. Thanks are also due to Dr Johan du Preez for allowing access to the old Bloemfontein maps housed at the Department of Natural Sciences, University of the Free State, Bloemfontein.

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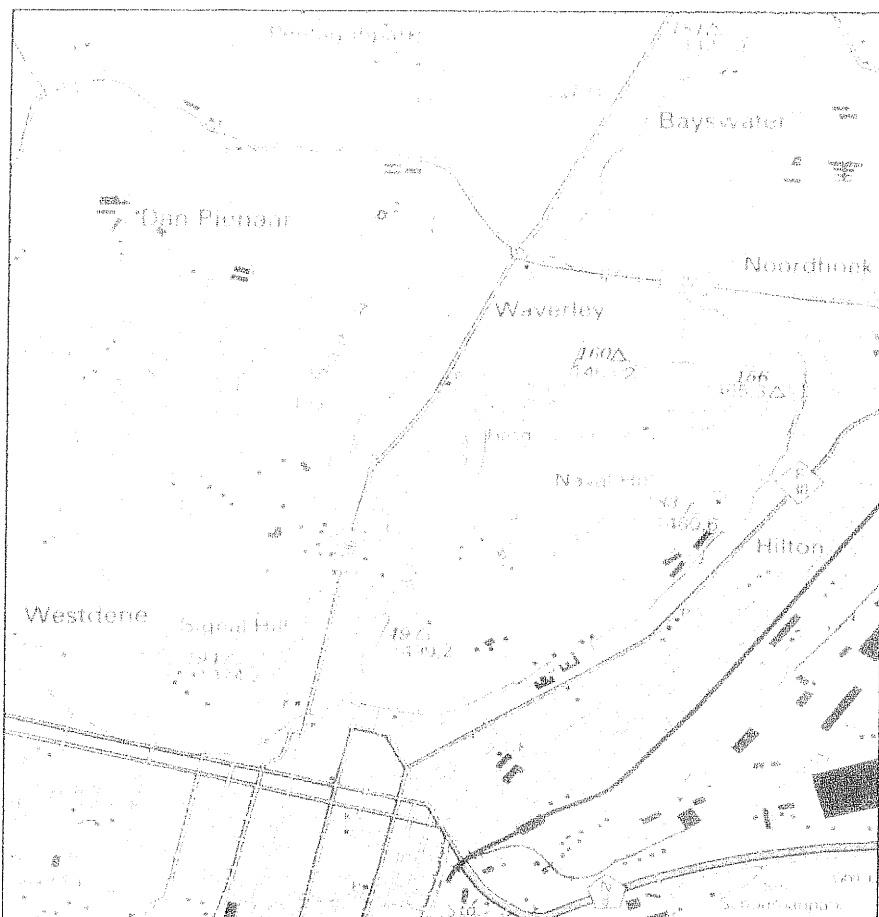
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LIST OF ILLUSTRATIONS



Map 1 Locality of Naval Hill almost in the centre of Bloemfontein (2926AA).

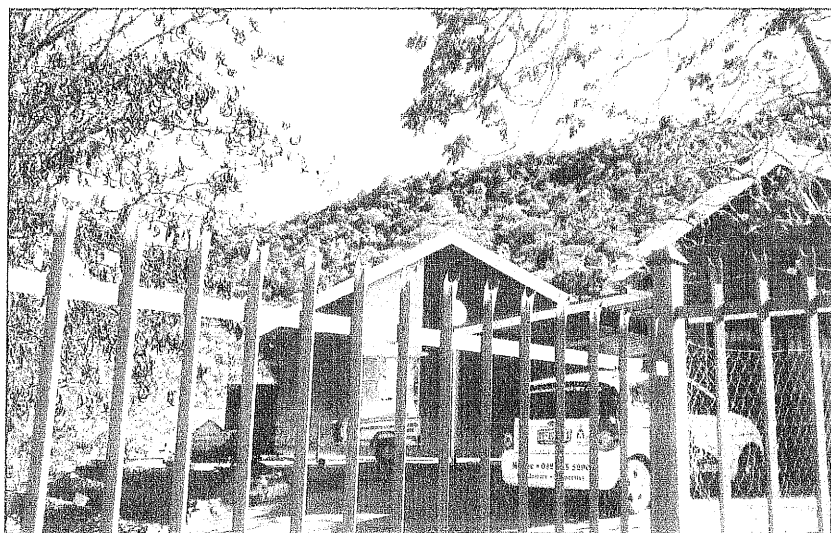
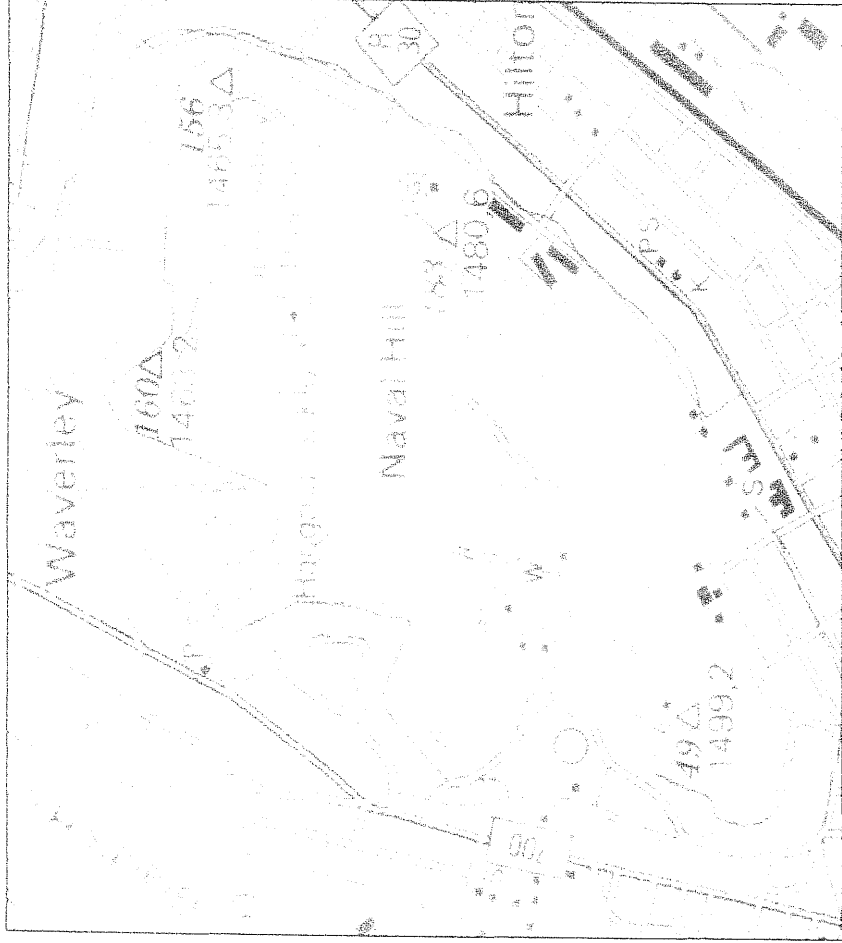


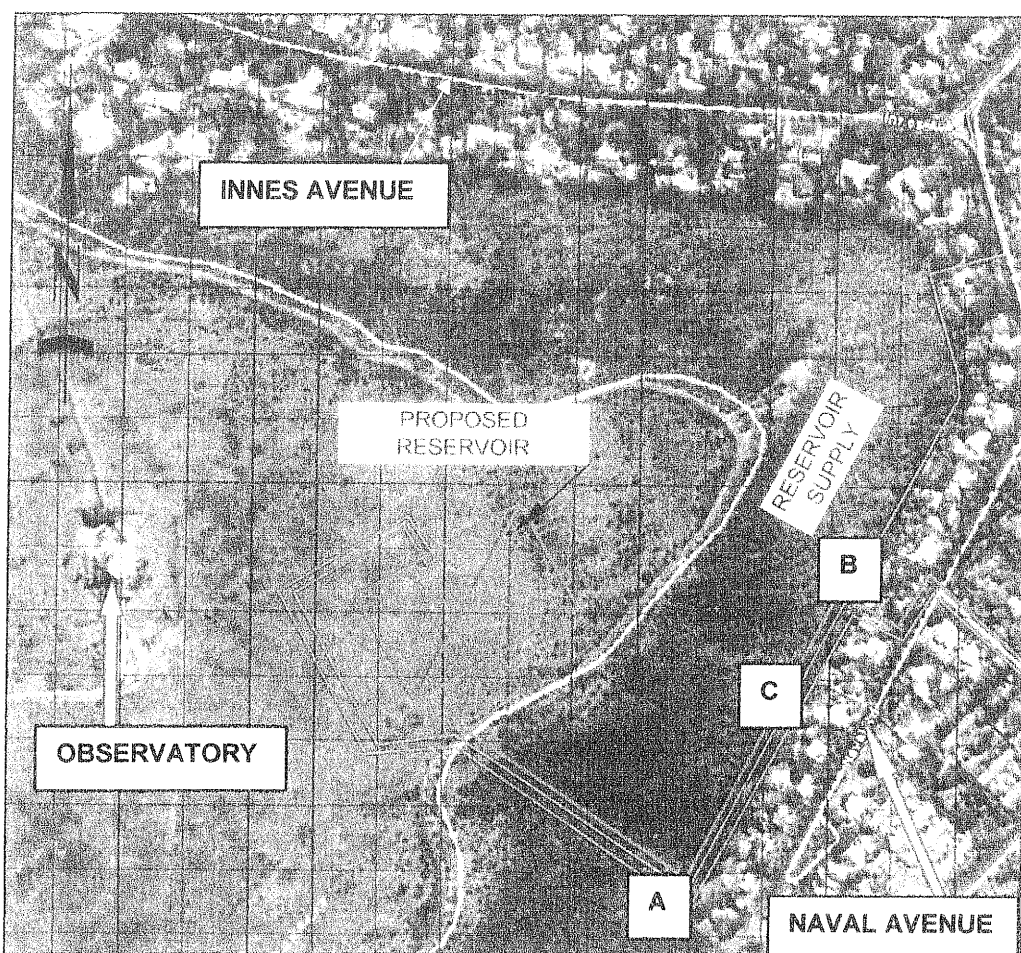
Fig.1 Point A at the southern end of Naval Avenue.



Map 2 Different features on top of Naval Hill. (2926AA)



Fig.2 Looking down at Point A at the end of Naval Avenue.



Map 3 Suggested locality of an additional reservoir on the eastern summit of Naval Hill.



Fig.3 Point B at Corner of Naval Ave / Web Street facing south.

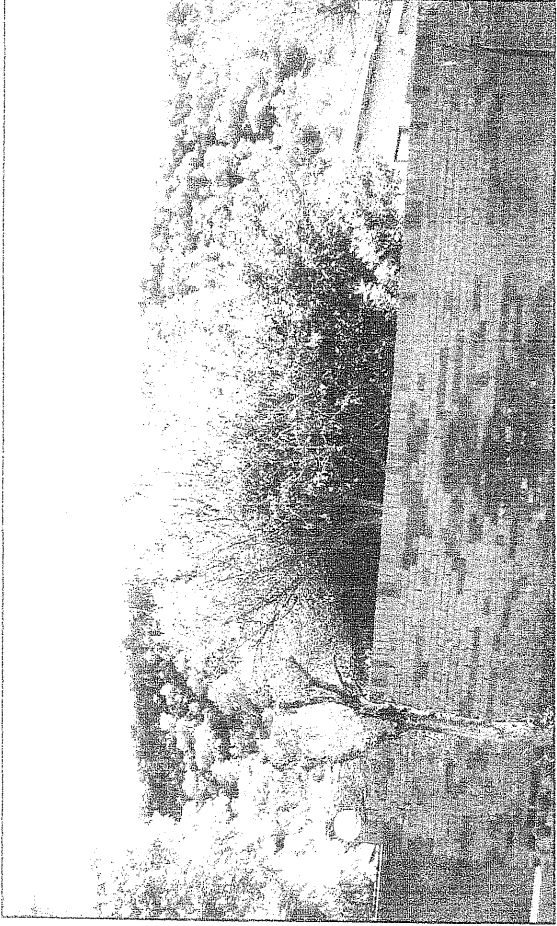


Fig.4 Point C on Naval Avenue.

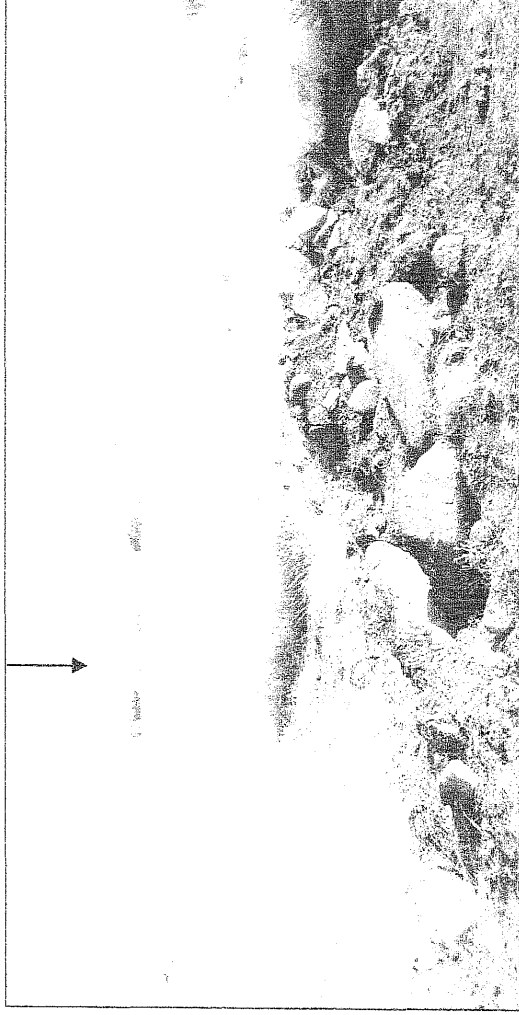
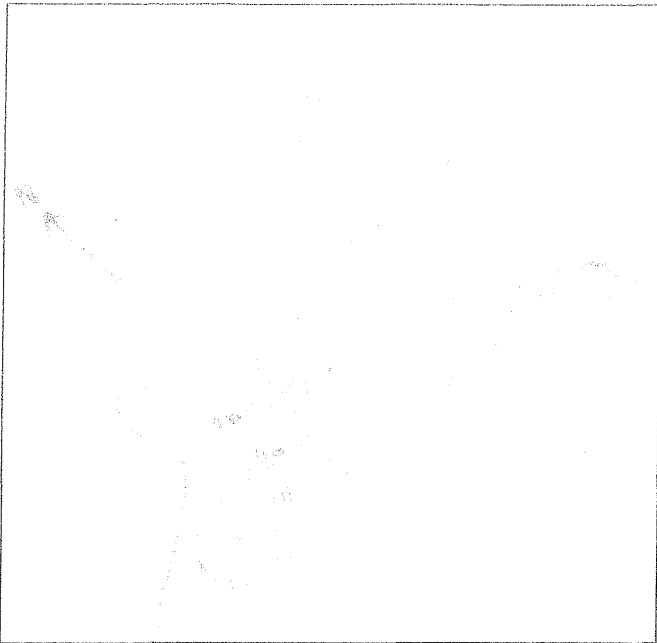


Fig.5 Reservoir site near the north eastern corner of Naval Hill. Observatory in back ground.



Map 4 Legend for features on Naval Hill:

1. White Horse. 2. Lamont-Hussey Observatory. 3. Hangman's Kloof.
 4. Caretaker's House. 5. Radio & TV masts. 6. Radio transmitter.
- (Bloemfontein: National Museum News 10, 1976).

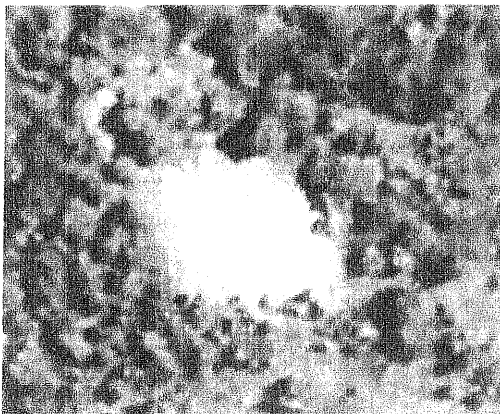
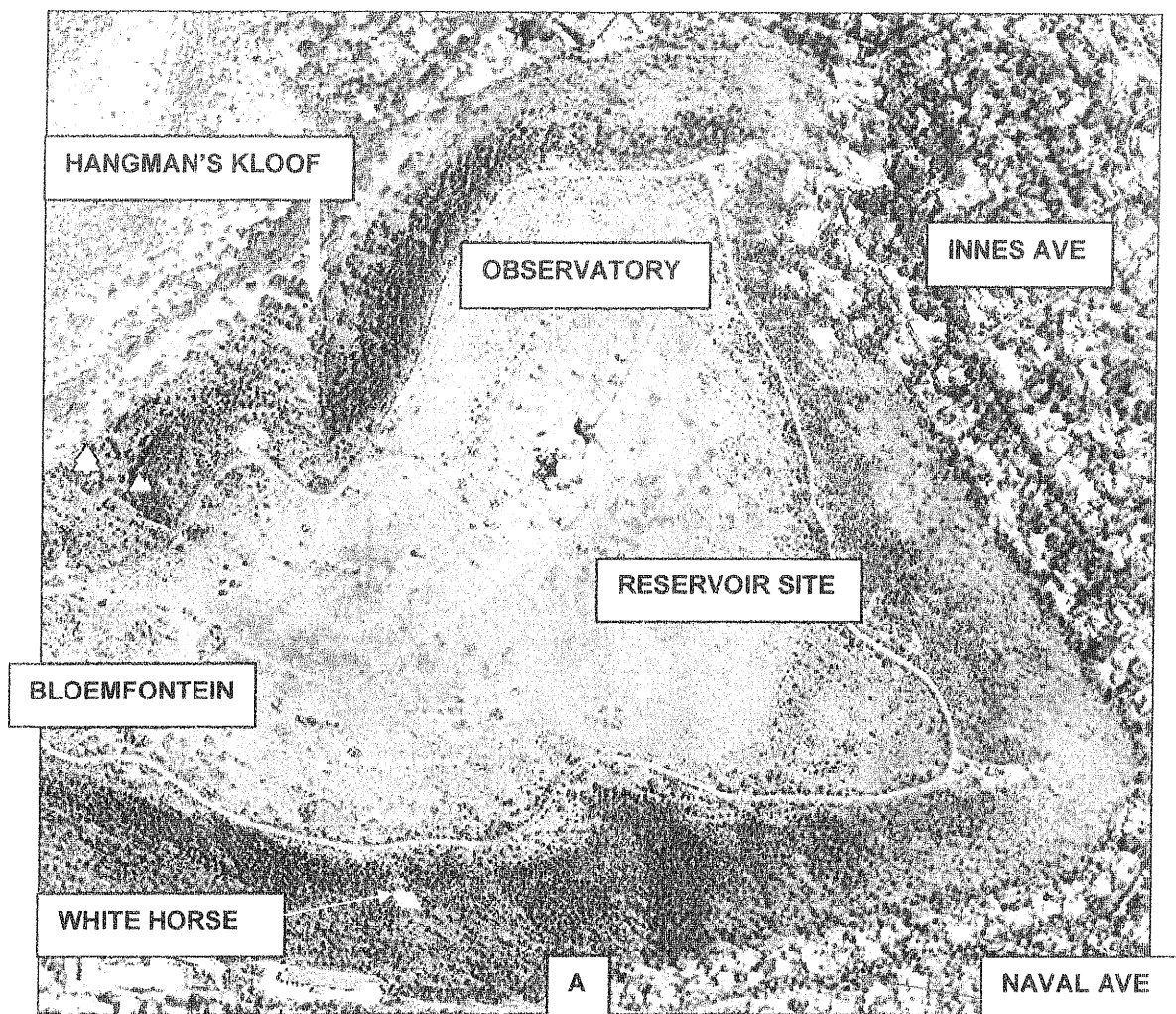


Fig.6 Image of the White horse against Naval Hill, Bloemfontein.



Map 5 Aerial mage of Naval Hill, Bloemfontein. Several features on the hill are clearly visible.

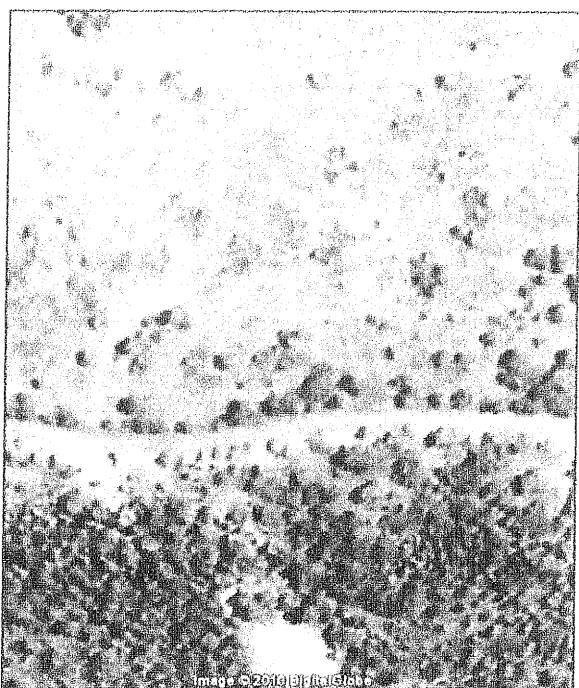


Fig.7 Bloemfontein written in large symmetric letters on the plateau above the White Horse. Arrow pointing towards the city centre.



Fig.8 Men from the Naval Brigade, claimed to be the builders of the White Horse. (Bloemfontein: National Museum News 10, 1976).



Fig.9 The White Horse is made out of rocks painted white.



Fig.10 Volks Hospital at the foot of Naval Hill near the Horses' Remount Camp.
(Free State Archive VA 5753, No date).

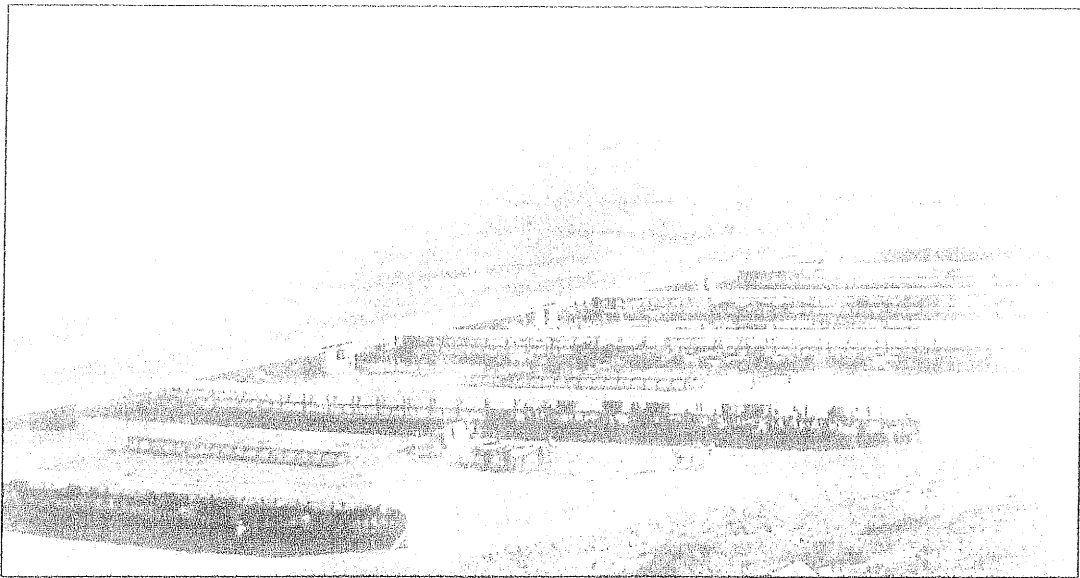


Fig.11 Remount Camp at the foot of Naval Hill c. 1900-1902. (Free State Archive VA 5760).

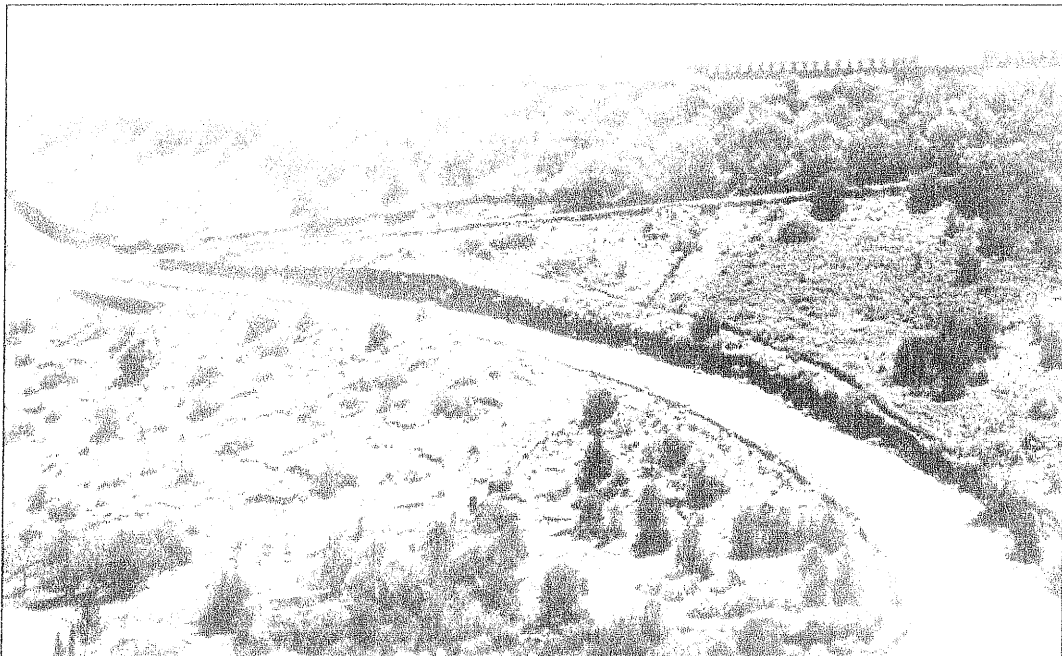
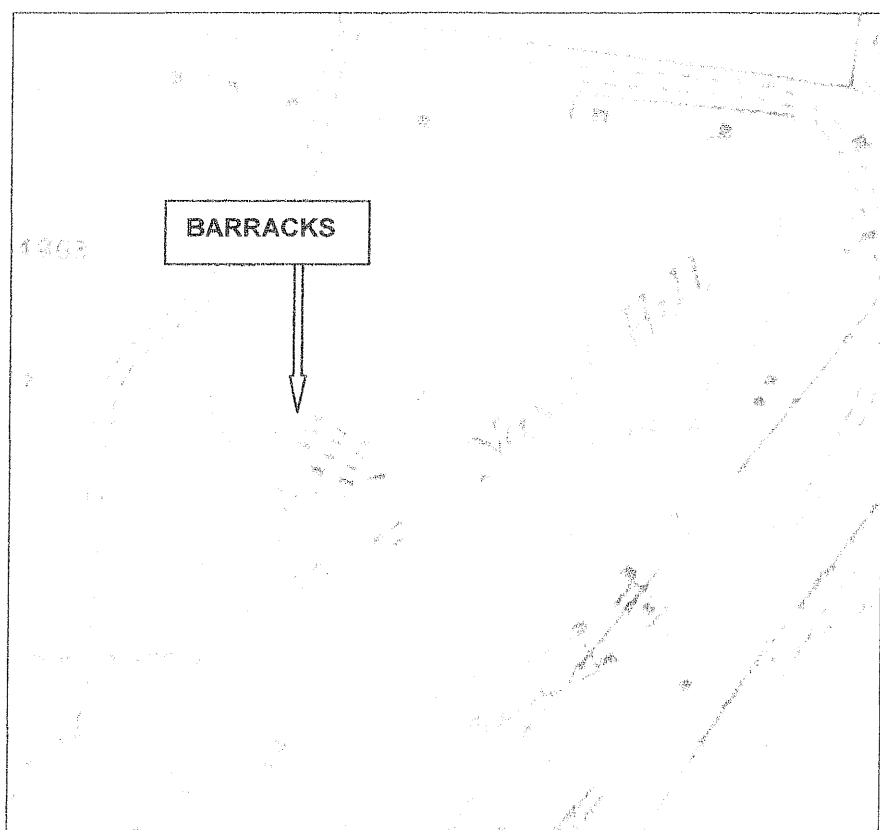


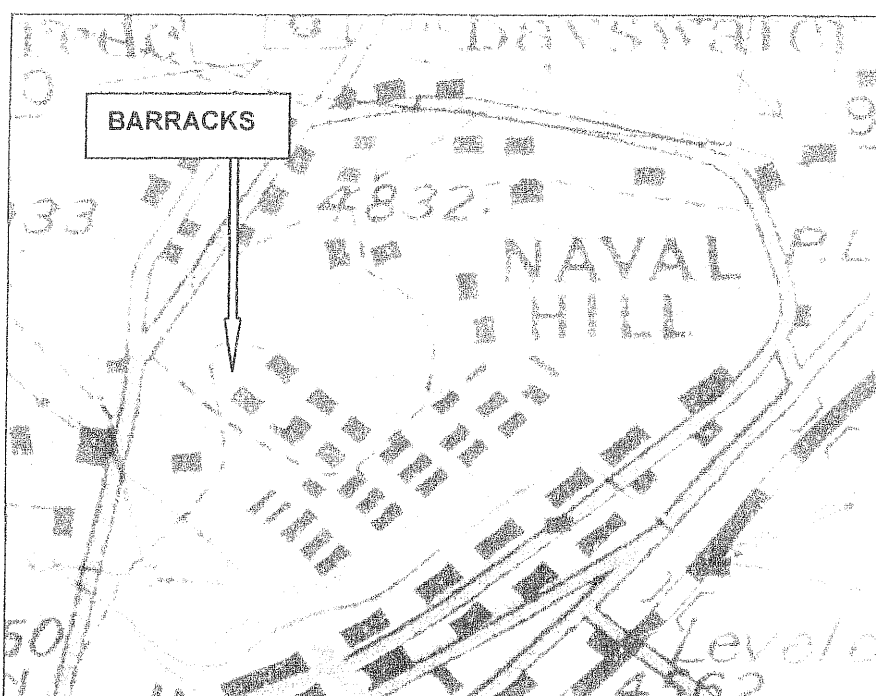
Fig.12 British Military barracks on Naval Hill (Schoeman 1980:pl.124).



Fig.13 Naval Hill with military barracks & tents, c. 1900-1905. Free State Archive VA 7198.



Map 6 Prepared by 5th Dragoon Guards, 1907 & Printed at Southampton 1908.



Map 7 Bloemfontein Sheet South H-35. 1:125 000, Printed in the War Office 1913.



Map 8 1:250 000 Sheet South H-35 Colonial Survey Section RE 1910. Cadastral work Surveyor General, Bloemfontein 1912. Printed at the War Office 1913. Revised by Surveyor General, Bloemfontein. Reprint Govt. Printing Works, Pretoria 1924.

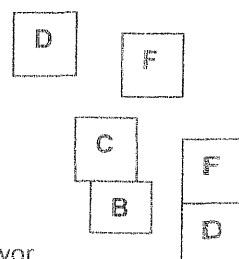




Fig.14 Concrete floor of 3mx3m dimensions on western ridge of Hangman's Kloof.

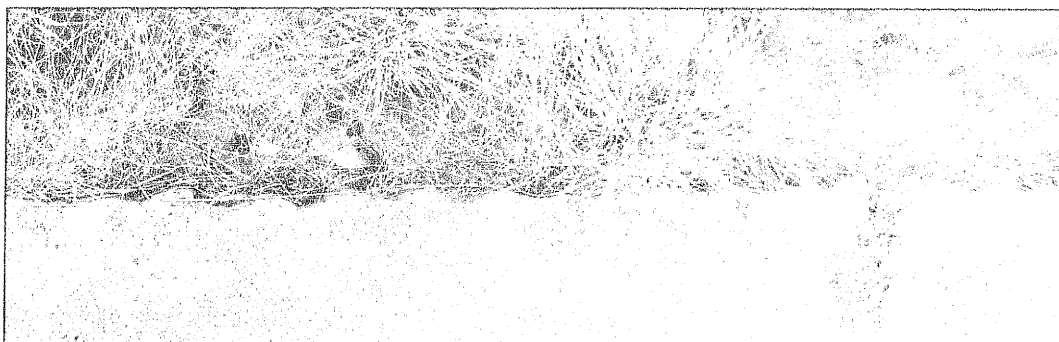


Fig.15 Scalloped edge of the floor caused by corrugated iron walling.

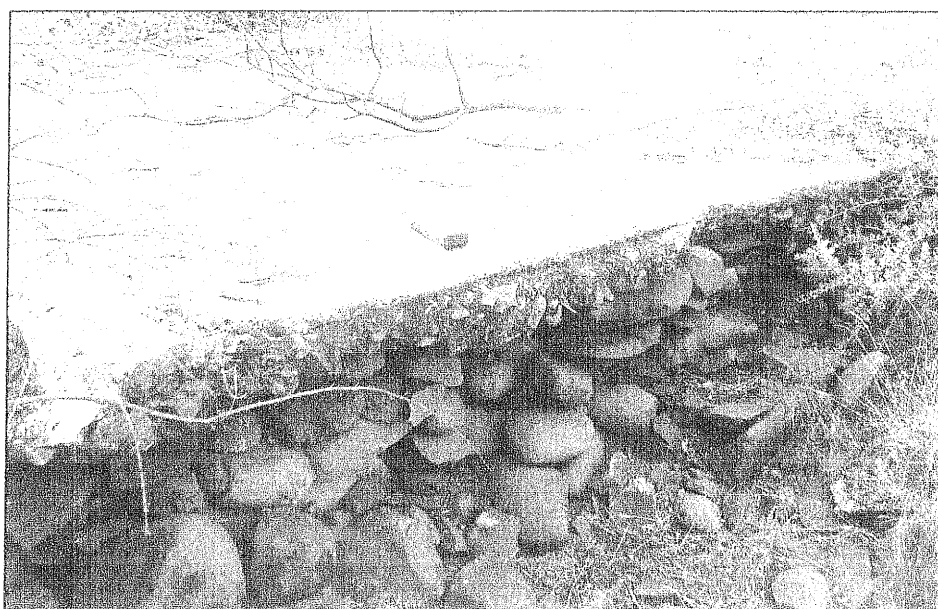


Fig.16 Concrete floor with approximate 33mx10m dimensions.

Bloemspruit
Sewer Dams

Bfn race track



Fig.17 Base of the gallows in Hangman's Kloof. (National Museum News 10, 1976).



Fig.18 Ntate Rolane, Senior Municipal Conservation Official at Naval Hill, pointing at the alleged gallows site in Hangman,s Kloof.

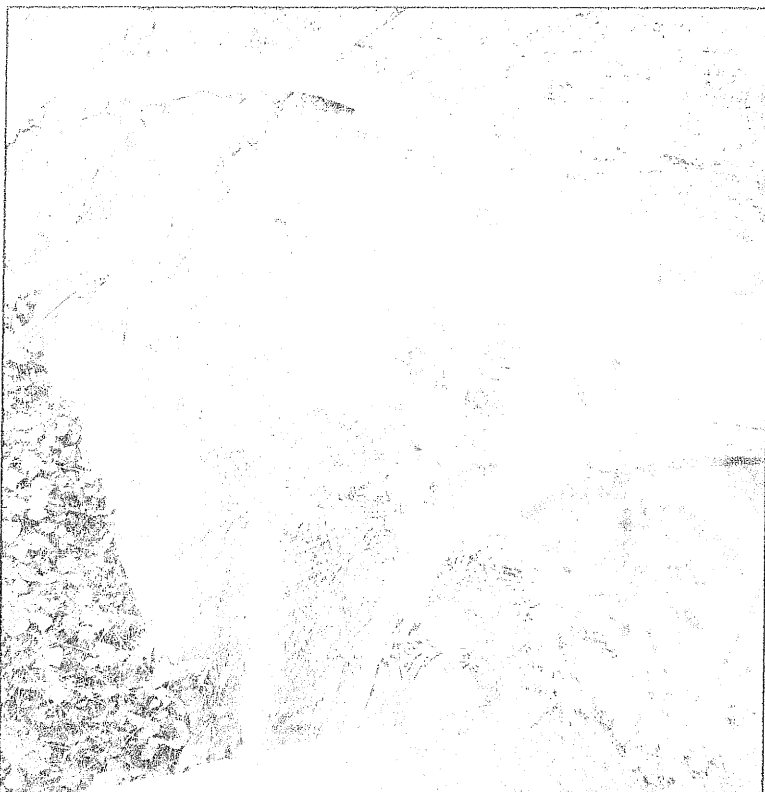


Fig.19 Rear wall of the concrete structure claimed as the gallows in Hangman's Kloof.
Note the stone wall against the rear ground slope.

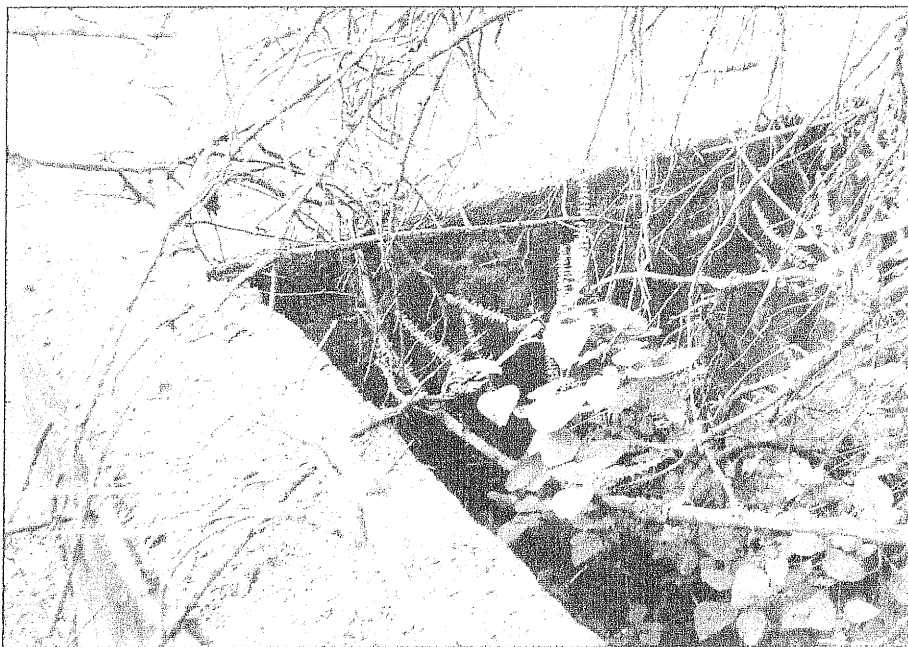


Fig.20 Solid concrete walls of the structure in Hangman's Kloof.



Fig.21 Drain pipe in outside wall of the concrete structure.

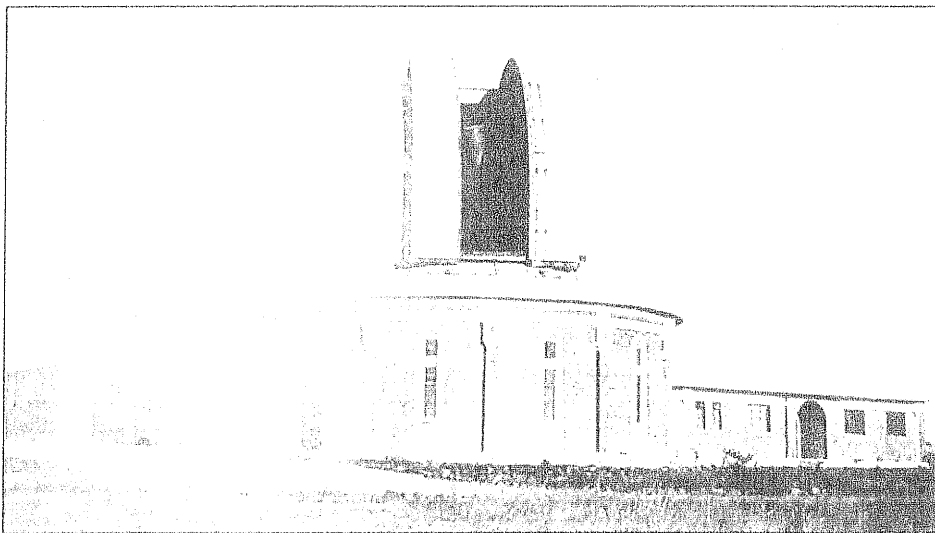


Fig.22 Lamont-Hussey Observatory after completion. (Free State Archive VA 5934, 1929).

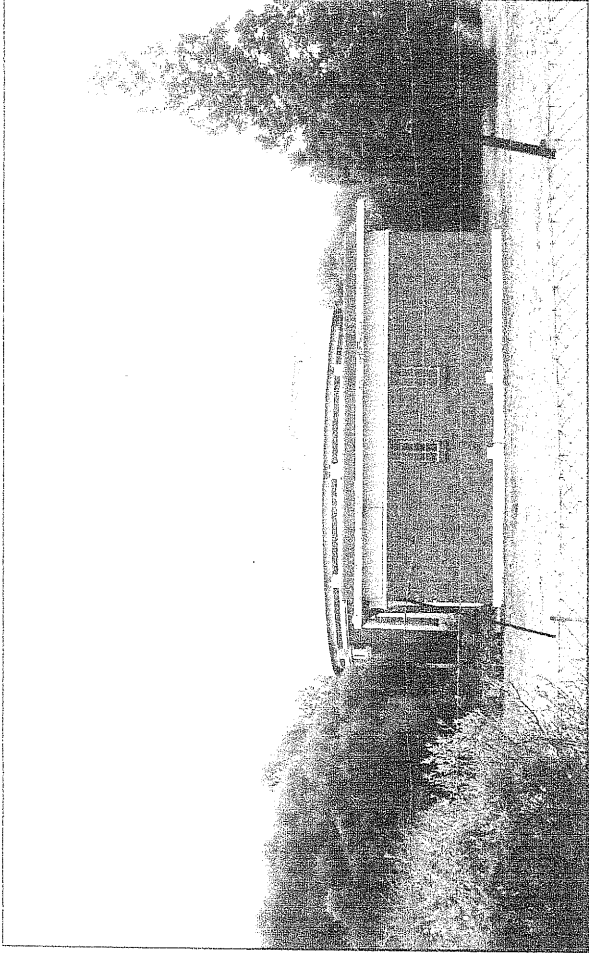


Fig.23 Observatory Theatre at present.

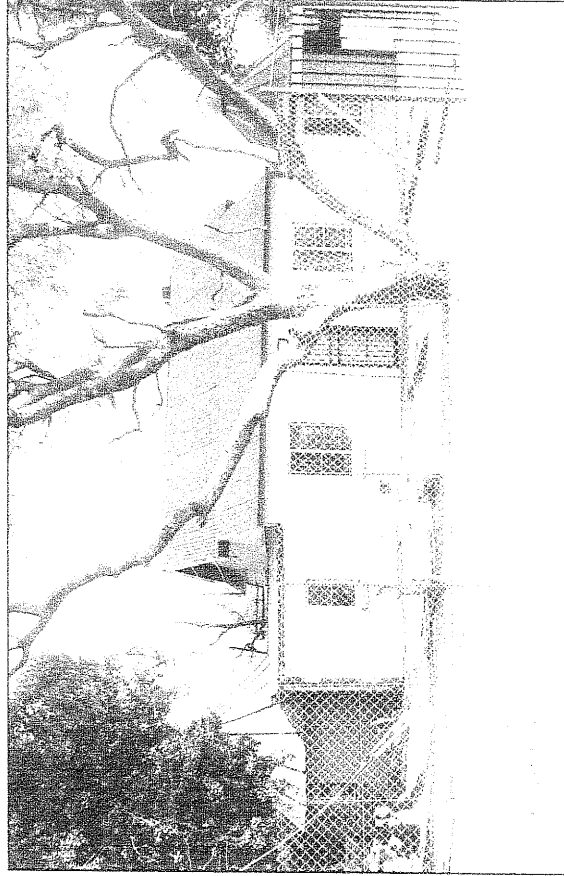


Fig.24 Caretaker's House built in 1928.

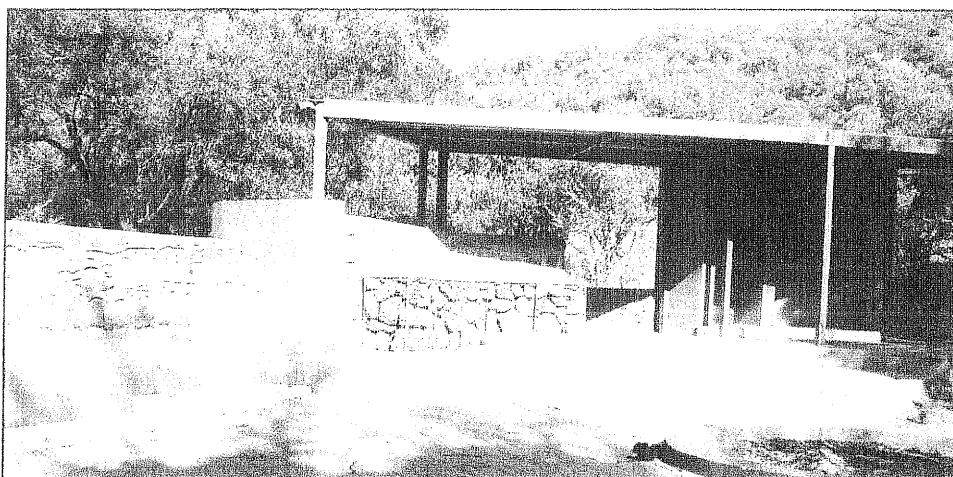


Fig.25 Picnic spot in Hangman's Kloof.

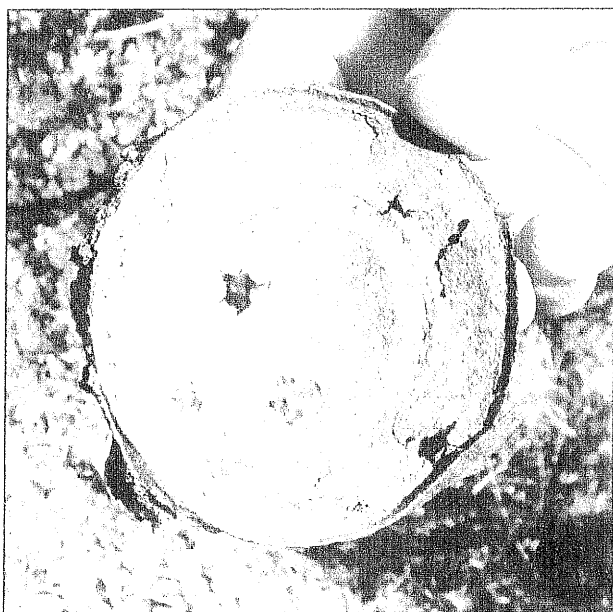


Fig.26 Top of condensed milk tin can dating from the Anglo-Boer War.
Note the characteristic heavy soldering.

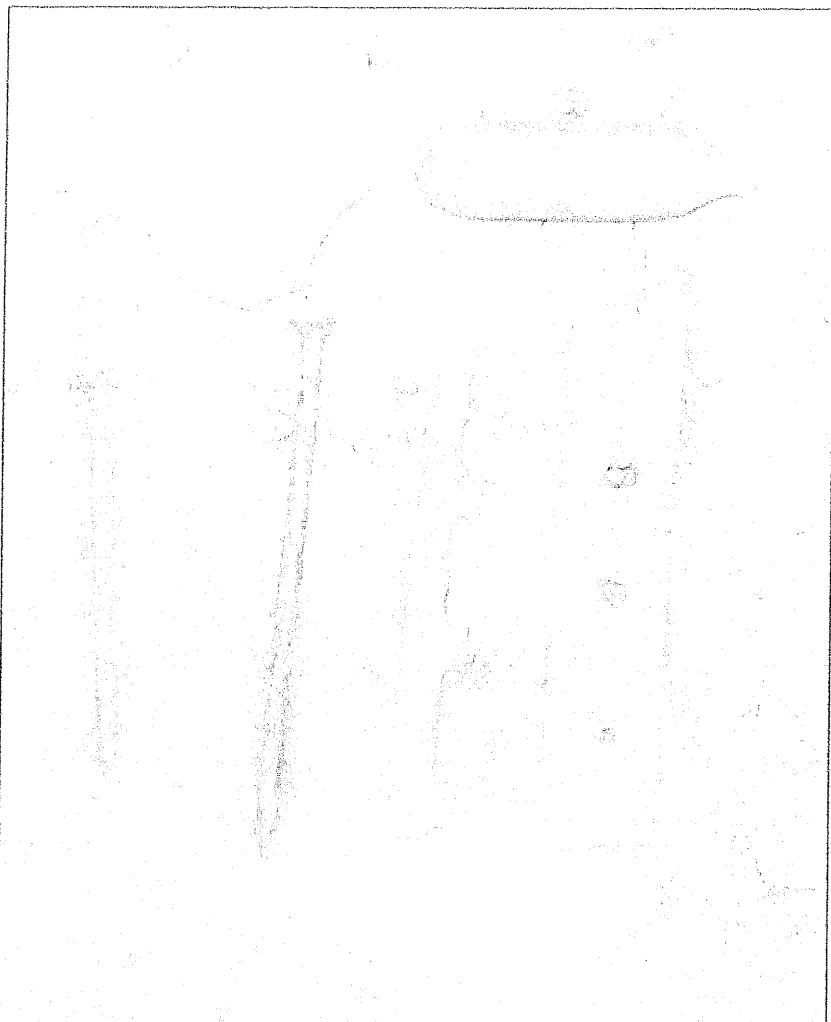


Fig.27 A variety of nails and metal objects from the summit of Naval Hill. Note the carbon dioxide canister in upper right corner used to prepare soda water. (Pocket knife = 83mm).

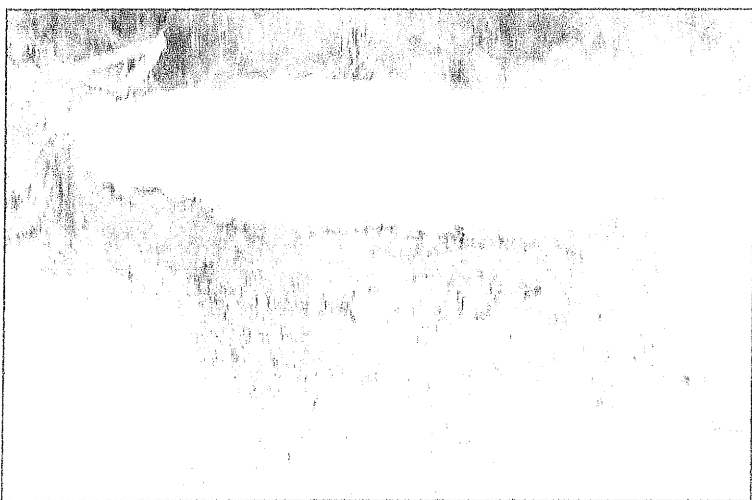


Fig.28 Hexagonal concrete blocks are found along side stone paved furrows.



Fig.29 Hexagonal concrete blocks are found along side stone paved furrows.



Fig.30 Cobble stone paved drain gully on Naval Hill.