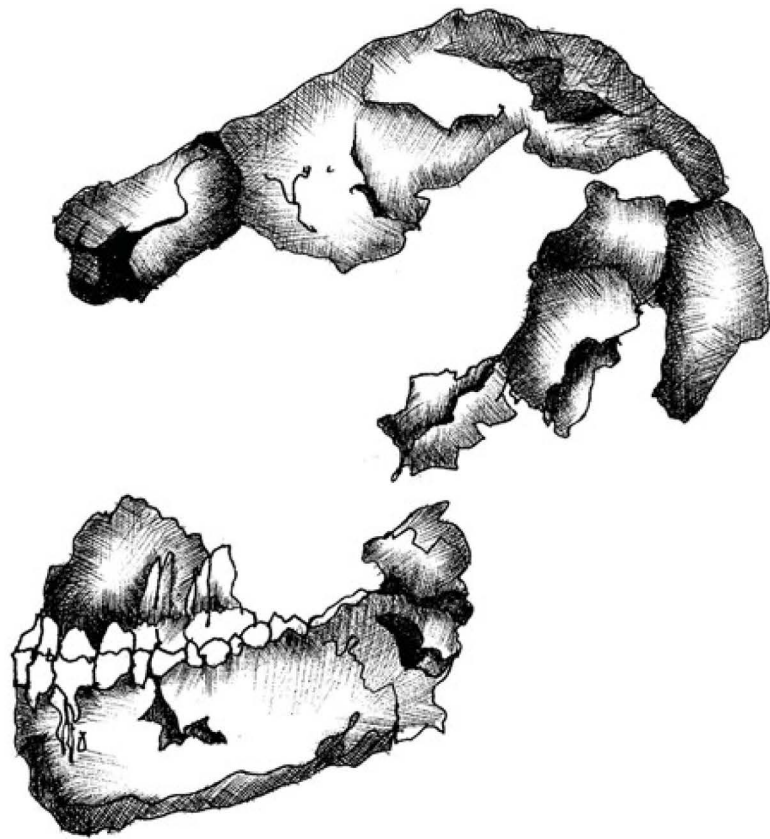


Abigail Alice Barnard  
*MProf Architecture*

# The Scientist, The Collector, & The Treasure Hunter.

A Knowledge Centre for The Cradle of Humankind



# The Scientist, The Collector, & The Treasure Hunter

## A Knowledge Centre for The Cradle of Humankind

ABIGAIL BARNARD

*Programme: Research and interpretation centre*

*Location: Kromdraai Cave site, Cradle of Humankind*

*26°00'41"S, 27°44'60"E*

*Client: Cradle of Humankind Trust, Scientific Community*

*Keywords: UNESCO, world heritage, the Cradle of Humankind,  
fossil hominid site, demountable, research centre*

### DECLARATION

*In accordance with Regulation 4(e) of the General Regulations (G. 57) for dissertations and thesis, I declare that the thesis, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not been submitted by me for a degree at this or any other tertiary institution. I further state that no part of my thesis has already, or is currently being submitted for any such degree, diploma or other qualification. I further declare that the thesis is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.*

## ACKNOWLEDGEMENTS

**This dissertation is dedicated to my father, Eugene Vaughan Barnard.**

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## ABSTRACT

*The Cradle of Humankind, famous for its abundance of hominid fossils, has been preserved as a pristine landscape throughout the modern era, thanks to the establishment of the site as a natural and cultural World Heritage Site in 1994 (Maropeng 2016). In this dissertation the complexity surrounding a world heritage hominid fossil site is investigated.*

*Kromdraai Cave, one of the five original caves included in the World Heritage declaration on the Cradle of Humankind, is investigated as a point of connection between conflicting values within the world heritage context. Through the intervention the site is envisioned as connecting not only the values of the world heritage site, but also providing an understanding of the landscape as a whole.*

*The site is envisioned as a centre of knowledge, relating the value of the site directly to the context. The distribution of knowledge will allow the heritage to be accessible, not only to the scientist but also to the community.*

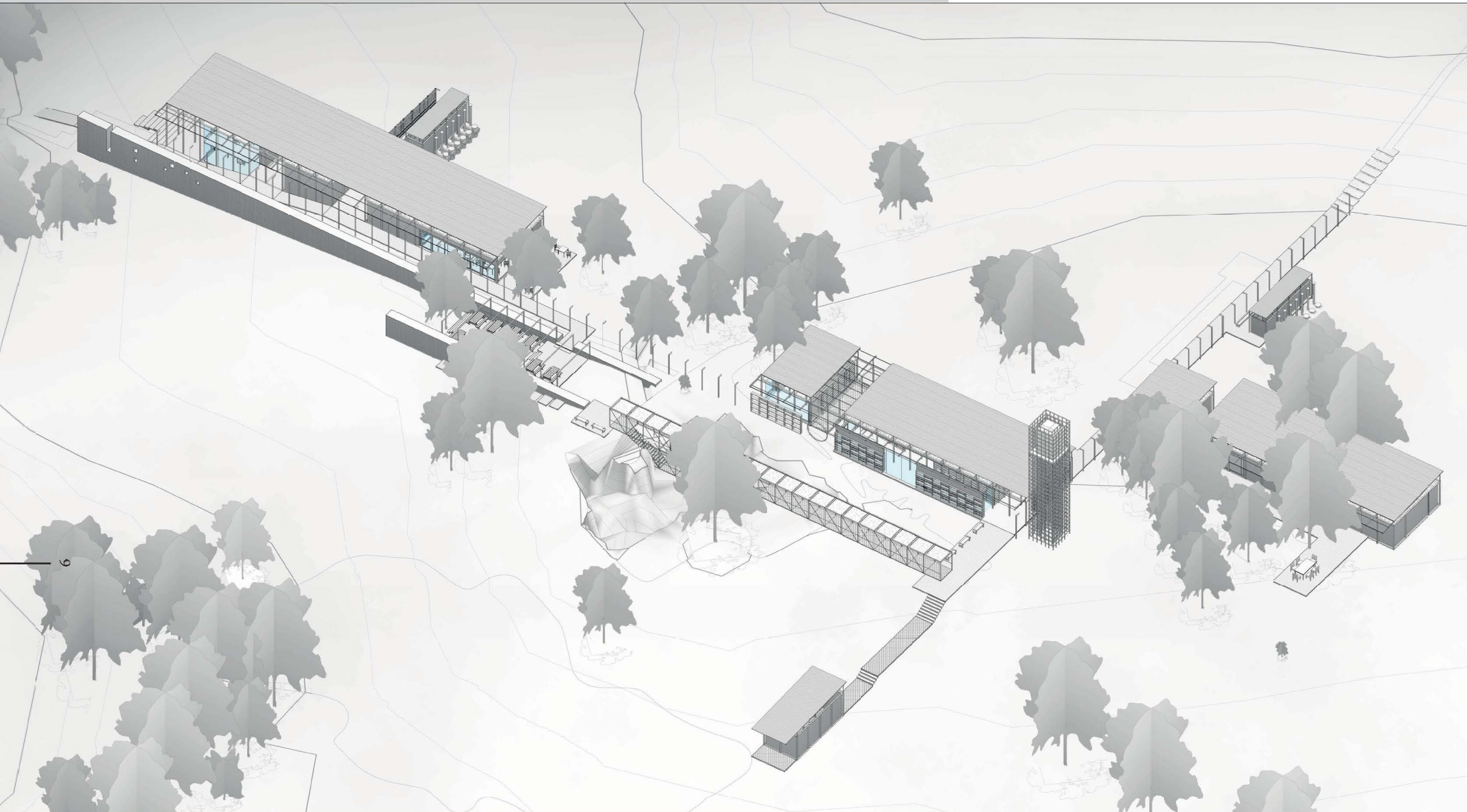
## EKSERP

*Die Wieg van die Mensdom is bekend vir die oervloed hominied-fossiele wat daar voorkom, en is dwarsdeur die moderne era as 'n ongerepte landskap bewaar, danksy die feit dat dit in 1994 as 'n natuurlike en kulturele Wêrelderfenisgebied verklaar is (Maropeng 2016). Hierdie skripsie ondersoek die kompleksiteit wat so 'n hominied-wêrelderfenisgebied omring.*

*Kromdraai-grot, een van die vyf oorspronklike grotte wat ingesluit is toe Wêrelderfenisstatus aan die Wieg van die Mensdom toegeken is, word as aansluitingspunt tussen teenstrydige waardes binne 'n wêrelderfeniskonteks ondersoek. Deur die voorgestelde ingryping word dit moontlik dat die terrein nie alleen 'n verband skep tussen die onderskeie waardes wat 'n wêrelderfenisgebied verteenwoordig nie, maar dat daar ook 'n beter begrip van die landskap as 'n geheel verskaf word.*

*Die terrein word as 'n kennisentrum beskou, wat sy waarde direk met die konteks in verband bring. Die verspreiding van kennis sal die erfenis toeganklik maak vir nie net wetenskaplikes nie, maar ook vir die gemeenskap.*

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# Chapter 1

## Introduction

*This chapter gives a brief introduction to the context, the choice of site, identified issues and research questions, the intentions of the dissertation, the research methodology and the contribution to architecture.*



### 1.1 The background

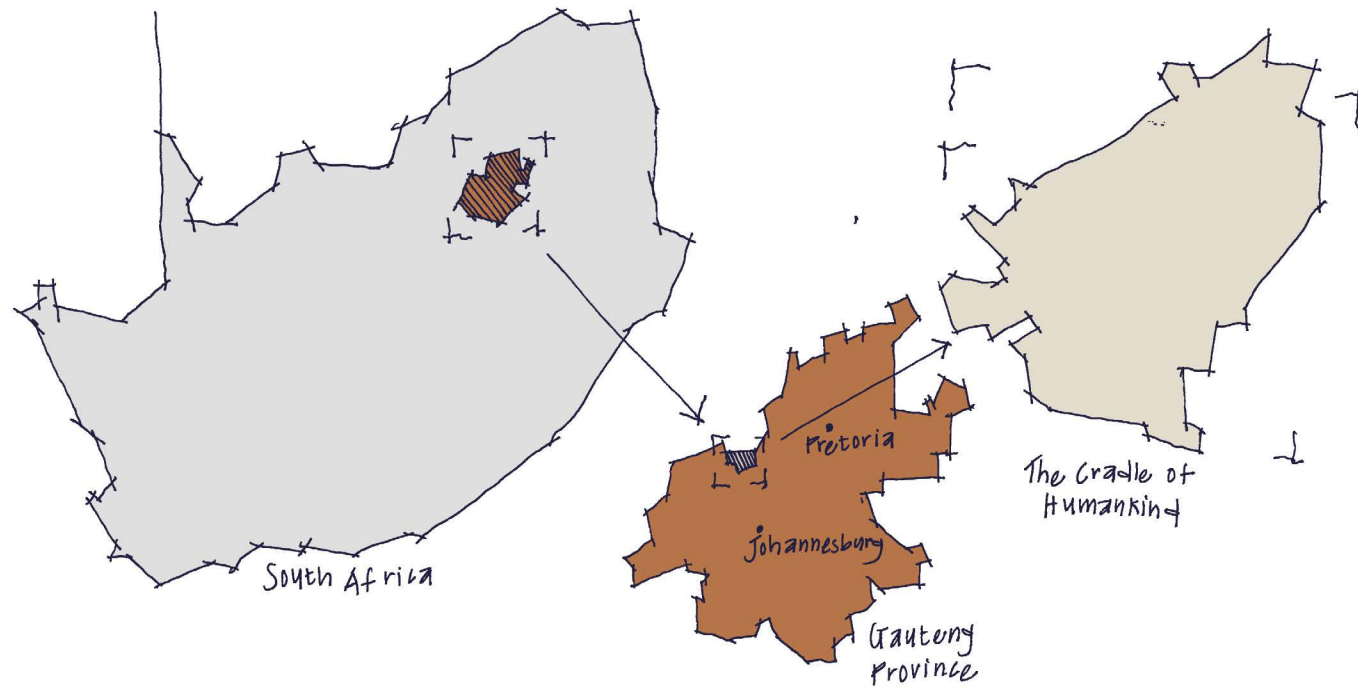
Throughout the modern era archaeologists and antiquarians have been associated with playing a negative role, as archaeologists were seen as intransigent enthusiasts of the past, driven by an appetite for experiencing the past as present (Schnapp, Shanks & Tiewes 2004:3). Today, the field of archaeology is driven by a culture of artisan connoisseurship and collecting, relating to the suburban estate, the bourgeois, the university and the museum. These collectors have separated the archaeologist, archaeological object and archaeological site, with the sole understanding of the archaeology resting on architectural design, which is an architecture mainly driven by the creation of a symbol of capitalism and propaganda.

This dissertation investigates the role of architecture as the connection between the study of the past, the understanding of the present, and the possibilities of the future. The ability of architecture to adapt to the needs of its time is furthermore explored, where the concept of temporality shapes the design process.

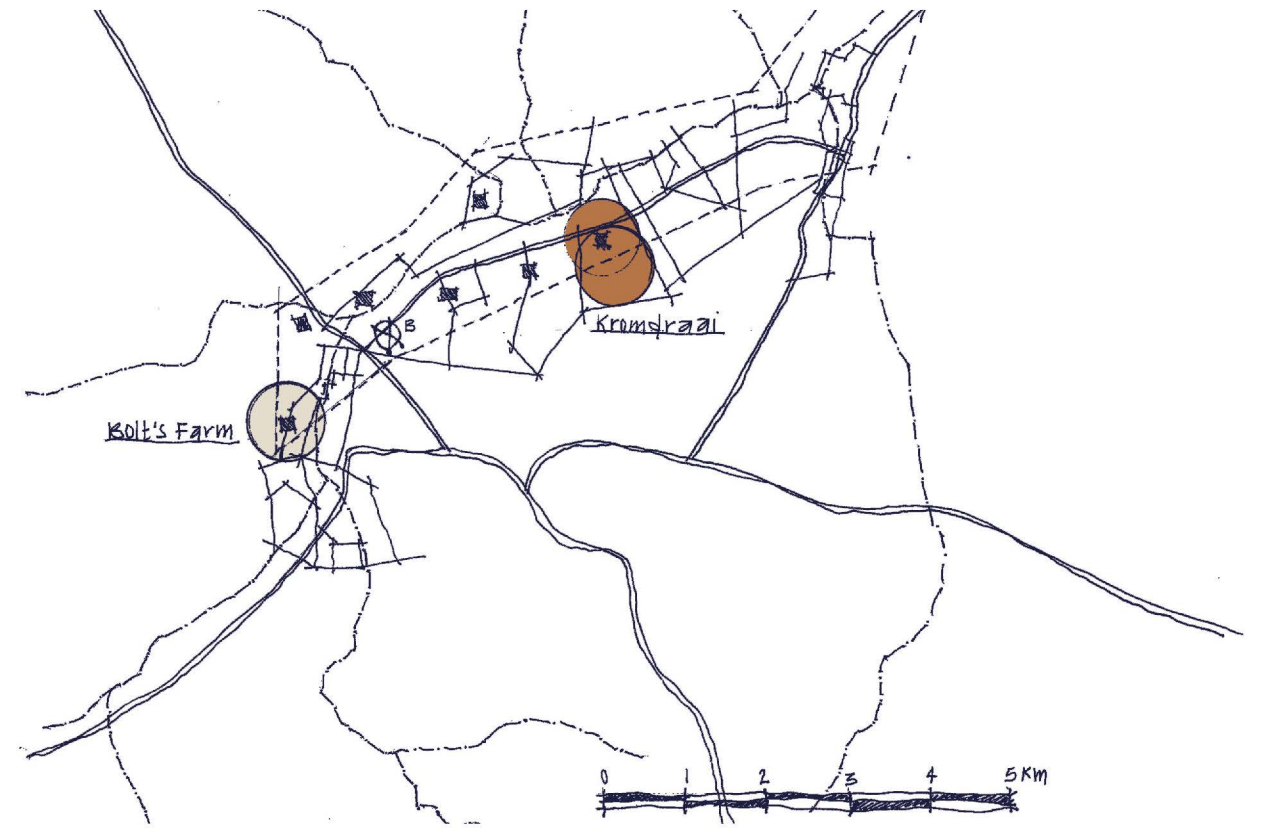
### 1.2 The proposed context



1.2 - The proposed context (Author, 2016).



1.3 - The Cradle of Humankind (Author, 2016).



1.4 - Kromdraai cave (Author, 2016).

### 1.2.1 The Cradle of Humankind

Figure 2

The United Nations Educational, Scientific and Cultural Organization, UNESCO, has identified places of Outstanding Universal Value (OUV) throughout the world in an effort to conserve and make them accessible for public interpretation. South Africa boasts eight sites of Outstanding Universal Value, one of which is the Cradle of Humankind. The Cradle of Humankind, famous for its abundance of hominid fossils, has been preserved as a pristine landscape throughout the modern era thanks to the land being used for animal husbandry, and the establishment of the site as a natural and cultural World Heritage Site in 1994 (Maropeng 2016a).

The fossils, owing their existence to the unique geological landscape, are found scattered in caves, many of which are still to be discovered. Investments in the area have been made in the hope of developing the Cradle as a world tourism destination, but the mere size of the area has led to many of the sites still being unknown to the general public. The area remains as mysterious to the visitor as the prehistoric past, inaccessible and possibly even irrelevant.

### 1.2.2 Kromdraai cave

Figure 3

Kromdraai Cave, one of the five original caves included in the World Heritage declaration on the Cradle of Humankind, sits in the centre of the known fossil sites to the south. The cave is located 2km from the existing Sterkfontein visitor centre, and connects to the cave because of the discovery of *P. robustus*, a prehistoric hominid known for its robust appearance. The discovery of *P. robustus* was the first discovery of a robust australopithecine in the world. Historically the cave represented a turning point for South Africa as the birthplace of humankind, yet today the cave is unknown to the general public, with its significance as well as the efforts of its researchers undervalued.



### 1.3 The research problem

According to Pallasmaa (2012:35), man has a mental need to grasp that he is rooted in the continuity of time, yet contemporary architectural culture has shifted towards distancing and desensualising man's relation to time. The fossil collector is fascinated by the object's life, the story of its origin and its end (Schnapp et al. 2004:13), yet in current practice the aura and authenticity, the rootedness in place and time of the fossil, has been lost.

This loss is evident in buildings of ageless perfection of which the function is to display and enable the understanding of fossils. The buildings avoid the dimension of time and focus on the memorable visual image instead of allowing for a grounded authentic experience. Places of outstanding universal value, such as the Cradle of Humankind, are treasured because of man's fascination with his place in the universe and the continuity of time. The existing infrastructure brands the Cradle of Humankind as an international world heritage site, yet the fossil sites remain isolated, with fossils being removed from these sites and taken to universities or museums. The area itself has become a missed opportunity for displaying the landscape, while the aura, mystery and excitement around the discovery of fossils could be lost.

#### 1.3.1 General Issue

Although paleoarchaeology pieces together clues as to the prehistoric past through the study of fossils, the site of the fossil plays an equally important role, especially the context of the site in relation to other sites. The context allows for the creation of a "map" of the prehistoric past, not only providing tangible clues, but also intangible clues such as for example the "aura of place". The Cradle of Humankind, with its collection of fossil sites, is a pristine landscape for the piecing together of the prehistoric past, yet the locations and connections between the fossil sites are generally unknown.

Furthermore, the archaeological act of excavation is destructive by nature and displaces fossils from the

site and the timeline of the site. Fossils are removed and placed in museums or universities, robbing the site of its value. The dissertation investigates the Cradle of Humankind as a set of coordinates forming a map of its prehistoric story, and aims to maintain, even without the presence of fossils, the coordinates of the sites for future generations.

#### 1.3.2 Urban Issue

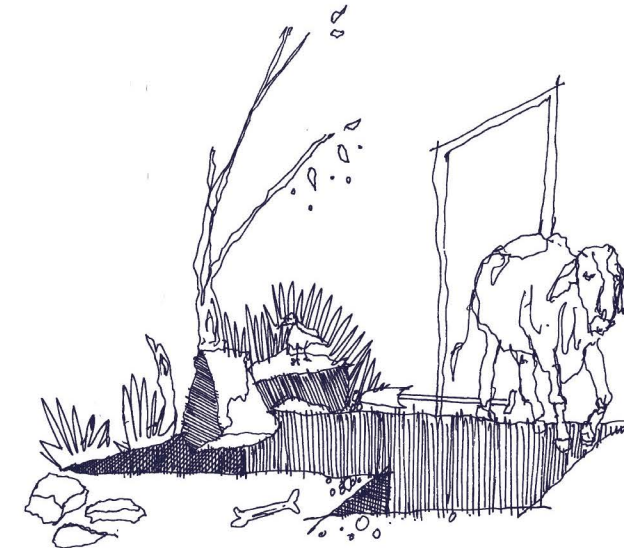
The value of a world heritage site holds immense potential for not only the country, but also community members directly affected by its presence. The predominantly agricultural nature of the Cradle of Humankind has protected the known and unknown fossil sites from commercial and residential development, yet the landscape is undergoing many changes relating to tourism developments. Although tourism threatens the conservation of fossil sites, it generates funding for the identification and conservation of such sites. In this developing and changing landscape, it is important for the value of fossil sites to relate to the context. The fossil sites have become coordinates on a world map of places of outstanding universal value, yet cannot contribute value to this context if they remain stagnant coordinate points. Therefore the dissertation investigates the integration of one fossil site with the context, pertaining to the current state of the site, the site after excavation, the site in the future, and the site in the distant future.

#### 1.3.3 Architectural issue

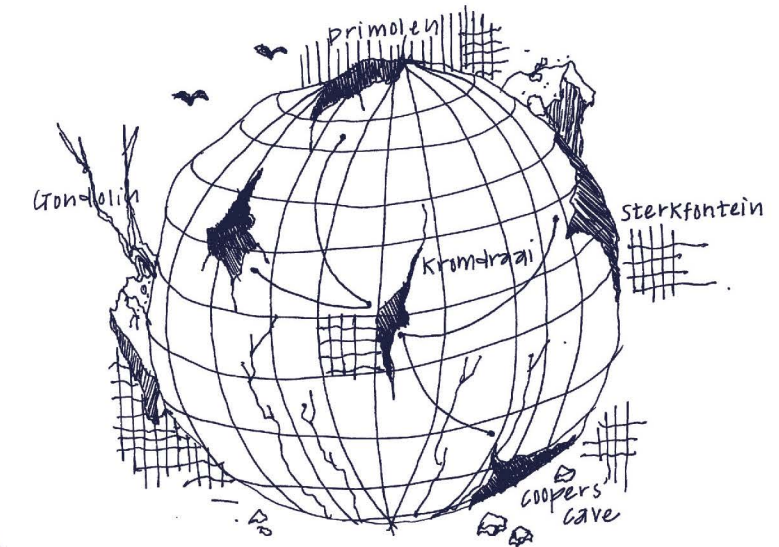
With the act of excavation destroying the sensitive landscape, the question becomes: How does one build as sensitively as possible on this landscape? The question not only refers to structure, but also to the appropriateness of the architectural resolution and design, the hierarchy between the landscape and the design, and the relationship between the past, future and present. Demountable architecture is investigated as a means of responding to the sensitivity of the landscape and allowing for the representation of the future on the site.

In terms of understanding and experiencing the site, the architecture poses a dual challenge to the

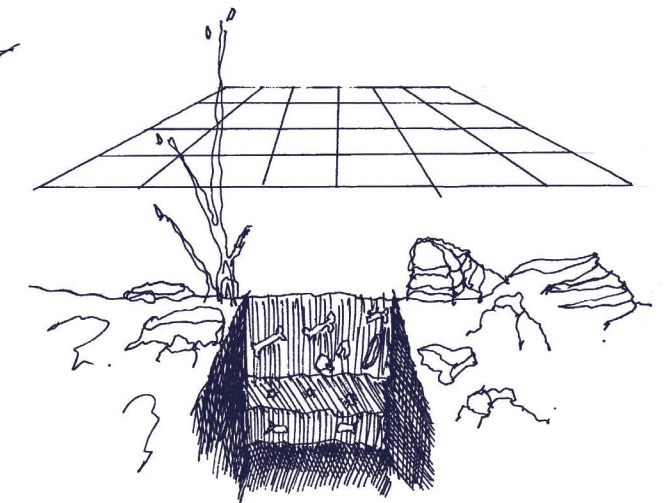
typology of the research centre and interpretation centre, with the focus mainly on the framing of important aspects within the context and site. The knowledge collected from the fossils and landscape is exhibited within the living landscape, allowing the visitor or researcher to build a new memory of the site and imagine the past through discovery.



1.6 - Urban Issue (Author, 2016).



1.5 - General Issue (Author, 2016).



1.7 - Architectural issue (Author, 2016).

### 1.4 Research questions

The research questions that arise from the problem statement are the following:

- How can the typical process of paleoarchaeology be challenged to add value to a site rather than purely remove value?
- How can the fossil site and paleoarchaeological process be connected to the excavated fossils and made accessible to the public?
- How can the intangible qualities of the site be highlighted and made accessible?
- How can more be done with less?
- How can architecture mediate between the past, present and future?



## 1.5 The intention

This dissertation intends to follow a value-based approach to designing for a world heritage site, focused on sensitivity to the landscape and qualities of the site. The intervention aims to emphasise the unique value of the Cradle of Humankind as a whole, as well as Kromdraai Cave within this whole.

The goal is to facilitate researchers at Kromdraai Cave, and to connect the cave as a coordinate to the Cradle of Humankind landscape map. In response to the location of the site and the existing informal farming community, the design integrates the community with the scientific processes taking place on site, aiming to communicate and conserve the value of the site. The intervention aims to directly benefit all involved parties and enhance the value of the site.

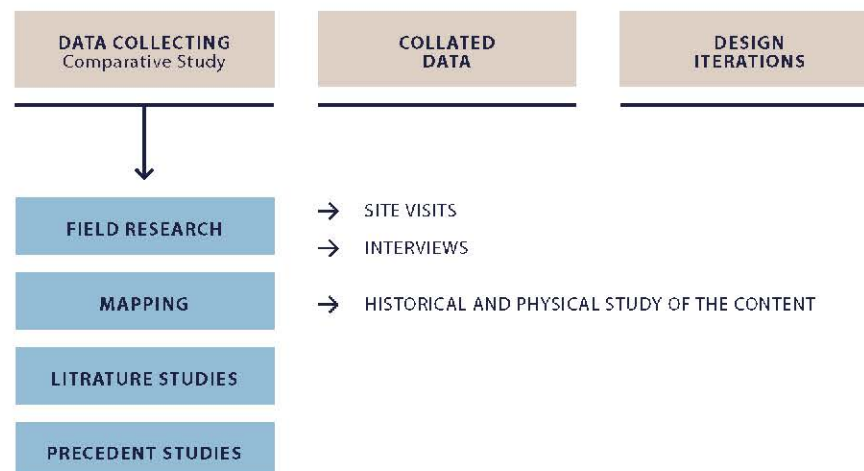
The intention can be divided into the following categories:

**The past:** The intervention aims to connect the past to the present through the creation of a new memory of the site. The present, the process of excavation, becomes a part of the story of the site, exploring how a temporary act becomes permanently etched into the landscape.

**The present:** The intervention does not compete with the existing infrastructure in the area, but aims to strengthen and connect to it. The addition of a research facility generates new discoveries and interest in the Cradle of Humankind, stimulating the existing.

**The future:** The intervention recognises the changing values of the world heritage landscape and aims to facilitate these changes and adapt accordingly.

## 1.6 The methodology



## 1.7 The contribution

The dissertation provides an approach to designing for and on a sensitive and unique landscape, while respecting the qualities of the landscape and attempting to strengthen and frame these qualities.