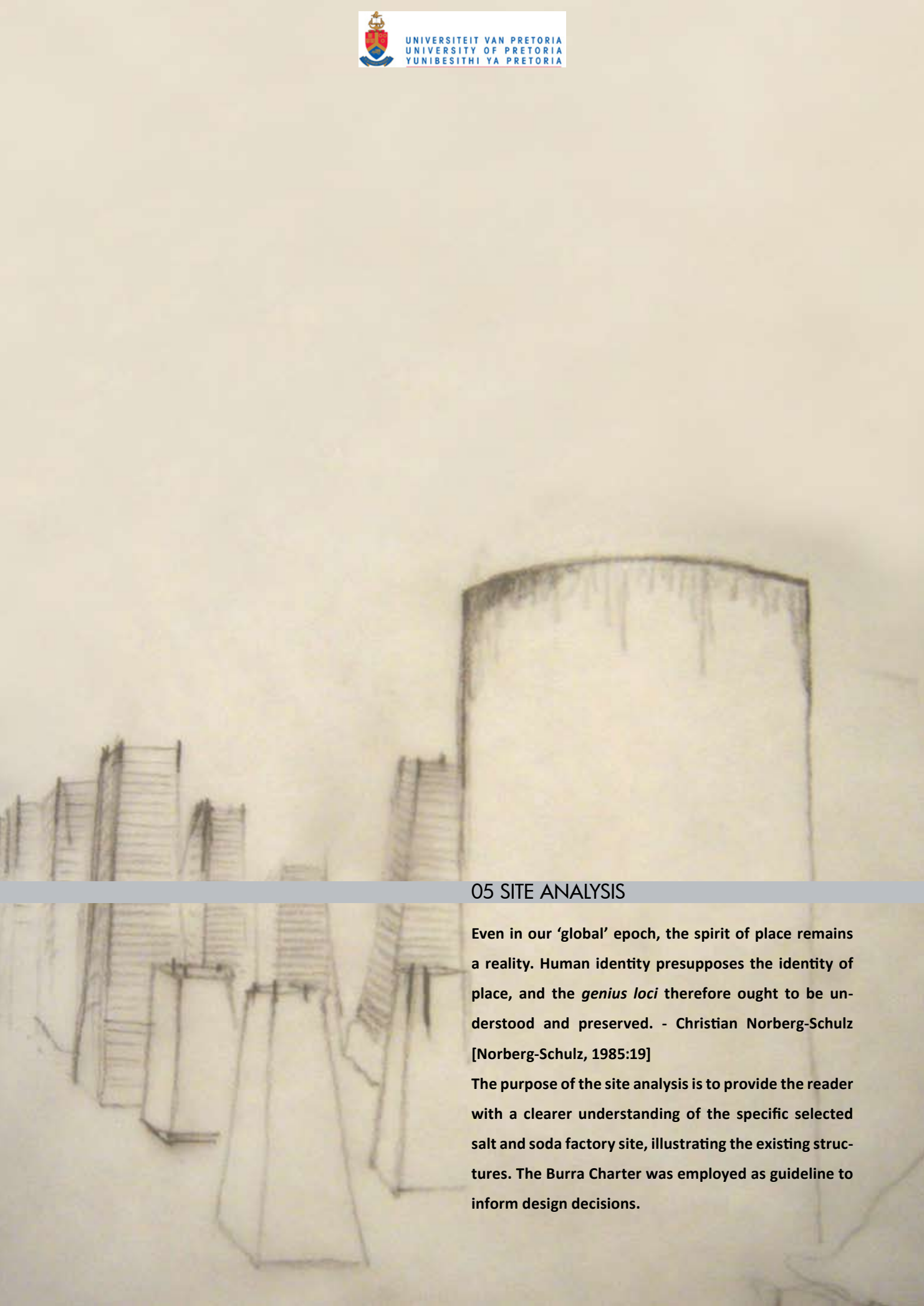
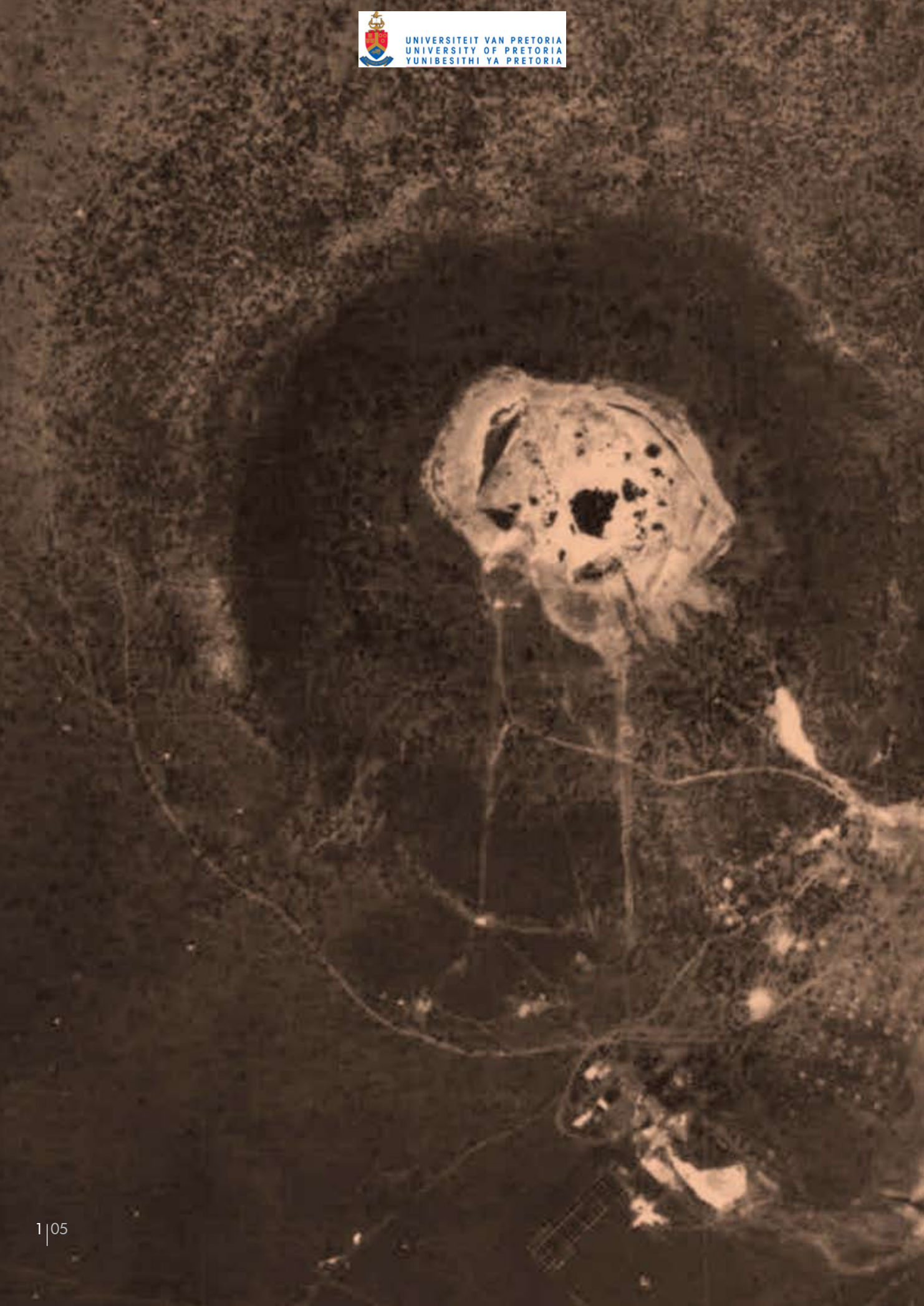


05 SITE ANALYSIS

Even in our 'global' epoch, the spirit of place remains a reality. Human identity presupposes the identity of place, and the *genius loci* therefore ought to be understood and preserved. - Christian Norberg-Schulz [Norberg-Schulz, 1985:19]

The purpose of the site analysis is to provide the reader with a clearer understanding of the specific selected salt and soda factory site, illustrating the existing structures. The Burra Charter was employed as guideline to inform design decisions.



The Burra Charter was selected as a guideline informing design decisions regarding the cultural significance of the site , with specific emphasis on the existing structures of the historic salt and soda factory.

The Burra Charter defines heritage as places and objects that have been inherited from previous generations that should be looked after and passed on to future generations. These places are important because of their influence in the shaping of communities, environments and generally where the associated societies are today.

Before any heritage related places or objects can be protected, their significance need to be determined, why and how they are important. The TMC is primarily important due to the impact crater on the site. The crater is significant in various aspects as discussed in the context analysis. Various other activities took place, and are still taking place up to this day due to the impact crater. The physical fabric of a place is the tangible evidence of what has once been and therefore, the selected focus area of this proposal is the remains of the salt and soda factory as physical structure.

A shorthand outline of the articles in the Burra Charter was used as primary guideline to determine the appropriate design intervention.

Figure 5.01 [On previous spread] Aerial photograph taken in 1939 [Chief Directorate: Land Surveys and Mapping]

5.1 The salt and soda Factory

For thousands of years the Tswaing crater has been a source of salt for human consumption, utilised by groups ranging from small nomadic Middle Stone Age tribes to the early Boer Settlers. Various methods were employed to extract salt and soda brine from the crater floor.

In 1918, the appointed consulting chemical engineer W. Mauss recommended the building of a new factory for the projected annual production of approximately 100 tons of refined soda-ash. The factory site was selected and construction got underway in 1918.

Due to increasingly competitive markets resulting in losses rather than profits, as well as declined production rates due to the extraction of the soda and salt content, production was stopped, and the factory was closed down in 1956.

Palframan and Horner, a chemical engineering company, used part of the old factory from 1958 to 1961 in an attempt to produce salt. Today, only a stockpile of whitewash remains as a reminder of failed endeavours. Machinery, along with all doors, roof plates, windows and other valuable assets were stripped from the factory to be re-used or sold elsewhere. During the early 1970's all the remaining shells of the houses on the site were demolished, leaving only abandoned footprints of remembrance on the landscape

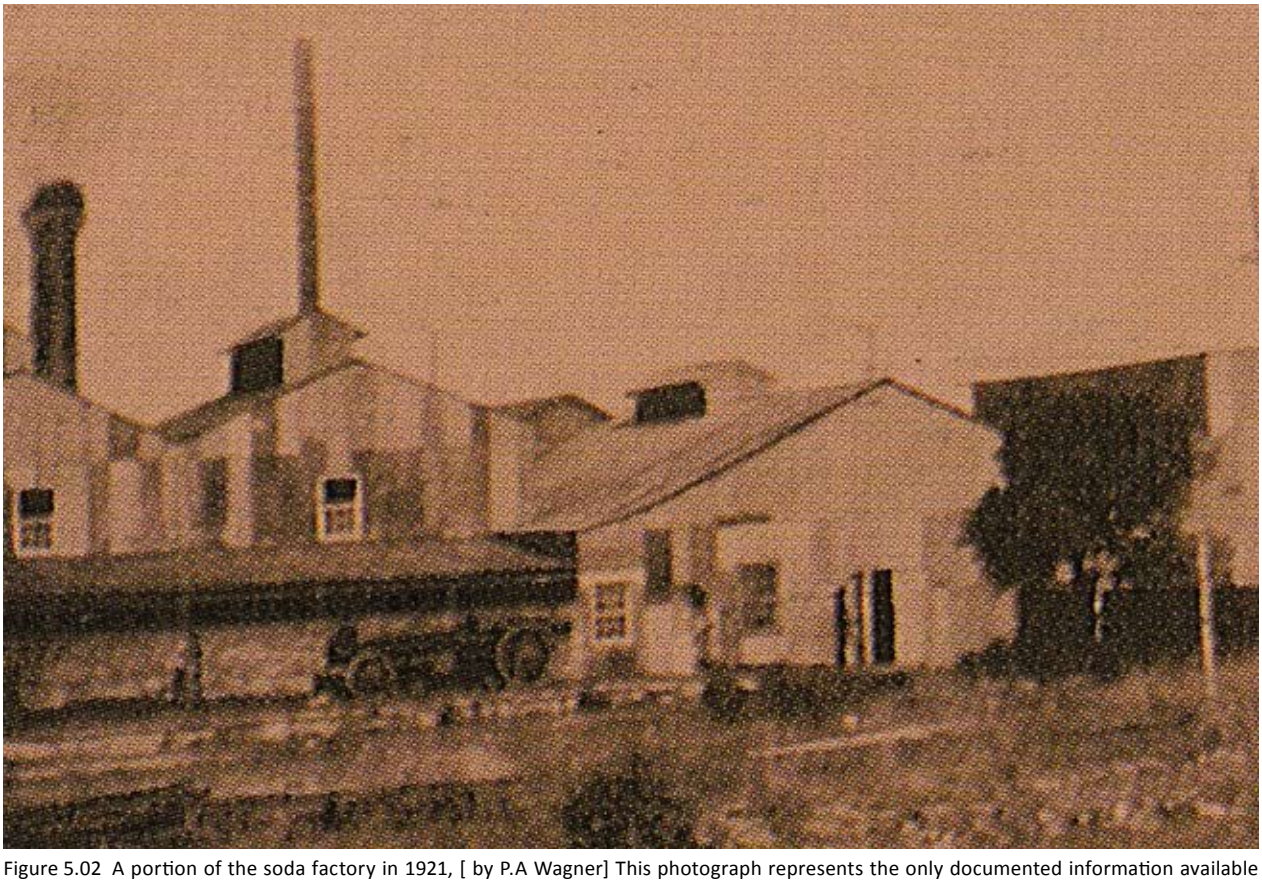


Figure 5.02 A portion of the soda factory in 1921, [by P.A Wagner] This photograph represents the only documented information available regarding the factory. [Reimold et al, 1999:124]

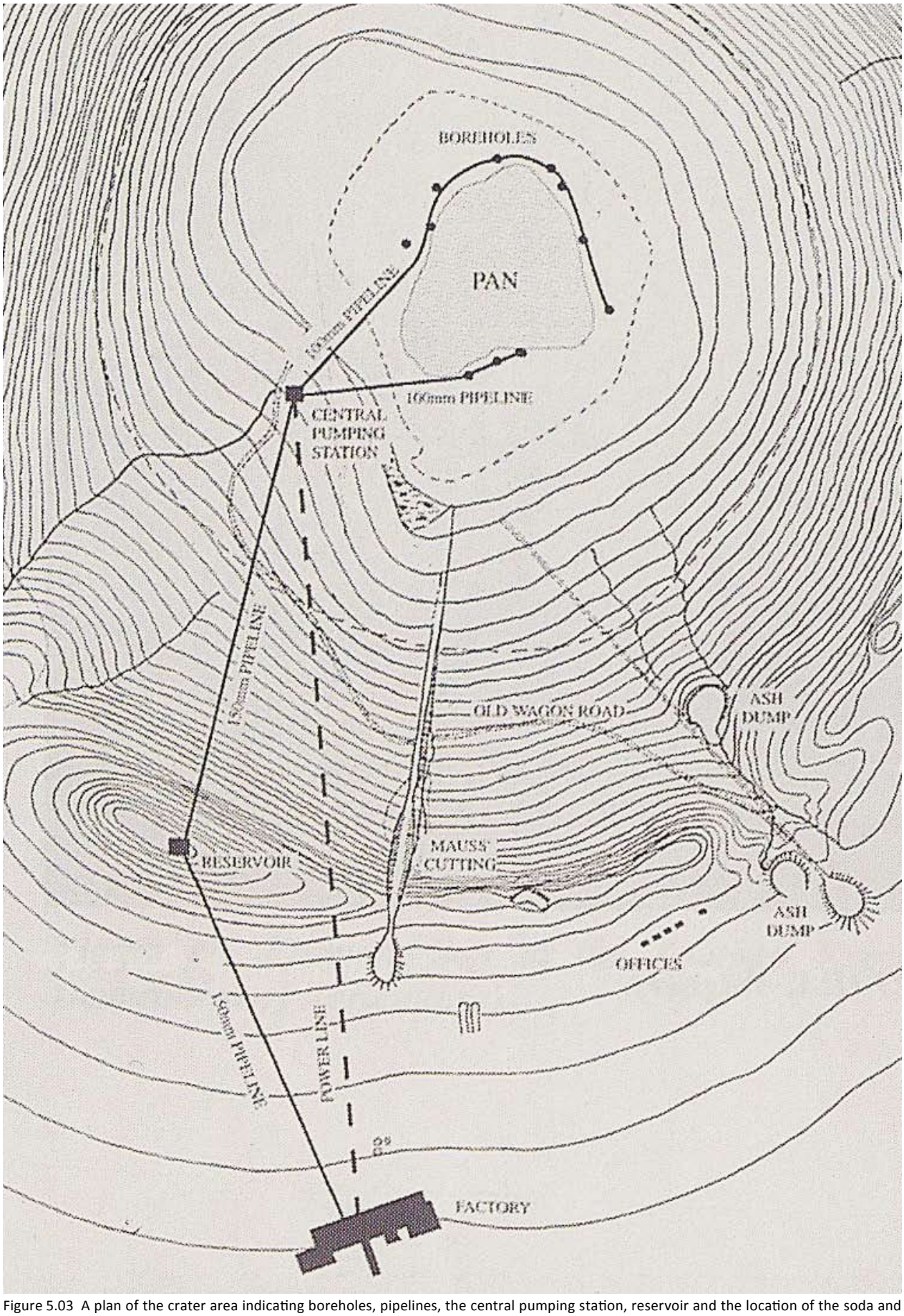


Figure 5.03 A plan of the crater area indicating boreholes, pipelines, the central pumping station, reservoir and the location of the soda and salt factory. [Reimold et al, 1999:123]

Today, only remnants of the old factory linger in the landscape, marked by a vast expanse of concrete flooring, in which corroded reinforcing, remnants of pipelines and the traces of floor partitions can be found. These have been left to decay and are slowly turning into heaps of rubble over time as nature takes its course and the structures are vulnerably exposed to the elements. Gradually, plants seek out the cracks, bursting through the concrete foundations upon which a profitable industry was formerly founded, the ruins ironically crumbling from the very foundations upon which they were once constructed – salt.

Documentation regarding the mining operations is limited. No visual records, with the exception of a photograph by P.A. Wagner taken in 1921, an aerial photograph from 1939, and a diagrammatic plan of the crater area, are available. The dilapidated structures are therefore the only visual reminders that remain. Various mining methods were employed over time, enabling researchers to make vague assumptions about the actual functioning of the factory and remaining structures – a riddle left for the imagination to explore.

While, ever and anon, there falls
Huge heaps of heavy moulder'd walls.
Yet time has seen, that lifts the low,
And level lays the lofty brow,
Has seen this broken pile compleat
Big with vanity of state:
But transient is the smile of Fate!
A little rule, a little sway,
A sunbeam on a winter's day
Is all the proud and mighty have
Between the cradle and the grave.
[Thompson, 1981:15]

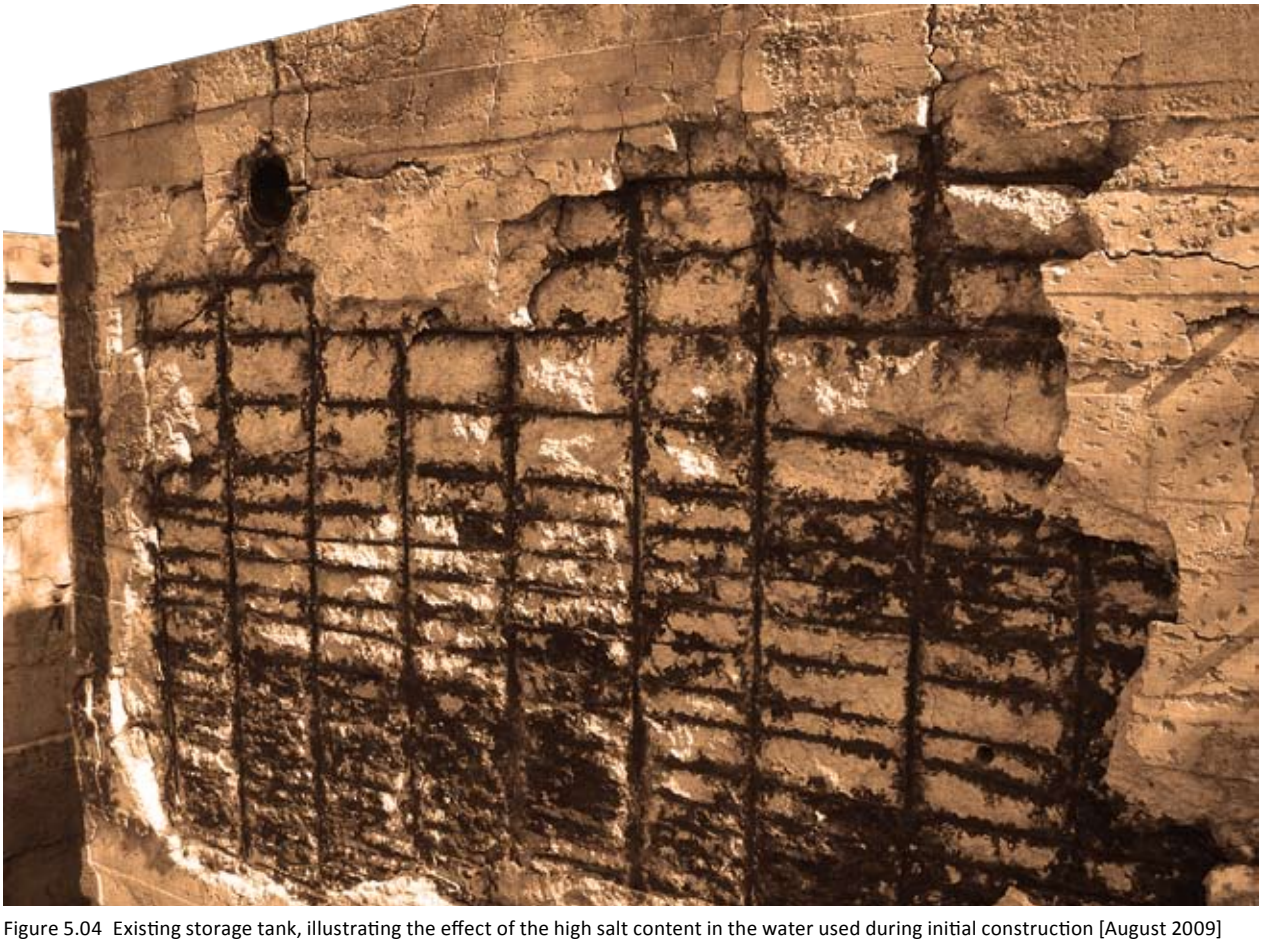


Figure 5.04 Existing storage tank, illustrating the effect of the high salt content in the water used during initial construction [August 2009]

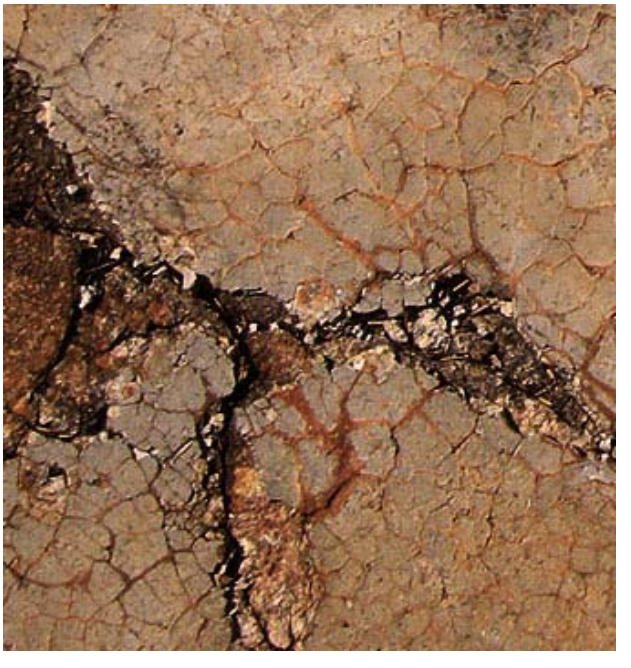


Figure 5.05 Corroded reinforced concrete storage tank structure [March 2009]
Figure 5.06 Storage tank, filled with dead leaves [August 2009]
Figure 5.07 Corroded steel element on top of concrete storage tank [June 2009]
Figure 5.08 Corroded reinforced concrete element [June 2009]
Figure 5.09 Residue of corroded element on concrete surface [June 2009]
Figure 5.10 Cracked concrete surface [June 2009]

Figure 5.11 Dilapidated reinforced concrete storage tanks filled with rainwater

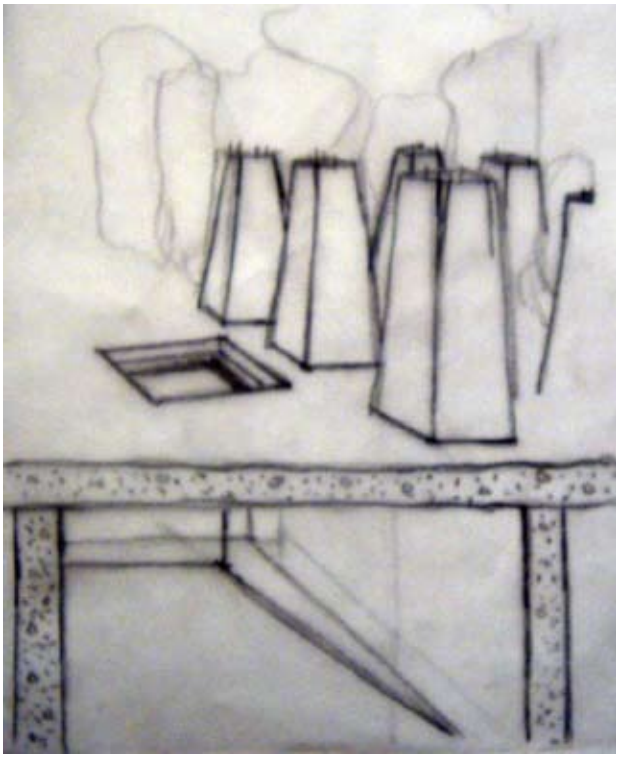


Figure 5.12 Large storage rooms are located underneath the surface platform. [March 2009]

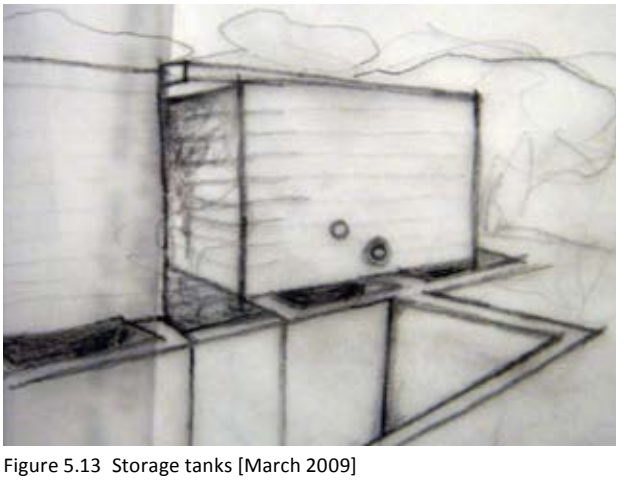


Figure 5.13 Storage tanks [March 2009]

Remnants of the original storage tanks that are approximately 3m below the natural ground surface have filled with rainwater and other scraps of ruined elements accumulated over time. It is presumed that these tanks were originally used to cool the pumped water down, as the temperatures below ground are much cooler than the outside surface temperatures.

Figure 5.14 Open storage tanks filled with dead leaves [August 2009]

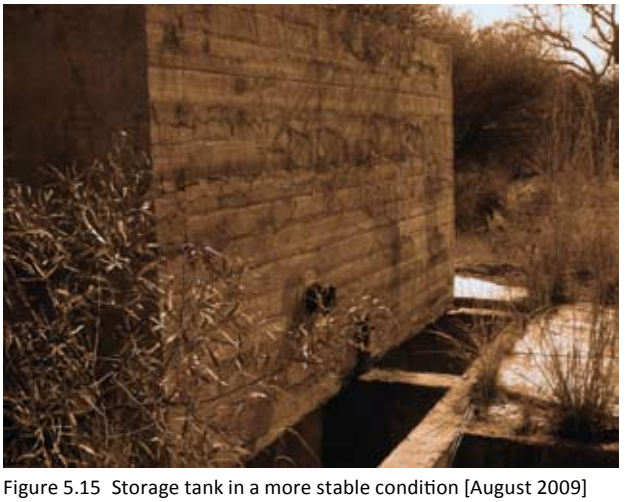


Figure 5.15 Storage tank in a more stable condition [August 2009]

5.2 Invisible cities

The city of Sophronia is made up of two half cities. In one there is the great roller-coaster with its steel humps, the carousel with its chain spokes, the Ferris wheel of spinning cages, the death-ride with crouching motor-cyclists, the big top with the clump of trapezes hanging in the middle. The other half-city is of stone and marble and cement, with the bank, the factories, the palaces, the slaughterhouse, the school, and all the rest. One of the half-cities is permanent, the other is temporary, and when the period of sojourn is over, they uproot it, dismantle it, and take it off, transplanting it to the vacant lots of another half-city. **[Groak, 1992:59]**

Capitalist development and the persistent search for profit inevitably produce spaces of ruination and dereliction. These industrial ruins represent the rise and fall of an economic era. As often happens with these industrial landscapes, memories fade and these sites are regarded as 'scars on the landscape' or 'wastelands', conceptions stripping the structure of its value in terms of its possible future uses.

During this time of economic volatility and environmental alarm, it is perhaps time, as Edensor states, 'to contest the notion that ruins are spaces of waste, that contain nothing, or nothing of value, and that they are saturated with negativity as spaces of danger, delinquency, ugliness and disorder' [Edensor, 2005:7].

Figure 5.16 Small stairs leading into open storage tank [March 2009]

Figure 5.17 Soda ash residue with left over bricks on southern edge of factory structures [August 2009]

Figure 5.18 Concrete floor with corroded pipe elements protruding [August 2009]

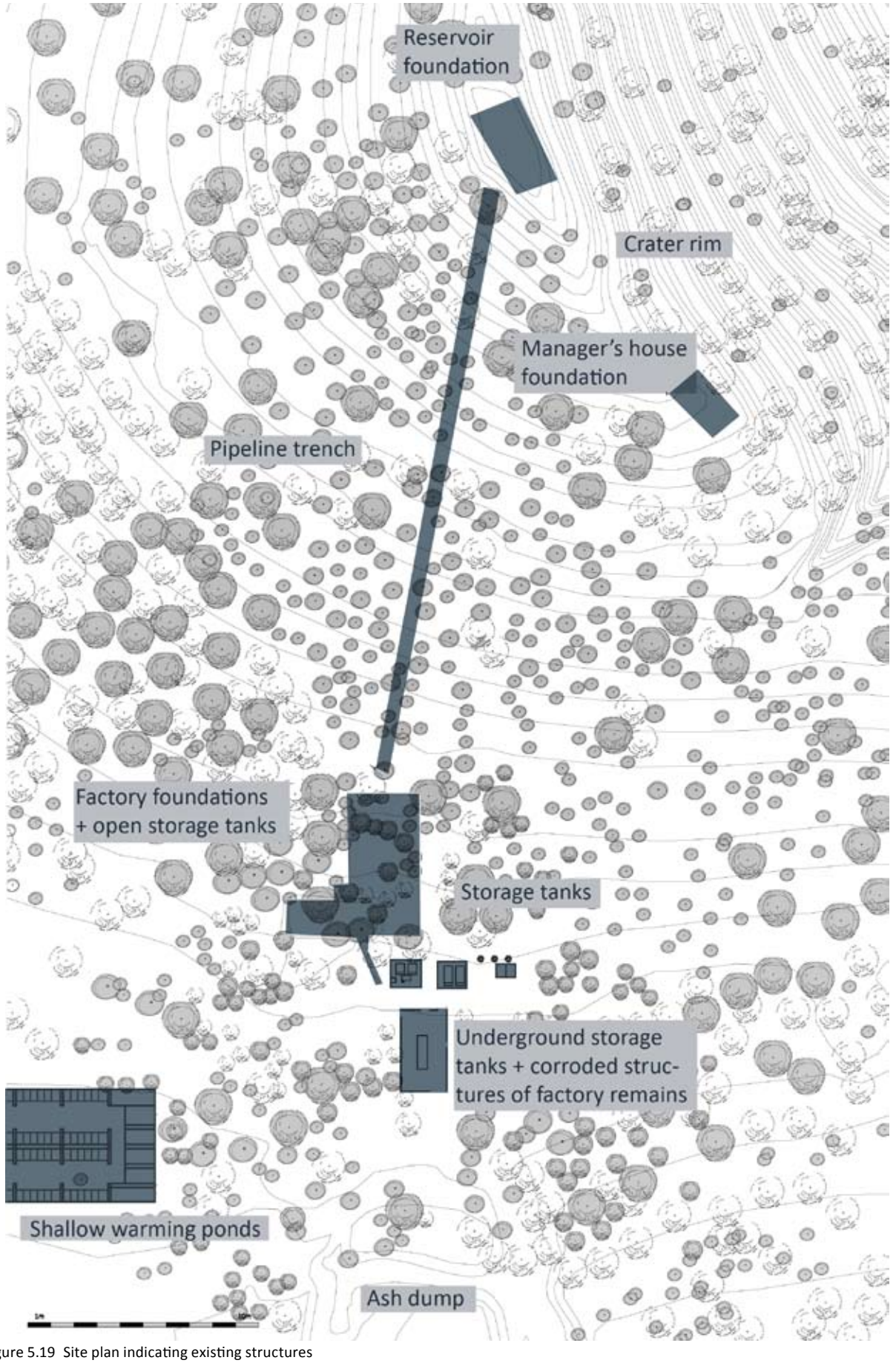


Figure 5.19 Site plan indicating existing structures

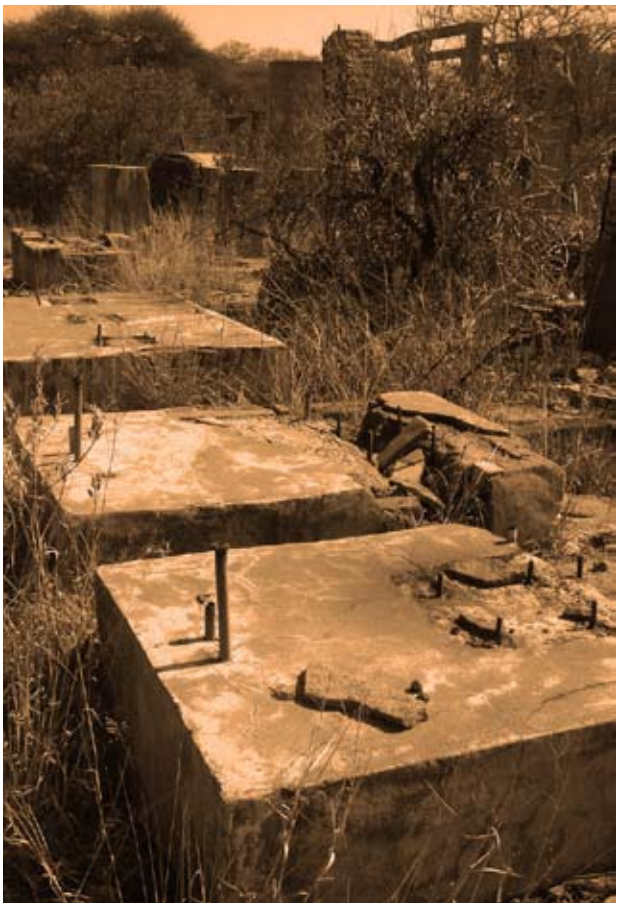


Figure 5.20 Possible foundations of corrugated structures [August 2009]

Figure 5.21 Reinforced concrete elements [March 2009]

Figure 5.22 Reinforced concrete storage tanks [March 2009]

Figure 5.23 Reinforced concrete column structure [March 2009]

Figure 5.24 Foundations of historic warming ponds [August 2009]