

*THE ONOTOLOGY OF PHOTOGRAPHY VISUALLY ANALYSED THROUGH THE
CAMERA OBSCURA*

by

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ABSTRACT

This practice-led visual research is on the ontology of photography. Owing to the pervasive use of photography to inform, and conform to, contemporary visual culture, an alternative approach to (and understanding of) the medium seems viable.

This study visually examines the following aspects of photography in contemporary society: Is it possible to create an alternative approach in the ontological understanding of photography? Will the use of visual works to identify these alternative approaches using the concepts of heterotopia, intersubjectivity, liminality and *khôra* be able to justify this alternative approach? How applicable are these concepts to the ontology of photography?

The *camera obscura* is used as a primary medium to visually analyse the ontology of the medium. The research is conducted at three different locations: termite mounds, Robben Island prison cells, and a vulture feeding station. The concepts of heterotopia, intersubjectivity, liminality and *khôra* are used as lenses through which these works are interpreted. They present an alternative approach to the understanding of the darkened space inside the camera as well as the space of the photographic image.

Key Words:

alternative approach, *camera obscura*, heterotopia, intersubjectivity, liminality, *khôra*, ontology, photographic image, process spaces, optical unconscious, transformation.

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CHAPTER ONE: INTRODUCTION

In contemporary culture, photographic images are ubiquitous; they define and dictate perceptions in society. Because of this, comprehending the ontology of the medium and its limitations is vital to our understanding of the constructed world around us.

Digitisation has brought about a questioning of the representational value of the photograph. The increased accessibility, consumer friendliness and affordability of image-taking devices and technological developments have increased the use of the photographic image in society. In this study I argue that photography needs to be approached from a new perspective to re-establish the value of the medium.

Visual works are primary to the research of this practice-led thesis. The practical elements examine the photographic process, the dark space inside the camera and the resulting photographic image. The photographic image can be seen as a space that represents something that was but no longer is, lingering between the then and now. The same concept applies to the darkened space inside the camera; the image inside the camera, as can be experienced in a *camera obscura*, is an image that hovers in real time between the outside and inside of this space.

The primary site for conducting this visual research was the *camera obscura*. Not only does it provide the viewer with the embodied experience of being immersed within the darkened space of the camera but it also creates the opportunity for the viewer to observe the process of photography and to understand the culminating photographic image and its ontology.

Heterotopia, intersubjectivity, liminality and *khôra*, concepts that all relate to alternative and layered spaces of otherness, are central to the theoretical analysis of the visual works. To allow for different and layered interpretations of the theoretical concepts, three different locations were used to create the visual elements. These alternate sites, relating the camera obscura as much to the worlds of inmates and animals as to the artist's mind and body, provided the opportunity for the visual works to be exhibited and examined.

1.1 Context of the study

The research includes three components which are: a primary practical component which comprises three exhibitions *in situ*; a catalogue which documents all the visual works; and this thesis, which contextualises the visual research.

The visual works that were created at the three different sites provide the context for the research. These sites were:

- Termite mounds on a farm in Limpopo Province, South Africa
- Three prison cells on the Robben Island World Heritage Site off the coast of Cape Town, Western Cape, South Africa
- A vulture feeding station on a farm in Limpopo Province, South Africa

These sites are seemingly disparate but were chosen because each of them can be understood using the four theoretical concepts that are central to this study's interrogation of the ontology of photography. The varying natures of the sites offer the opportunity to compare the visual works made at each of them and, through this comparison, different perspectives on the medium of photography, its process and manifestations are uncovered.

Additionally, the investigation is expanded by the introduction of a discussion of two abilities often ascribed to photography: the prosthetic ability to capture the unseen and the ability of photography to kindle memories.

1.2 Background to the study

To examine the medium of photography from a new perspective requires a paradigm shift in the approach to the discourse on the subject. The representational value of the photographic image, especially after the advent of digitisation, is questionable, and therefore, in this age of post-photography,¹ an evaluation is necessary. My intention with this research is to examine the basic elements of the medium to present a renewed understanding of photography.

¹ Although the concept of post-photography is relevant to contemporary discourse on the medium it is not included into the scope of this research, since the concept is based on the creation of new images using existing images by means of digital software. This research is a return to the primary understanding of the process of photography.

My decision to use the *camera obscura* as the primary site for the visual research may seem strange considering the recent technological advancements in photography, but I contend that, to create a new approach to the medium, we not only need to comprehend its ontology but also to return to its origins. By analysing the source of this technology – where light was transformed within a human-created darkened space for the first time – we can formulate a new approach to understanding photography, the darkened space and the culminating photographic image.

The *camera obscura*, the darkened space and the transformation that happens within it as well as the culminating photographic image is examined from within the framework of the following concepts:

- Heterotopia:

As introduced by Michel Foucault, the heterotopian refers to a space of otherness, characterised as outside “of all places, even though it may be possible to indicate their location in reality. Because these places are absolutely different from all the sites that they reflect or speak about” (1984:5). These places function non-hegemonically, which implies that they are part of society yet function according to their own rules. The space inside the *camera obscura* and the photograph both function according to their own rules, are part of society yet are also separated, contradictory, transforming and different.

- Intersubjectivity:

Intersubjectivity that can be described as the experience of myself through my connectedness with the other and the world around me. Jean-Paul Sartre (1984:360) explains it as follows: “the Other’s look touches me across the world and is not only a transformation of myself but a total metamorphosis of the *world*”. Taja Lang’s (2007:10) contribution to understanding this concept is that it “deals with that dimension of the self that links the subject immediately with the relational, interpersonal world, where the ‘outside’ of the collective experience becomes the ‘inside’ of the subject’s psychic life”.

A visual representation of intersubjectivity manifests inside the *camera obscura*. When all the layered visual elements of the outside world are experienced inside

the dark space of the *camera obscura*, these combine to create a world that simulates the interplay of the self with the outer world.

- Liminality:

Arnold van Gennep describes liminality as phases of transition that take place in society. Van Gennep identifies three marked phases in all rites of transition, namely, preliminal rites or separation, which point to the removal of a group or individual from the social context; liminal rites or transition (*limen*), an ambiguous state which has no ties with the previous social context or situation or with the future state; and postliminal rites or rites of incorporation or aggregation, which occur when the group or individual re-enters society and the passage is consummated (Van Gennep 1960:11).

Relating this concept to the camera, the separation phase occurs when light enters the aperture. This light is then transformed inside the darkened space as it is re-coded via the light-sensitive medium. The final phase, described as the aggregation or consummation stage, occurs as a result of the post photography process, when an image is produced chemically or using digital software.

- *Khôra*:

As introduced by Plato, *khôra* is an eternal, indestructible, amorphous space which could be “Being” or “God” or “before both” (Plato 2013:[sp]). Jacques Derrida (1998:231) examines *khôra* and explains it as “neither this nor that or that it is both this and that”. Another characteristic of the *khôra* presented by Plato and explained by Derrida is that it is “. . . nothing other than the sum or the process of what has just been inscribed ‘on’ her, on the subject of her, on her subject, right up against her subject, but she is not the *subject* or the *present support* of all these interpretations . . . she is not reducible to them” (Derrida 1998:239).

The space inside the *camera obscura* is a *khôric* space. It is a receptacle for the images that are created by the light entering the aperture. The *camera obscura* functions as support for these images, but it is not “reducible to them” – it is not the “subject” or the “present support” of the “interpretations” but simply the space in which these images are held. The idea of *khôric* space relates to both the

camera obscura and the photograph. The image produced is also a receptacle; it is not the subject but only presents support for the subject and the different interpretations.

These concepts are used to examine the works that were created at each of the different locations:

The first site was a place where a number of termite mounds are located in close proximity to each other. The complex space that contains the super organism *Isoptera*,² found inside each of the termite mounds, is analogous with Michel Foucault's concept of heterotopia – a space of otherness, a space separated from society yet still part of society, functioning according to its own rules. The concept of intersubjectivity is also applicable here as each part of the super organism is affected by every other part and the whole community is affected by its engagement with the environment. The space inside the mound is in a constant state of transition (liminality) and my research will show the impact of this transition on the external shape of each mound. As well as being in a state of transition, the inside of the mound can be described as a *khôric* space – a receptacle, without character, that functions only as support for its subjects (termites).

The second site was three prison cells on Robben Island. As prison cells, these spaces are immediately recognisable as heterotopian and, in addition, when serving as *camera obscuras*, as places of intersubjective reality and as *khôric* spaces. The concept of liminality also applies here as the purpose of incarceration is meant to be a process of transformation. The current functioning of the Island Prison as a site for heritage tourism further enhances the liminal and heterotopic dimension to the prison cells. As the famous prisoners were released and the conversion of the prison to become part of a World Heritage Site proceeded, cells were emptied of their objects of everyday use. The book cases and wall decorations seen on the photographs taken in the late 1970s are no longer there. The empty cells of the current museum exhibit leave very little tangible evidence of the efforts inmates like Nelson Mandela had once made to personalise their spaces of incarceration (Smith 1997). No longer serving as enclosures for inmates now, but rather as a mass tourist destination of display, the initial liminality of the cell-spaces has not been eradicated, but rather compounded and rendered even more heterotopian, the earlier intentions of the space having enabled the new implications.

² Please see Appendix A for an explanation of *Isoptera*.

The third and final site, the vulture feeding station, is another heterotopian space – a site of separateness, where the dead are recycled. The societal structure of the feeding animals is typically intersubjective. The recycling of rotting flesh into energy is a form of liminal transformation. The need for creating a feeding site for vultures within a farming area requires some explanation. Owing to the poisoning of predators such as jackal (who are seen by some stock farmers to be problematic), the numbers of vultures in Limpopo Province have diminished critically. Vultures are scavengers and when they feed on these poisoned animals, they die. Electrical powerlines are another cause of many deaths. The need to protect these important creatures and provide them with a safe space, resulted in this heterotopian conservation drive for to recycling of dead animals.³

The visual works were mostly made using the *camera obscura*, but alternative photographic processes were also used to a lesser extent where necessary. These specific instances are explained as they are presented in the discussion. The discussion is divided into two sections: In the first section the prosthetic ability ascribed to photography, to capture the unseen, is used to research the concepts of heterotopia and intersubjectivity. The second section is centred on the notion that photography has the capacity to retain memory. This perception is used to investigate liminality and *khôra*.

1.3 Research problems and questions

The research questions in this practice-led thesis are designed to create an alternative understanding of the ontology of the photographic process. The *camera obscura* is the primary site for this visual research as it is the origin of all photography.

The concepts of heterotopia, intersubjectivity, liminality and *khôra* are used as different lenses through which to examine the *camera obscura* and the process of photography. Using these lenses, we can approach the medium from a new perspective to re-establish its value in the post-photographic era. Martin Irvine (2012) explains the current situation as follows:

We never experience ‘photography’ (in the abstract): we experience *photographs*, specific kinds of photographs (genres) framed by their uses and reception contexts (social and material). After around 150 years of being socialised into ways of seeing with photographs (and all lens-based

³ Please see Appendix B for a brief discussion on the social life and feeding habits of vultures, general misconceptions around them and the need for their conservation.

media, including film and video), and before that, becoming 'optical' since the 15th century through paintings and drawings made with optical aids (lenses, *camera obscura*, mirrors), we arrive at an important social-technical intersection with digital photography. We have to learn how to look at photographs as social and cultural forms of representation to see how they work, and how we see and think 'photographically'.

The research questions that I investigate are:

- How can the creation of visual works contribute to identifying an alternative approach to the ontological understanding of photography?
- What makes the concepts of heterotopia, intersubjectivity, liminality and *khôra* so applicable when contemplating to the ontology of photography?
- How do these concepts inform the alternative approach to the ontology of photography taken in the visual works?

1.4 Aims and objectives of this study

The aim of this practice-led study is to use the visual work created at the three chosen sites to examine the basic principles of photography.

The objectives of this practice-led thesis are:

- to explore critically the process of photography by making visual works using the *camera obscura* as primary medium for research;
- to examine the concepts of heterotopia, intersubjectivity, liminality and *khôra* as they relate to the darkened space of the camera and the photographic image;
- to engage with the basic principles of photography as a means of transformation of light within the scope of the given concepts;
- to use the visual works created to unpack our understanding of the role of photography in contemporary culture;
- to extrapolate the findings of this research to the ontology of photography within the contemporary paradigm.

In the practical component the objectives of the research are:

- to create a body of work that is primary to the research questions of this practice-led thesis;
- to create visual works at the three chosen locations which present different perspectives on the photographic process;
- to present three exhibitions *in situ* as part of the research;
- to follow this with an exhibition that exhibits the whole body of work within a gallery environment;
- to present a catalogue that documents the body of work and explicates it in a less academic fashion.

1.5 Research methodology

The methodological approach to this particular study is qualitative. The research is led by a practical component. Art making is employed to examine the specified research questions and problem statements. These art works are then discussed systematically within different theoretical paradigms to contextualise the outcomes of the visual components. The outcomes of qualitative research can usually be applied to a wider context than that of the specific study. A qualitative research methodology is especially of value when intangible concepts, as they configure in this study, are examined.

The methodology of this practice-led research is based on visually collecting data and analysing the process of photography as it manifests in the dark space on the inside of the camera, as well as in the photographic image *per se*. The research uses four theoretical concepts to examine these manifestations. These are similar in character in that each could be described as an abstract concept. The process of photography, as the research indicates, also shares this property, making the analogies in the study relevant.

The theoretical concepts referred to are: liminality, intersubjectivity, heterotopia and *khôra*. They are located within postmodernist, existentialist and post-photographic discourse. Liminality can be described as a phase of transformation; intersubjectivity as the internalising and re-coding of the world that we are subjected to; heterotopia can be

explained as a hegemonic space that is part of society but is separate in that it is governed by its own rules; and *khôra* is the receptacle of all things being, devoid of all character.

These seemingly abstruse concepts are used as “lenses” to examine the ontology of photography at each of the locations that I described earlier. The procedure which was followed was to create *camera obscuras* at the different sites that emulate the dark space inside a normal camera yet create a space where a bodily experience can be had inside a camera owing to the size of the space. This aspect of the research is a key component in the visual research since it is possible to examine all four of the theoretical concepts within these created spaces and thus underpin the premise of the research.

Creating pinhole images using these room-cameras, as well as the digital images, presented the researcher as well as the viewer with a means of applying each of these theories in analysing the images of photography. Different methods to create photographic images were used to research the process of capturing light to create an image. These methods include pinhole images using the cells of a prison as cameras, a hide at a vulture feeding station as a camera, as well as various other structures in the open veld that functioned as cameras. In addition, Van Dyke Brown prints, silver nitrate and gelatine prints on wooden boards, as well as digital images all form part of the visual research of the subject matter.

The selection of the particular locations was based on a decision to situate the creative process within environments that are inclined to preclude technology. John K Grande (2004:xv) explains that to return to nature connects us to a world that is being lost through technology, which often leads only to a vicarious experience of natural phenomena. The vulture feeding site and the termite mounds in the veld fitted well into this category; the prison cells on Robben Island deviated slightly, the bridging metaphor being the life of insects: My inspiration for this site came when hearing a radio interview with anti-apartheid stalwart Albertina Sisulu’s granddaughter after the death of her grandmother. In this interview she explained the importance that ants held for Albertina: during her incarceration she referred to them as her only company. By implication, her confinement amongst the ants incorporated her into the insect colony.

Albertina Sisulu's intersubjective relation with insects during her confinement thus inspired the decision to create works on the quintessential South African prison site: Robben Island. Just as nature precludes technology, so the incarcerated human being in the prison system is also deprived of technology by other human beings. Their control of technology at the inmate's expense reduces him/her to 'nature' of a different kind, the deprivation of politics as developed by Giorgio Agamben in his works *Homo Sacer* and *State of exception*. Within the limited scope of this mini-thesis, the focus will be primarily on Agamben's 2004 text *The open: Man and animal* in which he contemplated the demise of humanity and a return to animal consciousness as a result of technology. This brings us to a review of the literature relevant to the current study.

1.6 Review of literature and visual sources

The aim of the research is to create a new understanding of the ontology of photography. In addition, to enable a renewed approach to the understanding of photography, this theoretical component offers the opportunity to re-engage with the constructed world around us and reinterpret it by formally applying the different concepts used to interrogate the visual works.

Current discourse on photography is focused on the demise or death of photography and the manifestation of an era of post-photography. According to Jorge Ribalta (2008:178), "the discourse on the death of photography corresponds to the discourse on the death of modern utopias characteristic of reactionary postmodernism". Ribalta (2008:179) claims that "the discourse on the death of photography is more precisely about photography's fantasmatic reappearance as disembodied from its traditional technological condition". It is this condition that is presented from different perspectives in *The Meaning of Photography* (Kelsey & Stimson 2008) which is based on the proceedings of the Clark Symposium, "The meaning of photography" held on 19 November 2005.

Another contributor to the debate on the current ontological understanding of photography is Geoffrey Batchen, in his book *Burning with desire: The conception of photography* (1999). Batchen examines the development of the nature versus culture debate in photography. The general history often presented on photography is described by Batchen as a "fragile edifice" on which the understanding of the medium is based. In addition, Batchen examines the current understanding of photography in the context of technological

innovation and describes the state of the medium as having “passed away”. From this perspective, Batchen (1999:216) calls for “another way of seeing – and of being” of the medium.

Jae Emerling (2012:5), in his publication *Photography history and theory*, agrees with Batchen saying: “[H]e demonstrates how the discourse of photography is, at its origins, always more troubling and feverish than it is definitive and ordered. There is always another line to construct that passes through the origin of photography in the present”. Emerling explains that history is discursive and, to fill the gaps in Batchen’s discussion, the premise of his work is that “critical theory continues to offer new ways around and through the either/or – between the Scylla and Charybdis of formalism and postmodernism: new ways of recollecting photography” (2012:6). Emerling sees a photograph as an “abstract”, which links with the central premise of this research in that abstract theoretical concepts are employed to examine the visual works.

Theorist WJT Mitchell, in *The reconfigured eye: Visual truth in the post-photographic era* (1994), explains his understanding of the differences between analogue and digital photography. He notes that the analogue image has more detail which is prone to degradation when re-produced whereas digital images can be re-produced *ad infinitum* without loss of detail. This opinion is criticised by Lev Manovich, in his essay “The paradoxes of digital photography” (2003). Manovich denies Mitchell’s claims and explains that, in digital photography, there is a loss of information each time an image is copied and pasted. However, both authors contend that the representational value of photography of the concrete world has become obsolete, calling for a new perspective on the use and understanding of the medium.

Martin Lister (2013) examines the medium of photography, specifically the digital technological development of the medium, and how this affects the ontology of the photographic image. According to Lister (2013:5), “photography appears to be everywhere and nowhere simultaneously”, an opinion that necessitates scrutiny of the medium. Owing to digital technology, it has become possible to “scan and convert [photographs] into arrays of binary digits, and hence they became electronically processable digital information” (Lister 2013:9). In other words, photographs have become codes that refer to information. As Lister (2013:11-13) states, “In their informational state, photographs are processed and shaped by bodies of code in the

form of software and its operative components: algorithms ... rather like photography itself, we hear a good deal about the ubiquity of software and its place in running the world”.

An investigation regarding the change within photographic processing lies beyond the scope of this research. However, even though the character of digital photographic images bear “the appearance and hallmarks of photographs without using photography’s historical and physical apparatus” (Lister 2013:6), the software used in these computer applications does not enter a vacuum, but rather simulates and emulates the applications in the darkroom while introducing new abilities to the medium of photography (2013:13). In other words, the software uses the darkroom technology as reference in its programming but enhances it through technology. Photographical images run the world, as Lister notes, as does software and digital technology, since they permeate all levels of contemporary culture.

Additionally, as a contemporary interpretation of the representational abilities of photography, I introduce into my study the work of Daniel Rubenstein, Katriena Sluis and John Lechte, who examine the ontology of the photographic image in the age of technology.

James Elkins’ works provide valuable information on the philosophy about photography and visuality. Two of his books, entitled *The object stares back: On the nature of seeing* (1996) and *What photography is* (2011) are specifically referred to in this thesis. Elkins explains the notion of “blindness of remembering” as memory seen as a conglomeration of holes, with only a few of those leading to remembering something.

Older perspectives on the ontology of photography are also introduced into the theoretical research. Alan Trachtenberg (1980) presents essays written by pioneers of photography such as Walter Benjamin and William Talbot, which provide a brief overview of the history of the medium. Other authors who contribute to this section of the research are Mary Warner Marien (2010) who has published an extensive overview of photography’s cultural role in society and Mark Durant (2003:9) who explains that the process of photography is “a real alchemical moment, one of the rare instances in our lives when we can witness an apparition, an invocation of a figure out of nothingness”.

In turning the focus of the thesis, in chapter 2, to the concept of capturing the unseen through photography, I introduce Walter Benjamin's concept of the optical unconscious as presented in his essay 'Little history of photography' (1999). Benjamin questions the role of photography which makes it possible to capture that which cannot be perceived with the naked eye but only through the "clothed" or the prosthetic eye of the camera. The discussion is informed by the examination of the role that culture and context play in perceiving the real, as well as in understanding photographic images. The work of Fred Gettings, *The extraordinary Story of Spirit Photography: Ghosts in photographs* (1978), and James Coates, *Photographing the invisible: Practical studies in supernatural photography, script and other allied phenomena* (1911), are the references I perused regarding information on spirit photography.

On photography's capacity to preserve memory as featured in chapter 3, I go back to Plato's dialogue *Theaetetus*, in which he examines means of retaining memory that relate to the function of photography. For this I refer to *Plato: Complete Works* (1977). For a more contemporary perspective on memory I also include the arguments of Jean Paul Gustave Ricoeur, referring to his *Memory, History, Forgetting* (2004).

My research deviates from current discourse on the ontology of photography as a visual analysis of the process of photography by using the *camera obscura* as the primary research site to physically examine the non-hegemonic space of separation and otherness which is the method used to research the subject. This research is then examined within four theoretical frameworks. The outcome aimed for with this research is to alter the understanding of photography as a creator of meaning within contemporary culture in a more cognisant manner. The theoretical frameworks that are used to analyse the ontology of photography are:

1.6.1 Heterotopia

This involves Michel Foucault's concept of heterotopian space. Foucault (1984) establishes the concept of non-hegemonic spaces that are part of society yet function according to their own rules, branding them heterotopian. Peter Johnson (2013) describes these spaces as disturbing, contradictory and transforming. Kevin Hetherington (1997) posits that heterotopia is a new way of ordering within society that allows us to link the idea of the heterotopian space to the *camera obscura*.

1.6.2 Intersubjectivity

Intersubjectivity, as a concept, is introduced into the research to address the interaction between myself and the Other. This notion was first championed by the existentialists and I use Jean-Paul Sartre's (1984) approach in the theoretical application to visual works. The implication that the Other's look "transforms me" makes the concept relevant when unpacking the space occupied by the *camera obscura* and the photographic image.

Other authors that contribute to the concept of intersubjectivity are Taja Lang (2007), CS Peirce (1955), Francois Brunet (2008), Kaja Silverman (1996), Paul Schilder (1950) and Martin Lefebvre (2007).

1.6.3 Liminality

The concept of liminality as a process of transformation is central to understanding the principles of photography. Liminality is introduced into the thesis through anthropologist Arnold Van Gennep's (1960) identification of the transformation process in cultural rituals. This concept is expanded by Victor Turner (1967) and used in the research to explain what occurs to light inside the *camera obscura* as well as the transition between past and present within the photographic image.

Roland Barthes' (1982) theory of the photograph as an analogy to death is also examined. The analogy between the process of photography and the transformation of the body after it dies is extended by Michael Taussig (1997) and elaborated upon by Amy Tudor (2010). This concept is particularly relevant to the re-examining of the photographic process as a liminal one.

1.6.4 Khôra

Khôra is a concept developed by Plato (2013) and referred to as "the primordial receptacle, nurse of all things. But for it to be the receptacle of all things it needs to be devoid of all character". At a later stage, Plato refers to the *khôra* as the basis of all images, making the concept even more applicable to the *camera obscura* (Lechte 2012:27). Jacques Derrida (1998:235) explains that *khôra* is "neither this nor that or that but rather both this and that ... It anachronizes being ... *khôra* seems never to let itself be reached or touched, much less broached".

The introduction of this concept in the analysis of the visual works contributes to a more complex understanding of the process of photography and its culminating artefact.

1.7 Visual research

This section introduces the artists whose works are related to the topic of this research.

Chris Drury is a British landscape and environmental artist who creates works in natural landscapes. Some of the works he creates are site specific *camera obscuras* using natural materials in nature. In his work, Drury examines the ephemeral images inside the *camera obscuras*.

Adam Fuss is also a British artist who works mostly with the process of photography but avoiding the use of a camera. He rather employs objects, light and light-sensitive mediums.

Although the work of **Rachel Whiteread** that I discuss does not use the medium of photography, her work does relate to the absence of the referent, a central tenet of photography and thus relevant to the study. Whiteread makes casts of rooms to present the space as a concrete referent to the absence of a room. The depiction of the absence of the referent as a concrete object relates directly to the photographic image that is a concrete representation of a moment that has passed but only bears traces of the moment.

Ayako Kanda and Mayuka Hayashi are two Japanese artists who use X-Rays as a medium to photograph embracing couples. These images are presented life-size in black and white and relate to the concept of the unseen in photography.

The theme of Canadian artist, **Char Davies's** work is based on immersing the viewer into a virtual space made up of images through which the viewer has to navigate. This experience is similar to the experience inside a *camera obscura*, however, the space inside the *camera obscura* is not a virtual space but rather a liminal and heterotopian space that is on the threshold between the concrete world and the inside of a darkened room where images of the objects are transposed from the outside into the inside through the aperture in real time.

Another approach to the process of photography is researched by the German artist **Michael Wesely** who examines the layering of light captured on the photo-sensitive medium with long exposure times. This form of photography addresses the passage of time and, in some of the images he creates, the exposure times last up to three years.

Two photographers that are included in the research are **Mariano Dallago and Abelardo Morell**. Mariano Dallago's work focusses on the building of structures, not to capture specific images, but rather to present the ephemerality of the images inside these spaces. Alternatively, Abellardo Morell's work is aimed at creating technically advanced images of the inside of specific rooms.

In their respective works all the above artists contribute to a diverse and improved application of the *camera obscura*. The ways in which their approaches augment or deviate from my own, will be illustrated in the thesis.

1.8 Outline of Chapters

Chapter One: Introduction

The current chapter introduces the reader to the scope of the research, the context and background of the study, the research questions, the methodology and the literature review.

Chapter Two: Heterotopia, intersubjectivity and photography

This chapter aims to examine the concepts of heterotopia and intersubjectivity as they relate to our understanding of the ontology of photography within the context of the ascribed prosthetic ability of photography to capture the unseen. To establish a framework for the discussion, a brief introduction to the invention and development of photography is presented as well as a brief overview of the prophesised demise of the medium as a result of digitisation. The questioning of the ontology of photography as visual medium is discussed and the choice of the *camera obscura* as primary site for the visual work is explained. The visual work of Chris Drury is introduced to the reader as an example of the potential of the *camera obscura* as an instrument which can create images.

The idea of the heterotopian space – one of the primary concerns of this chapter – is introduced and explained and then related to the *camera obscura*. The work in the prison cells on Robben Island is discussed within this context. The notion of intersubjectivity is introduced and also applied to the site. The discussion then moves on to investigate the work at the site with the termite mounds – and how it can be used to create a revised understanding of the process of photography. The phenomenon of spirit photography is examined and discussed within the framework of the intersubjective. The work of contemporary artists Adam Fuss, Rachel Whiteread, Ayako Kanda and Mayuka Hayashi, and Char Davies is examined in this chapter. The chapter closes with an investigation into Walter Benjamin's idea of the optical unconscious in relation to advanced digital technology (bearing in mind the ascribed ability of photography to capture the unseen).

Chapter Three: Liminality, *khôra* and photography

The primary points of discussion in this section of the research, linked to photography's presumed capacity to retain memory, are the concepts of liminality and *khôra* – relating to the darkened space inside the camera and the space transposed onto the photographic image. Liminality as a phase of transition within anthropological rites of passage is examined and related to the process of photography. The use of different vessels as *camera obscuras* at the termite mounds site is examined, analysed and discussed. Pinhole images taken during this phase of experimentation (using the *camera obscuras* in question) are presented and analysed. The discourse then moves on to the concept of *khôra* (a term coined by Plato). This idea is examined in relation to the vulture feeding station, photography and death. The chapter closes with a discussion of the work of contemporary artists, Michael Wesely, Mariano Dallago and Abelardo Morell, who engage with these concepts.

Chapter Four: Conclusion

The final chapter concludes the theoretical discussion and presents a short synopsis of the research and its outcomes as well as introducing ideas for possible further research.

CHAPTER TWO: HETEROTOPIA, INTERSUBJECTIVITY AND PHOTOGRAPHY

2.1 Introduction

This chapter aims to examine visually the ontology of the photograph within the context of the ability ascribed to the camera that it can capture the unseen. This perception is examined by analysing heterotopia and intersubjectivity as they relate to the photographic image and the dark space inside the camera. The visual analysis of the medium at the different locations, the termite mounds, Robben Island prison cells and a vulture feeding station, provide different perspectives on the ontology of the photograph.

The *camera obscura* is used as primary practical element to analyse and engage visually with the darkened space and ephemeral images inside it, providing the reader with the opportunity to consider the unseen made visible from a different perspective. Central to this analysis is the heterotopian space that can be described as a place of Otherness, a “paradoxical space or third space” (Hetherington 1997:41). Another concept that is examined is the intersubjective space that is the in-between space “as matter of affects that emerge from between the inside of the self and the outside world, and also from between different temporalities and spatialities, that are holding the intersubjective world together” (Lang 2007:10). The ability to capture the unseen that is ascribed to photography, is analysed by examining the visual works and applying the concepts of heterotopia and intersubjectivity to the experience that occurs within the *camera obscura*.

Each of the three different locations presents an alternative, incongruous, or paradoxical heterotopian/intersubjective space for research, creating wider perspectives for the analysis.

2.2 A short introduction to the invention of photography

Photography has been described as a chemical process giving “nature the ability to reproduce herself” (Trachtenberg 1980:13). Since its inception, photography has been perceived as magical. During the late nineteenth century, the concept of the camera and

its application to create an image by simulating objects in front of the camera at the time of exposure, had far-reaching effects on visual culture. Many scientists, intrigued with the concept of capturing and transmuting light, dabbled with experiments to fix light, some working in collaboration while others acted individually.

The first permanent photographic image was captured in 1826 by Nicéphore Niépce (1765–1833), a French inventor who used a *camera obscura* that he referred to as a “heliograph”, naming the image: *View from the Window at Le Grass*. Niépce believed that photographs originated in nature and were disclosed as a spontaneous reproduction through the action of light (Trachtenberg 1980:13). Nicéphore Niépce fixed the first photograph with an exposure time of eight hours and Bitumen of Judea and silver salts as light sensitising media. The pewter plate was washed with lavender oil to fix the image and prevent it from continually darkening. However, the captured image was not very clear.

At the same time, Louis Jacques Mandé Daguerre, owner and inventor of the Diorama, was also experimenting with methods to capture light and to fix the resulting image. He approached Niépce and they worked in collaboration to solve the problem, but it was only after Niépce's death and more experimentation that Daguerre created the first successful daguerreotype photograph. Daguerreotypes are iodised silver plates with sharp definition, but they were restricted to capturing a single image. The fragile images were kept in elaborately embellished cases, similar to jewellery boxes, to protect them.

It was William Henry Fox Talbot who, in 1841, introduced the calotype photograph which is based on a latent negative image from which several positive reproductions can be made. “Talbot coined the word calotype from the Greek *kalos*, meaning beautiful, and the Latin *typus*, meaning image” (Baldwin 1991:16).

2.3 The scientific approach and development of photography

From a scientific perspective photography, as a research-based invention,⁴ has been compared to the mechanism of the eye, and the photograph has been perceived as an indiscriminate recorder of light.

⁴ A discussion of the scientific uses of photography to capture the unseen is quite expansive and there is plenty of information available on the subject. This subject does not, however, fall within the ambit of this study.

In his memoir *My life as a Photographer* (*Quand j'étais photographe*) (1978:8), Nadar (Nadar was the pseudonym of Gaspard-Félix Tournachon) recognises the peculiarity of photography by comparing it to the nineteenth century machines that were invented to surpass human abilities by saying,

... do not all these miracles pale when compared to the most astonishing and disturbing one of all, that one which seems to finally endow man himself with the divine power of creation: the power to give physical form to the insubstantial image that vanishes as soon as it is perceived, leaving no shadow in the mirror, no ripple on the surface of the water? Is it not possible then for man, who today can seize the fleeting flash of vision and cut it into the hardest of metals, to believe that he actually is involved in the process of creation? (Nadar 1978:8).

According to Mark Durant (2003:9), the process of photography is “a real alchemical moment, one of the rare instances in our lives when we can witness an apparition, an invocation of a figure out of nothingness”. This transfiguration or re-coding of light reflecting off the subject in front of the camera creates what can be referred to as “skins of light” that, according to Durant (2003:10), “have a life of their own”. An uncanny life, familiar yet estranged, perhaps like “a life of shallow breath, not quite here, not quite gone” (Durant 2003:10). As a result of the initial wide scope of experimentation with the medium, photography was defined as an art-science, and artists who were experimenting with photography were referred to as painter-photographers.

Photography was incorporated into the culture of the West towards the late nineteenth century. By this time, another function was beginning to feature in photography. The belief of capturing the unseen and making it visible through photography was steadily emerging and gaining a following. From its inception, photography surpassed the ability of human vision and was swiftly applied to recording the unseen. Microscopic as well as telescopic images soon followed the photographs of the visible world. In the nascent disciplines of psychology and science, the world of photography introduced a system to envision what was previously invisible to the naked eye. According to Mary Warner Marien (2010:33), scientists started employing the medium of photography as early as 1840 to create detailed microscopic images. Similarly, astronomy and anthropology experimented with photography as medium to increase and expand the use of images.

One of the scientific applications of photography to capture the unseen was to zoom into a space and, with the aid of lenses, capture the minuscule as well as objects at a distance

and re-code them to become visible in the photographic artefact. This re-coding of a world that was inaccessible, yet existed as a heterotopian intersubjective space, is one of the key components of the research in this chapter.

2.4 Questioning the ontology of photography

Walter Benjamin, in his 1931 essay “A short history of photography”, examines what he terms the “optical unconscious”. Benjamin (1980:203) explains this concept as follows:

While it is possible to give an account of how people walk, if only in the most inexact way, all the same we know nothing definite of the positions involved in the fraction of a second when the step is taken. Photography, however, with its time lapses, enlargements, etc. makes such knowledge possible. Through these methods one first learns of this optical unconscious.

For Benjamin, the camera is able to arrest a moment in time, providing the viewer of the image with the ability to see more than what is possible with the human eye at that exact moment in time.⁵ This unique ability of the camera often leads to the questioning of the ontology of the dark space inside the camera and the photographic image *per se*.

Geoffrey Batchen considers the change in the perception of the ontology of photography in his text *Burning with desire: The conception of photography* (1999). Batchen highlights that the earlier view of photography as natural phenomenon was later challenged as a cultural construct. In his research, Batchen (1999:102) questions the reasons for the timing of the invention of photography. He explains that “[w]riting was also undergoing a radical transformation, being reconfigured as a cultural and historical rather than a natural or God-given phenomenon”.

This nature versus culture divide was just as present in the perceptions of photography. The word “photo-graphy” itself also indicates this divide. However, photography later attained yet another social and cultural identity, through the digitisation of photography, which has reconfigured the medium. Digital photography is sometimes referred to as post-photography, where “we enter an era after, even if not quite beyond photography”

⁵ This concept was visually presented by Eadward Muybridge, who in the 1870s was interested in perfecting photographs of human movement. For an in-depth discussion on Muybridge’s work, please refer to Mary Marien Warner (2010:213).

(1999:216). Batchen's discussion explains the changing perspectives of the photographic image in relation to the context of the social mentality in which it is read. In his final comment in the text (1999:216) Batchen states:

Photography's passing must necessarily entail the inscription of another way of seeing – and of being. I have suggested that photography has been haunted by the specter of such a death throughout its long life, just as it has always been inhabited by the very thing, digitization, that is supposed to deal the fatal blow. In other words, what is really at stake in the current debate about digital imaging is not photography's possible future but also the nature of its past and present.

Jae Emerling, in his publication *Photography: History and Theory* (2012:5-6), states that Batchen's theory leaves openings that need to be filled. According to Emerling,⁶ "the entire field is indebted to Batchen's text, minimally for his coherent explications of the theoretical wagers and presumptions of both the medium-specific art historical pretensions of formalism and the theoretical positions of postmodernism" (2012:5). Batchen explains the paradox in the discourse of photography when he states: "The point is that postmodernism and formalism, at least in their dominant photographic manifestations, both avoid coming to terms with the historical and ontological complexity of the very thing they claim to analyse" (Batchen 1999:20-21). For Emerling, what is important in Batchen's statement is that "there is always another line to construct that passes through the origin of photography in the present" (Emerling 2012:5). If the history and theory of photography is discussed, the issue that should be examined is if "history inhabits the present in very real ways; that the practice of history is always an exercise of power; that history *matters* (in all senses of this word)" (2012:6). However, the current discourse on photography is focused on "coming to terms with the historical and ontological complexity of the very thing we claim to be analyzing" (Emerling 2012:6).

Since the medium's inception, a photograph has never been a representation of a given moment. Emerling (2012:8) explains that this "myth is only an effect of discourse", if discourse can be described as "comprised of statements that construct the artistic, historiographic, institutional, and aesthetic aspects of the photographic field". In other words, for Emerling, the ontological understanding of the photographic

⁶ Other authors who contemplate the ontological understanding of photography are Françoise Brunet, writing on Pierce and indexicality; the contributors to the *Meaning of Photography* anthology edited by Kelsey and Stimson, and the contributors to the volume *Photography Theory* edited by James Elkins. These sources are referred to in the following chapter when discussing liminality and *khôra* in the ontological understanding of photography.

image is located within the discourse that surrounds it. This assumption can then further be related to his claim that a “photograph abstracts. Even the most clear, well-focused, well-lit one is an abstraction. It is separated from concrete existence; it filches and removes as it becomes impersonal and other” (2012:7). It is this perception of Emerling that I research visually.

According to Gilles Deleuze (1977:206) “practice is a set of relays from one theoretical point to another, and theory is a relay from one practice to another. No theory can develop without eventually encountering a wall, and practice is necessary for piercing this wall”. Deleuze (1977:207) explains that theories are used to look to the outside. When a theory hits the wall, it takes practice to pierce the wall. This is what this study intends doing: to open the theory to the outside and visually present a new perspective on the ontology of photography.⁷ To do this I introduce the *camera obscura* as piercing medium.

This research presents a potential opportunity for the heterotopian/intersubjective understanding of the ontology of photography to be applied. It presents a space of alternative social ordering so that, as Kevin Hetherington (1997:40) explains, “a new way of ordering emerges that stands in contrast to the taken for granted mundane idea of social order that exists within society”.

2.5 The *camera obscura*

Photography has been subjected to extensive technological innovation. The *camera obscura* is a very basic photographic device, one of the earliest to use the fundamental principles of the process. Whereas cameras seem to become ever smaller, the *camera obscura* is a large darkened space, placed usually in a room, that allows the viewer entrance into the space resembling the inside of a camera. A small hole is located on one side of the room, usually where a window⁸ is positioned, through which light is reflected from objects on the outside of the room into the scope or ambit of the hole and transposed into the space inside the room. The reflected light enters the opening but, as light moves in a straight line, it turns 180 degrees as it moves through the aperture. This

⁷ Other authors who critically engage with the ontology of photography are Francois Brunet and Kelsey and Stimson. These authors are employed in the discussion on liminality and *khôra*.

⁸ A window is not a pre-requisite in a room/space to create a *camera obscura* since a small hole can be drilled into one of the walls or ceiling to create the aperture.

results in an inverted reversed image of what is outside the room. Mediation in the *camera obscura* is limited as there is no lens and no viewfinder.

The inside of the *camera obscura* has often been compared to the inside of the eye. Johannes Kepler (according to Daniel Di Liscia (2011)), for instance, compared the image on the wall of the *camera obscura* to the retinal image inside the eye. The fundamental principles regarding the transformation and transmutation of light onto a light-sensitive medium remain the same.

According to Foucault (1984:9), “thus it is that the [*camera obscura*] is a very odd rectangular room, at the end of which, on a two-dimensional screen, one sees the projection of a three-dimensional space”. To examine this phenomenon visually, I constructed *camera obscuras* at different locations.

2.5.1 Abelardo Morell

The work of Abelardo Morell was the initial inspiration for my interest in the *camera obscura*. Morell is a photographer born in Cuba in 1948. As a child, Morell experienced the Cuban revolution which necessitated much time spent indoors, in a small dark place with only one window. Morell fled to America in 1962 with his family and is currently based in Boston. It seems as if the experiences of his early life played an important part in his interest later in life particularly regarding photography (Morell 2007). He is intrigued with light and its transforming effects, obviously stemming from the long time spent in the dark small spaces as a child. Morell creates *camera obscuras* of rooms where the outside images are transposed into the interior of these rooms. According to curator of MOMA, Sheryl Conkelton (1994:31), “Morell’s strategy incorporates a principle of photography older than the medium itself, and with it he expands the boundaries of perceived space”. In his most recent work, Morell also started using a tent to create images of the outdoors.

2.5.2 Chris Drury

Chris Drury's work with a *camera obscura* was just as inspirational in my research using the *camera obscura*. Drury is a British landscape or environmental artist who creates works in natural landscapes. Some of the works he creates are site specific *camera obscuras* using natural materials in nature. According to Drury (1998:6):

An artist is a communicator, but to be an artist one must first be a human being: that is to say, whole undivided, if that is possible. From such a position there is no division between man, art and nature. The world is perceived as it is. Personally I have nothing to communicate, consciously or unconsciously; the work simply reflects the moving from moment to moment in the world as it is, and so it is nature itself that communicates.

In his work, Drury examines the ephemeral images inside the *camera obscuras*. He builds *camera obscuras* at different sites and documents the images projected inside these chambers. Some of these chambers are set in forests where an image of the tree canopy is projected into the chamber (Figures 1 and 2). The wave chambers are *camera obscuras* that are built on the cliffs by the ocean (Figure 3). These *camera obscuras*, or wave chambers, as he calls them, are positioned to capture the reflected light from the ocean which is then transferred to the inside of the wave chamber (Figure 4) to create an image of the ocean.



Figure 1: Chris Drury, *Earth Chamber for the Trees and Sky*, 1994. Stone walls, log roof, covered with earth. Tyrebagger forest Project, Kirkhill Forest, Aberdeenshire (Drury 1998:112).



Figure 2: Chris Drury, *Inside View of Earth Chamber for the Trees and Sky*, 1994.
(Drury 1998:113).

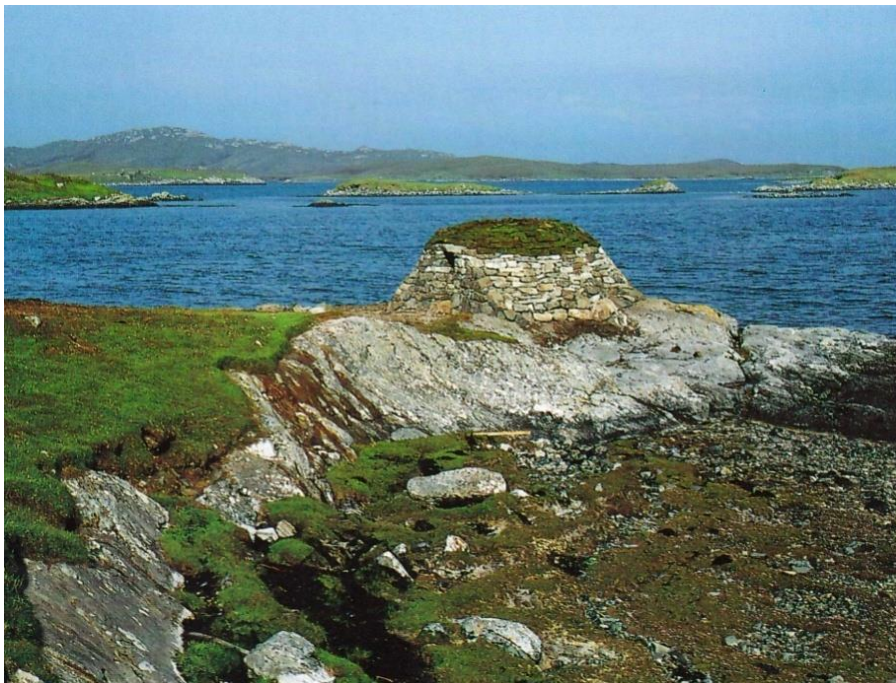


Figure 3: Chris Drury, *Hut of the Shadow/ Both nam Faileas*, 1997.
Dry stone walls, timber and turf roof, mirrors, lens. Klochmaddy, North Uist Western Isles (Drury 1998:118).

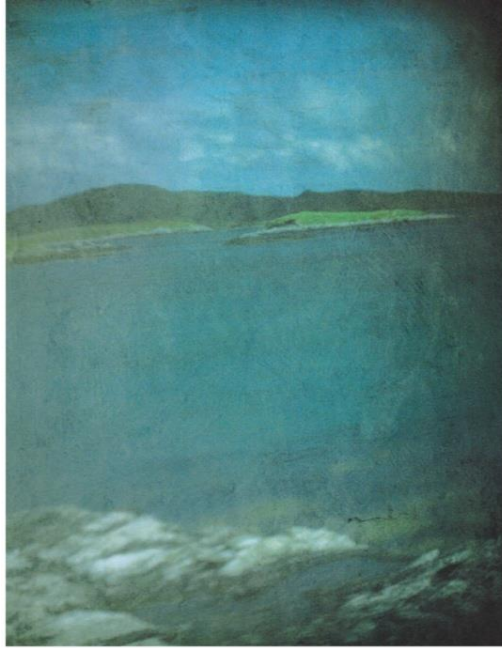


Figure 4: Chris Drury, *Inside view of Hut of the Shadow/Both nam Faileas*, 1997.
(Drury 1998:119).

The relevance of Drury's work is located in the ephemeral quality of the images inside his camera obscuras. He uses a mirror at the opening of his *camera obscuras* to prevent inversion of the transferred image. Figure 3 depicts the *Hut of the Shadow/Both nam Faileas* which is a *camera obscura* he built on the edge of a cliff on the coast. As spaces of otherness, separateness and transformation, Drury's wave chambers encompass all these elements. The approach to let nature communicate itself resonates with the visual work that I create at the three locations.

2.6 Heterotopian spaces

Michel Foucault's concept of heterotopian spaces has generated many conflicting interpretations. Foucault describes heterotopian spaces as spaces of otherness, characterised by human geography and interaction which are "outside of all places, even though it may be possible to indicate their location in reality, because these places are absolutely different from all the sites that they reflect or speak about" (1984:5). He says that these places are "simultaneously mythic and real contestation of the space in which we live. This", he says, "could be called heterotopology" (1984:6). Foucault describes the different principles of heterotopia and how these feature in society. According to Foucault, these spaces are part of society but, are non-hegemonic spaces, because they function according to their own set of rules.

Peter Johnson (2013:790), in his comment on heterotopian spaces, argues that Foucault's description of heterotopia attempts to explain principles and features of a range of cultural, institutional and discursive spaces that are somehow "different, disturbing, intense, incompatible, contradictory and transforming". This sense of difference, contradiction and transforming – and, I would add layeredness – is seemingly most applicable to the research which is based on the investigation of the dark space inside the *camera obscura*.

2.7 Robben Island as heterotopian space

According to Foucault (1984:3), there are two main types of heterotopian spaces, crisis and deviation heterotopias. Crisis heterotopian spaces manifested more in what Foucault refers to as 'so-called primitive societies'. These were places where certain people were kept, those who were in a state of crisis or transition and needed to be isolated from the rest of the community, including menstruating women, adolescent initiates and women in labour. Foucault indicates that places of deviation are places "where individuals whose behaviour is deviant in relation to the required mean or norm" are kept, such as psychiatric hospitals, prisons and old age homes (1984:3). The defining line between the two different heterotopian spaces, the crisis place and the place of deviation, is however not quite clear. In both cases, the heterotopian space is a non-hegemonic space where certain transformations occur yet do not form part of society. This description is indicative of both above-mentioned situations.

Robben Island as heterotopian space fits into both of these categories. The history of the Island goes back to the earliest days of European contact with the local inhabitants. Initially, the Island functioned as a place for replenishing food supplies for passing ships and later a place where unwanted citizens, lepers, convicts, psychiatric patients and criminals were sent to keep them separated from society.⁹ However, the most the recent rendering of the island into a museum and heritage site could perhaps be the ultimate heterotopic encounter. These cells are now frequented by tourists on a daily basis, their gaze fixed on uninhabited spaces, only some containing beds and small stools. The beds are covered with stained blankets and some cells even have showcase boxes displaying memorabilia and photographs of some of the inmates. Nelson Mandela's cell is displayed

⁹ Anti-Apartheid activists were thus not the first people to have been incarcerated on the island. For this longer view of Robben Island's history please refer to Deacon, H (ed). 1996. *The Island: A history of Robben Island 1488-1990*. Cape Town: Mayibuye Books.

with toilet bucket, as well as tinsplate and mug as artefacts. It is explained that, for security measures, inmates were constantly moved about from cell to cell and thus the ascribed cells are only random.

The main objectives of incarceration, or confining persons to prison cells, is removing them from society and rehabilitating them, as well as setting the punished as an example to society. According to Jeremy Bentham, the English philosopher and social reformist in the late eighteenth century, punishment itself is less intended for the punished (the guilty person) than it is for everyone else (the innocent) (1943:179). For Bentham, if compared to rehabilitation, the setting of an example, one of the two main objectives for incarceration, far outweighs that of punishment. Moreover, Bentham (1943:174) posits that of all the objectives of punishment, example is “beyond comparison the most important”.

Garrick Percival (2010:1064) states that from this research, there is clear evidence that, while “political forces cause states to incarcerate, state-level studies often mask the fact that a state's ‘use’ of incarceration is largely a byproduct of political processes found at the local (county) level of government”. This research can be related to the abuse of incarceration in the quest for power and the setting of an example, as Bentham describes it, by the apartheid regime which culminated in the political prison on Robben Island.¹⁰ The incarceration of the political prisoners on Robben Island is a primary example of Bentham’s theory. In the respect Robben Island is the epitome of isolation and removal from society.

Transformation of ideology, as an objective of incarceration, was the dominant reason for sending political prisoners to Robben Island. Aaron Bady, in his article “Robben Island University” (2014:108), states that “Robben Island”, as a metonym for imprisonment, did not simply *preserve* the freedom struggle, it also transformed it. If Nelson Mandela went to prison a “terrorist”, he emerged a graduate of Robben Island University, prepared for the presidency because of what he learned in prison.¹¹ The objective of the apartheid regime thus failed as the ideologies of the prisoners became more powerful.

¹⁰ An in-depth discussion on the objectives of incarceration and its impact on society is beyond the scope of this thesis.

¹¹ An in-depth discussion on the functions and psychology of incarceration lies beyond the scope of this study. For more information on the “University of Robben Island” please refer to Bady. (2014) and Schalkwyk (2014).

In her article “Prison, poetry and the South African Nation” (2001), Rita Barnard refers to Jeremy Cronin’s poetry project *Inside* (1984), a collection of poems composed by Cronin whilst he was incarcerated for being an ANC cadre and a Communist Party member serving a sentence under the terrorism act in 1983 (Barnard 2001:159). For Cronin, the prison was a privileged place, “a place from which to speak” (Barnard 2001:160). Barnard (2001:160) describes Cronin’s feelings regarding the experiences of incarceration as expressed in his poems:

To claim prison as a privileged ‘speaking place’ is not to minimize the pain, frustration and terror of incarceration – experiences to which Cronin’s poems testify. They record an acute sense of spatial disorientation, which the poet attributes to the paucity of visual stimuli and the gray, enclosed world ‘inside’; ambient sounds and smells change with the prevailing wind, so that the prison seems like a ship adrift moving around randomly while the prisoner is firmly stuck.

It is this experience that visually manifests inside the *camera obscura* placed in the cells of the prison on Robben Island, piercing the words (Deleuze 1977:207) of theory and bringing the inside out. This is what this visual research intends to explicate and the medium to achieve this is the *camera obscura*.

2.8 The *camera obscura* as heterotopian space

The light moving from the outside through the opening of the aperture to the inside of the darkened space of the *camera obscura*¹² is intense enough to create an image in the darkened space. This is how a visual manifestation of what Foucault refers to as a heterotopian space is created. In his article, “Of other spaces, heterotopias” (1984:1), Foucault explains that the current postmodern episteme of society can be described as the epoch of simultaneity. “We are in an epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment, I believe, when our experience of the world is less of a long life developing through time than that of a network that connects points and intersects with its own skein” (Foucault 1984:1). It is this juxtapositioning of time and the unseen that is manifested within the emplacement of the *camera obscura*. The three-dimensional world outside is transposed into a bi-dimensional reversed upside-down image inside the darkened space.

¹² The same manifestations occur within the darkened space of a camera. For this research, the *camera obscura* is used since it is physically accessible whereas the space of a camera is not.



Figure 5: The cell camera obscura, 2012.
Photograph by author.

Kevin Hetherington (1997:42) explains how the juxtaposition of “things not usually found together and the confusion that such representations create”, such as the image of the sky and birds flying overhead within the confined space of a prison cell, “marks out heterotopia and gives them their significance”. Hetherington describes how heterotopia signifies “not through resemblance ... but through similitude ... where meaning is dislocated through a series of deferrals that are established between a signifier and a signified rather than directly to a referent” (1997:43). Foucault explains that this concept of shifting “from the modes of representing to similitude is vital to full understanding of the significance of heterotopia”. This means that a photograph is a space of

a collection of unusual things without allowing them a unity or order established through resemblance. Instead, their ordering is derived from a process of similitude which produces, in an almost magical, uncertain space, monstrous combinations that unsettle the flow of discourse (Foucault 1989:xviii).

The heterotopian space inside the *camera obscura* in bright daylight is the quintessence of this “magical uncertain space” where the inverted outside is visible on the inside. The prison cell provides a view of such a space. A bird flying by appears to be flying upside down, water dripping from the roof appears to be “shooting” upwards, and clouds come

and go as the weather fluctuates. The prison can also be described as a heterotopian space of incarceration. Foucault (1984:7) determines that “each heterotopia has a specific function in society” yet the darkened spaces of the *camera obscuras* are evidence that these transformational functions can also have layered and diverse purposes.

2.9 The ephemerality of the inverted image inside the *camera obscura*

Digital technology was used to document the images of Figures 2, 3 and 4 inside the three different prison cells but this representation is limited. Whilst a digital photographic representation of the image inside the space is a means of documentation, it fails to present the disembodied awareness of the viewer on the inside of the *camera obscura*. The photographic object is a “space” which is a visual artefact that represents the past but is perceived in the present. It shows the occurrence in the displacement of time.

Both emplacements are dislocated being inside and outside simultaneously. As daylight fluctuates over a period of twelve hours, these images adjust between under- to over-exposed photographic images. The movement of light inside the *camera obscura*, as presented in the DVDs, can be related as a visual representation of the cyclical continuum of time.¹³ The element of time is presented in the video installations entitled *Cell One* (Figure 2), *Cell Two* (Figure 3) and *Cell Three* (Figure 4).¹⁴

¹³ These three figures are the stills taken from the DVDs for documentation in this thesis and present what can be expected in the DVD.

¹⁴ This installation forms part of the exhibition at the Waterfront in Cape Town.



Figure 6: Irene Naude, *Cell One*, Still from narrative, 2012.
Digital photograph by author.



Figure 7: Irene Naude: *Cell Two*, Still from narrative, 2012.
Digital photograph by author.



Figure 8: Irene Naude, *Cell Three, Still from narrative* 2012.
Digital photograph by author.

The DVD¹⁵ representations of the images inside the prison cell *camera obscuras* provide the viewer with a limited experience of the inside of a camera. This visual work also comments on the haptic experience of being immersed in the continued unchanging view from the cell window, with only the light of the sun and the movement of the clouds or a lonely bird in flight as a variable and thus the intersubjective experience of this heterotopian space where time, prison and the exterior world in ambit of the aperture are combined in one space. The juxtapositioning of these outside images (spaces) inside an immediate space is a transient experience. This experience can be compared to Paul Schilder's description of the experience of the surface of the body. Without specific contact, the body has no boundaries, "[T]he outline of the skin is not felt as a smooth and

¹⁵ This installation comprises of three separate video projections, each of which simulates the *camera obscura* images on the wall opposite the windows in each of the three cells. At the exhibition the viewer is confronted with a dark space where three projections of the different cells are projected alongside each other. These DVD projections consist of the digital stills that were captured inside the *camera obscuras*. They were stitched together to create a timeline to present a continuous flow of light within the same space. These timelines are looped to create a cyclical repetition of passing days. The works are a means of simulating the inside of the *camera obscura* cells during the time of sunrise to sunset, and allude to the impression created on the psyche of the inmates over the long time of incarceration. To increase the simulation of the inside of the *camera obscura* I placed artefacts found in the cells in the middle of the space and projected the images at the same height on the wall as it is projected inside the *camera obscura* cells.

straight surface. This outline is blurred. There are no borderlines between the outside world and the body. The surface of the body can be compared in its indistinctness of feeling” (1950:85).

Similarly, the notion of intersubjectivity can also be introduced visually within the dark space of the *camera obscura* when all the layered visual elements are combined to create a world that simulates the interplay of the self with the outer world. Intersubjectivity can be described as the experience of myself through my connectedness with the Other and the world around me. As Jean-Paul Sartre (1984:360) explains, “the Other’s look touches me across the world and is not only a transformation of myself but a total metamorphosis of the *world*”. Taja Lang’s (2007:10) argument that “the concept of intersubjectivity deals with that dimension of the self that links the subject immediately with the relational, interpersonal world, where the ‘outside’ of the collective experience becomes the ‘inside’ of the subject’s psychic life” contributes to the understanding of intersubjectivity.



Figure 9: Irene Naude, *Pinhole photograph Cell 1*, 2012.
120cm x 320 cm. Ilford photographic paper. Digital photograph by author.



Figure 10: Irene Naude, *Pinhole Photograph Cell 2*, 2012.
120cm x 320 cm. Illford photographic paper. Digital photograph by author.

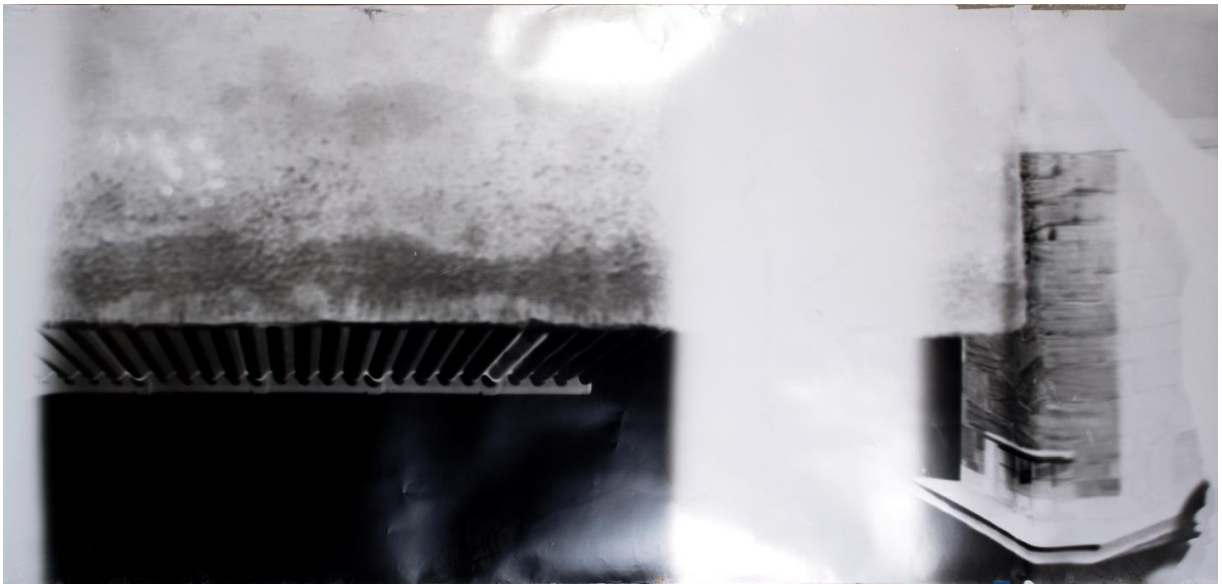


Figure 11: Irene Naude, *Pinhole Photograph Cell 3*, 2012.
120 cm x 320 cm. Illford photographic paper. Digital photograph by author.

The space inside the *camera obscura* is described by Sartre's (1992:343) explanation of intersubjectivity:

Thus suddenly an object has appeared which has stolen the world from me. Everything is in place; everything still exists for me; but everything is traversed by an invisible flight and fixed in the direction of a new object. The appearance of the Other in the world corresponds therefore to a fixed sliding of the whole universe, to a decentralization of the world which undermines the centralization which I am simultaneously effecting ... it appears that the world has a kind of drain hole in the middle of its being and that it is perpetually flowing off through this hole.

An alternative view on intersubjectivity and the heterotopian is provided by an actual *camera obscura* using the same dimensions of the prison cells that was built in the exhibition space at the Robben Island Gallery. This component was introduced to provide the viewer with the opportunity to physically experience the immersed space inside the *camera obscura* and also to simultaneously encounter the confinement of the prison cell. The structure was placed with the aperture facing a shopping and recreational centre. As a result, the image inside this “prison cell” was that of the hustle and bustle with ships passing, people walking and birds flying by.

The transposed images in the simulated prison cell contrasts with the images depicted in *Cell One* (Figure 2), *Cell Two* (Figure 3) and *Cell Three* (Figure 4), which depict the bleakness of an unchanging scene of the incarcerated where time stands still in their isolation. The juxtapositioning of the different images to introduce the external space that Foucault (1984:4) describes as

[t]he space in which we live, which draws us out of ourselves, in which the erosion of our lives, our time and our history occurs, the space that claws and gnaws at us, is also in itself a heterogeneous space. In other words, we do not live in a kind of void, inside of which we could place individuals and things. We do not live inside a void that could be colored with diverse shades of light, we live inside a set of relations that delineates sites which are irreducible to one another and absolutely not superimposable on one another.

2.10 The unseen in nature

Another analogy to aid the understanding of heterotopian spaces and intersubjectivity from a different perspective is introduced by the termite mounds. A termite mound is a fascinating and recondite object in nature. My interest in the termite mounds began when a friend explained the role that these objects play in the religious rituals of sangomas.¹⁶ Robert Thornton (2009:17) explains,

Sangoma tradition has multiple roots that extend across time, cultures and languages, and derives partly from pre-colonial African systems of belief. While its appeal is broadening, it is also changing as sangomas are exposed to a wide range of other healing traditions and religious views.

During their extensive training, sangomas are schooled in the medicinal properties of herbs and animal products, as well as the different ideologies regarding the source of their power within the environment. Some of these healers believe that their muti¹⁷

¹⁶ A sangoma is a traditional healer or diviner in Southern Africa.

¹⁷ Muti is a traditional medicine or magical charm (Oxford Dictionaries sv ‘muti’).

becomes more potent when placed into a termite mound for a certain period of time. The hole that is made to gain access to the inside of the mound is covered with a rock. The termites react to these incursions by integrating these rocks into the mounds. With time, these termite mounds become aesthetically pleasing sculptural objects in the veld imbedded with different shaped rocks.

Sangomas are often perceived by their clients/patients to address the heterotopian, to bring back into the fold that which is out of place in society. This is achieved through various methods such as divination, communication with the ancestors, knowledge of foreign and water spirits as well having *ngoma* (a deep internal knowledge) that can be accessed via singing, dancing, drumming and trancing (Thornton 2009:23-24).

The integration of these rocks into the mounds as well as the engagement with the heterotopian aspects of society by these individuals became an inspiration for my research into the ontology of photography. When considering the termites as a collective super organism that works obscurely in darkness and constructs visual structures which are influenced by and also integrate contact with the external world, an analogy between the space and its functioning on the inside of the mound and the inside of a camera becomes apparent. Within the dark space of the camera, the process of light transposing and transforming occurs in obscurity which is directly influenced by contact with the external world.

As previously established, a photograph is a moment in time that has been captured and fixed to become an image of that moment. The photographic image is a heterotopian and intersubjective space located between the present and past and subsequently it becomes a paradoxical third place. The termite mound is also a site of paradox since it presents a seemingly static artefact yet the interior is imbued with activity that results in a continual change of the appearance of the outer structure. Both of these spaces can be described as a heterotopian/intersubjective site which is “a cluster of relations that allows them to be defined” (Foucault 1984:5).

The intricate world of the super-organism known as the termite colony, *Isoptera*,¹⁸ is a mystery. According to Vernard Lewis (2009:535), termites are not ants but are more

¹⁸ For a comprehensive discussion on termites, please refer to Holm (2008), Marais (1970) and Lewis's chapter in Resh & Cardé (2009:535-539).

closely related to cockroaches. Termites have “two pairs of straight and similar wings, a straight antenna and a broad waist between the thorax and the abdomen [while] ants have elbowed antennae and a narrow waist” as well as two sets of dissimilar wings.

The development of the individual termite is an incomplete metamorphosis which creates differences in the colony. These different groupings function as castes, each having a different purpose in the nest. Some of these purposes entail the creating and irrigating of the fungi gardens in the nest which serve as the source of food for the residents, the caring of eggs and the different stages of nymphs in the nurseries, the caring and maintenance of the queen ant as well as the soldiers who protect the community. There are more than 1800 species of the family of mound building *Termitidae* in Africa. However, presenting a scientific and in-depth discussion on termites lies beyond the scope of this study.

This marginalised space inside the termite mound can be understood as a heterotopian space of indefinite accumulation of time. Foucault (1984:10) describes this form of heterotopia as a space in which “time never stops building up and topping its own summit”. The external soil structure or mound is the only indication of the location of this obscure intricate intersubjective space, relating to Sartre’s (1992:555) claim that “with the emergence of the Other, the for-itself is seen as a being-in-itself-in-the-midst-of-the-world, like a thing among things”. The termite mound, when encountered by the Other who realises the obscure complex finely balanced organism that exists comprising of members of the colony each with a very specific function, becomes an organism with a new ontological dimension.

Similarly, the intricate heterotopic/intersubjective world inside of the dark space of the camera and the layered contexts contained within a photographic image is not often recognised or understood. Foucault (1984:11) states that heterotopias

always presuppose a system of opening and closing that both isolates them and makes them penetrable. In general, the heterotopic site is not freely accessible like a public space ... they have a function in relation to all space that remains. This function unfolds between two extreme poles. Either their role is to create a space of illusion that exposes every real space, all the sites inside of which human life is partitioned as still more illusory ... Or else on the contrary, their role is to create a space that is other, another real space.

The vulture feeding site can also be introduced into this discussion as another heterotopic space that can be described as ambivalent. Foucault (1984:8-9) describes this as a space “capable of juxtaposing in a single space several spaces, several sites that are in themselves incompatible”. The vulture station is a space of death, cleansing, recycling, sustenance and social connectedness, a layered space that is transposed through light into the hide that is the *camera obscura*.

Thus it is that the [space inside the *camera obscura*] brings into the rectangle of the [hide], one after the other, a whole series of places that are foreign to one another; thus it is that the [*camera obscura*] is a very odd rectangular room, at the end of which, on a two-dimensional screen, one sees the projection of a three-dimensional space (Foucault 1984:9).

To introduce the concept of intersubjectivity to this site, I refer to Taja Lang (2007:29) who states: “Since the subject depends on the Other for his or her being in the visual field, the look of the Other can throw the subject into an objective apprehension of him- or herself. The look of the Other has a constitutive function for the subject’s sense of self”. This reference is especially appropriate as there are many similarities between human nature and the societal structures of the vulture community. When observing the interactions between these creatures, the viewer is confronted with the Other that can “throw the subject into an objective apprehension of him- or herself” (Lang 2007:29).

Since I make this analogy, it seems pertinent at this point to examine the theories regarding animal versus human consciousness within the context of intersubjectivity. According to Donna Haraway (2008:71), relating “response-ably” requires constant attentiveness to the “inside connections that demand and enable response”, a task that remains obligatory regardless of the species concerned. Haraway identifies cross-species intersubjectivity as a space in which one can develop a “response-able” relationship, within which “always more than one responsive entity is in the process of becoming”. In contrast, Giorgio Agamben in his text, *The open: Man and animal* (2004), examines the difference between human and animal consciousness. Agamben (2004:58) explains that “[o]nly man (sic), indeed only the essential gaze of authentic thought, can see the open which names the unconcealedness of beings. The animal, on the contrary, never sees this open”. The openness that Agamben is referring to here is what Heidegger (1992:159-60) posits as that which animals do not have access to, the concealedness of what is outside their immediate environment.

Heidegger's approach to animals did, however, not much surpass that of Descartes who was open to the superiority of humanity. For Agamben (2004:59), "the animal is open and not open – or, better, it is neither one nor the other: it is *open in a nondisconcealment*". Leland De la Durantaye's (2003:5-6) article on Agamben's understanding of "The Open" explicates Agamben's notion as

the open space where formless life and lifeless form meet in a distinct life-form and form of living – and which life-form and form of living is rich in its own singular potentiality. That is 'the open' that Agamben's title strives to name.

It is necessary to bring this understanding of human versus animal into the context of this research because two of the locations involve the animal or non-human world and a singular deduction of an intersubjective experience of human and non-human is apparent. This intersubjective experience becomes comprehensible when taking into account Agamben's notion of the nondisconcealment, as described by De la Durantaye (2003:5), where humans have the ability to be open to a space where "formless life and lifeless form meet in a distinct life-form and form of living".

Agamben, however, sees the demise of humanity as a result of technology. He argues that the consequence of technology is a return to animal consciousness where this placelessness/openness is no longer accessible. This comparison of human and animal intersubjectivity obliges us to consider living beings as multiples, shaped through their ongoing dynamic relation to others.

Considering these approaches, I suggest that the use of the two sites – where the termites and the vultures are implicated – advocates research on the ontology of photography within an alternative space and the work done across species can present a better understanding of photography as intersubjective and heterotopian spaces.

2.11 The inside of the termite mounds as analogy for inner consciousness

In *Art nature dialogues: Interviews with environmental artists* (2004), the writer and art critic John K Grande discusses the relevance of art which returns to the experience of nature. He refers especially to contemporary technological culture in which human experience is simulated and experienced vicariously in virtual spaces. Grande (2004:xv)

explains that “new technological innovations are increasingly pulling us away from direct experience – the tactile world – into a parallel experience indulged on, and produced by, the micro-screen technology”. Grande echoes Marshall McLuhan (1998:98), who voiced his concern regarding the effect new technology might have on humanity:

What may emerge as the most important insight of the twenty-first century is that man was not designed to live at the speed of light. Without countervailing balance of natural and physical laws, the new video-related media will make man implode upon himself. As he sits in the informational control room, whether at home or at work, receiving data at enormous speeds – imagistic, sound, or tactile – from all areas of the world, the results could be dangerously inflating and schizophrenic. His body will remain in one place but his mind will float out into the electronic void, being everywhere at once on the data bank.

By working with and in nature, my intention was to present the viewer, who is imbued in the ocularcentric and technologically saturated environment of contemporary culture, to a place where the termite mounds are a metaphoric explanation of the basic principles of photography (*camera obscura*). Grande (2004:xx) explains how important *permaculture* – the culture of nature – is to *ephemera culture* based on mass consumption and production as crossover within contemporary art. He states: “The dilemmas of contemporary criticism are in part the result of failure to identify with the holistic basis of art, not only in a visual, symbolic or conceptual way, but more importantly, in realizing that nature is the art of which we are part”. The termites and their limited external manifestations reflect the partial extent to which the self is represented within society.

To the outside world, the mound itself is the visible external structure of the colony. A termite colony comprises a complex system in which different groups of termites have specific functions. This intricate activity is, however, obscured from the outside world. The structure of an earth mound protects this inner vulnerable network from the environment because the termite colony as a whole is sensitive and affected by any interference that occurs from the outside environment that could result in a change in the structure of the mound.

For this research, I compare the camera with the visible structure of the termite mound. The intersubjective space is inside the termite mound, where each creature is defined by its compatriots, as well as by the function it fulfils. Similarly, the inside of the camera has a complex system where light enters a darkened space which is subjected to the variants

inside the camera, the amount of light, the lens opening and the focus. As with the termite mound, all this is also obscured from the outside world. The intricate transformation of light is influenced, as is the inside of the termite mound, by any changes that occur in its direct environment.

One can apply the notion of intersubjectivity as well as heterotopia to both these spaces. The complex activities inside both of these spaces are determined by the elements inside the space as well as what occurs in its proximity. Within the termite mounds, the resulting interaction between these elements is not as obvious as in the camera, which captures an image that requires an additional external process. The comparison between the camera and the termite mound can be extended even further by including inner consciousness. The complex mechanism of perception and experience inside a brain – human or animal – is obscured from the outer world. What occurs in the space that the organism finds itself in, influences these encounters and can manifest on the outer body of the creature – man or animal. Existentialist Jean-Paul Sartre (2008) explains that human consciousness is determined by “[t]he Other [who] is indispensable for my own existence, as well as my own knowledge about myself. This being so, in discovering my inner being I discover the other person at the same time”. To elaborate on the subconscious of the human mind does not, however, fall into the scope of this research.¹⁹

Central to this discussion is the analogy between the termite mound, the dark space of the camera and the inner consciousness of the brain and how the exterior world influences all three of these components in varying degrees. The aim of this practice-led research is to examine visually the different assumptions that I make in the thesis. To examine the interaction between an obscure complex organism and the contact with the exterior world, I used the termite mounds as medium. Of the three components that are compared above, the termite mounds are quite possibly the least reactive to the exterior world, yet they present visual works that underpin this analogy.

Five different termite mounds were used in the works that visually examine the analogy between the sensitive space inside the camera and an understanding of humanity and the concept of consciousness. Each of the mounds responded differently to the incursions into their structures. Photographic documentation of each mound is presented in a series

¹⁹ Consult Schilder (1950) and Lacan (1981:105-122) for more information on the subject of the development of human consciousness.

of images. The first image in each series is a depiction of the termite mound before any interference occurs. This is followed by an image of the incursion I inflicted on the mound followed by images of the progression of the termites' response over a period of three years.

For exhibition purposes, I presented images made with different printing methods. The methods employed were the Van Dyk Brown process, gelatine prints on different materials, colour digital prints as well as pinhole black and white prints. At the exhibition, the images were presented in proximity to the physical termite mound which offered the viewer the opportunity to compare the photographic image to the object itself. Experimenting with the different materials reflected on the different technologies that were used to capture the subject – yet, in this case, the referent was present and not absent and thus the anomaly could be discerned.

The Van Dyk Brown images were bound in a handmade book, in which each of the termite mounds' progress had been captured over a period of three years. Watercolour paper covered in light sensitive emulsion was used for these images. There were many variants such as the types of paper, application of the emulsion, temperature, time of exposure, and strength of fixer which influenced each print made.



Figure 12: Handmade Book of Van Dyk Brown Prints, 2014.
Photograph by author.



Figure 13: Handmade Book Inside, 2014.
Photograph by author.

Each of the five termite mounds reacted differently to the incursions that were made to them. In the artwork entitled *Progress T2*, a wedge was cut from the mound using an angle grinder. This exercise was difficult because the mounds are hard and brittle. Each mound is built from grains of soil extracted to create the tunnels and cavities. This soil is carried grain by grain, mixed with a form of saliva that the termites excrete and built into the structure of the mound. In a hot environment, the mounds are built much higher to aid the cooling of the space inside.

As the wedge was being cut, the soldier termites immediately surfaced to determine what was happening, similar to the senses that are constantly assessing the environment. The workers then appeared and started to repair the extracted section and no evidence of this “attack” to the mound could be seen two weeks later.



Figure 14: *Progress T2*, 2011-2013.
Photograph by author.

In *Progress T4* (2011-2013), a glass cube was inserted into the mound. To achieve this, a large portion of the mound had to be excavated. The immediate reaction of the termites during this interference was one of intense aggression. Distinct clicking sounds could be heard as the soldiers came to inspect. As I removed the soil, many started pinching my hands, drawing blood in the process. The reaction can be related what happens to the space inside the camera if bright light enters the ambit of the aperture.

After the glass cube was placed inside the cavity, the workers immediately started to repair the mound to obliterate the light that the glass cube created inside this space because the sensitive climate within the mound requires darkness. The cube was soon filled with soil, grain by grain and, as time progressed, the soil cracked the glass and forced it out of the mound. Only shards of protruding glass are still visible.

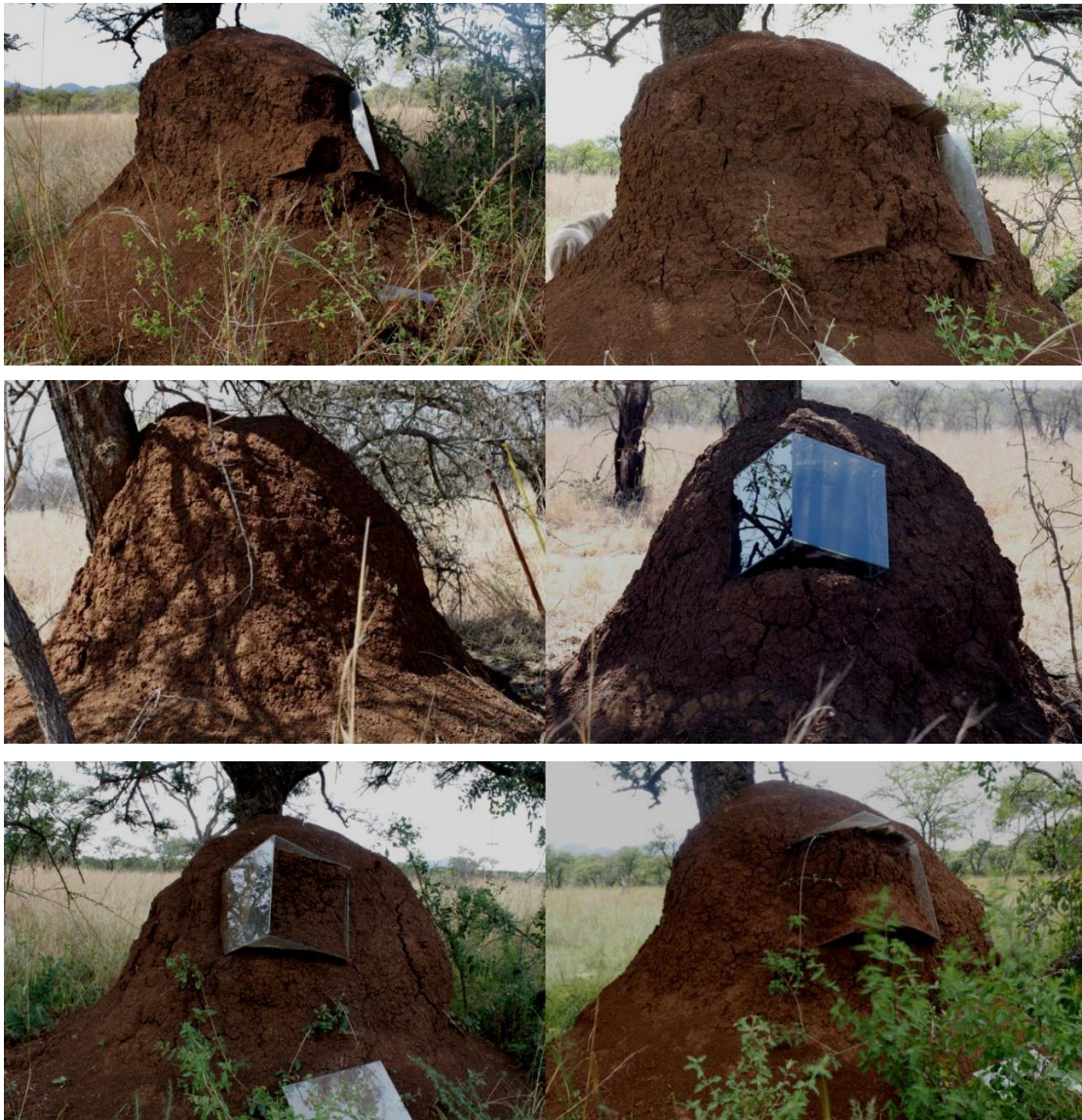


Figure 15: *Progress T4*, 2011-2013.
Photograph by author.

In *Progress T5* (2011-2013), a circular cardboard hatbox was inserted into the termite mound. The start of the process was very similar to that of the glass cube insertion. However, the cardboard was soon discovered as a source of material to compose the structures of the fungi gardens. Dead organic materials are used by this genus of termites

to construct these structures. The material is chewed and mixed with a glue-like substance and then assembled into intricate structures which resemble a brain. These structures are built into cavities within the mound where the gardens of fungi providing the termites with their sustenance, are cultivated. The termites had filled the cavity of the box in the shape of the box. The mound thus had the shape of the hatbox imbedded into it. I then introduced a cylinder shaped cardboard object into the mound and continued to document the interaction. A similar process took place. Soon all traces of my incursion were obliterated and the mound was restored to its former shape.



Figure 16: *Progress T5*, 2011-2013.
Photograph by author.

Each of these termite mounds can be seen to represent the diversity of humanity within a cultural construct. The changing termite mounds depict the way in which humans respond to society's demands. The rigidity of the geometric forms (which reflects Kaja Silverman's (1996:85) notion of accepted realities) imbedded into the mounds, in turn, remind of rigid societal constructs such as religious, political and cultural frameworks that are often enforced upon people. The repairing strategy of the termites could be seen as a comment on the manner in which humans adapt to their circumstances.

When these objects were removed (as in Figure 16: *Progress T5*, 2011-2013), it was found that the termites had adapted the contours of the mound to incorporate the embedded shape. Thus, the mound into which the round hatbox-shaped object was embedded, at first took on the shape of the hatbox but, in time, the rounded shape became integrated into the mound, at which point the exercise was forgotten by the termites.

The changing shapes of the termite structures serve as an analogy; they emulate the adaptation of the self. This relates to the practice of portrait photography where "the self that is photographed is embedded on the surface of the film, yet the physical self is still here, standing away from the theatre of light and fiction that makes up the photographic universe" (Ardenne & Nora 2004:8). This argument maintains that the confrontation of one's own photographic portrait remains an unsatisfactory experience since it does not capture the sense of being of the self.

To use nature as location for the process of art making provides an opportunity to question the relatedness between humanity and nature because

[w]ith a better understanding of how the art-nature phenomenon is occurring simultaneously in many places, among a great variety of artists, in many countries, and how this synchronicity is no accident. It evidenced the urgent need for contemporary art to embrace the nature phenomenon as an ongoing part of the dialogue on humanity's place in nature (Grande 2004:xxi).

To examine the intersubjective and heterotopian space from different perspectives, Gen Doy (2005:9) considers drawing an analogy between the *camera obscura* and the self, by arguing that

[t]he *camera obscura*, with its inverted image, has been famously compared to the self-enthralled to ideology, lacking in full consciousness, but the 'dark room' also provides the metaphor for the creative space, mental and physical, where the active photographer makes representations of the material world including the self.

The exterior of the mound, along with the implanted structures, acts only as a mask that interacts with its environment. This is reflected in the termites' restoration of their mounds by assimilating foreign structures into their system. I monitored this process by photographing the changes over a period of time and used this documentation as visual material to support the concept and argument of this study.

To present the viewer with a simulated space of the inside of a termite mound, I constructed a *camera obscura* shaped in the form of a termite mound entitled *Outside-Inside* (Figure 4). It is located in the same area as the other termite mounds which creates an opportunity for dialogue between the real and the artificial structures.

2.12 The *camera obscura* Outside-Inside

The *camera obscura Outside-Inside* (Figure 13), is presented as a multi-sensory, intersubjective and heterotopian experience. Similar to an actual termite mound, the interior is dark and humid, with a strong wet earth smell. Photographic images taken with the structure as well as footage taken with an endoscopic camera of the inside of the termite mound are presented on the walls. This footage captures the visual activity of the termites and the audible clicking sounds that these creatures make inside the mound. This footage is presented on an iPad that is fixed to the wall of the "mound". As a heterotopian/intersubjective space, the inside of this specific *camera obscura* also presents the viewer with a physical experience of being inside a soil structure. The images that manifest on the inside of this space show the texture of the soil (which was used in the construction) and follow the contours of the structure.



Figure 17: Irene Naude, *Construction 1*, 2013.
Photograph by author.



Figure 18: Irene Naude, *Construction 2*, 2013.
Photograph by author.



Figure 19: Irene Naude, Constructed termite mound *camera obscura*, 2013.
Photograph by author.

Initially, I constructed a portable tent to function as a *camera obscura* at this site. The tent functioned as a camera that I could move from one mound to the next. With this tent, pin-hole images of the termite mounds were taken. The tent was small, not well ventilated and an uncomfortable space for the viewer.

I decided that a permanent feature, that of a simulated termite mound *camera obscura* in the veld, seemed more feasible. A structure that is integrated into the environment, open to the ravages of time and could function as a camera would contribute more to the concept of the research. Two of the termite mounds that form part of the study fall in the visual scope of the aperture of the termite mound *camera obscura*. It creates a dialogue within the space inside the *camera obscura* when the images of the two mounds are transposed on the inside. This dialogue relates to the intersubjectivity inside of the *camera obscura* and the photographic image as Taya Lang (2007:10) explains: “I have come to see the cinema as a matter of affects that emerge from between the inside of the self and the outside of the world, and also from between the different temporalities and spatialities, that are holding the intersubjective world together”. If one would replace cinema with *camera obscura* in this explanation, a viable replacement in this context, the role of intersubjectivity in this darkened space becomes apparent.

The social and cultural context of intersubjectivity is complex with many different influences. I examine these elements in the next section.

2.13 Social application of photography

Semiotician CS Peirce endeavours to explain the photographic experience that relates directly to the intersubjective. Peirce (1931-35(4):447) refers to the understanding of a photographic image as collateral knowledge. This implies that the reading is mediated through our understanding of the object represented in a photographic image. Francois Brunet (2008:38) discusses how Peirce understands the intertextual mediation of the photographic experience. Peirce's descriptions of the experience of looking at photographs present it as being permeated with knowledge, rather than the immediate visual experience of the photographic image.

These internal/external perceptions of the world depicted in the work can be seen in the context of intersubjectivity when reading the heterotopian space of a photographic image. Foucault (1984:9) states that "heterotopias are most often linked to slices of time". These "slices of time" often dictate how the world is perceived within the culturally coloured ocularcentric environment which is "intertextually mediated". This concept relates to Julia Kristeva's (1980:69) semiotic notion of intertextuality where the discourse in every text is dictated by other discourses "which impose a universe on it". Mikhail Bakhtin (1990:16) proposes that "we are constantly and intently on the watch for reflections of our own life on the plane of other people's consciousness, and, moreover, not just reflections of particular moments of our life, but even reflections of the whole of it". These reflections thus include the intertextual world that contributes to this mediation.

Victor Turner (1967:95) offers his understanding of intersubjectivity: "As members of a society, most of us see only what we expect to see, and what we expect to see is what we are conditioned to see when we have learned the definitions and classifications of our culture". This understanding is what Kaja Silverman (1996:85) refers to as the "dominant fiction" which defines an accepted reality within a society.²⁰ Silverman posits that Anne Friedberg (1990:45) offers "a more extreme version" of this argument when she states: "Identification can only be made through recognition, and all recognition is

²⁰ See Bauman (2011) for an in-depth discussion on the role of culture, identified as "a set of preferences suggested, recommended and imposed on account of their correctness, goodness or beauty" (Bauman (2011:5)).

itself an implicit confirmation of the ideology of the *status quo*". Another contributing element is that photographic images of the past are often invested with what the viewer wishes to remember but the process is selective and often results in a repression of what the viewer prefers to forget.

According to Richard Chalfen (2008:68), the medium of photography is often used to persist in efforts "to transform the 'invisible' into the visible, or, at least, to enhance the ability of the human eye to see ... the shared belief that 'something important' is there, and that we just need to gain access to it through means of 'assisted seeing'". Moreover, documentation of historical events plus categorisation and judgement of societal constructs make "scientific and authoritative judgements" that require sanctioning. In all these cases, photography raises suspicions, illustrating Carol Mavor's²¹ point that "there is something inherently paranoiac about photography as a mechanism for duping the viewer" (Mavor cited by Kaplan 2003:22).

Robin Kelsey and Blake Stimson, the editors and writers of the introduction to *The meaning of photography* (2008), discuss the more contemporary approach to the indexical contestation of the photographic image. At one point in the discussion, Kelsey and Stimson (2008:xv) state: "What was shocking about photography, after all, was not that it looked like the world of ordinary perception but instead that it did not". Geoffrey Batchen (1999:216) opines that digitisation has resulted in the passing away of photography as we know it. Kelsey and Stimson (2008:xxii-xxiii), while agreeing with this opinion, refer to the indexical and representational value of images:

As the truth claims of representation come to mean less and less and the management flow of representation more and more ... photography now teeters precariously between two plausible meanings. One is sheer obsolescence ... [the other] a return [that] would need to pivot on photography's sociality, on its capacity to remap the interstices of everyday affiliation.

Humanity has an inherent need to explore the unknown. Photography as a means to gain access to the unknown is discussed in the next section.

²¹ This excerpt is from an unpublished letter by Carol Mavor to Louis Kaplan, February 2001 (Kaplan 2003:22).

2.14 Spirit photography

The use of photography in the attempt to find answers specifically to the vexing questions that surround death and the afterlife became a cultural phenomenon after the loss of many lives during the American Civil War (1861-1865). Photography as a so-called medium of capturing the unseen was used to visually explore the realm of the afterlife. Mary Marien, author of *Photography: A cultural history* (2010:113), explains that the great loss of life during the Civil War in America, estimated at approximately 620 000 lives, created a culture where the bereaved sought consolation through reconnecting with the dead through spiritualists.

Within contemporary technological culture of scepticism and the general questioning of the relationship between referent and imagery, actual contact with the dead is not taken seriously and is usually only found in films and popular literature. According to Marien (2010:71), popular fiction often questions the veracity as well as the extraordinary abilities of photography. It was often believed, especially by non-western people, that the “medium could reach beneath the surface to penetrate the minds of the sitters”. Samantha Matthews (2000:127) explains that

[t]he signature, standing in synecdochic relation to the individual, is also a fetish that needs protection to escape misappropriation or abuse. Where photography has been figured in some non-Western cultures as ‘soul-stealing’, here the signature symbolizes the ‘soul’ or essence of personality, which eludes capture through translation.

American culture of the nineteenth century was pre-occupied with a quest for contact and communication with the dead through séances and spirit mediums who pursued various methods of making contact. Since photography was ascribed with the ability to capture the invisible, the idea of contacting the dead by means of photography became popular. Fred Gettings (1978:23) writes: “It is generally believed that spirit photography began in Boston in 1861. William Mumler, reputedly the first spirit photographer, gives this as the date of his first ‘accidental’ spirit picture”. On Sunday 5 October, at the photographic gallery of Mrs Stewart, 258 Washington Street, Mumler commenced with his psychic photographic career when, in an attempt to create a self-portrait, he noticed a second figure on the plate. He claimed it was an image of his cousin who had died twelve years previously. His “abilities” as a medium became lucrative enough to enable him to set up his own studio to pursue spirit photography. He was, however, soon investigated by spiritualists as well as professional photographers who suspected fraudulent practices.

Gettings (1978:23) explains that “spirits materialized on the plates even when Mumler himself did not take the actual pictures and was merely present at the sittings, [this] soon ruled out all charges of fraud”. The evidence presented at his trial stated:

There need not now be any question as to whether spirit photography is possible ... There is nothing in the range of psychic phenomena that is more conclusive. Had there been no other proof, the sworn statements of scientific men, bankers, merchants, lawyers, photographers, and others at the Mumler trial was overwhelmingly abundant (Gettings 1978:25).

As with Mumler, other spirit photographers were also believed to have obtained images of spirits, spectres or ghosts in their photographs through their abilities as mediums, even though they may not have been involved in the actual taking of the pictures.



Figure 20: William H. Mumler, *Mary Todd Lincoln with the Ghost of Abraham Lincoln*. After 1865.

Albumen carte-de-visite.. Wm. B Becker Collection, American Museum of Photography (Marien 2010:112).

The concept of the intersubjective in the space of the photographic image is apparent in this context. Lang (2007:10) explains that “images look back at us, simultaneously constituting and transforming the discourses (the mediations of ‘reality’) that define the ontological distinction between ‘the self’ and ‘the Other’, engaging us in new kinds of intersubjective relationships across social communities”. As the bereaved sees the

departed loved one in the photographic image, the intersubjective/heterotopian approach to understanding the image as a place that hovers on the margin of this world and the world of the after-life becomes a reality, creating a sense of consolation.

Examples of spirit photography are discussed at length by Gettings in his book *The Extraordinary Story of Spirit Photography: Ghosts in photographs* (1978). In his conclusion, Gettings admits that while rampant examples of fraudulent spirit photographs are in circulation, most of the images he discusses in his text are, to the best of his knowledge, actual spirit photography. He believes that there might be a threshold of contact with esoteric and astral forces, as shown in what he believes are true spirit photographs, but adds a warning that the “forces of the invisible world may not be involved with the spiritual evolution of man” (1978:143). The concluding chapter of Gettings’s book is an open invitation to sceptics to refute his claims of “true” spirit or ghost photography. These speculations only contribute to the understanding that the intersubjective and subjective perception of what is real forms an integral part of the reading of the photographic image.

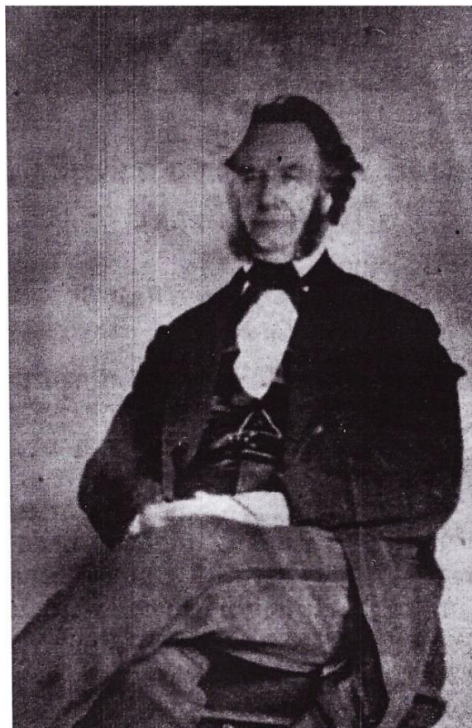


Figure 21: William H Mumler, *Moses A Dow with female spirit*, undated.
(Gettings 1978:27).

Such affirmation of the manifestation of spirits depicted in photography provide the opportunity to consider the function of light in presenting illusion within the photographic

image and issues around intersubjectivity that are manifest within the medium. Theorist Rosalind Krauss (1978:37) notes that “light was the means by which the seemingly magical transfer of the photograph was effected, the way which one could, in Nadar’s²² words, ‘*create something from nothing*’”. She also explains (1978:41) that, according to Talbot,

[w]riting is the transcription of thought, not the mere trace of a material object. And the kind of photographic trace Talbot postulates, in the way that he describes it, is also to be a transcription of thought, or at the very least, of psychological transactions ordinarily hidden from view ... The power of light to transmit the invisible and imprint it on phenomena.

2.15 The X-ray and seeing

As technology developed, other forms of examining the unseen were invented such as the X-ray. James Coates (1912:21) refers to the role of the invention of the X-ray as a supporting innovation for “bolstering” truth claims regarding spirit photography and to refute claims by sceptics. In 1895, whilst doing research, Wilhelm Conrad Röntgen discovered what he would later refer to as the X-ray. According to Marien (2010:214), Röntgen soon realised that these rays could pass through the “human body blackening a photographic plate except where they were absorbed by the calcium in the bones”. The X-rays were defined as a form of photography, despite the fact that light did not play any role in the creation of the images. This new phenomenon was the subject of much entertainment, and was perceived to be harmless to human beings, since the procedure was painless.

However, according to Marien, the X-ray photograph was, at times, associated with the occult by the general public who thought that it might be able to revive the dead²³ if it was able to reveal the unseen. This technique was popularly referred to as “The New Sight” and was perceived to be a precursor to locate the fourth dimension. Marien (2010:216) explains that “the idea of a fourth dimension, simplified from mathematics and philosophy, extended the promise of a break with traditional thinking”. Additionally, it could transcend and become a way to reveal human thoughts.

²² Nadar was the pseudonym of Gaspard-Félix Tournachon, a pioneer photographer.

²³ This train of thought links up with approaches towards the medium of photography sometimes associated with ‘non-Western’ people and thus refutes and blurs the perceived differentiation between Western interpretations as ‘rational’ and non-Western understandings as ‘superstitious’.



Figure 22: Wilhelm Röntgen, *Frau Röntgen's hand*, 1895.
X-Ray. Deutsches Röntgen Museum, Remscheid, Germany (Marien 2010:214).

Marien states further that the historian Bettyan Holtzmann points out that X-rays were the “first invisible substances generated by scientists to profoundly affect human perceptions” (Holtzman cited in Marien 2010:216). These changing perceptions influenced art movements of the twentieth century.

2.16 Contemporary artistic perceptions of photography and the unseen

Ghosts,²⁴ according to western culture, may not be taken as seriously today as they were in the nineteenth century, but, as Alison Ferris²⁵ curator of the exhibition *Disembodied Spirit* at the Bowden College Museum for Art, explains, “the representations of ghosts can be understood as more and other than novelties can, in fact, open the way for new understandings of vision and ‘reality’ in our contemporary, digitized, hypermediated world” (Ferris 2003:45).

²⁴ One has to accede however that there are cultural contexts worldwide, also in Africa, where the spirits of the ancestors remain a strong element of the belief system.

²⁵ For more information on this exhibition refer to Ferris (2003).

Ferris (2003:47) notes that contemporary artists have different ways of approaching the concept of the liberation from the material in a utopian world of cybernetics and virtual reality creating new experiences in a drastically changing world. Ferris does concede, however, that this contemporary artistic visualisation of the disembodied experience “also suggests that such utopian ideals are shot through with anxiety, disturbance, and a kind of melancholy ... to analyze ‘reality’ and the transforming human experience” (2003:47).

Today, in a manner that recalls spiritualism, cybernetics and virtual reality offer the fantasy of an ecstatically fragmented subjectivity, one that promises liberation, into fantastic worlds, from the material body and its constraints in as much as these utopian visions offered new possibilities for life and experience within a drastically changing world. In relation to this, the work of four artists is considered: Adam Fuss, whose work is centred on the medium of photography; Rachel Whiteread, whose sculptures use the same concept of capturing negative space; and Ayako Kanda and Mayuka Hayashi, who incorporated the CT scanner and X-ray machine into their work.

2.16.1 Adam Fuss: *My Ghost*

Adam Fuss started his photographic career by photographing the natural environment. (Adam Fuss [sa]). This led to his interest in alternative photography. While distancing himself from conventional photography, he returned to the fundamental principles of photography. Fuss (1990 cited by Bunyan 2012) works with the intersubjective/heterotopian space of the photograph, as he explains:

Light is a metaphor: where you have a dark place, and where that place becomes illuminated; where darkness becomes visible and one can see. The darkness is me, is my being. Why am I here? What am I here for? What is this experience I’m having? This is darkness. Light produces understanding.

The images he produces are based on elementary and archaic processes of photography. He has mastered the complex processes of the calotype, the photogram, the platinum print²⁶ and the daguerreotype. It is this approach to his work that I relate to in my own work. The images in Fuss’s series entitled *My Ghost* (1999), are gelatine silver print photograms and visually relate to the spectral images of spirit photography.

²⁶ Platinum printmaking is an archival form of printmaking where each print is made from the salts of platinum and palladium.

The *My Ghost* (1999) series embraces the heterotopian and intersubjective space of the disembodied self. It represents a space that Foucault (1984:4) describes as a “place of our primary perception, the space of our dreams and of our passions that hold within themselves qualities that seem intrinsic: there is light, ethereal transparent space”. As intersubjective space, it visually presents the possibility of the self yet to be discovered by relationships with the Other. Ferris (2003:47) explains that these images simultaneously alter the received notions of representation and vision. Fuss (fraenkelgallery.com/publications/my-ghost) states:

We’re so conditioned to the syntax of the camera that we don’t realize that we are running on only half the visual alphabet ... It’s what we see every day in the magazines, on billboards, and even on television. All those images are being produced basically the same way, through a lens and a camera. I’m saying there are many, many other ways to produce photographic imagery, and I would imagine that a lot of them have yet to be explored.



Figure 23: Adam Fuss, *My Ghost*, 1999.
Photogram, Silver gelatine print, 775 x 1000 cm. (Fuss: 2002).

Adam Fuss achieves in this work to play what Kelsey and Stimson (2008:xxiii) describe as “antiquarian games”. Yet the images that he produces invite a questioning of the visual versus the intersubjective unseen as captured through the medium of photography. This is questioning which could lead to a dialogue and then a comparative discussion on the ontological understanding of the photographic image.

2.16.2 Rachel Whiteread: *Ghost*

The artist Rachel Whiteread made a plaster cast on a steel frame of a parlour of a Victorian middle- or working-class house that was designated for demolition to create her work entitled *Ghost* (1990). Traces of the residue of the “space” such as the pattern of the wall-paper and the soot and ash of the fireplace, are embedded in the plaster cast. Although Rachel Whiteread’s work does not employ the medium of photography, it is based on the same principle as the photographic process since it represents the referent in its absence. For Rosalind Krauss (1997:76), Whiteread’s *Ghost* (1990), as well as her other sculptures, link up with the concept of the trace, similar to the photographic trace. The negative space has been re-created as an object representing the absence of the referent, namely, space. This is a means of making something visible that can only be experienced but not seen.

Despite the solidity of Whiteread’s work, the inverted realities of it reflect on the loss of the space. The solid structure speaks more of the absence of what it represents than the structure itself: a space that contradicts the other spaces that it relates to. Although “Whiteread’s cast appears to have the potential to replicate the original room, she is manifestly less interested in duplicating the original for posterity than in refiguring it into a new form, simultaneously solidified and enigmatic” (Ferris 2003:52).

How then, does this work of Whiteread relate to the heterotopian and intersubjective space of the photographic image or to the space inside the camera, since it is not a photographic image? The heavy concrete presence of the work is structure that represents that which is absent from the space that it filled. This relates to the premise of the study where the lack of indexical value of the photographic image has created a new heterotopian emplacement (Foucault) inside society, which does not form part of society since it has its own rules, yet the communicational relationship with society is imbedded with collateral knowledge (Peirce) of the original object.

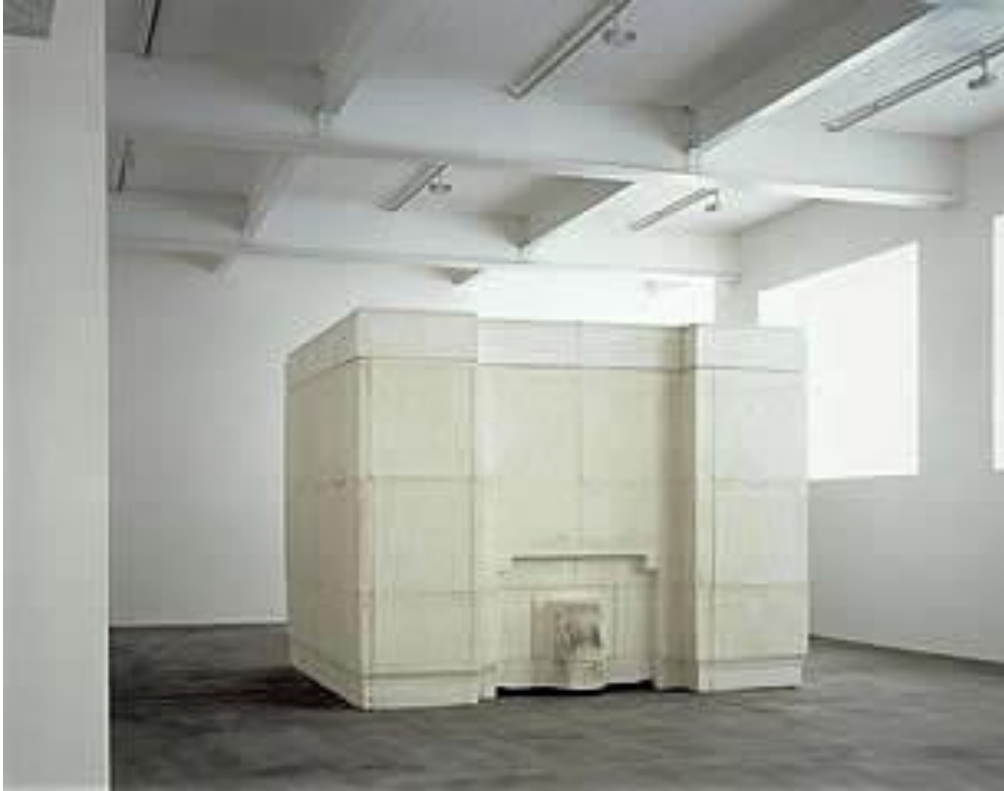


Figure 24: Rachel Whiteread, *Ghost*, 1990.
Plaster on steel frame, 269 x 355.5 x 317.5 cm. (Ferris:2003).

2.16.3 Ayako Kanda and Mayuka Hayashi

The work of two Japanese artists at Musashino Art University, Ayako Kanda and Mayuka Hayashi, use visual material to present how photographic technology has been implemented to present and examine the unknown. For this body of work, *X-Ray portraits of couples* (2013), they photographed four couples using a CT scan and an X-ray machine. The figures initially appear as line drawings and yet, on closer inspection, the photographic process becomes obvious. These images relate to Eadweard Muybridge's images that captured movement and was later replaced by cinema (Marien 2010:210). Even though applied to the technology of the CT scan and X-Ray machine, Walter Benjamin's statement that "a different nature ... speaks to the camera than speaks to the eye" (1980:202) is relevant here.



Figure 25: Ayako Kanda and Mayuka Hayashi, *X-Ray portraits of couples*, 2013.
CT Scan and X-Ray machine (Johnny 2013).

2.16.4 Char Davies

Char Davies combines digital technology and virtual reality to examine the sensation of being immersed in the images of light in her artworks entitled *Osmose* (1995) and *Ephémère* (1998). Her work features the bodily sensation of virtual reality based on a 360 degree full-body immersion into a virtual space that responds to the breathing and balance of the “immersant” (immersed). This is described by Mark Hansen²⁷ (2004:111), who cites Davies stating that “*Osmose* creates a body-in-code by harnessing embodied life in the service of conferring reality on the immaterial”.

Davies ([sa]) creates an interactive virtual space in *Osmose* (1995). The experience begins when the viewer or “immersant” puts on a motion tracking vest and a head-mounted display device. The viewer is at first confronted with the Cartesian grid according to which the space can be navigated. However, when the “immersant” takes the first breath s/he is transported to a clearing in a forest. The virtual space comprises

²⁷ According to Davies' “*Osmose* furnishes an exemplary instance of one kind of ‘body-in-code’: an experience of embodiment that is specifically engineered to breathe life into the immaterial. As she puts it, her environments are designed to foreground the kinaesthetic and proprioceptive dimensions of bodily self-movement *in order to enable* a fuller (more real) experience of the virtual realm, doing so in such a way that they temporarily de-automate habitual perception and facilitate ‘seeing freshly’”. (Hansen 2004:111)

twelve life worlds, each representing a metaphoric aspect of nature. The “immersant” can then navigate these different spaces using his/her breath and balance. After fifteen minutes, the space starts to fade and the experience is terminated. This work comments on “the self’s subjective being-in-the-world – as embodied consciousness in an enveloping space where boundaries between inner/outer, mind/body dissolve” (Davies [sa]).



Figure 26: Char Davies, *Osmose*, 1995.
(Char Davies 1996).



Figure 27: Char Davies, 'The oak tree' from *Osmose*, 1995.
(Late Fruit: Art Matters, 2011).

Laurie McRobert (2007:61) explains that “three-dimensional immersive virtual art such as that of Davies' is by far the most seductive art we have ever created because immersion in it is not just a mental exercise but a physical experience”. I contend that the immersive experience inside the *camera obscura* is even more evocative since it reacts to the real world and not a simulated reality. The vulture feeding station would be the most pertinent *camera obscura* as it shows the active environment at feeding time. The physical, yet ephemeral, experience is also presented inside the *camera obscura*. The difference, however, is that the image inside the *camera obscura* is a real phenomenon in real time.

2.17 Technology and the optical unconscious

Mindful of the accelerating technological development in digital photography, another perspective on the topic of capturing the unseen through the process of photography would be through the *optical unconscious*, the concept coined by Walter Benjamin for that which cannot be seen with the naked eye. The notion of the optical unconscious is explained by Benjamin as the prosthetic ability of the camera to arrest a moment in time, providing the reader of the image with the ability to see more than what is possible with the human eye at that exact moment in time. For Benjamin (1993:515), this concept

implies arresting a moment which provides the viewer with an image in which the detailed components of that moment can be studied after the moment has passed. To analyse and study a photographic image after the event contributes to the concept of this space as intersubjective and heterotopic. It is a space that is a separated “slice of time”. According to Foucault (1984:9), the “heterotopia begins to function at full capacity when men [sic] arrive at a sort of absolute break with their traditional time”.

The advanced technology of GigaPan²⁸ makes it possible to capture minute detail that cannot ordinarily be seen by the human eye. I decided to include this technology to capture exceedingly sharp photographic panoramic images depicting the smallest detail at the vulture feeding station. These images enable the viewer to study the captured moment with all the details of this heterotopic/intersubjective space.



Figure 28: Bob Cnoops, *Vultures Feeding Site*, 2013.
GigaPan: Photograph Bob Cnoops.

When enlarged, these images do not pixelate and the sharpness is retained. Every blade of grass is sharp and in focus. This resonates with Barthes’s notion (1982 32) when he explains the capturing of the invisible or unseen through photography:

I imagine that the essential gesture of the Operator is to surprise something or someone (through the little hole in the camera), and that this gesture is therefore perfect when it is performed unbeknownst to the subject being photographed. From this gesture derive all photographs whose principle (or better whose alibi) is “shock”; for the photographic “shock” consists less in traumatizing than in revealing what was so well hidden that the actor himself was unaware or unconscious of it.

Barthes makes this statement whilst reflecting on social documentary photography and, to a lesser degree, on press photography. However, this view is equally applicable to all photography. If the individual images are viewed in a linear sequence, each individual

²⁸ Unfortunately, I do not have access to this technology and therefore I had to rely on a friend, well-known photographer Mr Bob Cnoops, to help me with this shoot.

photograph has the very real possibility to reveal something unseen in any of the preceding or following photographs. It is for these situations that the term “Decisive Moment” was coined by Cartier-Bresson.

None of the elements in a sequence is capable to be as revealing as a unit as in that one particular photograph that is experienced. In today’s world of digital photographic imaging, it is easy to add or subtract elements from the image in order to change the reading of the image. This does however strip the validity of the representation of the referent, the spontaneity and the need for the “decisive moment”. This results in in the “passing” of photography, as Batchen (1999:216) describes it. Yet, is this so? Has the intersubjective and heterotopic space of the photographic image not always been subjected to this form of selection by the viewer in the reading of the image? The photographic image may be a static object but the interpretation and experience thereof is not.



Figure 29: Bob Cnoops: *Vultures Feeding Site 2*, 2013.
GigaPan, Photograph Bob Cnoops.

What these images depict, is a space of death and of sustenance. Vultures, similar to termites, form a complex society in nature.



Figure 30: Vulture feeding site, 2012.
Photograph by author.

As with the termite mounds, the vulture feeding site is a heterotopian emplacement. The rather obscure complex world of the vulture community resonates with that of the termite colony. Both sites and interactive communities can be related to heterotopian emplacements that can be seen as analogies for certain aspects of human society.

2.18 Conclusion

This chapter discussed the visual works that examine photography's ascribed prosthetic ability to capture and represent the unseen. This discussion was situated within the paradigm of the heterotopian and intersubjective space that is manifested in the dark space on the inside of the camera. This manifestation can be physically experienced inside the *camera obscura*. Although the photographic image is a static space, it, too, is a manifestation of this intersubjective/heterotopian experience that presents a representation of a moment that hovers on the threshold of the past and the current context of the viewer.

A brief overview has been provided to introduce the reader to the historical development of photography and the changing ontological perceptions of the medium.

This was followed by an explanation of how the inside of a *camera obscura* is a visual manifestation of a heterotopian space using criteria explained by Foucault. Each of the different locations was introduced within the framework of heterotopian spaces.

Heterotopian spaces are places of otherness, places that are incompatible, contradictory and transforming. These aspects have been examined in the darkened space of the *camera obscura* as well as in the photographic image. The prison cell *camera obscuras* were presented to the reader using images to explain how the ephemeral images inside these *camera obscura* cells are an immersed haptic experience, relating to the intersubjective dark space of the camera.

This discussion was followed by an analysis of the works set in nature. The termite mound and its complexity have been defined as an intersubjective and heterotopic space that relates to the photograph and the dark space inside the camera. In conjunction with this discussion, the vulture feeding station has been introduced as a space of intersubjective ambivalence where the analysis of the unseen in nature, within the given framework of this discussion, is analysed. The analysis of the termite mound as an analogy of inner consciousness has been presented by discussing the *Progress* body of work on three of the mounds.

CS Peirce's intertextual mediation was introduced to explain the analysis of the ontology of the photographic image in relation to the termite mounds and the social application of photography. It was supported by Kaja Silverman's notion of "the dominant fiction" and Victor Turner's opinion that cultural contexts dictate our intersubjective perceptions. These cultural dictates were explained further in the discussion on spirit photography and society's perception of the role of the X-ray images. I compared these perceptions to the work of contemporary artists who use the concept of the reference to the unseen in their work.

Finally, I used GigaPan digital technology at the vulture feeding station as a visual means to present Walter Benjamin's notion of the "optical unconscious". The manipulative options of this technology return the reader to the question regarding the intersubjective understanding of a photographic image and the space inside the camera.

After examining the unseen featured in the photograph and the space inside *the camera obscura* and taking Batchen's opinion that digitisation has been the demise of the medium of photography into consideration, I can say that the heterotopic and intersubjective has always been part of the photographic image the and space inside the camera. The photographic image, as human consciousness, has never been a static object but a space that is open to an intersubjective understanding which changes continually. Similarly, the dark space inside the camera where the light is recoded into images is open to the layered spaces of otherness described by Foucault: "We are in an epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment, I believe, when our experience of the world is less of a long life developing through time than that of a network that connects points and intersects with its own skin" (Foucault 1984:1).

CHAPTER THREE: LIMINALITY, *KHÔRA* AND PHOTOGRAPHY

3.1 Introduction

This chapter examines the concepts of the liminal and *khôra* as these two distinctive notions engage with the dark space on the inside of the camera and the space of the photographic image. The primary directive of this thesis is to analyse photography using the lens of these abstractions to reach an improved ontological understanding of the medium. In the previous chapter, the research on the concepts heterotopia and intersubjectivity was located in the context of the ascribed prosthetic ability of photography to capture and present the unseen. The primary incentive was to introduce an alternative ontological appreciation of photography with emphasis on the dark space of the camera as well as the space of the photographic image. The understanding that photography opens the ability to retain memory will provide the background for the analysis in this chapter.

Since the time of ancient Greece, individuals have sought to explain the concept of memory. The transience of life is reflected in the earliest philosophical discourse of the pre-Socratic Greek philosopher Heraclitus. Heraclitus viewed human consciousness to be in constant flux (Tarnas 1991:45) and argued therefore that the perpetual change of consciousness can lead to memory loss. In *Memory, History, Forgetting* (2004), Jean Paul Gustave Ricoeur explains the Greek understanding of memory. Ricoeur (2004:4) maintains that the Greeks had two words for memory, *mnēmē* and *anamnēsis*. The former refers to "memory appearing, ultimately passively, to the point of characterizing as affection – *pathos* – the popping into mind of a memory", while the latter refers to "the memory as an object of search ordinarily named recall, recollection" (Ricoeur 2004:4). In other words, to remember is to *have* a memory or to *seek* a memory. The role of imagination in remembering is also significant owing to the mind's predilection for creating shortcuts in the process of remembering. It can thus be argued that "memory operates in the wake of imagination" (Ricoeur 2004:5) which ultimately leads to confusion between memory and imagination, thereby affecting the authenticity of memory.

As discussed in Thomas (2004:[sp]), Aristotle (384BC–322BC) argued that "imagination [*phantasia*] is (apart from any metaphorical sense of the word) the process by which we

say that an image [*phantasma*] is presented to us." In his article 'Imagination, mental imagery, consciousness, and cognition', Thomas further states that:

Phantasmata are generated in either case, but when their immediate cause is an object directly before us the tendency is to refer to them as percepts, and to the process as perception; when memory of previously observed things is the source, reference will more likely be to imagery and imagination. Thus imagination came to be particularly associated with thinking about things that are not actually currently present to the senses: things that are not really there.

Since the sense of the temporal is a fundamental part of our human consciousness, the need to retain past experiences is part of being human. In his dialogue *The Phaedrus*, Plato contemplates writing as a *pharmakon*²⁹ (a poison or a medicine) for remembering thoughts and the spoken word. Additionally, in another of his dialogues, *Theaetetus*, Plato considers ways of retaining memory and examines the epistemology of memory.³⁰ Plato discusses the possibility of using a wax tablet onto which our thoughts can be transposed and kept for remembering. The Platonic concept of representation of the subject, which focuses on the *eikōnor* (imprint), is the fundamental principle of photography. It is important to note that in this dialogue Plato implies that the perception of an imprint is different from the original experience, since the imprint is mediated. As described by Plato, the malleable wax needed to be stamped with the person's perceptions in order to remember what had happened.

The importance of memory and how it affects our sense of consciousness is still contemplated in contemporary discourse, as José van Dijk (2007:3) explains: "remembering is vital to our well-being, because without autobiographical memories no sense of past or future could be had, and would lack any sense of continuity". Writing as an aid for remembering captures thoughts and the spoken word. Similarly, photography according to Kelsey and Stimson (2000:xi) "had become entrusted with powerful social responsibilities resulting from its particular mechanical capacity to register the physical world ... to provide a seemingly tautological or self-affirming double truth about the world". This is a means to capture moments of lived experiences and prevent them from disappearing into oblivion. This in itself is a means for creating memories. The transitory nature of time and the human proclivity to control time by snatching moments and saving them through photographs provides context for the

²⁹ For more on the role of photography as a *pharmakon* refer to Naudé, I. 2008. *Deconstructing and restoring photography as an embodiment of memory*. Unpublished MVA dissertation, University of South Africa, Pretoria.

³⁰ Refer to Appendix C for the excerpt of the dialogue.

discussions in this chapter. The prolific use of photography to “capture” experiences in contemporary culture bears witness to the significance of photography as a means to engage with and to control time and satisfy the innate human need to remember.

There is a fine line between the past and the present. Memories are created and captured by photography. This chapter considers the role of photography in memory by considering three elements of the medium: the transformation of light (or a moment in time) within the virginal receptacle of the darkened space of the camera, the ability of the light to be recoded to create a similarity to this captured moment and the liminality of the photographic image on the threshold between the past and the present where traces of the transformed light can be experienced. Visual work as central component of this research is analysed to explain the process of transformation or the liminality of the dark space inside the camera and the unknowable photographic image by using the concept of liminality and *khôra* as point of reference.

3.2 The liminal

Anthropologist Arnold van Gennep in *Rites of Passage* (1960:1) examines the concept of transitions and explains that “man (sic) cannot pass from one [world] to the other without going through an intermediate stage”. These transitions take place

from group to group and from one social situation to the next [and] are looked on as implicit in the very fact of existence, so that a man’s [sic] life comes to be made up of a succession of stages with similar ends and beginnings ... the essential purpose is to enable the individual to pass from one defined position to another which is equally well defined (1960:3).

Van Gennep described these transitions as liminal phases. These stages of transition, Van Gennep explains, “although a complete scheme of rites of passage theoretically includes preliminary rites (rites of separation), liminal rites (rites of transition), and postliminal rites (rites of incorporation), in specific instances these three types are not always equally important or equally elaborated” (1960:11).

Van Gennep (1960:11) describes these rites of passage as preliminary rites or *separation*, which points to the removal of a group or individual from the social context; liminal rites or *transition* (or limen), an ambiguous state which has no ties with the previous social context or situation or with future states; and postliminal rites or rites of incorporation or *aggregation*, which occur when the group or individual re-enters society and the passage is consummated.

According to Turner (1967:97), the neophyte or initiate is “neither living nor dead from one aspect, and both living and dead from another. Their condition is one of ambiguity and paradox, a confusion of all the customary categories”. In his description of the process of transition, Van Gennep (1960:18) explains that “[w]hoever passes from one territory to the other finds himself physically and magico-religiously in a special situation for a certain length of time: he wavers between two worlds”. Judith Westerveld (2011:11) argues that

Turner realized through Van Gennep’s book and through his own fieldwork that a rite of passage is more than a structured ritual, as each phase creates experiences of space and time that are different from normal everyday reality. Therefore Turner sees a rite of passage as a situation where there is a different structure from the one we know, and he recognized the liminal phase as being most explicitly characterized by this anti-structure.

This implies that the liminal can be understood as a transition, a process of becoming through transformation. Westerveld explains the concept of the liminal as “[t]his singular term, derived from the Latin word ‘limen’ meaning threshold, [which] is able to describe the characteristics of any in-between state regardless of the context that it is part of”.

3.3 Liminality and photography

The analogy between photography and the concept of liminality is one of the primary concerns of this research. This relationship can be explained by examining the process of photography. During my visual research, I experienced the visual manifestation of Van Gennep’s three different phases of transformation through the photographic process within the space of the *camera obscura*. During the process of photography, the first phase (segregation) is the reflection of light from the subject matter or referent, the detachment or “bouncing off” of light. The second phase in this period is the *liminal phase*, where ambiguity and transformation are the key elements. This liminal or transformation phase occurs when light enters the aperture and is transformed inside the dark space of the *camera obscura*. The ambiguity is located in the image that is not an image *per se*, but rather a projection of light, albeit one that resembles the referent in front of the aperture. The final phase, described as the *aggregation* or consummation of the liminal act, can be related to the imbedding of the transformed light into a photographic image. The transformation is located in the re-coding or the capturing and conversion of light into an image onto the light-sensitive medium inside the camera which is then manifested by

the post photography process, chemically or using digital software. The final photographic image can also be said to be in the liminal phase as it is situated on the threshold between the past and the present.

This process of transformation within the process of photography is optically visible inside the dark space in the *camera obscura*. The inverted upside down image of the object outside, created by the transposed light through the small opening in the darkened room, manifests as a space of otherness. The result is an immersed feeling, of being situated in an emplacement that is inside and outside, in-between, on the threshold of becoming.

3.4 The camera obscura as medium in art making

Mariano Dallago and Abelardo Morell use the *camera obscura* in their artmaking. Their approach and the implementation of this device follow different methodologies.

3.4.1 Mariano Dallago

Mariano Dallago (2015) uses the *camera obscura* to reflect on what the writer Italo Calvino refers to as “an epidemic of pestilential images”. He is interested in the ephemerality of the images inside the *camera obscura* and explains his reasons for this:

We live under a heavy barrage of images, the most powerful media do nothing but turn the world into images and multiply it through a game of mirrors, the images that are often devoid of inner necessity that should characterize each image, as a form and as meaning, as strength to assert itself as a wealth of possible meanings. Most of these images dissolve immediately as the dreams that leave no trace in the memory, but do not dissolve a feeling of strangeness and discomfort (Dallago 2015).



Figure 31: Mariano Dallago, *Camera obscura*, 2015.
(Dallago 2015).



Figure 32: Mariano Dallago, Image inside the *camera obscura*, 2015.
(Dallago 2015).

For Dallago, it is not so much about capturing an image but rather experiencing the ephemeral process of photography. A correlation between this approach and the concept of *khôra* and the transformation found in liminality can be established. The mind may not

be *khôra* since it is not virginal, and has a character of its own, but the space, where the images are manifested can be. Perceptions of the images can be seen as liminal since transformation manifests as a result of the images.

3.4.2 Abelardo Morell

Abelardo Morell uses the *camera obscura* in different locations to create evocative yet technically focused images. Abelardo Morell started experimenting with the *camera obscura* in his living room in 1991 and since then he has introduced different forms of technology to capture images of the outdoors encapsulated within the interior of the room which he uses as a camera. “I love the increased sense of reality that the outdoor has in these works. The marriage of the outside and the inside is now made up of equal partners” (Morell 2007). In Morell’s work, the outside and the inside converge in one image.



Figure 33: Abelardo Morell, St Louis View, Looking East, in building under construction, 1999. (Morell 2007).



Figure 34: Abelardo Morell, Castle courtyard in bedroom, 1999.
(Morell 2007).

3.4.3 Alternative uses of the camera obscura

My own research required a different approach in the implementation of this device. Where Dallago and Morell's work focusses on the technological aspects of the *camera obscura* as a device to capture and transform light, my approach is focused more on the process inside this darkened space. This research aims to analyse the process itself, examining this process conceptually using the aforementioned theoretical lenses as aids.

3.5 *Camera obscuras* at the termite mound location

I needed to construct a *camera obscura* visually to experience the in-between state that could be used in the veld where the termite mounds are located. The *camera obscura* we constructed in this environment was a water tank turned onto its side. To make the aperture, a hole was cut from its surface and covered with a metal plate with a similar

sized hole. The correct size of the hole was determined by trial and error.³¹ The sharpness of the image inside the space of the *camera obscura* depends on the size of the opening through which the light is transposed as well as the distance between the aperture and the opposite wall.



Figure 35: Water tank, 2011.
Photograph by author.

³¹ There are scientific formulas available to determine the size of the pinhole. This does not, however, function well for a *camera obscura* since the size of aperture does not present images within this enlarged pinhole camera. The only way I found to be logistically possible was through trial and error.



Figure 36: Termite mound in scope of water tank *camera obscura*, 2011.
Photograph by author.



Figure 37: Covering the water tank, 2011.
Photograph by author's assistant.



Figure 38: Sitting inside the water tank, 2011.
Photograph by author's assistant.

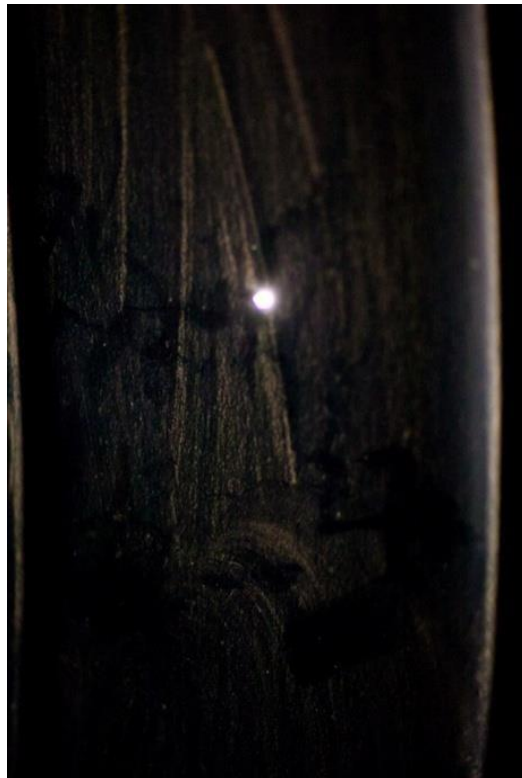


Figure 39: Opening/aperture on the side of the water tank, 2011.
Photograph by author.



Figure 40: Digital image on the inside of the water tank, 2011.
Photograph by author.

Getting into and spending time inside the water tank made for such an uncomfortable experience that a more practical option had to be found. And yet, this uncomfortable state of being inside the confined space, besides invoking the prison cells which I also used as *camera obscuras*, posed a fitting analogue to the sacrifice of transformation associated with the process of liminality, thus presenting a sense of meaning to the discomfort of this experience. Nevertheless, a tent-like *camera obscura* structure that was light proof and portable seemed a more appropriate alternative. The tent is a portable one metre cube made from white light-proof canvas.



Figure 41: Tent *camera obscura*, 2011.
Photograph by author's assistant.



Figure 42: Portable *camera obscura*, 2011.
Photograph by author's assistant.

Sitting inside the tent, closely confined, yet able to breathe more comfortably than in the tank, provided a total sensory experience of the liminal transformation process of light that happens inside the darkened space of the camera. The outside, all upside down, was inside: Clouds floated by constantly changing shape; birds flew against the upside-down sky – near, yet elusive; trees moved in the wind. The images inside this confined space were observed as flat, full-colour, two-dimensional and upside down. The sides of the tent were not static and thus moved as the wind intensified. The sense of being in this *camera obscura* could be compared to being in a strange space, immersed in a world located on the threshold of inside and outside simultaneously.

Capturing images remained a challenge, as the exposure time of these images were approximately one minute and ten seconds. Since the light need to be as sharp as possible, it was required to sit in the tent at the hottest time of the day. Being in this confined space, smelling of plastic and with no ventilation, became most uncomfortable. The moving sides of the tent were also problematic as this caused blurring of the image. As with the water tank, the discomfort experienced inside this *camera obscura* too, resonated with the transformation associated with liminality, making the experience all the more real for the researcher.

3.6 Liminality in the photographic image

Amy Tudor examines anthropologist Michael Taussig's description of the liminal state of a corpse in his book entitled *The Magic State* (1997):

In his delirium he spoke of his exile: 'Let us go, bring my luggage on board. They do not want us in this country. Let us go.' The ship that was to bear him away lay waiting in the harbour – it was the ship of the dead ... Let us look at this ship. Where is it waiting? Where is it going? What sort of journey does it provide? This ship is the ship of figuration. It is death itself, and while nothing could be more literal than the corpse, harbinger of nothingness, yet it is the very concreteness of this finis which provides the ship with its amazing capacity for travel (Taussig 1997:103 cited in Tudor 2010:144).

It is neither here nor there; what happens in the afterlife cannot be known, only be speculated on from within our experience of life itself. Tudor (2010:144) notes: "The dead body, like the ship in the harbour or the ship at sea but still in sight of the shore, suspends itself in liminality, still recognizable as the living and not yet far enough from the shore to have vanished into decay". It is that intersection when the ship (the corpse) departs from the shore of the living which points to the liminal moment.

This description of the liminal space relates to the experience inside the tent as well as the reading of a photographic image. Similarly, it has the “harbinger of nothingness” yet provides the viewer with “the very concreteness of this finis which provides the ship with its amazing capacity for travel” (Taussig 1997:103). The photograph, as the ship (the corpse), as liminal space, bears traces of the moment captured that can be recognised as the specific moment in time. Yet, as the corpse, or the ship, it is not too far into the aggregation stage of transformation to be forgotten.

This perspective of the liminal and how it manifests in the photographic image connects with Michel Foucault’s (1984:12) discussion when he describes the heterotopian space as the boat which

is a floating piece of space, a place without a place, that exists by itself, that is closed in on itself and at the same time is given over to the infinity of the sea and that from port to port, from tack to tack from brothel to brothel ... [It] has been simultaneously the greatest reserve of the imagination. The ship is the heterotopia par excellence.

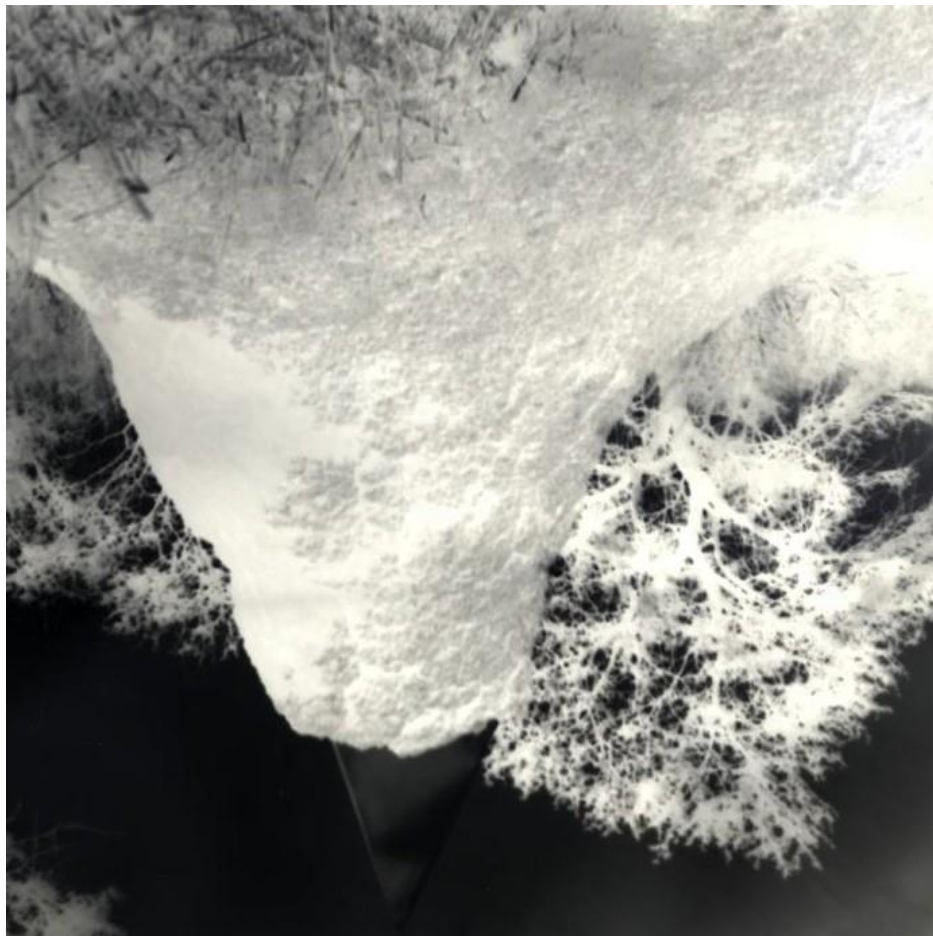


Figure 43: Irene Naude. *Untitled*, 2012.
Negative pinhole image. 48 x 48 cm.

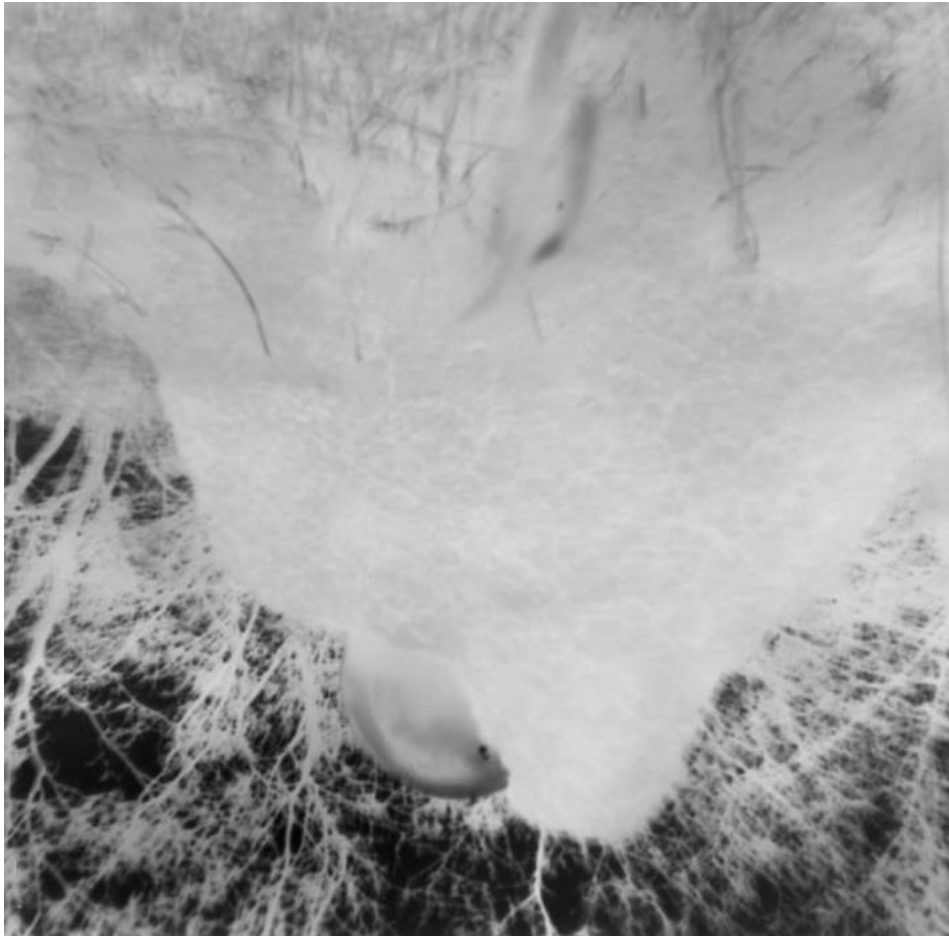


Figure 44: Irene Naude. *Untitled 2*, 2012.
Negative pinhole image. 48 x 48 cm.

Daniel Rubenstein and Katrina Sluis (2013:28) describe the latent image of the photograph:

... when we examine the latent image carefully we will have to admit that the relationship between the 'real' and the image has slipped from our grasp. If the image and the object share a commonality then this commonality contains within it something radically unknowable that cannot be accounted for by visuality alone, but by the presence of the invisible within the visible as well as the sensory within the intelligible. In fact, the old binary model of 'object – image' has to be replaced by the ternary 'object – unknowable – image' where the unknowable makes room for the processing operations that convert events in the physical world into something we recognize as an image.

An example of this unknowable within the context of liminal and heterotopian emplacement can be experienced when observing the two latent pinhole images (Figures 43 and 44) taken with the tent *camera obscura*. The images hover on the threshold where the past becomes present, and light becomes image, culminating in

photographic prints. In his discussion regarding Jean-Paul Sartre's assessment of the value of the image, John Lechte (2012:119-120) notes that:

It does not exist in its own right independently of consciousness. It is not a 'concrete' representation. It is a form of mediation and therefore totally transparent. To make an image into an object or thing in general is then to commit the error of the 'illusion of immanence' ... the image is an 'irreality'. It is present, in a sense, but at the same time out of reach.

Taking Sartre's opinion into consideration, according to Lechte, the liminal value of a photographic image thus has more levels of application than simply the process of the medium. This connection between the referent and the photographic image can also be conceived of as a space of liminality or a threshold between states. This notion of the liminal is supported by Turner (1967:106) who states that "[l]iminality breaks the cake of custom and enfranchises speculation".

3.7 *Khôra*

Khôra as concept is introduced by Plato in *Timaeus* (360 BCE) which is a dialogue that deals with the cosmology of the universe. In the text, Plato refers to the *khôra* as the primordial receptacle which needs to be devoid of all character to be the receptacle of all things. It is an eternal indestructible, amorphous space which, according to Plato, could be Being or God or before both (Plato 2013).

Jacques Derrida (1998:231) revisits the concept coined by Plato and explains that *khôra* is "neither this nor that or that it is both this and that". Another characteristic of the *khôra* presented by Plato is explained by Derrida (1993:94-95):

The *khôra* is anachronistic; it 'is' the anachrony within being, or better: the anachrony of being. It anachronizes being ... *Khôra* is not, is above all not, is anything but a support or a subject which would give place by receiving or by conceiving, or indeed by letting itself be conceived.

The space inside the *camera obscura* is a receptacle for the images that are created and can be described as the "being" of the images inside the *camera obscura*. Since what is inside the *camera obscura* is simultaneous to the objects and occurrences on the outside of the *camera obscura*, the situation can be described as anachronistic where anachronism refers to a chronological inconsistency, that is, when the natural expected order or arrangement of something does not follow a chronological historical line.

3.8 *Khôra* and the vulture feeding station

Visual analysis of *khôra* takes place at the vulture feeding site as a heterotopian space. This feeding site is situated on top of a hill that has a view of the surrounding area. The carcasses of dead animals from the surrounding area are brought and discarded here.

The information that I present here was collected while I worked with the researchers of VULPRO Conservation Organisation during my research at the site:³² Vultures live in symbiosis with other predatory birds and animals; they are, however, on the top of the food chain. They have the ability to spot even small carcasses from a height of two kilometres. However, they often fly higher than that and that is how the symbiotic relationship with the other predatory birds is established. Marabou storks do not fly as high but also circulate in the sky looking for carrion. Below them, fly the crows that are closer and thus have a better view. When a carcass is spotted by the crows, they will settle down to feed. The Marabou storks watch the crows and follow suit, followed by the vultures. This feeding station in Polokwane is on a pig farm and, owing to the deaths of many runts of litters, these piglet carcasses are also put out at the feeding station with the other dead animals. The calcium content of these piglet carcasses is high and this attracts vultures from as far afield as the Kruger National Park.

During my research sessions, I noticed that there were three hundred and fifty plus vultures at one feed as well as many Marabou storks and, of course, crows. Jackals have also been spotted during these sessions. Some of the species of vultures that have been identified at the site are the Cape Griffon, African White-backed Vulture, Hooded Vulture and the Lappet-faced Vulture. As mentioned before, electrical power lines and deliberate poisoning by farmers are the biggest threats to vultures. However, in certain regions traditional medicine is another threat that has diminished the numbers of the vulture population. Unfortunately, modern farming methods where chemical fertilisers and pesticides are used also have a detrimental effect on these creatures. This is why it is important to create an awareness of this threat.

At the site, a sense of death prevails since the skeletal and dried hide remains lie scattered and the smell of death and decay permeates the area. Death is the common denominator

³² For more information on the vultures that feed at this site and the organisation conducting the research and the conservation, refer to www.vultureconservation.co.za.

of all living creatures and the only certainty of life. Yet death and the after-life, as unknowable phenomena, have contributed to the construction of many societal structures in search of answers about the unknown. This fear of finality and oblivion is a rationale for the propensity to try to capture and keep moments from passing by in the obsessive photographing of every possible moment and experience in contemporary culture.

Reference to death features in many of the theoretical discussions on photography. For Barthes, the concept of *khôra* can also be applied to the photographic image. Barthes (1982:14) repeatedly refers to death in his discussion on photography and explains how the photograph becomes death when he confronts photographs of himself: "... that very subtle moment when to tell the truth, I am neither subject nor object but a subject who feels he is becoming an object: I then experience a micro-version of death (of parenthesis): I am truly a spectre". Barthes (1982:76) refers to the photograph as a receptacle of being: "in photography I can never deny the thing has been there. There is a superimposition here: of reality and of the past. And since this constraint exists only for photography, it should be considered by reduction, as the very essence, the *noeme* of Photography".

Barthes (1982:9) defines the three determinants of a photograph, which, in turn, leads to his comparison between the photograph and death. They are the *Operator*, the photographer; the *Spectator*, the viewer; and the subject or the referent or "a kind of little simulacrum" of the image, which he defines as the *Spectrum* of a photograph. He mentions that his choice of word for the latter "retains, through its root, a relation to 'spectacle' and adds to it that rather terrible thing which is in every photograph: the return of the dead" (1982:9). Barthes (1982:19) continues his argument by stating that a specific photograph may interest the spectator because it *advenes* (from *advience*) since, according to Barthes, "[t]he photograph itself is in no way animated (I do not believe in 'lifelike' photographs), but it animates me: this is what creates every adventure" (1982:20). This adds to the experience of the spectator by creating an anachronistic mental journey.

Jacques Derrida (1998:239) comments on the concept of *khôra*:

Khôra receives, so as to give place to them, all the determinations, but she/it does not possess any of them as her/its own. She possesses them, she has them, since she receives them, but she does not possess them as

properties, she does not possess anything as her own. She 'is' nothing other than the sum or the process of what has just been inscribed 'on' her, on the subject of her, on her subject, right up against her subject, but she is not the *subject* or the *present support* of all these interpretations, even though, nevertheless, she is not reducible to them.

This explanation relates *khôra* to the process of photography. Derrida could be describing the process of photography as it manifests in the *camera obscura* as well as in the photographic image.

3.9 The Altar

Death and society's attempts to understand the afterlife has led to numerous social constructs with religion as one of the most pervasive throughout humankind's history. At the vulture feeding station, one is confronted by the physical reality of death which provokes the urge to penetrate the mystery. Many turn to religion for this purpose.

Reference is made to religion with my construction of an altar at the site of the feeding station. Adjacent to this site is a field that had been cleared of rocks for agricultural purposes. On visiting the site, the large pile of rocks approximately one and a half metres high and ten metres long called for use at the site. I found the ambience of the site with the feeding of the vultures and the strewn carcasses to be reminiscent of my own experience of religious institutions who feed on the vulnerability of the gullible.

This inspired me to use the rocks to build an altar as an analogy for these institutions. A five metre long, one and a half metres high and one metre wide construction of rock from the surrounding area was built. An altar relates to religious rites of sacrifice to attain absolution or cleansing which is believed to ensure a gateway to the afterlife, sidestepping the finality of death.

At one point in my research, I set up a camera that traces movement at night to capture images. Brown hyenas, jackal and an armadillo came to visit the site.



Figure 45: Irene Naude, *Altar*, 2012.
5m x 1m x 1. Photograph by author.



Figure 46: Vulture feeding Site, 2012.
Photograph by author.



Figure 47: Irene Naude, *The Remains*, 2012.
Photograph by author.

A hide was built to observe the feeding vultures unhindered for research purposes. A walkway of about five hundred metres covered by shade-cloth was constructed to obscure visitors approaching the hide. On entering the hide, one is confronted with a view that is far removed from everyday life yet, on close inspection, has many similarities with the intersubjectivity of humanity. To watch the interaction, communication and social interplay among the feeding birds is an experience that can be related to a layered intersubjective and inter-relational phenomenon. It becomes possible to examine the notion of *khôra* as it relates to the dark space of the camera as well as the photographic image in conjunction with the notion of death and transition within these heterotopian surreal spaces.

3.10 The hide *camera obscura*



Figure 48: Hide under construction, 2013.
Photograph by author.



Figure 49: Hide, 2013.
Photograph by author.

The hide was converted into a *camera obscura* for this research. The hide as a *camera obscura* creates a surreal disembodied experience of watching the birds feeding and seeing them inverted inside the hide as two dimensional objects while the sounds of the feeding, the squabbling and squawking, is clearly audible. The space inside the hide becomes a liminal, heterotopian and intersubjective space where *khôra* manifests neither on the inside nor on the outside but on the threshold of the process of becoming.

The process of becoming that happens when light is transposed and transformed both inside the darkened space of the *camera obscura* and in the generation of the photographic image is explained by Lechte (2012:26) as “neither sensible nor intelligible, is neither present nor absent, is both amorphous and eternally virgin, yet is an infinitely receptive receptacle”. This underpins the main premise of this research and an alternative approach regarding the ontology of photography.

Lechte (2012:27) states that “*khôra* is truly the basis of all images, to the extent that the entirety of the material world itself is nothing if not a conglomerate of images (= *eikôna*). There is, in short, no image available for the condition of possibility of all images”. The concept of *khôra* compares to the liminal act as found in the process of photography; even more so in the light of Lechte’s (2012:28) further claim:

To the extent that *khôra* is absolutely transparent and is the condition of possibility of the object itself, it also sets the scene for an understanding of the image as vehicle enabling access to the thing imaged. *Khôra* would thereby set up a mode of thinking which can accommodate the image as transparent as opposed to it being a simulacrum (*eidolon*) ... *Khôra* itself is not a – space or a place – because it is the condition of possibility of all spatiality.



Figure 50: Irene Naude, Image inside the camera obscura at the vulture feeding site, 2013.
Digital photograph by author.

Watching the vultures feed from the space inside the hide which becomes the *camera obscura*, is “neither sensible nor intelligible” (Lechte 2012:26). It is an emplacement where the viewer is immersed in analysing and questioning the concept of being or *khôra* and the process of photography. As receptacle or *khôra*, the space inside the hide receives the light yet it has no character of its own. The collateral knowledge (CS Peirce 1931-35(4):447) of the site as well as the interior personal relationship to the site creates a different personal perception for each person viewing this work.

This analysis of *khôra* as the space inside the *camera obscura* links to the concepts of the intersubjective, heterotopian, liminal, as each of these notions relate to and inform the ontological understanding of photography.

3.11 Liminality and *khôra* in the visual arts

The ontology of the photographic image as it encompasses the concepts of liminality and *khôra* has been addressed by many artists. I have selected two artists whose work visually depicts this phenomenon. Michael Wesely focuses on the in-between space of the photographic object. He uses extended aperture time exposure to depict the passing

of time and transformation within the photographic process thus relating to both liminality and *khôra* whereas Peter-Joel Witkin questions the transformation from life to death in photographs of corpses.

3.11.1 Peter-Joel Witkin

Peter-Joel Witkin uses the liminal state of the corpse as subject matter in many of his photographs. Witkin uses human corporeal remains which he sets up in carefully constructed compositions to examine the liminal of photography as it relates to death. This relates to the earlier discussion of Tudor and Taussig's views on the corpse as liminal phase which then relates to what Barthes has to say about the photograph as liminal state and death.

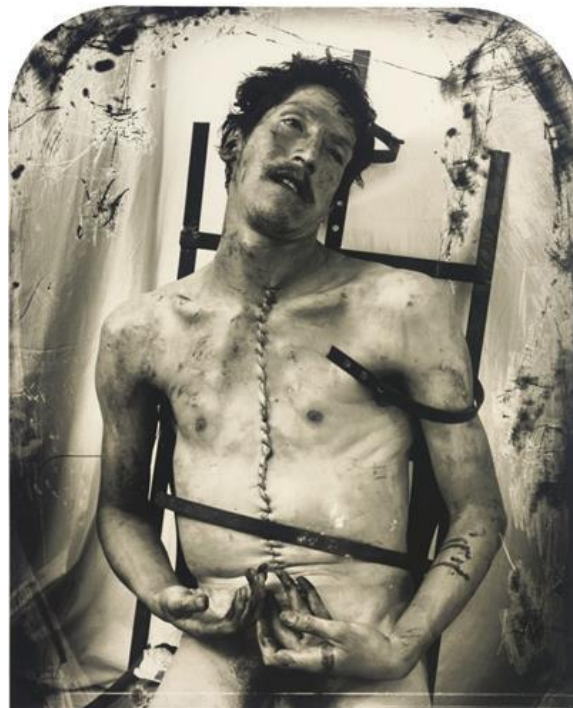


Figure 51: Peter-Joel Witkin, *Glass Man*, 1994.

Gelatin silver print, signed, titled, dated and numbered '1/12' in pencil on verso; 'Guggenheim' exhibition label on backing board. 80 x 64.3cm. (Christie's Online).

According to Michael Sand [Sa] "Witkin sees photography as the art of capturing a shadow and attempts to depict that mortality which deals with life and death, and that the mortuary is a place where the mortal remains of the dead are kept." In an article on Witkin's work, Sand describes an incident when Witkin was working on a piece entitled *Glass Man* (1994) (Figure 51). As he was working with the body, it transformed from the

remains of a homeless man with very long and elegant fingers into a body that resembled the grace of Saint Sebastian. This transforming of the receptacle of life (the body) relates to the transformation phase of Van Gennepe's concept of liminality.

The liminal medium of photography depicts this process of transformation and of being in-between and "the essence of Witkin's desire to capture the liminal space between life and death, and it also speaks to the aggressiveness his photographs demonstrate in this pursuit, the violation that many perceive on looking at them" (Tudor 2010:147).

3.11.2 Michael Wesely

Michael Wesely is another artist whose work deals with the concept of the in-between space of the photographic object. Wesely takes long-exposure photographs that visually capture the liminal act of becoming in the ever-changing light reflected from the referent. According to Roy Exley (2008:462), Wesely's

restless experimentation with new modes of perceiving and representing our world gives us the sobering realization that the perception of our surroundings is singularly one-dimensional. On the whole our visual dialogue with our environment is tempered by habit and convention, governed by contingency.



Figure 52: Michael Wesely, *A photo straight from the dead?*, 2005. C-print. (Chad 2010).

Some of Wesley's images are captured with exposure of up to twenty-six months. Wesley notes that it is possible to expose a photograph for up to forty years. These images reveal

the passage of time and the liminal in this process of transformation. The work entitled *A Photo straight from the dead?* (Figure 52) represents a photograph of an office space which was created by using an exposure time of twelve-months. The visual suggestions of movement and of a presence in the office space show the transformations occurring during a specific time frame. The office as receptacle of light over time where the manifestation of these images is captured visually depicts the concept of *khôra*.



Figure 53: Michael Wesely, *These flowers have seen better days*, 2005. (Chad 2010).

In the work entitled *These flowers have seen better days* (2005) (Figure 53) Wesely captures a wilting bouquet of flowers. The image speaks of movement and the ravages of time and shows the process of decay and transformation from one state into another.

3.12 Conclusion

In the previous chapter, the concepts of heterotopia and intersubjectivity as they relate to the dark space inside the camera as well as the photographic image were analysed using the prosthetic ability ascribed to photography to capture the unseen. In this chapter, the two concepts of liminality and *khôra* have been examined to ascertain how they contribute to an alternative approach to the ontological understanding of the process of photography. This discussion was conducted within the framework of the ability ascribed to photography to retain memory.

Liminality, in its phases of transition, as described firstly by Van Gennep and later expanded upon by Turner, was discussed as an analogy to the process of photography. As a space of transformation, the *camera obscura* presents an embodied experience of the liminal transformation of light. The continual changing images inside these darkened spaces provide a means to understand the transformational process as described by Van Gennep.

The discussion of the *camera obscura* as medium used by Mariano Dallago and Abelardo Morell explained how the alternative uses of this space can be implemented. My own use of this medium within the context of examining termite mounds presented another context. In this Chapter I explained to the reader the trials and errors in finding a receptacle that could function as a *camera obscura* for my research, these were a water tank, tent and constructed termite mound. The uncomfortable and cramped physical sensation of being inside these spaces explained the awkwardness of transformation within the space of the *camera obscura* as well as the static photographic image. To explain the liminality of the photographic image as such, an analogy between the corpse and a ship and the photographic image was introduced.

Another use of the *camera obscura* was introduced in the discussion of the transformation of a hide at a vulture feeding station. Here, within the *khôric* and liminal space of this *camera obscura*, the layered manifestations of death and societal constructs like religion all come together in an anachronistic state of being.

As virginal receptacle without any characteristics of its own, the *camera obscura*, as well as the photographic image, was related to the concept of *khôra* and the liminal. The possibilities of photography have been expanded by employing a photograph to capture memory using the lens of liminality and *khôra* in the understanding of the photographic process.

CHAPTER FOUR: CONCLUSION

This practice-led study uses visual works as primary sources to investigate an alternative way to approach photography. The ubiquitous use of the medium in a visually saturated world, where it informs and establishes much of our understanding of reality, gives rise to the need for this investigation. This is an era beyond photography, an era where advancements of digital technology demand that we search for a new and alternative understanding of the medium.³³

4.1 Empirical findings in the visual works

The main findings are chapter specific.

In Chapter Two, the space inside the camera was analysed using the concepts of heterotopia and intersubjectivity in the visual works created on Robben Island, at the termite mounds and the vulture feeding station. Re-examining the photographic process using these concepts provided an alternative embodied understanding of the inside of the camera (*camera obscura*) as well as the photographic image. The experience of both the space inside the camera and the space created within the photograph as non-hegemonic (a space of difference, contradiction and transformation that exists in a continual state of flux in relation to its surroundings) provides the rationale for an alternative approach to the medium.

Chapter Three continued with the empirical research, using the concepts of liminality and *khôra* to re-examine photography as visual medium. The context of this discussion was the ascribed ability of photography to preserve memory. As in Chapter Two, the embodied manifestation of these two abstract notions was examined. Central to this analysis were the *camera obscuras* constructed at the termite mounds and the vulture feeding station.

The experience of being inside the *camera obscura* – something which is both visual and physical – generates a change in our perception of photography and the space created

³³ This era of post photography, where even the necessity of the camera is questioned since old images are used as source material for the creation of new images (Allison Meier 2014) is beyond the scope of this research.

within the photographic image. When approached using the concepts of liminality and *khôra*, the space inside the camera becomes understandable as a place of transformation (a space or receptacle that receives the light yet has no character of its own).

4.2 Theoretical implication

The aim of the research undertaken in this study was to re-examine the basic principles of photography using the *camera obscura* as a substitute for the darkened space that exists inside every camera. These spaces all function in the same manner as the *camera obscura* because they are, essentially, versions of it – its progeny. Therefore, by interrogating – both visually and physically – the process that occurs when light is let into a *camera obscura* (to create an image), we are able to interrogate visually and physically the process that occurs inside every camera when a photograph is taken.

There is much contemporary theoretical discourse on photography. Many essays have been published examining the medium, its changing value and pervasive use in society. Scholars and critics are constantly analysing the ideology and semiotic value of photography. The research contained in this study is linked to this theoretical analysis of the medium via the concepts used to underpin and contextualise the visual work – heterotopia, intersubjectivity, liminality and *khôra* – but the primary method of investigation stands outside of this discourse. The aim was visually to re-examine the process of photography and its culminating artefact using the *camera obscura* as the primary site of research. My contention was that visually examining the process and the photographic image in this way would present an alternative approach to comprehend the photographic process and the culminating image and this has proven to be the case.

4.3 Policy implications

The importance of the visuality of photography in its various forms makes the visual research in this study vital to our ongoing understanding of the medium. The current questioning of the validity and possible demise of the medium stems from an anxiety around technological advancement. This line of questioning is important but it is built on theoretical foundations rather than on an understanding of the basic principles of photography – how light is transformed in a darkened space. My argument is that theorising alone cannot provide an alternative understanding of the ontology of the

photograph. Only by interrogating – both visually and physically – the process that occurs when light is transformed into an image are we able to come to a space where we can build a new understanding of the medium that fits with contemporary usage and allays anxiety around technological advancement.

4.4 Recommendations for future research

As soon as I began this study I became aware of the many possible avenues for visual research on photography and how they could contribute to an alternative understanding and use of the medium. The visual research provides an opportunity for a fresh approach to the medium. To introduce more *camera obscuras* that are accessible to the general public as means to expose the process of photography and how a photographic image is created could bring about change in the general understanding of photography. A study of the implementation of the *camera obscura* in different locations throughout history may yield interesting results as to the possible application of photography.

4.5 Limitations to the study

This study is limited by the locations in which the visual works were created. These locations allowed limited access and therefore made it difficult for other interested parties to experience the works, something which is vital when attempting to understand the research in this study. The catalogue that documents the creation of the different works and the theoretical thesis that contextualises these works do not entirely do justice to the visual work and the experience of it.

4.6 Conclusion

The visual research contained in this study that seeks to find an alternative understanding of the ontology of photography is vital if we are to understand the ocular-centric culture in which we find ourselves today. There is much theoretical debate around this topic but this study shows that a practice-led approach can help us build a new understanding of the photographic process and its culminating image.

SOURCES CONSULTED

- Ackerman, D. 1990. *A natural history of the senses*. London: Orion.
- Agamben, G. 2000. *Means without end: Notes on politics*. Translated by V Binetti & C Casarino. Minneapolis: University of Minnesota.
- Agamben, G. 2004. *The open: Man and animal*. Translated by K Attell. Stanford: Stanford University Press.
- Agamben, G. 2009. *What is an apparatus?* Stanford: Stanford University Press.
- Ardenne, P & Nora, E. 2004. *Face to face: The art of portrait photography*. Paris: Flammarion-Pere Castor.
- Arendt, H (ed). 1968. *Walter Benjamin, illuminations: Essays and reflections*. Translated by H. Zohn. New York: Schocken Books.
- Ashcroft, B, Griffiths, G & Tiffin, H. (eds). 2009. *The post-colonial studies reader*. New York: Routledge.
- Augé, M. 2011. *L'expérience des images: Umberto Eco Marc Augé, George Didi-Huberman*, edited by Frédéric Lambert. Bry-sur-Marne:INA: 62.
- Bădulescu, D. [sa]. [O]. *Heterotopia, liminality, cyberspace as marks of contemporary spatiality*. Available:
http://www.theoundtable.ro/Current/Cultural/Dana.Badulescu_Heterotopia,Liminality,Cyberspaceas_Marks_of_Contemporary_Spatiality.pdf Accessed 08/08/2015.
- Bady, A. 2014. Robben Island University, in *Transition, No 116, Nelson Rolihlahla Mandela 1918-2013*. Harvard: Indiana University Press:106-119. (Hutchins Center for African and American Research at Harvard).
- Bakhtin, MM. 1990. *Art and answerability: Early philosophical essays*, edited by M Holquist & V Liapunov. Austin, TX: University of Texas.
- Barnard, R. 2001. Speaking places: Prison, poetry and the South African nation. *Research in African Literatures* 32(2):155-176.
- Barnard, R. (ed). 2014. *The Cambridge companion to Nelson Mandela*. New York: Cambridge University Press.
- Barthes, R. 1982. *Camera Lucida: Reflections on photography*. Translated by R Howard. London: Vintage.
- Barthes, R. 1993. *Camera Lucida: Reflections on photography*. Translated by R Howard. London: Jonathan Cape.
- Bataille, G. 2004. *The unfinished system of nonknowledge*. Translated by S Kendall and M Kendall. Minneapolis, MN: Minnesota Press.

- Batchen, G. 1996. Touché: Photography, touch, vision. *Photofile* 47:6-12.
- Batchen, G. 1999. *Burning with desire: The conception of photography*. Cambridge, MA: MIT.
- Baudrillard, J. 1990. *The transparency of evil: Essays on extreme phenomena*. Translated by James Benedict. London: Verso.
- Baudrillard, J. 1994. *Simulacra and simulation*. Translated by SF Glaser. Ann Arbor, MI: University of Michigan Press.
- Bauman, Z. 2011. *Culture in a liquid world*. Translated by L Bauman. Cambridge: Polity Press.
- Bazin, A. 1967. The ontology of photography, in *Classic essays on photography*, edited by A Trachtenberg. New Haven: Leete's Island:237-244.
- Benjamin, W. 1968. *Walter Benjamin, illuminations: essays and reflections*. Translated by H Zohn, edited by H Arendt. New York: Schocken Books:253-264.
- Benjamin, W. 1980. A short history of photography, in *Classic essays on photography*, edited by A Trachtenberg. New Haven: Leete's Island:199-216.
- Benjamin, W. 1993 [1936]. The work of art in the age of mechanical reproduction, in *Art in theory 1900 – 1990: An anthology of changing ideas*, edited by C Harrison & P Wood. Malden, MA: Blackwell:512-520.
- Benjamin, W. 1999. Little history of photography, in *Walter Benjamin: Selected writings Volume 2 1927-193*, edited by MW Jennings, E Howard & G Smith. Translated by R Livingstone. Cambridge, MA: Harvard University Press:508-530.
- Bentham, J. 1943. *The works of Jeremy Bentham*, edited by J Bowring. Edinburgh: Simpkin Marshall.
- Berger, J & Mohr, J. 1982. *Another way of telling*. New York: Vintage.
- Berleant, A. 2003. [O]. *Aesthetic embodiment: Arnold Berleant*. Available: www.autograff.com/berleant/pages/recentart6.html Accessed 18/03/2013.
- Bermingham, A. 2007. Introduction: Gainsborough's show box: Illusion and special effects in Eighteenth-Century Britain. *Huntington's Library Quarterly* 70(2), June:203-208.
- Bhabha, K. 1994. *The location of culture*. London: Routledge.
- Bhabha, K. 2004. Signs taken for wonders, in *Post-Colonial Studies Reader*, edited by B Ashcroft, G Griffiths & H Tiffin. New York: Routledge:38-43.
- Bolton, R. 1992. *The contest of meaning*. Cambridge MA: MIT.
- Bouchard, DF. 1977. *Language, Counter-memory, practice: Selected essays and interviews*. Ithaca, NY: Cornell University Press.
- Bourreaud, N. 2009. *The Radicant*. New York: Lukas & Sternberg.

- Bradley, F. (ed). 1997. *Rachel Whiteread: Shedding Life*. New York: Thames & Hudson.
- Brandon, R. 1984. *The spiritualists: The passion for the occult in the nineteenth and twentieth centuries*. Buffalo, NY: Prometheus Books.
- Brunet, F. 2008. "A better example is a photograph": On the exemplary value of photographs in C.S. Peirce's Reflection on signs, in *The meaning of photography*, edited by Robin Kelsey and Blake Stimson. Williamstown, NJ: Sterling and Francine Clark Art Institute.
- Bunyan, M. 2011. [O]. *Exhibition: 'Adam Fuss a survey of his work 1986/2012'*, at Huis Marseille Museum for Photography, Amsterdam. Available: <http://artblart.com/tag/adam-fuss-a-survey-of-his-work/> Accessed 28/03/2013.
- Bunyan, M. 2012. [O]. *Review: 'Light works' at NGV International, Melbourne*. Available: <http://artblart.com/2012/09/09/review-light-works-at-ngv-international-melbourne/> Accessed 28/03/2013.
- Campbell, J. 2007. Kracauer. *A Journal of Culture/Theory/Politics* 6, Summer:7-19.
- Chad. 2010. [O]. *Art and photography in Unfinished Man*. Available: <http://www.unfinishedman.com/the-long-exposures-of-michael-wesely/> Accessed 12/04/2013.
- Chalfen, R. 2008. Shinrei Shashin: Photographs of ghosts in Japanese snapshots. *Photography & Culture* 1(1) July:51-72.
- Christies. [Sa]. [O]. Available: <http://www.christies.com/lotfinder/photographs/joel-peter-witkin-glassman-mexico-city-1994-5138349-details.aspx> Accessed 12/04/2013.
- Cilliers, FP. 1990. The brain, the mental apparatus and the text: A post-structural neuro-psychology. *South African Journal of Philosophy* 9(1):1-8.
- Coates, J. 1912. *Photographing the invisible: Practical studies in supernatural photography, script and other allied phenomena*. London: L.N. Fowler.
- Conkelton, S. 1994. New photography 10: Shimon Attie, Abelardo Morell, Jorge Ribalta, Michal Rovner. *MOMA* 18, Autumn-Winter:30-31.
- Connor, S. 1989. *Postmodernist culture: An introduction to the theories of the contemporary*. Second Edition. Oxford: Blackwell.
- Cooper, JM (eds). 1977. *Plato: Complete works*. Indianapolis: Hackett.
- Copjec, J. 1996. The strut of vision: Seeing's somatic support, *Qui Parle* 9(2), Spring/Summer:1-30.
- Cousins, M. 1996. Rachel Whiteread: Inside Outcast. *Tate: The art magazine*. 10, Winter: 37.
- Crary, J. 1992. *Techniques of the observer: On vision and modernity in the nineteenth century*. Cambridge, MA: MIT Press.

- Cruz, EG & Meyer ET. 2012. Creation and control in the photographic process: iPhones and the emerging fifth movement. *Photographies* 5(2), September:203-221.
- Dallago, M. 2015. [O]. *Camera obscura/Mariano Dallago*. Available: http://www.archdaily.com/771074/camera-obscura-mariano-dallago?utm_source=ArchDaily+List&utm_campaign=fc95e76c8b-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_b5a382da72-fc95e76c8b-407941557 Accessed 10/08/2015.
- Dallow, P. 2003. [O]. *Representing creativeness: Practice-based approaches to research in creative arts*. Available: www.spatialdesign.info/blog/wpcontent/uploads/2007/12/Dallow_ArtDesComm_2003.pdf Accessed 15/09/2012.
- Dant, T & Gilloch, G. 2002. Pictures of the past: Benjamin and Barthes on photography and history. *European Journal of Cultural Studies* 5(1):5-25.
- Davies, C. [Sa]. [O]. *Osmose*. Available: <http://www.immersence.com/osmose/> Accessed 13/01/2013.
- Davies, C. 1996. [O]. *Char Davies Home Page*. Available: <http://www.berylgraham.com/serious/art/davieshome.htm> Accessed 18/05/2013.
- Deacon, H (ed). 1996. *The Island: A history of Robben Island 1488-1990*. Cape Town: Mayibuye Books.
- De la Durantaye, L. 2003. The suspended substantive: On animals and men in Giorgio Agamben's *The Open*. *Diacritics* 33(2), Summer:2-9.
- Deleuze, G, 1977. Intellectuals and power: A conversation between Michel Foucault and Gilles Deleuze, in *Language, Counter-memory, practice: Selected essays and interviews*, edited by Donald F Bouchard. Ithaca, NY: Cornell University Press.
- Demos, TJ (ed). 2006. *Vitamin ph: New perspectives in photography*. London: Phaidon.
- Dernek, YD, Turan, E & Pamuk, O. 2002. *Biz*. Istanbul: Y&R Reklamevi.
- Derrida, J. 1973. *Speech and phenomena and other essays on Husserl's theory of signs*. Translated by DB Allison. Evanston, IL: Northwestern University Press.
- Derrida, J. 1973[1976]. *Of grammatology*. Translated by GC Spivak. Baltimore: John Hopkins University Press.
- Derrida, J. 1981. *Dissemination*. Translated by B Johnson. Chicago, IL: University of Chicago Press.
- Derrida, J. 1993. *On the name*. Stanford: Stanford University Press.
- Derrida, J. 1996. Injunctions of Marx, in *Specters of Marx: The state of the debt, the work of mourning, and the new international*. Translated by P Kamuf. New York: Routledge

- Derrida, J. 1998. Khôra, in *The Derrida reader: Writing performances*, edited by Julian Wolfreys. Edinburgh: Edinburgh University Press.
- Di Liscia, DA. 2011. [O]. *Johannes Kepler*. Available: <http://plato.stanford.edu/entries/kepler/> Accessed 01/05/2014.
- Doy, G. 2005. *Picturing the self: Changing views of the subject in visual culture*. London: IB Taurus.
- Drury, C. 1998. *Chris Drury: Silent spaces*. London: Thames & Hudson.
- Durant, MA. 2003. The blur of the otherworldly. *Art Journal* 62(3), Autumn: 6-17.
- Elkins, J. 1996. *The object stares back: On the nature of seeing*. New York: Harcourt Brace.
- Elkins, J (ed). 2007. *Photography theory*. New York: Routledge.
- Elkins, J. 2011. *What photography is*. New York: Routledge.
- Emerling, J. 2012. *Photography history and theory*. New York: Routledge.
- Ertem, F. 2010. BIZ[US]. Looking productively to the representation of the “self” on photographic portraiture. *Photographies* 3(1), March:69-83.
- Ewing, WA. 2008. *The face: The new photographic portrait*. London: Thames & Hudson.
- Exley. R. 2008. Michael Wesely, in *Photo Art: The new world of photography*, edited by U Grosenick and T Seelig. London: Thames & Hudson:442-445.
- Faubion, J (ed). 1998. *Aesthetics: the essential works 2*. London: Allen Lane.
- Ferris, A. 2003. Disembodied spirits: Spirit photography and Rachel Whiteread's “Ghost”. *Art Journal* 62(3), Autumn:44-55.
- Foucault, M. 1977. Intellectuals and power: A conversation between Michel Foucault and Gilles Deleuze, in *Language, counter-memory, practice: Selected essays and interviews*, edited by Donald F Bouchard. Ithaca: Cornell University Press.
- Foucault, M. 1986. Of Other Spaces. *Diacritics* 16, Spring:22-27.
- Foucault, M. 1984. [O]. Of other spaces (1967), Heterotopias, in *Architecture/Mouvement/Continuité* October. Available: <http://foucault.info/documents/heteroTopia.en.html> Accessed 15/09/2013.
- Foucault, M. 1989. Space, knowledge and power, in *The Foucault Reader*, edited by P Rabinow. Harmondsworth: Penguin:239-56.
- Foucault, M. 1998. Different spaces, in *Aesthetics : The essential works 2*, edited by J Faubion. London: Allen Lane:147-69.
- Frank, R. 1985. *Sobre Valencia 1950 (On Valencia 1950)*. Valencia: Institució Alfons el Magnànim.

- Frater J. 2012. [O]. *Memento Mori: Victorian death photos*. Available: <http://listverse.com/2012/10/24/memento-mori-victorian-death-photos/> Accessed 18/03/2013.
- Freud, S. 1961. The Ego and the Id, in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. Translated by James Strachey. London: Hogarth. Vol 19:11-21.
- Friedberg, A. 1990. A denial of difference: Theories of cinematic identification, in *Psychonalysis and cinema*, edited by EA Kaplan. New York: Routledge:36-46.
- Frings, MS (ed). 1993. *Gesamtausgabe*, volume 44. Frankfurt: Klostermann.
- Frizot, M (ed). 1998. *A new history of photography*. Bonn: Könemann.
- Fuss, A. 2002. [O]. *My Ghost in Fraenkel Gallery*. Available: <http://fraenkelgallery.com/publications/my-ghost> Accessed 28/03/.2013.
- Fuss, A. [Sa]. [O]. Available: <http://www.heimread.com/artists/adam-fuss> Accessed 22/10/2015. Gagosian Gallery [Sa]. [O]. Available: <http://www.gagosian.com/artists/thomas-ruff> Accessed 21/01/2013.
- Gallop, J. 1988. *Thinking through the body*. New York: Columbia University Press.
- Gandelman, C. 1991. *Reading pictures, viewing texts*. Bloomington: Indiana University Press.
- Gay, LR & Airasian, PW. 2002. *Educational research: Competencies for analysis and applications*. New Jersey: Prentice Hall. Garrick, IP. 2010. Ideology, diversity, and imprisonment: Considering the influence of local politics on racial and ethnic minority incarceration rates. *Social Science Quarterly*, 91(December):1063-1082.
- Geimer, P. 2010. *Bilder aus Versehen: Eine Geschichte fotografischer Erscheinungen*. Hamburg: Philo Fine Arts.
- Geimer, P. 2011. Self-generated images, in *Releasing the image: From literature to New Media*, edited by J Khalip and R Motchell. Stanford, CA: Stanford University Press.
- Gergen, KJ. 2000. *The saturated self: Dilemmas of identity in contemporary society*. New York: Basic Books.
- Gernsheim, H. 1982. *The origins of photography*. London: Thames & Hudson.
- Gettings, F. 1978. *The extraordinary story of spirit photography: Ghosts in photographs*. New York: Harmony Books.
- Gillespie, A & Cornish, F. 2010. [O]. Intersubjectivity: Towards a dialogical analysis. *Journal for the Theory of Social Behavior* (40)1. Available: <http://onlinelibrary.wiley.com/> Accessed 24/07/2015.
- Goldblatt, D. & Brown, LB (eds). 2005. *A reader in the philosophy of arts*. Second edition. New Jersey: Pearson Prentice Hall.

- Goldenberg, H & Goldenberg, I. 2008. *Family therapy: An Overview*. Belmont: Thompson Brook.
- Grande, JK. 2004. *Art nature dialogues: Interviews with environmental artists*. Albany, NY: State University of New York.
- Greenspan, E & Rose, J (eds). 2000. *Book History*. Volume 3. University Park, PA: Pennsylvania State University Press
- Grepstad, J. 1996. [O]. *Pinhole photography*. Available: <http://photo.net/learn/pinhole/pinhole> Accessed 24/04/2012.
- Grosenick U & Seelig, T (eds). 2008. *Photo art: The new world of photography*. London: Thames & Hudson.
- Guardian Unlimited. 2011. [O]. Available: <http://www.guardian.co.uk/pictures/image/0,8543,-11404347243,00.html> Accessed 18/04/2013.
- Guggenheim. 2013. [O]. Available: <http://www.guggenheim.org/new-york/collections/collection-online/artwork/9638> Accessed 16/05/2013.
- Gunning, T. 1995. Phantom images and modern manifestations: Spirit photography, magic theatre, trick films and photography's uncanny, in *Fugitive images: From photography to video*. Edited by Patrice Petro. Bloomington: Indiana University Press:42-64.
- Hammond, JH. 1981. *The camera obscura: A Chronicle*. Bristol: Adam Hilger.
- Hansen, MBN. 2004. *New philosophy for new media*. Cambridge, MA: MIT Press.
- Haraway, DJ. 2003. *The companion animal manifesto*. Chicago, IL: Prickly Paradigm Press.
- Haraway, DJ. 2008. *When species meet*. Minneapolis, MN: University of Minnesota Press.
- Harris, A. 1987. *A world unsuspected*. Chapel Hill, NC: North Carolina University Press.
- Harrison, C & Wood, P (eds). 1993. *Art in theory 1900-1990: An anthology of changing ideas*. Malden, MA: Blackwell.
- Hartley, LP. 1958. *The go-between*. Harmondsworth: Penguin.
- Hartshorne, C & Weiss, P (eds). 1931-35. *Collected papers*. Volumes 1-6 .Cambridge, MA: Harvard University Press.
- Hegel, GWF. 1975 [1842]. *Hegel's aesthetics: Lectures on aesthetics*. Translated by B Bosanquet, edited by M Inwood. Harmondsworth: Penguin.
- Heidegger, M. 1971. *Poetry, language, thought*. New York: Harpers & Row.
- Heidegger, M. 1977. *The question concerning technology, and other essays*. Translated by W Lovitt. New York: Harper &Row.

- Heidegger, M. 1992. *Parmenides*. Translated by André Schuwer and Richard Rojewicz. Bloomington: Indiana University Press.
- Heidegger, M. 1993. Parmenides in *Gesamtausgabe*. Volume 44, edited by Manfred S. Frings. Frankfurt: Klostermann.
- Hetherington, K. 1997. *The badlands of modernity: Heterotopia and other social ordering*. London: Routledge.
- Hirsch, ED. 1967. *Validity in interpretation*. New Haven, CT: Yale University Press.
- Holm, E. 2008. *Inseklopedie van Suider-Afrika*. Pretoria: Lapa.
- Holquist, M & Liapunov, V (eds). 1990. *Art and answerability, early philosophical essays by MM Bakhtin*. Translated by Kenneth Brostrom. Austin, TX: University of Texas:
- Howmanybillboards. [Sa]. [O]. Available: <http://www.howmanybillboards.org/susan-silton.html> Accessed 04/08/2012.
- Husserl, E. 1970. *Logical investigations*, 2 volumes. Translated by John Niemeyer Findlay. New York: Routledge.
- Husserl, E. 1973. *Zur Phänomenologie der Intersubjektivität, Aus dem Nachlass Dritter Teil* edited by Iso Kern. The Hague: Martinus Nijhoff:1929-35.
- Inwood, M (ed). 1975. *Hegel's aesthetics: Lectures on aesthetics*. Translated by B Bosanquet. Harmondsworth: Penguin.
- Irvine, M, 2012. [O]. *Photography to post-photography and the hybrid image: Overview of important directions in photography today*. Available: <http://faculty.georgetown.edu/irvinem/CCTP725/Photo-Post-Photo1.html> Accessed 20/1/2014.
- Jay, B. 1985. [O]. *In the eyes of the dead*. Available: www.billjayonphotography.com/Images%20in%20the%20Eyes%20of%20the%20Dead.pdf Accessed 18/03/2013.
- Jennings, MW, Howard, E & Smith G (eds).1999. *Walter Benjamin: Selected writings. Volume 2: 1927-1934*. Translated by R Livingstone. Cambridge, MA: Harvard University Press.
- Johnny, 2013. [O]. X-Ray portraits of couples by Ayako Kanda and Mayuka Hayashi, in *Spoon & Tamago*. Available: <http://www.spoon-tamago.com/2013/11/26/x-ray-portraits-of-couples-by-ayako-kanda-and-mayuka-hayashi/japanese-art,-design-and-culture> Accessed 01/12/2013.
- Johnson, P. 2006. Unraveling Foucault's 'different spaces', in *History of human sciences*. [O]. Available: <http://hhs.sagepub.com:75-90>. Accessed 01/08/2011.
- Johnson, P. 2012. [O]. Heterotopian studies. Available: <http://www.heterotopiastudies.com/author/peter-johnson/> Accessed 01/11/2012.
- Johnson, P. 2013. The geographies of heterotopia. *Geography compass* 7(11):709-803.

- Jonas, H. 1966. *The phenomenon of life: Towards a philosophical biology*. New York: Harper Row.
- Jones, A. 2006. *Self/Image: Technology, representation, and the contemporary subject*. New York: Routledge.
- Kaplan, EA (ed). 1990. *Psychoanalysis and cinema*. New York: Routledge.
- Kaplan, L. 2003. Where the paranoid meets the paranormal: Speculations of spirit photography. *Art Journal* 62(3), Autumn:18-29.
- Kay, L, Kinsley, Z, Phillips, T & Roughley, A (eds). 2007. *Mapping liminalities: Thresholds in cultural and literary texts*. New York: Peter Lang.
- Kelsey, R & Stimson, B (eds). 2008. *The meaning of photography*. Williamstown, NJ: Sterling and Francine Clark Art Institute.
- Kern, I (ed). 1973. *Zur Phänomenologie der Intersubjektivität, Aus dem Nachlass Dritter Teil*. The Hague: Martinus Neihoff.
- Khalip, J & Mitchell, R (eds). *Releasing the image: From literature to new media*. Stanford, CA: Stanford University Press.
- Krauss, R. 1978. Tracing Nadar. *Photography* (5), Summer:29-47.
- Krauss, R. 1994. *The optical unconscious*. Cambridge, MA: MIT Press.
- Krauss, R. 1997. X Marks the spot, in *Rachel Whiteread: Shedding Life*, edited by F Bradley. New York: Thames & Hudson:74-81.
- Kriebel, ST. 2007. Theories of photography: A short history, in *Photography theory*, edited by James Elkins. New York: Routledge:3-49.
- Kristeva, J. 1980. *Desire in language: A semiotic approach to literature and art*. New York: Columbia University Press.
- Lacan, J. 1977. *Écrits: A selection*. Translated by A Sheridan. London: Tavistock Publications.
- Lacan, J. 1981. What is a picture?, in *The four fundamental concepts of psychoanalysis*, edited by Jacques-Alain Miller. New York: Norton:105-122.
- Lambert, F (ed). 2011. *L'expérience des images: Umberto Eco, Marc Augé, George Didi Huberman*. Bry-sur-Marne:INA.
- Lang, T. 2007. *Shame and desire: Emotion, intersubjectivity, cinema*. Brussels: Peter Lang.
- Langford, M. 2007. *Scissors, paper, stone: Expressions of memory in contemporary photographic art*. Québec: McGill-Queen's University Press.
- Larita. 2012. [O]. *Jong Afrikaner: Roelof Petrus van Wyk*. Available: <http://artistabroad.wordpress.com/2012/07/06/jong-afrikaner-roelof-petrus-van-wyk/> Accessed 13/02/2013.

- Late fruit: Art matters*. 2011. [O]. Available: <http://latefruit.wordpress.com/2011/02/12/i-want-to-be-an-immersant/> Accessed 04/05/2013.
- Lechte, J. 1994. *Fifty key contemporary thinkers from structuralism to postmodernity*. New York: Routledge.
- Lechte, J. 2012. *Genealogy and ontology of the Western image and its digital future*. New York: Routledge.
- Lefebvre, M. 2007. The art of pointing: On Peirce, indexicality, and photographic images, in *Photography theory*, edited by James Elkins. New York: Routledge:220-244.
- Levi Strauss, D. 2003. *Between the eyes: Essays on photography and politics*. New York: Aperture.
- Lewis, VR. 2009. Isoptera (Termites), in *Encyclopedia of insects*. Second edition, edited by VH Resh & RT Cardé. Waltham, MA: Elsevier Science:535-539.
- Lister, M (ed). 2013. *The photographic image in digital culture*. Oxon: Routledge.
- Macleod, K & Holdridge, L. 2006. *Thinking through art: Reflections on art as research, innovations in art and design*. New York: Routledge.
- Mann, C. [Sa]. [O]. *The bone house*. Available: <http://www.zonezero.com/exposiciones/fotografos/witkin2/state.html> Accessed 12/03/2013.
- Manovich, L. 2001. *The language of new media*. Cambridge, MA: MIT.
- Manovich, L. 2003. The paradoxes of digital photography, in *The photography reader*, edited by Liz Wells. New York: Routledge:240-249.
- Marais, EN. 1970. *The soul of the white ant*. Cape Town: Human & Rousseau.
- Marien, MW. 2010. *Photography: A cultural history*. Third edition. London: Laurence King Publishing.
- Mathilde-Herve. 2009. [O]. *Peter-Joel Witkin*. Available: https://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=16&cad=rja&ved=0CHQQFjAP&url=http%3A%2F%2Fmathilde-herve.blogspot.com%2F2009%2F12%2Ftransgressive-art-why-are-we-as-society.html&ei=t_WpUYT1C4SThQffEQ&usq=AFQjCNEQGyqgAd3qyQekHwazlct2D T-xkQ&sig2=tagxZmT5Mimp5hXasJNeUQ Accessed 05/06/2013.
- Matthews, S. 2000. Psychological crystal palace?: Late Victorian confessions album, in *Book History*. Volume 3 edited by E Greenspan & J Rose. University Park, PA: Pennsylvania University Press.
- McLuhan, M & Powers, B. 1989. *The global village: Transformations in world life and media in the twenty-first century*. Oxford: Oxford University Press.

- McRobert, L. 2007. *Immersive virtual art and the essence of spatiality*. Toronto: University of Toronto.
- Meier, A. 2014. [O]. The camera as afterthought: Defining post-photography in *Hyperallergic* Available: <http://hyperallergic.com/153261/the-camera-as-an-afterthought-defining-post-photography/> Accessed 15/10/2014.
- Mercier, P. 2009. *Night train to Lisbon*. Translated by B Harshav. London: Atlantic Books.
- Merleau-Ponty, M. 2002. *Phenomenology of perception*. New York: Taylor Francis.
- Merriam-Webster Dictionary. [O]. Available: www.merriam-webster.com Sv 'advene', 'ludic'.
- Merwin, WS. 1993. *The Second Four Books of Poems*. Washington: Copper Canyon Press.
- Miller, JA (ed). 1981. *The four fundamentals of psychoanalysis*. New York: Norton.
- Mitchell, WJT. 1994. *The reconfigured eye: Visual truth in the post-photographic era*. Cambridge, MA: MIT.
- Montaigne, M. 1957. *The complete works of Montaigne: Essays, travel journal, letters*. Translated by DM Frame. London: Hamish Hamilton.
- Morell, A, 2007. [O]. *Abelardo Morell*. Available: http://www.abelardomorell.net/photography/cameraobsc_01/cameraobsc_21.html Accessed 10/08/2015.
- Nabokov, V. 1999. *Speak, memory: An autobiography revisited*. London: Alfred A. Knopf.
- Nadar, F, Tournachon, GF & Repensek, T. 1978. [O]. My life as a photographer. *Photography* (5), Summer:6-28.
- Newkirk, G. 2010. [O]. *The Daily Weird: On Ectoplasm*. Available: <http://whofortedblog.com/2010/11/01/on-ectoplasm/> Accessed 19/05/2013.
- Nietzsche, F. 2012. Untimely meditations, in *Introductions to Nietzsche*, edited by RB Pippin. Cambridge: Cambridge University Press:67-90.
- O'Neill, P. 2013. Visions on earth. *National Geographic* 125th Anniversary Collector's edition, October:122-131.
- Oxford Dictionary of Critical Theory*. 2010. Sv 'heterotopia', 'pheneomenology'. Oxford: Oxford University Press.
- Oxford Dictionaries. [O]. Sv 'muti', 'sangoma'. Available: <http://www.oxforddictionaries.com/> Accessed 2/10/2014.
- Peirce, CS. 1931-35. *Collected papers*. Volumes 1-6, edited by Charles Hartshorne and Paul Weiss. Cambridge, MA: Harvard University Press.

- Peirce, CS. 1955. [O]. *Philosophical writings of Peirce*. New York: Routledge and Kegan Paul.
- Petro, P (ed). 1995. *Fugitive images: From photography to video*. Bloomington, IN: Indiana University Press.
- Philosophy of Mind. [Sa]. Available:
<http://philosophy.uwaterloo.ca/MindDict/imagination.html> Accessed 20/07/2012.
- Philosophy*. 2013. [O]. Available: <https://uwaterloo.ca/philosphy/> Accessed 18/03/2013.
- Pippin, RB (ed). 2012. *Introductions to Nietzsche*. Cambridge: Cambridge University Press.
- Plato. 1977a. Theaetetus, in *Plato: Complete works*, edited by JM Cooper. Translated by MJ Levett & Rev MF Burnyeat. Indianapolis, IN: Hackett:157-234.
- Plato. 1977b. Timaeus, in *Plato: Complete works*, edited by JM Cooper. Translated by MJ Levett & Rev MF Burnyeat. Indianapolis, IN: Hackett:1224-1291.
- Plato. 2013. [O]. The project Gutenberg of *Timaeus*. Translated by B Jowett. Available:
<http://www.gutenberg.org/files/1572/1572-h/1572-h.htm> Accessed 08/08/2015.
- Plato. 1992. [O]. *The Republic*, edited by T Irwin. Translated by AD Lindsay. Vermont: Everyman.Poetry Foundation. Available:
<http://www.poetryfoundation.org/poem/171872> Accessed 10/05/2012.
- Pokroy, A. [Sa]. [O]. *I collect gingers*. Available:
<https://www.google.co.za/search?q=anthea+pokroy+i+collect+gingers&hl=en&tbm=isch&tbo=u&source=univ&sa=X&ei=N5WWUaXNltTT7AbIsYDwAQ&sqi=2&ved=0CFsQsAQ&biw=1241&bih=606> Accessed 05/04/2013.
- Pollock, G. 2007. *Encounters in the virtual feminist museum: Time, space and the archive*. London: Routledge.
- Powell, P. 1987. Hitting back, in *A world unsuspected*, edited by A Harris. Chapel Hill, CA: University of North Carolina Press:14.
- Q, Harry. 2012. [O]. *Ectoplasm in world of the paranormal*. Available:
<http://www.worldoftheparanormal.com/2012/12/ectoplasm/> Accessed 19/05/2013.
- Quan, RH. 1979. Photography and the creation of meaning. *Art Education* 32(2), February:4-9.
- Rabinow, P (ed). 1989. *The Foucault reader*. Harmondsworth: Penguin.
- Renner, E. 2009. *Pinhole photography: From historic technique to digital application*. Oxford: Elsevier.
- Resh, VH & Cardé, RT. 2009. *Encyclopedia of insects*. Second edition. Waltham, MA: Elsevier Science.

- Ribalta, J. 2008. Molecular documents: Photography in the post-photographic era, or how not to be trapped into false dilemmas, in *The meaning of photography* edited by R Kelsey and B Stimson. Williamstown, NJ: Sterling & Francine Clark Art Institute.
- Richie, D. 1995. The Japanese Ghost, in *Partial Views: Essays in contemporary Japan* by D Richie. Tokyo: Japan Times:81-87.
- Ricoeur, P. 2004. *Memory, history, forgetting*. Translated by K Blamey & D Pellauer. Chicago, IL: Chicago University Press.
- Rubenstein, D & Sluis, K. 2013. The digital image in photographic culture: Algorithmic photography and the crisis of representation, in *The photographic image in digital culture*, edited by M Lister. Oxon: Routledge:22-40.
- Rushdie, S. 1991. *Imaginary Homelands: Essays and criticism 1981-1991*. New York: Penguin.
- Sand, M. [Sa]. [O]. *Joel-Peter Witkin*. Available:
<http://www.zonezero.com/exposiciones/fotografos/witkin/jpwdefault.html>
Accessed 12/02/2013.
- Sartre J-P. 1984. *Being and nothingness*. Translated by H Barnes. New York: Washington Square Press.
- Sartre, J-P. 2008. [O]. Existentialism and human. Available:
http://www.philosophymagazine.com/others/MO_Sartre_Existentialism.html
Accessed 10/10/2015.
- Schalkwyk, D. 2014. Mandela, the emotions and the lessons of prison, in *The Cambridge Companion to Nelson Mandela*, edited by R Barnard. New York: Cambridge University Press:50-69.
- Schilder, P. 1950. *The image and appearance of the human body: Studies in the constructive energies of the psyche*. New York: International Universities' Press.
- Schoonhover, K. 2003. Ectoplasms, evanescence and photography. *Art Journal* 62(3), Autumn:30-43.
- Sekula, A. 1992. The body and the archive, in *The contest of meaning: Critical histories of photography*, edited by Richard Bolton. Cambridge MA: MIT:343-389.
- Silverman, K. 1996. *The threshold of the visible world*. Oxon: Routledge.
- Smith, C. 1997. *Robben Island*. Cape Town: Struik.
- Sontag, S. 1979. *On photography*. London: Penguin.
- Sontag, S. 2003. *Regarding the pain of others*. New York: Farrar, Straus & Giroux.
- South African Concise Oxford Dictionary*. 2008. Tenth edition. Cape Town: Oxford University Press. Sv 'Illusion'.

- Stevenson, J. 2005. *The complete idiot's guide to philosophy*. Third edition. New York: Penguin.
- Stibbe, A. 2012. [O]. Chance encounters: Ecology and haiku-inspired photography. Language and Ecology Research forum: Working Paper. Available: www.ecoling.net/articles Accessed 13/03/2013.
- Sullivan, G. 2010. *Art practice as research inquiry in visual arts*. Thousand Oaks, CA: Sage.
- Sutton, D, Brind, S & McKenzie, R (eds). 2007. *The state of the real: Aesthetics in the digital age*. London: I.B. Taurus.
- Szarkowski, J. 1989. *The photographer's eye*. New York: Museum of Modern Art.
- Tagg, J. 1988. *The burden of representation: Essays on photographs and histories*. London: Macmillan.
- Tarnas, R. 1991. *The passion of the Western mind: Understanding the ideas that have shaped our world view*. New York: Ballantine.
- Taussig, M. 1997. *The magic of the state*. New York: Routledge.
- Teffer, N. 2012. Touching images: Photography, medical imaging and the incarnation of light. *Photographies* 5(2), September:121-133.
- Thomas, NJT. 2004. [O]. *Imagination, mental imagery, consciousness, and cognition*. Available: <http://philosophy.uwaterloo.ca/MindDict/imagination.html> Accessed 28/06/2012.
- Thornton, R. 2009. The transmission of knowledge in South African traditional healing. *Africa: Journal of African Institute* 79(1):17-34.
- Trachtenberg, A (ed). 1980. *Classic essays on photography*. New Haven, CO: Leete's Island.
- Tudor, A. 2010. The holy ground: Liminality in the photograph, the corpse, and the physical space. *The International Journal of Humanities* 8(6):143-155.
- Turner, VW. 1967. *The forest of symbols: Aspects of Ndembu ritual*. Ithaca, NY: Cornell University Press.
- Turner, VW. 1982. [O]. *From ritual to theatre*. New York: Performing Arts Journal Publication.
- Unicorns Valley. 2012. Available: <http://unicornsvalley.tumblr.com/post/18542394145/the-kiss-le-baiser-joel-peter-witkin-new> Accessed 04/05/2013.
- Vattimo, G. 1992. *The transparent society*. Baltimore, ML: John Hopkins University Press.

- Van Dijk, J. 2007. *Mediated memories in the digital age*. Stanford, CA: Stanford University Press.
- Van Gennep, A. 1960. *The rites of passage*. Chicago: Chicago University Press.
- Van Huyssteen, W. 1987. *The realism of the text: A perspective on biblical authority*. Pretoria: Unisa.
- Vernant, JP. 2011. Semblances of Pandora: Imitation and identity. *Critical Inquiry* 37(3), Spring: 401-418.
- Vladislavic, I. 2011. *Double Negative: A novel*. Cape Town: Umuzi.
- Walden, S (ed). 2010. *Photography and philosophy: Essays on the pencil of nature*. Oxford: Wiley Blackwell.
- Wallace, A. 2012. [O]. Studio Portraits – Thomas Ruff (1958-). Available: <http://alastair27mancoll.blogspot.com/2012/11/studio-portraits-thomas-ruff-1958.html> Accessed 16/04/2013.
- Walton, KL. 2005. Transparent pictures, in *A reader in the philosophy of the arts*, edited by D Goldblatt & LB Brown. Upper Saddle River, NJ: Pearson Prentice Hall:76-90.
- Wartofsky, M. 1980. Cameras can't see: Representation, photography and human vision. *Afterimage* 7(9):8-9.
- Wells, L (ed). 2003. *The photography reader*. New York: Routledge.
- Wells, L. 2007. Navigating theory now, in *Photography theory*, edited by James Elkins. New York: Routledge:342-346.
- West, R (dir). 2013. Austerlitz. Read special 'Literature' issu [YouTube] Available: <https://www.youtube.com/watch?v=9m00MoJecKg> Accessed 12/08/2015.
- Westerveld, J. 2011. [O]. *Liminality in contemporary art: A reflection on the on the work of William Kentridge*. Available: http://www.gerritrietveldacademie.nl/files/scriptie2011/BK/BK_Westerveld.pdf Accessed 02/04/2013.
- White, W. 2005. [O]. *Alternative Photography*. Available: <http://www.alternativephotography.com/wp/processes/kallitypes/vandyke-notes> Accessed 05/06/2013.
- Witkin, JP. 1994. *Gods of earth and heaven*. Santa Fe: Twelve Trees.
- Wittgenstein, L. 1922. *Tractatus Logico-Philosophicus*. London: Kegan Paul, Trench, Trubner.
- Wolfreys, J (ed). 1998. *The Derrida reader: Writing performances*. Edinburgh: Edinburgh University Press.

APPENDIX A

Isoptera

To the average person on the street the intricate world of the super-organism known as the termite or *Isoptera* is not common knowledge. Only the external soil structure or mound is presented to the outside world indicating the location of the nest. However, away from view, a complex, finely balanced organism exists comprising of members of the colony, each with a very specific function³⁴

The “King” and “Queen” are the only two members of this colony of termites who are sexually active and thus able to procreate. The first offspring of this seasonal procreation are designated to the workers caste within the colony. Their development is suppressed with hormones leaving them blind and a-sexual. The majority of the termites in the colony are assigned to the workers caste. However, somewhere along future generations certain individuals are selected, fed and reared differently enabling the development of wings, eyes and sexual organs. They are specifically selected to propagate and start new colonies. At a specific time of the year, usually after good soaking rain the winged termites appear from underground to undertake a mating flight in order to propagate the species. These termites are only sexually effective after they have taken to flight. If they fail to fly and remain on the ground, they are rendered sexually ineffective. After the flight the female settles and immediately discards her wings. Subsequently she raises her abdomen to exhume pheromones attracting the males. A male will fly toward her and settle beside her discarding his wings. After mating has taken place they immediately start burrowing into the soft rain drenched soil to begin a new organism or colony of termites.

The primary or main couple (“King” and “Queen”) nurture their first offspring from the fat reserves on their bodies. As soon as the offspring are mature the King and Queen retire to their primal function namely to procreate. The queen becomes overly large and lays millions of eggs per day equivalent to her own body mass. The construction of the nest is designated to the workers who create a channel to the water source which is often located far below ground level. Nutrition for the colony is provided by creating gardens in cells within the nest. These gardens are constructed from mouldy dead wood. The

³⁴ For a comprehensive discussion on the Termite please refer to Holm, E. 2008. *Inseklopedie van Suider-Afrika*. Pretoria: Lapa Uitgewers; Marais, EN. 1970. *The soul of the white ant*. Cape Town: Human & Rousseau.

structures of these gardens resemble the intricate designs of coral gardens found in the oceans. The spores of fungi are propagated onto these coral-like structures and are chemically treated to inhibit the size of the fungi, similar to bonsai. The gardens are irrigated and looked after as these fungi are the food source for the whole colony. When the fungal gardens are depleted they are removed from the nest to grow into normal sized fungi. The spores of these normal sized fungi are harvested and sown once again to create new gardens within the nest. The ambient temperature and humidity needs to be constant in the nest for the optimal functioning of the termites as well as for growing the fungi. Air vents are located within the termite structure itself and are opened and closed, functioning as regulators.³⁵ In order to protect the colony from marauders such as humans and ant-eaters, there is also another caste, besides procreators and workers, into which some of the offspring are chosen: soldiers.

³⁵ Holm, E. 2008. *Inseklopedie van Suider-Afrika*. Pretoria: Lapa Uitgewers

APPENDIX B

Vultures

Contrary to the common belief that vultures pose a threat to farmers' livestock and that they are dirty, vultures have a crucial cleansing role to play by feeding on dead animals. They therefore clear potentially infectious carcasses from the veld. They also absorb anthrax that can potentially spread to livestock and humans. There is a hierarchical, yet collaborative approach to feeding between different vulture breeds: the stronger ones being able to open up carcasses and thus feeding first, but consequently also enabling smaller and shyer breeds to feed at all, and to fully clean out carcasses. Some breeds would feed on older carrion which others would not be interested in. The birds' characteristically white excrement serves as a natural disinfectant on the feeding site.

Vulture species show different habits of cleaning themselves after feeding, including washing and sunbathing. Vultures in captivity have been recorded to live between twenty and forty years; they are monogamous and mate for life, but only start breeding from age six or seven. The bond between partners can be so strong that they not only stay with each other during breeding, but all year round. The female is often dominant.

Almost all nine the different kinds of vulture occurring in southern Africa are endangered. Besides farmers' suspicion towards the birds, wind turbines and power lines pose a threat to their survival. Also, when vultures prey on the carcasses of predators which humans had killed by poison, or of livestock that had been treated with certain drugs, they die. Owing to their efficiency to spot carcasses, the birds are believed by some to possess the spiritual power of clairvoyance, sometimes resulting in them being captured and killed in the belief that eating their brains would pass on this capacity. A vulture mourns its deceased partner, which further slows down the natural breeding of these already-endangered birds.

The following websites provide more information on Africa's vultures.

- Vulpro.com
- <http://www.nikela.org/cape-vulture/>
- http://www.ted.com/talks/munir_virani_why_i_love_vultures?utm_source=email&source=email&utm_medium=social&utm_campaign=ios-share
- <http://africanraptor.co.za/?gallery=cape-vulture>
- <http://www.birdlife.org/datazone/speciesfactsheet.php?id=3379>

APPENDIX C

Dialogue in *Theaetetus*

In his dialogue, *Theaetetus*, Plato considers ways of retaining memory and examines the epistemology of memory. Plato discusses the possibility of using a wax tablet onto which our thoughts can be transposed and kept for remembering:

Socrates:

Now to begin, do you expect someone to grant you that a man's present memory of something which he has experienced in the past but is no longer experiencing is the same sort of experience he had? This is far from being true.

To clarify his statement Plato sketches a scene between Socrates and Theaetetus where the protagonist, Socrates, uses the analogy of a block of wax to explain his theory:

Socrates:

Now I want you to suppose, for the sake of the argument, that we have in our souls a block of wax, larger in one person, smaller in another, and of pure wax in one case, dirtier in another: in some men rather hard, in others rather soft, while in some it is of just the proper consistency.

Theaetetus:

All right, I'm supposing that.

Socrates:

We may look upon it as a gift, then, as a gift of Memory [*Mnemosyne*], the mother of the Muses. We make impressions upon this of everything we wish to remember [*mnēmoneusa*] among the things we have seen or heard or thought of ourselves; we hold the wax under our perceptions and thoughts and take a stamp from them, in the way in which we take the imprints [marks, *sēmeia*] of signet rings. Whatever is impressed upon the wax we remember and know so long as the image [*eidōn*] remains in the wax; whatever is obliterated or cannot be impressed, we forget [*epilelēsthai*] and do not know. (191d)

Socrates follows this line of dialectic and continues:

. . . that a thing which you both know and are perceiving, and the record of which you are keeping in its true line [*ekhōn to mnēmeionorthōs*] is another thing which you know . . . that a thing you both know and are perceiving and of which you have the record correctly in line as before, is another thing you are perceiving. (192c)

Returning to the analogy of the wax imprint Socrates explains:

Now when perception is present to one of the imprints but not to the other; when (in other words) the mind applies the imprint of the absent perception to the perception that is present; the mind is deceived in every instance . . . not in relations of the perceptions to one another, or of thoughts to one another, but in connecting [*sunapsis*] perception with thought. (195c-d)

Plato. 1977. *Theaetetus*, in *Plato: Complete works*, edited by JM Cooper. Translated by MJ Levett & Rev MF Burnyeat. Indianapolis: Hackett.