

Chapter 6 focuses on three categories of precedent studies: Theory related precedents, programme related precedents and commemorative related precedents. Each study is discussed in relation to the proposed design on Magazine Hill.

Chapter 6 – Precedent studies

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Figure 6.1: The route through Ingalada Cemetery (JMT, 2009)



Figure 6.2: Ingalada Cemetery circulation space (JMT, 2009)

6.1 Theoretical Precedent Studies

6.1.1 Ingalada Cemetery, Barcelona Spain, 1994, architect: Enric Miralles

Miralles formalised a unique approach towards the theoretical concept of an architecture of time, in which architecture becomes the machine that collects the physical manifestation of time. Miralles also explored architecture's potential to form a continuity in time through the temporal experience of space, placing emphasis on both the instant and memories evoked in the past (MAKENZIE, McMurray & Quiros, 2011).

In the Ingalada Cemetery, the experience of the different layers of time is designed around a long route through a landscape of memories, similar to the experiential route cutting through Magazine Hill. Meaningful places are passed in the journey, referring to time frames past. As the visitor experiences the space, referential qualities integrate the past and the present. As for Magazine Hill, the Ingalada Cemetery is designed for the discovery of space through movement, revealing different spaces and referential triggers along the route. It is only through movement that discovery can take place (*ibid*). Experiential quality varies between different space along the route, where framed views, floor textures and light qualities enforce perceptual feelings like loneliness, privacy and calmness.

The Ingalada Cemetery also challenges architecture's persistence in time, by acknowledging the passage of time through material deterioration, surface staining, and projected vegetation growth. It is only through this approach that the fragile relationship between architecture and the continuum of time can be restored.

The actual experience of a space linked to a previous reference of meaning is what produces new discoveries. Experiential time is complimented by referential time, becoming one through the present journey.
- Enric Miralles (McKenzie etc. al, 2011)

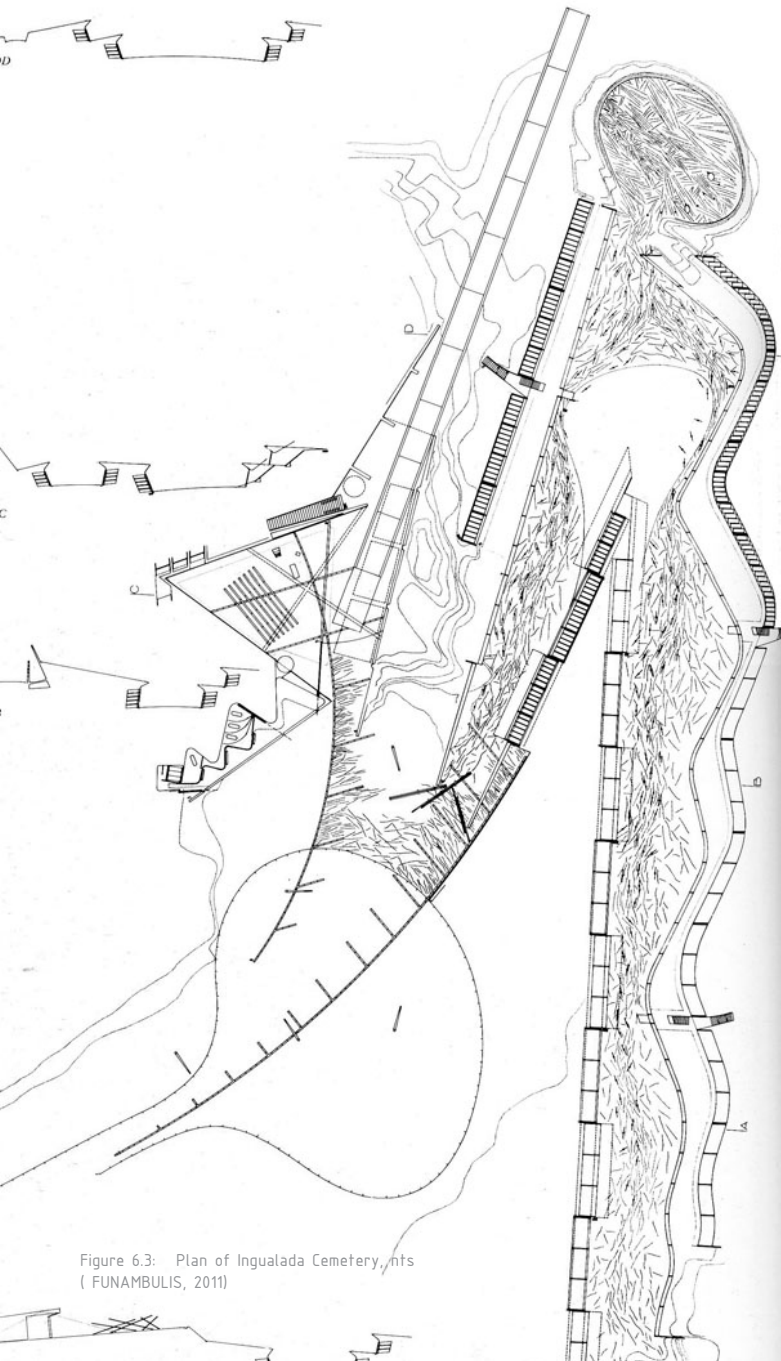


Figure 6.3: Plan of Ingalada Cemetery, nts
(FUNAMBULIS, 2011)



Figure 6.4: Interior play with light and shadow (JMT, 2009)



Figure 6.5: Ingalada Cemetery entrance (JMT, 2009)

6.1.2 Time, Transformation and contemporary Architectural ruin on the Golden Coast, (B.Arch Thesis, 2009) Gary He, Cornell University College of Architecture, Art, and Planning

This thesis was completed in 2009 and challenges the static notion of architectural permanency within a contemporary context of change. The author argues that architecture must not only admit its own vulnerabilities and susceptibilities to time and change, but recognise that it can take advantage of the nature of transformation to inform its creation and its interaction with not just the contemporary condition but a future one – to develop new roles and create new meanings for itself and its context (He 2009: 01). Like the proposed foundry on Magazine Hill, this project exists to seek out an architectural typology of change, where the deterioration of site and material, the adaptation of meaning and the passage of time speak of a continuum, directing the system of change.

The project site is identified at the derelict seacoast fortifications of California's western coast line that served as a first line of national defence in the Second World War. The site consists of a series of circular concrete bunkers that formed retaliation platforms for naval invasion, which is set out to assure efficient attacking radii across the channel. A series of various programs are proposed for the different bunkers, forming a greater visitor's centre.



Figure 6.6: View of submerged bunkers on the Golden Coast (He, 2009: 1)

The architectural design is mainly focused on the concealed bunkers depicting the different layers of historical influence, thus concentrating on the passage of time as a main design concept. Building transformation is realised through the use of various materials with different durabilities and weathering characteristics, allowing for tectonic adaptation controlled by the passage of time. The proposal reduces the concrete bunkers to gallery space that introduce a public interaction with the derelict structure. The tower is designed according the cosmological characteristics of the site, sensitising man not to himself but to his existence in a larger sense. A rich play with light and shadow (the tower's shadow lining up with the bunker's oculus at noon each day) also connects the project to the temporal dimension of time.

Like the proposal on Magazine Hill, the project deals with multiple stages of ruination and provides examples on the injection of contemporary programmes in historical ruins, while establishing a strong theoretical premise regarding the continuum of time.

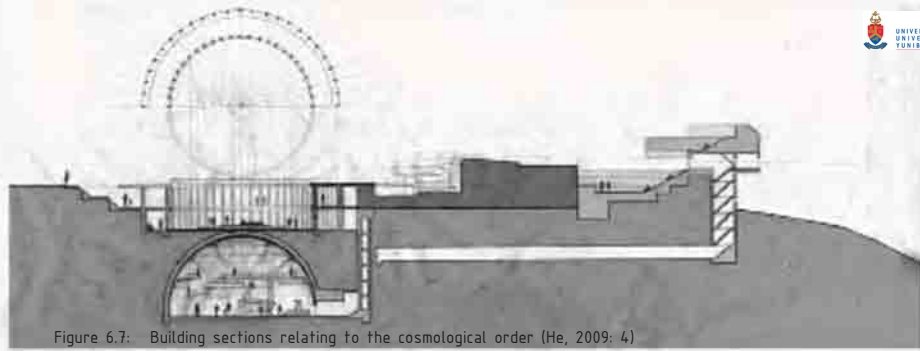


Figure 6.7: Building sections relating to the cosmological order (He, 2009: 4)

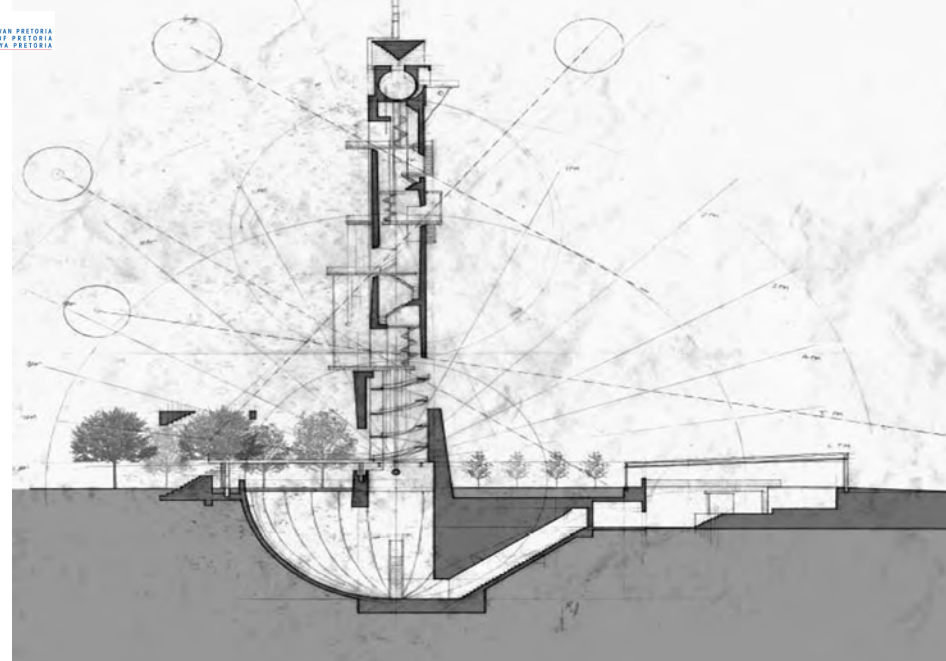


Figure 6.8: Proposed building plan interacting with existing bunkers (He, 2009: 7)



6.2 Commemorative precedent study

6.2.1 New England Holocaust Memorial, Boston USA, architect: Stanley Saitowitz, 1995

Also known as the Boston Memorial, the structure commemorates the tragic deaths of six million Jews during the Second World War. The design introduces a public route that progresses through 6 glass towers reaching a vertical height of 54 feet (SAITOWITZ, 2009). A numerical aesthetic feature of 6 million numbers are engraved on the steel-framed towers, commemorating the number of Jewish fatalities reported in WW2. This design element forms a symbolic reference to the Nazi tattoos inflicted on all prisoners awaiting execution, as the visitor passes through the towers, they too are tattooed via the shadows cast from the numbers on the glass (IBOSTON, 2011).

Saitowitz's design introduces a commemorative construct to an existing public route, thus engaging with a mundane pathway by adding an additional layer to the urban fabric. The success of this structure lies in the location, for it does not form an end destination where structure becomes static, but rather forms part of the activity spines of the city, changing if it must. Like the proposal on Magazine Hill, commemoration takes place on a daily basis when the visitor is on his way to work or the train station. In this design, heritage remembrance is not reduced to a static monument where the relevance can be questioned in contemporary society, but rather forms part of the mechanics of urban activity. As the shadow tattoos are cast upon visitors, commemoration becomes participative, thus heritage comes alive.



Figure 6.9: New England Holocaust memorial towers (IDN, 2011)



Figure 6.10: Interior tower view (IDN, 2011 edited by Author, 2011)



Figure 6.11: Vapour commemoration feature (IDN, 2011)

6.2.2 Freedom Park, Pretoria South Africa, architects: Gapp Architects and Urban Designers; MMA Architects; Mashabane Rose Architects in Joint Venture, 2003 –

The design of Freedom Park integrates landscape and architecture as a collective construct, which commemorates South Africa's historical events and icons that contributed to the freedom of the country (City of Tshwane, 2011). Like Magazine Hill, the act of commemoration occurs along a route through the landscape that narrates stories of the past, creating various anchor points of meaning in the natural landscape. This route that cuts through the hilltop landscape of Salvokop connects numerous memorials that exist in the form of stone beacons (Isivivane), walls with engraved names (S'khumbuto), galleries (S'khumbuto), pathways (Mveledzo), viewing platforms (Uitspanplek), and exhibition spaces (Hapo), all commemorating different aspects of the struggle for freedom (*ibid*).

Contrasting the Holocaust Memorial in Boston that is integrated with the urban fabric, Freedom Park functions as an isolated entity within the context of Pretoria. Because of its remote character, the concept of everyday commemoration through experience is underutilised, since the site only provides a series of static memorials that is active over weekends and holidays. In this instance, commemoration is encapsulated in stagnant monuments that lose its relevance in contemporary society. Heritage experiences should not only be reserved for tourism purposes, but should inform the experience of the everyday, and allow for adaptation with the passage of time. The commemoration of Magazine Hill is thus aimed at providing historical insight through the experience of a new function (ammunition reduction) that is inspired by the old (ammunition production), linking heritage not only to the past, but to the present and future.

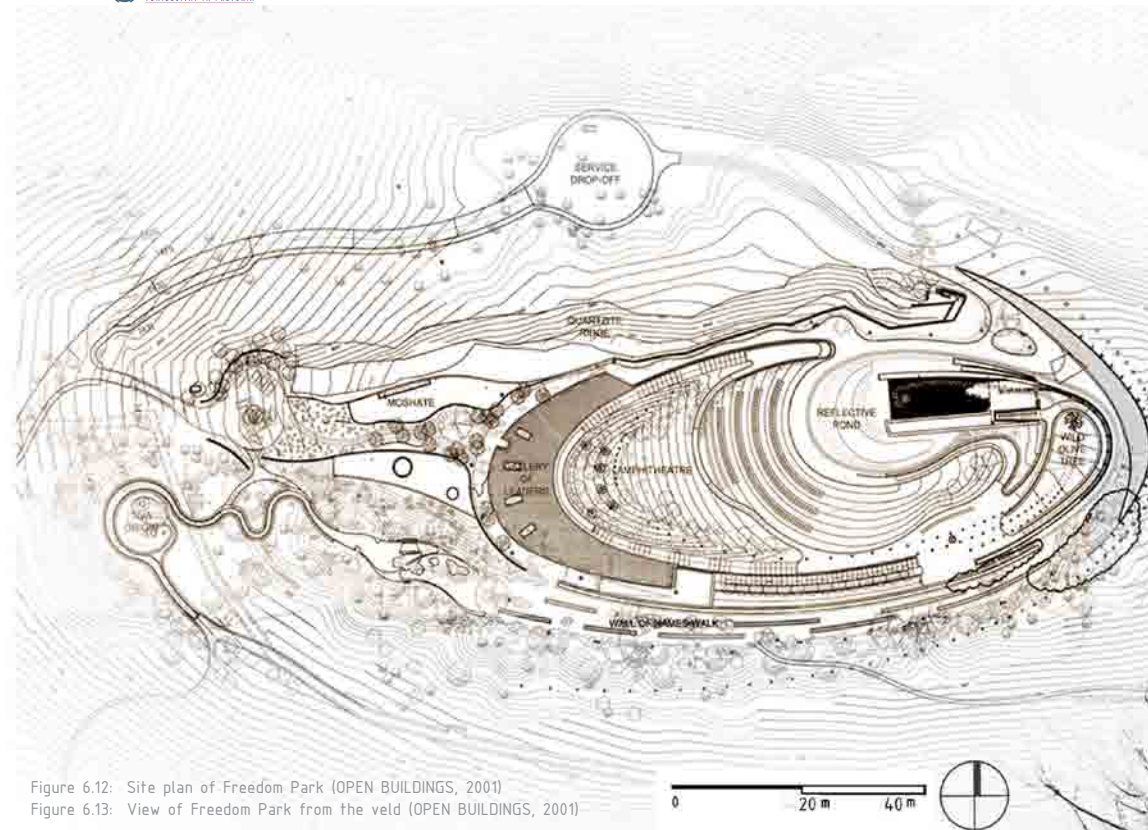


Figure 6.12: Site plan of Freedom Park (OPEN BUILDINGS, 2001)

Figure 6.13: View of Freedom Park from the veld (OPEN BUILDINGS, 2001)





Figure 6.14: Gas/oil fired smelting crucible furnace (Author, 2011)

Figure 6.15: Boudeccia Productions ceramic studio (Author, 2011)

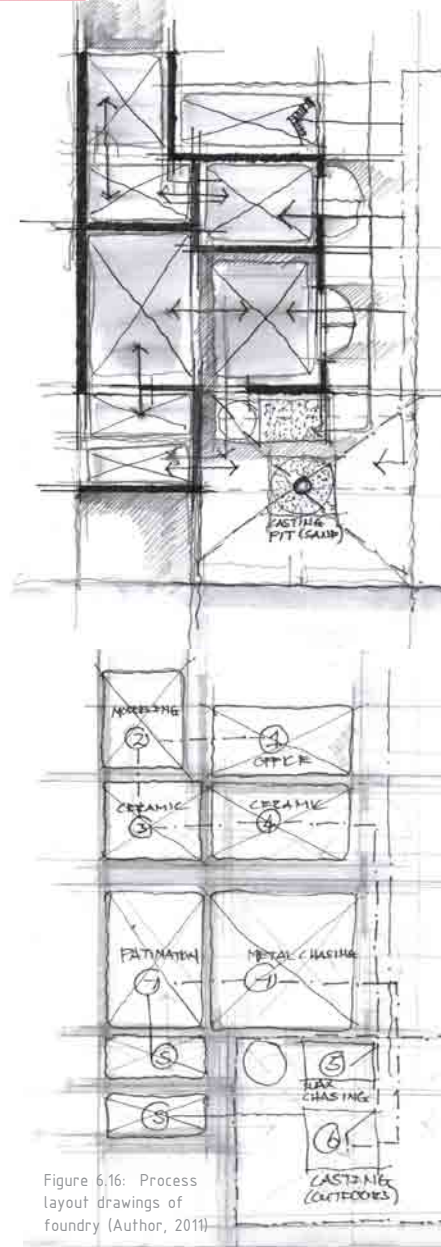


Figure 6.16: Process layout drawings of foundry (Author, 2011)

6.3 Foundry precedent studies

6.3.1 Boudeccia Productions Foundry, Pretoria, South Africa

This artist foundry was founded by the American sculptor Kay Potts in 1991, forming one of leading production studios in the bronze and brass sculpture arenas. Her work reflects a strong fascination with architectural structure and human perception, pushing the boundaries of experimental art.

The Boudeccia Productions Foundry is compartmentalised according the linear process of fine arts production. This particular foundry specialises in smaller scale artworks, thus requiring less workable space. Foundry operations are divided in 12 major processes that are performed in 4 open-plan studios. The first studio caters for original art modelling, rubber casting and wax casting, while the second studio provides for ceramic works and wax chasing. The 3th studio forms an open warehouse for wax burning, metal casting and stripping, while the last studio is designated for patination and fine detail works.

The main spatial concept derived from the study shows that the architecture follows the process of art production, for spatial requirements differ for the various studios in terms of light quality, surface, volume, texture and safety. It is not the process that adapts to space, but rather space that is augmented to fit the process. This precedent study illustrates the interrelation between art production and foundry space.



Figure 6.17: Foundry castings via induction furnace process (Author, 2011)

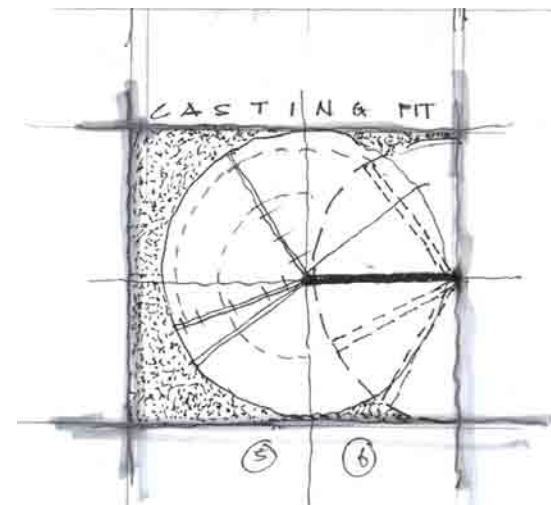
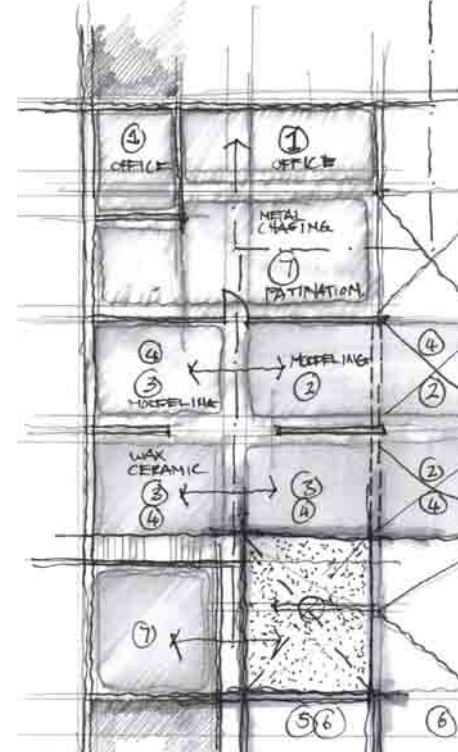


Figure 6.18: Stone sculpture by Angus Taylor (Author, 2011)



Figure 6.19: Shed foundry typology (Author, 2011)

Figure 6.20: Foundry layout drawings (Author, 2011)



6.3.2 Angus Taylor
Artist Foundry,
Pretoria, South Africa

The artist, Angus Taylor specialises in larger sculpture works, utilising various cast metals and raw materials for the production of local art. The studio and foundry are defined by a shed typology that allows for spatial adjustment according to production needs. Large sliding doors accommodate the distribution of art components between the different levels of sculpture production.

Contrasting the Boudaccia Productions Foundry, Taylor's workspace functions as an open-plan studio, eliminating distribution complications and cleaning difficulties. The casting pit is located indoors under a large floor to ceiling height, where castings are operated with a structural beam and suspended block and tackle hoisting system. This casting technique allows for a circular casting radius, where heavy melting crucibles are suspended from structural work.

By studying this technical precedent, it was concluded that the open-plan shed typology functions well within all specialised requirements of sculpture production.

Figure 6.21: Sculpture types by Angus Taylor that would could produced on Magazine Hill (Freschi, 2009)

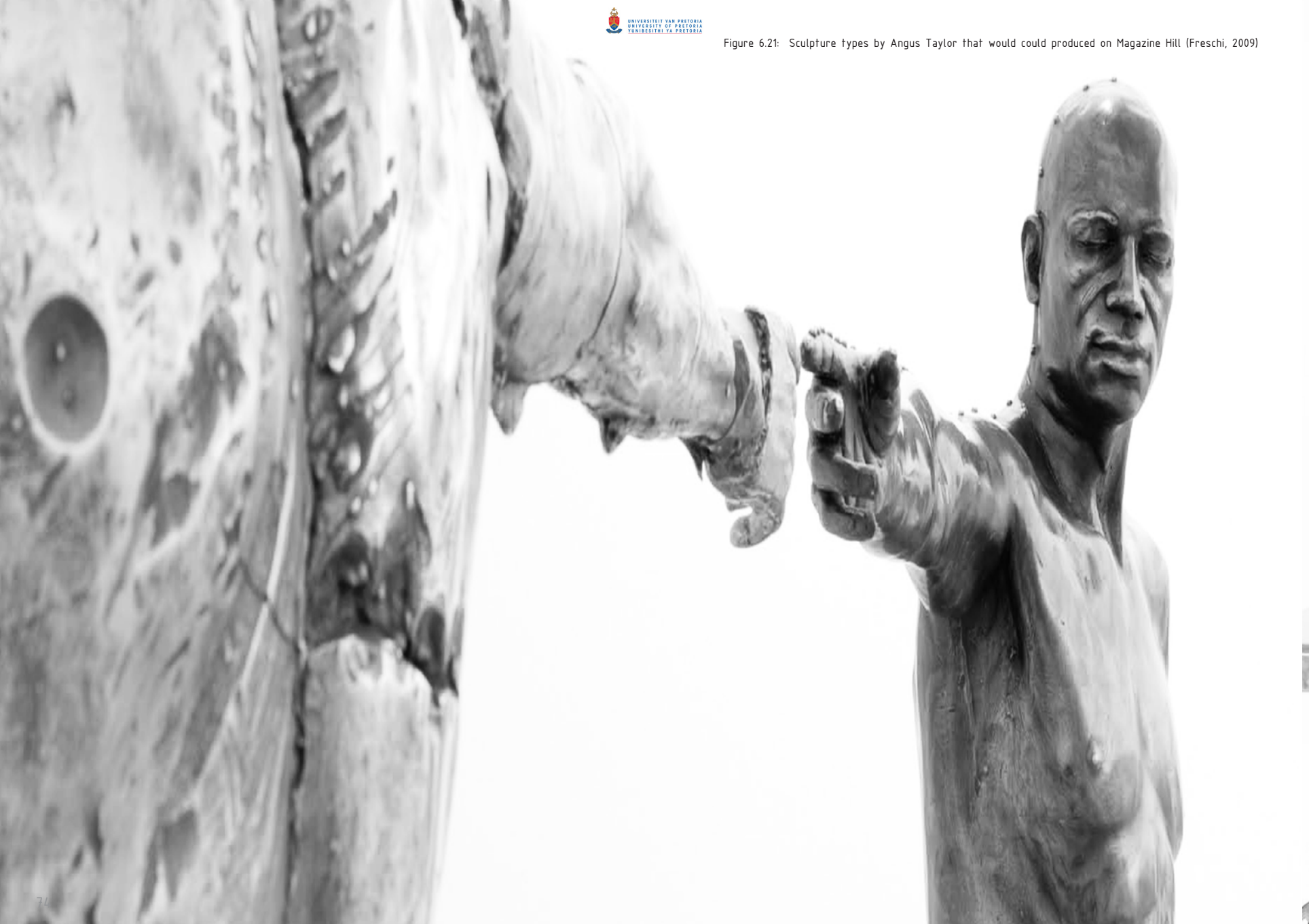


Figure 6.22: Sculptures types by Angus Taylor that would could produced on Magazine Hill (Freschi, 2009)

