

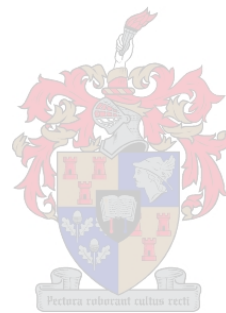
NEW TITLE

Traversing uncertain co-ordinates in search of alternative trajectories

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Supervisor: Marthie Kaden

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Comment [E1]:

Grey
Uncertain
Fleeting

DECLARATION

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ENGLISH ABSTRACT

This thesis traverses the complexities and entanglement of theoretical and practical processes in a Post-structural age. Through the deconstruction of stable systems of knowledge and thought, this age has become synonymous with uncertainty. In an attempt to navigate a time of continual change, Foucault proposes a toolkit. Foucault advocates deconstruction, critical engagement and reflection. In addition to these tools, this thesis moves through genealogical, mapping, archaeological and glass (blowing) methodologies. My practice cannot be separated from theory, it is excavated concurrently. Foucault, Derrida, Nietzsche, Deleuze and Guattari open up knowledge systems in an effort to uncover alternative thought trajectories and create a space in which complexity can exist. Knowledge circulating in this space is not fixed, it manifests in moments. My practical project, *Fleeting Certainty*, also aims to create an open space. It does not culminate in one, autonomous work, but is rather an archive of moments. Viewers will also be equipped with a toolkit of light and lenses with which to create moments of their own. Therefore moments will generate continuously. These theoretical and practical processes do not culminate in a coherent conclusion. There is a pause, a comma, but there are many more trajectories or lines to follow.

AFRIKAANS ABSTRACT

Hierdie tesis deurkruis die ingewikkeldhede en verstrengeling van teoretiese en praktiese prosesse binne 'n Post-strukturele tydperk. Hierdie tydperk het, deur die dekonstruksie van stabiele stelsels van kennis en denke, gelykstaande aan onsekerheid geword. In a poging om 'n tydperk van voortdurende verandering te verken, stel Foucault sekere hulpmiddels voor. Foucault bepleit, dekonstruksie, kritiese betrokkenheid en besinning. Benewens hierdie hulpmiddels, maak hierdie tesis gebruik van genealogiese, karterings-, argeologiese en glas (blaas) metodologieë. Die praktiese komponent van my werk hou ten nouste verband met die teoretiese en kan nie van mekaar geskei word nie. Foucault, Derrida, Nietzsche, Deleuze and Guattari stel kennisstelsels oop in 'n poging om alternatiewe gedagtegeenge te ontbloot en skep 'n ruimte waarin kompleksiteit kan bestaan. Kennis wat in hierdie ruimte bestaan, is nie vas of bepaald nie, maar kom in oomblikke voor. My praktiese projek, *Fleeting Certainty*, poog ook om 'n 'oop' ruimte te skep. Die projek loop nie uit op een selfstandige werk nie, maar dien as 'n versameling of argief van oomblikke. Kykers sal ook toegerus word met hulpmiddels in die vorm van lig en lense waarmee hulle oomblikke van hul eie kan skep. Oomblikke sal dus voortdurent geskep word. Hierdie teoretiese en praktiese prosesse loop ook nie op 'n samehangende gevolgtrekking uit nie. Daar is 'n pouse, 'n komma, maar daar is baie meer bane of lyne om te volg.

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PREFACE

This thesis was prompted by uncertainty. Then again, uncertainty is an experience intrinsically linked to the twenty-first century. As we move further away from a structured, stable, linear existence towards deconstruction, interconnectivity and complexity, we have become sceptical and critical. My studies at the Stellenbosch University are the structures I am departing from, and the journey ahead is uncertain. I need guidelines, directions, or maps. My Bachelor's research article *Cartography, Narratology and the Rhizome: A critical analysis of maps as knowledge systems* (2011) offered that initial navigational language. This research did not culminate in a coherent conclusion, it rather uncovered further complexities and questions. These complexities and questions were made even more apparent when I spent a year in the Glass Department at the Gerrit Rietveld Academie in Amsterdam. Working in a new city, and a new medium (glass blowing), the possible trajectories to follow from visual arts increased tenfold. Where to go and what to do next could be answered in multiple ways, no one answer more correct than the next. This discovery was liberating, and terrifying.

Immersed in a fog of uncertainty, I needed tools, strategies, and systems to forge ahead. Foucault offers a toolkit (1979), an invaluable resource for working in times of continual change (Rowan and Shore 2009: 57). Foucault advocates deconstruction, reflection, decentring and critical engagement. Although these sound like violent, anarchic actions, I employ them tentatively and humbly. Armed with a toolkit of this kind, theory and practice cannot be addressed as separate units. Theory and practice are rather two co-ordinates on a map with a sprawl of uncharted territory between them.

Therefore what follows is practice based research. I can also not be separated from the theory and practice. I am not central to this research, but a subject of it. My own subjectivity is called into question.

The parameters of research spanning theory, practice and self must remain open and flexible, hence the **horizontal** format of this text.¹ This format is less restrictive, creating space for the readers' ideas to exist and circulate too. The inclusion of footnotes *and* comments are a reminder of the interconnected, complex networks of today. In the introduction the comments indicate subheadings, but in all other chapters they act as hyperlinks, listing related ideas and other possible trajectories. These hyperlinks do not necessarily illuminate new ideas, but rather weave threads through the writing and encourage reflection. The literature covered in this text includes many secondary texts. Although I did engage with primary texts, the secondary texts are important as they are a reminder of a different perspective or interpretation, an alternative way of seeing. Secondary texts also remind readers not to privilege original works. I aim to draw lines and paths between multiple voices and interpretations, theories, concepts, my practice and myself through this horizontal format. Each page is textural rather than textual (Derrida 1967b: xv). Key concepts are highlighted in grey throughout, punctuating the text and allowing a subtle distinction between these concepts and the rest of the text, without overshadowing surrounding text. Grey is the colour synonymous with uncertainty, a colour spanning the infinite spectrum between black and white.

This text is to be read with a toolkit of images and lenses. The images are listed in a separate bind but perforations allow each image to be torn out, arranged and rearranged. The glass lenses are covered in

¹ I refer to this thesis as a text. The word 'text' is derived from the Latin *textus* and *texere* meaning texture or woven (Hanks 1979: 1504).

Comment [E11]:
Landscape
Open
Exploration

different lines. The lenses are transparent, but remind us of how we apply rules of perspective in order to perceive the world. The lines engraved on the glass draw connections (and divisions) across the text. The lenses can also be arranged and rearranged. They encourage new relationships between seemingly unrelated ideas. But new does not mean to suggest originality. Rather it refers to things already existing but seen, experienced, or acquired recently; an alternative way of seeing.

My latest body of practical work, *Fleeting Certainty*, aims to create an open space for interpretations and navigation similar to this text. I operate in the space, but do not control it. The project will not culminate in one autonomous work; a full stop work. It will be a collection of many works, each capturing moments, no moment more important than the next. Although fleeting, moments do exist and are certain. My works capture some moments, but the viewer will also be given a toolkit of light and lenses to traverse the space. The viewers can therefore create their own moments. And because a smartphone is becoming a standard tool for navigating the complex networks of our connected world, I will ask viewers to capture their moments and upload them onto Instagram, *#fleetingcertainty*. Moments will generate continuously, suggesting an ending punctuated by a comma rather than a full stop.

Writing and creating in the realm of uncertainty has meant that I have lost my way a few times, but in losing my way I have found new things.

Perhaps following uncertainty is just an alternative way of navigating.

Comment [E12]:

Straight
Wandering
Confident
Tentative

INTRODUCTION

Genealogy is gray, meticulous, and patiently documentary. It operates on a field of entangled and confused parchments, on documents that have been scratched over and recopied many times.

(Foucault 1977: 139)

[Grey] is not an inspiring colour, it describes the sprawl between black and white. It is every tint and shade between black and white. Grey occupies an uncertain space. In *Nietzsche, genealogy, history in Language, counter-memory, practice: Selected essays and interviews* (1977), Michel Foucault describes Friedrich Nietzsche's notion of genealogy² as "gray", but immediately follows with the word "meticulous". The juxtaposition of these two words perhaps describes a lens through which this text should be read. My research endeavour is steeped in uncertainty, in greyness, but this does not deem it futile. Meticulous knowledge can exist amidst greyness. Western³ knowledge has long been contained and disseminated in stable units,⁴ determined by author, discipline and time. In the context of the twenty-first century, the rate at which knowledge is generated and the exponential increase in authors has rendered these units inadequate. Historically, authorship was restricted to an educated

² Genealogy is a methodology employed by both Nietzsche and Foucault. Genealogy is not in opposition to history but "rejects meta-historical deployment of ideal significations and indefinite teleologies". It is against the search for origins (Foucault 1977: 140). This methodology is to be expanded on later in this chapter, and in the following chapter, GENEALOGY.

³ Throughout this text, 'Western' refers to a position of privilege and power. 'Western' is synonymous with Metropole, Europe, Male, White, North, Wealthy, Industrial, Urban (Pickles 2006: 181).

⁴ Nietzsche describes these units of knowledge in terms of the apparent concrete figures in which they manifest; theories, books, philosophies (Van Tongeren 2000: 168).

Comment [E13]: BACKGROUND

handful, but today the internet and/or self-publishing possibilities makes anyone and everyone an author. Having shattered these units, knowledge is circulating in an unstable, grey configuration, but it has not lost value. It is the way in which we expect to acquire and interpret knowledge that is shifting. In an attempt to navigate this shifting space, I traverse my own theoretical and practical projects, gathering tools through genealogical, mapping, archaeological and glass (blowing) methodologies. This gathering process has no end in sight. It has many ends. Those ends may lead me along alternative routes and in turn be the beginning of something new.

Western knowledge has not only been hemmed in by the units in which it exists, but also through the apparent unit of language. Language has held strong for centuries. It has been considered an impartial tool, a stable structure that denotes knowledge. Swiss linguist and semiotician Ferdinand de Saussure describes language as a system of units in which each unit has a fixed place and meaning. He calls these units *signs*. Saussure's model proposes that the sign is made up of two elements; a signifier and a signified (Cilliers 1998: 42). These signs generate meaning through a system of relationships between signifier and signified. However, these relationships are not natural, they are arbitrary. Saussure separates this system of signs from its users, allowing it to appear stable. Although Saussure alludes to complexities embedded in language when describing meaning through relationships, he maintains that language operates as a closed system (Cilliers 1998: 43).

French philosopher Jacques Derrida advocates deconstruction of the Saussurean model⁵ in order to reveal these complexities systematically masked by language. He recognises the importance of understanding language in terms of constructed signage, but is quick to highlight inadequacies. Derrida suggests that language is culturally and politically encoded, bound to the context of its user. He therefore sets about deconstructing language (Lechte 1994: 109). One sign might have multiple interpretations in different contexts. It is in recognising the importance of these *different* contexts that Derrida arrives at his notion of *différance*, a play on the French word *differer* meaning to differ and to defer (Lechte 1994: 105). Meaning is often determined through difference, it does not exist in isolation but is defined in relation to that which it is not. Language also postpones or defers meaning. Instead of operating in a closed system, language exists in an open system (Cilliers 1998: 43). If language is an open (Derrida) rather than a closed (Saussure) system and relationships are in constant flux, it is challenging and perhaps even contradictory to state anything permanent or specific. However, *différance*, or the play of signifiers, creates “pockets of stability” (Storfborg 1988: 224 cited in Cilliers 1998: 43). Language is not permanent, it is a process; a process similar to continuously gathering tools with which to navigate a shifting space.

The transition from Saussure to Derrida is further articulated through the shift from Structuralism to Post-structuralism. Structuralism is built on the stable foundation previously offered by language. The name of this framework alone alludes to a rigid configuration. If there is a discernable structure, that structure surely has a centre, a point against which to differ, relate and measure. Western thought is described similarly, it is *logocentric*. Logocentrism describes a static arrangement of knowledge, one

⁵ Saussure’s model is expanded upon by many linguists and semioticians, but it is Derrida’s expansion that is most relevant to this text.

Comment [E14]: THEORETICAL FRAMEWORK

that places *logos*, the word, as the central pivot (Derrida 1967a: lxix). However, if a structure is deconstructed, a centre becomes redundant. Derrida deconstructs this logocentric system and is therefore called a Post-structuralist. Deconstruction reveals the inadequacies of a system that if even slightly disturbed, loses its functional capacity. These inadequacies form the complex underbelly of language (and signs) that Derrida and other Post-structuralists explored; that which has remained in the shadows.⁶ Derrida describes the vast ‘shadowscape’ hidden beneath language as enmeshed in discourse. Discourses are sets of statements that constitute how the world can be known; “practices that systematically form the objects of which we speak” (Foucault 1972: 49). In the absence of a centre, everything becomes a discourse (Derrida 1967a: 354). Therefore Nietzsche advocates knowledge transmission being understood from discourses, different perspectives (Van Tongeren 2000: 130).

Navigating through shadows certainly involves stumbling, and perhaps additional navigational tools. Foucault proposes a [toolkit] with which to approach this darkened domain. Foucault advocates questioning and criticising definite claims of universal truth and reason, scepticism of stable systems (Rowan and Shore 2009: 62).

All my books... are little tool boxes... if people want to open them, to use this sentence or that idea as a screwdriver or spanner to short-circuit, discredit or smash systems... including those from which my books have emerged... so much better!

(Foucault 1979: 115)

⁶ Foucault once described his personal life in terms of shadows, “[he] felt excluded, not really rejected, but belonging to the shadows of society” (O’Farrell 2005: 20).

Foucault therefore introduces discourse analysis. Language (and therefore knowledge) cannot exist outside of discourse. According to Foucault, discourse analysis is archaeological; it is not “a theory of the knowing subject, but rather a theory of discursive practice” (Foucault 1970: xiv). Archaeology encourages one to “reconstitute the general system of thought whose network... renders an interplay of simultaneous and apparently contradictory opinions possible” (Foucault 1970: 75). An archaeological analysis suggests the unearthing of an archive, not so as to discover truth or origin, but rather to uncover the structures organizing the archive (Mills 1997: 49 cited in Rowan and Shore 2009: 63). Foucault goes further to suggest that knowledge should not be inhibited by structures or historical bounds. He therefore elaborates on Nietzsche’s genealogical methodologies. Genealogy exposes how knowledge descends from a certain, stable history. However, there are multiple histories intertwined with knowledge, knowledge at a given time is only one possible interpretation (Van Tongeren 2000: 141-142). In order to shed light on a plethora of other possible interpretations, multiple discourses or perspectives should be observed. To address this multiplicity, we must address perhaps the most important tool, the self.

If we consider a Post-structural, deconstructive strategy, human identity is surely collateral damage. We define ourselves according to apparently stable systems encoded through language, but if these systems are being dissembled and decentred, so too is identity. The self must be stripped of the “creative role and analysed as a complex variable function of discourse” (Foucault 1977: 138). Research should observe complexity in conjunction with a reflexive engagement with the self. Foucault therefore extends research endeavours beyond traditionally academic disciplines. Foucault’s works are personal, political, historical *and* practical: “each of my works is part of my own biography, [...] I... feel and live those things” (Martin 1988: 11 cited in Rowan and Shore 2009: 61). As a result,

Foucault also dismisses a theory-practice binary (Rowan and Shore 2009: 61). Research should be encased in a polyhedron, the number of whose faces is not given in advance and can never properly be taken as finite (Foucault 2003: 249).

Through employing certain aspects of Foucault's toolkit, while continually adding and mixing other tools or methodologies; I **aim** to become a particular kind of thinker/knower. A thinker actively engaged with systematic change, while also knowing the extent to which my own subjectivity is enmeshed in thinking (Foucault 1972: 130). Balancing these tensions involves a degree of self-belief, and perhaps more importantly, self-doubt. A Foucauldian toolkit is not a means to reduce fragmentation and complexity. It requires onerous introspection and historical awareness. It is a slow process that demands creativity and a willingness to let go of preconceptions and travel through uncertainty (Rowan and Shore 2009: 71).

Can uncertainty perhaps then be reconsidered as both liberating and **terrifying**? If we are decentred, our surrounds deconstructed and we are struggling to express ourselves amidst greyness; we need new tools, a new way of thinking. Again, newness does not mean to suggest originality, but rather that which already exists but is only recently seen, experienced or acquired. Newness alludes to alternative, uncertain trajectories.

How does anything new begin? If departure, route and destination are all known and fixed, knowledge might be reproduced, but it will not be new. There is always an impending uncertainty. Although knowledge without *any* context is no better than reproduced knowledge; knowledge must be graspable, even if only for a moment. Mapping methodologies were therefore an early addition to

Comment [E16]: AIMS

Comment [E17]: RESEARCH QUESTION

my Foucauldian toolkit. Equipped with a mind full of overlapping geographies, topographies, contour lines, travels and experiences; I set about mapping the greyness associated with uncertainty. Mapping is not only a physical act of drawing lines to connect and demarcate lands, I employ it as a connective metaphor and a vocabulary with which to articulate complex relationships. My maps cannot be unrolled, laid out on a table, read and then rolled up again and put away. Nor can they be put in a frame behind a piece of glass and hung on the wall; or be bound in an atlas or zoomed in and out of behind a computer screen. They cannot be found on the walls of caves, or seen in the stars. Nor drawn in the earth or captured in a photograph or drawing of a time and place. While it cannot be any one of these definitions of a map, it is all of them layered and shifting together, and many more. Mapping is a methodology.

Although I will expand and problematize the definition of map in this text, a typically Western understanding of the term aligns itself with rigorous sciences and mathematics. Western maps offer a system with which to enter a space; they are meticulous. It is no wonder that my research began with Western maps. An uncertain, grey space hardly encourages navigation, and if it does, the tools used to access that space often end up reducing the complexities of such a space. An example of this is a typical colonial map (Image 1). These maps were a means in which foreign lands, peoples and cultures could be accessed, applying a familiar language to an unfamiliar space. The indigenous knowledge of the apparently uncivilised lands upon which these Western maps were imposed was largely lost as a result of the scientific, reductive nature of these maps. However, we cannot simply condemn and then discard this method of accessing space. A similar methodological shift is evident from Saussure to Derrida, and Structuralism to Post-structuralism. There is no harm in beginning with that which we already know, but perhaps we should loosen the grip on the former tools and

methodologies, tool and then retool continuously so as not to privilege any certain set or method and keep possibilities open.

Consequently, I started exploring mapping methodologies by studying Western colonial maps, then expanding to include a seemingly opposing indigenous understanding.⁷ Western maps are considered cartographic, synonymous with a stable grid, while indigenous maps are narratological. Indigenous maps encourage multiple interpretations, are fluid and dynamic, serving as visual cues rather than a set of facts. Even as the understanding of a map is expanded, neither the Western nor the indigenous understanding is adequate, each mere parts of a more textured understanding. Gilles Deleuze and Felix Guattari introduce the term *rhizome* to articulate texture or complexity. A rhizome (Image 2) is a botanical term used to describe “a horizontal creeping stem lying on or under the ground from which shoots arise or spread and roots descend” (Moriarty and Barbatsis 2007: n.p.). A rhizome has no obvious start or end point, it is a tangled network of roots. Therefore if used to describe a map, the rhizomatic map might be described as “open and connectable in all of its dimensions... [i]t can be torn, reversed [and] adapted to any kind of mounting” (Deleuze and Guattari 1987: 12). A rhizomatic map is Western and indigenous, and able to expand and adjust to include additional maps.

In studying these maps, there is an intrinsic link to be found between maps and knowledge systems. As I have suggested, a Western map is cartographic; it is scientifically and mathematically bound within a stable grid. Western knowledge is similarly structured, synonymous with rationality and universal notions of truth and reason. An indigenous map is narratological and dynamic, much like

⁷ From this point hence, ‘indigenous’ refers to local people and customs subject to Western colonialists. In the MAPPING chapter, southern African Bushman drawings and paintings are an example of indigenous maps (Images 12-14).

indigenous knowledge is typically fluid and open. Then perhaps rhizomatic maps are a more accurate representation of Post-structural knowledge systems. In order to articulate systems of this kind, the **theoretical framework** can be expanded to include Complexity Theory. Complexity Theory describes contingent interaction amongst constituents of a complex *system*. Paul Cilliers states that a complex system is comprised of multiple parts, interacting dynamically and changing with time (1998: 3). The interactions are non-linear, looping and open. They have a history but are also directed by the present; history does not define or limit interactions (Cilliers 1998: 4). Parts of a complex system respond to local constituents rather than trying to understand the system as a whole (Cilliers 1998: 4). Knowledge generated in a complex system is a process. “This process is dialectical – involving elements from inside and outside – as well as historical, in the sense that previous states of the system are vitally important” (Cilliers 1998: 11). Complexity Theory therefore describes a space in which Structuralist, Western or indigenous maps/knowledge can exist together with Post-structural, rhizomatic maps/knowledge.

Comment [E18]: THEORETICAL FRAMEWORK

Whether Western, indigenous or rhizomatic, maps are typically visualised through different types of **lines**. Western maps (and knowledge) move along straight lines, these lines suggesting stability, reason, certainty, authority and discernable direction (Ingold 2007: 167). A straight line can be drawn between known departure and arrival co-ordinates. Even if the physical route travelled wavers from the straight, we can still understand the relationship between two known places through the imaginary line connecting them. The passage of history, generations and time are also understood as essentially linear (Ingold 2007: 2). The English vocabulary further endorses the Western straight line by relegating divergences; “the *twisted* mind of the pervert, the *crooked* mind of the criminal, the *devious* mind of the swindler and the *wandering* mind of the idiot” (Ingold 2007: 153). Indigenous maps and

Comment [E19]: LINE METHODOLOGY

knowledge systems introduce dynamic lines, lines interwoven with landscapes rather than imposed. In a Post-structural context, maps and knowledge systems are rhizomatic. Straight lines (Western) and dynamic lines (indigenous) are just some of the lines at play in this context. Lines are therefore even more intricately woven and tangled.

Navigating a tangled web is a daunting prospect. Where does a journey in a space like this begin? Similar to beginning with Saussure, Structuralism, Western maps, straight lines and then expanding into Derrida, Post-structuralism, rhizomatic maps and tangled lines; it seems wise to begin with that which is simpler, better known, or more recognisable. When [mapping], again I employ mapping as a connective metaphor and methodology rather than a literal practice, I begin with the straight lines, but without allowing these parameters to limit trajectories. They are only guidelines. Therefore my early maps are perhaps built on steel grid lines, static and sturdy. The restriction of such grid lines becomes rapidly apparent as my understanding of mapping expands, so these steel grid lines are done away with. The steel lines are replaced by clear glass, the transparency of the material allowing a conversation between distant co-ordinates. Even though these grid lines are restrictive, rapid and undirected expansion of my understanding of mapping shatters the glass grid lines. It seems impossible to predict the shatter pattern, if it could be called a pattern at all. What remain are multiple piles of glass. Yet nothing is lost in this process, it is simply a new configuration. To access this configuration, one might wander through the dispersed piles, picking up shards from various co-ordinates and arranging them into momentary mosaics. These maps are fragile, but there is still certainty in fleeting arrangements. The lines are no longer straight, but there are new or alternative lines to be mapped and followed.

Comment [E20]: MAPPING
METHODOLOGY

Archaeological methodologies also begin with straight lines. Before even entering a dig site, a survey of the space is conducted. An archaeologist then strings up a grid over the space. That grid only covers one dimension, there is also a stratigraphic study that takes place. Stratigraphy 'draws' multiple horizontal grids of the space, revealing the make-up of the layers (stratum) concealed below the surface. These grids are not barriers, they are guidelines. And even with the reference of these lines, they are just that, references. What is excavated is largely unpredictable. Each time a new layer is unearthed, the whole space is disturbed. The dig site becomes a shifting, layered space, revealing and concealing knowledge as the process unfolds. For the purpose of this text, my own art practice is described as a metaphorical dig site. Before entering this space, I draw lines in the form of lists. These lists describe the possible scope of a practical project, areas of interest, related research, or timelines. They develop continuously, items added and eliminated, the lines used to cross out items creating a new set of lines themselves. However, even the final list is an illusion. The process of creating is hardly one to be determined by a series of straight lines. When a list or straight line comes to an end, does that mean the creative process is finished? Each of these ends might be the beginning of another, alternative process.

Comment [E21]: ARCHAEOLOGICAL
METHODOLOGY

Glass⁸ blowing is perhaps a methodology to be used to imagine creative lines. A glass blower gathers layers of hot glass from a furnace. Traditionally, the gathers are manipulated to create vessels, but I traced lines of hot glass over these vessels too. I blew then collapsed and re-inflated the vessels

Comment [E22]: GLASS METHODOLOGY

⁸ Derrida wrote a book called *Glas* (1974). It combines a reading of Hegel's philosophical works and of Jean Genet's autobiographical writing. The book is structured in two columns in different type sizes, one about Hegel and the other about Genet. There are also quotations and side notes weaved throughout. The two column format perhaps also opens space for excluded thoughts and texts (Sturrock 1987). Derrida's format relates to the format I have chosen for this text.

repeatedly, creating a series of lines between points of connection on the inside walls.⁹ This creative process generates a complex web of lines with no discernible start and end points. The extreme heat of the glass causes the drawn lines and surface to melt into one another, obscuring these start and end points. The transparent quality of glass is also pertinent to this text. Although transparent, clear glass is still a lens, even in its purest form. Light traveling through glass is always distorted. Similarly, Post-structuralism discusses a distortion of knowledge. Knowledge only appears stable because of the logocentric Western lens through which we see. Knowledge is never unmediated; it is transmitted through language and therefore discourse (Foucault 1972: 49). Glass is therefore a reminder of the caution with which we should approach knowledge. However glass is also to be considered in a more positive light, it is a way of integrating multiple lenses or perspectives because of this transparency.

If the ideas of Nietzsche, Foucault, Saussure, Derrida, Deleuze, Guattari and Cilliers¹⁰ were each drawn onto separate sheets of glass but then stacked together, this might describe an additional lens through which to read this text. These philosophers¹¹ are gathered in a **genealogical** discussion in the Genealogy chapter, but before revolting at the insinuated linearity of genealogy, it is a Nietzsche or Foucault tinted genealogy. This method exposes the apparent stability of knowledge; we often see a singular interpretation of knowledge when there might be other possible interpretations. (Van Tongeren 2000: 141-142). These single interpretations are not incorrect, but they suggest a unity regardless of the complexity of the knowledge when they are only momentary articulations of that knowledge (Van Tongeren 2000: 168).

⁹ This method is to be described at length in the GLASS chapter.

¹⁰ The list will continue to grow throughout this text.

¹¹ They are called philosophers for the purpose of this text, but are also considered, amongst other things, historians of ideas, social theorists, philologists, literary critics, (visual) anthropologist and cyberneticists.

Comment [E23]: GENEALOGICAL
METHODOLOGY

Nietzsche suggests that books or texts are a tool used to present complexity in a simple manner (unit), but if we are mindful of this, a literature review still has credibility. Perhaps the Genealogy chapter will serve as a reminder of the complex, interwoven nature of knowledge as philosophers ‘converse’ with one another across the apparent parameters of their specific fields of research. The chapter begins with Nietzsche, proposing linear history as the reason for this departing co-ordinate, but Nietzsche is in fact one of the last philosophers I added to the conversation. For the purpose of the chapter, this linear history is just the controlled variable. Similar to my inclination to list before beginning any process or practice, I construct a stable means of accessing the inherent complexity of the research domain; that is introducing philosophers in a chronological order. Deleuze and Guattari were in fact my point of departure. From there I wandered about between these philosophers, guided by chance connections rather than a premeditated journey.

Gilles Deleuze¹² and Félix Guattari introduce the botanical rhizome in their collaborative endeavour, *A thousand plateaus: Capitalism and schizophrenia* (1987). Rhizomatic thought departs from vertical or linear lines of thought, rather advocating trans-connection¹³ or wanderings. Deleuze and Guattari suggest a shift away from either/or logic and instead offer ‘and... and... and...’¹⁴ as a means of exploring knowledge (1987). Deleuze and Guattari’s use of the term *nomadic* also alludes to this shift. Nomadic has previously been used to describe tribes of people that are “between [encampments]”,

¹² Deleuze regards Nietzsche as an “exemplar of the active philosopher... and an artist who creates a new image of thought and invents new forms for its articulation” (Bogue 1989: 19).

¹³ The Latin prefix ‘trans’ denotes transgressing the boundaries defined by traditional disciplinary modes of inquiry (Brown [et al.] 2010: 19).

¹⁴ This is similar to Derrida’s *différance* discussed earlier in this chapter.

continuously moving from one place or home to another (Bogue 1989: 11). Nomadic thought is therefore used to describe thought that is not limited by boundaries; it is not fixed but rather dynamic and mutative. Deleuze and Guattari advocate an opening up of the mind, encouraging multiple thought trajectories.

Aby Warburg might call this 'opening' *denkraum*. *Denkraum* suggests a space in which thoughts can wander, a space for contemplation (Wedepohl 2014: n.p.). Warburg's *Mnemosyne Atlas* (1929) provides a means of imaging this space. It is also imperative in expanding my understanding of a map (or atlas). Warburg's atlas was born out of his library, a library that went beyond the border control of disciplines and was arranged and rearranged continuously. Warburg himself was essential to this configuration. *Mnemosyne Atlas* was an extension of this open system of ordering that facilitated relationships between seemingly unrelated images through constant rearrangement. There were always new connections to be found. Georges Didi-Huberman's exhibition, *Atlas: How to carry the world on one's back?* (2011), worked similarly in creating a space in which difference could co-exist and multiply. In this exhibition, the display was not bound to a linear history, different epochs were juxtaposed and orders disrupted. Warburg and Didi-Huberman created chronologically inconsistent and anachronistic atlases.

This approach to history and art is explored further in Didi-Huberman's *Picture = Rupture: Visual experience, form and symptom according to Carl Einstein* (2007). With specific reference to art history, Didi-Huberman suggests that "as a discipline [it] should [...] oscillate and scintillate, if it does not wish to lose sight of the temporal [complexities]" (2007: 16). In his book *Confronting images: Questioning the end of a certain history of art* (2004), he expands even further to describe an 'underside'

of visual representation. Didi-Huberman states that images are restrictive and contradictory because they are made up of legible signs, signs to be ingested in a Saussurean manner. He therefore encourages exposing this ‘underside’, unearthing images from these bounds.

Foucault describes Warburg and Didi-Huberman’s atlases as “archaeology of visual knowledge”.¹⁵ These atlases disrupt the surface – a Saussurean, Structural, linear reading of knowledge, in attempt to reveal the underside. Foucault’s methods stretch the dimensions of knowledge and interrogate its arrangement in *The order of things: An archaeology of the human sciences* (1970). Foucault further adds to his interrogative toolkit in *The archaeology of knowledge* (1972) and *Discipline and punish: the birth of prison* (1977). Archaeological methodologies are suggested in the titles of the first two books. Foucault states that archaeology entails a reconfiguration of knowledge systems to allow for simultaneity and contradiction (1970: 75). Foucault is also critically aware of his own subjectivity and how it colours any reconfiguration. He therefore introduces discourse as the lens through which subjectivity results. Discourses are sets of statements that constitute how the world can be known; “practices that systematically form the objects of which we speak” (Foucault 1972: 49). Our own subjectivity is enmeshed in discourse and we must therefore maintain a level of self-reflexivity so as not to privilege one discourse and perpetuate linear knowledge transmission.

It is through Foucault that I arrive at Nietzsche. Nietzsche too calls discourse into question, but instead describes it as perspectivism. Nietzsche explores how knowledge descends from a certain,

¹⁵ This descriptor is a paraphrasing of Foucault’s words. It has been used time and time again to describe Warburg’s atlas but the exact reference as to when and where Foucault made this statement is uncertain.

stable history or perspective. His book *On the genealogy of morals* (original publication 1887)¹⁶ traces modern morality, exposing its linear development and emergence from a single (power) position. Although Nietzsche does not describe himself as a genealogist, it is as a result of this book that genealogy develops into a methodology. Genealogy sheds light on a plethora of possible interpretations, multiple discourses or perspectives. Foucault is in fact considered more of a genealogist than Nietzsche and expands his archaeological (discursive) methodologies to include a counter-history in *Nietzsche, genealogy, history in Language, counter-memory, practice: Selected essays and interviews* (1977). In light of shifting perspective, Paul van Tongeren's *Reinterpreting modern culture: An introduction to Friedrich Nietzsche's philosophy* (2000) is an important secondary text. Through Nietzsche, Van Tongeren explores how multiple histories are intertwined with knowledge and that knowledge as it presents itself is only one possible interpretation.

This text begins with the **chapter** Genealogy. Genealogy gathers a list of philosophers and aims to simulate a conversation between them. These conversations enrich my vocabulary, adding to a Foucauldian toolkit with which to describe uncertainty. The Mapping chapter further builds on that vocabulary, but also suggests a means of visualising new or alternative systems. Before getting caught up in the words of others and mapping their trajectories, the Archaeology chapter describes my art practice as a metaphorical dig site. My art practice cannot be separated from this text, theory and practice are entangled. An archaeological dig site introduces another layer of knowledge, knowledge that stretches below a mapped surface. Archaeological methods reveal that which is concealed, or uncertain and grey. The Glass chapter is perhaps the greyness ahead. Glass introduces a material

¹⁶ This book is not central to my text, it is included here to illustrate Nietzsche's connection to genealogy.

reminder of perspectivism, an imperative part of a Foucauldian toolkit. In its most common forms, glass is transparent, we see *through* glass. The chapter also explores glass blowing as a methodology. A glass blower gathers glass, much like I have been gathering a Foucauldian toolkit. The glass forms I blew are not only vessels. I ‘drew’ lines over and within these vessels. This process generated a network of entangled lines. These lines are perhaps my conclusion. However, this text does not culminate in a coherent conclusion. It comes to a pause, a comma, but there are many more trajectories or to follow.

CH° 1 'GENEALOGY'

One has to learn not only to liberate oneself from all ideals but also from the ideal of complete freedom; not only to free oneself from all deceptive beliefs, ideas, and ideals but also to use them as possible interpretations; not only to unmask all lies but also to lie and wear masks oneself. This is the acknowledgement of perspectivism, that all knowledge is determined by one's perspective....

(Van Tongeren 2000: 13)

Genealogy has long since been associated with a linear study of history, but Nietzsche explores a genealogical greyness or entanglement (Foucault 1977: 139). This chapter observes a linear history of a collection of philosophers, but with the intention to disturb this linearity. Nietzsche and Foucault and Deleuze and Guattari (and many others) are critical of the simple, essential configuration of history or knowledge; they disrupt its continuity (Foucault 1977: 139). This chapter is an expanded review of literature, but also a genealogical conversation between philosophers rather than a rehashing of stable units of knowledge (or monologues). Genealogy is a methodology, a part of the Foucauldian toolkit. I will not attempt to cover the entire scope of knowledge explored by these conversationalists, but rather fragments of knowledge chosen for their relevance to this specific discussion. This is really what knowledge is, fragments disguised as stable units.

A philosopher is not a philosopher unless he stimulates conversation. In these conversations there may be agreements, and certainly disagreements. If one were to imagine the conversations between

the apparent forefathers of philosophy, Socrates, Plato and Aristotle; the number of people equipped to join these conversations would have been considerably less than those able to converse today. Although these are assumptions, access to knowledge and the rate at which it is generated has increased astronomically. With such a plethora of philosophers or conversationalists, perhaps there could be a shift from monologue to active dialogue. Imagine a conversation between Nietzsche, Foucault, Warburg, Didi-Huberman, Deleuze, Guattari, Massumi, Bogue and Bateson; who might find common ground, who would disagree with whom? Alliances may be formed, wars waged; between whom? I will not pretend to be well read enough to predict these outcomes, but by excavating some of their ideas and gathering them below, perhaps one version of this conversation could be simulated.

German philosopher Friedrich Nietzsche is one of the older members of this philosophy genealogy. It is also Nietzsche's notion of **perspectivism** that makes him a good point of departure. Nietzsche argues that perspective is "the basic condition of all life" (Van Tongeren 2000: 130). He believes that knowledge generated is contingent and conditional and therefore under constant reassessment. He makes an effort to open up "other possibilities of world interpretation" through shifting perspective (Nietzsche cited in Van Tongeren 2000: 141). As I move through a genealogy of philosophers, my own voice hopefully woven within, it is imperative to keep Nietzsche's ideas in mind so as not to privilege any one voice, or any one tool. Perspective and subjectivity are intertwined. Philosophers cannot be separated from their thoughts, neither can I be separated from my theoretical nor practical projects. Both Foucault and Nietzsche advocate for continuous processes, tooling and retooling or shifting perspective. These processes allow active engagement with systematic change and alternative navigational routes through entanglement.

Comment [E26]:

Discourse
Vantage point
Aerial photography
Alternative

Nietzsche uses **language** as a possible analogy for this notion of perspectivism, saying that whoever speaks uses an “illusory language” (Van Tongeren 2000: 140). If one is tied to that illusion, anything described in that language is true. How we deal with language, words, concepts – these all express a certain type of life, an illusion, *a* perspective. Nietzsche even goes so far as to suggest that knowledge is impossible because these languages, words and concepts cannot accurately represent reality. Reality takes place in the spaces between, in the differing perspectives and therefore never ‘is’. Reality is “never present in a way that would allow for stable representation” (Van Tongeren 2000: 168). A framework or grid (or perspective) makes knowledge appear stable. We gain access to knowledge through these **structures**, but this does not mean that knowledge is true and stable. Nietzsche advocates for more affects or voices when speaking about one thing; for more eyes, different eyes, when observing one thing (cited in Van Tongeren 2000: 168). However frameworks and structures are not meant to be totally disregarded, they are an access point. What lies beyond that point is still complex. Genealogical studies contest interpretations that pertain to truth.

Genealogy fight[s] claims to being self-evident, beyond discussion, necessary, and eternal. It exposes their having a descent from a certain type of life and shows them to be mere possibilities next to which other interpretations are possible.

(Van Tongeren 2000: 141-142)

A genealogical method is critical. When Nietzsche unpacks knowledge from the apparent concrete figures in which they manifest (a theory, a book, a philosopher), this knowledge is therefore only a **momentary** articulation of that knowledge (Van Tongeren 2000: 168). The concise format of a theory or a book alludes to unity regardless of the complexity of the knowledge: Although we view this

Comment [E27]:

Derrida
Différance

Comment [E28]:

Saussure
Western map
Straight line

Comment [E29]:

Fleeting
Semblance

knowledge as a unity: “[W]e always have only a semblance of unity” (Nietzsche cited in Van Tongeren 2000: 161). Nonetheless, a semblance or moment is credible. It requires an alternative understanding of knowledge and a relinquishing of stability, but should not be disregarded.

French philosopher, Michel Foucault speaks of the complexities of these apparent units of history rather than knowledge. Foucault expands Nietzsche’s ideas around perspectivism and genealogy into a counter-history. He is not interested in a straight lined navigation of the development of people and societies through history, nor is he in search of origins. Foucault rather sets out to trace a plural and sometimes contradictory past, revealing the perspectival nature of knowledge and truth.¹⁷ Through tracing or rather crisscrossing this counter-history, Foucault begins challenging a linear reading of history; exploring how we classify and order history.

When we establish a considered classification [...] what is the ground on which we are able to establish the validity of this classification with complete certainty? On what 'table', according to what grid of identities, similitudes, analogies, have we become accustomed to sort out so many different and similar things?

(Foucault 1970: xix)

Surely we should approach order tentatively then? Yet we are slaves to order. We cannot interpret and articulate knowledge/history without the adoption of some system of classification, an **order of things**.

¹⁷ Much of Foucault’s work explored power and how power structures can manufacture knowledge and therefore truth. This aspect of Foucault’s philosophy is not central to my text.

Comment [E30]:
Foucault

The notion of order has long been married to science: the noble, rigorous sciences like mathematics and cosmology through which a linear history can be traced. Empirical knowledge is seldom afforded the same standing by scientists. What if empirical knowledge, at a particular time and in a particular culture, did adhere to an order? If the noble sciences were essentially recorded facts that were adopted as truth, were these facts not also distorted by circumstance? Who is to say that the history of non-scientific knowledge did not have a system of its own (Foucault 1970: ix)? Empirical systems may not have been formulated in a manner acceptable to science, but cannot be denied existence. Alternative systems have been overlooked because of the fixed Western perspective. If perspective does not shift, there is no need to question, be critical or skeptical of knowledge. It is only in shifting that we can become actively engaged, opening up knowledge possibilities and exposing that which has been overshadowed.

Foucault therefore sets about juxtaposing seemingly unrelated systems of knowledge, redrawing frontiers. He says:

Instead of relating the biological taxonomies to other knowledge of the living being (the theory of germination, or the physiology of animal movement, or the statics of plants), I have compared them with what might have been said at the same time about linguistic signs, the formation of general ideas, the language of action, the hierarchy of needs, and the exchange of goods.

(Foucault 1970: x)

As a result, a complex network of knowledge emerged, a network that transcended traditional proximities and is *between* classifications (Foucault 1970: xi). The space inhabited by knowledge has

been rearranged, the structure upon which it lay disassembled. The formation of rules is an integral part of the sciences, but perhaps these rules exist in different spheres, at their specific locations. Foucault calls this exploration of knowledge archaeological (1970: xi). Archaeology should address the general space of knowledge, encouraging a shift in perspective rather than a continued privileging of the noble or rigorous sciences. Archaeological methods explore the underlying structures of knowledge, excavating concealed layers. Venturing beneath the surface and into these layers is unpredictable, uncertain; what is to be found is only known the moment it is unearthed.

Aby Warburg's *Mnemosyne atlas* (1929) (Images 3-4) anticipated this interpretation of history at the turn of the twentieth century when it too produced, to paraphrase Foucault, an "archaeology of the visual knowledge". Warburg was the eldest son of a wealthy banking family from Hamburg, Germany. He studied religion, philosophy, history, art history, medicine (an interest fuelled by studying psychology in art), anthropology and astrology; but in doing so became interested in promoting new fields of research, fields not limited to one 'ology'. He recognised a wealth of knowledge encapsulated within even the most mundane objects and images and therefore set out to gather this knowledge and create a personal library in 1886.¹⁸ This library did not follow a normative system of classification (order); it went against the border control of disciplines. The way Warburg 'ordered' caused plenty of discussion amongst other scholars, some critically referring to his library as only a storage space for books. Warburg envisioned this space as a generator, a creative space. Books and objects were in constant flux, spontaneously classified and re-classified according to personal assumptions. Much of Warburg's motivation for 'ordering' like this was as a result of the importance

¹⁸ This library eventually also became a research centre called *Die kulturwissenschaftliche Bibliothek Warburg (KBW)* and opened in 1926 (Bruhn n.d.).

Comment [E31]:
Archaeology
Layered

he placed on neighbourhood; the significance of these books and objects were dependant on their context within the library (Bruhn n.d.).

In the last few years of his life, Warburg began composing perhaps his most important 'library' in the form of a picture atlas called *Mnemosyne atlas* (1927).¹⁹ The atlas was made up of multiple panels of wood covered in black fabric onto which images were pinned. The images were from his vast library, and again the arrangement of the atlas was considered unconventional. Seemingly arbitrary images gained meaning through relationships or neighbourhood. These pictures were arranged according to different themes, rather than being limited to time periods or specific fields of study, and were constantly rearranged. Warburg's atlas crosses boundaries, it is interdisciplinary. It became very clear in this project that Warburg was not concerned with publishing linear texts or recording a traditionally systematic history; this format allowed him to document the expansive dimensions of his ideas (Bruhn n.d.). The atlas was dynamic, it travelled and developed and was adopted as a system with which to curate exhibitions; it was always a work in progress. Perhaps this atlas was Warburg's attempt to map out his personal journeys across the world? But his role as the map-maker was imperative, without his constant involvement, the atlas would most probably have remained static.

Georges Didi-Huberman reflects on the atlas, also with special reference to images, in a similar manner to Aby Warburg. Didi-Huberman is a French philosopher who explores images as vehicles of knowledge. He calls images "relative and fleeting" and married to context (De Llano 2011). The

¹⁹ *Mnemosyne* is the Greek goddess of memory. The word *mnemosyne* is derived from the Greek *mnēmōn*, meaning mindful (Hanks 1979: 946). Warburg therefore plays on a disparity between a historical atlas and a memory atlas. A memory atlas is perhaps more horizontal and open rather than historically bound.

practice of making an atlas (of a Warburg nature) is described by Didi-Huberman as a means to reconfigure space; disassembling space where it appears continuous and reconnecting divisions or boundaries. An atlas of this kind is not only an archive of images but a “form of visual knowledge” gaining meaning through montage (De Llano 2011). Didi-Huberman’s atlas “doesn’t detach objects according to pre-established categories, rigorous definitions, or ideal hierarchies: it satisfies itself collecting, that is, respecting, the great [fragmentation] of the world” (cited in De Llano 2011).

This interpretation of the atlas is realised in Didi-Huberman’s exhibition *Atlas: How to carry the world on one’s back?* (2011). The exhibition is indicative of Didi-Huberman’s notion of discontinuity and non-linear display, different epochs are juxtaposed and expected historical orders interrupted and rejected. The shifted perspective of this spatially enacted atlas transforms this account of history (De Llano 2011). *Atlas: How to carry the world on one’s back?* creates a site in which difference can co-exist. The role of the viewer (and Didi-Huberman as the map/atlas-maker) is again essential. Standing within the space, moving between rooms and looking across thresholds allows one to see the cross-fertilization of knowledge captured momentarily in this archive (Images 5-6). Images and objects of Didi-Huberman’s atlas reveal a mosaic of cultural survivals, and trace the migrations and evolutions of forms and gestures across times and places (Rehberg 2011).

Warburg and Didi-Huberman’s re-articulation of the atlas are essential additions to my Foucauldian toolkit. Their atlases could perhaps be considered rhizomatic. Multiple disciplines and epochs are at play in these atlases, lines interwoven between them. Both Warburg and Didi-Huberman acknowledge the importance of the map-maker, shifting perspective and thus self-reflection (Foucault 1972: 130). *Mnemosyne atlas* and *Atlas: How to carry the world on one’s back?* create moments of

Comment [E32]:

Complex
Mosaic
Labyrinthine
Tangled

certainty while in flux. Perhaps Warburg and Didi-Huberman's works could also be described as commas rather than a full stop. One might find alternative routes if following Warburg and Didi-Huberman's atlases, routes along which to wander. Atlases of this variety reflect our fragmented, complex world.

Comment [E33]:
Post-structural

Although Warburg's atlas unfolded long before Didi-Huberman's, the parallels between the two allow one to imagine their potential conversations with relative ease. Warburg and Didi-Huberman speak a similar language. With Nietzsche in mind, it seems necessary to interject a botanical (or any number of other perspectives) rather than the atlas tinted perspective, so as not to privilege this one language. French philosophers Gilles Deleuze²⁰ and Félix Guattari introduce the botanical rhizome in their collaborative endeavour, *A thousand plateaus: Capitalism and schizophrenia* (1987). Each of the chapters of this book is a 'plateau' traversing multiple disciplines. Themes and concepts criss-cross these plateaus but cannot be reduced to a 'plateau of plateaus', instead the plateaus form a rhizome. The plateaus "trace open trajectories rather than systematic boundaries" (Bogue 1989: 125). A rhizome is a botanical term used to describe a self-sustaining "horizontal creeping stem lying on or under the ground from which shoots arise or spread and roots descend" (Moriarty and Barbatsis 2007). The structure has no central control or hierarchy, it is a tangled web. Therefore rhizomatic thought is discouraging of an aborescent conception of knowledge (binarisms, vertical or linear connections, straight lines), rather advocating trans-connection or wanderings. Deleuze and Guattari suggest doing away with either/or logic and instead offer 'and... and... and...' as a new system to explore knowledge (Deleuze and Guattari 1987).

Comment [E34]:
Landscape
Open

Comment [E35]:
Alternative

²⁰ Deleuze regards Nietzsche as an "exemplar of the active philosopher... and an artist who creates a new image of thought and invents new forms for its articulation" (Bogue 1989: 19).

The subtitle of *A thousand plateaus* also alludes to this notion of ‘and... and... and....’ *Schizophrenia* is meant to be a positive use of this pathological condition. Deleuze and Guattari aim to suggest “inventive connection... from one to another (and another...). From one noun or book or author to another (and another...). Not aimlessly. Experimentally” (Massumi 1992: 1). This schizophrenic thought is also called nomadic. Nomadic tribes do not impose fixed boundaries on a space, they live within the space and make use of what it has to offer, but move on to a new space when they have exhausted its resources or simply gotten tired of that space. Nomads are “between [encampments], a drifting flux, a chance divagation” (Bogue 1989: 11). Nomad thought does not entrench itself in order, it is not hampered by difference but rather rides it. Nomadic space is different from State space.²¹ State space is “striated” or gridded; movement within this space is premeditated between fixed points (Massumi 1992: 6). Nomadic space is above, below, inside, outside, and across any such grid.

The ideas of Deleuze and Guattari have been lying dormant in my Foucauldian toolkit for quite some time, but became active through the eyes of Massumi and Bogue. In exploring rhizomatic thought, schizophrenia or nomadic thought, it is easy to become entangled in Deleuze and Guattari’s writing. However, a shift in perspective (through Massumi and Bogue) aids navigation, offering an alternative way of reading. Deleuze and Guattari, Massumi and Bogue open a space for knowledge and thoughts to travel and wander. Although undirected, knowledge free of boundaries is not meant to be daunting, but liberating.

²¹ Philosophers were traditionally employees of the State, resulting in collusion between them. State philosophy refers to a rational or established order of society, one defined by single, original ideals around truth and justice (Massumi 1992: 4).

English anthropologist Gregory Bateson describes a knowledge space of this kind as an ecosystem. In his book *Ecology of mind* (2002), Bateson describes knowledge as a series of interconnected systems, or ecology. Rather than observing knowledge as a grid of separate units, he found connections and similarities between seemingly unrelated systems. For example he saw parallels between structures in architecture and in nature. This led to a questioning of structuring and categorization. An ecosystem is not a system of straight lines; it is more circular, textured, linking infinite parts. Unless interrupted, an ecosystem is also self-sustaining. Similar to the way in which humans have disrupted and destroyed many ecosystems, approaching knowledge as separate units (as is the way of the West) has fragmented a complex system. Perhaps this was largely due to the Western system that is notorious for privileging one voice or one perspective as a means of gaining and exerting power. Typically Western systems appear to be synonymous with this singularity.

Movement within the art world could perhaps be described as a singular trajectory if one considers the relationship between The Art Academy and The Art Gallery. If you study art, the most apparent trajectory seems to head in the direction of the gallery. What about other possible routes, surely there are deviations? South African artist Josh Ginsburg²² has begun rearticulating this limited trajectory. Ginsburg describes The Academy space as a bustling, inspiring, conversation stimulating space; but The Art Gallery is often quiet, still and (often) inaccessible. We need to harness the pulse of The Art Academy, the possibilities, and draw new routes and include alternative destinations. In order to avoid the creation of another singular trajectory, the movement between the spaces should be a

²² Josh Ginsberg was a speaker at TED talks in Johannesburg in 2012. His talk was titled *How I digitally mapped my own memory*. TED is a platform for *ideas worth spreading* where **conversation** around these diverse ideas is stimulated.

Comment [E36]:

Discourse
Vantage points
More eyes
More voices

wander rather than a march; but not pausing for too long at any particular destination and remaining susceptible to chance. We need to create an ecosystem of lines rather than single trajectory and shift focus from The Art Gallery as *the* destination. Ginsburg discusses the importance of `play`, or experimenting rather than forcing a certain set of results. He goes on to describe the art ecosystems of Europe and the United States of America versus South Africa as a Tetris game (May 2014). Europe and the United States of America are perhaps a few levels ahead, the blocks have formed a solid foundation, but South African blocks are still largely up in the air. Ginsberg suggests playing the game, grabbing whichever blocks you choose, intercepting and gathering blocks and building your own artscape.²³

Ginsberg's description of The Art Academy and The Art Gallery ecosystem is perhaps rhizomatic. It should be an open system similar to schizophrenic or nomadic knowledge and thought wanderings described by Deleuze and Guattari in *A thousand plateaus: Capitalism and schizophrenia* (1987). Conversation should not cease. A conversation alone is already a Foucauldian tinted tool. A conversation implies dynamism, exchanges *between* conversationalists. Nietzsche reinforces an active dialogue in terms of perspectivism, opening up alternative possibilities through shifting perspective. Foucault excavates knowledge/history from the stable units in which it exists but also illuminates the importance of subjectivity. Shifting perspective must include the perspective of the self. Both Warburg and Didi-Huberman's rearticulation of the atlas illustrate the importance of the self. Without the active engagement of both atlas/map-makers, the atlases would have remained static, reproducing

²³ I am in the very early stages of Tetris, I can see the blocks that I could grab, the potential spaces, potential arrangements. I am gathering my blocks, but I will leave The Gallery block to bounce about, there if I need it, but not part of my practice now.

Comment [E37]:
Derrida

history/knowledge. If a Warburg or Didi-Huberman-type atlas is used to navigate an (art) ecosystem, the possible trajectories to follow are infinite. This is liberating, and terrifying.

CH°2'MAPPING''

It has always been this way with map-makers: from their first scratches on the cave wall to show the migration patterns of herds, they have traced lines and lived inside them.

(Sonenberg in Pickles 2006: 3)

[A] map does not reveal the state of the world at a given moment, but “a mosaic of data whose chronology might extend over several centuries, the whole being assembled in a floating space.”

(Lestrigant 1994: 113 cited in Pickles 2006: 88)

Maps are fascinating. Through the arrangement of lines, shapes and gestures, maps are capable of capturing places and spaces. Not only do they visualise geographic findings, but are also inherently linked to the perpetuation of knowledge systems. Although this description of a map might encompass a vast array of maps, my understanding of mapping has proliferated even further in recent years. This chapter begins by exploring typically Western colonial and indigenous southern African maps and their intricate relation to knowledge systems. Western colonial maps are typically synonymous with structure, mathematics and straight lines; while indigenous maps such as Bushman drawings²⁴ are more holistic, narratological and fluid. However, knowledge is never either Western or indigenous, it oscillates between these two co-ordinates, and includes a multitude of other knowledge systems.

²⁴ How and why these Bushman drawings are considered maps is explained later in this chapter.

Nevertheless, mapping language offers a means of visualising a system. Thus mapping is an early addition to my Foucauldian toolkit. This chapter moves through these maps and systems of thought, gathering and expanding on my understanding of mapping in an attempt to utilize these tools to describe the increasingly complex knowledge systems of the Post-structural age. In accordance with Deleuze and Guattari, maps of this age are rhizomatic. They are informed by Western and indigenous maps, but are “open and connectable in all [...] dimensions” (Deleuze and Guattari 1987: 12). Reading these maps will surely involve a revision of navigational methods, an alternative method.

We are all map-makers. We trace lines to establish connections, represent and record information, indicate boundaries. A line links spheres, while simultaneously causing divisions. We live inside these lines, some perhaps live outside; regardless, we traverse and understand space according to lines. If set the task of making a map, we generally begin by demarcating parameters and constructing grid lines, determining latitudes and longitudes, co-ordinates and scale.

If I were to describe the first map I ‘drew’,²⁵ these grid lines were of the reinforced steel variety, robust and capable of carrying heavy loads. Layer upon layer of data²⁶ could fit comfortably atop these structures, alluding to change and transforming the façade, but the foundation never shifting. The volumes of data gathered were relatively small to begin with, but grew rapidly as my understanding of a map expanded. The stable steel grid lines packaged data neatly, but allowed no room for expansion. I

²⁵ My own maps discussed in this chapter are metaphorical. They describe a *process* rather than a physical act of mapping. Mapping is a methodology I employ frequently.

²⁶ This data not limited to geographic findings, it is knowledge, material and experience gathered over time and from multiple places.

therefore ‘redrew’ the grid lines, imagining them to be clear glass instead. These clear glass divisions still present data in separate units, but due to the transparency of the material, potential connections can at least be seen. Glass boundaries are not only transparent and therefore less restrictive, but are a false security in their fragility. Even so, glass at least suggests a division. If one were to intersperse data with glass grid lines, layers would remain visible and create a more textured visual. It is not only the façade that changes, relationships and conversations are acknowledged and encouraged, while some sense of structure is retained as a result of the glass barriers. However, glass is also fragile. A small force has since shattered this glass division or grid. This is not as a result of a violent strike, but rather inevitable pressure cracks brought on by a rapid and vast expansion of my understanding of the map and a growing database. Even a small trauma can exacerbate a crack or weakness in glass and cause it to shatter. Predicting where each of these infinite interspersed glass and data shards might land is far too laborious a process, if even possible. The interspersed shards and data may fall in unexpected patterns, some forming piles. If I pick up a small shard in a pile, the whole pile may destabilise and shift. Then, if this shard is placed on top of another pile that pile may shift to make space for the addition. For every intervention there may be a consequence as piles are arranged and re-arranged.

I wonder if I would ever be able to locate all the shards from this shattering of an understanding? However, I have no intention of going in search of all of them. Even if I were to locate all the shards, I will never be able to stick them all back together again into one coherent whole. Instead I may gather some shards and make momentary mosaics. The juxtaposing of seemingly unrelated shards and the transparent and reflective qualities of glass offer a far more intricate illustration of space than a stable steel grid or even clear glass divisions interspersed with data. These mosaics may carry remnants of a

grid, but are no longer constrained by it. A steel grid structure, clear glass divisions and shattered piles of glass are all *parts* of a mosaic.

I am now able to discuss momentary **mosaics** and how I consider them to be more accurate maps; but initially traversing through steel grid lines, then clear glass divisions and piles of shattered glass and data is what allowed me to do so. I had to gather my mapping vocabulary and draw straight lines before exploring the possibilities of wandering lines. The Collins English Dictionary, perhaps one of the most powerful symbols of Western knowledge, defines a map as “a diagrammatic representation of the earth’s surface or part of it, showing an area of land or sea showing physical features, cities, roads, etc.” (1979: 899). This is precisely what I may have offered if asked to define a map not so long ago. After exploring mapping and expanding on this definition, drawing and redrawing grid lines, it is now the **“etcetera”** that resonates with me. A map certainly is a diagrammatic representation, but it is also a plethora of other things. There is no harm in embracing the stable Western definition as a starting point, but then slowly but surely elevating the status of the “etcetera.” I am not suggesting that the “etcetera” precedes the definition, this would make little sense, but rather just acknowledging the potential. Before this potential could be realized, I had to lay my steel grid lines, creating a stable foundation upon which data could be layered. A typically Western understanding of a map provided these grid lines; an understanding so entrenched that it perhaps seems universal. Through immeasurable self-promotion, Western knowledge has toppled the scale in its favour to such an extent that alternative understandings or definitions are often disregarded.

The history of Western knowledge dating back to the Greeks was described in terms of differentiation rather than synthesis, and effort was made to separate human will from its entrenchment in nature and

Comment [E38]:

Western
Indigenous
Rhizomatic

Comment [E39]:

And...and...and...
Différance
Comma
Open
Uncertain

in turn gain control over nature (Tarnas in Fatnowna and Pickett 2002: 258). The pre-enlightenment self was known through similarities, but thereafter became known through differences (Attwood in Fatnowna and Pickett 2002: 258). These differences and their (assumed) correlation with science, specifically the categorising or classifying nature of science, were the foundations for the development of Western civilisation. Science offered a means of rationalising and articulating human existence, arranging a complex network in straight lines, employing logic and reason as an avenue to truth. The introduction of perspective geometry further altered the position of humans in the cosmos from the pre-enlightenment self to the modern human (Burke 1985: 76 cited in Turnbull 1994: n.p.). This new tool, geometry, promoted humans, enabling them to be the measurers of all things. In accordance with Aristotelian thought, it was God who used to occupy the centre of the universe and He who endowed all objects with an incomparable uniqueness. Relationships were not between objects, but only between God and objects. Perspective geometry introduced proportion, relativity and distance. Objects were able to be reproduced and then spatially and mathematically manipulated. Through this colossal shift, the world became susceptible to standardisation; it could be scaled and equated, compared and described in terms of mathematical function rather than its philosophical qualities (Burke 1985: 77 cited in Turnbull 1994: n.p.).

Equipped with the tools offered by science, perspective geometry and an insatiable desire to understand the (natural) world beyond the grasps of religion; scholars began mapping the known world. Ptolemy's *Geographia* (Image 7)²⁷ is said to be one of the earliest articulations of geographical coordinates (Sprague 2011). This articulation of knowledge was gathered from multiple sources and

²⁷ Image 7 is an early reconstruction of a world map created using map making techniques developed by Ptolemy (100–178 AD) (not by Ptolemy himself). Ptolemy was of Greek decent, lived most of his life in Alexandria and had Roman citizenship. *Geographia* remained a prominent cartographic resource until the 1400s (Sprague 2011).

was manipulated in order for it to be recorded and represented systematically. Directions and distances could be calculated between one place and another; even unknown places were given co-ordinates derived through geometry. When connected, these co-ordinates created a vast cross-hatching of straight lines; a neat window into the known world. A marriage between perspective geometry and Ptolemy's *Geographia* (and other mathematicians and cartographers) made possible the imposition of the grid on the world (Turnbull 1994: n.p.). If one were to remove this grid, no natural trace would be found, the grid does not correspond to reality. The grid is a human construct, and although it is a symbol of vast development, it is still arbitrary. For a grid system to work it must be agreed upon or appear conventional. The power of a map and its grid lines lies not in its accurate illustration of reality but its incorporation of previously established agreement and convention (Turnbull 1994: n.p.).

It was this imposition of the grid and the associated power that made space for a phenomenon like colonialism. Upon arrival in **undiscovered** lands, the map was employed as a tool, a survival tactic. How else would explorers begin to understand a land and people so different if not through a system of familiarity? When the Dutch arrived and settled around the Cape in 1652, this land was already home to the indigenous groups who had lived in the area for centuries. Led by colonial administrator Jan van Riebeeck, the Dutch established a resupply station for ships travelling the routes of the Dutch East India Company, a site that eventually developed into Cape Town. Slaves were brought in from present day Angola, Madagascar, Mozambique and the East African coast, and from India and the islands of the East Indies (Barker, Bell, Duggan, Horler, Leroux, Maurice, Reynierse & Schafer 1988: 48-50). The Cape was then occupied by Britain in 1795 (Barker et al. 1988: 94). It remained a British colony until gaining independence in (Barker et al. 1988: 368). With a history of this kind, it is no

Comment [E40]:

Uncertain
Alternative

wonder that today South Africans are some of the most diverse people in the world. Unfortunately, this complexity also fosters uncertain heritage.

As an integral part of this colonising mission, maps were drawn. These maps classify and structure land in accordance with the Western system. Maps have “boundaries, frames, spaces, centres and silences which structure what is and is not possible to speak of... [they] are a compilation, generalisation, classification, formation” that establish hierarchies and a standardisation of geographical data (Harley in Turnbull 2003: 99). All such characteristics of Western maps are evident in the list of illustrations; Image 8 clearly illustrating the calculative nature of the colonial map makers. This map is overlaid with geometry and measures. Images 9-11 further illustrating the categorising trend of Westerners, made obvious by the extensive process of naming. Names are largely concentrated along the coastal areas of the lands, explorers did not venture very far from the coast. In naming these places, power structures were subtly strengthened in favour of the Western imposters. It was not only the land that fell prey to the Western fixation with naming and categorising, so too did the indigenous people. The indigenous people of southern Africa were labelled imprecisely as Khoi, Khokhoi, San, Hottentots and Bushmen (amongst others). These complex groups were given little more thought and were placed low in the colonial social hierarchy. Land, resources and skills of these indigenous people (Bushmen)²⁸ were exploited by the colonists, and without these that were such an integral part of their lives, their age-old ways of life could not be preserved. Not surprisingly, this decimated some of the indigenous groups. A Western perspective was privileged, colonial tools held too tightly, and a wealth of indigenous knowledge was lost in the process.

²⁸ ‘Bushmen’ is the colloquial term used to describe the indigenous people of southern Africa that did the drawings and paintings (maps). It is not meant to be a pejorative term and includes multiple indigenous groups. I use the term ‘Bushman’ or ‘Bushmen’ in this text.

Comment [E41]:

Grey
Uncertain

Comment [E42]:

Nietzsche
Derrida
Discourse

This loss of knowledge can also be attributed to the lack of written records of the decimated groups. Their knowledge was recorded in myths, metaphors and narratives, passed orally from generation to generation.²⁹ Instead of employing written documents as guidelines for retelling history and teaching lessons time and time again, the southern African indigenous groups were prompted by paintings and engravings. This encouraged an array of interpretations of a single painting or engraving, allowing the lessons of these stories to evolve with time and remain relevant to each time and place. Although these paintings and engravings were fluid and dynamic, they were certainly still a form of documentation of a space and time, much like Western maps. They are simultaneously geographical *and* social – something Western map-makers believed to be impossible (Turnbull 2003: 37). One therefore sees the Oxford definition of a map being problematized. Although there is no evidence of the calculative, straight-lined, categorised characteristics of a Western map, the function of these paintings and engravings is similar. They make visual a wealth of information much like a Western map does and serve as a set of visual cues necessary to interpret a space or time (or story). They assume a narratological rather than cartographic form. There is also a set of tools required to access the information bound within these paintings and engravings (that is knowledge of the Bushman way of life and stories), just as one needs a mathematical, scientific or cartographic knowledge in order to interpret Western maps.

It is perhaps because this remained the set of tools that colonialists were equipped with when exploring southern Africa, that the maps of the indigenous Bushmen were deemed primitive and futile. The

²⁹ Each word had an associated sound. It was described in terms of familiar sounds, increasing the richness of the word by allowing those who heard such words and stories to truly understand that whole experience. For example 'death' was heard "in the bleating of sheep and the rush of the wind that carried the sound of cannon fire... [t]here was also death in the fall of rain and the heaviness of clouds, and in the springbok's running before the storm" (Dia!kwain 1875 cited in Skotnes 2007: 68).

seemingly naïve, amateur and sometimes nonsensical nature of such paintings and engravings (Images 12-14) were inaccessible to these foreign invaders. These engravings are in fact recordings of the patterns of light seen during a trance experience (very common practice for the Bushmen used primarily as a means of connecting with the spiritual world). The technical term for these patterns of light is *entoptics*, from the Greek word meaning “within vision” (Deacon and Foster 2005: 123). These patterns transform into recognisable shapes and figures, and often illustrate people transforming into animals (Image 14). This suggests the intricate bond between indigenous South Africans and the natural world. The Bushmen traversed the land and in doing so created topographies. Human and animal tracks are a record of what happens in a space, these tracks criss-cross and punctuate land and in doing so draw maps. These lines were lived lines, not imposed lines. Mountains, rivers, trees, caves also form points on the maps (Turnbull 1994: n.p.). Locations were described in relation to these tracks and punctuations, the **person** (or map-maker) also an integral part of the topography. The position of the map-maker is never fixed, therefore these maps are in constant flux; people and nature interacting mutually to form a network rather than a grid.

While the Western map or grid typically lies stable and rigid on top of the land, the lines of an indigenous map have perhaps penetrated deeper into the land itself. For Westerners, the connections between places are seen in terms of abstract qualities such as latitude and longitude. But for indigenous groups like the Bushmen, the identity of a place is established by its connections to landscape. However, it is still not feasible to conclude that this indigenous form of mapping offers more than any typically Western map. Bushman maps describe space as inherently dynamic and mutative. Although these maps sound idyllic, the vastness of knowledge embedded in scientific and mathematical material synonymous with Western maps cannot be excluded. There are certainly substantial problems with the

Comment [E43]:

Aby Warburg
Georges Didi-Huberman
Foucault
Subjectivity
Self-reflexivity

imposed “reductionist, singular, progressive, divisive themes of conquest inherent in the language of the Empire,” but the relevance cannot be denied (Korten 2006 cited in Arabena 2010: 263). There will always be something intoxicating about these maps, perhaps quite simply because they offer a perfect, certain view of a space, uninterrupted by context.

This expanded notion of the map encouraged the transition away from my initial steel grid lines to the clear glass divisions. Injecting an indigenous understanding of the term map into the mix managed to destabilise even such sturdy foundations. The transparency of the glass offers a space in which both the rigidity of the Western grid and dynamic nature of indigenous maps can be at play. By interspersing both understandings of the map, but avoiding total chaos through these glass divisions, potential relationships may be imagined and a more textured map envisioned. The apparent dichotomy between Western and indigenous mapping language is challenged in this space, the understandings inform rather than oppose one another.³⁰ The clear glass lines of this map may hold for some time, but as I continue to gather data, pressure will increase and cracks will appear. Although a Western understanding of the map has remained comparatively stable throughout this process, an indigenous map may take many forms. Introducing indigeneity expanded to include a plethora of other mapping

³⁰ An example of a map where both Western and indigenous mapping language are evident are perhaps Lucy Lloyd and Wilhelm Bleek’s journals. Lloyd and Bleek forged a relationship with Bushmen prisoners during colonial times in South Africa in order to study their languages. The relationship between Lloyd and Bleek and the prisoners has been recorded as equal, centred on mutual respect for these incredible languages rather than an attempt to extract knowledge. The Bushmen they worked with drew their stories and associated knowledge, and Lloyd and Bleek added explanations in English and indigenous languages. The Bushmen recognised that writing their stories down in this typically Western manner would be their only chance of survival. Without these journals, much of the history of South Africa’s indigenous people would have been lost (Skotnes 2007) (Images 15-16).

languages, rather than only the southern African Bushmen understanding. Mapping within this space became increasingly precarious until the structure could no longer hold and shattered. There is no way to control the trajectory of this shattering. Interspersed data and glass may scatter, landing in piles of various shapes and sizes, perhaps forming landscape of sorts punctuated by mountains and valleys. Typically Western lines employed in map-making have been disrupted and/or broken.

A map of this kind requires not only a re-articulation of what it is that makes a map a map, but also a new set of tools to navigate the space. Perspective has been largely obliterated, so how does one go about entering the space? Deleuze and Guattari used the term *rhizome* to describe such transformative spaces. The rhizomatic map is “open and connectable in all of its dimensions; it is detachable, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting—reworked by an individual, group, or social formation” (Deleuze and Guattari 1987: 12). As is the case with these piles of shattered glass interspersed with data; they could be arranged and rearranged as shards are moved and piles shift accordingly. This map is at once between understandings, across understandings and beyond any understanding (Ramadier 2004 cited in Lawrence 2010: 19).

[Aby Warburg’s *Mnemosyne Atlas* (1929)] offers a possible visual articulation of this dynamic understanding of a map (or atlas) that I am in search of. (Image 3-4). The atlas that emerged from Warburg’s library was made up of the images and artefacts from multiple fields of research. They were arranged unconventionally and without a [defined plan]. Through this arrangement, meaning was determined according to relationships and neighbourhood. The atlas was constantly in flux, arranged and rearranged each time Warburg chose to intervene. Warburg himself was therefore also a point on this map or an area of the atlas, he occupied a space that interrupted some relationships but forged

Comment [E44]:
Didi-Huberman

Comment [E45]:
Closed system
Saussure
Structuralism

others. But even these relationships and connections were [momentary] as he never lingered in one space for too long. Warburg's atlas not only highlights the extent to which one can push the apparent boundaries of the atlas format, but also acknowledges the integral role of the map-maker. If he was replaced by an image or statue of [himself], readings of the atlas would be limited.

Comment [E46]:

Protean
Fleeting

Comment [E47]:

Subjectivity
Foucault

As I have traversed through steel grid lines, glass divisions and then landscapes of shards of glass, my influence has become more apparent. It seems almost impossible for meaning to remain stable for more than a moment. *I* determine that moment by selecting and arranging shards to form a momentary mosaic. My subjectivity is interwoven within the map-making process. Mapping is a connective methodology, a tool to be employed in navigating the complexities of a Post-structural age. I am entangled in maps. Perhaps I should shift my perspective in attempt to find alternative routes through entanglement, perhaps explore the underbelly or shadows of a map?

CH°3'ARCHAEOLOGY''

In attempting to uncover the deepest strata of Western culture, I am restoring to our silent and apparently immobile soil its rifts, its instability, its flaws; and it is the same ground that is once more stirring under our feet.

(Foucault 1970: xxiv)

The making process should be shepherded yet free to wander, ordered with allowance for chaos and uncertainty.

(Wilson 2010: 25)

Mapping draws lines across the surface of the earth, creating a system of lines with which to access that surface. What about the layers concealed below? I have spoken about networks rather than straight lines, and although I have expanded on the notion of mapping, it still aligns itself with a two dimensional kind of navigation system. If I am to explore new or alternative systems of thought and navigation, perhaps the lines of this system should stretch in all directions, including below the surface. The Genealogy and Mapping chapters have already introduced methodologies to begin describing uncertainty. The Archaeology chapter aims to follow suit, adding another tool but also linking my practical and theoretical texts. An archaeological dig site extends below the surface or façade, unearthing [concealed layers] of a map already drawn above. Foucault describes Warburg's

Comment [E48]:

Uncertain
Grey
Masked

Mnemosyne Atlas as “archaeology of visual knowledge.”³¹ Warburg’s atlas is layered. In addition, archaeological methods gather data to be mapped, but perhaps also offer an alternative art practice. Found objects have certainly surfaced in an art context before, but this usually involves being an archaeologist within a greater context, unearthing and gathering objects. These objects could be found by anyone who went looking. This chapter presents my art practice as a metaphorical archaeological dig site. If I survey, excavate, collect, catalogue and analyse my gatherings and methodologies, and then re-survey (time and time again); perhaps my map will begin to unfold, above and below the surface.

Before an archaeologist starts digging, a space must be surveyed. Survey work is usually undertaken as a result of a threat to an area of recorded (or unrecorded) archaeological interest, or as a part of a research project. To begin, existing research and records should be reviewed. The reviewed knowledge may include maps, formal and informal written records, photographs and sketches. Map regression, a comparison of old and new maps, often reveals long buried histories; and by using modern methods to transcribe and re-project earlier maps, hidden layers can be revealed (Glover 2006). As new knowledge is gathered, it is cross-referenced and then combined with existing knowledge. Photographs gathered during the survey almost always include aerial photographs of the existing or proposed dig site. Aerial photographs are essential when planning a survey. This elevated perspective allows the archaeologist to see things that are invisible if only surveyed from the ground. Cultivated land often reveals hidden structures that show as crop marks. If these structures are just

³¹ This descriptor is a paraphrasing of Foucault’s words. It has been used time and time again to describe Warburg’s atlas but the exact reference as to when and where Foucault made this statement is uncertain.

Comment [E49]:
Foucault
Methodology

below the topsoil they will have an effect on the growth of whatever is planted above (Kehoe and Pleger 2007: 12). The time of day and season during which the photographs are taken is an integral part of reading these photographs. Shadows cast at different times of day differ drastically, lower sun angles (dawn and dusk) offer the most dramatic shadows and therefore highlight even the slightest rise and fall in landscapes. Most vegetation growth is determined by the seasons therefore aerial photographs taken of the same site at different times of year will also yield different information. For aerial photography to be fully utilized, the survey should therefore include photographs taken at heightened shadow hours during each of the seasons.

My earlier exploration (my Bachelor's research article) was done during Autumn, Spring, and midday sunlight. This text is perhaps my shadow filled, four seasons collection of aerial photographs. Not only has my perspective shifted, but hidden, overgrown, underlying structures and artefacts are being revealed. The previous work I did in this region, although it was more superficial, zoomed in too close. Mapping was my focus, but what I was mapping had not yet entered the equation nor did it seem all that relevant. I drew and redrew the parameters of my understanding of maps, but never really engaged in the practice of mapping. In zooming out to survey the aerial photographs of my dig site, maps are no longer the whole picture; they are rather part of a far more complex image.

Before the surveyed land becomes a dig site and excavation begins, an archaeologist must be granted permission by those overseeing that site. Whether the land is state or government owned, private property, nature conservation or even no man's land,³² excavation is a process to be handled with a

³² The notion of no man's land inspired No Man's Art Gallery, a pop-up gallery with roots in Amsterdam but travelling all over the world to set up pop-up galleries. The gallery sources local artists who then become part

Comment [E50]:

Foucault
Uncertain

certain sensitivity. However if my life and artistic practice are the sites of excavation, acquiring permission surely becomes a futile task? Instead it has been *willingness* that presents a potential barrier. I am presenting my own art practice as a site of discussion with apprehension. Although an archaeological dig site is often simply a means of gathering new knowledge, it is sometimes a threat to the area that spurs the survey into action (e.g. new development). Perhaps the threat to my dig site can explain this apprehension?

As I move closer towards the end of the bustling but protected academy space, my destination remains uncertain. As previously discussed, Josh Ginsberg problematizes a single trajectory between academy and gallery. While there is no way to describe *The* contemporary art world into which alternative trajectories might lead, Europe maintains a position of authority, even as the art world is certainly not restricted to the developed West any longer. Therefore, while I am aware of the dangers of generalization, my experiences within this contemporary art world are informed by living (and practicing as an art student/artist) in Amsterdam and travelling extensively through Western Europe. There is a studio, gallery or museum on every other street in Amsterdam, and a regular juxtaposition of classic, historical collections and contemporary works. In the Stedelijk Museum in Amsterdam, this juxtaposition happens beneath one roof. The ground floor exhibiting a vast collection spanning centuries and continents, the first floor the contemporary works as well as a newly added space also showing contemporary works. While the ground floor remains mostly unchanged and historically linear, the contemporary spaces are in constant flux. A (museum) space in flux, although celebrated by Aby Warburg, Georges Didi-Huberman and me, also exacerbates uncertainty. On many of the

of the travelling exhibition. I was involved in the curation of Cape Town 2014. See <http://www.nomansart.com/>.

occasions that I visited the museum, I struggled to find contemporary works that I could identify with and appreciate. The ground floor was brimming with masters, while the contemporary spaces were filled with everyday objects balancing on other everyday objects balancing on white pedestals, dog-eared prints and confounding titles. If given a choice, I would have avoided the garish, daunting contemporary spaces; instead immersing myself in the certainty of the ground floor. However, in order to create new or alternative systems, knowledge or art, I have to cross the certain/uncertain threshold. This contemporary art world presents a threat in accordance with my archaeological discovery methodology.

Having surveyed, attained permission and acknowledged threats, an archaeologist arrives at a dig site and the excavation process can begin. Although the term ‘excavation’ alludes to a physical process of unearthing artefacts, this process may be non-intrusive, where nothing is touched, just recorded; or intrusive, the more common of the two (Kehoe and Pleger 2007: 11). In order to establish whether or not the excavation needs to be intrusive or non-intrusive, the site is walked extensively. Conventionally, field or site walking is done systematically; according to a grid formation or along lines known as transects (Kehoe and Pleger 2007: 11). These transects are usually indicated with pegs and string, and sensitive areas can be clearly demarcated. This grid begins to make visual the arrangement of layers of data concealed below the surface. With this horizontal grid in place, an archaeologist may ‘draw’ a vertical grid of the dig site by drilling research bore holes (intrusive excavation) across the site. When exhumed and examined, the contents of the boreholes reveal a rough stratigraphic study of the layers of earth below. Although this provides a very rough stratigraphic guide, some insight is gained about the soil and plant layers that diggers will encounter, and the depth of layers of interest can be estimated.

I have been circumnavigating my metaphorical dig site for quite some time now, searching for a point of entry, addressing and re-addressing the threat to my site and willingness to excavate myself. However, there is always an element of risk when beginning something new or entering an uncertain space. Even after extensive surveying, there is margin for error. An archaeological site may unearth nothing of interest, or perhaps destroy precious artefacts. I eventually began demarcating my practice and stringing up my reference grid or transects; tentatively at first but later with more conviction. I have been critical of the imposition of a grid of any kind, the associated restrictions and limited readings; but if imagined as a movable grid, it is an extremely effective tool. The stability of a grid offers that initial entrance to a potentially precarious space. Equipped with mapping methodologies already part of my Foucauldian toolkit, I began navigating my way around this grid, exploring the topography, deciphering the symbols, noting co-ordinates and interpreting scale. A glance at my stacked books, images, drawings, texts, objects dotted around me describe the stratigraphy of my practice. These stacks are an index of sorts, an overview of the potential depth of my dig site, an index with which to access the uncertainty (Images 17-18). Slowly but surely I started paging through these piled journals, unpacking stacked boxes; unearthing my art practice.

Almost every one of my journals begins with a list. Sometimes it is a to-do list, sometimes key words and ideas extracted from a project brief. Then a revised list, an interpretation of these words and ideas and how they can be applied to my own practice. Then, perhaps a list of related research topics or people who have delved into similar ideas. Then a list of ideas to propose, **conversations** about these ideas, and then a revised list of those ideas. These listed lines of text eventually run parallel to a list of lines, lines crossing out discarded ideas or completed tasks (Images 19-20). The combination of line and text quickly makes a mess of these lists, so I rewrite them. Now the discarded ideas or completed tasks fall off the list all together. Because these lists are bound within journals, these ideas

Comment [E51]:
Philosophers
Genealogy

and tasks can be revisited by paging back. Turning pages becomes a time axis of sorts, the development of ideas.³³ Each list ‘draws’ a new set of grid lines or transects, sketching parameters, demarcating an area of interest. So although lists appear rigid, the rate at which my lists develop creates a mutative grid, a tool with which to access my practice.

These lists are not only written, but also drawn. Trees and plants, particularly those indigenous to South Africa, feature regularly in my early drawn lists. Many of the initial drawings were done without references, drawn from **memory** (Images 21-22). I then began studying botanical drawings to expand on my memory archive. Similar to the way in which my lists were written, rewritten, crossed-out, rewritten again and again; my drawings of plants and trees also developed. My early lists were perhaps more general, but each time they were rewritten they became more refined, more specific. The drawings evolving from tree or shrub to *Leucadendro argenteum* or *Proteaceae cynaroides*.

These written and drawn lists developed mutually, words and images used interchangeably. Trees and plants offer a means of visualizing a written list, and drawings were often used in combination with labels so as to give context or another layer of information. It was also this combination of written and drawn lines that led me to botanical drawings. Botanical drawings are inherently linked to the sciences (Botanical Sciences) and therefore follow a typically Western inclination to **label and classify** findings. They are therefore a combination of drawn and written lists. Subsequently, I drew trees and plants to explore the relationship between Western and indigenous knowledge systems. I employed planted forests to represent Western thought, and fynbos to represent indigenous thought. Planted

³³ Lists on the thin paper of a journal are often visible through pages, the pages of lists create a palimpsest. Lists can be rewritten but the transparency of the material allows preceding and following lists to be slightly visible.

Comment [E52]:
Aby Warburg
Mnemosyne
History

Comment [E53]:
Colonial maps

forests are usually arranged in multiple rows which in turn form grids (Image 23). And in South Africa, many of these planted forests are alien trees (e.g. Blue Gum from Australia) that are planted on land cleared of indigenous vegetation to make space for them. Similarly, the Western knowledge system has infiltrated much of the world through endeavours such as Colonialism. Therefore, the planted forest could be considered synonymous with the Western system, an imposition on the indigenous. But indigenous knowledge systems are most often defined as dynamic or holistic in opposition to the Western knowledge system. Fynbos grows naturally in South Africa, specifically in the Western Cape, and grows haphazardly. Humans are not involved in natural outcrops of fynbos; the vegetation is arranged by the elements and lie of the land rather than it being planted (Image 24). Fynbos suggests indigeneity while forests are synonymous with rigidity.

Although there were numerous references for these drawings, I soon started stylizing my own style, 'rewriting' my drawn lists of trees and plants but losing variety in the process. These drawings were usually done on loose sheets of paper, so unlike the development of the lists written in bound journals, I could not revisit early drawings as easily. To regain the variety of my earlier archive, I began drawing trees and plants again, but as blind contours this time. Fortunately the organic lines of most trees and plants lend themselves to being drawn without precision, so although I was not in control of the outcome, one could still decipher the trees and plants. Maps seem to have entrenched themselves firmly in my mind's eye, so blind botanical studies and mapping language began merging (Images 25-28). This added another layer to my understanding of the mapping as these botanical lines and shapes ambled across my pages to create maps. But even though these were blind drawings, there was still an element of labelling/categorizing/listing in the manner they were arranged and displayed. These drawings were always part of a series, a collection of drawings much like an archive of

Comment [E54]:
Rhizomatic
Tangled
Uncertain

botanical drawings, or a list (Images 29-30). It is becoming clear that **ordering** is an unavoidable aspect of my practice.

Comment [E55]:

Saussure
Structure
Straight line
Western

Drawing trees and plants and maps became such an inherent part of my drawing style that I began describing them as self-portraits. In the new environment of the Glass Department at the Gerrit Rietveld Academic, I was challenged to draw without turning to trees and plants. Perhaps self-portraits in the traditional sense could be the road to self-discovery? While staring oneself in the face and translating that onto paper is certainly confronting and revealing, it seemed to cause a digression in my practice. The drawing style (or handwriting)³⁴ I had cultivated made a mess of my face and the perfectionist (straight lined, gridded) in me revolted at the results (Images 31-32). Maybe one's face is not the best vehicle for personal discovery. Trees and plants seem to be my preferred mode of transport.

My next challenge in this new environment was not *what* I was drawing, but the tools and medium I was using. I had to retool as I started working in a glass studio. How does one launch from the comfortable confines of pencil and pen and paper into the **unknown** territory of glass? The restrictive parameters set by a two dimensional sheet of paper were asking to be redrawn, so perhaps the possibilities offered as a result of the transparency of the material encouraged the transition. Glass in its most common form is a transparent material but can be made opaque by sandblasting, frosting or adding opaque colour. So although I had reservations about glass, a sheet of glass is essentially a see-through piece of paper. Stack pages together and only the top page will be clearly visible, but stack

Comment [E56]:

Uncertain
Colonial
Western map

³⁴ My handwriting is a combination of drawn and written lists.

glass sheets on top of one another and a far more textured image will emerge. The two dimensionality of a page or sheet quickly became less restrictive in this transparent material.

Comment [E57]:
Layered
Bricolage

My archive of botanically inspired drawings or maps each became a part of a greater image. Whether engraved into the glass, painted or stamped on with enamels, where that drawing was placed on the sheet of glass did not restrict its reading. The glass sheets could be arranged and re-arranged, flipped horizontally and vertically, but the image confined to one sheet is still visible beneath or above another image. My archive had expanded beyond the borders of South Africa and included botanical specimen from all over the world.³⁵ These glass sheets could also be fused at high temperatures in a kiln (600-900°C), merging and sometimes warping the images due to the effects of the heat. This is an irreversible process. So keeping the sheets out of the kiln and enabling them to be shuffled and reshuffled time and time again was the more liberating route.

Comment [E58]:
Travelling
Blaschka archive

But the liberating qualities of sheet glass eventually reached their limits too; a third dimension could be suggested by layering sheet glass, but not fully realized. The botanical drawings were a combination of line and form. Therefore I began blowing these forms out of glass (Image 33). The dimensional shift caused a simultaneous digression. Without the intricacies of the lines, the forms were just empty vessels. So I began drawing onto these blown forms, blowing the vessel and then adding an additional layer by trailing strands of hot glass over the vessel. A chance juxtaposition of one of these blown and drawn forms with an old drawing done on a sheet of paper then introduced another layer (Image 34). When light (natural or synthetic) passed through this blown/drawn glass

Comment [E59]:
Aby Warburg
Interdisciplinary
Shadow

³⁵ I spent time drawing and photographing dried and preserved plants species from all over the world in the Leiden University Herbarium in The Netherlands.

form, a shadow of the lines created by the hot glass was cast onto the page. But that shadow appeared differently from different angles, and also shifted as the light source. The sharpness of the lines cast onto the page was also determined by the light source. Sunlight cast indistinct lines, and synthetic light more defined lines. Although the lines cast by synthetic light were more definite, they could be erased from the page if the light source is switched off, or someone interrupts the line of the light. But because the quality of natural light is more diffused, even as people walked about the space and interrupted the light, the effects were less dramatic on the cast shadow. The images that resulted were layered, three-dimensional and shifting.

As the fiery space of the glass studio was becoming more comfortable, I could play and experiment more freely. Drawing onto blown botanical forms with hot glass spurred me on to push my own limits and those of the material. The next artefacts I unearth are perhaps symbolic of a methodology rather than a practical development.³⁶ I followed the same strategy of blowing botanical forms and then drawing onto them with hot glass, but then began collapsing those vessels, connecting the inside walls and then blowing them up once more. The connections made when internal walls collide varied, some strong and some impossibly fragile. As my breath moved through that space when I blew up the vessel once more, the connections remained. If the process is repeated, some of those connections may be lost as they are melted back into the internal walls, but some remain and new connections are formed (Images 35-36). Both the internal and external spaces of the form are a network of tangled lines.

³⁶ This methodology is to be discussed at length in the following chapter, GLASS.

Comment [E60]:
Rhizome
Complex

Because my practice is the metaphorical site of excavation, it seems reasonable to continue unearthing even as my geographic co-ordinates shifted drastically when I left Amsterdam and moved back to South Africa. Instead, the site came to a standstill. Perhaps the standstill was because I was now hitting the harder layers of my dig site, back 'home' and getting closer to the foundation of my practice. A period of inactivity at this site also hardened the top layers, even accessing the listed and drawn archives required unearthing once more. The work I eventually started producing initially seemed like a digression. I was churning out pencil and pen drawings of trees and plants on paper again. Indigenous South African trees and plants were an imperative part of my practice in Amsterdam as they were a sense of familiarity in a foreign space; but being back in South Africa surely meant I no longer needed that reference? Or perhaps this apparent digression was simply a means of redrawing the grid lines/transects of my dig site, rearticulating the parameters of my practice before digging again?

I returned to the earlier processes associated with an archaeological dig site and resurveyed the site. A change in perspective usually introduces information concealed if surveyed from a single line of sight (walking the site). The change in perspective yields a new layer of information. If zooming out does this, surely zooming in would also result in additional information? Because indigenous South African plants were once again pouring out of my pen/pencil, I thought perhaps a change in perspective was necessary. I zoomed right into these plants and began studying their microscopic cell structures (Images 37-38). Unless one is well versed in microbiology these cell structures might just look like ink drawings of circular patterns. The varying sizes of the shapes that make up the composition of these plants cells cause certain elements to stand out while others recede. Although the image is two-dimensional, I began seeing bird's eye view landscapes in these images. The little dots and shapes like undulated hills and depressions (Images 39-40). The largely concentric arrangement of the cells also

suggested contour lines of a map, a language I was familiar with (Image 41). Therefore I delved into these plants.

Initially I kept the cell structure references close by, replicating the arrangement of shapes. But these drawings soon developed, the plants they were derived from were of little consequence. Many of the references had a concentric but organic arrangement, but I began striving for perfectly balanced arrangements. I had also refined the shapes making up the whole to be circles only. Circles have cropped up in my practice for quite some time, perhaps because they are a symbol of continuity; a circle is a line but with no obvious starting or ending point. A circle can be looped back and forth, it has multiple entry points and suggests balance. Equipped with these circular configurations, but also searching for a means to integrate glass into my practice once more, I started looking at rose windows (Image 42). Rose windows (Gothic architecture) are also known as wheel windows and consist of radiating, intricate networks of geometric forms. The radiating patterns draw diagonals across the circle and provide structure for the window (Cowen 1979: 7). The balance symbolized in a rose window is entrenched in religious coding, but religion aside, the configuration can still be appreciated for its aesthetic value. Perhaps these rose windows were a symbol of certainty amidst uncertainty and articulated the balance I seemed to have lost when moving back to South Africa?

What I produce as an artist is in fact of little consequence. But *how* I produce works, the development of ideas, learning new or alternative systems of thought created through practice; these have become far more intriguing and indicative of my art practice. I may begin within the seemingly rigid grid lines sketched by my lists, but my knowledge base shifts and mutates so regularly that these grid lines are in constant flux. I will always be generating an archive from which I can draw, and then mapping my

findings. My practice **oscillates** between certainty and uncertainty, control and chance. My archive extends beyond the parameters of my own practice; it is an extensive and ever growing archive of **texts**, objects and experiences. Part of my archive is stored digitally. Each time I am asked to present my work, a collection of images often serve as better key cards than a text. Some images inspire, some repulse. Many have been discarded and almost forgotten as my practice has developed. But in reviewing this archive, one can perhaps read a narrative, or multiple narratives, in and around and through my art practice. Similar to the way in which my lists develop as ideas are crossed-out and then discarded as the lists are rewritten, the discarded ideas are never lost, just concealed by new layers.

Although the notion of an archive with the extended proliferation offered by digital storage is appealing, there is still something inherently stagnant about an archive. An archive tends to order artefacts according to a system involving empirical information such as time, date, and location. Warburg and Didi-Huberman certainly encourage a more fluid arrangement and reading of a collection or archive, but even so the limitations of an archival art practice are bothersome. Similar to my fixation with listing, perhaps this preoccupation with my practice becoming an archive is simply a means of ordering, sketching parameters, drawing the straight lines with which to access impending uncertainty. I have since gathered my work in a space, ordering, reviewing, and reordering time and time again (Images 43-44). Although my 'list' of works were in constant flux, there seemed to be a disconnect between the wanderings of my theory and this somewhat static practical archive. There were certain moments when I caught a glimpse of a new relationship between works, a coincidental conversation. My eyes captured that moment, but as soon as my hand intervened again and moved another work, the **moment** was gone.

Comment [E61]:

Didi-Huberman
Atlas
Art History

Comment [E62]:

Textual
Texture
Derrida

Comment [E63]:

Fleeting
Shadow

While sitting in amongst my archive, searching for new connections, certain objects appeared differently as I moved in front of the window. Although I was not physically moving the work, the shifting shadows³⁷ cast through the windows ‘drew’ new lines over the archive (Image 45). These drawings only last for a few seconds as the sun moves through the sky and cloud lenses move in front of the sun. They are fleeting, momentary; but they exist. The quality of line cast by the sun oscillates between sharp and diffused in accordance with the filtering of the clouds. That line is then further filtered or refracted as it passes through the glass of the window. Perhaps this is the role of glass in my practice, it is a material reminder of perspective and distortion. Although interjecting my hand and physically moving my archive around encourages similar shifting, new connections and new drawings; adding sun and shadow and (glass) lenses to my toolkit increase and accelerate this practice.

Although these fleeting moments are caught in my mind’s eye, they are perhaps too fleeting, ungraspable if only realised in the eye. I introduced another tool, my smartphone camera, and in doing so also introduced another lens. This camera is quick and easy to operate and allows hundreds of moments to be captured (Image 46). To keep the fleetingness alive, these photographs should be exhibited in a looping projection. These projections look like shifting shadows themselves. Using the projector as a tool introduces yet another lens. If projected in a space with windows and people moving around, real time shadows will be cast (by the sun during the day and then similar effects

³⁷ In Athol Fugard’s recent play, *Shadow of the Hummingbird*, he explores a fascination with shadows. The story is somewhat biographical (about Fugard himself who also acts in the show) and has a retrospective air to it, chronicling a long life already lived. In our formative years, although we may not yet be book smart, there is an intelligence that comes about as a result of innocence. One would assume that by the end of one’s life our minds have been broadened to a breadth incomparable with childhood. Perhaps there is in fact a narrowing that takes place as innocence is lost? Fugard describes how a child might try and grasp a shadow, recognising it but not yet understanding that it is not *real*. Perhaps we should be able to see these shadows as real, even if they are only fleeting.

Comment [E64]:

Shifting
Light
Shadow

Comment [E65]:

Foucault

Comment [E66]:

Discourse
Perspective
Glass

occur at night as passing car lights illuminate momentarily), adding an additional layer to the projections.

During my most recent exhibition in a gallery,³⁸ I hoped that viewers would interact with my archive and tools in the same way I do. Viewers did not interact. They were not equipped with my initial lists and lines. The archive is a directory, but it is *my* directory. Whereas the shadow projections are more abstract (uncertain) and open to interpretation. Or if the archive is to be part of the exhibition, viewers need to be equipped with a toolkit of their own to be used together with mine.

If each viewer enters the space armed with a light source, drawings, glass filters and a magnifying glass; imagine the plethora of new moments? I cannot control the movement of people around the exhibition, but as they move around, using their own light as navigation, new lines will be drawn around the space. And then to keep the creative process going, viewers will be encouraged to photograph their own momentary drawings (see Images 47-48 as examples). Their drawings will be a collusion of their own authorship and my own. These photographs should then be uploaded onto Instagram with a hashtag linked to the exhibition, #fleetingcertainty. Authorship is then transferred to the expansive internet users stretching across the world. They will be part of a vast network that may be appropriated in a context far removed from my exhibition; appropriated and re-appropriated time and time again. In this way, my practice will remain an active space, a work in progress. It will become a live (internet)/living archive.

³⁸ In August 2014 I had a review show at GUS, The Gallery of the University of Stellenbosch. My intention was to exhibit the archive or toolkit (controlled and certain) and the shadow projections (fleeting or uncertain).

Comment [E67]:
Perspective
Lens

CH° 4 'GLASS'

Glass is perhaps indicative of the uncertainty looming ahead. The preceding chapters Genealogy, Mapping and Archaeology might then be considered lists, a means to access this somewhat deviant chapter. Glass is an intriguing material. It is neither liquid nor solid, and is often associated with fragility although it is in fact an incredibly resilient material. My intrigue with the material increased tenfold when I began studying glass blowing at the Gerrit Rietveld Academie in Amsterdam. Working in a glass studio and learning the process provided a window into a world I never knew existed. Glass in all its many forms and glass blowing have since become an integral part of my practice. This chapter explores the uncertain chemical composition of glass. It oscillates between liquid and solid. Glass is also introduced as a material reminder of perspective. In its most common form, glass is transparent, we see *through* glass. The chapter ultimately arrives at glass blowing as a methodology. A glass blower gathers glass, much like I have been gathering a Foucauldian toolkit. The glass forms I blew were not only vessels. I 'drew' lines over and within these vessels. This process generated a network of entangled lines.

Glass is neither liquid nor solid, although one would probably tip the scale in favour of solid if we looked at everyday occurrences of the material: windows, bottles, jars, dishes, lenses. Many of these

Comment [E68]:
Shadows
Underbelly

glass artefacts are vessels and it seems a bit of a stretch to imagine a liquid containing a liquid. Glass is not technically considered to be a solid. Glass occupies a space between liquid and solid phase, moving towards or away from these poles as it changes under fluctuating temperatures. According to molecular and thermo dynamics, glass may be called a highly viscous liquid, an amorphous solid, or another phase of matter altogether (October 1997). Glass is in chemical no man's land. The standard three phases of matter; gaseous, liquid and solid are determined according to the relationship between molecules. In the gaseous phase, individual molecules are scattered far apart and arranged in no apparent pattern. There is very little interaction between molecules other than unintentional collisions. Molecules of the liquid phase are held closer together by attractive forces, but the arrangement is still haphazard and in flux. They move about, changing from one disordered state to another (What is glass? 2011). In the solid or crystalline phase, the forces between molecules are very strong. Every molecule occupies a fixed position and together they form a structured three-dimensional lattice (What is glass? 2011).

From simple glass jars to aeroplane windows, glass products are made out of a combination of three materials. Former, most commonly silicon dioxide (found in sand), is the core constituent of glass. It has to be heated to extremely high temperatures to approach a liquid or viscous phase. In order to lower this temperature, flux is the second most important ingredient. Flux is soda ash or potash and is traditionally made from marine plant ashes, or by burning bracken and trees. The final ingredient is a stabilizer, usually calcium oxide (limestone), and this prevents the glass from dissolving, crumbling or forming unwanted crystals (What is glass? 2011). These three materials are then heated in a furnace to approximately 1300°C. Recycled glass pellets or shards are often added to this mixture in order to facilitate the melting process. If these materials are not added according to the correct measurements

Comment [E69]:
No Man's Art Gallery
Uncertain
Grey

and ratios, a chemical instability will result and a fine network of cracks (crizzling) will imbed themselves in the glass, accelerating the deterioration of the glass (What is glass? 2011).

Former, flux and stabiliser are heated to the viscous phase and then cooled rapidly to form glass. In this cooling process the molecules arrange themselves in a disorderly fashion similar to that of the liquid phase, but then assume a solid form *before* the molecules arrange themselves into a crystalline lattice. Glass is an amorphous solid, a disordered lattice. Even in this apparent disorder, glass is an incredibly resilient material. Glass is strong, hard, chemical corrosion resistant, thermal shock resistant, heat resistant, optically fascinating, and insulating (What is glass? 2011). It resists scratches and abrasions, reacts with few chemicals and is not affected by most industrial and food acids. It withstands fluctuating temperatures, expanding and contracting accordingly. Glass “reflects, bends, transmits, and absorbs light with great accuracy” (What is glass? 2011). It strongly resists electric current and is also able to store electricity. This is only the case if the glass is made according to the rigorous process described above. Any imperfections will cause a weakness in the material, and then even a small trauma can cause the glass to shatter. Perhaps it is the prevalence of poorly made glass that has afforded glass its fragile status. Well-crafted glass can have an extensive life span. Glass has been chosen as the vessel to preserve artefacts for centuries; but artefact aside, that glass encapsulates a certain history too and often outlives the preserved artefact. Unearthing glass at an archaeological dig site can therefore be a hyperlink to an extensive history.

There is an inherent link between science and glass due to this act of preservation. When Western scholars became fascinated with the natural world and scientific methodologies in the nineteenth century; observing, gathering, dissecting and preserving species quickly gained momentum. Natural

Comment [E70]:

Deconstructed
Dissembled
Post-structural
Mosaic

history museums were being erected to house these rapidly growing collections, feeding public interest by hosting regular exhibitions of the fauna and flora (The Blaschka Archive 2002). In order to understand the workings of species, shells/skins/sheaths were stripped away so as to gain access to the internal systems. Where in previous centuries curiosity was stifled by superstition, the Western scholar was driven by a hunger to understand more than the façade. In order to preserve these skinned, dissected, stripped, cross-sectioned species for extensive studying they were sealed in glass jars and immersed in an alcohol-based solution. This way species could be examined through the glass time and time again without causing any damage. Although glass is transparent, the combination of a solution, glass and light results in a certain level of distortion. Glass in this transparent form is still a barrier.

Displays in the proliferating natural history museums included everything from enormous stuffed and mounted bears to tiny birds (vertebrates). Curating these species in life-like poses was relatively straightforward, but delicate specimens such as flowers or marine invertebrates presented a particular challenge (The Blaschka Archive 2002). Older methods of preservation like pressing and drying botanical specimens and placing invertebrates in alcohol filled jars were far less brilliant in comparison to the almost live displays of bears to birds. Pressing and drying not only reduces plants to a two dimensional format, but also deteriorates colour qualities. Although dimensionality of invertebrates can be preserved in jars, the alcohol also damages the colour and slowly eats away at the specimen (The Blaschka Archive 2002). Without backbones to support them, their bodies slowly collapsed into shapeless masses at the bottom of the jars (Rossi-Wilcox and Whitehouse 2007). Neither drying and pressing nor glass jars aroused much interest amongst the public, but also did make scientific studies challenging.

Comment [E71]:
Foucauldian toolkit
Questioning

There was another articulation of the transparency of glass that was yet to be discovered, approaching the material *as* the specimen rather than only a vessel to hold it. In 1863, the natural history museum of Dresden sent their curator, Professor Ludwig Reichenbach, to an exhibition of glass flowers. Flowers had long since been a part of a lampworker³⁹ or glass blower's vocabulary, but these were not simply ornamental or decorative flowers. These were incredibly detailed, scientifically accurate glass flowers (Image 49) created by Bohemian lampworkers, Leopold and Rudolf Blaschka (The Blaschka Archive 2002). Reichenbach, recognising the potential for displaying the complex invertebrates, commissioned the Blaschkas to make several glass anemones (Image 50) for his museum's collection. These minutely detailed replicas of sea anemones and other invertebrate animals quickly earned the Blaschkas an esteemed reputation, largely due to their skill but also because this was a time period marked by a momentous cultural change (Rossi-Wilcox and Whitehouse 2007). It was a time during which traditional values, social and religious institutions were challenged and for the most part [transformed]. The Blaschkas felt the effects of two transformations in particular: "[T]he development of science and the expansion of public education" (Rossi-Wilcox and Whitehouse 2007).

As this insatiable thirst for knowledge ran through Europe, Leopold (father) and Rudolf (son) were able to expand their already extensive collection of botanical and biological drawings that informed their glass models. Many of their early drawings were done from textbooks, but textbooks were still limited and could not keep up with the rate at which new species were being discovered. Amongst the multiplying natural history museums, aquariums were also starting to pop up in the mid-1800s. So instead of creating these models from two dimensional drawings, the Blaschkas were able to study live sources. Rudolf Blaschka also joined various field trips to the Adriatic Sea, the United States of

³⁹ A lampworker shapes glass with a small flame or lamp while a glass blower works with glass from a furnace.

Comment [E72]:

Revolution
New ideas
Proactive
Uncertain

America and the Caribbean between 1879 and 1895 to further expand on his knowledge of invertebrates (Rossi-Wilcox and Whitehouse 2007). Parallel to Rudolf's travels, their already extensive catalogue of glass models was infiltrating all corners of the globe.

[Models of invertebrate animals]⁴⁰ have been purchased by... museums and scholastic establishments in all the quarters of the globe... in New Zealand... in Tokio [sic], Japan... for the Indian Museum in Calcutta... in the United States of America by Professor Ward's Natural Science Establishment in Rochester, New York; for the Museum of Comparative Zoology in Cambridge, Massachusetts; for the Boston Society of Natural History; the University of Cornell; the Wellesley Female College... In Great Britain, Scotland and Ireland, copies have been conveyed to London, Edinburgh and Dublin... In Austria, orders have not only been made for the Imperial Royal Court collection, but also for the universities in Innsbruck, Graz, Czernovitz, and so forth. In Germany, purchases have been made for the universities of Berlin, Bonn, Koenigsberg, Jena, Leipzig, Rostock and many other museums.

(Leopold Blaschka cited in Rossi-Wilcox and Whitehouse 2007)

In conjunction with the glass models travelling to various natural history museums and universities dotted all over the world, Rudolf Blaschka was crisscrossing oceans.⁴¹ Together these dots and trajectories were beginning to map out an intricate web of knowledge, a map that continuously forged new relationships between far flung places. Rudolf was a physical link between these places. Leopold

⁴⁰ The square brackets come from the original text cited.

⁴¹ The experience of travelling nowadays has profoundly changed our understanding of space and distance. With the invention of the aeroplane, vast distances can be travelled in a fraction of the time than if one were traveling by ship. The notion of connectivity has changed. Connections do not need to be physically forged. In this day and age, the invention of the internet and the idea of virtual connections introduce a new dimension to connectivity web.

Comment [E73]:

Connectivity web
Travel
Rhizomatic map

Blaschka perhaps offered the underlying **structure** of the map, the foundation upon which the more complex articulation could be explored. He was less adventurous in thought than his younger son, so chose to establish a strong hold in Dresden rather and leave the networking to Rudolf. Rudolf gathered knowledge, while Leopold catalogued it. Each glass model, species Rudolf encountered on his travels becoming a co-ordinate of sorts within the web.⁴²

Comment [E74]:
System
Lists

As a result of the Blaschka archive, the relationship between glass and preservation was re-imagined. Not only is the glass jar ‘barrier’ eliminated, but the transparent quality of glass employed in this manner allowed internal structures of the specimen to be studied without dissecting and destroying outer **layers**. Although colour glass can be used to create completely opaque objects/vessels, it works similarly to water colour pigments. The more pigment (powder or colour rod) used, the more opaque the results, and vice versa. Therefore those studying and viewing the Blaschka archive⁴³ could often see through multiple layers of glass and gain an understanding of the workings of a complex system. The **underbelly** or shadows of the specimen were exposed. The glass jars were no longer mediators, the specimen could be interacted with directly. Specimens could be seen from a new perspective, therefore generating an alternative understanding, and experience.

Comment [E75]:
Archaeology
Opening up

Calling a glass jar a barrier is perhaps too harsh. Preserving specimens in this manner was deemed problematic partly as a result of the distortive nature of glass, but do we ever see things without some form of mediation or distortion? Glass “reflects, bends, transmits and absorbs light”, but these

Comment [E76]:
Underside
Didi-Huberman

⁴² Anyone who has travelled will understand this sort of web; it expands rapidly, connecting people and places.

⁴³ This archive includes a vast collection of botanical and other specimen drawings, dictionaries, travel books, correspondence between father and son, the various curators and collectors of the museums, and photographs (The Blaschka Archive 2002).

qualities could be adapted to the way we transmit and receive knowledge in general (What is glass? 2011). Knowledge trajectories are almost never direct and uninterrupted. Depending on the source, receiver, space travelled, context and so on, knowledge can be reflected, bent, transmitted or absorbed before reaching its destination. Universal truths were the pillars of Western thinking, but these truths relied on the assumption that knowledge could travel uninterrupted, that it could remain stable as it travelled between multiple sources and receivers. In my view, there is an ever present glass-like material or lens interfering with the transmission of knowledge. Perhaps the analogy would be made clearer if these **lenses** were coloured glass. For example, let us make theoretical frameworks hues of purple. The world of the Westerner may then be lit in a pure purple and all knowledge travelling through this lens tinted purple. One would see a coherent, **smooth image** of the world through this glass lens. A person of the twenty-first century may describe the world as violet, magenta, lavender, mauve, crimson, lilac, *and* indigo. Theoretical frameworks (plural) of the contemporary sphere have grown exponentially. Theoretical frameworks no longer exist in isolation; multiple frameworks have been cross-fertilized, resulting in complex **mosaics** lens rather than a single hue sheet of glass. Regardless of the hue, the transparency of glass allows one to often forget that knowledge is distorted at all. Glass is an invisible barrier.

Imagine an archive filled with glass sheets etched with knowledge instead of library shelves lined with books where knowledge is trapped between pages. Transcribing knowledge onto transparent plates rather than binding (opaque) pages in a book may encourage an alternate reading of that knowledge. Instead of studying one page at a time, or at most a double page spread, multiple layers of knowledge could be accessed at once. Even so, these layers suggest a separation or barrier and are perhaps less daunting if still understood as pages confined to a familiar format. Freeing these pages from binding

Comment [E77]:
Discourse
Perspective

Comment [E78]:
Closed system
Saussure
Structuralism
Logocentric
Straight line

Comment [E79]:
Open system
Derrida
Post-structuralism
Complex

and covers would also be essential if one really wished to push the limitations of these library shelves. If etched sheets were piled on top of one another, complex knowledge webs might form as **texts** overlap and interact across chapters, sections or subjects. The etchings near the top of the pile will appear clearer, the deeper layers receding. If a reader wished to access a layer deep within the pile, perhaps to highlight or relegate the knowledge it holds by altering its position in the pile, the pile can be shuffled and reshuffled accordingly. And with each shuffle, **alternate** readings ensue.

Although an archive of etched glass sheets seems liberating, accessing knowledge may become too cumbersome. A pile of glass plates can be fused together to create a more compact, accessible format. If placed in a kiln (oven) and exposed to high temperatures, glass sheets stacked on top of one another will fuse, blurring where one sheet ends and the other begins. The temperature must be monitored closely, too hot and knowledge will melt away and be lost, too cold and the sheets will not fuse at all. At the right temperature, the knowledge etched into the sheets will merge into a **textured** image without losing definition. How these glass sheets fuse is also dependant on the surface they are laid upon. As glass is heated, moving closer to the liquid phase of its chemical composition, it will adopt the relief of whatever surface it lies upon or the shape that confines it. Intentional creation of relief could perhaps be used to emphasise elements of the fused plates, introducing a topographic layer to the pile of knowledge. Even if the archive is re-imagined, the Western fixation with cataloguing persists. Adapting the format of the archive will certainly free knowledge of some of its previous shackles, but total liberation seems too ambitious. Instead of searching for a more suitable medium for a rapidly expanding, **shifting**, mutative knowledge archive; maybe the focus should be shifted to *how* knowledge is gathered. Glass blowing may lend itself as a methodology for this gathering of knowledge.

Comment [E80]:

Textual
Texture
Entangled

Comment [E81]:

Aby Warburg
Didi-Huberman
Interdisciplinary

While exploring a new material, particularly a material as complex as glass, one would typically begin working in a simple form(at) and then progress as skills improve. Mark making on paper or canvas is perhaps a more familiar practice, so replacing the paper or canvas with sheet glass seems a reasonable shift. From there one might move on to blowing glass, blowing simple three-dimensional shapes and then slowly but surely exploring the infinite forms glass can take. This evolution took far longer than I anticipated. Hovering around the kiln, while working with sheet glass, was easy enough. Involvement was limited to placing the piece in the kiln, programming the temperature controls, and then removing the piece after cooling. Depending on the detail and size of the piece this process could stretch on for a few days. I was largely inactive in the shaping process. Blowing a piece involves active participation; tools, hands and breath are an integral part of shaping the hot glass. A glass blower must guide the glass while it shifts between its liquid and solid poles as it is continuously heated, shaped and cooled.

The hub of a glass studio is the furnace, and it is hotter than hell (Images 51-52). Working in a space like this involves confronting the unpleasant presence of that heat, learning how to work *with* it rather than *against* it. Although I was enthralled by the possibilities of glass blowing, I entered the space apprehensively. In conjunction with the offensive heat, even for a very skilled glass blower, predicting the outcome of a piece is almost impossible. The glass blower is (largely) in control as he/she works on the hot piece, but once it is finished and has been placed in the annealer⁴⁴ to be cooled, the glass blower is rendered useless. If something has gone wrong while the piece is being

⁴⁴ The annealer controls the cooling process, decreasing the temperature slowly. If glass cools too rapidly, it will contract and crack.

made, the glass blower might open the annealer to find cracked or broken glass. Is this not the risk we take in an art practice of any kind? Or in fact any time one sets out to gather and create something new, there is a chance that it will not be successful, or result in something unexpected, or fail altogether. Regardless, something will be learned.

The first pieces I blew involved the least possible engagement with the material and the space. I did not plan because I did not know enough about the material to know its possibilities and limitations; I did not have conversations about these pieces. I was adamant that I needed an assistant present throughout, and I worked quickly. The results were less than spectacular and quickly got thrown into recycling to be re-melted once again in the furnace. These pieces may not have been anything close to artworks, but I was gathering, learning. Slowly but surely fewer pieces were recycled and my glass archive had its first few entries. Perhaps these early pieces and experiences in the studio are similar to the way in which an archaeological dig site is surveyed before excavation begins. Interaction with a dig site is limited in this early phase, but the survey provides an overview, a map with which to navigate the space. While I planned and discussed later pieces, arranged my tools and waited for the furnace to rise to working temperature (1200°C), I was demarcating a space for gathering and excavation.

When I finally started working alone in the studio, I began by ordering the space. Positioning the bench at the right angle, arranging my tools, opening the furnace, firing up the glory hole and setting the annealer to the correct programme. Pipe in hand, I was accosted by the heat as I stepped towards the furnace to make my first gather. The pipe must be turned slowly in the molten glass to ensure an even gather. As soon as this first gather is made, the pipe must be turned continuously and evenly

until the piece is ready to be annealed. If the pipe is held still, the highly viscous glass will gravitate towards the floor, ruining the symmetry of the gather. If the turning motion is too fast the glass will spin off the pipe. There is a constant battle between controlling and surrendering to the qualities of glass. First gather done and the pipe in its orbit, I move to the bench to shape and thumb in the first air bubble while the glass is still hot and malleable. The gather is shaped with wet wooden blocks hollowed out with a semi-circle (hard wood, for example cherry wood). The first gather is crucial. Irregularities or imperfections cannot be corrected after the second gather has covered the first. The first gather provides the skeleton around which a form can grow. While the pipe is turning slowly and evenly, in goes the first breath of air, and then back to the furnace for the second gather. This time the heat feels less offensive. Back at the bench after the second gather, the wooden blocks are again used to shape the outside of the bubble and breath the inside. One has to be careful not to blow too much air into the bubble too soon, the bigger the air bubble the thinner the walls of glass. If the walls become too thin early in the process, gathering over the bubble again will become impossible as the heat of the furnace will cause those walls to collapse. When a bubble collapses, the air channel is usually blocked. The piece can still be shaped externally, but the internal structure will remain as is. A glass blower can gather multiple layers, but is limited to the weight he/she can carry.

The glass piece is then rerouted. Instead of moving between the furnace and the bench, the movement is now between the glory hole and the bench. The glory hole is slightly cooler than the furnace and does not hold a pot of molten glass; it is used to maintain the heat and malleability of the glass. To manipulate glass it must stay at a high temperature. If glass is cooled or heated too quickly, it will contract and expand accordingly. Rapid temperature fluctuation will weaken the form and decrease the lifespan of the glass. A classically trained and skilled glass blower would usually work carefully to maintain the symmetry of the piece, but my pieces developed out of botanical drawings so

Comment [E82]:
Structure
Straight lines
List

took a more organic form. Although the glass cannot be sculpted by hand the way one might sculpt clay, layers of wet newspaper provide a protective layer and allow the closest engagement with the impossibly hot material. Then I shifted the focus from the external structure of the piece to the unreachable (by hand) internal structure. The only way to ‘get inside’ the bubble was to squash it (gently) from the outside with my newspaper lined hand, and then blow it up again. The inside walls of the bubble join in unexpected places, pulling **threads** of hot glass across the space within the bubble. In between each manipulation by hand or breath, I move back to the glory hole to reheat the piece, the pipe always turning too. Some of the threads spanning the internal space might collapse after further manipulation, some reintegrate into the walls of the bubble, and new threads might emerge. Some of the threads are strong, others fragile.

To draw onto this bubble, I need another set of hands, someone to move back to the bench with my piece while I go back to the furnace, this time gathering glass on a pontil.⁴⁵ One set of hands turns the pipe at the bench; my hands turning the new gather and moving swiftly back to the bench. Armed with a pair of tweezers, I pulled the new gather to form a thread of hot glass, tracing this thread across the outside of the bubble, adding another layer to piece. The thinner the glass is pulled the faster it cools so the drawing can only be controlled to a certain extent because of the speed at which one has to draw. Rapid routes and paths traverse the outer walls of the form, interacting with the threads within the bubble because of the transparency of the material. I take over the turning of the pipe while the additional person takes the pontil I have just used and moves out of the space.

⁴⁵ A pontil is a rod with which to gather glass, it is not a blowing pipe.

Comment [E83]:
Connectivity web
Interwoven
Rhizome
Tangled

The piece is then heated again in the glory hole, then shaped from the outside (hand) and inside (breath). Again some existing threads disappear as they are melted back into the walls, and new connections are made too. This process can continue ceaselessly. To finish this piece, movement slows, allowing the piece to start cooling. The glass is weakened where it connects to the end of the pipe by dripping cold water in a controlled manner directly onto the glass. This extreme temperature discrepancy causes the weakness. The weakness created by the water droplets will crack the piece off the pipe along that fault line. Remove the pipe and store to cool before using it again and then close the annealer. The annealing programme will cool the piece slowly so as to prevent rapid contraction. Prepare the space to begin the process again.

This process can be done over and over and over and over again, but drawing along the exact paths and establishing the same points of connection is impossible. Connections will always be different, they can only be controlled to a certain extent. The space can be configured, tools chosen and arranged. The exact effects of the fluctuating temperatures and how breath moves within the internal space is incredibly hard to control, if even possible. Cool air will move to hottest areas first in attempt to maintain temperature equilibrium.

Glass is an essential addition to my Foucauldian toolkit. Glass oscillates between liquid and solid, occupying an uncertain space. It is a seemingly fragile material, but is in fact incredibly resilient. Glass is a material articulation of perspective. In its most common forms, glass is transparent: we see *through* glass. However subtle, glass will always distort whatever passes through it. But it is glass blowing that brings to light a methodology to be added to my toolkit. A glass blower gathers glass,

much like I have been gathering a Foucauldian toolkit. Through creating these final glass pieces, they describe this methodology. My practice should never come to a standstill. If it does, whatever I am in the process of generating may be destroyed in the same way that a still glass blowing pipe will potentially ruin the piece. The knowledge (hot glass) I can gather is determined by my own strengths/limitations, so this movement can be a continuous process. I move about my practice space; gathering and manipulating layers, shaping and re-shaping, drawing and re-drawing lines, collapsing and then expanding my practice time and time again. Whenever a connection is made, it may last, or it may be broken. But even if connections are broken, there will be a residue of that connection. Each of these last glass bubbles are perhaps only momentary articulations. They are an entanglement of lines leading in different directions.

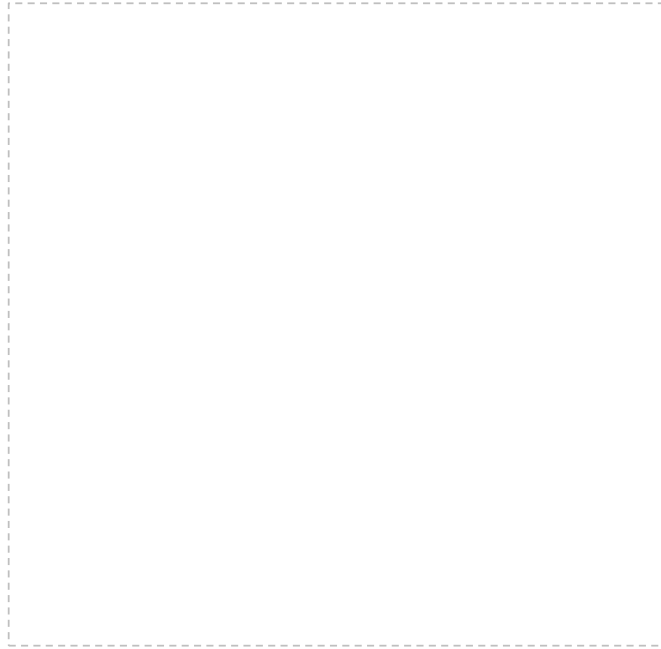
PAUSE

I considered writing a list as a concluding remark for this text. If a list is a tool I employ at the beginning of a journey, perhaps the apparent end should also be a list. My theoretical and practical process has no end in sight. It has many ends. Each of those ends may lead me along alternative routes and in turn be the beginning of something new. Newness is uncertain, it is grey.

To begin with, grey did not inspire confidence. It describes the infinite sprawl between black and white. But that sprawl is an open space, it is unbound. In order to navigate this space, my toolkit will be encased in a polyhedron, able to expand continuously (Foucault 2003: 249). While traversing genealogical conversations, mapping entanglement, unearthing my living archive and confronting glass, I have wandered through uncertainty. I have lost my way a few times, but in losing my way I have found anew. Uncertainty *is* both liberating and terrifying. It is navigable nonetheless.

The reader is encouraged to now gather and stack the glass lenses from my toolkit on the following page. Each engraved line can be extended from the lens to the page. These lines illustrate possible routes to follow.

This text therefore ends with a pause. A pause forces a moment of quiet, a chance to reflect. But it will soon resume along further alternative trajectories.



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IMAGE 1

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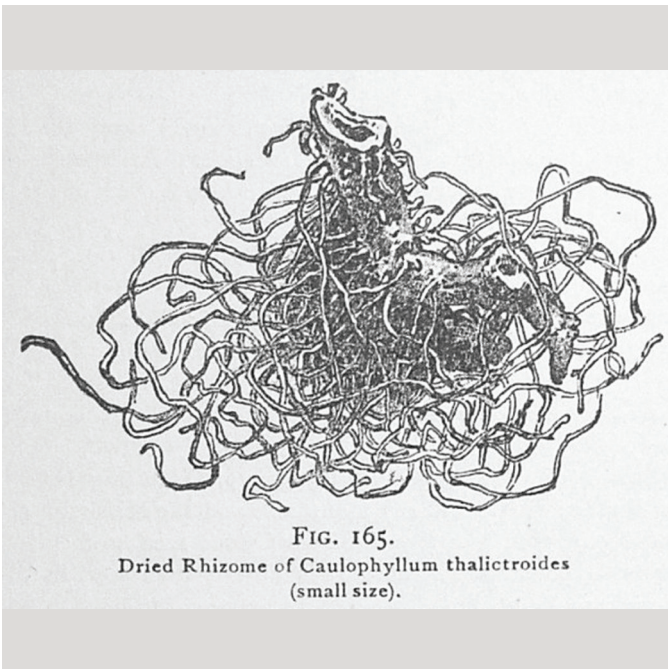


IMAGE 2

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IMAGE 3

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IMAGE 4

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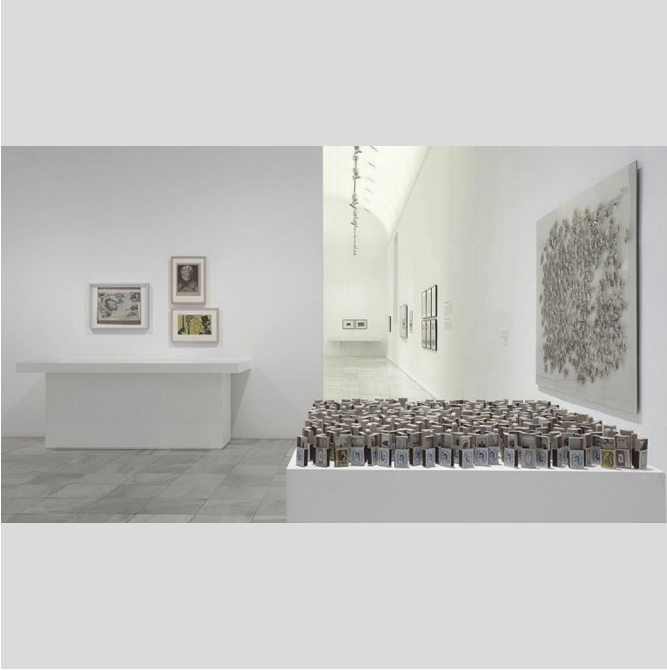


IMAGE 5

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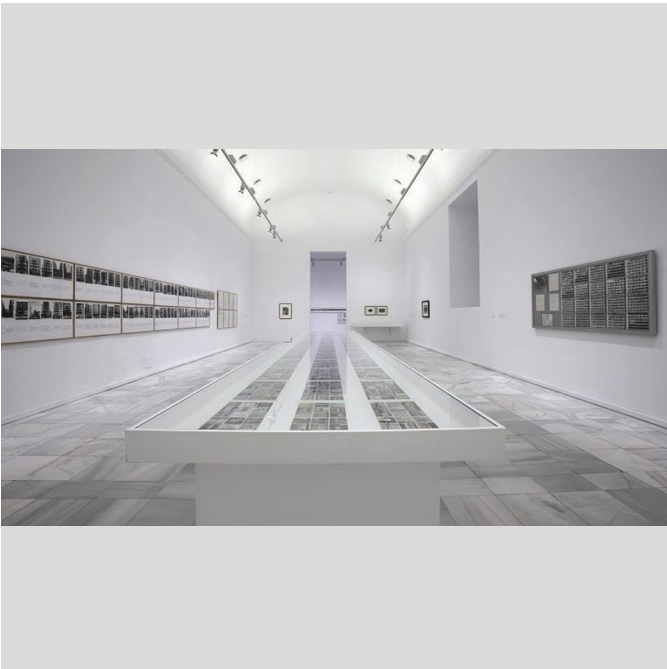


IMAGE 6

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IMAGE 7

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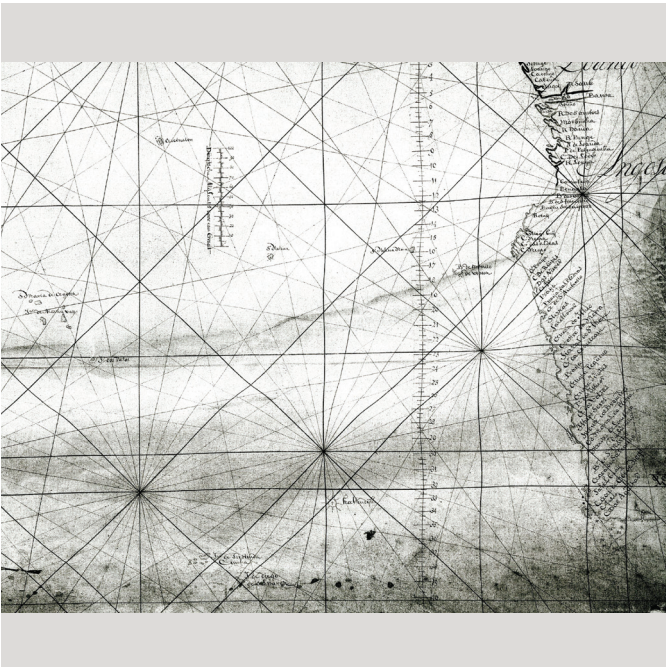


IMAGE 8

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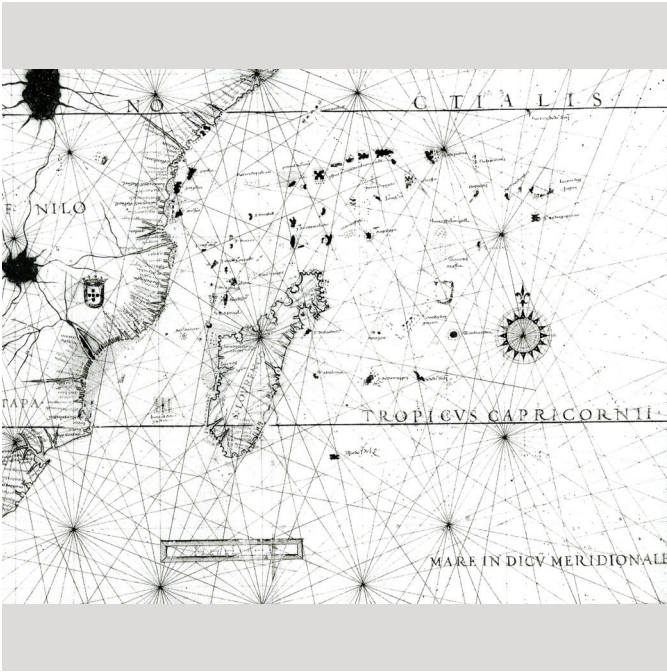


IMAGE 9

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IMAGE 10

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IMAGE 11

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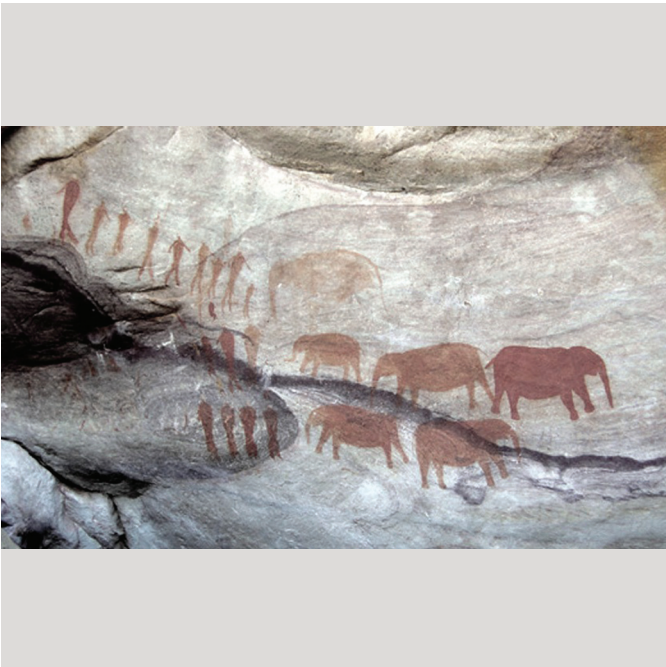


IMAGE 12

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IMAGE 13

Engravings on boulder. (n.d.).

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IMAGE 14

Skotnes, P. (n.d.). Section of a painted panel at Giant's Castle in the Drakensburg.

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IMAGE 15

Inanni. Watercolour depicting trees and bird. (n.d).

Skotnes, P. (2007). *Claim to the country: The archive of Lucy Lloyd and Wilhelm Bleek*. Johannesburg: Jacana.

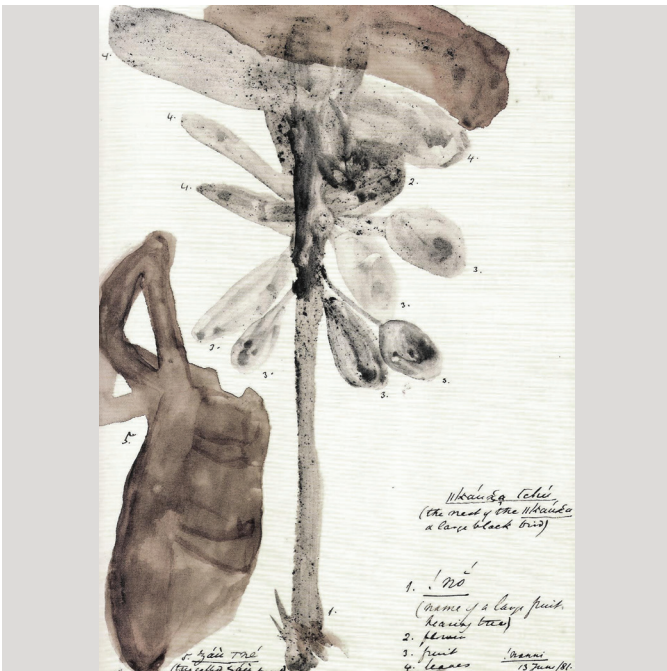


IMAGE 16

Inanni. Watercolour depicting trees and the nest of a large black bird. (n.d).

Skotnes, P. (2007). *Claim to the country: The archive of Lucy Lloyd and Wilhelm Bleek*. Johannesburg: Jacana.



IMAGE 17

Keet, E. (2014). *Stacked journals #1*.

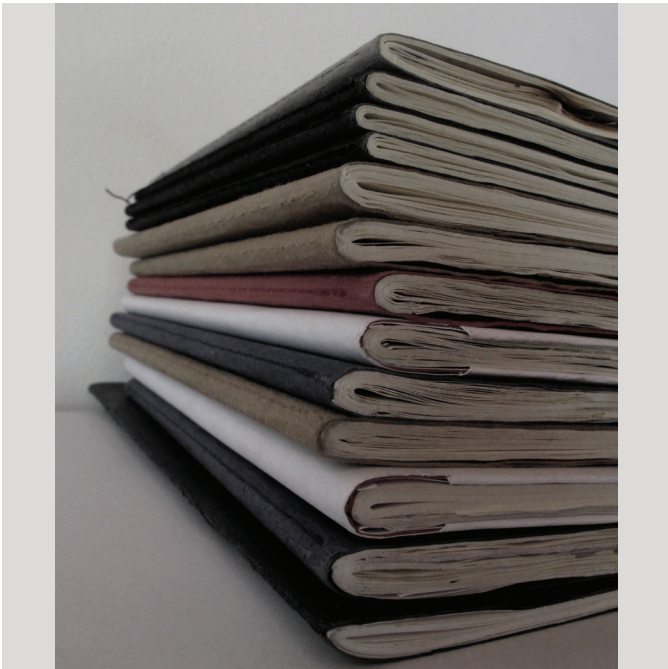


IMAGE 18

Keet, E. (2014). *Stacked journals #2*.

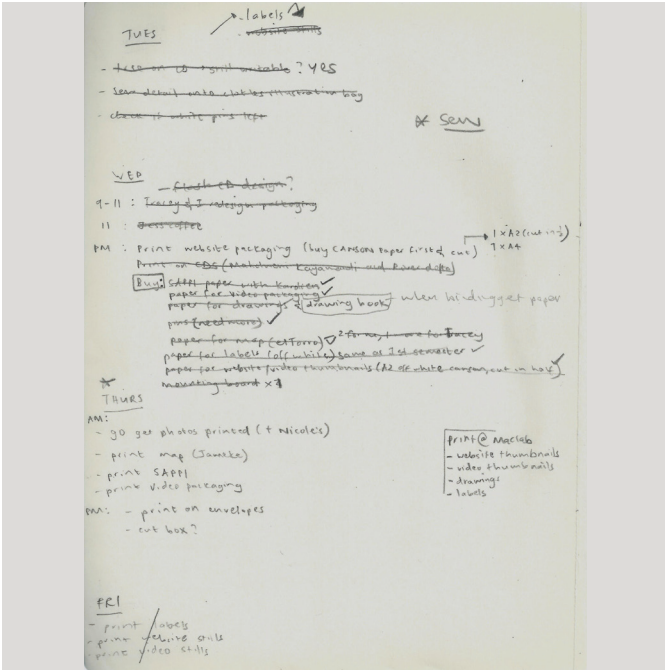


IMAGE 19

Keet, E. (2011). *Written List #1*. Pencil on paper.

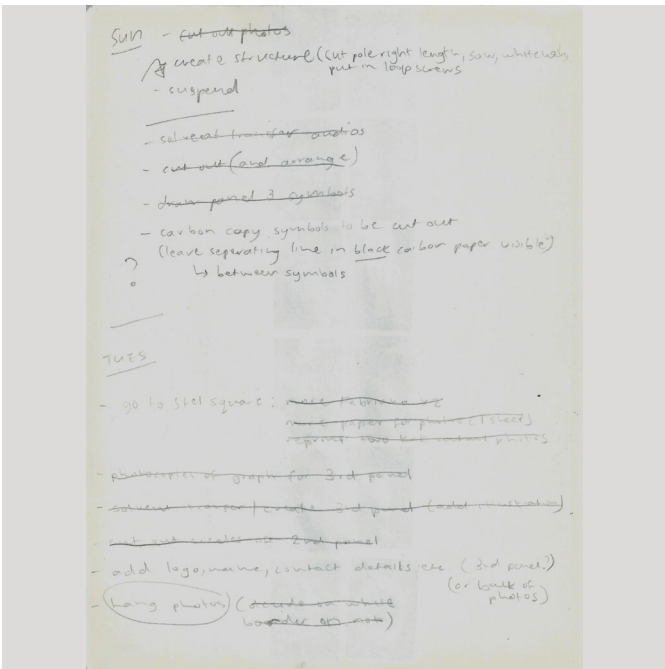


IMAGE 20

Keet, E. (2011). *Written List #2*. Pencil on paper.



IMAGE 21

Keet, E. (2012). *Drawn List #1*. Ink on paper.



IMAGE 22

Keet, E. (2011). *Drawn List #2*. Ink on paper.



IMAGE 23

Pine forest. Sabie, South Africa. Available from: <http://www.panoramio.com/photo/24718124> (Accessed 26 September 2014).



IMAGE 24

Hangklip sand fynbos, Cape Peninsula. Available from: <http://en.wikipedia.org/wiki/Fynbos> (Accessed 26 September 2014).



IMAGE 25

Keet, E. (2013). *Blind botanical study/map #1*. Pencil on paper.

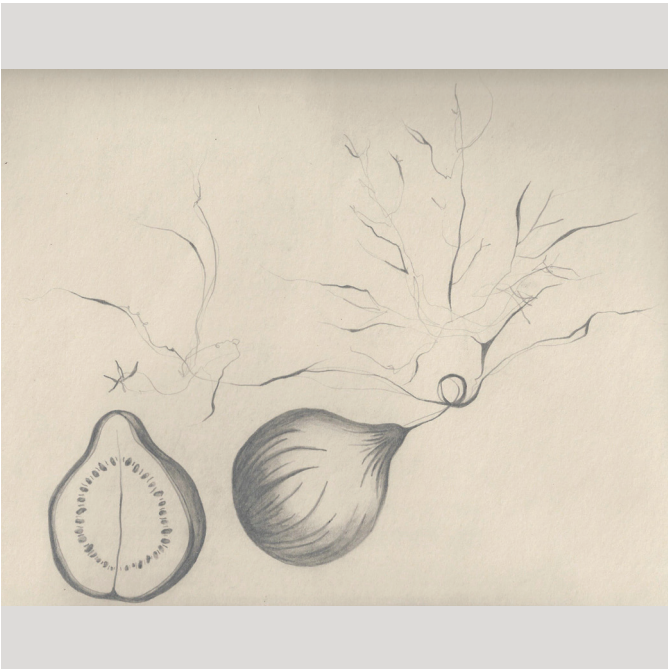


IMAGE 26

Keet, E. (2013). *Blind botanical study/map #2*. Pencil on paper.



IMAGE 27

Keet, E. (2013). *Blind botanical study/map #3*. Pencil on paper.



IMAGE 28

Keet, E. (2013). *Blind botanical study/map #4*. Pencil on paper.



IMAGE 29

Keet, E. (2013). *Blind botanical study/map series #1*. Pencil on paper.

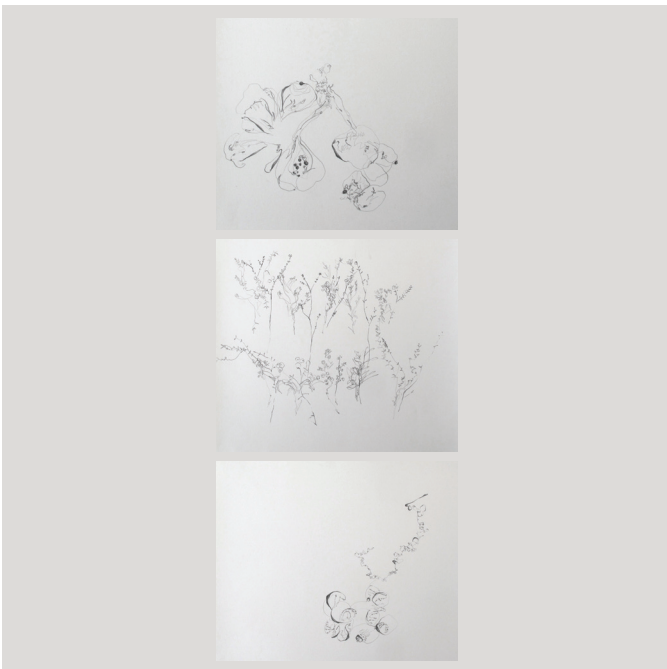


IMAGE 30

Keet, E. (2013). *Blind botanical study/map series #2*. Pencil on paper.



IMAGE 31

Keet, E. (2013). *Blind botanical study/self-portrait #1*. Pencil on paper.



IMAGE 32

Keet, E. (2013). *Blind botanical study/self-portrait #2*. Pencil on paper.



IMAGE 33

Keet, E. (2013). *Blown botanical forms (with reference drawings)*. Glass and pencil on paper.



IMAGE 34

Keet, E. (2013). *Blown botanical form and glass lines with drawing*. Glass and pencil on paper, light/shadow.



IMAGE 35

Keet, E. (2013). *Blown botanical form with external and internal glass lines (external lines)*. Glass.



IMAGE 36

Keet, E. (2013). *Blown botanical form with external and internal glass lines (internal lines)*. Glass.

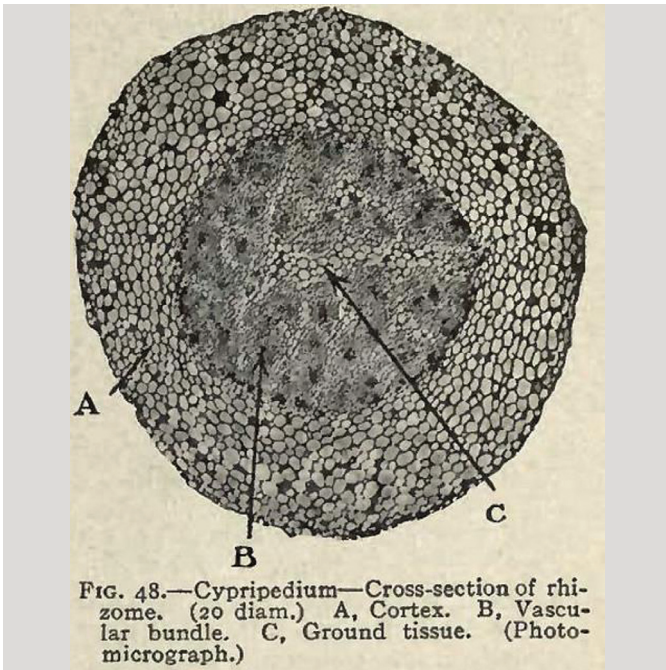


IMAGE 37

Cyripedium, Cross-section of rhizome. (n.d.). Available from: <http://www.henriettes-herb.com/eclectic/sayre/pics/sayre-fig-48.html> (Accessed 26 October 2014).

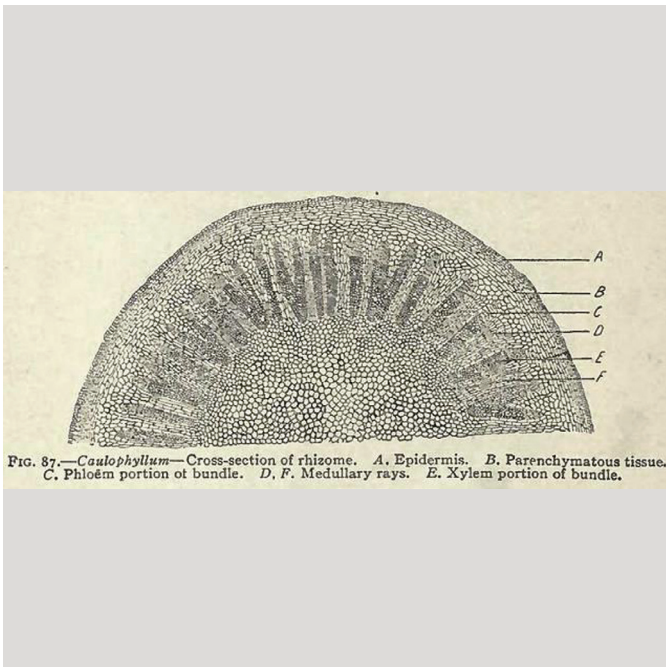


IMAGE 38

Caulophyllum, Cross-section of rhizome. (n.d.). Available from: <http://www.henriettes-herb.com/eclectic/sayre/pics/sayre-fig-87.html> (Accessed 26 October 2014).

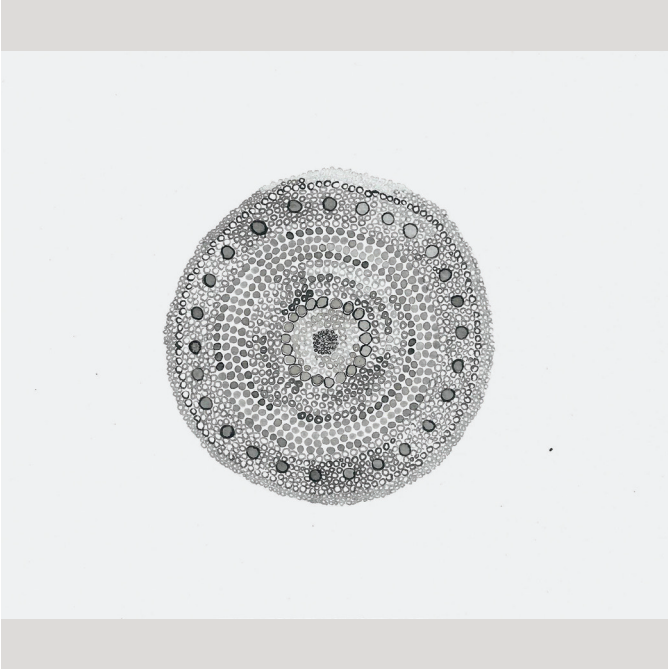


IMAGE 39

Keet, E. (2014). *Microscopic plant cell study (not accurate) #1*. Ink on paper.

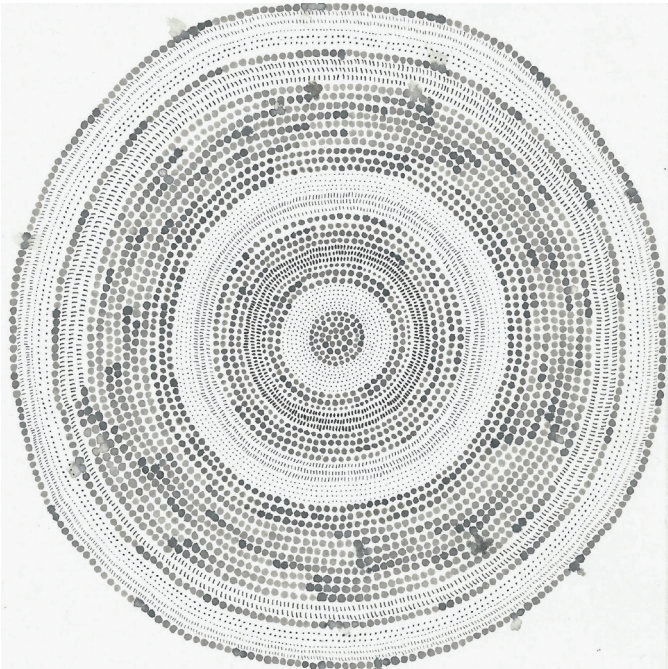


IMAGE 40

Keet, E. (2014). *Microscopic plant cell study (not accurate) #2*. Ink on paper.

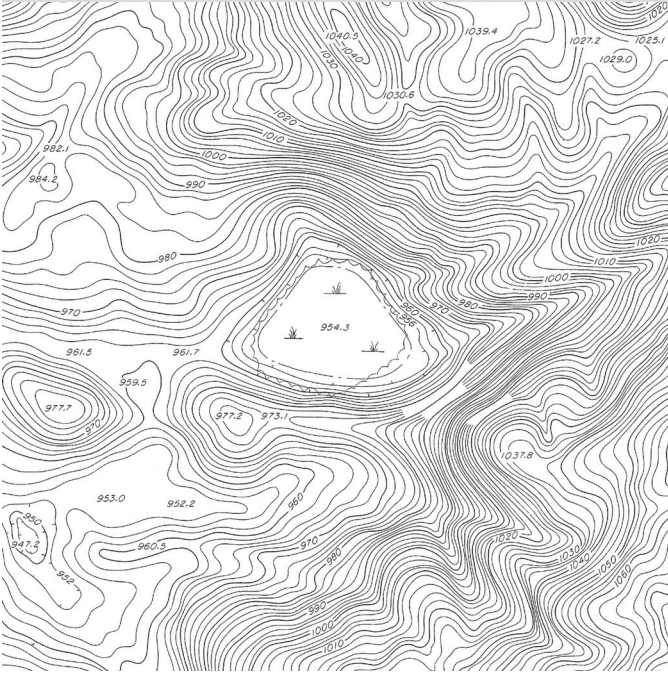


IMAGE 41

Contour lines (n.d.). Available from: http://thejunefox.blogspot.com/2007_09_01_archive.html (Accessed 26 October 2014).

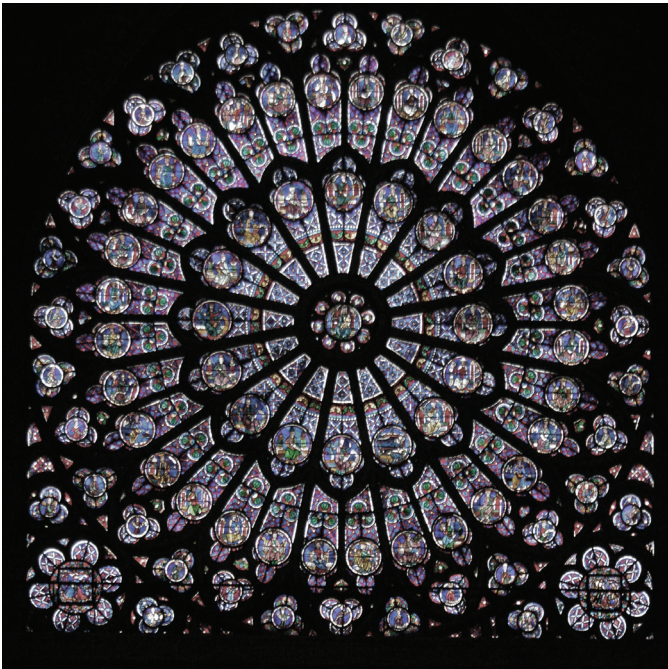


IMAGE 42

Notre Dame South Rose Window. (1260). Paris, France. Available from: <http://www.notredamedeparis.fr/South-Rose-Window> (cited 25 September 2014).



IMAGE 43

Keet, E. (2014). *My archive in progress #1*. Various mediums.



IMAGE 44

Keet, E. (2014). *My archive in progress #2*. Various mediums.



IMAGE 45

Keet, E. (2014). *My archive in progress with shifting shadows #1*. Various mediums.

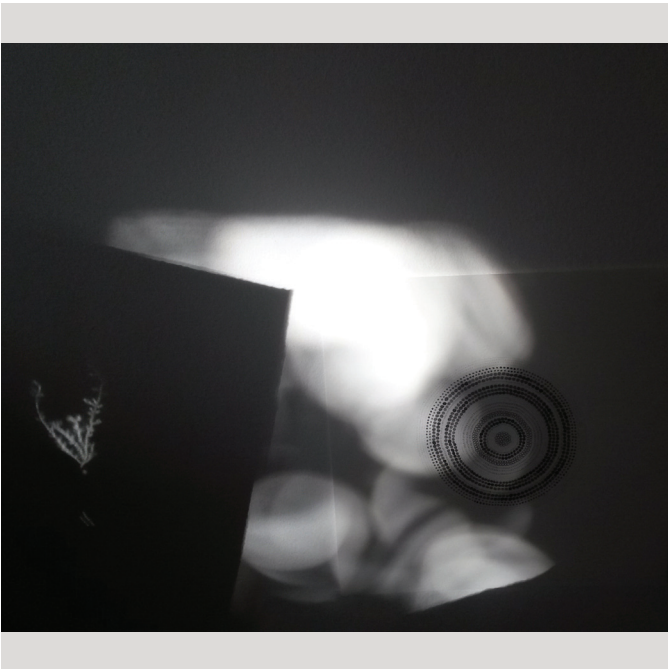


IMAGE 46

Keet, E. (2014). *Fleeting Certainty #1*. Ink on paper and shifting shadows.

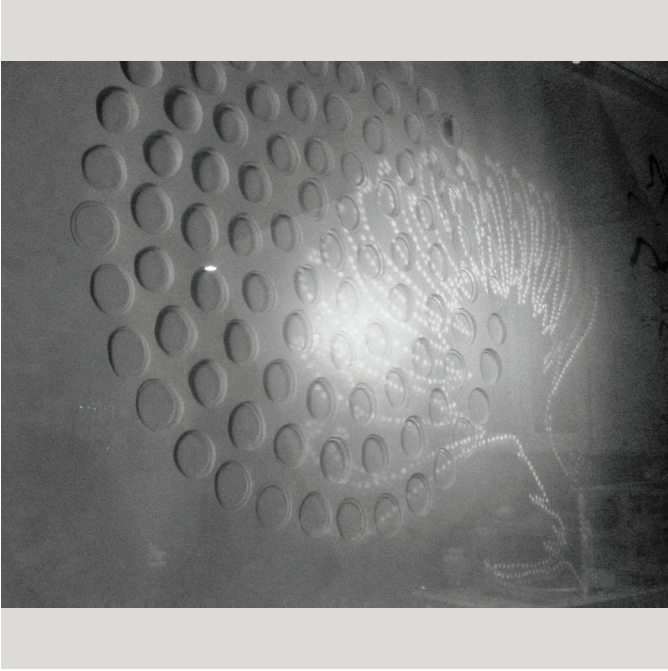


IMAGE 47

Keet, E. (2014). *Fleeting Certainty exhibition experiments*. Ink on paper, paper cutouts, LED light source and cellphone camera.

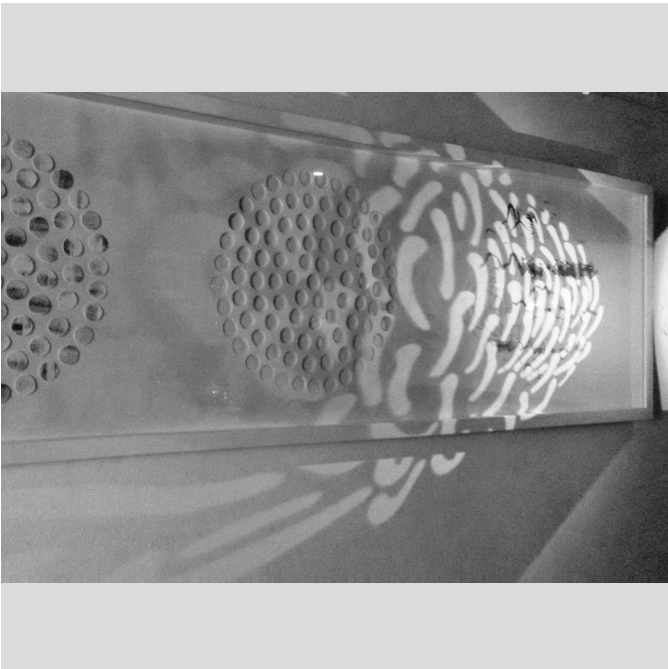


IMAGE 48

Keet, E. (2014). *Fleeting Certainty exhibition experiments*. Ink on paper, paper cutouts, LED light source and cellphone camera.



IMAGE 49

Blaschka L. and R. (n.d.). *Tubularia indivisa*, or oaten pipes hydroid. Available from: <http://www.harvardmagazine.com/2014/07/glass-sea-creatures#article-images> (Accessed 21 September 2014).



IMAGE 50

Blaschka L. and R. (n.d.). *Phymactis florida* (invertebrate). Available from: <http://www.harvardmagazine.com/2014/07/glass-sea-creatures#article-images> (Accessed 21 September 2014).



IMAGE 51

Keet, E. (2013). The furnace at Glass Department, Gerrit Rietveld Academie, Amsterdam.

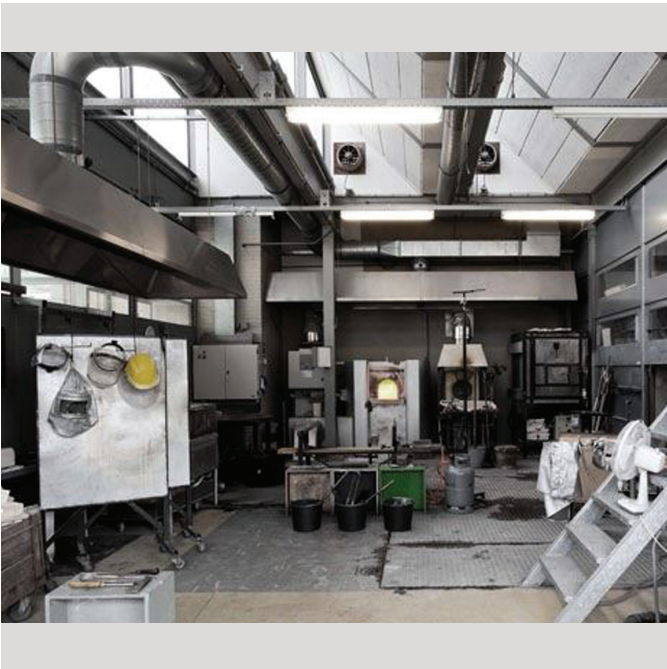


IMAGE 52

Keet, E. (2013). The Glass Department, Gerrit Rietveld Academie, Amsterdam.

