

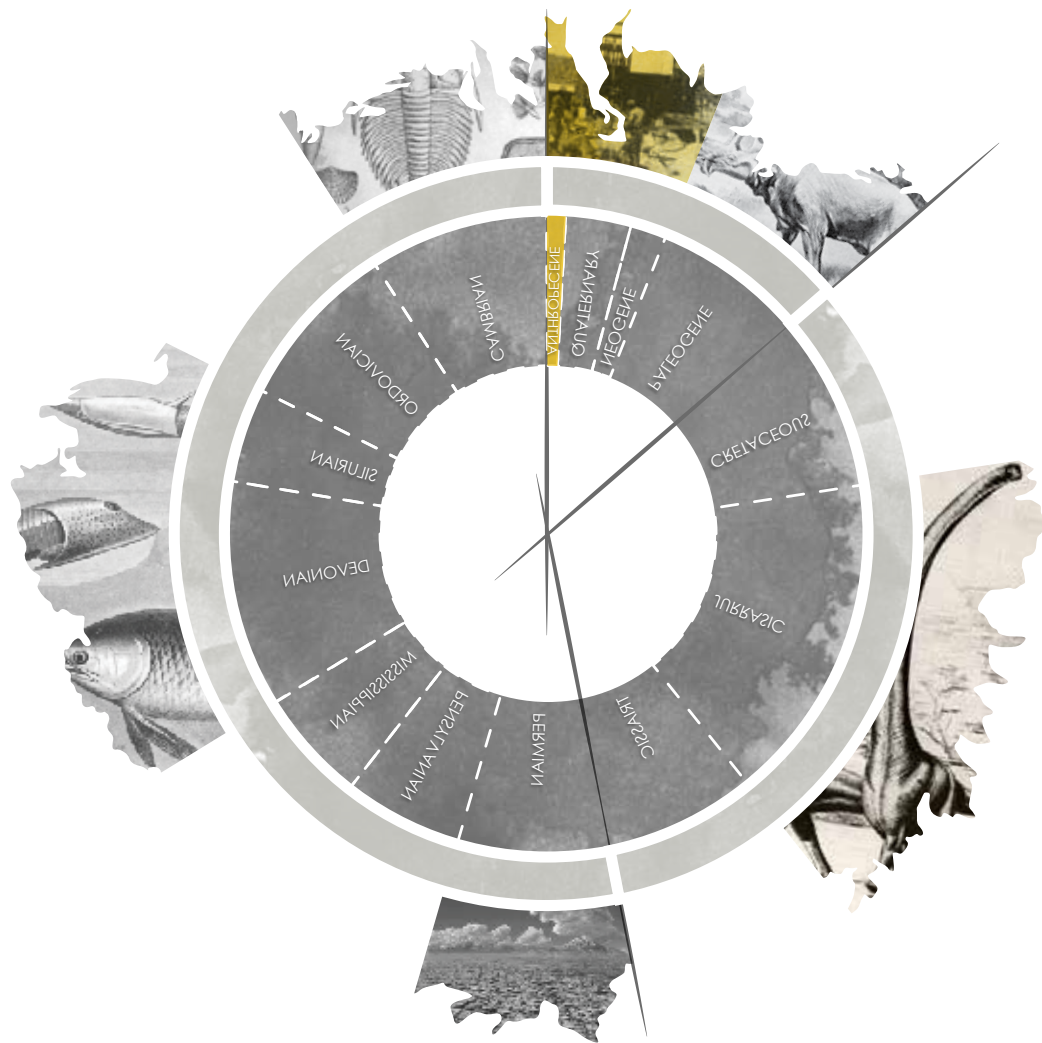


---

## CONCEPT

---

THE ANTHROPOCENE  
GEOLOGY AS INFORMANT



▲  
FIGURE 6.1  
GEOLOGICAL EPOCHS  
(Author, 2016)

---

## THE ANTHROPOCENE

### GEOLOGY AS INFORMANT

---

We, as human beings, are currently finding ourselves in the Anthropocene, a new geological epoch where the impact of humans on the shaping of the Earth has become visible. Human beings are capable of geomorphic force, shaping the landscape together with other "natural" catastrophes (Yusoff 2013, :779). In a response to this, the dissertation reflects on the current position and impact humankind has on the geological make-up of the earth, exploring the way in which built form can alter the geology to benefit the landscape.

Learning from three concepts of the geology of the Cradle, namely the formation of geology, the creation of the karst ecosystem, and the mountain & the grotto, the dissertation investigates the way built form can serve to protect a landscape, while growing to support a habitat for the co-evolution of human beings together with other natural systems, and through this, brings focus to the role humankind has to play in the workings of ecological systems.

6.1  
THE GEOLOGY OF CATASTROPHE  
6.1.1  
THE FORMATION OF GEOLOGY

From the outlook of French catastrophism, violence is at the heart of nature's creative act. This can be seen in the formation of geology, where geology is formed through geomorphic forces, and the resistance

to these forces (Abalos et al. n.d.). Bolt's Farm has become a prime example of the impact of the forces of humankind, and the resistance thereof. Although the mining and blasting activities of the quarry on Bolt's Farm has rendered the site sensitive, it has become a platform in understanding the resistance the various layers of the geological make-up has to the shocks and vibrations of blasting (The South African Karst Working Group 2010:206).

The location of Bolt's farm, between the polluted Rietvlei River and abandoned aggregate quarry, places pressure on the networks found in-between. It is between these two forces, and the resistance thereof, that the architecture is created.

6.1.2  
PROTECTING

In a response to the distressed state of the landscape, the primary intention of the placement of built structures in the landscape is to mitigate the current threats and past destruction of the landscape.

6.2  
THE KARST LANDSCAPE  
6.2.1  
THE CREATION OF HABITAT

The unique geology of the Cradle landscape has not only preserved remnants of the historical landscape, but created favourable conditions for those living in the landscape, both past and present.



▲  
FIGURE 6.2  
ANTIQUE ROCK MINERAL GEOLOGICAL  
GERMAN LITHOGRAPH PRINT  
(Antique Print Gallery, 1888)

The karst system is created through the presence of water, with water seeping into and flowing over the dolomitic formations, dissolving the dolomite at a slow rate. It is, however, the presence of the polluted water that is threatening the existence of this karst landscape.

The karst system also hosts a rich ecosystem, supporting life both in and on the surface of the landscape. The habitat, formed by the landscape, is home to a number of rare and endangered species, both fauna and flora, accommodating and supporting human and non-human life in the Cradle.

### 6.2.2 ACCOMMODATING HABITAT

In response to the complex habitats hosted by the karst geology, the structures placed in the landscape to mitigate the threats to the landscape, also serve to accommodate habitat. Although each structure favours a dominant user, each habitat formed between the structures, accommodates a multitude of users, including human, animal and plant species.

The intention of these structures is to improve the current state of the site, thus altering the landscape for the sake of the landscape. The structures manifest in the form of stereotomic walls, constructed from materials inherent to the site, including earth and stone.

## 6.3 THE MOUNTAIN & THE GROTTA

### 6.3.1 SUBMERGENCE & EMERGENCE

The presence of the caves in the landscape, and the koppies on which they are found are reminiscent of the 'Mountain and the Grotto', where the emergence of the Mountain Sublime in the late 18th century explored the idea of surveying

and display (Abalos et al. n.d.). In the Cradle of Humankind, tourism entities, such as Sterkfontein Caves and Maropeng, are based on the display or interpretation of objects found in the landscape.

Unlike traditional tourism entities, where the object displayed is removed from the context in which it is found (Naidu 2008, :191), the Chiroptera Visitor Centre, aims to showcase the objects, i.e. the bat, in the context or habitat in which they are found, allowing for a greater understanding of the landscape of Bolt's Farm.

The idea of the grotto, as seen in 19th century park follies and the unbuilt building of La Sainte-Baume Basilica by Le Corbusier, relates to the idea of submergence and intimacy. The caves of the Cradle are a literal translation of the grotto, where hominid species found refuge and where preserved until the present day.

### 6.3.2 ACCOMMODATING

The idea of the mountain and the grotto translates into the secondary programmes connected to the habitats. These functions include tourism and research facilities, two functions which connect to the emergence from and submergence into the landscape. Where the tourism functions, such as the quarry pavilion, star-gazing platform and bird hide, place the landscape on display, the research facilities aim to engage with the hidden layers and workings of the landscape.

FIGURE 6.3  
CONCEPT DIAGRAM  
THE GEOLOGY OF CATASTROPHE  
(Author , 2016) ▼





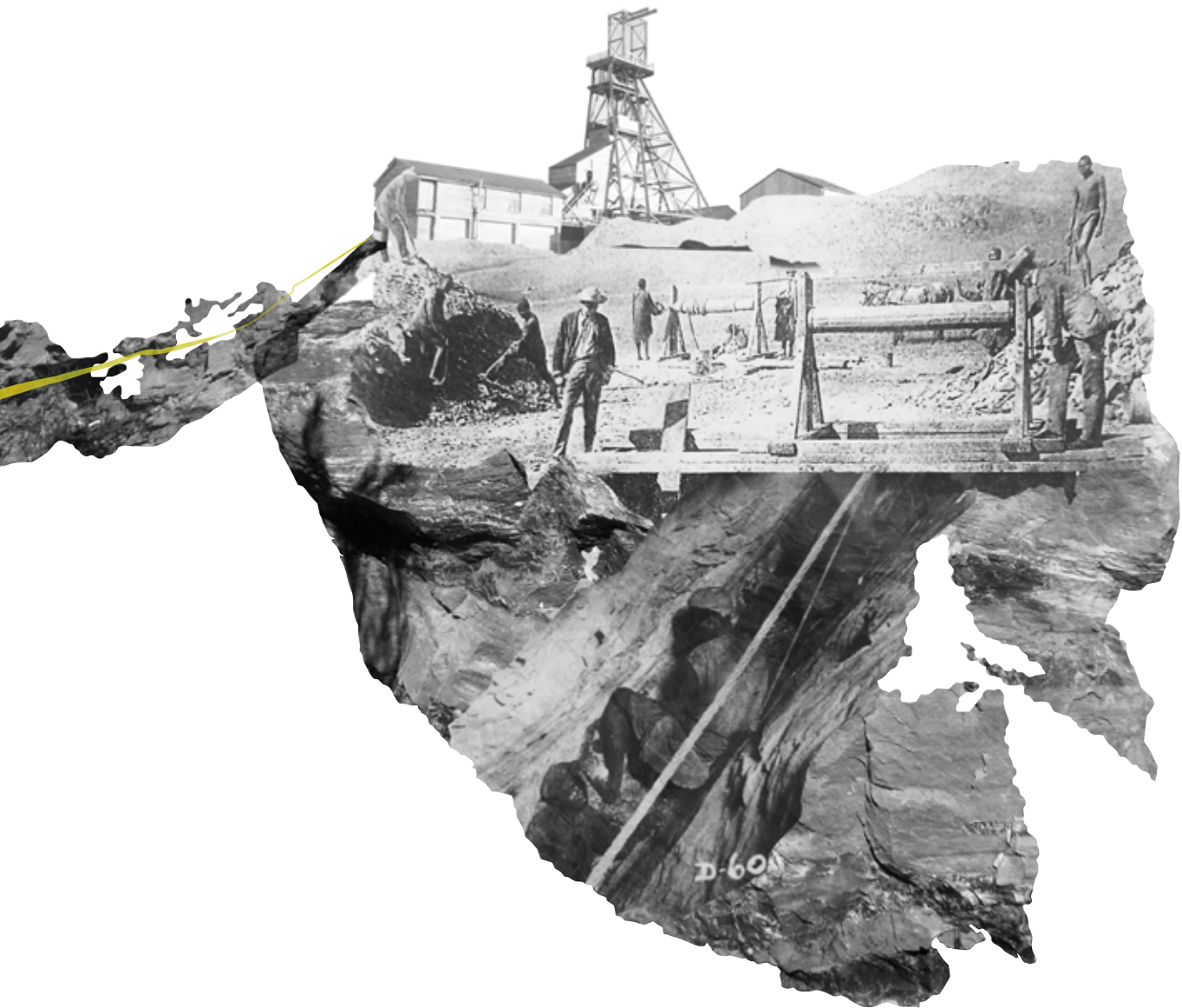


FIGURE 6.4  
CONCEPT DIAGRAM  
THE KARST SYSTEM  
(Author , 2016)

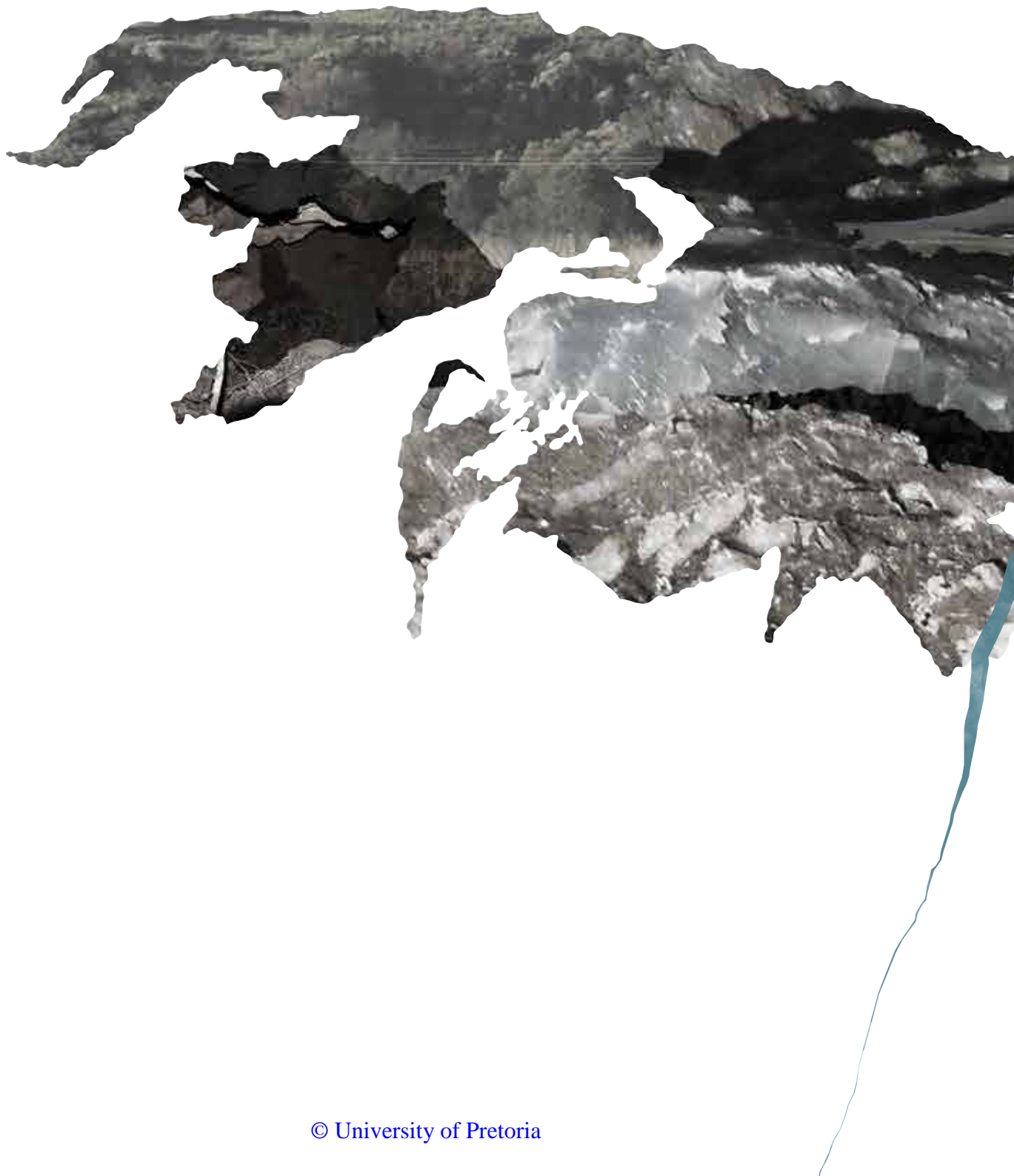






FIGURE 6.5  
CONCEPT DIAGRAM  
THE MOUNTAIN & THE GROTTA  
(Author , 2016)

